The Advisory Board Company

Nursing Executive Center

Building the High-Value Care Team

Strategies for Delivering Cost-Effective, Coordinated Care

Nursing Executive Center

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Available Within Your Nursing Executive Center Membership

In recent years, the Nursing Executive Center has developed many resources to help nurse leaders improve efficiency. Select resources are shown here. All resources are available in unlimited quantities through the Nursing Executive Center.

Improving Efficiency

Achieving Top-of-License Nursing Practice

Best Practices for Elevating the Impact of the Frontline Nurse

- Adjust the structure and timing of patient care assistant (PCA) shifts to reliably deliver all elements of care
- Cultivate willingness to delegate by building nurses' trust in PCA skills and formalizing peer delegation
- Foster interprofessional understanding of nursing's role on the care team
- Appropriately expand nursing practice to eliminate unnecessary patient care delays

Nursing's Role in Safeguarding Acute Care Margins

Thirteen Key Objectives and Recommended Initiatives

- Navigate the four principal market forces currently posing a threat to hospital margins
- Learn five critical new margin imperatives for the coming decade
- Understand the specific role that nurse executives should play in safeguarding their organization's financial health

360-Degree Nurse Staffing Benchmarks

Unit- and Site-Specific Snapshots

- Staffing benchmarks for 19 types of acute care hospital units, as well as physician practices, ambulatory centers, and post-acute care organizations
- Unique dataset that quantifies trade-offs among staffing variables—including nurse preparation, specialty certification, workload, and experience—within the same type of unit or non-acute care site

The Highly Productive Nursing Organization

Playbook for Safely Streamlining Clinical Labor Costs

- Identify the two primary options for improving labor productivity
- Evaluate the opportunity for achieving labor savings without harming other key nursing goals
- Address the key challenges that prevent nursing leaders from meeting labor budget targets

To Access These Resources

To access these and other Nursing Executive Center resources, please visit our website: **advisory.com/nec** and enter the publication title into the search engine.

Beyond the Nursing Executive Center

In addition to the resources available through the Nursing Executive Center membership, The Advisory Board Company offers resources to reduce costs and increase nursing efficiency through our Nursing Compass program.

Nursing Compass

Through rigorous analytics and best practice implementation support, Nursing Compass helps hospitals and health systems to better manage their nursing workforce. Our 100+ participating hospitals have seen a 5% to 10% average improvement in nursing hours per patient day (HPPD) and a 50% average reduction in premium labor.

The Nursing Productivity Benchmark Generator provides insight in national benchmarks for a subset of the Nursing Compass metrics including:

- Overtime Percentage of Worked Hours
- Worked Hours per Patient Days
- Dollars per Patient Day
- Premium Percentage of Worked Hours
- RN Direct Care Hours per Patient Days
- Total Labor Cost

Go Beyond Your Membership

Request information on Nursing Compass partnerships at beyond@advisory.com or advisory.com/nursingcompass

Advisors to Our Work

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Executive Summary

Traditional Strategies for Driving Care Team Value No Longer Enough

Many nurse leaders are torn between pressure to cut costs and pressure to provide higher-quality nursing care—both of which are defined as "delivering care team value." But most traditional efforts to drive value have focused on just one side of the value equation—either input (for example, HPPD or salaries), or output (for example, high-quality patient care or strong performance on nurse-sensitive indicators). And as a result, nurse leaders don't have a clear path forward for unlocking both types of value at once.

$$\text{VALUE} = \frac{\text{OUTPUT (e.g., high-quality patient care)}}{\text{INPUT (e.g., care team efficiency)}}$$

As such, it is time to change the conversation about how to build "high-value care teams." It is critical for nurse leaders to change the conversation and focus on both sides of the value equation. The goal is to increase value by providing the highest possible quality care for every dollar spent on staffing.

Three Near-Universal Opportunities for Increasing Care Team Value

When you change your perspective and focus on how to get the best return for every dollar spent on care teams, you uncover significant opportunities for increasing care team value. These opportunities are to overcome the three inefficiencies plaguing nearly all care teams.

The first inefficiency is overreliance on bedside RNs to complete work that can be safely accomplished by support staff or other non-RN members of the care team. The second inefficiency is uncoordinated interprofessional care, which can lead to duplication of efforts and wasting of resources. The third inefficiency is deploying a "one-size-fits-none" care team for all patients, regardless of their individual, specific needs.

Read the Study in Full to Learn More

To help nurse leaders overcome the three challenges identified above, *Building the High-Value Care Team* provides detailed guidance on three paths for increasing care team value. By following these three paths, nurse leaders will reduce inputs while simultaneously increasing outputs, and achieve higher-value care.

The paths to greater care team value are:

1. Change the nursing skill mix to support top-of-license practice and fully leverage the capabilities of RNs
2. Align interprofessional goals to help reduce waste and better coordinate care to improve quality
3. Deploy the minimum core team and selectively scale up support to enable caregivers to better meet the specific needs of individual patients

Read the complete study for detailed guidance for implementing each path.

Nursing Executive Center Essay

Redefining the Value Equation

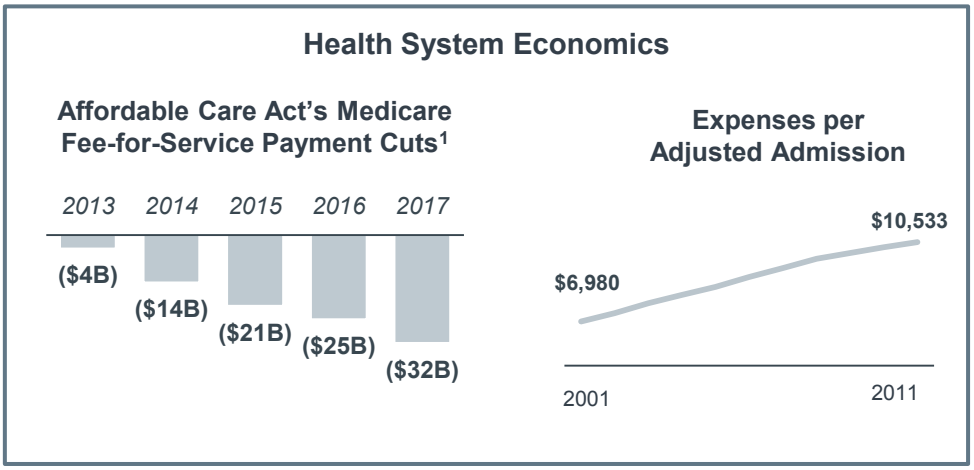
Nationwide, hospitals and health systems are facing unprecedented margin pressure as a result of the erosion of underlying health care economics. The graphics shown here illustrate this challenge.

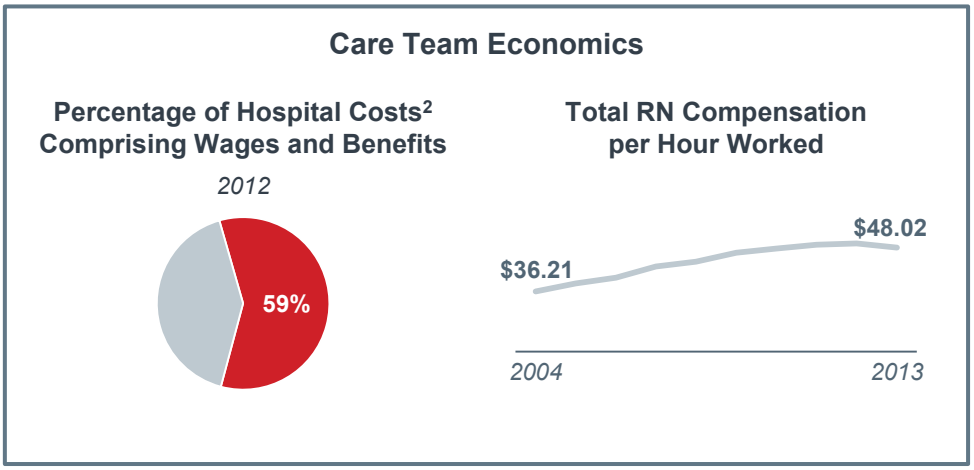
First, the gap between Medicare spending and provider expense continues to widen. Reimbursement is projected to steadily decline while expenses per admission are rising.

Second, care team economics are failing. Labor expenses, which account for more than half of hospital costs, are increasing. While rising nursing compensation is a welcome and necessary trend, it also poses a challenge, as nursing is the largest segment of the hospital workforce—and declining reimbursement means providers will have a smaller budget to spend on labor.

Put simply, already troubling health system finances are expected to worsen, unless health care leaders do something to address nursing labor costs.

Unremitting Margin Pressure





1) Reductions to annual payment rate increases; includes hospital, skilled nursing facility, hospice, and home health services; excludes physician services.
2) Does not include capital.

Source: American Hospital Association, "Trendwatch Chartbook 2013: Trends Affecting Hospitals and Health Systems," http://www.aha.org/research/reports/tw/chartbook/index.shtml; CBO, "Letter to the Honorable John Boehner Providing an Estimate for H.R.6079, The Repeal of Obamacare Act," July 24, 2012, www.cbo.gov; Bureau of Labor Statistics, "Employer Costs for Employee Compensation Historical Listing March 2004 – June 2013," ftp://ftp.bls.gov/pub/special.requests/ocwc/ect/ececqrtn.pdf; Nursing Executive Center analysis.

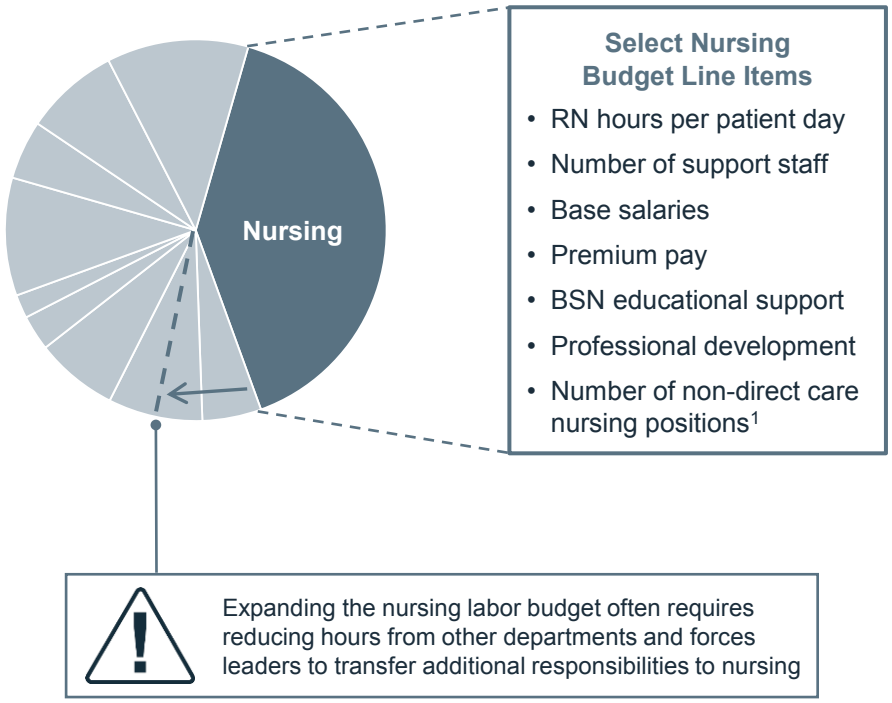
Unfortunately, the problem of rising RN compensation cannot be solved by fighting for a larger share of the hospital's labor budget.

This pie graph shows why. If leaders expanded nursing's share by cutting labor spending from other groups, it would require simultaneously scaling back responsibilities from those groups. Ultimately, leaders would be forced into a zero-sum conversation—responsibilities previously owned by other departments would have to be reallocated to nursing. For example, reducing respiratory therapy labor hours might require leaders to add respiratory assessments or treatments to the already long list of nursing responsibilities.

Put another way, increasing nursing's share of the labor budget would also increase the demand for nursing hours and would fail to solve the current labor cost challenge.

Avoiding the Zero-Sum Conversation

Representative Hospital Labor Budget



1) For example, nurse educators, nurse managers.

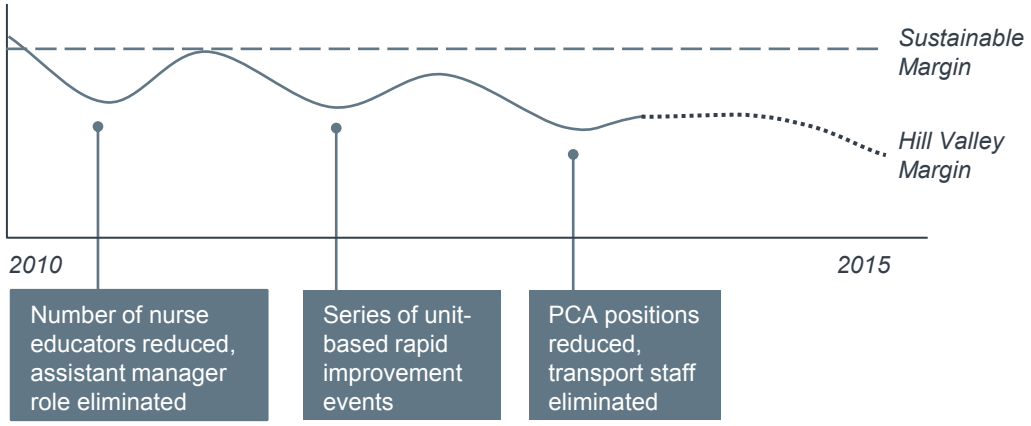
Source: Nursing Executive Center interviews and analysis.

Many nurse leaders struggling to best manage their nursing labor budgets are finding they have limited room to maneuver. As the example on this page shows, many leaders have already cut the low-hanging fruit from their budgets by reducing the number of non direct-care providers.

The graphic depicts an all-too-typical story. Hill Valley Hospital, a pseudonym, responded to shrinking operating margins in 2010 by eliminating nurse educators and assistant managers. When the margin fell again a year later, leaders implemented a series of rapid improvement events to drive efficiency. These efforts helped, but they didn't change the overall downward trend in their hospital's margin.

Little Room Left for Nurse Leaders to Maneuver

Hill Valley Hospital[1] Operating Margin



Weaker Performance Ahead

"Fitch believes there is **increased uncertainty beyond 2013 as opportunities for further cost cutting wane** and a wave of expected reimbursement reductions are realized under the full implementation of the Patient Protection and Affordable Care Act (PPACA) beginning in 2014."

Fitch Ratings

Source: Fitch Ratings, "Fitch: 2013 Outlook for Non-Profit Hospitals Stable Despite Mounting Pressures," http://www.fitchratings.com/creditdesk/press_releases/detail.cfm?pr_id=777078; Nursing Executive Center analysis.

1) Pseudonym.

The challenge for nurse leaders is even more complex than just limited budgets and rising nursing salaries. Just as nurse leaders are trying to rein in spending, mounting evidence argues for greater investment in nursing.

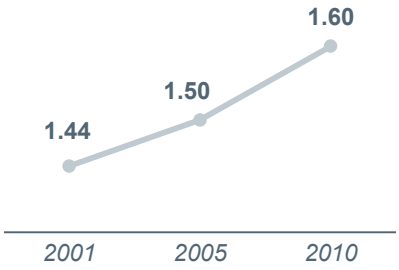
The table shown here summarizes top-level findings from representative studies on the positive impact of nurse staffing on care quality. For example, a recent study from *Health Affairs* shows that hospitals with higher nurse staffing were 25% less likely to incur Medicare readmissions penalties than similar hospitals with lower nurse staffing.

In summary, nursing budgets are limited, and likely to be further strained, as a result of worsening economics. In addition, nursing labor costs are increasing and current evidence urges nurse leaders to further invest in nursing. Many nurse leaders, who have already trimmed the low-hanging fruit from their budgets, are finding themselves with no clear path forward. They are torn between pressure to cut costs and pressure to provide higher quality nursing care. Both pressures are often defined as "delivering value" to their organization. In light of these competing pressures and the lack of a clear path forward for nurse executives, it is time to change the conversation about how value is defined.

Mounting Evidence Supports Investment in Nursing

Patient Complexity Increasing

Average Medicare Case Mix[1]



Sample Studies Linking Nurse Staffing Investments to Better Patient Outcomes

Primary Author	Top-Level Findings
Kane RL, et al., 2007	A review of the literature finds consistent associations between increased RN staffing and lower odds of hospital-related mortality and adverse patient events
McHugh M, et al., 2013	Hospitals with higher nurse staffing had 25% lower odds of incurring Medicare readmissions penalties than similar hospitals with lower nurse staffing
Aiken L, et al., 2014	Increasing nurse workload by one patient is associated with a 7% increase in the likelihood of a surgical patient dying within 30 days of admission

1) Case Mix Index (CMI) in short-stay hospitals participating in Medicare's Inpatient Prospective Payment System; excludes Medicare Advantage patients.

Source: Aiken L, et al., "Nurse Staffing and Education and Hospital Mortality in Nine European Countries: A Retrospective Observational Study," *The Lancet* S0140-6736 (2014): 62631-8; Kane RL, et al., "The Association of Registered Nurse Staffing Levels and Patient Outcomes: Systematic Review and Meta-Analysis," *Medical Care,* 45 (2007): 1195-1204; McHugh M, et al., "Hospitals with Higher Nurse Staffing Had Lower Odds of Readmissions Penalties Than Hospitals with Lower Staffing," *Health Affairs,* 32 (2013): 1740-1747; Nursing Executive Center analysis.

Previous efforts to define care team value have focused on just one side of the value equation—either input (for example, HPPD or salaries), or output (for example, high-quality patient care or strong performance on nurse-sensitive indicators). The drawback of this approach is it can lead to zero-sum conversations, or to already well-trodden initiatives. It is time to change the conversation and focus on how to increase care team value by examining how both sides of the equation work together.

The remainder of this study is focused on strategies for examining both sides of the value equation simultaneously. Or in other words how to adjust the inputs and hold constant (or improve) the outputs.

Reexamining the Value Equation

$$\text{VALUE} = \frac{\text{OUTPUT (e.g., high-quality patient care)}}{\text{INPUT (e.g., care team efficiency)}}$$

Source: Nursing Executive Center interviews and analysis.

When it comes to unlocking the value of the nursing care team, there are three common inefficiencies which result in over-investment of resources (inputs) and lower than desired output (quality care for each patient).

The first common root cause is overreliance on bedside RNs to complete work that can be safely accomplished by support staff or other non-RN members of the care team. The second common root cause is uncoordinated interprofessional care, which can lead to duplication of efforts and wasting of resources. The third common root cause is deploying a "one-size-fits-none" care team for all patients, regardless of their individual, specific needs.

Three Root Causes of Inefficient Care Teams

Strategies for Maximizing Care Team Value

Root Cause	Description	Inefficiency
Overreliance on Bedside RNs	• RNs spend time performing support staff-level work	• Leads to overspending and underutilization of support staff
Uncoordinated Interprofessional Care	• Caregivers in different disciplines follow different care plans and have different patient goals	• Leads to delays, duplication of work, and gaps in care
"One-Size-Fits-None" Care Team	• Patients with different needs receive the same care team	• Usually fails to meet high-risk patients' needs • May over-serve low-risk patients

Source: Nursing Executive Center interviews and analysis.

Building the High-Value Care Team

Strategies for Delivering Cost-Effective, Coordinated Care

To help nurse leaders overcome the three challenges shown on the previous page, the Nursing Executive Center identified three paths to higher value shown here. By following these three paths, nurse leaders will reduce inputs while simultaneously increasing outputs, and achieve higher-value care.

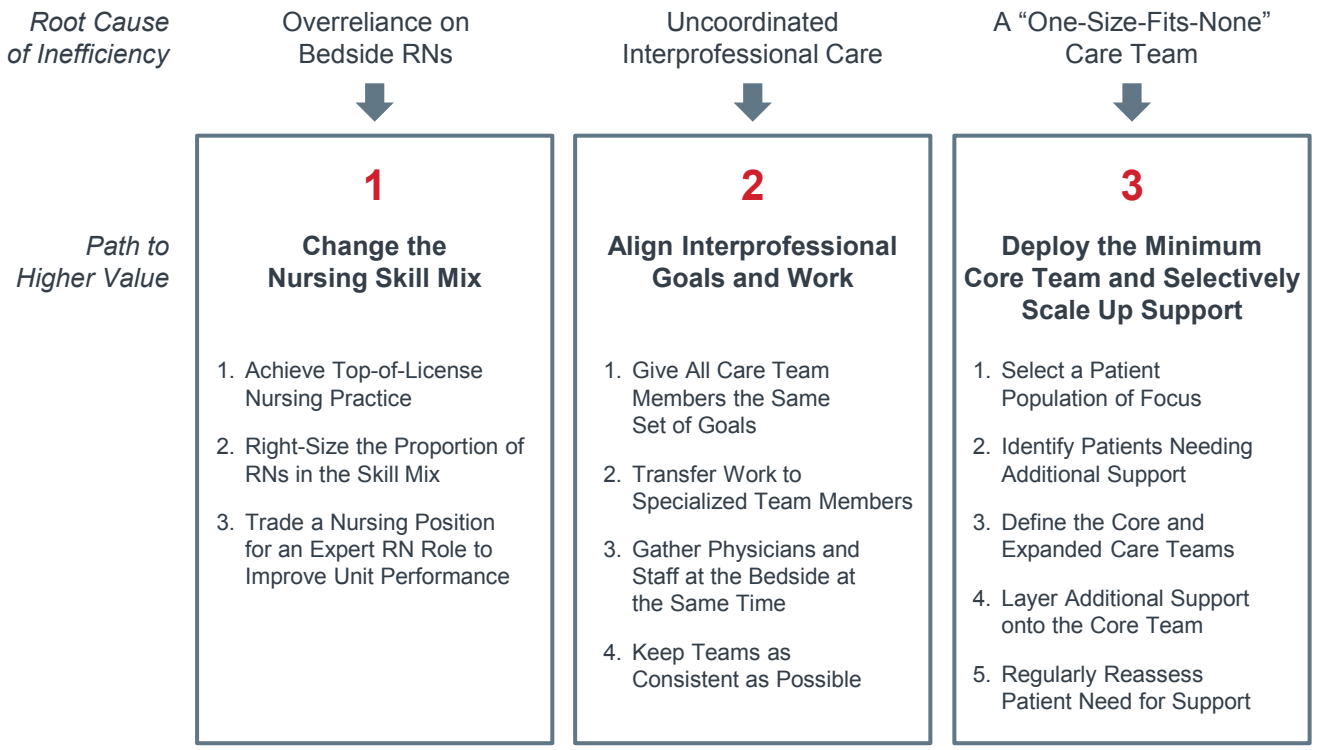
The first path is to change the nursing skill mix to support top-of-license practice and fully leverage the capabilities of RNs. The second path is to align interprofessional goals to help reduce waste and better coordinate care. The third path is to deploy the minimum core team and selectively scale up support to enable caregivers to better meet the specific needs of individual patients.

Each of these paths contain "potential moves" that leaders can make to build higher-value care teams. For paths one and two, nurse leaders can implement any moves that would help their organization—and adopt them in any order. Path three is different. All moves from path three must be implemented in consecutive order.

There are a number of resources throughout this publication to help nurse leaders determine which moves are right to implement at their organization.

The Nursing Executive Center acknowledges that changing the way in which teams deliver care can be a daunting challenge. However, pursuing any one of these three paths will increase care team value and be well worth the investment of time and resources.

Three Paths to Building Higher Value Care Teams



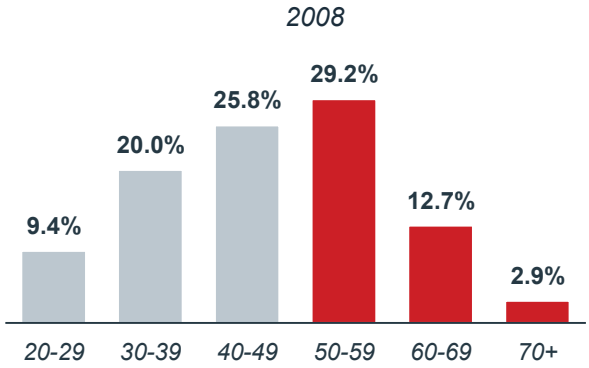
Source: Nursing Executive Center interviews and analysis.

It is estimated that nearly one million nurses will reach retirement age in the next 10 to 15 years. Nurse leaders can use this large window of expected retirements to redesign care teams in three distinct ways.

First, hospitals and health systems can fill vacant positions by hiring caregivers with a different skill set (or educational degree) that is better aligned with future needs. Second, new hires, who often have not yet developed strong biases about how care should be delivered, can pilot new models of care. And third, nurse leaders can make changes through attrition—rather than layoffs. To help nurse leaders take advantage of this unique opportunity, the remainder of this report provides details on how to implement the three paths to higher value shown on the previous page.

