

Embedding Care Standards in Frontline Physician Practice

Seven tactics for deploying standards organization-wide

RESEARCH REPORT EXCERPT

Executive Summary

Care Variation Reduction an Untapped Cost-Savings Opportunity

Reducing unwarranted care variation is critical for improving both care quality and financial performance. Faced with ever-shrinking margins, chief financial officers are looking beyond traditional cost levers and identifying care variation reduction as a massive—and much needed—source of potential cost savings. Our internal analysis confirms that CFOs are on the right track. There are huge opportunities to reduce unwarranted care variation both within and across health systems.

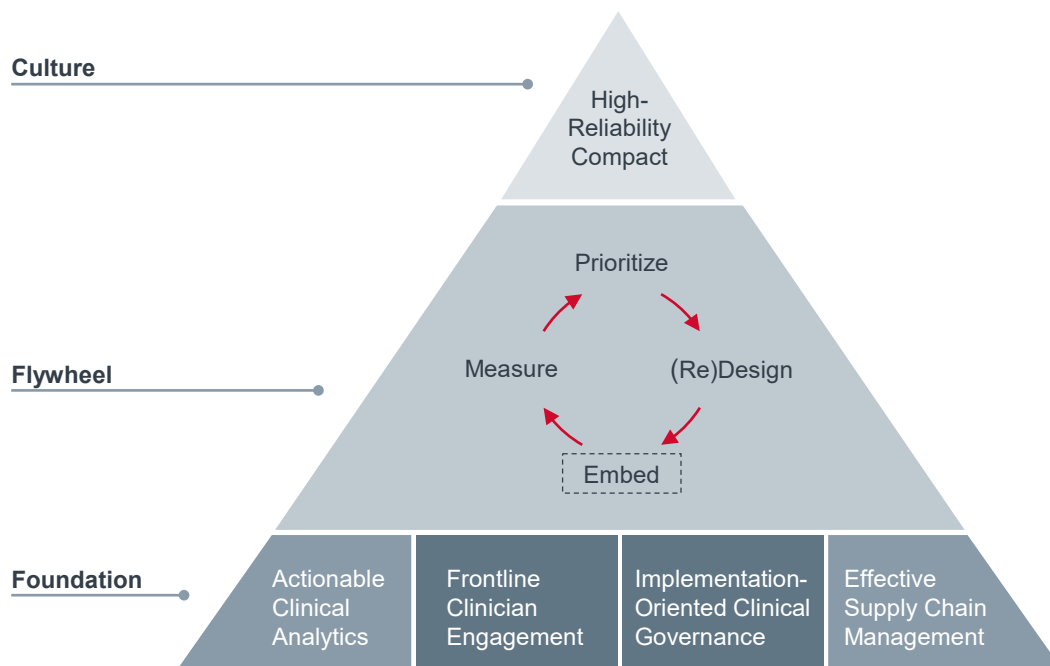
Leaders Struggle to Scale Efforts to Reduce Care Variation

Many pioneers tackling care variation have identified a common challenge: it is difficult to translate care standards into daily practice. For example, one prominent health system we spoke with had approved 106 care pathways, yet only 14 had been fully implemented.

This represents the broader challenge many organizations are wrestling with: how to efficiently scale care variation reduction efforts across multiple standards and facilities.

Embedding Care Standards in Frontline Physician Practice

To successfully scale care variation reduction efforts, leaders should follow the approach illustrated below. Leaders first need to ensure their organization has adequate performance across the four foundational components of care variation reduction. Once these components are in place, leaders can begin spinning the care variation reduction flywheel.



This publication focuses on the highlighted component of the care variation reduction flywheel: embedding care standards. Specifically, this book contains tactics that will equip leaders to manage care standard rollout organization-wide.

Table of Contents

INCLUDED IN
THIS EXCERPT

Recognizing the Design Challenge 4

1. Anticipate Local Roadblocks 16

Tactic 1: Change Calendar 18

Tactic 2: Facility Implementation Lead Not included

Tactic 3: Impact Inventory Not included

Tactic 4: Care Standard Implementation Tracker Not included

2. Hardwire Channels for Iteration Not included

Tactic 5: Frontline Feedback Loop Not included

Tactic 6: Variance Request Process Not included

Tactic 7: Care Standard Non-negotiables Not included

IN FULL
RESEARCH
REPORT

EXCERPT

▶ Recognizing the Design Challenge

Reducing unwarranted care variation is critical for improving both care quality and financial performance. As shown here, chief financial officers are looking beyond traditional cost levers and identifying care variation reduction as a massive—and much needed—source of potential cost savings.

If hospital leaders continue to rely on traditional levers for reducing costs, they will fail to achieve the financial performance they need. In fact, if hospitals do not improve productivity or reduce costs, the majority of hospitals will have a negative profit margin by 2025.

Reducing Care Variation a Critical Savings Opportunity

Financial Leaders Counting on Care Variation Reduction

Traditional Margin Levers No Longer Sufficient

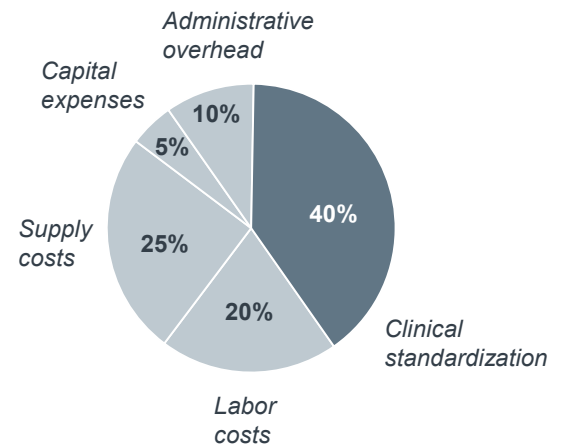
Becker's Hospital Review

“The tactical cost levers that hospitals usually pull—supply chain savings initiatives, capital spending freezes and benchmark-driven headcount reductions—are **neither sustainable nor significant enough** to achieve the savings they need to survive and thrive.”