A Unique Moment in Time to Build a Different Kind of Care Team

Age Distribution of Practicing Registered Nurses in the US



≈1,000,000

Number of RNs reaching retirement age in the next 10-15 years

Opportunities to Redefine the Care Team

Fill vacant positions with a different skill set

Instill a new care team philosophy in new hires

Use attrition (rather than cuts) to eliminate positions

Source: US Department of Health and Human Services, Health Resources and Services Administration, *The Registered Nurse Population: Findings from the 2008 National Sample Survey of Registered Nurses*, 2010, available at: http://bhpr.hrsa.gov/healthworkforce/rnsurveys/rnsurveyfinal.pdf, accessed on April 25, 2013; US Department of Health and Human Services, Health Resources and Services Administration, *The U.S. Nursing Workforce: Trends in Supply and Education*, 2013, available at: http://bhpr.hrsa.gov/healthworkforce/reports/nursingworkforce, accessed on May 7, 2013; Nursing Executive Center interviews and analysis.

Path #1

Change the Nursing Skill Mix

- Move #1: Achieve Top-of-License Nursing Practice
- Move #2: Right-Size the Proportion of RNs in the Skill Mix
- Move #3: Trade a Nursing Position for an Expert RN Role to Improve Unit Performance

Path #1: Change the Nursing Skill Mix

Path in Brief

To prevent overreliance on bedside RNs, nurse leaders ensure all care team members are working at the top of their license—and then consider changing the proportion of bedside RNs or trading a bedside nursing position for an expert RN role.

Underlying Inefficiency This Path Addresses

Overreliance on bedside RNs

Rationale

Many organizations increase the proportion of RNs in their skill mix in an effort to improve outcomes. However, increasing the proportion of RNs is costly and requires budgetary trade-offs elsewhere. A common trade-off is to scale back nursing support by reducing the number of unlicensed assistive personnel (UAP). This can create an overreliance on RNs and prevent RNs from practicing at the top of their license.

To avoid over relying on RNs, nurse leaders should ensure care teams contain sufficient support staff for RNs to delegate appropriate work; achieving this balance may require changing the proportion of RNs in the skill mix or swapping a bedside RN role for an expert RN role.

Implementation Moves

Nurse leaders should begin with Move #1, and then select one or more additional moves to implement at their organization.

Move #1: Achieve Top-of-License Nursing Practice
Equip RNs to practice at the top of their license by protecting RNs from avoidable "time sinks" and correcting interprofessional misperceptions about nursing scope of practice.

Move #2: Right-Size the Proportion of RNs in the Skill Mix
Nurse leaders modify the proportions of registered nurses (RNs), licensed practical/vocational nurses (LPNs/LVNs), and unlicensed assistive personnel (UAP) within each care team. The goal is to ensure every caregiver is working at the top of their license and cost-effectively meeting patient needs.

Move #3: Trade a Nursing Position for an Expert RN Role to Improve Unit Performance
Nurse leaders replace an existing bedside nursing position with an expert RN role dedicated to improving the unit's overall value (for example, by reducing the number of nurse-sensitive patient safety events, or reducing length of stay). The goal is to improve unit performance while keeping labor costs constant.

Path Assessment

Nurse leaders pursuing this path must first implement Move #1 before implementing the other two moves. Otherwise, leaders run the risk of having RNs perform work that could be accomplished by other staff, and leaving RNs without adequate time to perform work only they can do.

The first path for increasing care team value is to change the nursing skill mix. Many recent studies suggest care teams with more RNs achieve better outcomes. For example, a recent study in *Health Affairs* found that hospitals with higher nurse staffing were 25% less likely to face readmission penalties than hospitals with lower staffing.

However, few hospitals have the resources to increase the percentage of RNs in the skill mix without making other staffing trade-offs.

Research Suggest More RNs Lead to Better Care

Select Studies Linking More RNs to Better Patient Outcomes

The New England Journal of Medicine

"A higher proportion of hours of nursing care provided by registered nurses and a greater number of hours of care by registered nurses per day are associated with better care for hospitalized patients."

HEALTH AFFAIRS

"Hospitals with higher nurse staffing had 25% lower odds of being penalized [for readmissions] compared to similar hospitals with lower staffing."

MEDICAL CARE

"Estimates from this study suggest that adding 133,000 FTE RNs to the acute care hospital workforce…would save 5,900 lives per year."

The New England Journal of Medicine

"…the risk of death increased with increasing exposure to shifts in which RN hours were 8 hours or more below target staffing levels…"

Source: Needleman J, et al., "Nurse-Staffing Levels and the Quality of Care in Hospitals," *New England Journal of Medicine*, 346 (2002): 1715-1722; McHugh M, et al., "Hospitals with Higher Nurse Staffing Had Lower Odds of Readmissions Penalties Than Hospitals with Lower Staffing," *Health Affairs*, 32 (2013): 1740-1747; Dall T, et al., "The Economic Value of Professional Nursing," *Medical Care*, 47 (2009): 97-104; Needleman J, et al., "Nurse Staffing and Inpatient Hospital Mortality," *New England Journal of Medicine*, 364 (2011): 1037-1045; Nursing Executive Center analysis.

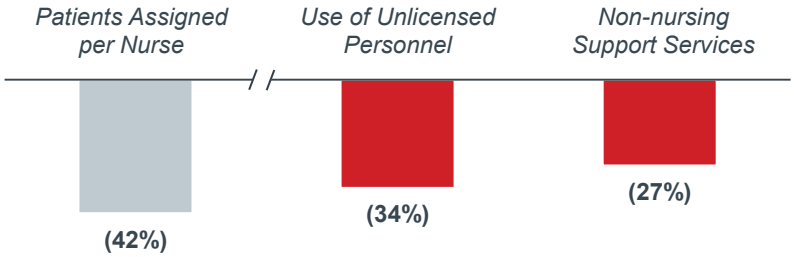
One well-known example of this type of staffing trade-off comes from California. In 2004, California enacted a law requiring minimum RN-to-patient ratios for acute care, acute psychiatric, and specialty hospitals. When California nurse leaders increased the percentage of RNs in order to adhere to the new law, many nurse leaders were forced to compensate by scaling back labor spending in other areas.

As the graph on this page shows, California RNs had fewer patients assigned to them following implementation of mandated nurse-to-patient ratios, but they also had fewer support staff to help care for their patients.

Ripple Effects from California's Minimum RN Staffing Law

Percentage of Nurses Reporting Staffing Variable Decreased Following Implementation of California's Minimum Nurse Staffing Law

n=9,257



Study in Brief: Implications of the California Nurse Staffing Mandate for Other States

- Cross-sectional study surveying 22,336 hospital staff nurses in California, Pennsylvania, and New Jersey in 2006 on nurse workload
- Compared nurse staffing to patient outcomes from state hospital discharge databases; goal to determine whether nurse staffing in California hospitals (with state-mandated minimum nurse-to-patient ratios in effect) differs from two states without legislation, whether those differences associated with nurse and patient outcomes
- Authors report California hospital nurses cared for one less patient on average than nurses in other states and two fewer patients on med/surg units; lower ratios associated with significantly lower mortality
- When nurses' workloads were in line with California-mandated ratios in all three states, nurses reported consistently better quality care

Source: Aiken L, et al., "Implications of the California Nurse Staffing Mandate for Other States," *HSR: Health Services Research*, 45 (2010): 904-921; Nursing Executive Center analysis.

Hospitals and health systems across the United States are currently making similar trade-offs—although they are most often made on a case-by-case basis as nurse leaders seek to find the right balance between care team staffing and their labor budgets.

The table on this page shows various staffing trade-offs already occurring in medical/surgical units nationwide. The top row lists common staffing variables such as RN-to-patient ratio, RN-to-assistant ratio, and level of RN preparation. Each row shows the trade-offs that leaders make as RN-to-patient ratios change. For example, the number of assistants per RN tends to be smaller on units where RNs have a smaller patient assignment. This suggests the same finding as the study of California's mandated ratios: if RNs have smaller numbers of patients to care for, they also receive less assistance.

The table is an excerpt from the Nursing Executive Center's publication, *360-Degree Nurse Staffing Benchmarks;* the full report can be found on Advisory.com.

The National Picture of Staffing Trade-Offs

Nursing Executive Center Staffing Trade-Off Analysis for Med/Surg Units[1]

	RN-to-Patient Ratio	RN-to-Assistant Ratio	BSN Degree	Specialty Certification
For units with a **1:4 RN-to-patient ratio**, what are the median values of other key nurse staffing variables? (n=70)	**1:4.0**	1:0.43	50%	15%
For units with a **1:5 RN-to-patient ratio**, what are the median values of other key nurse staffing variables? (n=192)	**1:5.0**	1:0.48		
For units with a **1:6 RN-to-patient ratio**, what are the median values of other key nurse staffing variables? (n=69)	**1:6.0**	1:0.55	40%	10%

This table shows trends among staffing variables. For example, the number of assistants per RN tends to be smaller on units with a smaller number of patients per RN.

1) Nurse managers, assistant nurse managers/supervisors, and nurse directors reported data for the single med/surg unit they oversee which has the largest number of staff nurses.

Source: Nursing Executive Center, *360-Degree Nurse Staffing Benchmarks*, 2013; Nursing Executive Center interviews and analysis.

The following pages are intended to help nurse leaders make these difficult, and often case-by-case, staffing trade-offs more deliberately. The three moves shown here are the critical components of changing the nursing skill mix while also safeguarding care quality and staffing dollars. The following pages provide additional details on how to accomplish each move.

Making More Deliberate Staffing Trade-Offs

Three Principled Moves

Move #1:

Achieve Top-of-License Nursing Practice

Move #2:

Right-Size the Proportion of RNs in the Skill Mix

Move #3:

Trade a Nursing Position for an Expert RN Role to Improve Unit Performance

Source: Nursing Executive Center interviews and analysis.

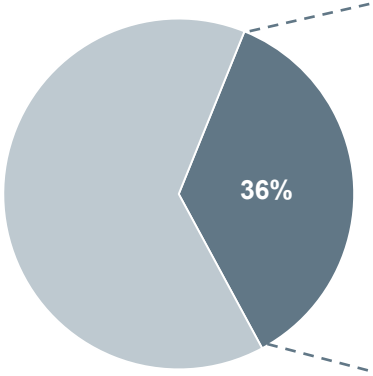
Move #1: Achieve Top-of-License Nursing Practice

It is important for nurse leaders pursuing this path to start with the first move: achieve top-of-license nursing practice. If this isn't tackled first, nurse leaders risk asking RNs to perform work that could otherwise be delegated to support staff. Doing so decreases care team value, because nurse leaders are paying RN wages for work that non-RNs could do—and potentially increases the shortage of available RNs.

For most organizations, there is significant opportunity for improving the ability of RNs to practice at the top of their license. According to one study, on average, medical/surgical nurse managers pay RNs as much as $750,000 per year to perform work that does not require an RN license. By equipping RNs to practice at the top of their license and delegate this type of work to support staff, nurse leaders can significantly reduce these costs, and increase care team value.

Not Taking Full Advantage of the RNs We Have

Nurses' Time Not Spent on "Value-Added" Work[1]



Activities That Other Care Team Members Could Safely Accomplish

- Transporting stable patients
- Scheduling diagnostic tests
- Searching for extra linens
- Fixing non-working equipment
- Carrying specimens to lab

$756,724

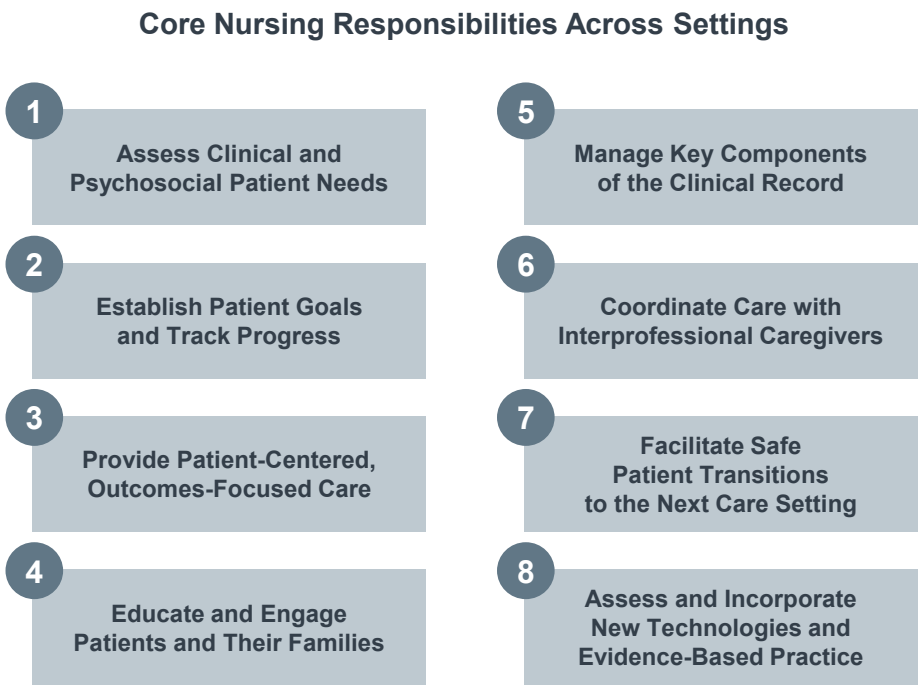
RN wages spent on non-value-added time per med/surg unit

1) Assessing, teaching, providing hands-on care, providing psychosocial support, coordinating care, and documenting care.

Source: Storfjell J, et al., "The Balancing Act: Patient Care Time Versus Cost," *JONA* 38 (2008): 244-249; Nursing Executive Center interviews and analysis.

While there is widespread support for "top-of-license" nursing practice, many organizations have struggled to achieve—or clearly define—this aim. To more clearly define "top-of-license" practice for RNs, Nursing Executive Center researchers identified the eight responsibilities listed here as core to nursing practice, regardless of care setting. The Center encourages nurse leaders to use the list shown to the right as a starting point for a working definition.

Defining "Top-of-License" Practice by Patient Needs



Source: Nursing Executive Center, *Achieving Top-of-License Nursing Practice,* 2013.

While a shared definition of "top-of-license" practice is a helpful foundation, it won't be enough to equip nurses to practice at the top of their license. Regardless of care setting, two key barriers commonly prevent nurses from focusing on their core responsibilities.

The first barrier is that nurses are often the "last line of defense" for ensuring safe patient care. They frequently spend time providing elements of care that could be automated or safely accomplished by another care team member with less training.

The second barrier is pervasive misperceptions about nursing scope of practice. Physicians, interprofessional care team members, and even nurses themselves often don't fully understand nursing scope of practice.

Impeding Nursing Focus on Core Responsibilities

Key Barriers to Achieving Top-of-License Practice

Nurses Are the "Last Line of Defense"

Nurses spend time doing work that could be safely accomplished by another member of the care team or automated

Misperceptions of Nursing Roles

Physicians and other interprofessional care team members don't fully understand nurses' scope of practice

Source: Nursing Executive Center interviews and analysis.

In order to achieve top-of-license practice, nurse leaders need to protect nurses from avoidable "time sinks," by preventing them from spending time on work that could be automated or completed by other care team members safely and more cost-effectively. Nurse leaders also need to remove interprofessional barriers to top-of-license practice by changing perceptions about the type of work nurses should perform—both within and between care settings.

The flowchart shown here contains 20 best practices that will equip nurse leaders to achieve top-of-license nursing practice within their own institutions. This comes from the publication titled *Achieving Top-of-License Nursing Practice*, which can be found on Advisory.com.

After nurse leaders have accomplished Move #1: Achieve Top-of-License Nursing Practice, they may select one or more additional moves from Path #1 to implement at their organization.

Achieving Top-of-License Nursing Practice

Best Practices for Elevating the Impact of the Frontline Nurse

Protect Nurses from Avoidable Time Sinks

1

Streamline Nursing Documentation

1. Right-Sized Up-Front Patient Assessment
2. Safety Sign-On Screen
3. Telephonic Home Health Documentation
4. Med/Surg Biomedical Device Integration

2

Normalize Workflow of Support Staff

5. Staggered Shift Start Times
6. Specialized PCA Roles

3

Cultivate Nurse Willingness to Delegate

7. PCT Clinical Ladder
8. Nurse-Led PCT Training
9. RN Delegation Buddies
10. Automated Patient Request Triaging

Remove Interprofessional Barriers to Full Scope of Nursing Practice

4

Enhance Interprofessional Understanding of Nursing's Role

11. Interprofessional Communication Pledge
12. Unit-Based Clinical Leaders
13. Nurse-Medical Student Pairs
14. Interprofessional Student Teams
15. APRN Privilege Database

5

Expand Nurse Clinical Decision Making to Provide Timely Patient Care

16. Unified Care Plan Development
17. Nurse-Driven Protocol Starter List
18. Technology-Enabled Nursing Practice Expansion

Broaden Nursing's Focus Beyond a Single Setting

19. SNF Transfer Expert
20. Nurse-Led Interim Care

Source: Nursing Executive Center, *Achieving Top-of-License Nursing Practice,* 2013.

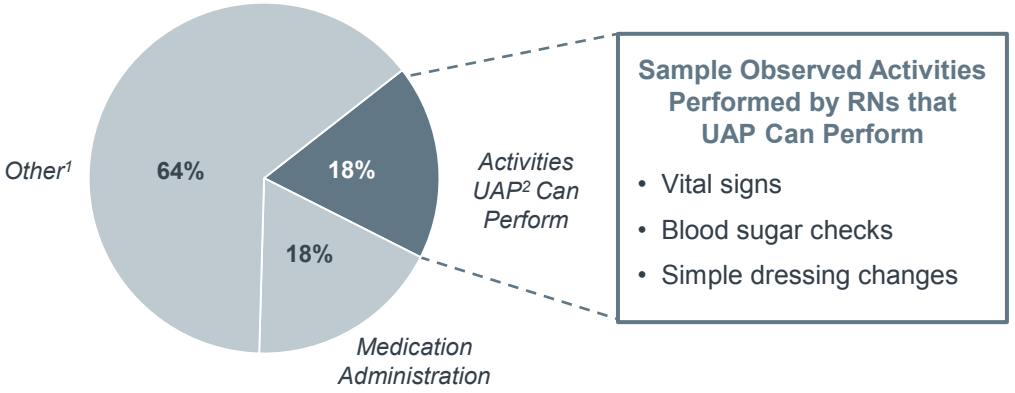
Move #2: Right-Size the Proportion of RNs in the Skill Mix

The second move in this path is to right-size the proportion of RNs in the skill mix. In the push towards top-of-license practice, some organizations find their RNs don't have enough support staff to whom they can delegate non-RN responsibilities.

As an example of the size of this opportunity, nurse leaders at Inova Health System in Falls Church, Virginia, found their RNs spent 18% of their time on care activities that unlicensed personnel could safely provide, such as vital signs, blood sugar checks, and simple dressing changes.

RN-Heavy Skill Mix Inhibiting Top-of-License Practice

Distribution of Observed RN Time by Activity at Inova



Case in Brief: Inova Health System

- Five-hospital system based in Falls Church, Virginia
- In 2010, began planning to change nursing care model across system; goal to design model that supports increased safety and efficiency, reduces costs, enhances the role of the professional nurse
- Leaders used Lean techniques and simulation technology to determine optimum nursing skill mix
- Team members in new nursing model include RNs, clinical tech 1s, and clinical tech 2s; clinical tech 1s are unlicensed; clinical tech 2s are LPNs
- Clinical tech 1s and 2s complete mandatory three-week "CT Academy," with didactic lectures, technical demonstrations, and hands-on training; clinical tech 2s receive additional training for advanced skills; staff RNs participate in training on effective team management, task delegation
- In 2011, individual nursing units implemented new nursing care model on rolling basis; proportion of RNs in skill mix decreased from system-wide average of 82% in 2010 to 73% in 2011; health system average proportion of RNs in skill mix on med/surg units currently 65%
- Labor savings of approximately $10 million per year across the system with new nursing model
- From 2010 to 2012, system-wide pressure ulcer occurrence decreased by 80% (20 to 4), number of falls and trauma across system decreased by 47% (30 to 16), and system-wide central line infection occurrence decreased by 42% (62 to 36)

1) Other services include: care coordination, shift assessments, walking, rounds/huddles/handoffs, breaks, outliers, admission assessments, information review and planning, discharge, blood draws, IV starts, and wound care.
2) Unlicensed assistive personnel.

Source: Source: Inova Health System, Falls Church, VA; Swick M and Doulaveris P, "Application of Simulation Technology to Enhance the Role of the Professional Nurse," *JONA*, 42 (2012): 95-102; Swick M, et al., "Model of Care Transformation: A System CNE's Journey," *Nursing Administration Quarterly*, 36 (2012): 314-319; Nursing Executive Center interviews and analysis.

There are three steps for successfully right-sizing the proportion of RNs in the skill mix, shown here. The following pages provide additional details about each step.

Thoughtfully Decreasing the Proportion of RNs

Three Steps for Safely Changing the Inpatient Nursing Skill Mix

1. **Determine the Appropriate Proportion of RNs and Support Staff**
2. **Train Nursing Staff to Safely Deliver Care as a Team**
3. **Gradually Transition to New Skill Mix**

The first step for safely changing the nursing skill mix is to determine the appropriate proportion of RNs and support staff. There are three factors nurse leaders should consider: the first is benchmarks from similar units; the second is unit-specific attributes, such as patient acuity and ADT; and the third is the skill-level of current support staff.

Step 1: Determine the Appropriate Proportion of RNs and Support Staff

Three Factors to Consider When Determining Appropriate Skill Mix

Benchmarks

Average skill mix levels of comparable units can provide guidance on appropriate range for proportion of RNs

Unit Attributes

Unit-specific characteristics, including patient acuity and ADT[1], can impact appropriate proportion of RNs

Support Staff Skill Level

Support staff can have various levels of educational preparation, training, and certification; units with less-skilled support staff may need higher proportion of RNs

1) Admissions, discharges, transfers.

Source: Nursing Executive Center interviews and analysis.

To determine the appropriate proportion of RNs and support staff, nurse leaders at Inova used computer simulation software. The software allowed them to test the effects of different inputs—including the number of patients on the unit, staffing mix and skill level—on the unit's outputs, such as nursing labor cost and value-added time. After testing 129 scenarios, leaders at Inova determined the skill mix that resulted in the most favorable outcomes.

Simulating 129 Versions of the Team to Find the Right Inpatient Nursing Skill Mix

Inova's Simulation Model

Inputs

- Number of patients presenting to unit
- Average patient time on unit
- Required care for patient
- Staffing mix and level[1]
- Professional practice technique[2]

Outputs

- Patient time waiting for care
- RN professional service proportion[3]
- Nursing labor cost
- Value-added time[4]
- Waste time[5]

Study in Brief: Application of Simulation Technology to Enhance the Role of the Professional Nurse

- Computer simulation study of nursing care delivery models with varying staffing levels, skill mixes, and professional practice techniques
- Goal to test impact of different models on patient wait times, RN service proportion[1], percentage of RN time spent on value-added and wasteful care activities, and cost
- 52-bed adult medical unit at Inova Alexandria Hospital used as basis for simulation design; baseline staffing mix of 77% RN and 23% unlicensed assistive personnel (UAP)
- 18 nurses on unit in baseline care delivery model spent 18% of their time on services that could have been provided by UAP and an additional 18% of their time administering medications
- Authors tested 129 two-week simulated nursing care delivery models with varied levels of RNs, LPNs, and UAP; simulations run through Micro Saint software; scenarios based on mean patient census of 45
- Authors report most favorable impact on combination of mean patient wait times, RN service proportion, percentage of RN time spent on value-added activities, and cost when skill mix included RNs, LPNs, and UAP

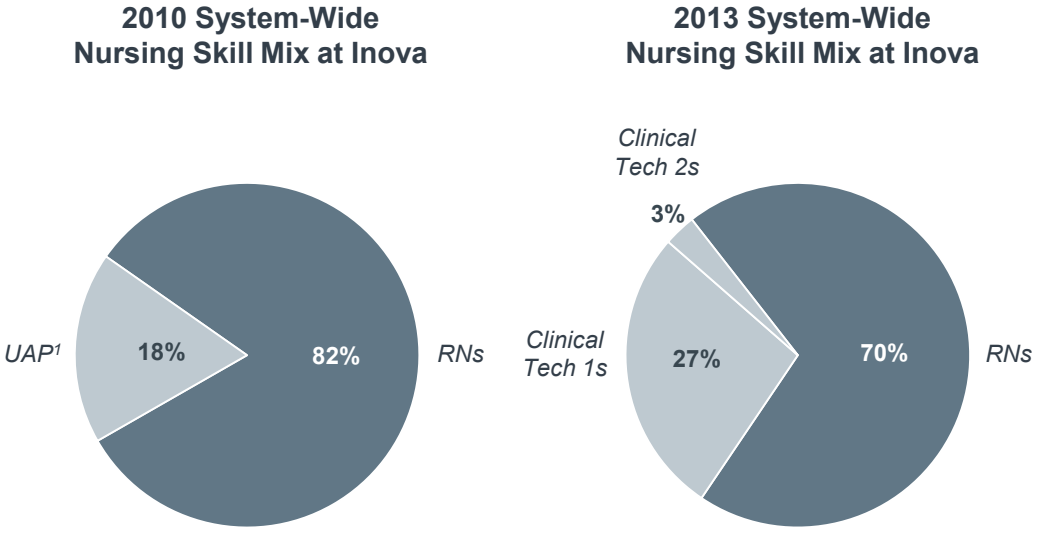
1) Number of RNs, LPNs, and unlicensed assistive personnel.
2) Whether RNs focused only on RN-specific activities or also focused on nursing activities that do not require an RN license.
3) Proportion of services provided by RNs that require an RN-specific skill set.
4) RN time spent performing services that require an RN-specific skill set.
5) RN time spent performing unnecessary activities or services that could be performed by others.

Source: Inova Health System, Falls Church, VA; Swick M and Doulaveris P, "Application of Simulation Technology to Enhance the Role of the Professional Nurse," *JONA*, 42 (2012): 95-102; Nursing Executive Center analysis.

After completing their computer modeling, leaders at Inova reduced the system-wide average nursing skill mix from 82% RNs to 70% RNs.

Inova's inpatient nursing care teams are now comprised of three roles: an RN, a clinical tech 2 (LPN), and a clinical tech 1 (unlicensed assistive personnel). Each care team member is accountable for specific patient care responsibilities.

Adjusting the Inpatient Nursing Skill Mix at Inova



1) Unlicensed assistive personnel.

Source: Swick M and Doulaveris P, "Application of Simulation Technology to Enhance the Role of the Professional Nurse," *JONA*, 42 (2012): 95-102; Inova Health System, Falls Church, VA; Nursing Executive Center interviews and analysis.

Key responsibilities for each of Inova's inpatient nursing roles are shown here.

While it is important to clarify exactly what each individual is responsible for, it is equally important to clarify what each individual is not responsible for. At Inova, nurse leaders determined that medication administration should not always be the primary responsibility of the RN. On some units, medication administration is now performed by clinical tech 2s, or LPNs. Leaders at Inova attribute part of their success to the specialized training on medication administration they provide to LPNs.

A complete version of Inova Health System's Clinical Tech 1 and Clinical Tech 2 job descriptions can be accessed through an online version of this publication on advisory.com/nec.

Three Roles on Inova's Nursing Team

Inova's Inpatient Nursing Roles

	Nurse	Clinical Tech 2	Clinical Tech 1
Required Licensure:	RN	LPN	None
Key Functions:	• Performs assessments • Develops care plan • Coordinates care • Delegates to clinical techs • Educates patients, families	• Administers prescribed medications, therapies, and treatments in accordance with LPN scope of practice, Inova policy/ procedures as directed by RN • Provides direct patient care under direction and supervision of RN	• Provides basic activities of daily living nursing care (e.g., bathing, feeding) • Measures vital signs and intake/output

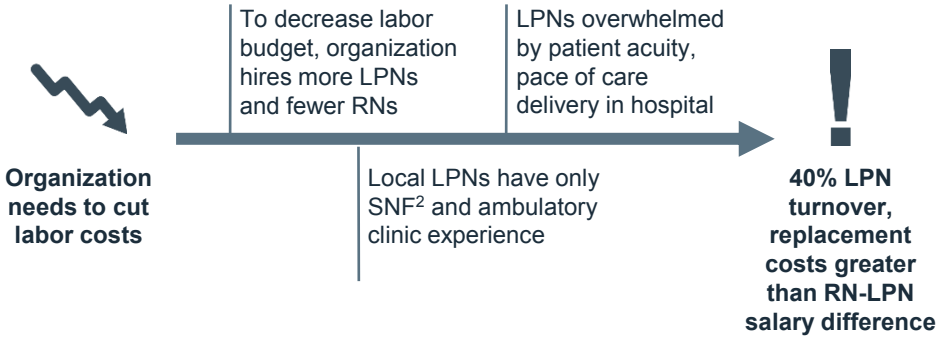
Source: Swick M and Doulaveris P, "Application of Simulation Technology to Enhance the Role of the Professional Nurse," *JONA*, 42 (2012): 95-102; Inova Health System, Falls Church, VA; Nursing Executive Center interviews and analysis.

Before introducing LPNs or changing their responsibilities, it is important to consider their level of training and experience.

At Rydell hospital, a pseudonym, leaders decreased the percentage of RNs in the workforce and increased the percentage of LPNs in an attempt to cut labor costs. However, the LPNs they hired only had experience in skilled nursing facilities and ambulatory clinics. As a result, many became overwhelmed by the level of patient acuity in the hospital, leading to high LPN turnover—40% of newly hired LPNs left within their first month. The resulting replacement costs were greater than the initially projected savings from the RN-LPN salary difference.

LPNs Don't Always Lead to Lower Costs

Timeline of Introducing LPNs at Rydell Hospital[1]



Case in Brief: Rydell Hospital

- 500-bed community hospital in the Southeast
- In 2011, hospital faced substantial financial pressure; to meet labor budget expectations, organization hired more LPNs and fewer RNs
- LPNs hired to fill hospital positions only had prior experience in SNFs and ambulatory clinics; newly-hired LPNs overwhelmed by patient acuity and pace of care delivery in hospital
- 40% of newly hired LPNs left hospital within first month; replacement costs outweighed savings from lower LPN salaries

1) Pseudonym.
2) Skilled nursing facility.

Source: Nursing Executive Center interviews and analysis.

To help leaders avoid the pitfall described on the previous page, the prerequisites for successfully deploying LPNs on inpatient nursing teams are shown here. The first prerequisite is a local market in which LPN wages are lower than RN wages. The second is a local LPN nursing school program that exposes LPNs to the acute care environment. The third is sufficient RN oversight to ensure LPNs are practicing within their scope. The fourth is adequate RN experience needed to delegate and oversee LPNs appropriately.

Prerequisites for Safely Including LPNs on the Inpatient Nursing Team

Necessary Conditions for Successful Deployment of LPNs

- **Local market** favors LPN hires; LPN wages are considerably lower than RN wages
- **Schools** in region offer LPN programs; opportunities available to partner with schools for LPN rotations in acute care
- **RN oversight** of LPNs is sufficient to ensure LPNs practice within the scope of their license
- **RN experience** is adequate to manage delegation responsibilities with LPNs

The second step in successfully right-sizing the proportion of RNs in the skill mix is to train nursing staff to safely deliver care as a team. Inova's training has two key components, listed here. The first component is role-specific training. For example, clinical techs attend a mandatory three-week Clinical Technician Academy before starting work. Clinical tech 2s receive training for advanced skills, and RNs receive additional training on team management and delegation.

The second component is a demonstrated skill sign-off process for clinical techs. Additional details about this component are provided on the next page.

Step 2: Train Nursing Staff to Deliver Care as a Team

Key Components of Inova's Training

Role-Specific Training

- Clinical tech 1s and 2s complete mandatory three-week "CT[1] Academy" with didactic lectures, technical demonstrations, and hands-on training
- Clinical tech 2s receive additional training for advanced skills
- Staff RNs participate in training on effective team management and task delegation

Demonstrated Skill Sign-Off

- Clinical techs must successfully perform a specified number of patient care activities under RN supervision on unit before performing independently
- Required clinical tech demonstrations include IV catheter insertion, urinary catheter insertion, and phlebotomy

1) Clinical Technician.

Source: Inova Health System, Falls Church, VA; Swick M, Doulaveris P and Christensen P, "Model of Care Transformation: A System CNE's Journey," *Nursing Administration Quarterly*, 36 (2012): 314-319; Nursing Executive Center interviews and analysis.

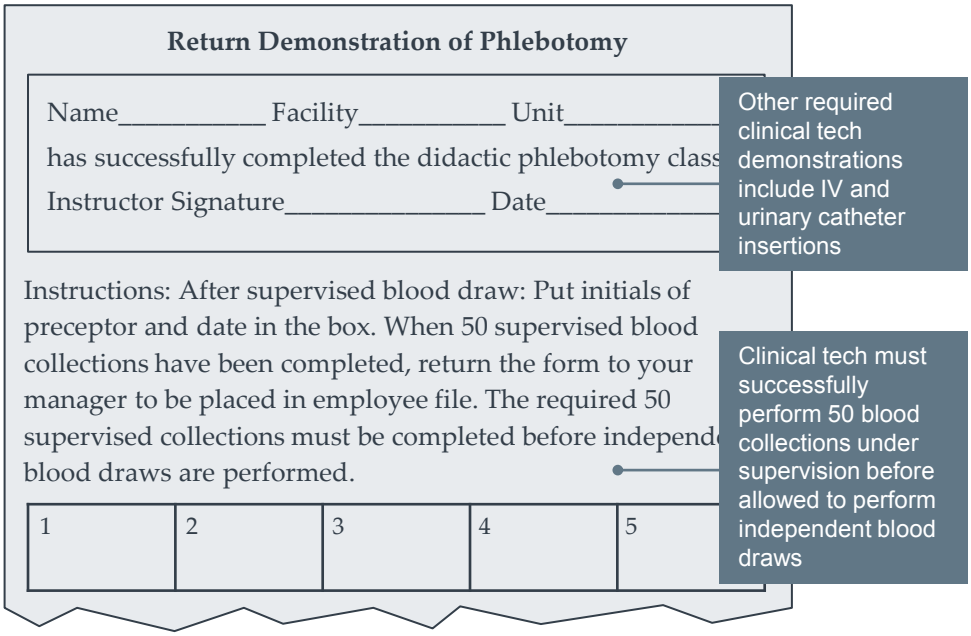
Leaders at Inova ensure support staff are competent and that RNs can trust them to safely perform delegated work. Inova uses a rigorous skill sign-off process for key responsibilities, including blood draws, IV insertions, and urinary catheter insertions, to ensure clinical techs can demonstrate a minimum competency level.

A sample clinical tech skill sign-off tracking sheet from Inova for phlebotomy is shown here. Notably, clinical techs are required to successfully perform 50 blood collections under supervision before they are able to perform them independently.

A complete version of Inova Health System's Return Demonstration Phlebotomy Tracking Sheet can be accessed through an online version of this publication on advisory.com/nec.

Demonstrated Skill Sign-Off

Sample Clinical Tech Skill Sign-Off Tracking Sheet at Inova



Source: Inova Health System, Falls Church, VA; Nursing Executive Center interviews and analysis.

Another option for reinforcing the appropriate scope for each team member is to clarify caregiver roles to both patients and staff. Sample tactics for signaling each team member's role are shown here.

At Inova, RNs, clinical tech 1s and clinical tech 2s each wear different scrub colors. Inova also uses a different title for LPNs. Formally calling them "clinical tech 2s" helps prevent team members and patients from confusing them with RNs.

Clarifying Who's Who on the Care Team

Sample Tactics for Signaling Each Team Member's Role to Patients and Staff

Title

Using a different title to refer to LPNs reinforces they are not RNs

Standardized Introductions

Nursing team members share name, title, and patient care responsibilities when introducing themselves to patients, families

ID Badge

Role is clearly visible on ID badge, with a color-coded band corresponding to each role

Scrub Color

Each nursing role has a unique, standard scrub color across organization

Source: Inova Health System, Falls Church, VA; Nursing Executive Center interviews and analysis.

The third step for right-sizing the proportion of RNs in the skill mix is to gradually phase in changes over many years. The timeline shown here depicts Inova's gradual transition to their target skill mix. Notably, no RNs at Inova were laid off to achieve this new skill mix. Instead, when RN positions opened due to natural turnover, nurse leaders deliberately did not backfill all RN positions.

Step 3: Gradually Transition to New Skill Mix

Timeline of Skill Mix Change at Inova

2010

- New System CNE[1] joins Inova, begins planning to change nursing care model across system
- Leaders conduct simulation study to determine optimum skill mix
- Leaders set target proportion of RNs in skill mix to 70%
- System-wide average proportion of RNs in skill mix **82%**

2011

- New job postings, hiring plans reflect desired nursing skill mix from simulation study
- Individual units start implementing new nursing care model on rolling basis
- System-wide average proportion of RNs in skill mix **73%**

2012

Individual units across system continue adjusting skill mix toward target levels

2013

Each of five Inova hospitals expected to reach target proportion of **70%** RNs in skill mix by end of year

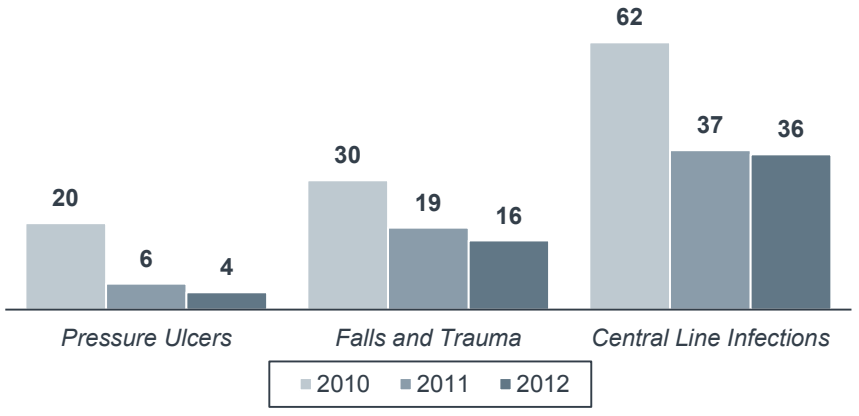
0

Number of RN layoffs at Inova to reach target skill mix

Changing the skill mix at Inova had no negative impact on quality. In fact, during the time of the skill mix reduction, Inova improved several nurse-sensitive quality metrics. As shown here, Inova's leaders have reported fewer pressure ulcers, falls, and central line infections.

Maintaining Quality While Changing Skill Mix at Inova

Number of Occurrences of Nurse-Sensitive Patient Safety Events Across System



82%

Percentage of RNs in nursing skill mix in 2010

73%

Percentage of RNs in nursing skill mix in 2011

1) Chief Nurse Executive

Source: Inova Health System, Falls Church, VA; Swick M, Doulaveris P and Christensen P, "Model of Care Transformation: A System CNE's Journey," *Nursing Administration Quarterly*, 36 (2012): 314-319; Nursing Executive Center analysis.

Move #3: Trade a Nursing Position for an Expert RN Role to Improve Unit Performance

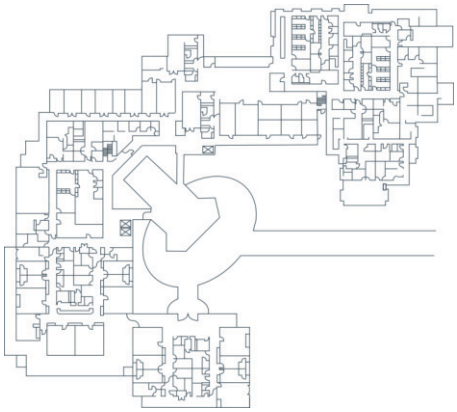
The third move for changing the nursing skill mix is trading a bedside nursing position for an expert RN role focused on improving unit performance.

The rationale for this move is bedside RNs can often lack situational awareness within and beyond their unit for all the reasons shown here—including high patient complexity and high levels of patient turnover. This lack of situational awareness can lead to system-wide inefficiencies. For example, a nurse may send patients to the radiology department without knowing that heavy demand has created a two-hour wait time for imaging procedures.

To overcome bedside RNs' lack of situational awareness, some organizations are creating expert RN roles designed to "helicopter" over units and proactively spot problems that bedside RNs may fail to identify. These expert RNs also work with the interprofessional team, patients, and families to enable the care team to deliver greater value.

Staff RNs Lacking a "Birds-Eye" View of the Unit

Barriers to RN Situational Awareness of Unit Activity



- Increased complexity of care and patients
- High volume of ADT[1]
- Narrow focus on own patient assignment

Situational Awareness Mission Critical

"Situational awareness is the ability to identify, process, and comprehend the critical elements of information about what is happening to the team with regard to the mission. More simply, it's knowing what is going on around you."

1) Admissions, discharges, transfers.

Source: United States Coast Guard, U.S. Department of Homeland Security, "Team Coordination Training Student Guide," http://www.uscg.mil/auxiliary/training/tct; Nursing Executive Center interviews and analysis.

The following pages provide greater detail on two emerging expert RN roles: the Attending RN role and the Clinical Nurse Leader (CNL) role. Both roles are structured to solve unit-level challenges rather than receive a direct patient assignment. The Attending RN helps manage all patients on a specific unit and overcomes communication gaps between nursing and other interprofessional caregivers. The CNL improves care for a specific patient population.

Each role shares the three key components listed here. First, they do not carry a patient assignment (to ensure time for unit-level oversight). Second, they provide in-the-moment bedside coaching. Third, the staff hired into these roles have demonstrated a high degree of expertise.

The following pages provide examples of how organizations are benefitting from these unit-based expert RN roles.

Designating an Expert RN to Improve Unit Performance

Key Components of Unit-Based Expert RN Role

No Patient Assignment

To protect time for unit-level oversight, no direct patient assignment for expert RN

"At-the-Elbow" Guidance for Staff RNs

Expert RN easily accessible to staff nurses on unit; provides in-the-moment advice, coaching to frontline nurses

Demonstrated Expertise

Expert RN has proven expertise, typically through combination of experience, educational preparation, and performance

Source: Nursing Executive Center interviews and analysis.

In May 2013, nurse leaders at Riley Hospital for Children in Indianapolis, Indiana, significantly reduced the proportion of RNs on a unit typically staffed by a high percentage of inexperienced RNs. Following the change in skill mix, leaders piloted the Attending RN role as a resource for the inexperienced nursing team.

In addition to the key components listed on the previous page, leaders at Riley Hospital for Children feel the attributes listed on this page are essential for successful deployment of Attending RNs. First, attending RNs must have five or more years of direct care nursing experience. Second, they must be able to engage with individual patients and families to help them achieve their goals. Third, Attending RNs must possess strong interpersonal skills, clinical leadership, and an ethic of responsibility.

Recognizing the Need for an Attending RN Role at Riley Hospital for Children

Reasons for Introducing the Expert RN Role at Riley

- Significant skill mix change
- High percentage of inexperienced RNs

Essential Attributes of Attending RNs at Riley

- Five or more years of direct care nursing experience
- Ability to engage with individual patients, families to help them achieve their goals
- Strong interpersonal skills, clinical leadership, and ethic of responsibility

Case in Brief: Riley Hospital for Children

- 430-bed children's hospital in Indianapolis, Indiana; part of Indiana University Health
- In May 2013, piloted new nursing care team model on 24-bed pulmonary unit; to promote top-of-license practice, new model decreased proportion of RNs in skill mix from 95% to 70%
- Attending RN part of new nursing care team; goal of role is to provide expert clinical oversight
- Since implementing Attending RN role on pulmonary pilot unit, average LOS decreased by 26% from 5.8 to 4.3 days; readmission rate decreased from 13% to 6%

Source: Riley Hospital for Children, Indianapolis, IN; Nursing Executive Center interviews and analysis.

When introducing a new role, it is vital to define what responsibilities staff in the new role will—and will not—carry out. Leaders at Riley Hospital for Children determined the Attending RN is responsible for mentoring less-experienced nurses, bridging communication gaps between nursing and the larger interprofessional care team, and addressing clinical barriers that could delay patient discharge. Attending RNs are not responsible for assigning patients to staff, coordinating staff scheduling, conducting evaluations, or managing a budget.

While the charge nurse and nurse manager roles at the Riley Hospital for Children maintain an operational focus, the Attending RN is the sole unit-based leader who has an exclusively clinical focus.

Defining Clear Boundaries for the Attending RN Role

Responsibilities of Unit-Based Nursing Positions at Riley

Area of Focus	Role	Responsibilities
Operational Focus	Charge Nurse[1]	• Assigns patients to RNs • Coordinates staff scheduling • Conducts quality assurance audits • Assists unit manager with operational duties
	Nurse Manager	• Regularly updates staff on unit performance, communicates strategies to improve performance • Manages budget • Hires staff and coordinates training • Conducts staff evaluations • Develops unit policies and procedures
Clinical Focus	Attending RN	• Mentors and coaches less-experienced nurses • Bridges communication gaps between nursing and interprofessional caregivers • Proactively identifies and resolves barriers to timely patient progression to next care setting

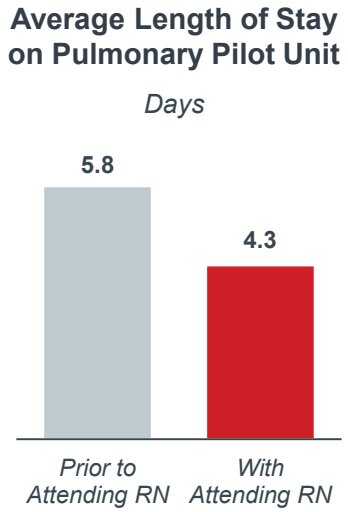
Source: Riley Hospital for Children, Indianapolis, IN; Nursing Executive Center interviews and analysis.

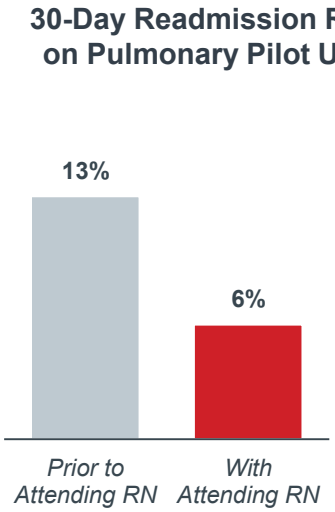
1) Also referred to as "Day Shift Coordinator" at Riley Hospital for Children.

Early evidence suggests the CNL role is improving value for Riley Hospital for Children. As shown in the graphs, since piloting the role on a pulmonary unit, Riley has seen impressive drops in length of stay and readmissions, in addition to outstanding quality metrics.

Based on these strong results, Riley introduced the Attending RN role on a second unit and is planning to implement the role on all eight medical/surgical units across the organization. While the main functions of the role will be similar across units, leaders will allow each unit to tailor the role to each individual unit's needs.

Improving Value at Riley Hospital for Children





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Number of hospital-acquired pressure ulcers in 2013[1]

0

Number of central line-associated bloodstream infections in 2013[1]

1) January-September.

Source: Riley Hospital for Children, Indianapolis, IN; Nursing Executive Center interviews and analysis.

The second unit-based RN expert role we will examine is the Clinical Nurse Leader (CNL) role. The CNL is an expert RN whose aim is to help the interprofessional team improve care for a specific patient population. Key attributes of the CNL role are listed here. Unlike the Attending RN role, CNLs are Master's-prepared and have a formal credential from the American Association of Colleges of Nursing (AACN).

While the role is relatively new (it was developed in 2003), there are currently now more than 100 academic CNL programs and almost 3,000 board-certified CNLs in the United States.

Leveraging the Clinical Nurse Leader Role

Key Functions of the CNL Role

- **Clinical care coordinator** for a specific population, most often on a particular unit
- **Outcomes manager** of specific outcomes for the population
- **Educator and mentor** for staff nurses through one-on-one coaching and just-in-time intervention
- **Care team leader** responsible for helping all staff learn about quality and performance improvement
- **Advocate** for patients, families, and staff
- **Information manager** to analyze nursing-sensitive outcomes and processes

2003	107	2,939
Year AACN[1] developed the CNL role	Number of CNL academic programs in the United States	Number of board-certified CNLs in the United States

1) American Association of Colleges of Nursing.

Source: American Association of Colleges of Nursing, Washington, DC; Mercy Health Saint Mary's, Grand Rapids, MI; Nursing Executive Center interviews and analysis.

One organization which has introduced CNLs is Mercy Health Saint Mary's, headquartered in Grand Rapids, Michigan. Seeking to improve unit performance and cost-effectively manage patient outcomes, leaders at Trinity Health partnered with the University of Detroit-Mercy to implement a CNL curriculum. Staff at Saint Mary's are eligible to earn full paid scholarships to attend the 18-month program while also working full time. Upon program completion, newly certified CNLs are placed in a new clinical area to promote their focus on new responsibilities in a new role.

Mercy Health Saint Mary's currently employs 11 unit-based CNLs.

Developing CNLs at Mercy Health Saint Mary's

Key Elements for Developing a CNL Role

Partnership with Local School of Nursing

Implement CNL curriculum to develop expert nurses

Investment in High Performers

Enable high-performing staff to attend school while working full-time by providing scholarships

FTE Neutral

Redesign existing leadership roles to ensure addition of CNLs is FTE neutral

Case in Brief: Mercy Health Saint Mary's

- One-hospital system headquartered in Grand Rapids, Michigan; includes several ambulatory centers; part of CHE Trinity Health
- Trinity Health leaders partnered with the University of Detroit-Mercy to implement CNL curriculum; goal for Saint Mary's to develop expert nurses to cost-effectively manage outcomes and improve processes at unit level
- Trinity Health provided 17 of Saint Mary's staff full-paid scholarships to earn CNL certification through 18-month program at University of Detroit-Mercy; Saint Mary's CNL students worked for health system full-time while attending school
- After completing CNL program, each CNL placed in new clinical area to promote CNL focus on new responsibilities in new role
- Currently 14 CNLs across system; 11 unit based, one in ED, two focused on specific patient populations; unit sizes range from 34 to 46 beds; all CNLs report to Clinical Service Directors
- Addition of CNLs FTE neutral; eliminated assistant nurse manager role, centralized nurse educator role
- Since implementing CNL role on psychiatric medical unit, average length of stay decreased by 21% on unit from 19 to 15 days
- Saint Mary's Trinity Health quality GPA improved from 2.8 in 2010 to 3.7 in 2012 on a four-point scale; GPA in 2012 highest among Trinity Health hospitals of similar size and complexity

Source: Mercy Health Saint Mary's, Grand Rapids, MI; Nursing Executive Center interviews and analysis.