60% of hospitals projected to have negative profit margin in 2025 if they do not improve productivity or reduce costs

CFOs' Estimated Breakdown of Cost Savings Opportunities

n=45



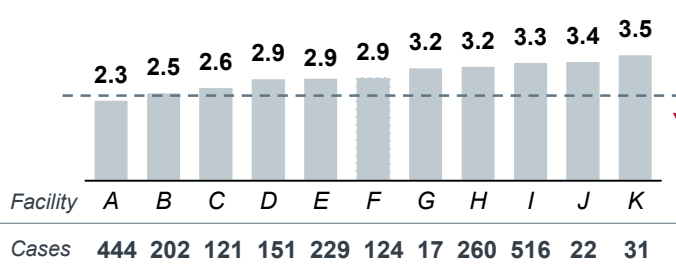
CFOs are right to identify care variation reduction (CVR) as a massive source of untapped savings. To model the potential savings opportunity, we analyzed the average LOS¹ for hip and knee replacements at different hospitals within a single health system. There is greater variation in LOS than can be explained by risk alone. We consider this unexplained variation to be unwarranted care.

In this case, if each facility was able to reduce unwarranted variation and meet or exceed the performance level of the 75th percentile LOS for the system, Draper Health² would save 1,168 days and over half a million dollars.³

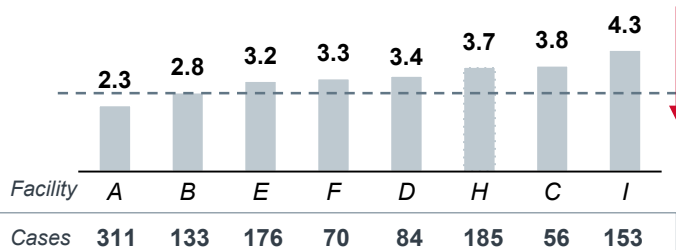
Assessing CVR's Potential Return Within a System

1,000+ Avoidable Days Among Draper Health's Hip and Knee Patients

Variation in Knee Replacement LOS by Facility



Variation in Hip Replacement LOS by Facility



Avoidable Days System-Wide

Knee and hip replacement case volume at each facility

X

LOS gap to 75th percentile benchmark for each facility

=

1,168 days

Annual avoidable days LOS if all facilities at system's own 75th percentile LOS

1. Length of stay.

2. A pseudonymed system with 11 hospitals.

3. For the purpose of this model, each inpatient day is assumed to cost \$500.

Sources: Bailey C, "The Cost Reduction Imperative," Becker's Hospital Review, <http://www.beckershospitalreview.com/finance/the-cost-reduction-imperative.html>; Hayford T, et al., "Projecting Hospitals' Profit Margins Under Several Illustrative Scenarios," Congressional Budget Office, September 2016, https://www.cbo.gov/sites/default/files/114th-congress-2015-2016/workingpaper/51919-Hospital-Margins_WP.pdf; Physician Executive Council interviews and analysis.

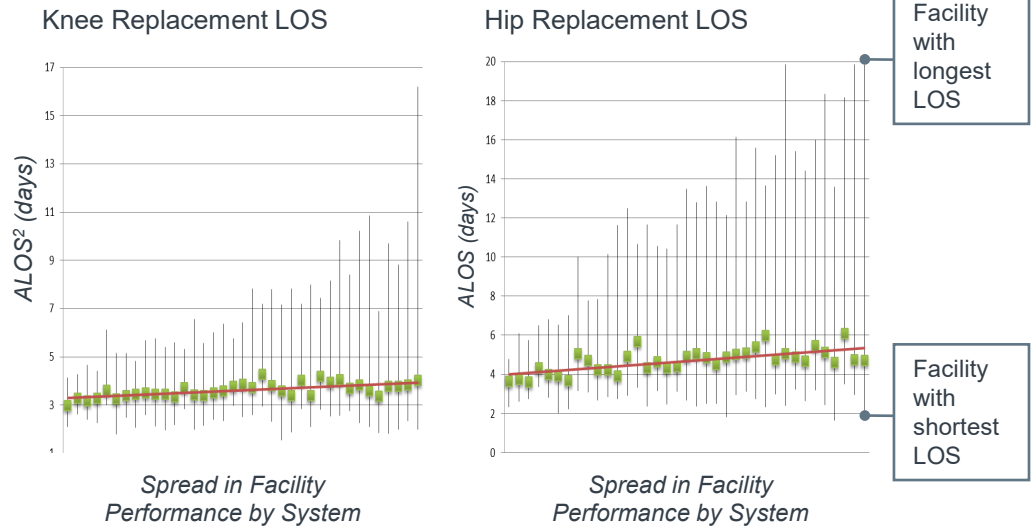
The potential return on investment for reducing variation becomes even clearer when you compare performance across multiple health systems. The data on this page shows lower variation is associated with better performance.

These graphs show LOS for hip and knee replacements, and each bar shows the spread in LOS for a system. The top of each line shows the longest LOS within a system. The bottom of each line is the shortest LOS for the system. The dot in the middle of each line is the average LOS. The data shows that organizations with a lower average LOS also have less variation in LOS.

These findings suggest that organizations don't achieve a lower LOS by keeping the same amount of variation and moving the entire bar downward. Instead, they improve performance by reducing the size of the bar (reducing the amount of variation). In other words, reducing variation is an improvement strategy in its own right.

Lower Variation Associated with Better Performance

Variability in Facility-Level LOS by Health System¹



Each system is a min/max/average line, with lower variance systems to the left

1) Analysis of 38 health systems, including 328 hospitals, in Advisory Board's Crimson Continuum of Care Cohort.
2) Average length of stay.

Source: Physician Executive Council interviews and analysis.

At the Advisory Board, we have worked with dozens of organizations leading the charge in care variation reduction. One of the lessons from early movers is that many organizations struggle to translate care standards into daily practice. For example, one prominent health system had approved 106 care pathways, yet only 14 had been fully implemented.

This represents the broader challenge many organizations are wrestling with: how to efficiently scale care variation reduction efforts to multiple standards and facilities. The reason why many organizations struggle is detailed on the next page.

Leading Providers Struggling to Scale Efforts

Hill Valley Health System's¹ Care Standard Bottleneck



“

It's not about the guidelines at all. There are tons of guidelines, with new ones coming out all the time.

We've spent so much time understanding what guidelines to put in place that we never get around to implementing or sustaining them.”

*Chief Clinical Officer,
Health System in the Midwest*

1) A pseudonym.

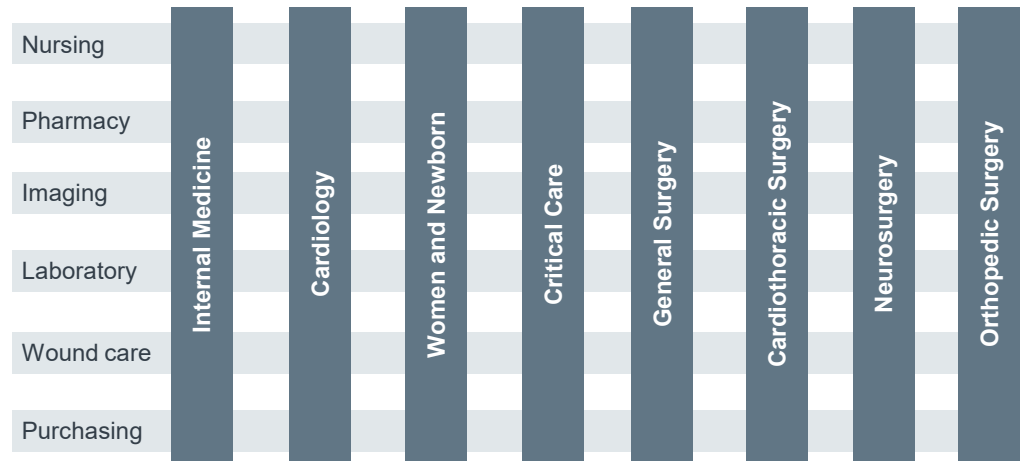
Source: Physician Executive Council interviews and analysis.

Nearly every organization has a version of the care variation reduction “game board” shown here. While this is a thoughtful approach, it encourages leaders to cherry-pick isolated opportunities for reducing care variation. There are two problems in doing so. First, efforts remained siloed. Second, it’s impossible to sustain momentum across countless individual projects. Once clinicians begin to focus on the fourth or fifth opportunity, they often lose focus on the first.

To successfully scale—and sustain—care variation reduction efforts, leaders need a different strategy.

Why Current Efforts Don’t Readily Scale

Common Game Board for Minimizing Care Variation



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

CEO, Medical Group

To successfully scale care variation reduction efforts, leaders should follow the approach shown here. This pyramid reflects the learning of pioneers in care variation reduction.

Foundation

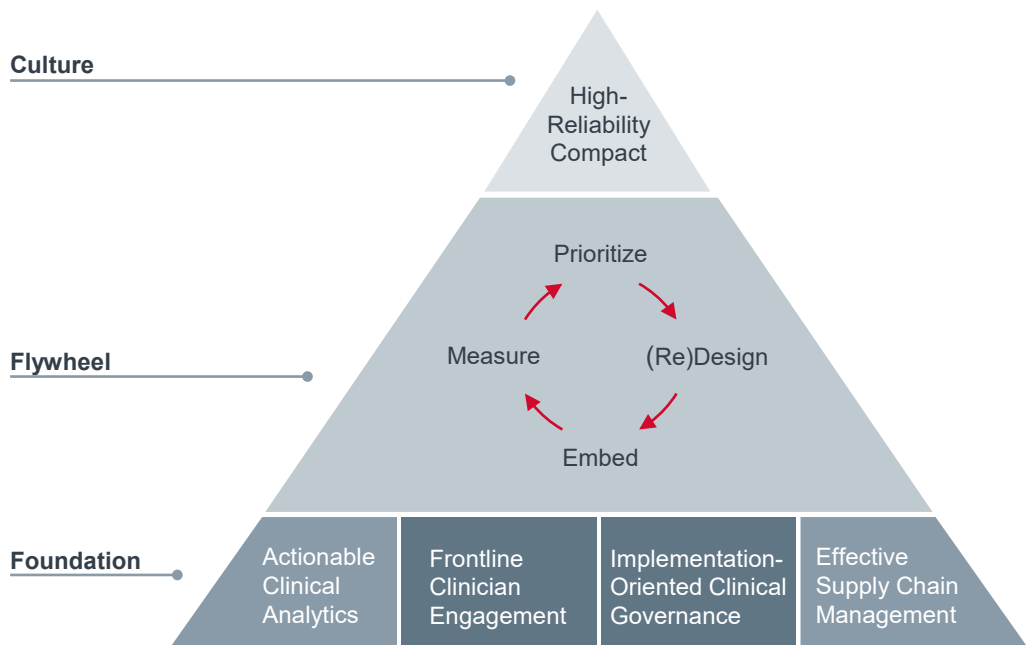
The base of the pyramid includes the four foundational elements you should have in place to anchor your care variation reduction efforts. While none of these needs to be perfect, you must achieve decent performance on each before you move up the pyramid and begin spinning the care variation flywheel.

Your **clinical analytics** must enable you to do two things: First, they should help you identify where to focus your CVR efforts to improve cost and quality. Second, they should help you measure your compliance and outcomes.