Like Riley Hospital for Children, leaders at Saint Mary's carefully determined what CNLs were and were not responsible for.

At Saint Mary's, the unit-based CNL is responsible for coordinating clinical care, mentoring bedside RNs, and leading interprofessional rounds. The CNL is not responsible for assigning patients to RNs, managing or coordinating unit operations, or conducting a utilization review.

A complete version of Mercy Health Saint Mary's Clinical Nurse Leader Job Description can be accessed through an online version of this publication on advisory.com/nec.

Defining Clear Boundaries for the CNL Role

Responsibilities of Unit-Based Nursing Positions at Saint Mary's

CNL

- Translates, implements evidence into practice
- Develops improvement plans for efficiency and effectiveness
- Mentors and coaches frontline nurses
- Facilitates coordination of clinical care and resource management
- Leads daily interdisciplinary rounds

Charge Nurse

- Assigns patients to RNs
- Facilitates patient flow
- Assists nurse manager with operational duties

Nurse Manager

- Has ultimate responsibility for unit's financial and clinical outcomes
- Manages and coordinates unit operations
- Focuses on professional development of staff
- Provides ongoing performance management
- Develops unit policies and procedures

Nursing Case Manager

- Conducts utilization review
- Coordinates discharge plan and arranges for any needed support
- Ensures correct level of care documented

Source: Mercy Health Saint Mary's, Grand Rapids, MI; Nursing Executive Center interviews and analysis.

Leaders at Saint Mary's ensure CNLs have a clear set of unique responsibilities beginning on their first day in the new role. This table shows how Saint Mary's CNL onboarding process is designed to clarify their unique responsibilities and prevent any confusion or overlap with other nurse leadership roles.

At Saint Mary's, CNL onboarding starts while CNLs are still in school. CNL students work full-time for Saint Mary's while earning their degrees. Upon graduation, they are placed on new, unfamiliar units to prevent them from reverting to their former roles as staff RNs or nurse educators. CNLs also meet monthly as a cohort to share best practices and interact with Lean consultants from the organization to discuss process improvement efforts.

Setting CNLs Up for Success at Saint Mary's

Differentiating Factors in Saint Mary's CNL Onboarding Process

	Status Quo	Saint Mary's
Start of Orientation	First day in new role	• CNL students work full-time at Saint Mary's while attending school, academic projects geared around specific organizational issues • While in school, CNL students paired with Master's-prepared director to serve as mentor and a Lean consultant to provide process improvement support
Placement	"Familiar" area of expertise	• After completing CNL program, each CNL placed in new clinical area even if not area of clinical expertise; goal to promote CNL focus on new responsibilities and prevent CNLs from reverting to former responsibilities
Duration	A few weeks or months	• Standing monthly meetings with all CNLs, director lead, and CNO to discuss role, challenges, and share best practices • Lean consultants provide ongoing individual CNL support

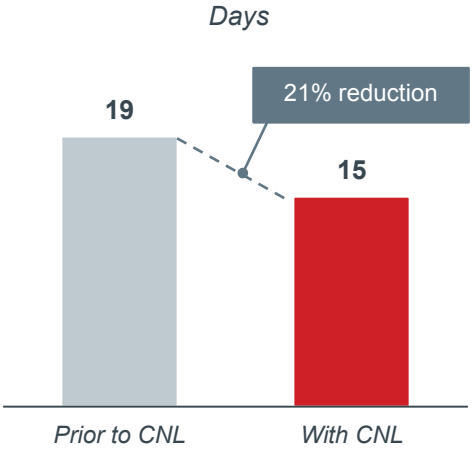
Source: Mercy Health Saint Mary's, Grand Rapids, MI; Nursing Executive Center interviews and analysis.

The impact of the CNL role on the psychiatric medical unit at Saint Mary's is shown here.

To address the increasing number of patients admitted to the psychiatric medical unit with end-stage dementia, the unit's CNL partnered with other CNLs to develop an algorithm to direct patients to the most appropriate care setting. As a result, length of stay decreased by more than 20%.

CNL Role Improving Value at Saint Mary's

Average Length of Stay on Psychiatric Medical Unit



The unit-based expert RN roles discussed on the previous pages did not require investment of new funds. Instead, the profiled organizations reallocated existing FTEs into these positions.

The table shown here compares the trade-offs made by two organizations implementing an expert RN role. Riley Hospital for Children added the Attending RN role as part of a comprehensive care team overhaul. Mercy Health Saint Mary's added the CNL role by eliminating the assistant nurse manager position and converting other positions into CNLs.

Adding an Expert RN Role Without Increasing FTEs

Staffing Trade-Offs Made to Add Expert RN Role

New Expert RN Role	Organization	Staffing Trade-Off
Attending RN	Riley Hospital for Children	• **Comprehensive role redesign involving all unit-based care team members** • **Decreased proportion of RNs in nursing skill mix from 95% to 70%**
Clinical Nurse Leader	Mercy Health Saint Mary's	• **Eliminated assistant nurse manager role, freeing up six FTEs[1]** • **Converted palliative care coordinator, diabetes outpatient educator, and two nurse educators to CNLs[2]**

1) Of the six assistant nurse managers, four entered the CNL program, one transitioned to an educator role, and another moved back to a staff nurse role.
2) Growth in patient volumes covered remaining CNL FTEs.

Source: Mercy Health Saint Mary's, Grand Rapids, MI; Riley Hospital for Children, Indianapolis, IN; Nursing Executive Center interviews and analysis.

The guidance listed on this page aims to help nurse leaders identify which moves within Path #1 will deliver the greatest value to their organization.

Nurse leaders pursuing this path must first implement Move #1 before implementing the other two moves. Otherwise, leaders run the risk of having RNs spend time on support staff-level work, and leaving them without adequate time to perform work only RNs can do. Notably, nurse leaders do not have to implement every move from this path in order to deliver greater value. Nurse leaders can implement only the first move and significantly improve care team value, and can further improve value by implementing the second or third move (in either order).

Identifying Which Move to Make

At Your Organization, If…	…Make This Move:
❑ Other caregivers don't understand the full scope of nursing's role ❑ Nurse clinical decision making is limited by organizational policies	→ #1 Achieve Top-of-License Nursing Practice: Remove Interprofessional Barriers to Full Scope of Nursing Practice
❑ Nurses don't have support staff available in-the-moment to delegate to ❑ Nurses hesitate to delegate to support staff	→ #1 Achieve Top-of-License Nursing Practice: Protect Nurses from Avoidable Time Sinks
❑ There aren't enough support staff on the unit to complete non-RN work	→ #2 Right-Size the Proportion of RNs in the Skill Mix
❑ Discharges are often delayed due to lack of coordination with other departments ❑ Unit has a high percentage of inexperienced frontline caregivers	→ #3 Trade a Nursing Position for an Expert RN Role to Improve Unit Performance

Source: Nursing Executive Center interviews and analysis.

Path #2

Align Interprofessional Goals and Work

- Move #1: Give All Care Team Members the Same Set of Goals
- Move #2: Transfer Work to Specialized Team Members
- Move #3: Gather Physicians and Staff at the Bedside at the Same Time
- Move #4: Keep Teams as Consistent as Possible

Path #2: Align Interprofessional Goals and Work

Path in Brief

To ensure all members of the care team are well coordinated and don't duplicate work (or overlook any needed care), hospital leaders ensure care teams share the same goals, are as consistent as possible, and collaborate in real-time whenever possible.

Underlying Inefficiency This Path Addresses

Caregivers provide discipline-specific elements of care in a piecemeal fashion, leading to duplication, unnecessary work, and gaps in care.

Rationale

Interprofessional team members frequently deliver patient care in silos, rather than as integrated teams. By closely aligning interprofessional goals and work streams, nurse leaders can ensure that care teams are well-coordinated and equipped to deliver higher-quality and more efficient patient care.

Implementation Moves

Nurse leaders may select one or more moves to implement at their organization from the list below.

Move #1: Give All Care Team Members the Same Set of Goals
Nurse leaders give all members of the care team a shared set of interprofessional goals and hold them accountable to those goals through individual performance evaluations. The aim is to ensure that all caregivers are prioritizing the same goals and collaborating to achieve them.

Move #2: Transfer Work to Specialized Team Members
Nurse leaders focus a limited number of team members on specialized work, such as medication reconciliation. The goal is to reduce duplication of efforts and improve care quality and efficiency by creating specialized roles that allow care team members to gain expertise in completing a limited number of responsibilities—rather than diffusing those tasks across the entire care team.

Move #3: Gather Physicians and Staff at the Bedside at the Same Time
Leaders implement highly structured, interdisciplinary bedside care conferences. In-person meetings provide caregivers with an important opportunity to ask clarifying questions in real-time and collaborate in the moment regarding patient care. The goal is to ensure all care team members follow the same plan of care.

Move #4: Keep Teams as Consistent as Possible
Leaders assign a consistent care team to work together across multiple days, based on patient location, patient provider, or medical home panel. The goal is to improve care team consistency and coordination.

Path Assessment

Each move in this path is highly effective for aligning interprofessional goals and work. Nurse leaders can select the moves that best fit their organizational needs, and can implement these moves in any order.

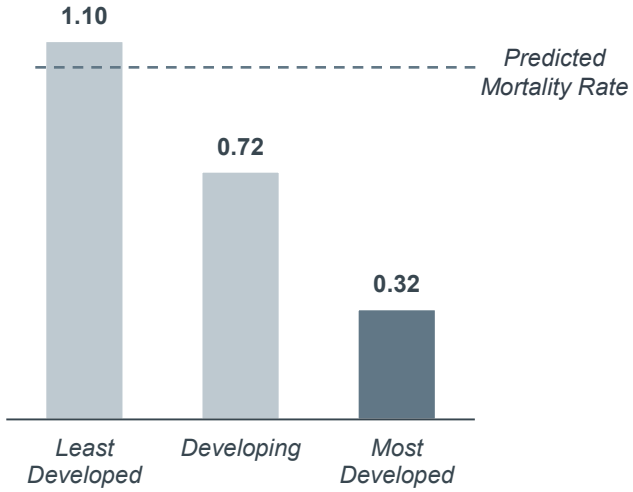
The second path to higher value is aligning interprofessional goals and work. Not surprisingly, strong and well-coordinated interprofessional teams yield better outcomes. According to one study of 17 ICUs, patients cared for by the "most developed" teams had the lowest mortality, as shown here.

While strong interprofessional teams can drive improvements in care quality, they also increase efficiency—as shown on the following page.

Strong Teams Yield Better Outcomes

Standardized Mortality Ratio[1] for Intensive Care Units by Stage of Team Development

n=17 ICUs



Stages in Team Development

- **Least Developed:** Team members follow their assigned leader without question; team goals are not discussed and remain unclear
- **Developing:** Team members frequently disagree about how things should be done and challenge the leader's ideas
- **Most Developed:** Team plans work together, forms subgroups to take on specialized work; team members rely on each other to complete work

1) Standardized mortality ratio (SMR) is the ratio of deaths observed in a study cohort to those expected based on mortality rates of a reference population.

Source: Wheelan SA, et al., "The Link Between Teamwork and Patients' Outcomes in Intensive Care Units," *American Journal of Critical Care,* 12 (2003): 527-534; Liddell FD, "Simple Exact Analysis of the Standardised Mortality Ratio," *Journal of Epidemiology & Community Health,* 38 (1984): 85-88; Nursing Executive Center analysis.

Improving interdisciplinary collaboration increases efficiency by reducing (or eliminating) unnecessary delays, duplication of care, or instances of missed care. An example of the waste caused by poor caregiver collaboration and communication is shown to the right.

Some organizations are attempting to improve interprofessional collaboration by decentralizing some non-nursing staff—such as pharmacists—to nursing units. However, co-locating staff without taking additional steps to improve interprofessional collaboration will not be enough to drive care team value.

Lack of Interprofessional Teamwork Leads to Inefficiency

Source: Nursing Executive Center interviews and analysis.

In order to drive strong interprofessional collaboration, clinical leaders need to address the four primary barriers to delivering efficient and aligned care shown here.

The first barrier is competing caregiver incentives and goals—especially on annual performance reviews. The second barrier is inefficient allocation of work. The third barrier is conflicting daily schedules—RNs, MDs, and other care team members are rarely in the same place at the same time, which makes it difficult to build team cohesiveness. The fourth barrier is that care teams are constantly changing—which makes it challenging to learn the preferences and work styles of other team members.

The following provide detailed guidance on how to overcome each of these barriers.

Align Interprofessional Goals and Work

Source: Nursing Executive Center interviews and analysis.

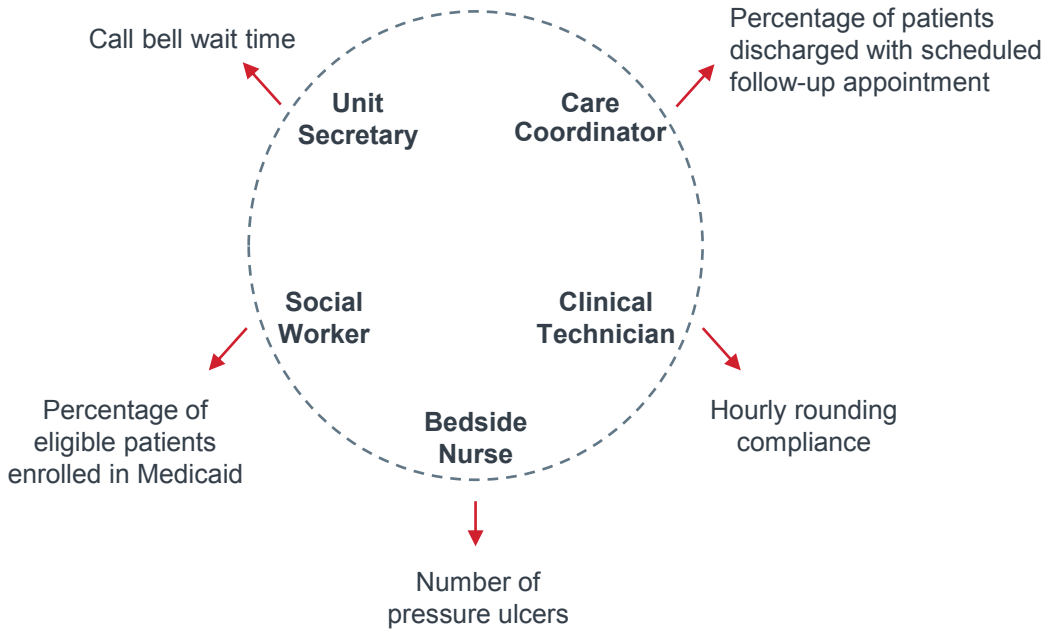
Move #1: Give All Care Team Members the Same Set of Goals

The first barrier to inefficient interprofessional care is that different caregivers have different goals and incentives. Because goals are often cascaded by discipline, caregivers within the same discipline share goals—but often care team members who belong to different disciplines don't. This can result in different members of the care team focusing on different priorities and not working toward a common aim.

The way to overcome this barrier is to ensure all care team members (regardless of discipline) share a common set of goals.

Frontline Goals Not All Pointing in the Same Direction

Sample Discipline-Specific Frontline Goals



Hospitals and health systems have recently begun moving in the direction of shared care team goals, and it is common to see all frontline caregivers sharing a goal focused on HCAHPS performance.

However, this is just a starting point. A single shared goal is not sufficient for improving care team value. To achieve true care team collaboration, interprofessional caregivers must share multiple goals.

One Shared Goal: Necessary, but Not Sufficient

Representative Performance Goals

Hospitalist Performance Goals

1. Average rate of readmission
2. Average length of stay
3. Unit HCAHPS score

Pharmacist Performance Goals

1. Rate of adverse drug events
2. Unit HCAHPS score
3. Number of prescriptions processed

Bedside RN Performance Goals

1. Unit HCAHPS score
2. Hourly rounding compliance
3. Pressure-ulcer rate

Housekeeper Performance Goals

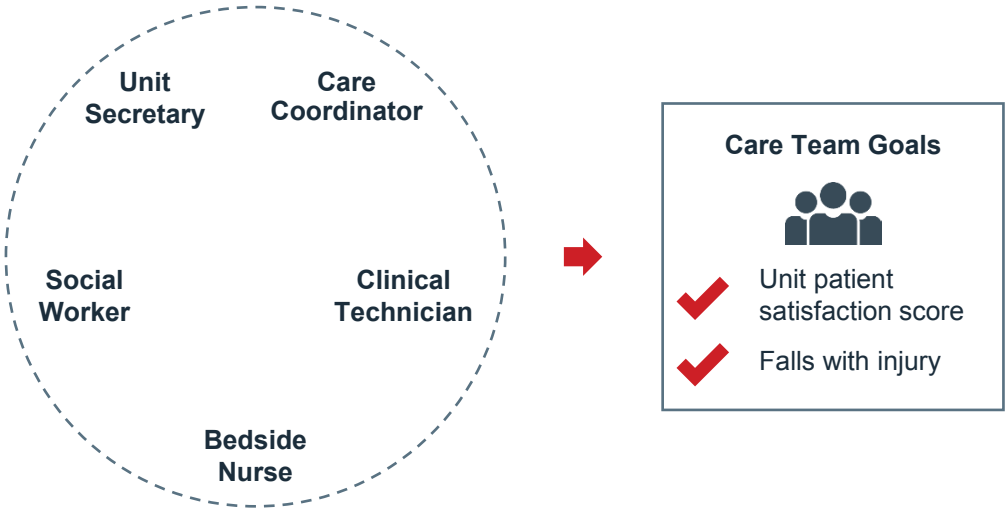
1. Room turnaround time
2. Unit HCAHPS score
3. Rate of hospital-acquired infections

Source: Nursing Executive Center interviews and analysis.

Some leading health care organizations are ensuring frontline care teams share additional goals beyond HCAHPS performance. One example comes from St. Mary's Health Care System in Athens, Georgia. Clinical leaders ensure RNs, clinical technicians, care coordinators, social workers, and unit secretaries all have the same unit-based quality goal on the annual evaluation (in addition to a patient satisfaction goal).

Unit Staff Pursuing the Same Goals at St. Mary's

Interprofessional Frontline Goals at St. Mary's Health Care System



Case in Brief: St. Mary's Health Care System

- Two-hospital health system located in Athens, Georgia; part of CHE Trinity Health
- In 2011, integrated unit performance on service and quality goals into individual frontline performance evaluations of every employee reporting to CNO, including RNs, clinical technicians, care coordinators, social workers, and unit secretaries
- Patient satisfaction scores rose to the 96th percentile after implementing shared goals; St. Mary's achieved 3.6 on CHE Trinity Health's four-point rating scale for overall quality and service

Source: St. Mary's Health Care System, Athens, GA; Nursing Executive Center interviews and analysis.

Identifying Appropriate Team Goals

Perhaps the biggest challenge in ensuring frontline caregivers have at least two identical goals on their annual performance evaluations is selecting the goals. To help nurse leaders identify the most appropriate goals to embed into performance evaluations, the Nursing Executive Center offers the considerations shown here.

First, goals should be measurable at the care team level, enabling all caregivers to be assessed against the same performance criteria. Second, all care team members should be capable of impacting the goal. Third, care team goals should align well with broader organizational goals, as this will help to advance larger strategic aims. Fourth, care team goals should be familiar to all care team members.

Inclusion Criteria for Team Goals in Performance Evaluations

- ✔ Measurable at the care team level
- ✔ Impacted by all care team members
- ✔ Aligned with broader organizational goals
- ✔ Familiar to all care team members

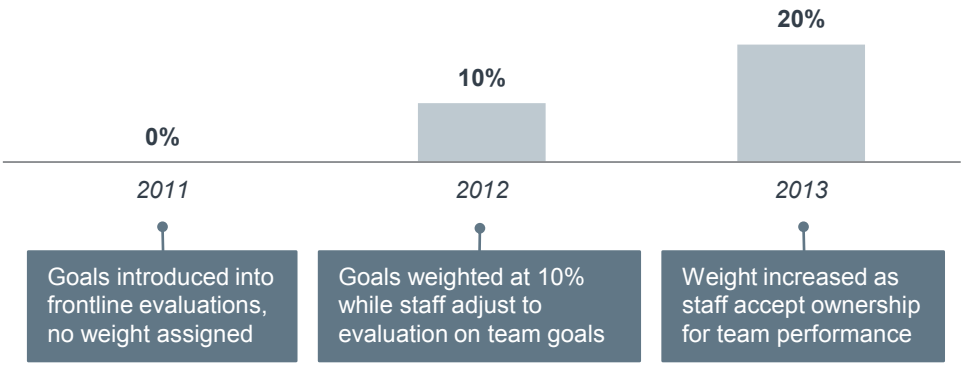
Source: Nursing Executive Center interviews and analysis.

After deciding which metrics to include on performance evaluations, leaders must decide how to assign weight to each metric.

To get caregivers to buy into shared, quantitative goals, leaders should gradually phase in shared goals. An example of how to do so comes from Westerberg Health, a composite health system in the Midwest. In the first year, leaders at Westerberg included team goals in frontline evaluations—but didn't attach any weight to them. In the second year, the weight of the goal was increased to 10% of the overall evaluation. In the third year, the weight was increased to 20%. Gradually increasing the weight of shared goals allowed staff the time to become comfortable with them.

Gradually Increase Goal Weight in Frontline Evaluations

Percentage Weight of Team Goals in Westerberg[1] Performance Evaluations



Case in Brief: Westerberg Health[1]

- Multi-hospital system located in the Midwest
- Team-based performance goals introduced into frontline performance evaluations in 2011, initially weighted at 0%, the weight increased to 10% in 2012 and to 20% in 2013

1) Composite.

Source: Nursing Executive Center interviews and analysis.

Even leaders at unionized organizations should consider adopting shared care team goals. While most unionized organizations won't be able to link compensation to a frontline staff member's annual evaluation, the move still has value. Including shared goals on performance evaluations (and discussing them as part of the annual performance review process) signals their importance to staff.

To help nurse leaders secure union acceptance of team goals in performance evaluations, we have included the guidance listed on this page.

Secure Union Acceptance of Team Goals in Performance Evaluations

Implementation Guidance for Unionized Organizations

Ensure Consistent Goal Selection and Evaluation

- Use the same evaluation tools for all frontline staff
- Use the same goal selection process; set goals of similar complexity across like staff
- Standardize managers' evaluation of progress toward goals
- Standardize frontline appraisal process and structure of qualitative feedback

Include Goals in Evaluations Without Linking to Pay

- Including team goals in individual performance evaluations can have strong signal value, even without linking performance on goals to pay
- Further incentivize team performance by recognizing high performers and offering non-monetary rewards

The Nursing Executive Center should not be relied upon for legal advice; organizations are encouraged to seek legal counsel for any collective bargaining agreement considerations.

Source: HR Investment Center, *Hardwiring Accountability at the Front Line,* 2012; Nursing Executive Center interviews and analysis.

Move #2: Transfer Work to Specialized Team Members

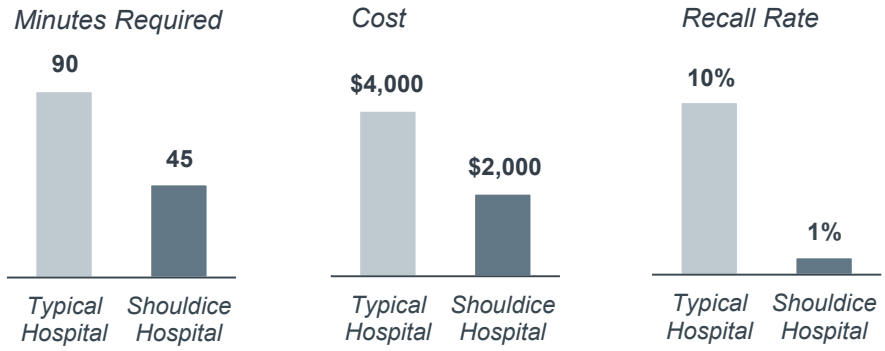
The second barrier to efficient interprofessional care is asking each caregiver to be a "jack of all trades." Members of the care team are often expected to serve as generalists and must be able to perform many different types of work.

Yet, a basic economic principle is that specialization leads to greater efficiency. The bar graphs on this page illustrate this principle. Shouldice Hospital, a Canadian specialty hospital solely focused on repairing hernias, operates twice as fast, at half the cost, with significantly better outcomes, than a typical hospital.

Accordingly, the second move for aligning interprofessional goals and work is to transfer work to specialized team members.