You need a level of **clinician engagement** in which the vast majority of clinicians are supportive of new initiatives and have bought into care variation reduction.

You need **clinical governance** that can drive enterprise-wide clinical standardization focused on cost and quality. We have found the required governance structure usually can't be grafted on top of existing governance structures (such as medical staff privileging or CQI), as those structures usually don't have the needed infrastructure to review and act on cost and quality data.

Achieving High-Reliability Enterprise Wide Advisory Board Framework for Minimizing Care Variation at Scale



For additional guidance on foundational elements, members can access the following research reports available at [advisory.com/pec](https://www.advisory.com/pec)

- Realizing System-Wide Clinical Standardization
- The System Blueprint for Clinical Standardization
- Engaging Surgeons in Cost Control

Foundation (cont.)

Last but not least, your organization will need effective **supply chain management**. Many cost savings will come through the supply chain. If you don't have effective supply management, you won't be able to realize the savings.

Flywheel

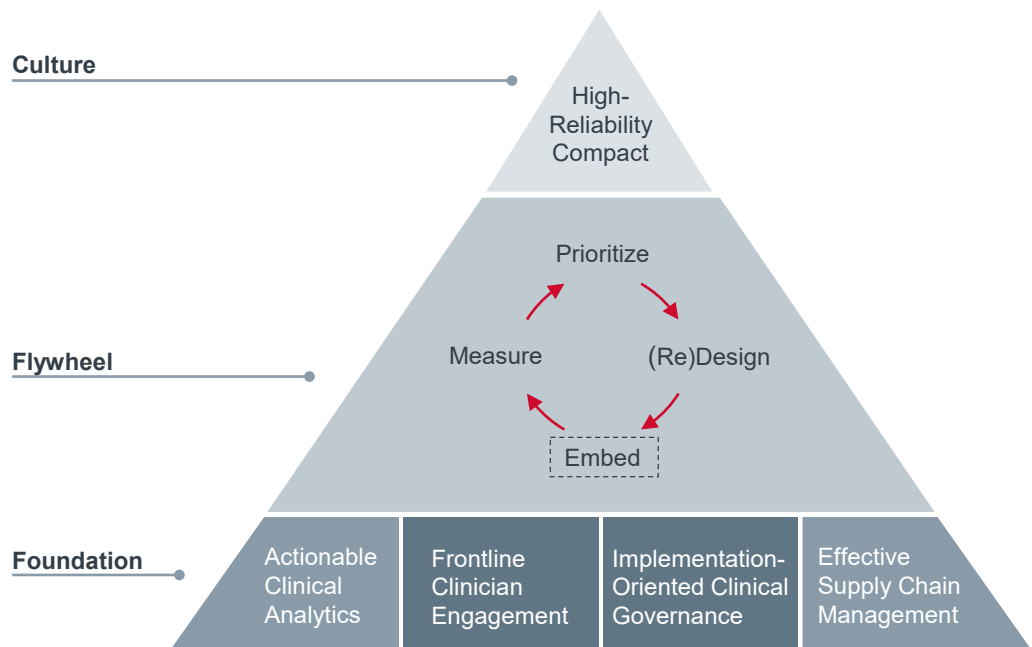
Once your foundation is in place, you should start spinning the CVR flywheel. Leaders can start their efforts at any point in the circle, but most organizations start with prioritization. The goal of spinning the CVR flywheel is to continually move through the process of prioritizing which care to standardize, designing care standards, embedding them into practice, and measuring compliance and cost and quality outcomes.

Culture

A high-reliability culture is at the top of the pyramid because it is the result of a comprehensive care variation reduction strategy—not the starting point. If you start your care variation reduction efforts with culture alone (and without the support of the foundation and flywheel), you risk having your efforts feel hollow and disconnected from clinicians' daily experience.

In the rest of this publication, we'll focus on the embed portion of the flywheel.

Achieving High-Reliability Enterprise Wide (cont.)



Care Variation Reduction Audit

This audit maps directly to the Advisory Board Care Variation Reduction Framework and is designed to help you identify areas of strength—and opportunity—within your organization. We recommend you first tackle improvement opportunities in the foundation section. Once you have addressed those, we recommend addressing opportunities in the flywheel section and then in your culture.

FOUNDATION

Actionable Clinical Analytics

1. Have clinical leaders approved your processes for risk and severity adjustment and attribution?
2. Do your clinical dashboards trigger responsive action on top improvement opportunities?
3. Can clinicians access near real-time performance data and comparative benchmarks online?

Frontline Clinician Engagement

1. Do clinician rewards, financial and non-financial, encourage the delivery of high-reliability care?
2. Are clinician roles on committees and task forces concerning care standards all filled?
3. Do frontline clinicians trumpet the benefits of care standardization in conversations with peers?

Implementation-Oriented Clinical Governance

1. Is final authority over care standards held by a system-level committee?
2. Do clinical consensus groups strive to develop care standards that are easy to follow?
3. Are clinical consensus groups staffed with project managers and process design experts?

Effective Supply Chain Management

1. Are clinicians aware of price and utilization data for devices and other high-cost supplies?
2. Are physician preference items reviewed for standardization opportunities at least once a year?
3. Do you think your materials management department secures the best possible pricing?

FLYWHEEL

Prioritize

1. Do potential savings from standardizing targeted care processes sum to system financial goals?
2. Do frontline providers have the bandwidth to absorb and apply the number of standards you plan to roll out?
3. Have you properly valued the return on standardizing routine care in multiple care pathways?

Care Variation Reduction Audit (cont.)

(Re)design

1. Can frontline clinicians accurately explain your process for creating and refining care standards?
2. Do you consider how to revise clinical specifications to minimize changes to existing workflows?
3. Do you quantify and equip leaders to head off the most likely points of practice deviation?

Embed

1. Do you have *one* template for documenting new care standards and key rollout components?
2. Is your alert adherence rate greater than 20% and improving?
3. Does your CDS intake process actively steer requestors away from intrusive alerts and toward guided care tools?

Measure

1. Do standardized care processes automatically capture data to measure adherence?
2. Can you quantify the savings actually achieved from standardizing a care process?
3. Can you describe three instances in the last year where standardized processes with high adherence rates were revised due to insufficient impact?

CULTURE

High-Reliability Compact

1. Could the clinicians you see today articulate current organizational goals and targets for reducing care variation?
2. Have you heard clinicians question peers who depart from care standards in the last month?
3. Is your commitment to high-reliability care a competitive advantage in recruiting clinicians?

The care variation flywheel (shown on page 10), gives leaders a more actionable approach than current conventional wisdom for how to successfully embed care standards in frontline practice. When we ask leaders to diagnose why they are struggling to embed standards, they most often cite the two barriers shown here: clinician resistance or limited bandwidth. While these are both common barriers, they are both symptoms of a greater problem: care standards are often designed without workflow in mind. As a result, standards are difficult for frontline caregivers to use, so they push back or struggle to retain them.

Rather than focusing on overcoming clinician resistance or limited bandwidth, we recommend solving for the underlying cause: care standards that don't account for clinician workflow.

The rest of this publication provides tactics that will equip leaders to lead a successful care standard rollout and embed care standards organization-wide.

Clinicians Frequently Cited as the Barrier for Adoption

Two Commonly Cited Reasons for Low Standard Adherence

Clinician Resistance



- Clinicians do not agree with the evidence
- Clinicians are hesitant to deviate from their medical training or experience

Limited Bandwidth



- Clinicians prioritize direct patient care
- Clinicians have limited time available to learn new standards



Standards Are Too Hard to Follow

“We put so much effort into creating the standard—we reviewed evidence, sought input, came to consensus—and it still failed. We realized we didn't fail because we didn't have a standard; **we failed because we didn't have a functional standard that could actually be adopted.**”

*System CMO,
Large Health System in Northeast*

This page shows the Physician Executive Council's framework and tactics for successfully implementing standards at the front line. The overarching principle behind the framework is: if you plan for rollout and leave room for iteration, you will increase the chances of strong clinician adoption.

The goal of the first four tactics is to ensure that system leaders consider potential facility-level barriers while preparing for rollout. This can be accomplished by gathering information on bandwidth and workflow realities at each facility.

The goal of the next three tactics is to allow room for care standard iteration post-rollout by creating formal channels for clinician feedback. The key takeaways are that standards should never be set in stone, and soliciting physician feedback is an important part of sustaining clinician buy-in.

Embedding Care Standards in Frontline Physician Practice

Seven Tactics for Deploying Standards Organization-Wide

1

Anticipate Local Roadblocks

1. Change Calendar
2. Facility Implementation Lead
3. Impact Inventory
4. Care Standard Implementation Tracker

2

Hardwire Channels for Iteration

5. Frontline Feedback Loop
6. Variance Request Process
7. Care Standard Non-negotiables

Before we detail the tactics, we need to clarify the terms we'll use through the remainder of this book. For the purposes of this book, we define a **"care standard"** as an expected, evidence-based clinical practice as defined and approved by an organization. We define a **"care pathway"** as a series of related clinical practices expected across a clinical episode for a given condition or procedure. As you can see in the example here, care pathways can be cross-continuum and often include multiple care standards.

Defining Our Terms

Care Pathway Is Made Up of Multiple Care Standards

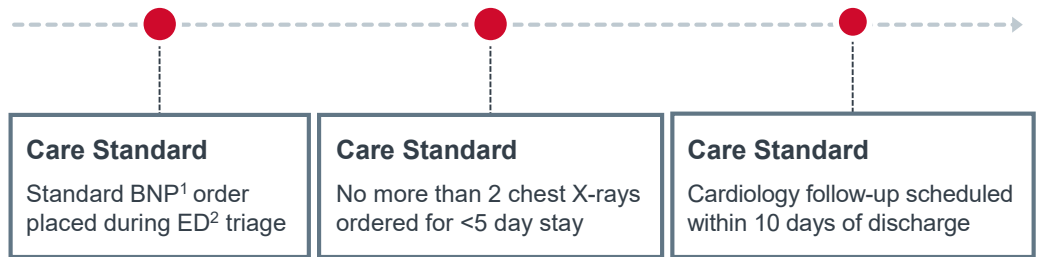
Care Standard:

An expected, evidence-based clinical practice as defined and approved by an organization

Care Pathway:

A series of related clinical practices expected across a clinical episode for a given condition or procedure

Example of Standards Included in Heart Failure Pathway

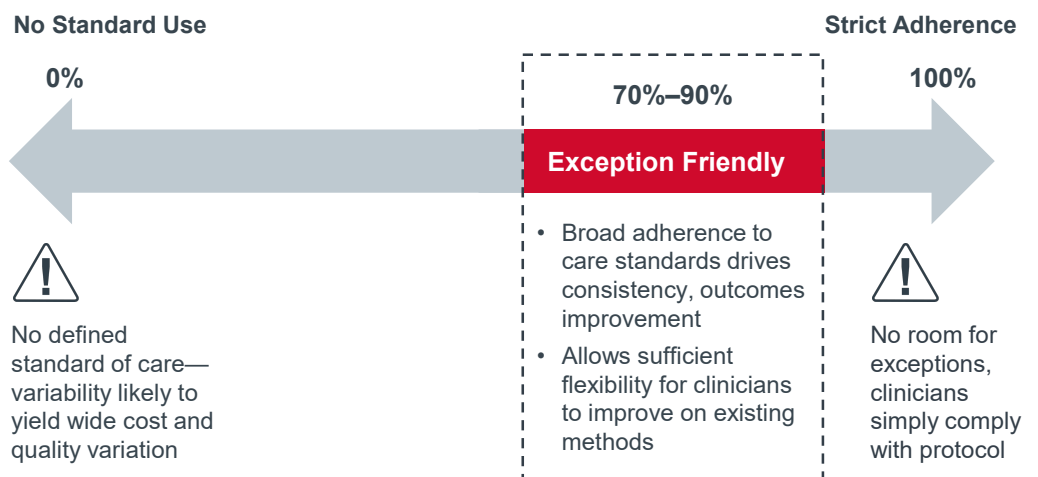


We also want to define the goal of **"embedding care standards."** A common and valid concern is that 100% standardization is not feasible because the complexity of human physiology makes it impossible for any standard to predict all permutations of patient-specific risk factors that might arise in actual practice.