Specialization Improves Efficiency

Improvements in the Cost and Quality of Hernia Repair at a Specialized Hospital



Case in Brief: Shouldice Hospital

- 89-bed specialty hospital located in Ontario, Canada, focused exclusively on hernia repairs; more than 7,000 hernias repaired annually
- Hernia repairs completed in approximately half the time of a typical hospital (45 minutes compared to 90), at approximately half the cost ($2,000 compared to $4,000), with 90% fewer recalls (1% compared to 10%)

Source: Gawande A., *Complications: A Surgeon's Notes on an Imperfect Science,* Great Britain: Bookmarque, Croydon, Surrey, 2007, 39; Nursing Executive Center analysis.

Identify Top Opportunities for Specialization

The first step in transferring work to specialized team members is to identify work that would benefit from specialization. To help leaders identify top opportunities for specialization, we have included the criteria shown here.

Leaders should consider specializing work that is complex, completed by many caregivers (but only as a small portion of each of their jobs), and contributes to delays in care if not completed quickly and accurately.

Criteria for Work Appropriate for Specialization

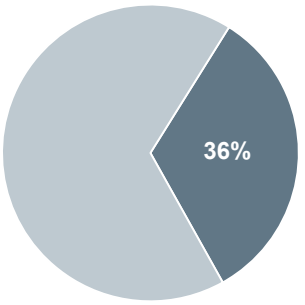
- ✔ Completed by a large number of caregivers, but comprising a relatively small proportion of each person's workload
- ✔ Time sensitive; failing to complete the work within defined time frame creates bottlenecks to next steps in care
- ✔ Requires expertise to perform effectively and efficiently

Patient Medication Histories Often Inaccurate

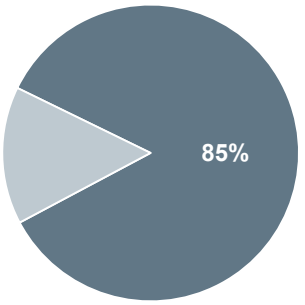
While there are numerous patient care responsibilities that might be improved through specialization, leaders should consider inpatient medication reconciliation as a potential starting point, as inaccurate medication histories can often lead to delays and errors in care.

As shown to the right, more than one-third of patients experience medication order errors upon admission and more than three-quarters of those errors result from inaccurate medication histories.

Percentage of Patients with Medication Order Errors at Admission



Percentage of Errors Caused by Inaccurate Medication Histories



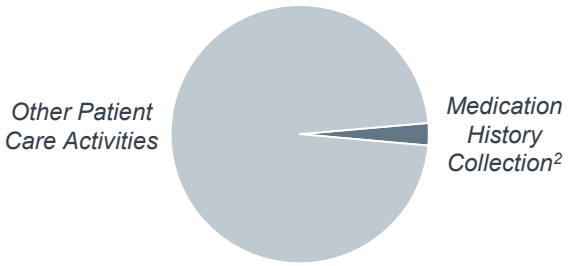
Source: Gleason GM, et al., "Results of the Medications at Transitions and Clinical Handoffs (MATCH) Study: An Analysis of Medication Reconciliation Errors and Risk Factors at Hospital Admission," *Journal of General Internal Medicine,* 25 (2010): 441-447; Nursing Executive Center analysis.

Medication reconciliation is often completed by nurses, but only as a small portion of their jobs. Many EMR systems require the medication history to be complete before the physician can enter patient medication orders. As such, bottlenecks occur when other patient care responsibilities prevent nurses from completing the history immediately.

Nurse leaders at Fairview Ridges Hospital in Minnesota addressed these challenges by transferring 100% of medication reconciliation occurring in the ED to a dedicated pharmacist. The pharmacist is wholly responsible for collecting medication histories from patients, entering histories into the EMR, and reconciling them prior to a physician review.

Transfer Medication Reconciliation to the Experts

Distribution of Individual Nurse Time in the ED at Shermer[1] Hospital



Distribution of Pharmacist Time in the ED at Fairview Ridges Hospital

16	7
Hours per day a pharmacist is staffed in the ED	Days per week a pharmacist is staffed in the ED

Case in Brief: Fairview Ridges Hospital

- 167-bed community hospital located in Burnsville, Minnesota, part of Fairview Health Services; ED averages 53,000 visits per year
- Pharmacy owns full medication reconciliation process: a pharmacist stationed in the ED daily from 7 a.m. to 11 p.m. collects medication lists, enters lists into EMR, and reconciles medications prior to physician review
- Relatively high pharmacy labor costs offset by low drug costs; overall pharmacy department costs at 11th percentile of Action O-I benchmarks

1) Composite.
2) Physician performs final medication reconciliation.

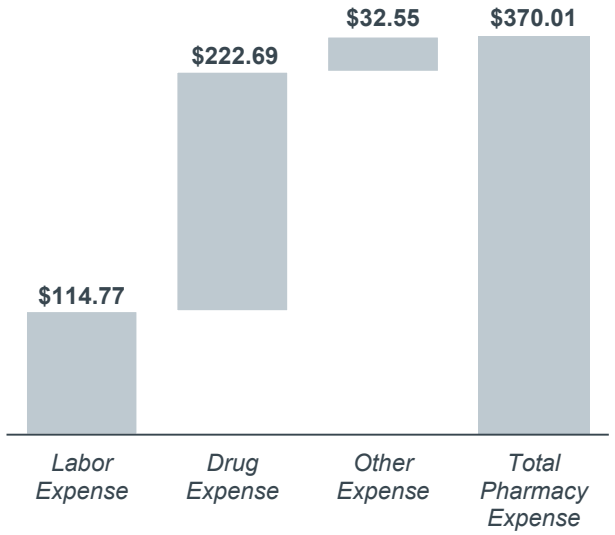
Source: Fairview Ridges Hospital, Burnsville, MN; Nursing Executive Center interviews and analysis.

While pharmacist-led medication reconciliation has led to relatively high pharmacy labor costs at Fairview (78th percentile[2]), total pharmacy expenses remain remarkably low (11th percentile[2]). The dedicated pharmacists have achieved this cost efficiency by reviewing each patient's medications to see if there are appropriate, less-expensive substitutes, and providing in-the-moment prescribing advice to physicians. As a result, drug expenses per discharge and overall pharmacy costs are well below average.

Justifying the High Cost of Pharmacist-Led Med Rec

Pharmacy Costs at Fairview Ridges[1]

Cost per Discharge[2], Q1 2013



Benchmarking Fairview's Pharmacy Costs, Q1 2013

78th Percentile labor expense per discharge[2]

16th Percentile drug expense per discharge[2]

11th Percentile total pharmacy expense per discharge[2]

1) Pharmacists at Fairview Ridges Hospital are embedded in inpatient units as well as the ED.
2) Action O-I Q1 2013 Benchmarking Report; Cost per Case Mix Index Weighted, Department-Adjusted Discharge.

Source: Fairview Ridges Hospital, Burnsville, MN; Nursing Executive Center interviews and analysis.

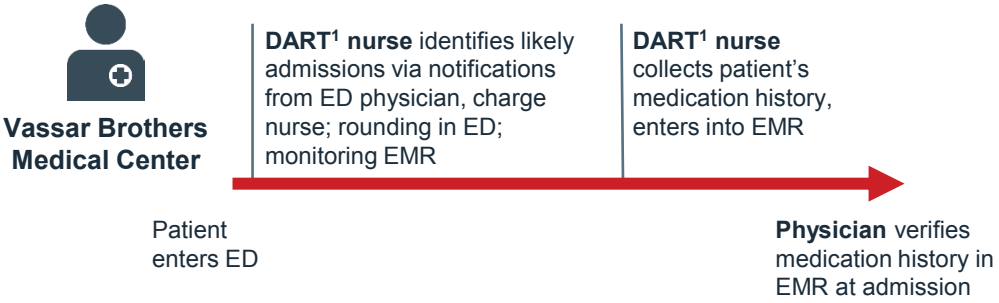
In addition to pharmacists, leaders can consider other individuals to fill the role of medication reconciliation specialist.

At Vassar Brothers Medical Center in New York, leaders deploy nurses as medication history experts. An RN referred to by team members at Vassar Brothers as a "DART[1] nurse" is staffed in the ED 24/7 and is fully dedicated to collecting medication histories. During peak hours, two DART[1] nurses are assigned to the ED.

Designating an expert to focus on medicine reconciliation in the ED is helping Vassar Brothers improve care team value. As an example of improved outcomes, 99% of ED admissions at Vassar Brothers Medical Center had their home medications listed at admission in September 2013.

Deploying Nurses as Med History Experts in the ED

Medication History Collection Process at Vassar Brothers Medical Center



Case in Brief: Vassar Brothers Medical Center

- 365-bed hospital in Poughkeepsie, New York; ED averages 70,000 visits per year
- One nurse dedicated to collecting medication histories in ED 24/7, two during peak hours
- ED physician or charge nurse informs DART[1] nurse when a patient is a likely or definite admission; in addition, DART[1] nurses proactively identify potential admissions via frequent rounding in the ED and monitoring the electronic record
- 99% of ED admissions had home medications listed at admission in September 2013

1) Dedicated Admissions Response Team.

Source: Vassar Brothers Medical Center, Poughkeepsie, NY; Nursing Executive Center interviews and analysis.

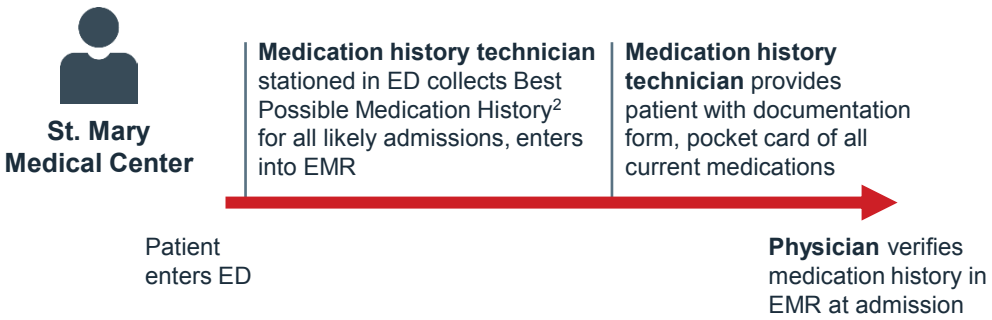
Another option for filling the role of medication reconciliation expert is to use pharmacy technicians.

At St. Mary Medical Center in Pennsylvania, leaders deployed certified pharmacy technicians as "medication history technicians" fully dedicated to collecting medication histories in the ED. At least one medication history technician is staffed in the ED at all times, and two are staffed during peak hours.

A complete version of St. Mary Medical Center's Medication History Technician Job Description and Evaluation Criteria can be accessed through an online version of this publication on advisory.com/nec.

Deploying Technicians as Med History Experts

Medication History Collection Process at St. Mary Medical Center



Case in Brief: St. Mary Medical Center

- 374-bed hospital located in Langhorne, Pennsylvania; ED averages 65,000 visits per year
- Hired certified pharmacy technicians to serve as full-time ED medication history technicians; two med history techs work during peak hours, one during off-peak hours
- Medication history technicians consult the patient, family, caregivers, PCP, community pharmacy, and any past discharge summaries or transfer forms to obtain best possible medication history
- Percentage of patients with best possible medication history collected by medication history tech has increased steadily from 44.7% in April 2013 to 82.0% in September 2013

1) Medication history developed by both systematically interviewing the patient and/or family and consulting at least one other reliable source of information to obtain and verify all of a patient's use of prescribed and non-prescribed medications, including drug name, dosage, frequency, and route.

Source: St. Mary Medical Center, Langhorne, PA; Institute for Safe Medication Practices Canada, http://www.ismp-canada.org/medrec/; Nursing Executive Center interviews and analysis.

It is critical to ensure that individuals deployed as medication reconciliation specialists are well equipped for the role.

Leaders at St. Mary Medical Center equipped pharmacy technicians with the pocket-sized "cheat sheet" pictured here to help them gather all necessary information during medication reconciliation.

In addition to the cheat sheet, leaders provide pharmacy technicians with a full script to facilitate patient interviews.

A complete version of St. Mary Medical Center's Medication History Script can be accessed through an online version of this publication on advisory.com/nec.

Equipping Techs to Capture Best Possible Med History

St. Mary Medical Center's Medication History Interview Pocket Card

St. Mary Medical Center

Department of Pharmacy

Best Possible Medication History

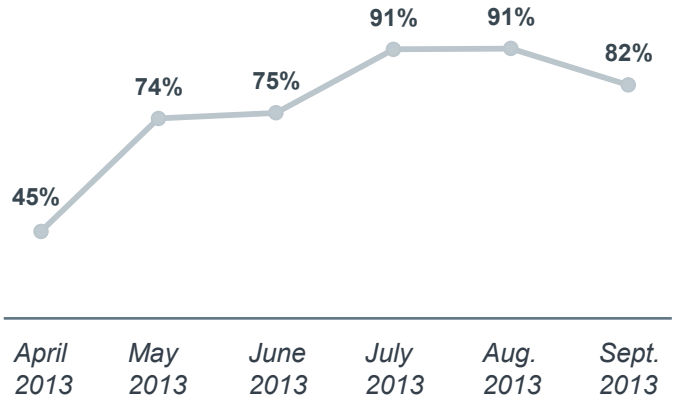
1. Do you have any **medication allergies?** If yes, what is the **reaction?**
2. Do you have a **list of your medications** or **pill bottles** with you?
3. How do you take _____ (medication name)? How often? When?
   a. Collect information about **Dose, Route, Frequency, Last Taken**
4. Any **New or Recently Changed Medications?** Reason for change?
5. **Over-the-Counter Meds?** (E.g., Aspirin, acetaminophen, ibuprofen, etc.)
6. **Vitamins?** (E.g., Multivitamin)
7. **Minerals?** (E.g., Calcium, iron)
8. **Supplements?** (E.g., Potassium, glucosamine, St. Johns Wort)
9. **Ear/eye drops or nasal sprays?** (Name, strength, how often?)
10. **Inhalers/patches/creams/ointments/injectables?**
11. **Medication samples?**
12. **Antibiotics** within the last three months?
13. What is the name/location of the pharmacy you usually go to? May we call your pharmacy to clarify medications if needed?
14. If you remember anything after our discussion, please contact me to update the information.

Source: St. Mary Medical Center, Langhorne, PA; Nursing Executive Center interviews and analysis.

As a result of dedicating an expert to focus on medicine reconciliation in the ED, St. Mary Medical Center is also increasing the value of the care team. As one example, the percentage of patients with the best possible medication history increased from approximately 45% in April 2013 to 82% in September 2013.

Med History Specialization Increasing Value

Percentage of Patients Admitted Through ED[1] with Best Possible Medication History at St. Mary Medical Center



1) Number of patients admitted through ED by month averages 1,834.

Source: St. Mary Medical Center, Langhorne, PA; Nursing Executive Center interviews and analysis.

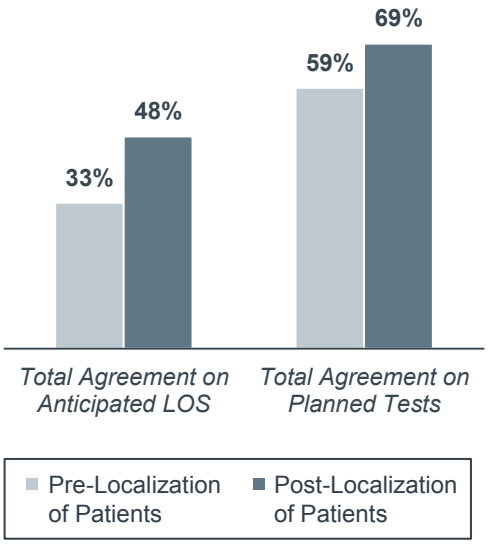
Move #3: Gather Physicians and Staff at the Bedside at the Same Time

The third barrier to efficient interprofessional care is that care team members are rarely at the patient's bedside at the same time. One highly effective practice for overcoming this barrier is implementing unit-based care conferences.

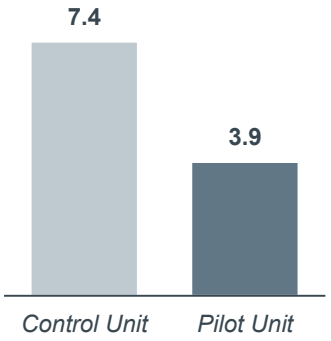
The data on this page shows the impact of unit-based care conferences at Northwestern Memorial Hospital in Chicago. After implementing unit-based care conferences, Northwestern improved interdisciplinary agreement on care plans and experienced fewer adverse events.

Interprofessional Care Conferences Can Deliver Value

Agreement Between Nurse and Physician on Aspects of the Care Plan



Effect of Interprofessional Care Conferences on Adverse Events[1]



Case in Brief: Northwestern Memorial Hospital

- 870-bed teaching hospital located in Chicago, Illinois
- In 2008, cohorted 73% of physicians on floors with their patients to facilitate interprofessional care conference process
- Six-month rollout of interprofessional care conferences included team training and unit-specific planning
- Nurse and physician leader on unit jointly conduct interprofessional care conferences
- After rollout of interprofessional care conferences, adverse events were 3.9 per 100 patient days on pilot unit, versus 7.4 on control unit

1) Per 100 patient days.

Source: O'Leary K, et al., "Impact of Localizing Patients to Hospital Units on Nurse-Physician Communication and Agreement on the Plan of Care," *Journal of General Internal Medicine,* 24 (2009): 1223-1227; Nursing Executive Center, *Strengthening Interdisciplinary Collaboration*, 2012.

The idea of holding unit-based care conferences isn't new. However, many leaders struggle to consistently convene unit-based care conferences due to the common barriers shown here.

The first barrier is physician geography. Physicians often care for patients on different units across the hospital and cannot be in two places at once. The second barrier is caregiver schedules, which rarely align across disciplines. The third barrier is conference length; busy caregivers don't have time to attend conferences that are excessively long. The fourth barrier is a lack of perceived value, which can result in poor attendance.

Struggling to Be in the Same Room at the Same Time

Barriers to Effective Interprofessional Care Conferences

Geography

Physicians have patients on multiple floors; often don't spend enough time on each unit to attend conferences consistently

Caregiver Schedules

Each caregiver has a discipline-specific schedule that rarely aligns with those of other disciplines

Conference Length

Caregivers often view conferences as too time-consuming, given their other patient care responsibilities

Lack of Perceived Value

Care conferences are often poorly run, so caregivers find limited value in them

Source: Nursing Executive Center interviews and analysis.

The common barriers to implementing unit-based care conferences are not insurmountable. To overcome them, clinical leaders need to build conferences that contain the four components shown here. The following pages provide greater detail on each component and how to implement it.

Implementing Highly Structured Interprofessional Care Conferences

Key Components of Highly Effective Care Conferences

Component #1: Create Unit-Based Ownership

Enable units to customize care conferences based on their own needs and preferences

Component #2: Keep Conferences Focused

Limit care conference discussion to most critical patient needs, eliminating unnecessary digressions

Component #3: Establish Clear Roles

Define what each team member is responsible for in conferences

Component #4: Organize Patients Around Providers

Cohort patients to ensure all physicians' patients are located in the same area

Source: Nursing Executive Center, *Strengthening Interdisciplinary Collaboration*, 2012.

The first component of highly effective care conferences is to create unit-based ownership. Leaders at Northwestern Memorial Hospital in Chicago recommend that unit leaders planning to implement care conferences hold multiple planning sessions starting several weeks in advance of the rollout. It is important that unit physicians, nurses, social workers, pharmacists, case managers, and any other care team members that will be involved in care conferences attend the planning sessions.

These planning sessions have two goals. The first is to ensure the proposed structure of the rounds takes into account the unique needs of the disciplines working on the unit. The second goal is to build a sense of shared ownership among unit providers and a commitment to making the structure work.

To help customize care conferences to meet the needs of their particular unit, unit leaders should strive to answer the questions listed on this page during planning sessions.

Component #1: Create Unit-Based Ownership

Unit-Based Care Conference Planning at Northwestern Memorial Hospital

- In process of planning for care conferences, unit leadership team has series of meetings
- Unit leadership team includes unit physicians, nurses, pharmacist, case manager, and social worker

Questions to Answer Prior to Implementing Interprofessional Care Conferences

1. When should we meet?
2. How long should we meet?
3. Where should we meet?
4. Who should we include in the conferences?
5. Should we stagger attendance of any care team members?
6. What items should we cover in the conferences?

Source: Northwestern Memorial Hospital, Chicago, IL; Nursing Executive Center, *Strengthening Interdisciplinary Collaboration*, 2012.

The second component of highly effective care conferences is to keep conferences focused on the most critical issues. Even with the right people consistently in attendance, interdisciplinary conferences may not be productive or efficient unless they closely adhere to a clear agenda.

To ensure interdisciplinary conferences are focused on the most important patient needs, care team members at Northwestern Memorial use a unit-specific version of the tool shown here. Moreover, teams at Northwestern stratify the time spent on each patient. The communication tool shown here is used only for patients who are new to the unit. For all other patients, the physician provides a brief update on each patient's status and invites any needed input from the rest of the team.

Component #2: Keep Conferences Focused

INTERACT Communication Tool Used at Northwestern Memorial

INTERACT Communication Tool

- **Room Number**
- **Patient Last Name**
- **Overall Plan of Care**
  - Diagnosis
  - Patient chief concern
  - Tests/procedures for the day
  - Medication
  - Diet
- **Discharge Plans**
  - Patient education needs
  - Anticipated discharge date
  - Discharge needs (placement, home health, transportation?)
- **Patient Safety**
  - PCP contact
  - On VTE prophylaxis?
  - Mobility assessment
  - Can catheter or central line be discontinued?
  - Can we reduce pressure ulcer risk?
  - Goals of care and code status

Checklist only used for patients who are new to the unit; for all other patients, physician provides two- to three-sentence update on plan of care, and invites input from rest of team

Source: Northwestern Memorial Hospital, Chicago, IL; Nursing Executive Center, *Strengthening Interdisciplinary Collaboration*, 2012.

The third component of highly effective care conferences is to establish clear roles for each participating member of the care team.

The specific roles filled by caregivers during care conferences at The Johns Hopkins Hospital in Baltimore, Maryland, are listed here. The critical role of facilitator is often filled by the unit's charge nurse. The facilitator holds all care team members accountable for attending, keeps the conference on schedule, and ensures any required follow-up is completed in a timely manner.

Component #3: Establish Clear Roles

Team Member Responsibilities for Interprofessional Care Conferences at The Johns Hopkins Hospital

Facilitator

- Enforces mandatory attendance
- Ensures timely, efficient meetings
- Elicits all patient information from team
- Delegates responsibility for follow-up

Physician

- Reviews tests and procedures
- Gives orders to make changes based on team recommendations

Frontline Nurse

- Presents patient problems
- Provides family/patient perspective on care plan
- Discusses educational needs

Pharmacist

- Reviews medications
- Makes recommendations on medication changes

Additional Care Team Members

- Social worker or case manager discusses discharge plan
- Nutrition, rehab provide recommendations as needed

Case in Brief: The Johns Hopkins Hospital

- 952-bed teaching hospital located in Baltimore, Maryland
- In summer of 2011, piloted interdisciplinary care conferences on two units
- Conferences convene every weekday morning for 30 to 40 minutes
- Nurse facilitator organizes conferences, ensures rapid and organized discussion of each patient
- Each member of care team expected to cover discipline-specific aspect of care plan

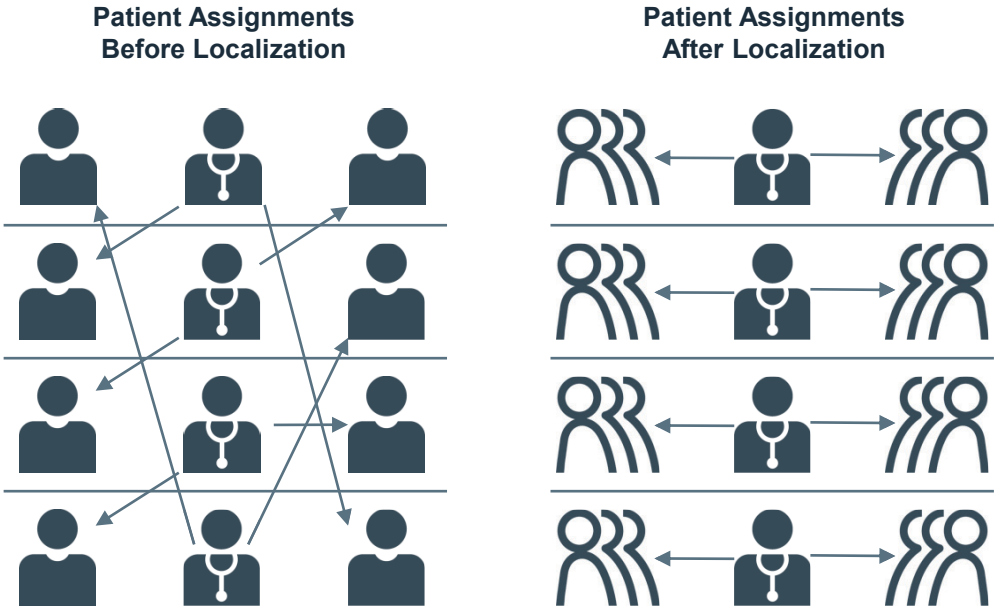
Source: The Johns Hopkins Hospital, Baltimore, MD; Nursing Executive Center, *Strengthening Interdisciplinary Collaboration*, 2012.