We recommend that you aim for a compliance rate of 70%-90% for any single standard. This allows room to make medically necessary exceptions without delaying care, leaves a margin for compliance measurement errors, and promotes innovation beyond current standards of care.

Rationalizing Our Ambition

100% Care Standard Compliance Is Not the Target



1) Brain natriuretic peptide.
2) Emergency department.

EXCERPT

▶ Anticipate Local Roadblocks

INCLUDED IN
THIS EXCERPT

Tactic 1: Change Calendar

Tactic 2: Facility Implementation Lead

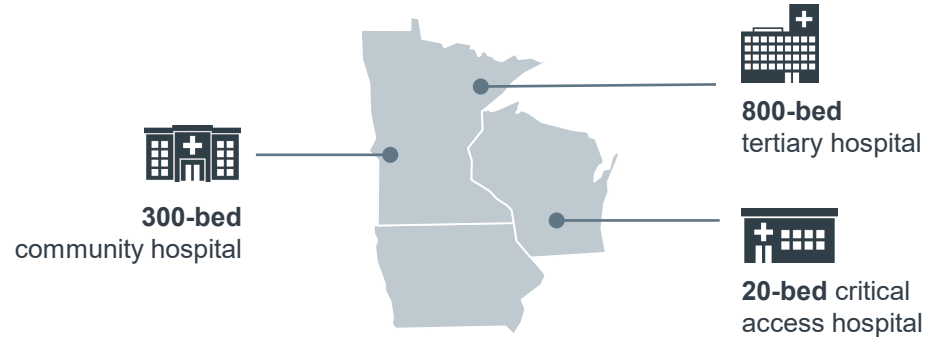
Tactic 3: Impact Inventory

Tactic 4: Care Standard Implementation Tracker

As health systems grow, they often become increasingly diverse. This makes it difficult to create a single care standard that will work for facilities with differing resources, staff, and patient populations.

Implementation Is Not One Size Fits All

Health Systems Include a Variety of Sites



Diverse Facilities Amplify Implementation Challenge

“Figuring out how a standard is going to work in an academic medical center with 900 beds compared to a community hospital that only has nine beds is a huge challenge. That’s where the art really comes in.”

Vice President, Large Health System in Midwest

To successfully roll out care standards system-wide, you need to proactively identify facility-level barriers to care standard implementation and plan how to overcome them.

This illustration presents four key questions system-level leaders should ask *before* rolling out a care standard. Underneath each question, we include a tactic that will equip you to answer each question affirmatively.

Are You Still Accounting for Frontline Realities? Setting Up a Successful Rollout



Key Questions for System Leaders Before Launch



When does my frontline staff have bandwidth for this?



Tactic 1:
Change Calendar



Who will manage facility-level deployment?



Tactic 2:
Facility Implementation Lead



Will certain facilities struggle to implement this?



Tactic 3:
Impact Inventory



Are all facilities ready to go live?



Tactic 4:
Care Standard Implementation Tracker

Source: Physician Executive Council interviews and analysis.

Tactic 1: Change Calendar

Tactic in Brief

Executives track change events on a single change calendar to identify periods of intense change. The goal is to avoid change fatigue by re-sequencing overlapping initiatives—including implementation of care standards—and to clearly communicate with staff about when to expect change.

Rationale

The rapid pace of change can be overwhelming to frontline staff, especially when changes impacting staff workflow are scheduled in close proximity to each other. By strategically spreading activities as evenly as possible across the year and proactively sharing the schedule of planned changes, leaders can minimize staff stress and burnout.

Implementation Components

Component 1: Schedule all planned changes on a single calendar

Executives meet regularly to strategically schedule upcoming initiatives that impact frontline staff, including the rollout of new clinical standards. Schedules are set based on criteria that include the extent of the change and the number of disciplines impacted.

Component 2: Routinely re-sequence changes as needed

Distribute the change calendar to leaders during team meetings and re-sequence changes based on the group's feedback. Keep the calendar up to date as new initiatives arise.

Component 3: Communicate change calendar to frontline staff

Clinical leaders share the change calendar with staff so that clinicians understand the rationale and timing of each change.

Tactic Assessment

This tactic is an effective strategy for avoiding clinician burnout and increasing the likelihood that care standards are successfully implemented. While it requires considerable collaboration, the return is worth the effort. We highly recommend this practice for organizations of all sizes. If it doesn't seem feasible to pilot this at the organization level, this practice can be started at the department or facility level (and eventually scaled up to include the entire system).

Component 1: Schedule all planned changes on a single calendar

The first component of this practice is to schedule all planned changes on a single calendar.

Executives at Texas Health Resources (THR) meet regularly to schedule upcoming initiatives. An example of their Excel-based change calendar is shown here. The calendar indicates the type of initiative, who is involved in each initiative, and how much impact each initiative is expected to have on staff. Impact is measured by considering the degree of change, the amount of training required, and any staff anxiety that may surround the change.

Leaders can easily spot times where high-impact initiatives are scheduled and work to rearrange the calendar to reduce the level of change at any given time.

Texas Health Resources' Change Calendar in Action

Initiative	Type	Audience	Jan-17	Feb-17	Mar-17
Antibiotic Stewardship	Refresher training	Internal medicine			Low
DVT Prophylaxis	New process change	All clinicians	High		
COPD Guidelines	New process change	All physicians	High		
Glycemic Control	New process change	All clinicians	High	Medium	
Heart Failure Diagnosis Guidelines	New process change	IM, Cardiology			High
CABG Guidelines	New process change	Cardiac services			High
Physician Leadership Initiative	Training	Physician leaders		Medium	

Impact of each initiative on staff rated low, medium, or high

Leaders able to readily spot months with heavy concentration of initiatives and shift some work to slower months

Case in Brief: Texas Health Resources

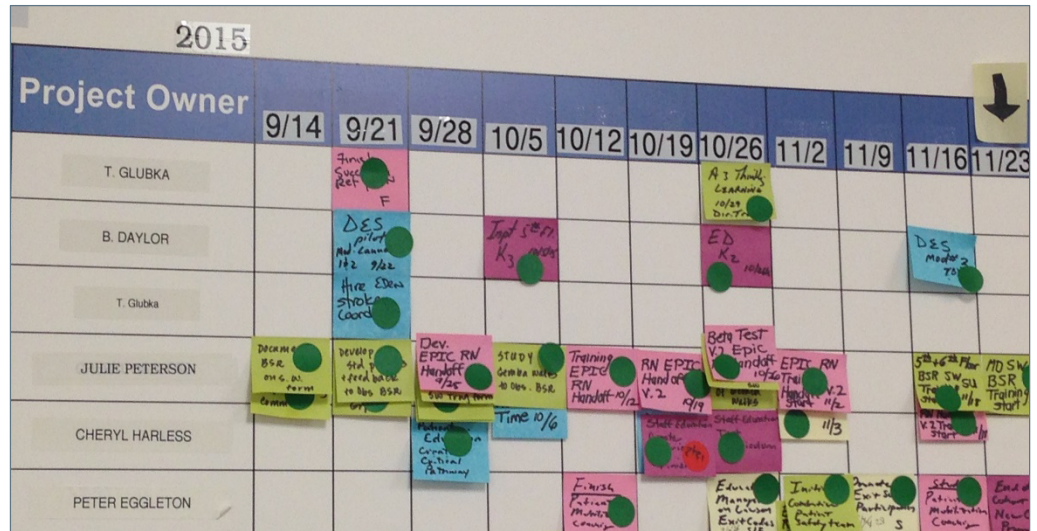
- 29-hospital health system with more than 5,500 affiliated physicians; headquartered in Dallas-Fort Worth, Texas
- In 2015, deployed the Reliable Care Blueprinting™ (RCB) initiative at all 18 acute-care hospitals to reduce unwarranted variation through care redesign
- Created role-based change calendars to plot all initiatives; schedule RCB implementations at an appropriate time for all affected clinicians
- Each initiative is given an impact score (number of employees impacted) and change score (subjective measure of degree of change required/anxiety level); scores are aggregated every month and the numerical score is given a grade of red, yellow, or green

Sources: Texas Health Resources, Dallas-Fort Worth, Texas; Physician Executive Council interviews and analysis.

Executives at Sutter Eden Hospital also use a change calendar to spread their initiatives over time. However, rather than using an Excel spreadsheet, they permanently display their change calendar across wall in a dedicated room known as the “vis room” (visualization room). A snapshot of Sutter Eden’s change calendar is shown here.

Keeping the Change Calendar in Plain View

Snapshot of Sutter Eden’s “Vis Room”



Full calendar permanently posted on wall of dedicated “vis room” for all leaders to see

Green dots indicate change successfully rolled out; red dots indicate deadline missed, need to re-sequence

+ **Case in Brief: Sutter Eden Hospital**

- 130-bed hospital located in Castro Valley, California; part of Sutter Health
- In fall 2014, senior leaders at Eden Hospital implemented a “vis room” (visualization room) to help better pace the rollout of organization-wide changes
- Eden’s A-team (COO, CMO, CNO, quality director, and HR leader) meets weekly; on a monthly basis they use the “vis room” to plan and re-sequence changes for coming months
- Goal of “vis room” is to see changes in one place; one wall is dedicated to the change calendar (listing initiatives, updates, and new standards, by week); a second wall is dedicated as a “work wall,” which lists all proposed changes; items on the “work wall” are reviewed by the A-team and evaluated for potential inclusion on the schedule
- When a deadline is met or initiative completed, the A-team places a green dot on the wall next to the initiative; when a deadline isn’t met, the A-team places a red dot on the wall next to the initiative; when several initiatives have red dots, the A-team re-sequences initiatives appropriately

Source: Sutter Eden Hospital, Castro Valley, CA; Nursing Executive Center interviews and analysis.

Component 2: Routinely re-sequence changes as needed

The second component of this practice is to routinely seek leadership team input and re-sequence changes as needed.

To do so, share a draft of your proposed change calendar during leadership team meetings. Ask your leaders if any changes should be re-sequenced. It is important to continuously revisit the change calendar to update it (and potentially re-sequence it) to account for new initiatives.

Strategically Re-sequencing Changes

Key Steps for Re-sequencing Changes



Distribute or Display Change Calendar

Design team distributes finalized change calendar to directors, managers, and educators during leadership team meetings or displays calendar in a central location



Assess Timing and Effort Level

Changes are re-sequenced based on the scope, relative importance, amount of effort needed for frontline staff to hardwire change, and alignment with strategic goals

Component 3: Communicate change calendar to frontline staff

The final component of this practice is to share the change calendar with frontline staff.

Leaders should share the calendar with frontline staff and ensure they understand the rationale for each change, the justification behind the timing, and how each change relates to the organization's mission.