Component #4: Organize Patients Around Providers

The fourth component of highly effective care conferences is to organize patients around providers. While perhaps the best known way to do this is to implement a unit-based hospitalist model, this isn't easy—and some physicians may resist the change because they feel practicing on a single unit is restrictive. For organizations that cannot readily implement a unit-based hospitalist model, the goal should be to keep as many of a provider's patients on the same floor as possible.

In addition to improving interprofessional care conferences, organizing patients around providers helps hospitalists to develop stronger relationships with other unit-based staff as they are on the unit more frequently.

Cohorting Patients by Provider at Northwestern Memorial Hospital



Source: O'Leary K, et al., "Impact of Localizing Patients to Hospital Units on Nurse-Physician Communication and Agreement on the Plan of Care," *Journal of General Internal Medicine*, 24 (2009): 1223-1227; Nursing Executive Center, *Strengthening Interdisciplinary Collaboration*, 2012.

For many organizations, the biggest challenge to effective interprofessional care conferences is physician absence.

The Nursing Executive Center recommends the two strategies shown here to encourage physician attendance at care conferences by reducing the time commitment.

At Franciscan St. Francis Health in Indiana, care conferences in the ICU alternate daily between the full multidisciplinary team and a smaller team.

At Sutter Medical Center of Santa Rosa, a 115-bed community hospital in Santa Rosa, California, care conferences for the whole hospital are centralized in a single room. While caregivers are no longer located at the patient's bedside, the interprofessional team is consistently in the same room at the same time discussing patient care.

Physician Absence Often the Biggest Challenge to Effective Interprofessional Care Conferences

Sample Strategies for Increasing Physician Attendance

Strategy	Capsule Description	Organization
Alternate Full Multidisciplinary Rounds with Small-Team Rounds	• Full multidisciplinary team[1] rounds on half of ICU rooms one day and the other half the following day • Intensivist, RN, and respiratory therapist round daily on patients not rounded on by full multidisciplinary team • Early results include increased palliative care consults	**Franciscan St. Francis Health**, three-hospital division of Franciscan Alliance headquartered in Beech Grove, Indiana
Centralize Hospital-Wide Interprofessional Conferences	• Hospitalists, residents, pharmacy, physical therapy, home health, and hospice meet daily for 45 minutes to discuss discharge barriers and referrals to services (ancillary, home care, hospice, SNF) for 65 to 80 patients in the ICU, telemetry, and med/surg units • RNs and care managers rotate, leading the discussion for 15 minutes at a time, for patients on their units • Conferences contributed to 0.46-day reduction in length of stay and 34% increase in hospice referrals	**Sutter Medical Center of Santa Rosa**, 115-bed community hospital located in Santa Rosa, California; part of Sutter Health

1) The multidisciplinary team consists of an ICU intensivist, nurse practitioner, nurse manager, patient care coordinator, charge nurse, clinical nurse specialist, patient's nurse, respiratory therapist, adult ICU pharmacist, dietician, case management, palliative care, and patient or family member.

Source: Franciscan St. Francis Health, Beech Grove, IN; Sutter Medical Center of Santa Rosa, Santa Rosa, CA; Nursing Executive Center interviews and analysis.

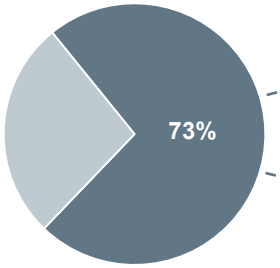
Move #4: Keep Teams as Consistent as Possible

The fourth barrier to efficient interprofessional care is the constant rotation of care team members. Because care team members don't often have the opportunity to work with a consistent team, they are constantly adapting to the different working styles and communication preferences of new coworkers. This can lead to miscommunication and errors in care.

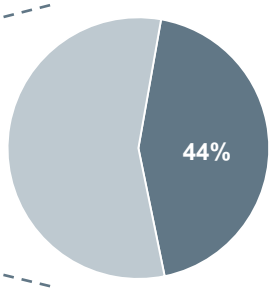
An example from the aviation industry illustrates this challenge. A recent study found that nearly three-quarters of commercial airline accidents happen on the first day the captain and first officer fly together, and nearly half of the accidents happen during the very first flight of the day.

Learning from Teams in the Aviation Industry

Percentage of Commercial Airline Accidents Occurring on Captain and First Officer's First Day Flying Together



Percentage of Accidents on First Flight of Captain and First Officer's First Day Flying Together



Source: National Transportation Safety Board, "Safety Study: A Review of Flightcrew-Involved Accidents of U.S. Air Carriers, 1978 Through 1990." NTSB/SS-94/01 (Washington, DC: 1994); Nursing Executive Center analysis.

Accordingly, the fourth move for aligning interprofessional goals and work is to keep teams as consistent as possible. There are three options for establishing consistent care teams, shown here. The following pages provide additional details for each option.

Establishing Teams with the Same Cast of Characters

Three Options for Creating Consistent Care Teams

Option #1: By Location

Caregivers work together to care for patients in a set of adjacent rooms

Option #2: By Provider

Caregivers work with an assigned provider across multiple shifts

Option #3: By Patient Panel

Team spanning hospital and medical home work together to care for admitted patients from medical home

Source: Nursing Executive Center interviews and analysis.

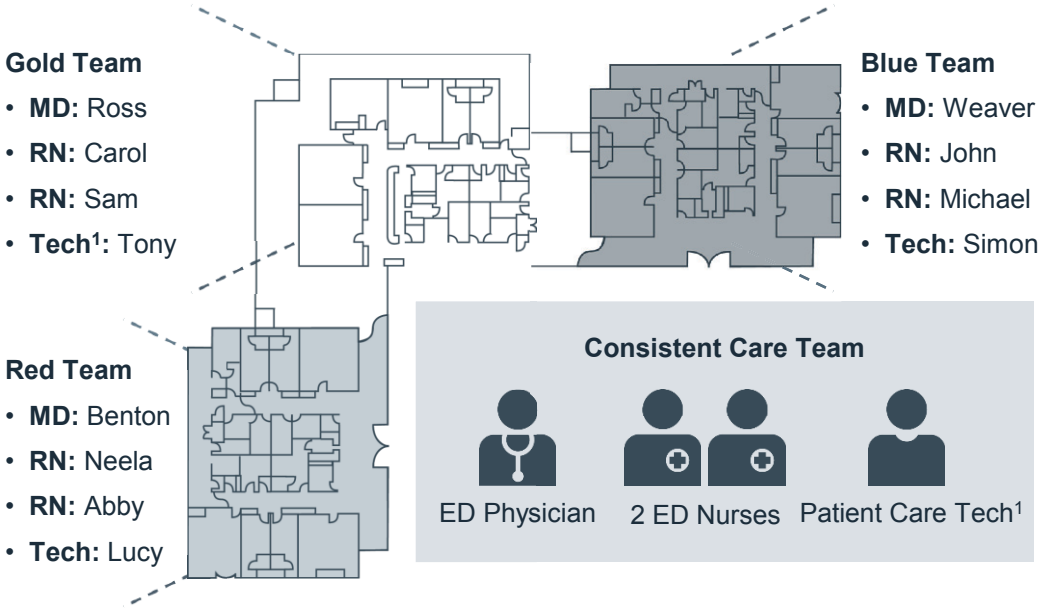
The first option for creating more consistent teams is to organize team members by location.

In the emergency department at Advocate South Suburban Hospital in Illinois, physicians were working with up to nine nurses at a time. One year ago, leaders assigned ED caregivers to one of three color-coded teams. Each team consists of a physician, two nurses, and a patient care technician[1], and cares for patients in seven adjacent rooms.

Since redesigning the ED care team, length of stay for patients admitted from the ED decreased by 32 minutes.

Option #1: Organize the Team by Location

Advocate South Suburban's ED Teams Organized Around Patient Rooms



Case in Brief: Advocate South Suburban Hospital

- 290-bed community hospital located in Hazel Crest, Illinois; part of Advocate Health Care; ED has 45,000 visits per year
- Each ED caregiver worked with several other staff, leading to inefficiency and confusion; one physician could work with nine different nurses on a shift, each nurse worked with multiple physicians
- In January 2013, divided ED caregivers into three color-coded teams (red, blue, and gold), assigned each team seven adjacent patient rooms; each team includes a physician, two RNs, and a patient care technician[1] who work together for the entirety of their shifts
- Since redesigning ED care team, ED length of stay for admitted patients has decreased 32 minutes from 5:26 to 4:54 and 42 minutes for discharged patients, from 4:26 to 3:44; ED patient volume increased by 4.8%; associate (RN and tech) engagement reached the 96th percentile; labor costs decreased by $415,000 by better matching staffing to patient volume

1) Patient care technicians include CNAs (primarily nursing students) and EMTs.

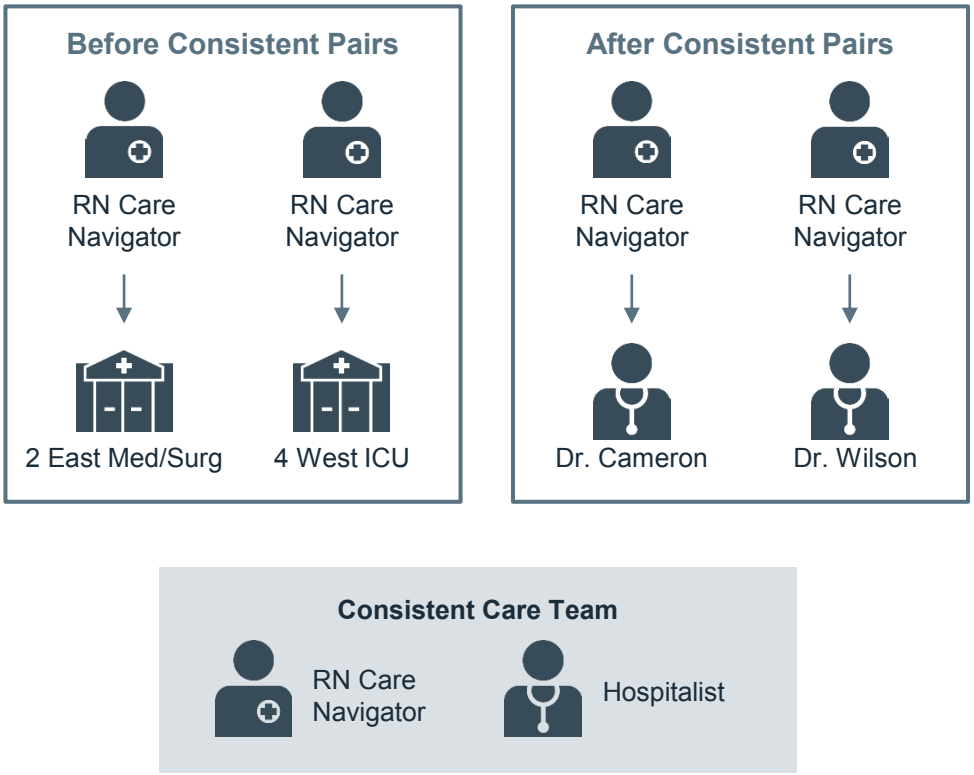
Source: Advocate South Suburban Hospital, Hazel Crest, IL; Nursing Executive Center interviews and analysis.

The second option for creating more consistent teams is to organize the care team by provider.

At Scripps Memorial Hospital in San Diego, California, leaders pair care navigators (who were previously unit-based case managers) with hospitalists who see patients on multiple units. Care navigators follow their hospitalist partners as they move between units to see their patients. The care navigator-physician dyad work together for the duration of their shift and across multiple days.

Option #2: Organize the Team by Provider

Hospitalist and Care Navigator Dyads at Scripps Memorial Hospital



Case in Brief: Scripps Memorial Hospital La Jolla

- 332-bed hospital located in La Jolla, California; part of Scripps Health
- In the process of transitioning from care navigators assigned to specific floors to care navigators paired with hospitalists to cover 15 patients with the goal of to promoting continuity of patient interaction and efficient discharge or transition planning
- Shifting care navigator schedules to match hospitalist partners'; care navigators work five days on, five days off

Source: Scripps Memorial Hospital, La Jolla, CA; Nursing Executive Center interviews and analysis.

To make the care navigator-physician partnership work, Scripps changed the schedule of care navigators so that it matches the schedule of their hospitalist partners. Each care navigator-hospitalist pair now works five days on, followed by five days off.

Aligning Provider-Caregiver Schedules

Hospitalist-Care Navigator Dyad Schedules at Scripps Memorial Hospital

Before Alignment of Schedules

	Sun	Mon	Tues	Wed	Thurs	Fri	Sat
MD: Forman	X	X	X	X	X		
CN[1]: Rob	X		X			X	X
	Sun	**Mon**	**Tues**	**Wed**	**Thurs**	**Fri**	**Sat**
MD: Forman				X	X	X	X
CN[1]: Rob	X		X	X	X		

After Alignment of Schedules

	Sun	Mon	Tues	Wed	Thurs	Fri	Sat
MD: Forman	X	X	X	X	X		
CN[1]: Rob	X	X	X	X	X		
	Sun	**Mon**	**Tues**	**Wed**	**Thurs**	**Fri**	**Sat**
MD: Forman				X	X	X	X
CN[1]: Rob				X	X	X	X

1) Care Navigator.

Source: Scripps Memorial Hospital, La Jolla, CA; Nursing Executive Center interviews and analysis.

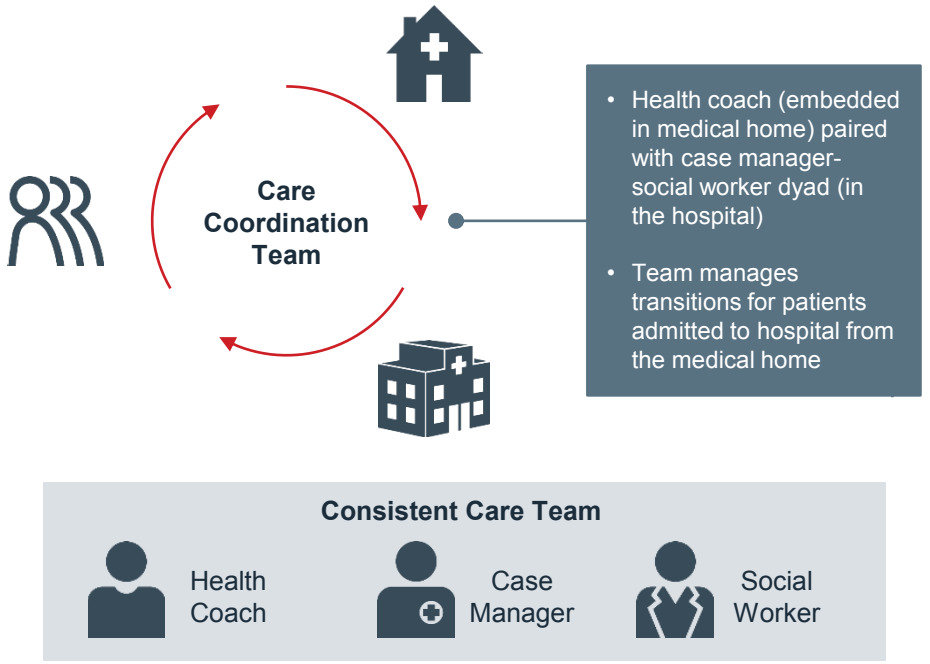
The third option for creating more consistent teams is to organize the team by patient panel. WellSpan Health in Pennsylvania recently created teams consisting of a case manager, social worker, and health coach to manage transitions for all medical home patients.

The case manager and social worker are based in the hospital and the health coach is embedded in one of WellSpan's medical homes. Regardless of their physical location, all three providers focus their efforts on the same group of patients, ensuring post discharge follow-up and any questions regarding the plan of care are answered.

Notably, 65% of WellSpan's inpatient referrals come from a WellSpan medical home and receive care from the triad structure. The remaining 35%—who are admitted from an out-of-network practice—receive care from the inpatient case manager and social worker dyad.

Option #3: Organize the Team by Patient Panel

WellSpan's Care Coordination Team Organized Around Medical Home Patient Panel



Case in Brief: WellSpan Health

- Four-hospital health system headquartered in York, Pennsylvania; includes 37 patient-centered medical homes
- In 2012, transitioned from case managers assigned to specific units to Care Coordination Teams (CCT) assigned to medical home patient panels; health coach (embedded in medical home) paired with a case manager-social worker dyad (in the hospital); CCTs conduct daily virtual huddles to discuss vulnerable, discharged, and admitted patients
- Phased addition of health coaches across eight practices in FY 2013, rolling out to all practices in FY 2014
- Health coaches each responsible for 75 active patients; case managers see 25 patients per day, social workers see 17; 65% of admitted patients are from a WellSpan medical home; remaining patients who have out-of-network PCPs or no PCP are assigned to an inpatient case manager and social worker dyad
- Since aligning Care Coordination Teams to medical home panels, the percentage of patients with a follow-up appointment scheduled to occur within seven days of discharge increased from 30% in 2010 to 85% in September 2013

Source: WellSpan Health, York, PA; Nursing Executive Center interviews and analysis.

Advocate South Suburban and WellSpan are both experiencing positive results from their consistent care teams.

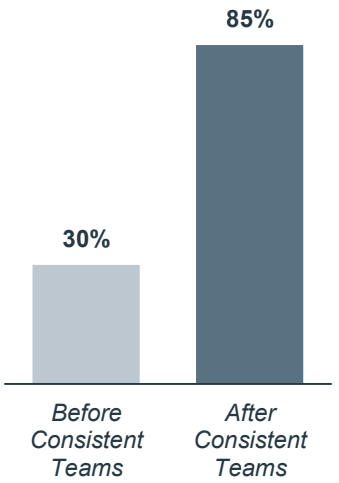
At Advocate, the length of stay in the ED has decreased by approximately 30 minutes. At WellSpan, the percentage of patients with a scheduled post-discharge appointment increased by more than 50%.

Consistent Care Teams Increasing Value

Improving ED Efficiency at Advocate South Suburban Hospital

32	Number of minutes ED length of stay for admitted patients decreased
42	Number of minutes ED length of stay for discharged patients decreased
15	Number of minutes door-to-physician time decreased

Percentage of WellSpan Patients with Scheduled Post-Discharge Appointment



To help leaders determine which option is most feasible for their organization, we have provided the additional guidance shown here.

Selecting an Organizing Principle

	If the Answer is Yes…		
In Any Care Setting:	Are caregivers willing to practice within a defined area (e.g., one unit)?	Are you able to align team member schedules with those of providers?	Does your organization own or have close partnerships with primary care clinics?
In a Hospital:	Do your patients tend to stay in one clinical area (e.g., one unit)?	Are your patients frequently transferred among units?	Are a large percentage of your patients admitted from those clinics?
	Organize Your Team by Location	**Organize Your Team by Provider**	**Organize Your Team by Patient Panel**

Source: Advocate South Suburban Hospital, Hazel Crest, IL; WellSpan Health, York, PA; Nursing Executive Center interviews and analysis.

While there is no silver bullet for improving interprofessional collaboration, the moves outlined in Path #2 provide nurse leaders with an effective starting point. This page provides additional guidance for ensuring leaders can successfully implement the four moves aimed at aligning interprofessional goals and work.

Notably, each of these moves can be implemented individually—and it is not necessary to implement these moves in any particular order. However, before implementing any of these moves, ensure the prerequisites listed on this page are met.

Because each move will help to align interprofessional goals and work, Nursing Executive Center researchers recommend starting with the move where you already have the wind at your back (the most prerequisites in place).

Align Interprofessional Goals and Work

If You Plan to Implement….	Make Sure You Have…
Move #1: Give All Care Team Members the Same Set of Goals	✓ Influence over performance evaluations ✓ Flexibility in any collective bargaining agreements ✓ For maximum effect, support from all leaders of departments represented in care team
Move #2: Transfer Work to Specialized Team Members	✓ The ability to dedicate staff to specialized work
Move #3: Gather Physicians and Staff at the Bedside at the Same Time	✓ Buy-in from interprofessional care team members ✓ A team member available to serve as the facilitator ✓ For maximum effect, unit-based hospitalists
Move #4: Keep Teams as Consistent as Possible	✓ The ability to change interprofessional patient assignments ✓ For maximum effect, the ability to align interprofessional schedules

Source: Nursing Executive Center interviews and analysis.

Path #3

Deploy the Minimum Core Team and Selectively Scale Up Support

- Move #1: Select a Patient Population of Focus
- Move #2: Identify Patients Needing Additional Support
- Move #3: Define the Core and Expanded Care Teams
- Move #4: Layer Additional Support onto the Core Team
- Move #5: Regularly Reassess Patient Need for Support

Path #3: Deploy the Minimum Core Team and Selectively Scale Up Support

Path in Brief

Rather than deploying the same care team to all patients (and over-serving some, and under-serving others), hospital leaders scale care team staffing to patient need.

Underlying Inefficiency This Path Addresses

A “one-size-fits-none” care team

Rationale

Leaders often assign the same complement of caregiver roles to patients with different needs. As a result, the care team may fail to fully meet the needs of high-complexity patients and over serve low-complexity patients. By deploying a minimum core care team and selectively scaling up support, leaders can more closely match care team resources to each patient’s needs.

Implementation Moves

To successfully deploy the minimum core team and selectively scale up support, nurse leaders must implement all five moves in the order listed below.

Move #1: Select a Patient Population of Focus
In order to selectively scale up support for a small subset of patients, leaders need to decide which subset of patients to focus on first. There are two options for identifying these patients. The first option is to focus on a high-impact patient need that is prevalent in the patient population, leads to considerable unreimbursed utilization, and can be improved through care team intervention (e.g., behavioral health). The second option is to focus solely on the top 5% of high-risk patients who have at least one complex disease, multiple comorbidities, and high-cost utilization.

Move #2: Identify Patients Needing Additional Support
Hospitals and health systems identify the subset of patients selected in Move #1 by screening all patients using specific criteria (e.g., aberrant coping behaviors).

Move #3: Define the Core and Expanded Care Teams
Leaders define the caregiver roles that make up the “core care team” which serves the majority of patients (those who are not in the subset of patients identified in Move #1). Leaders also identify the caregiver roles that need to be added to the “expanded care team” required to serve the subset of patients identified in Move #1.

Move #4: Layer Additional Support onto the Core Team
Leaders assign additional caregivers to high-complexity patients as needed.

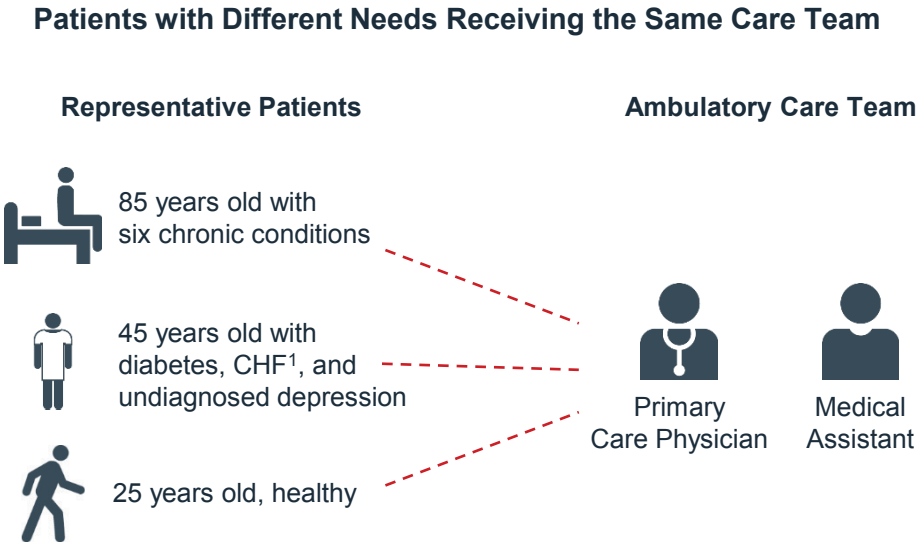
Move #5: Regularly Reassess Patient Need for Support
Care team providers routinely reevaluate patients receiving extra support through an expanded care team to determine whether each patient still needs the additional support.

Path Assessment

This path is an effective means of more closely matching care team resources to patients’ individual needs. Nurse leaders pursuing this path must implement all five moves in sequential order.

The third path to higher value is to deploy a minimum core care team and selectively scale up support. The rationale behind this path is health systems often use identical care teams when caring for patients with very different needs. This can result in a "one-size-fits-none" care team and instances in which some patients are over served and others are underserved—as in the graphic shown here.

A "One-Size-Fits-None" Care Team



1) Congestive heart failure.