Providing Transparency to the Front Line

Key Steps for Communicating Change Calendar with Frontline Staff



Communicate Changes with Staff

Clinical leaders share details of change calendar with frontline staff during team meetings



Explain Rationale

Managers ensure frontline staff understand rationale for each change and how it relates to organizational goals

Preview resources available to Physician Executive Council members



Create Care Standards Your Front Line Will Embrace

Six Tactics for Care Standard Design and Rollout

- Strategies to successfully scale care variation reduction
- Why traditional approaches to care standard design have failed
- Advice from leading organizations on how to rethink care standard design



10 Insights on Reducing Care Variation from Pioneer Health Systems

Executive Briefing on Reducing Care Variation

- Tactics employed by leading health systems to scale and evolve their care variation reduction strategy



Achieving Cost-Savings Goals Through Care Variation Reduction

How Carolinas Healthcare System Engaged Physicians to Improve Acute-Care Outcomes

- Nine tactics to improve cost and quality outcomes—at high speed and scale
- Non-financial strategies to enfranchise physicians in care variation reduction



Realizing System-Wide Clinical Standardization

An In-Depth Study of Banner Health's Clinical Standardization Strategy and Infrastructure

- Discussion of why to pursue clinical standardization
- How Banner Health achieved clinical transformation
- How a single hospital found success with the Banner model

Interested in membership?

Contact us at programinquiries@advisory.com
or visit us at advisory.com/pec.



Advisors to Our Work

The Physician Executive Council is grateful to the individuals and organizations that shared their insights, analysis, and time with us. We would especially like to recognize the following individuals for being particularly generous with their time and expertise.

With Sincere Appreciation

Adventist Health System

Altamonte Springs, FL

Debra Doherty
CPOE Content Manager
Michael Yurso, MD
Senior Medical Director

Banner Health

Phoenix, AZ

Jill Howard
Senior Director, Clinical & Ops
Engineering and Program Support
Rita Peck
Care Management Program
Director

Carolinas HealthCare

Charlotte, NC

Pamela Beckwith
System Vice President, Quality
James C. Hunter, MD
System Chief Medical Officer

Hallmark Health

Melrose, MA

Cheryl Warren
Chief Clinical Integration Officer

MedStar Health

Columbia, MD

Vicky Parikh, MD
Executive Director of Population
Health and Clinical Research
Feseha Woldu, PhD
Vice President, Population
Programs and Community Affairs

MultiCare Connected Care

Seattle/Tacoma, WA

Kate Mundell
Director, Clinically Integrated
Network

Sentara Healthcare

Norfolk, VA

Susan B. McDonald, MD
Vice President, Medical Affairs
Sam Basta, MD
Senior Medical Director, Clinical
Integration

Summa Health

Akron, OH

Dave Orr
Vice President, Quality

Texas Health Resources

Arlington, TX

Ben Fragano
Manager, Clinical Decision Support
Brandie Meyer
Vice President, Strategic Integration
Winjie Tang Miao
Executive Vice President and
Chief Experience Officer

University Hospitals

Cleveland, OH

William Annable, MD
Chief Quality Officer
Jennifer Dawson
Senior Operations Engineer
David Northern
Operations Engineer
Jeffery Peters, MD
Chief Operating Officer
Tim Rowell
VP Planning
Jackie Sherry
Senior Operations Engineer
Robyn Strosaker, MD
Chief Medical Officer
Ken Turner
Vice President, Operational
Effectiveness

University of Tennessee Medical Center

Knoxville, TN

John Bell, MD
Director, Cancer Institute
Renee Hawk
Vice President, Cancer Institute
Inga Himelright, MD
Senior Vice President and
Chief Quality Officer
Lindsey Jerkins
Clinical Director, Cancer Institute

UPMC Susquehanna

Williamsport, PA

Daniel Glunk, MD
Chief Quality Officer

Physician Executive Council

Project Directors

Elena Brandano Birnbaum
Taylor Hurst, MPH

Contributing Consultants

Katherine Diller
Veena Lanka, MD
Laura Martin, MPP

Managing Director

Teresa Breen, MA

Executive Directors

Steven Berkow, JD
Jennifer Stewart

Design Consultant

Lilith James

LEGAL CAVEAT

Advisory Board is a division of The Advisory Board Company. Advisory Board 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 Advisory Board cannot guarantee the accuracy of the information provided or any analysis based thereon. In addition, Advisory Board 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 Advisory Board 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 Advisory Board or any of its employees or agents, or sources or other third parties, (b) any recommendation or graded ranking by Advisory Board, or (c) failure of member and its employees and agents to abide by the terms set forth herein.

The Advisory Board Company and the "A" logo are registered trademarks of The Advisory Board Company in the United States and other countries. Members are not permitted to use these trademarks, or any other trademark, product name, service name, trade name, and logo of Advisory Board without prior written consent of Advisory Board. 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 Advisory Board and its products and services, or (b) an endorsement of the company or its products or services by Advisory Board. Advisory Board is not affiliated with any such company.

IMPORTANT: Please read the following.

Advisory Board 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 Advisory Board. By accepting delivery of this Report, each member agrees to abide by the terms as stated herein, including the following:

1. Advisory Board 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, republish, or post online or otherwise this Report, in part or in whole. 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. Each member shall use, and shall ensure that its employees and agents use, this Report for its internal use only. Each member may make a limited number of copies, solely as adequate for use by its employees and agents in accordance with the terms herein.
4. Each member shall not remove from this Report any confidential markings, copyright notices, and/or other similar indicia herein.
5. Each member is responsible for any breach of its obligations as stated herein by any of its employees or agents.
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 Advisory Board.

Advisory Board helps leaders and future leaders in the health care industry work smarter and faster by providing provocative insights, actionable strategies, and practical tools to support execution.

With more than 40 years of experience, a team of over 250 experts, and a network of nearly 5,000 member organizations, we spend more time researching the now and predicting the next than anyone else in the health care industry.

We know that together we can change the business of health care for the better. Join us by visiting advisory.com.