Source: Nursing Executive Center interviews and analysis.

Admittedly, it isn't easy to scale up care team staffing to meet patient needs. Health systems pursuing this path have historically faced three significant barriers.

First, it can be difficult to identify which specific patients need additional support. Second, in order to scale up support for specific patients, caregivers often confront the challenge of working across silos between sites of care and different disciplines. Finally, most health systems haven't been economically rewarded for better supporting complex patients. Under fee-for-service, most health systems not only wouldn't have been reimbursed for the labor costs of scaling-up care teams—they would have lost money by preventing unnecessary utilization and decreasing demand for services.

However, the health care landscape is changing and these barriers—especially the last one—can now be overcome.

Acknowledging the Difficulty of Matching Care Teams to Patient Risk

Barriers to Scaling Care Teams Based on Patient Risk

Identifying High-Risk Patients

Organizations have historically lacked the data analytics necessary to identify patients requiring additional support

Coordinating Inherently Complex Care

Providing care for high-risk patients requires seamless coordination across multiple disciplines and settings

Managing Competing Incentives

Appropriately scaling up support for the most complex patients can lead to inpatient demand destruction

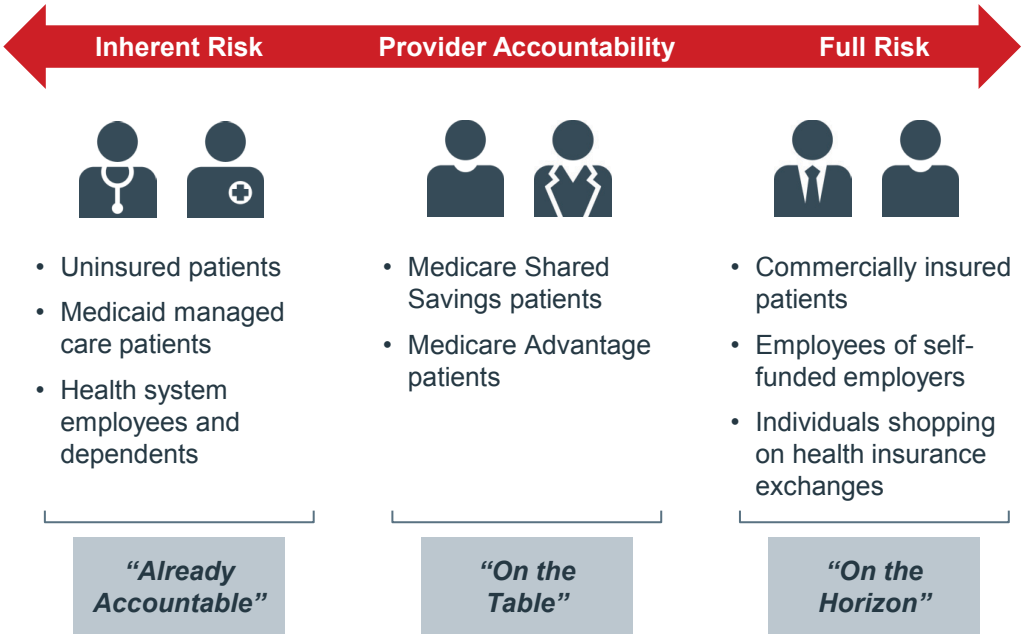
Source: Nursing Executive Center interviews and analysis.

Perhaps the barrier that is shrinking most quickly is that of competing economic incentives. Many health systems are already accountable for the total cost of care for their own employees and Medicaid managed care patients. And health system leaders anticipate they will soon have more patients for whom they are accountable for the total cost of care, as a result of Medicare Shared Savings contracts and commercial capitated contracts.

What all these contracts have in common is they provide an economic incentive for a health system to prevent avoidable utilization and better manage patient care.

No Organization Immune from Utilization Risk

Potential Populations to Manage Under Risk



Source: Nursing Executive Center interviews and analysis.

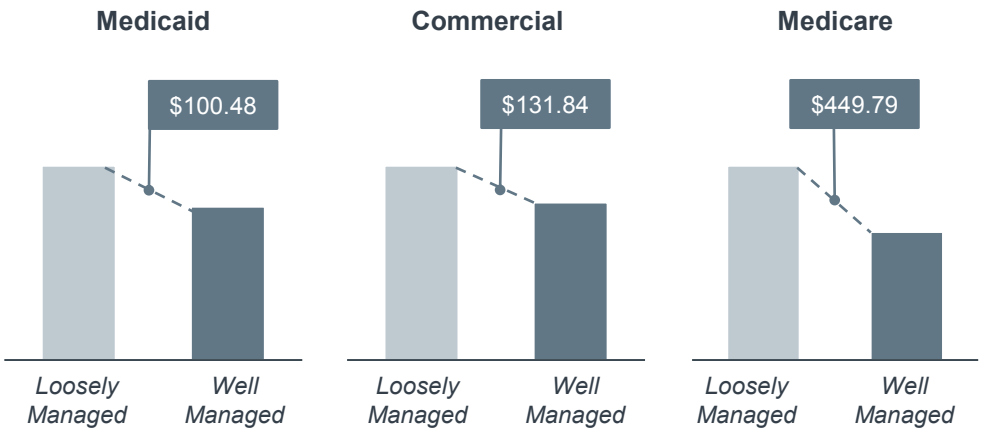
The magnitude of the potential cost savings that can be achieved by better managing patient care is shown here. The Milliman benchmarks on the right show the difference in per-member per-month costs for patients whose care is "loosely managed" versus "well managed." For Medicaid patients, the savings could amount to $100 per month, and for Medicare patients the savings could amount to more than $400 per patient.

In sum, for many organizations the underlying economics have changed and there is now a strong financial—as well as quality—argument for selectively scaling-up care team support for the patients with the greatest need. Doing so will improve patient care outcomes and reduce total overall costs.

Plenty of Room for Improvement in Managing Care

Difference Between "Loosely Managed" and "Well-Managed" PMPM[1] Spending

2011



1) Per member per month.

Source: Milliman; Nursing Executive Center interviews and analysis.

Of course, having an economic rationale for scaling-up care team support for select patients is helpful—but it doesn't answer the question of how to do it effectively.

Scaling care teams to individual patient needs is still very complex. But it is more doable than many nurse leaders might suspect and many leading organizations are already starting to do so. What these organizations have in common is each is following the five moves shown to the right. Any nurse leader who wants to implement this path will need to also implement each move, in order. The following pages provide additional details on each move.

Mobilizing the Right Care Team for Each Patient

Five Moves for Scaling the Care Team

Source: Nursing Executive Center interviews and analysis.

The first move in Path #3 is to select a patient population of focus. In order to effectively scale up support for select patients, you must first decide which subset of patients to focus on. Since the population you focus on will influence how you implement the other four moves, this first move is a critical decision point.

There are two options for selecting a patient population of focus, shown here. The first is to focus on the top 5% of patients who are at highest risk for costly utilization. The second option is to focus on a high-impact patient need that is prevalent in the patient population, leads to considerable unreimbursed utilization, and can be improved through care team intervention (e.g., behavioral health).

As a nurse leader, keep two things in mind when deciding which patient population to focus on. The first is whether or not you are at risk for the total cost of a patient population, and the second is whether or not you can readily identify the top 5% of patients in this population who are at highest risk for costly utilization. If you assume full risk for a patient population and can readily identify the highest-risk patients within that population, we recommend focusing on high-risk patients (to reduce most costly utilization). If not, we recommend focusing on a high-impact patient need.

Move #1: Select a Patient Population of Focus

Choose High-Risk Patients or High-Impact Patient Need

Focus on a High-Impact Patient Need

Patient need which is:

- Prevalent in population
- Leading to considerable unreimbursed utilization
- Mitigated through care team intervention

Focus on High-Risk Patients

Top 5% of patients who have:

- At least one complex disease
- Multiple comorbidities
- High-cost utilization

Determining a Patient Population of Focus

*Focus on **High-Risk Patients** if You Answer **Yes** to Both Questions Below*

✔ Are you **at risk for the total cost** of a patient population (e.g., health system employees, population covered under a shared savings contract, uninsured patients)?

✔ Can you **identify the top 5%** of this patient population at risk for avoidable, high-cost utilization?

If the Answer to Either Question Above is No…

Focus on a **high-impact patient need** which is prevalent in your patient population and leading to considerable unreimbursed utilization

Source: Nursing Executive Center interviews and analysis.

When possible, the Nursing Executive Center recommends focusing on high-risk patients when selecting a patient population of focus for Move #1.

However, if your organization lacks the infrastructure to identify high-risk patients, targeting a specific patient need is another viable option to reduce considerable unreimbursed utilization.

The three high-impact patient needs shown here—behavioral health, medication management, and palliative care—are all strong options to consider because they are leading to considerable unreimbursed utilization across the country.

Don't Let Great Be the Enemy of Good

Sample High-Impact Patient Needs

Strategy	Capsule Description	Organization	Results
Focus on Behavioral Health	PCP screens for behavioral health needs during routine and annual visits, refers patients to behavioral health consultant (BHC); BHC meets patient in exam room and provides assessment, diagnosis, and brief interventions focusing on health behavior change as needed	St. Charles Health System, four-hospital system headquartered in Bend, Oregon	Reduced average annual cost for Medicaid patients by $860
Focus on Medication Management	Unit nurses and social workers identify top 15% of patients at high risk for readmission or adverse outcomes after discharge due to medication complications, refer to unit-based pharmacist for education and discharge med rec; patient enrolled in ambulatory Medication Therapy Management (MTM)[1] program post-discharge; MTM[1] pharmacist optimizes patients' medication regimens, and provides education in-person or via phone	Fairview Health Services, eight-hospital system headquartered in Minneapolis, Minnesota	Total annual health expenditures decreased by $3,768 per person[2], representing 12:1 ROI on cost of providing ambulatory MTM services
Focus on Palliative Care	Providers refer patients with severe chronic diseases likely to live less than one year, including those not yet eligible for hospice, to Advanced Illness Management (AIM); AIM nurses and social workers coordinate follow-up care in home; educate patients and families about disease processes and prognoses, medication compliance, and pain management	Sutter Health, 24-hospital system headquartered in Sacramento, California	Achieved average cost savings of approximately $2,000 per patient per month

1) Patients are also enrolled into the ambulatory MTM program by provider or care team referral, self-referral, self-funded employer programs, commercial health plan coverage, and public health plan coverage.
2) n=186 BlueCross BlueShield beneficiaries, comparing expenditures one year pre-intervention and one year with MTM intervention.

Source: St. Charles Health System, Bend, OR; de Oliviera R, et al., "Medication Therapy Management: 10 Years of Experience in a Large Integrated Health Care System," *Journal of Managed Care Pharmacy,* 16 (2010):185-195; Isetts B J, et al., "Clinical and Economic Outcomes of Medication Therapy Management Services: The Minnesota Experience," *Journal of the American Pharmacists Association,* 2008: 203-211; Fairview Ridges Hospital, Burnsville, MN; Meyer H, "Changing the Conversation In California About Care Near the End of Life," *Health Affairs,* 30 (2011): 390-393; Sutter Health Sacramento Sierra Region, Sacramento, CA; Nursing Executive Center interviews and analysis.

The second move in Path #3 is to identify patients needing additional support. There are two options for this move, shown here. The first option is to use data analytics to analyze your patient population and identify patients that need additional support. The second option is to use a provider-driven referral process.

The Nursing Executive Center strongly recommends the first option—using data and analytics to identify patients needing additional support—if two prerequisites are met. First, your organization must have ready access to key data sources. Second, staff must have tools to analyze the data.

Regardless of which option is used, leaders should incorporate providers' clinical judgment when identifying patients needing additional support. Asking providers to provide input on your final list of patients will help to identify high-cost patients who may have otherwise been overlooked.

Move #2: Identify Patients Needing Additional Support

Aim to Bolster Clinical Judgment with Data Analytics

Option #1

Use data analytics to identify patients needing additional support

Option #2

Use provider-driven referral process to identify patients needing additional support

Determining Your Approach

*Use **Data Analytics** to Identify Patients if You Answer **Yes** to Both Questions Below*

Do you have one of the following **data sources available**?
- Disease registry
- Claims data
- Enterprise data warehouse or clinical data repository

Do you have one of the following **tools to analyze the data**?
- Staff who can comb through data to identify high-risk patients
- Automated algorithm to assess patients' risk level

Incorporate Clinical Judgment Regardless of Your Approach

Use a real-time **provider-driven assessment** to confirm data analysis results, or to identify patients needing additional support in the first place

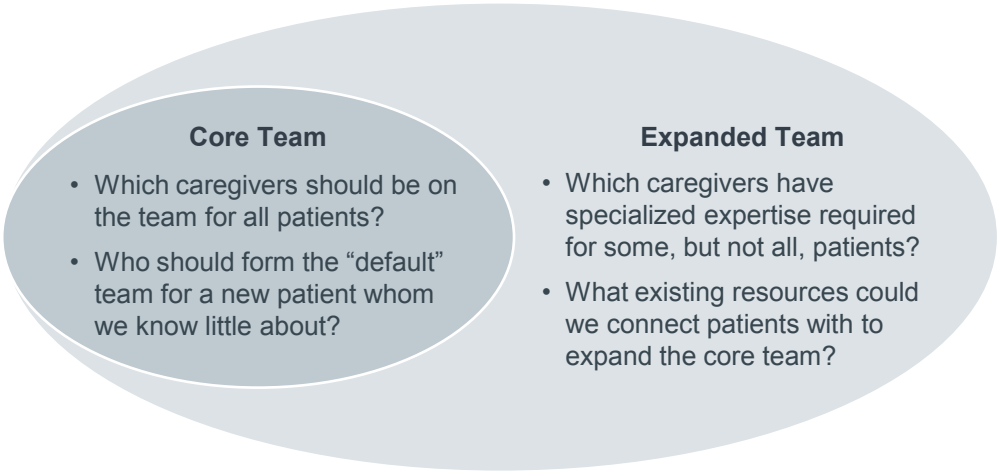
Source: Nursing Executive Center interviews and analysis.

The third move in Path #3 is to define the core and expanded care teams. The "core care team" serves all patients. The "expanded care team" consists of the core team plus additional caregivers who provide further support. The goal is to keep the core team as small as possible and then selectively layer on additional caregivers as needed to form the expanded care team.

To help you determine which caregivers should be on the core and expanded care teams, we have provided the key questions listed to the right.

Move #3: Define The Core and Expanded Care Teams

Key Questions to Identify the Core and Expanded Care Teams



Source: Nursing Executive Center interviews and analysis.

The fourth move in Path #3 is to layer additional support onto the core team. As noted on the previous pages, some complex patients will require additional support beyond what the core care team can offer. At first blush, it may seem too costly to layer additional support onto the core team. However, expanded care teams do not always have to deliver care at the same site. Implementing expanded care teams that float across multiple sites of care can help to minimize costs.

There are two options for this move, shown here. The first option is to float expanded team members across sites, and the second option is to embed expanded team members within each site. To help you decide between these two options, we have provided the guidance on this page.

If you have a large number of sites with few patients needing an expanded team, we recommend floating expanded team across multiple care sites. On the other hand, if you have a specific site in which a large number of patients need an expanded team, we recommend embedding the expanded team directly on-site.

Move #4: Layer Additional Support onto the Core Team

Float Team Across Sites or Embed Directly On-Site

If the Answer is Yes…

Option #1

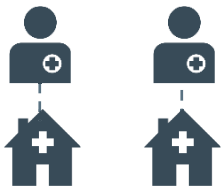
- Do you have **multiple care sites** with a **small number of patients** requiring a specialized team member?

AND

- Are your care sites within a **limited geographic region**? If not, does your IT infrastructure support **remote consultation**?

…Float the Expanded Team Across Sites.

Option #2



- Does your organization have **a specific care site** (e.g., ED, clinic) with **a large volume of patients** requiring a specialized team member?

AND

- Is immediate **in-person consultation** critical for engaging your selected patient population of focus?

…Embed the Expanded Team On-Site.

Source: Nursing Executive Center interviews and analysis.

The fifth move in Path #3 is to regularly reassess each patient's need for support. Leaders should continually reevaluate patients to ensure their current needs are being met, and to ensure resources are directed to the patients who need them most.

There are three ways to determine whether continued expanded care team support is necessary, shown here.

The first method is to use a quantitative risk score and a predetermined threshold to determine whether or not patients should continue receiving additional support. The second method is to use the level of patient activation and participation in the program. If patients miss appointments and don't respond to outreach, additional support should be discontinued. The third method is to reassess a patient's needs after a pre-determined length of time.

All three methods for assessing patient need for support are effective. The method you choose is not as important as having a clear, predefined mechanism in place to trigger the decision.

Move #5: Regularly Reassess Patient Need for Support

Sample Methods to Decide Whether to Continue Support

Method	Capsule Description	Organization
Quantitative Score	Care managers administer risk assessment questionnaire to patients in advanced care management program once per quarter; if patient scores above threshold, patient stays in program; if patient scores below threshold, patient transferred to lower-intensity care team	**Mount Rose Health System[1],** multi-hospital health system in the Midwest
Level of Patient Activation	Patients participating in Medication Therapy Management **must come to all in-person appointments** with their MTM pharmacist to stay enrolled in the program; if patient misses appointment, staff attempt contact via postcard and phone call; if no response, patient moved to "inactive" status	**Fairview Health Services,** eight-hospital health system headquartered in Minneapolis, Minnesota
Predefined Length of Time	Patients enrolled in Sutter's Care Coordination Program for high-risk patients **remain in the program for one month**, after which they graduate unless ongoing needs are identified; patients are tracked for 30 days after graduation	**Sutter Health,** 24-hospital health system headquartered in Sacramento, California

Source: St. Charles Health System, Bend, OR; de Oliviera R, et al., "Medication Therapy Management: 10 Years of Experience in a Large Integrated Health Care System," *Journal of Managed Care Pharmacy*, 16(2010): 185-195; Fairview Ridges Hospital, Burnsville, MN; California HealthCare Foundation, "Sutter Health: Sutter Care Coordination Program," *Complex Care Management Program Overview (*2013): 63-68; Sutter Health Sacramento Sierra Region, Sacramento, CA; Nursing Executive Center interviews and analysis.

1) Pseudonym.

Introducing Two Organizations Scaling the Care Team Effectively

Fortunately, the five moves summarized on the previous pages are not just theory. To provide examples of how some organizations are implementing these moves, Nursing Executive Center researchers conducted in-depth case studies of two high-performing organizations that pursued all five moves: St. Charles Health System in Bend, Oregon, and Massachusetts General Hospital in Boston, Massachusetts.

A brief overview of each organization's approach is shown here. Note that despite differences in their approaches, leaders at both organizations implemented all five moves successfully. The following pages provide details about how St. Charles Health System and Massachusetts General Hospital effectively scaled their care team to serve selected patients.

Two Options for Scaling the Care Team Effectively

	St. Charles Health System	Massachusetts General Hospital
1. *Select a Patient Population of Focus*	**High-impact patient need**: Behavioral health	**High-risk patients**: Top 5% Medicare patients[4]
2. *Identify Patients Needing Additional Support*	**Primary care provider screens patients** for behavioral health needs during routine and annual exams	**Data analysis** of claims identifies eligible Medicare patients
3. *Define the Core and Expanded Care Teams*	**Core:** PCP, MA **Expanded:** BHC[1], RN care coordinator, community health worker	**Core:** PCP **Expanded:** RN care manager, social worker, pharmacist, community resource specialist
4. *Layer Additional Support onto the Core Team*	**BHC meets with patients in clinic** immediately following a warm handoff from PCP	**RN care manager assigned to high-risk patients**; coordinates referrals to additional providers as needed
5. *Regularly Reassess Patient Need for Support*	BHC administers **PHQ9[2], GAD7[3], and Health Risk Assessment at every visit** to determine plan of care	RN care manager completes baseline assessment, reevaluates and revises plan as needed; assigns patients to **"active" or "monitoring" status**
Full Profile	Pages 99-105	Pages 106-114

1) Behavioral Health Consultant.
2) Nine-item depression scale of the Patient Health Questionnaire.
3) Generalized Anxiety Disorder seven-item scale.
4) Eligible patients have a Mass General PCP.

Source: St. Charles Health System, Bend, OR; Massachusetts General Hospital, Boston, MA; Nursing Executive Center interviews and analysis.

Case Study #1

Our first case study of selectively scaling care teams to patient needs is St. Charles Health System, a four-hospital system with 14 clinics, headquartered in Bend, Oregon.

The majority of St. Charles' contracts are fee-for-service. In addition, St. Charles is an active participant in the Central Oregon Health Council, a public-private partnership formed in 2011 with regional payers, providers, and county governments focused on providing better care for individuals, improving health for populations, and reducing per capita health care costs.

St. Charles Health System

IMAGE CREDIT: ST. CHARLES HEALTH SYSTEM.

Organizational Snapshot

- Four-hospital health system headquartered in Bend, Oregon
- 3,500 employees, including 750 nurses
- St. Charles Medical Group employs more than 120 providers, operates 14 clinics
- Majority of contracts are fee-for-service
- Participating in Central Oregon Health Council, public-private partnership formed in 2011 with regional payers, providers, and county governments to achieve the Triple Aim[1]

1) Defined by IHI as better care for individuals, better health for populations, and lower per capita costs.

Source: St. Charles Health System, https://www.stcharleshealthcare.org/; Central Oregon Health Council, available at: http://www.cohealthcouncil.org/, accessed on November 12, 2013; Nursing Executive Center interviews and analysis.

Move #1: Select a Patient Population of Focus

The first move in Path #3 is to select a patient population of focus. There are two options for identifying these patients. The first option is to focus on a high-impact patient need. The second option is to focus solely on the top 5% of high-risk patients who have at least one complex disease, multiple comorbidities, and high-cost utilization.

Leaders at St. Charles chose to focus on a high-impact patient need prevalent in their patient population: behavioral health. The national data shown here helped inform their decision.

Nationally, more than a quarter of adults have a diagnosable behavioral health condition. In addition, behavioral health issues have a significant impact on utilization and health care spending—patients with a chronic condition and depression have significantly higher costs than patients without mental health comorbidity.

Focus on a High-Impact Patient Need

Unmet Behavioral Needs Exacerbate Costs

Key Characteristics of a High-Impact Patient Need

Prevalent in Population

Result in Unreimbursed Utilization

Mitigated Through Care Team Intervention

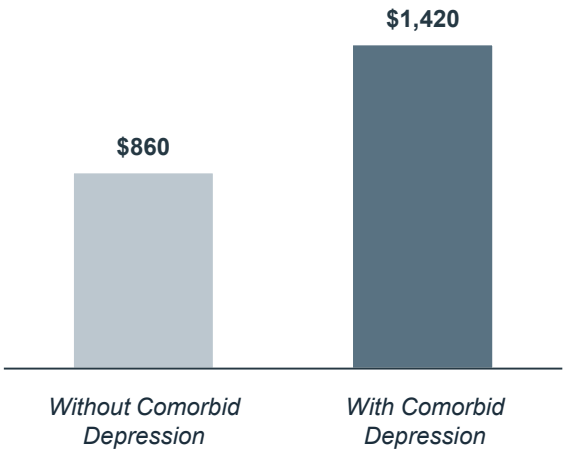
26.2%

Percentage of US adults with diagnosable behavioral health conditions

15%

Estimated national percentage of patients referred to off-site mental health provider who follow through and make appointment

Average PMPM[1] Health Care Expenditures for US Patients with a Chronic Condition



Source: Melek S, Norris D, *Chronic Conditions and Comorbid Psychological Disorders*, Seattle: Milliman, 2008; St. Charles Health System, Bend, OR; Nursing Executive Center analysis.

1) Per member per month.

Move #2: Identify Patients Needing Additional Support

The second move in Path #3 is to identify patients needing additional support. There are two options for identifying these patients. The first option is to use data analytics to assess all patients against specific criteria to determine who may need additional support. The second option is to use a provider-driven referral process. Leaders at St. Charles chose to utilize a provider-driven referral process.

Providers within St. Charles' medical homes assess all patients for aberrant coping behaviors as part of their routine workflow. During routine PCP (or office) visits, the primary care provider screens patients using the criteria shown here.

Providers specifically look for patients with psychosocial issues that interfere with the patient's health. For example, the patient described in the box on the left is a candidate for mental health support because he has both medical and behavioral issues, and is at risk for hospital readmission due to his aberrant coping behaviors. While the patient listed on the right has medical and behavioral issues, she is not a candidate for Behavioral Health Consultant (BHC) support because she is able to self-manage her care.

PCP Screens for Mental Health Needs

St. Charles's BHC Referral Criteria

- ✔ Patient's behaviors and/or emotions negatively impact his/her ability to receive or participate in the treatment plan
- ✔ Patient's behaviors or emotions negatively impact his/her health status
- ✔ High likelihood of hospital readmission for the current condition due to lifestyle choice or aberrant coping behaviors

Sample Patient Eligible for BHC Support

- Recent head injury during skiing accident
- Headaches, difficulty sleeping and regulating activities, impulsive behaviors
- Six ED visits in the past six months

Sample Patient Not Eligible for BHC Support

- Diagnosed with depression and anxiety
- Rarely forgets to take prescribed medication

Source: St. Charles Health System, Bend, OR; Nursing Executive Center interviews and analysis.

Move #3: Define the Core and Expanded Care Teams

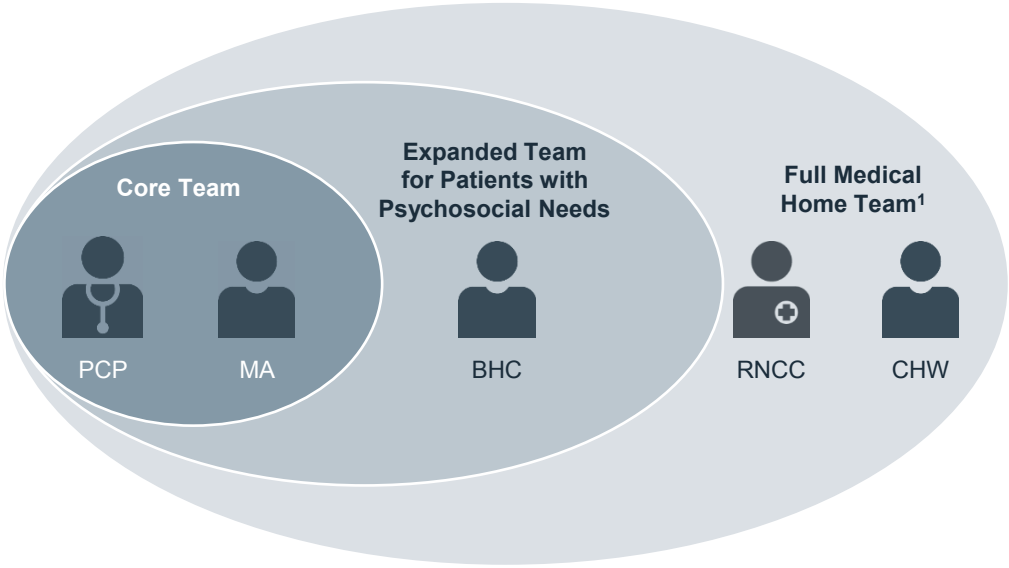
The third move in Path #3 is to define the core and expanded care teams. The "core care team" serves all patients. The "expanded care team" consists of the core team and additional caregivers who serve the subset of patients identified in Move #1.

The core team in St. Charles' primary care clinics is a PCP and a medical assistant. The expanded team for patients with psychosocial needs includes a Behavioral Health Consultant (BHC)—a licensed psychologist embedded in St. Charles's medical homes—in addition to the core team.

The full medical home team includes an RN Care Coordinator (RNCC) and Community Health Worker (CHW), in addition to the core and expanded teams.

Identifying the Minimum Core Care Team

The Core and Expanded Care Teams at St. Charles



1) Known as the Health Engagement Team at St. Charles; all caregivers in the team coordinate patient care across settings.

Source: St. Charles Health System, Bend, OR; Nursing Executive Center interviews and analysis.

Move #4: Layer Additional Support onto the Core Team

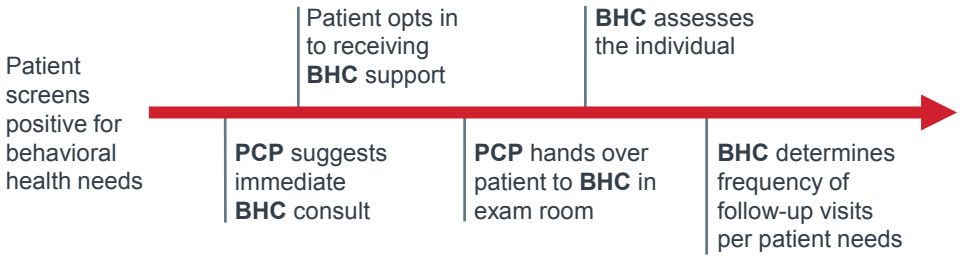
The fourth move in Path #3 is to layer additional support onto the core team. Additional caregivers are assigned to high-complexity patients to provide additional support as part of the expanded care team when needed. Leaders at St. Charles included BHCs in the expanded care team. BHCs are deployed when patients exhibit behavioral health needs, such as aberrant coping behaviors.

The expanded team works with the core team to develop an integrated care plan for the patient to address key issues, including drug and alcohol use, weight management, and stress. The expanded team also helps patients manage symptoms from conditions such as migraines and fibromyalgia.

PCPs within the core team at St. Charles can also activate the full medical home team for patients when needed.

Adding Behavioral Health Consultants to the Team

Process for BHC Intervention in the Medical Home



Role in Brief: Behavioral Health Consultants

- Licensed psychologists embedded in St. Charles Health System's primary care medical homes; six Behavioral Health Consultants (BHCs) embedded exclusively in primary care clinics, additional BHCs work in pediatrics, specialty clinics, and inpatient settings
- Available for immediate consultation with patients upon referral from PCP; meet patient in exam room and provide assessment, diagnosis, and interventions focusing on health behavior change as needed
- Develop care plans with patient and care team for issues such as smoking cessation, weight loss, drug and alcohol use, exercise adoption, stress management, sleep disorders, and chronic pain
- Aim to promote positive health behaviors by reducing negative symptoms from medical conditions such as migraines, fibromyalgia, diabetes, hypertension, irritable bowel syndrome, and asthma
- Provide referrals for specialty mental health services throughout community
- Half of BHC time filled with scheduled follow-up appointments, remaining half left open for immediate consultation

Source: Central Oregon Health Council, Health Integration Project, Final Project Report: June 2010-June 2011; St. Charles Health System, Bend, OR; Nursing Executive Center interviews and analysis.

Move #5: Regularly Reassess Patient Need for Support

The fifth move in Path #3 is to regularly reassess patient need for support in order to determine when it is appropriate to scale back. The goal is to ensure limited resources are directed to the patients who need them most.

BHCs provide short-term mental health interventions and communicate with the broader care team to determine the appropriate plan of care for each patient. During each visit, the BHC uses the screening tools listed here to gauge each patient's level of progress. On average, each patient referred to a BHC requires only two visits—the initial referral and a single follow-up visit.

Determining When to Scale Back Support

Factors Impacting Decision to Continue Psychosocial Support

Plan of Care

BHC consults with team to determine patient needs

Assessments

BHC considers scores on PHQ9[1], GAD7[2] and Health Risk Assessment as appropriate

5%	2
Percentage of patients in clinic seeing BHC[3]	Average number of visits each referred patient has with BHC

1) Nine-item depression scale of the Patient Health Questionnaire.
2) Generalized Anxiety Disorder seven-item scale.
3) BHC provides consults to care team for additional 3% of patients.

Source: OPB News, "Not Feeling Well, Sometimes It's All in Your Head," http://www.opb.org/news/article/sometimes-its-all-in-your-head/; Central Oregon Health Council, Health Integration Project, Final Project Report: June 2010-June 2011; St. Charles Health System, Bend, OR; Nursing Executive Center interviews and analysis.

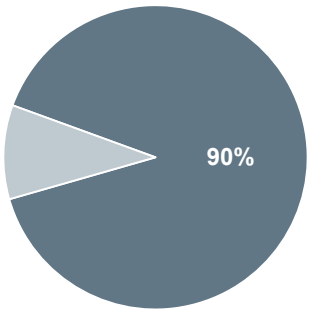
Leaders at St. Charles report that by providing immediate support, the likelihood that patients will receive the help they need significantly improves.

According to leaders at St. Charles, 90% of patients referred to the BHC attend their initial appointment. In addition, they report an average cost reduction of $860 per Medicaid patient after embedding BHCs in the medical home expanded care team.

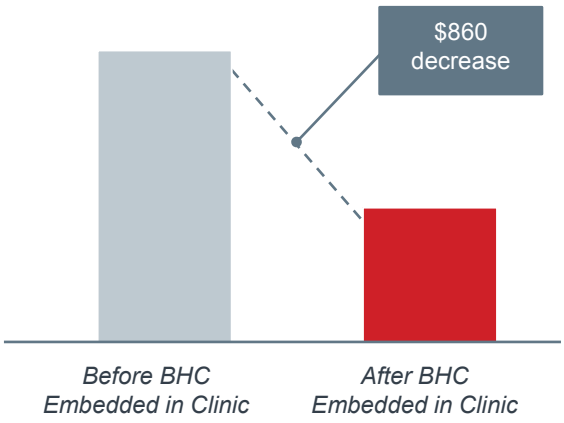
Finally, leaders note that selectively adding BHCs to the care team ensures each PCP's time is used efficiently. Anecdotally, the BHC is able to treat patients with mental health issues who may require more interaction with a provider than a routine PCP visit allows.

Improving Value at St. Charles

Estimated Percentage of Patients Referred to Embedded BHC Who Attend Appointment



Average Annual Cost for Medicaid Patients[1]



Source: OPB News, "Not Feeling Well, Sometimes It's All in Your Head," http://www.opb.org/news/article/sometimes-its-all-in-your-head/; Central Oregon Health Council, Health Integration Project, Final Project Report: June 2010-June 2011; St. Charles Health System, Bend, OR; Nursing Executive Center interviews and analysis.

1) St. Charles Family Care-Redmond Clinic; n=400.

Case Study #2

Our second case study of selectively scaling care teams to patient needs is Massachusetts General Hospital (Mass General), a pioneer ACO, headquartered in Boston, Massachusetts.

In 2006, Mass General joined a CMS care management demonstration project targeting high-cost Medicare beneficiaries. Their physician group was paid $120 per month per participant, and the organization shared in savings greater than 5%.

Massachusetts General Hospital

IMAGE CREDIT: MASSACHUSETTS GENERAL HOSPITAL.

Organizational Snapshot

- 950-bed academic medical center based in Boston, Massachusetts; part of Partners HealthCare
- 23,000+ employees, including 4,200 nurses
- 21 primary care practices with more than 200 internal medicine physicians
- Integrated electronic medical record across hospital and physician practices
- Participating in Partners HealthCare Pioneer ACO
- With Massachusetts General Physicians Organization (MGPO), joined CMS Care Management for High-Cost Beneficiaries Demonstration in 2006; share in savings greater than 5% plus program costs[1]

Source: McCall N, Cromwell J, Urato C, Evaluation of Medicare Care Management for High Cost Beneficiaries (CMHCB) Demonstration: Massachusetts General Hospital and Massachusetts General Physicians Organization (MGH) Final Report: September 2010; "The Healthcare Imperative: Lowering Costs and Improving Outcomes: Workshop Series Summary," available at: http://www.nap.edu/catalog/12750.html, accessed on November 6, 2013; Massachusetts General Hospital, Boston, MA; Nursing Executive Center interviews and analysis.

1) MGPO received $120 monthly fee per enrolled participant.

Move #1: Select a Patient Population of Focus

Just like St. Charles Medical Center, Mass General followed all five "moves" within this path. However, leaders at Mass General made different decisions within each move.

One of the greatest differences between St. Charles and Mass General is the decision leaders at Mass General made for the first move—selecting a patient population of focus.

As a reminder, there are two options for selecting a patient population of focus. The first option is to focus on a high-impact patient need. The second option is to focus solely on the top 5% of high-risk patients who have at least one complex disease, multiple comorbidities, and high-cost utilization. Leaders at Mass General chose the second option.

Focus on High-Risk Patients

Sample Characteristics of Top 5% of High-Risk Patients

Source: Massachusetts General Hospital, Boston, MA; Nursing Executive Center interviews and analysis.

Leaders at Mass General chose to focus on the top 5% of high-risk patients who have at least one complex disease, multiple comorbidities, and high-cost utilization. They chose to focus on these patients for at least three reasons.

First, Mass General has strong IT capabilities, which helps leaders identify the highest-risk patients within the organization. They rely on robust, real-time data to do so.

Second, as a result of their participation in the CMS demonstration project, Mass General had the necessary financial incentives to reduce utilization for high-risk Medicare patients.

Third, leaders at Mass General determined they provided the bulk of these patients' care; data analysis revealed that approximately 65% of high-risk patients' costs of care were provided within Mass General.

Assuming Risk for High-Cost Patients

Factors Leading Mass General to Focus on High-Risk Patients

Strong IT Infrastructure Enables Patient Identification

Cross-continuum EMR and robust administrative systems allow for patient tracking and analytic reports

CMS Medicare Demonstration[1] Offers the Right Incentives

Mass General and MGPO[2] signed onto six-year demonstration designed to identify effective models of care delivery for high-risk Medicare patients

Patients Using High-Cost Services

Preliminary data analysis attributed an average of 65% of high-risk patients' costs of care provided within Mass General

1) Centers for Medicare & Medicaid Services (CMS) Care Management for High-Cost Beneficiaries Demonstration.
2) Massachusetts General Physicians Organization.

Source: "The Healthcare Imperative: Lowering Costs and Improving Outcomes: Workshop Series Summary," available at: http://www.nap.edu/catalog/12750.html, accessed on November 6, 2013; Massachusetts General Hospital, Boston, MA; Nursing Executive Center interviews and analysis.

Move #2: Identify Patients Needing Additional Support

Once leaders at Mass General made the decision to focus on their highest-risk patients, their next step was to identify those specific patients. They used the criteria shown here.

They also clearly defined patients who were not a good fit for the program. The exclusion criteria—which include both financial and clinical factors—are also shown to the right.

Pinpointing the Highest-Risk Medicare Patients

Criteria for Identifying High-Risk Medicare Patients at Mass General

Inclusion Criteria	HCC[1] risk score ≥ 2.0 and annual cost ≥ $2,000, *or* HCC risk score ≥ 3.0 and annual cost ≥ $1,000
	Two visits to MGH[2] physicians in 12-month period, *and* no inpatient visits or 50% of visits to MGH inpatient facilities
	Resident of Suffolk, Essex, Middlesex, Norfolk, or Plymouth counties
Exclusion Criteria	End-stage renal disease
	Residing in a long-term care facility
	Participating in other CMS demonstration
	Hospice, at start of program
	Medicare Advantage
	Medicare as secondary payer
	No Part A or B coverage

Average CMS Demonstration Participant at Mass General

76
Years old

3.4
Acute care hospitalizations per year

12.6
Active medications

$22,520
Average annual cost

1) Hierarchical Condition Category. HCC is a risk adjustment system used by the Centers for Medicare & Medicaid Services (CMS).
2) Massachusetts General Hospital.

Source "The Healthcare Imperative: Lowering Costs and Improving Outcomes: Workshop Series Summary," http://www.nap.edu/catalog/12750.html; Massachusetts General Hospital, Boston, MA; Nursing Executive Center interviews and analysis.

Move #3: Define the Core and Expanded Care Teams

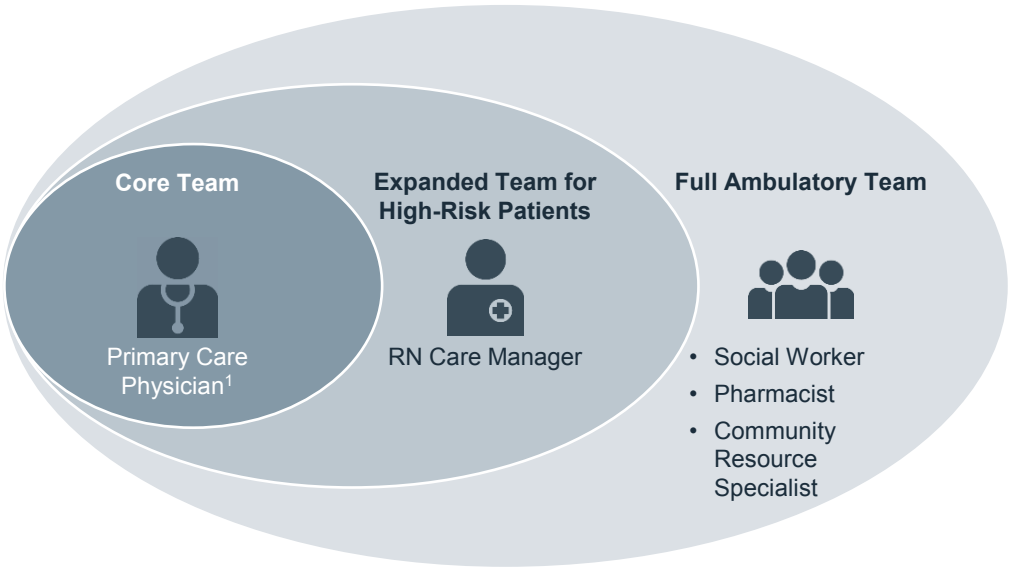
The next step for leaders at Mass General was to define the core and expanded patient care teams.

Most patients that visit primary care clinics at Mass General receive care from the core team, comprised of a primary care physician. However, high-risk patients receive care from the full ambulatory team, including a social worker, pharmacist, and community resource specialist.

RN Care Managers, comprising the expanded team, also interact with high-risk patients. Each RN Care Manager facilitates communication between 200 high-risk patients and the full ambulatory team. The RN care manager is embedded within the primary care clinic and serves as the single, ongoing point of contact.

Meeting the Full Range of Patient Needs

The Core and Expanded Care Teams at Mass General



Role in Brief: RN Care Managers

- RNs with more than 20 years of experience in clinical care delivery; embedded in Mass General primary care practices
- Serve as primary contact for high-risk patients; each RN care manager has caseload of approximately 200 patients
- May cover more than one practice with smaller patient volumes; work with maximum of three clinics
- Design care plan with primary care physician and coordinate care with additional team members
- Provide patient education, encourage adherence to care plan and improvement through patient-centric goal setting; promote open communication through consistent monitoring, feedback, and follow-up
- Receive electronic alert when assigned patients present to ED or are discharged from inpatient setting to enable follow-up; weekly electronic notifications of upcoming patient appointments assist with scheduling in-person meetings with patients

1) Primary care physician works as part of practice team, which may include nurse practitioners, RNs, and/or MAs depending on the practice.

Source: Massachusetts General Hospital, Boston, MA; Nursing Executive Center interviews and analysis.

Move #4: Layer Additional Support onto the Core Team

Next, leaders at Mass General determined how to layer on additional support to the core team.

Leaders at Mass General used the four-step process shown here to provide additional support to patients identified as "high risk." All eligible patients are invited to enroll, but must formally opt-in to receive any additional services. Once patients agree to participate, RN care managers play a vital role in layering on any additional support. The RN care manager at Mass General creates a care plan with the patient and PCP and works to coordinate referrals as needed among the expanded care team and other providers. Finally, the RN care manager provides ongoing self-management support and education.

One Point of Contact for the Patient and Care Team

Managing Care for Mass General Participants in CMS Demonstration[1]

1

Enrollment

Eligible patient invited to engage in program via letter, phone call, or in-person meeting

2

Care Plan Development

RN care manager forms care plan with patient and PCP

3

Referral Coordination

RN care manager coordinates referrals to expanded team and other providers

4

Ongoing Support

RN care manager provides ongoing patient education, support for self-management and care transitions

87%

Percentage of eligible patients enrolled in program; leaders attribute high enrollment to engaging patients via their PCP's office (rather than outsourcing to a third party)

1) Centers for Medicare & Medicaid Services (CMS) Medicare Care Management for High-Cost Beneficiaries Demonstration.

Source: "The Healthcare Imperative: Lowering Costs and Improving Outcomes: Workshop Series Summary," http://www.nap.edu/catalog/12750.html; Massachusetts General Hospital, Boston, MA; Nursing Executive Center interviews and analysis.

RN care managers rely heavily on Mass General's IT infrastructure to efficiently serve their high-risk patients.

The features of Mass General's IT system that enable the RN care coordinators' work are shown here. One key capability is the cross-continuum electronic medical record, which spans the inpatient and outpatient care settings.

The second key feature is an icon added to the medical record of patients designated "high-risk." The EMR flags patients that are high risk and includes their RN care manager's name and contact information.

The third key feature is specialized software that manages workflow among the entire care team via transparent work lists.

While having a robust IT infrastructure helps Mass General layer additional support onto the care team, it isn't necessarily a prerequisite. Nurse leaders who lack this level of IT infrastructure could potentially replicate this level of coordination by relying on paper-based records and personally placed telephone calls. (For example, rather than relying on an automated alert, leaders could require that ED staff notify RN care managers by telephone when a high-risk patient visits the ED). However, this would be resource intensive, and nurse leaders should carefully weigh the trade-offs this would require.

IT Infrastructure Facilitating Care Coordination

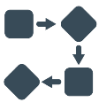
Specialized IT Enabling Care Coordination at Mass General

Cross-Continuum EMR

- EMR accessible in hospital and physician practices
- All physicians within the organization use EMR to update patient care plan

EMR Alerts for Program Participants

- Icon in EMR identifies patients with RN care manager; lists care manager's contact information
- Automatic alerts for missed appointments, hospital admissions, discharges, ED visits for enrolled patients



Workflow Software

- Software manages workflow with work list accessible to entire care management team
- All team members can see tasks; tasks marked open or completed

Source: "The Healthcare Imperative: Lowering Costs and Improving Outcomes: Workshop Series Summary," http://www.nap.edu/catalog/12750.html; Massachusetts General Hospital, Boston, MA; Nursing Executive Center interviews and analysis.

Move #5: Regularly Reassess Patient Need for Support

In addition to routinely assessing patients' need for additional support, leaders at Mass General scale the level of support provided to each patient. Each RN care manager's panel at Mass General contains 200 patients. Patient panels are split into two different groups: active and monitoring.

RN care managers spend the majority of their time focused on patients in the active group. To ensure patients in the active group receive the support they need, RN care managers contact these patients at least monthly to discuss their plan of care and any transitions.

Patients in the monitoring group require less frequent intervention as they are either managing their care well on their own, or are not taking full advantage of the program. Accordingly, RN care managers only contact patients in this group every six months. Care managers move patients to the monitoring group following consultation with a PCP.

Scaling Support for High-Risk Patients

Two Levels of High-Risk Patient Support

Patient Status	Average Number of Patients per RN Care Manager	Capsule Description	Frequency of Intervention
Active	150	RN care manager communicates with patient and provider about the plan of care, supports care transitions, coordinates care with providers and multidisciplinary team	At least monthly
Monitoring	50	RN care manager reviews patient status and care plan with primary care physician at least once every six months; intervenes during care transitions and as necessary	At least once every six months

Source: "The Healthcare Imperative: Lowering Costs and Improving Outcomes: Workshop Series Summary," http://www.nap.edu/catalog/12750.html, Massachusetts General Hospital, Boston, MA; Nursing Executive Center interviews and analysis.

By judiciously matching extra support to the patients who will benefit from it most, Mass General has dramatically improved value for high-risk patients.

Participants in the CMS demonstration at Mass General have a lower mortality rate, fewer hospitalizations, and fewer ED visits compared to patients with similar conditions. Additionally, Mass General saves more than two dollars for every dollar spent on program participants.

Improving Value at Mass General

Enrolled Beneficiaries Realize Improved Clinical Outcomes[1]

7%	Annual net savings on enrolled patients
$2.65	Savings generated for every dollar spent

1) Results relative to a matched comparison group.

Source: Mass General Care Management Program, http://www2.massgeneral.org/caremanagement/; Massachusetts General Hospital, Boston, MA; Nursing Executive Center interviews and analysis.

Blueprint for Path #3

Deploying the Minimum Core Team and Selectively Scaling Up Support

This blueprint recaps the primary moves for effectively scaling the care team to more closely meet patients' needs. Unlike the first two paths in this report, it is important to implement all five moves in Path #3 in the order listed below.

For additional guidance on these five moves (and the primary options for each), see pages 85 to 98 of this publication.

Blueprint for Determining Level of Core Team Support

1 Select a Patient Population of Focus

*Pick One **Population**:*

- ❑ High-Risk Patients
- ❑ High-Impact Patient Need:
  - ❑ Behavioral Health
  - ❑ Medication Management
  - ❑ Palliative Care
  - ❑ Other: _____

2 Identify Patients Needing Additional Support

*Pick One or More **Tools** to Identify Patients:*

- ❑ Data Analytics
- ❑ Provider-Driven Assessment

3 Define the Core and Expanded Care Teams

*Pick the **Core Team**:*

- ❑ Primary Care Provider
- ❑ RN
- ❑ Medical Assistant
- ❑ Other: _____

*Pick the **Expanded Team**:*

- ❑ RN Care Manager
- ❑ Behavioral Health Consultant
- ❑ Social Worker
- ❑ Pharmacist
- ❑ Palliative Care Specialist
- ❑ Community Resource Specialist
- ❑ Other: _____

4 Layer Additional Support onto the Core Team

*Pick the **Expanded Team's Location**:*

- ❑ Float Expanded Team Members Across Sites
- ❑ Embed Expanded Team Members Onsite

5 Regularly Reassess Patient Need for Support

*Pick One **Trigger** to Reevaluate Patient Needs:*

- ❑ Quantitative Score
- ❑ Level of Patient Activation
- ❑ Predefined Length of Time
- ❑ Other:_____

Source: Nursing Executive Center interviews and analysis.