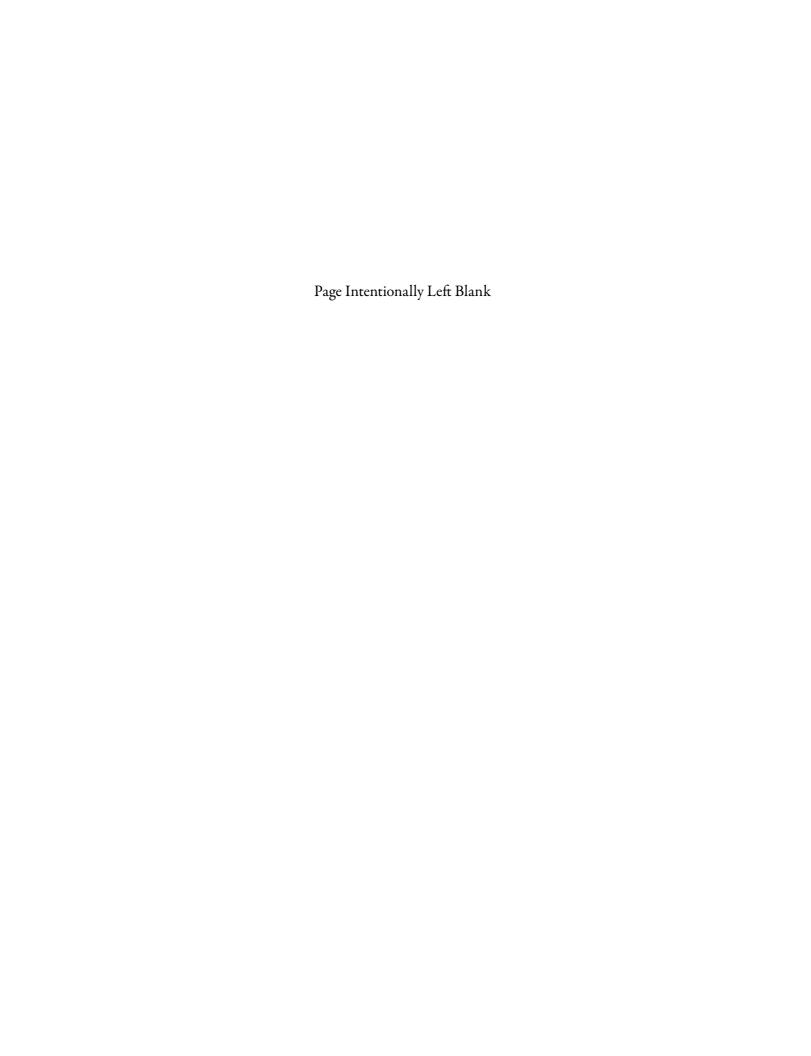
LESSONS FROM THE FIELD:

Promising Interprofessional Collaboration Practices







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Acknowledgments

In 2014, the Robert Wood Johnson Foundation identified a broad range of health care organizations involved in interprofessional collaboration, conducted interviews and site visits, and convened a day-long meeting to examine interprofessional teams and their effectiveness in serving patients and contributing to a Culture of Health. This report is a summation of the interviews, discussions, best practices, and recommendations gleaned from that process.

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Intermountain Healthcare—Salt Lake City, Utah*

Kaiser Permanente—Oakland, California

Penobscot Community Health Care—Bangor, Maine

Premier Health—Middletown, Ohio

Sacred Heart Health—Pensacola, Florida

Salud Family Health Centers—Commerce City, Colorado

University of Pennsylvania Health System—Philadelphia, Pennsylvania*

Virginia Mason Health System—Seattle, Washington*

Women and Infants Hospital—Providence, Rhode Island*

Yale New Haven Hospital—New Haven, Connecticut

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^{*}Included site visits.

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Executive Summary

The Robert Wood Johnson Foundation (RWJF), which is committed to building a Culture of Health in America, initiated a project entitled *Identifying and Spreading Practices to Enable Effective Interprofessional Collaboration* to better understand the role of interprofessional collaboration in advancing a Culture of Health. The purpose of the project is to both encourage and enable collaboration that will improve care by exploring, explaining, and disseminating some of the most useful practices for effective interprofessional collaboration—and the supports required to sustain them over time. The goal is ultimately to share these practices more broadly in order to catalyze efforts across the country to advance effective interprofessional collaboration.

For the purposes of this work, we defined effective interprofessional collaboration in a particular way:

Effective interprofessional collaboration promotes the active participation of each discipline in patient care, where all disciplines are working together and fully engaging patients and those who support them, and leadership on the team adapts based on patient needs.

Effective interprofessional collaboration enhances patientand family-centered goals and values, provides mechanisms for continuous communication among caregivers, and optimizes participation in clinical decision-making within and across disciplines. It fosters respect for the disciplinary contributions of all professionals.

We started by interviewing nearly 20 organizations across the United States, including community hospitals, community health centers, specialty hospitals, and academic health centers. From that group, we identified seven organizations to visit. We made the final selection to create a representative set of organizations by geography, academic status, size, and type (hospital, system, community health center), including where each is along its journey toward a culture of interprofessional collaboration (from just starting to many decades along). The site visit organizations included:

"You have to have buy-in at the upper levels of management, sending the message that this is what we do here. You have to lead by example."

Salud Family Health Centers

- 1. Aurora Health Care—Milwaukee, Wisconsin
- 2. Cincinnati Children's Hospital Medical Center—Cincinnati, Ohio
- 3. Community Health Center, Inc.—Middletown, Connecticut
- 4. Intermountain Healthcare—Salt Lake City, Utah
- 5. University of Pennsylvania Health System—Philadelphia, Pennsylvania
- 6. Virginia Mason Health System—Seattle, Washington
- 7. Women and Infants Hospital-Providence, Rhode Island

During the site visits, we set out to understand three main things:

- 1. What are the interprofessional practices in play?
- 2. What are the supports that make interprofessional collaboration possible?
- 3. What is the difference that this work makes for patients and families?

Each of the site visit organizations is at a different point along their respective journeys toward a culture that embraces interprofessional collaboration. Each of them taught us important lessons that we believe will help inspire others—no matter where they are starting—to improve interprofessional practice in their own organizations. After the visits, we invited two representatives from each organization to attend a day-long convening at RWJF to discuss the preliminary findings and engage in discussion about how to cultivate interprofessional collaboration.

This report summarizes the project findings. We synthesized what we learned, identified a set of guiding principles that describe the elements necessary to create and sustain an environment and culture of interprofessional collaboration, and developed a series of rich case studies to highlight specific practices that have been effective for the organizations that participated in the project.

Guiding Principles

While our primary goal was to identify promising practices, we received other pieces of important advice from the organizations that participated in the project. These foundational ideas capture what might be thought of as "guiding principles," required to create an environment in which interprofessional collaboration can thrive.

- ▶ **It takes time.** This work does not happen overnight—it takes time, patience, and perseverance to build interprofessional collaboration, supported by leadership and the ability to think long-term.
- ▶ **Relationships matter.** People are the building blocks of teams—developing relationships between and among team members makes a difference.
- Pockets of interprofessional practice already exist. Creating an environment for interprofessional collaboration is not a linear process—if you look, you will find that the kind of interprofessional practice you want to create is already happening in small ways inside your organization. These "pockets" of promise can be highlighted, resourced, and spread.
- Name it. The term *interprofessional collaboration* itself might be viewed as a transitional concept until it becomes embedded in the culture. In other words, you may have to "name it" in order for people to recognize that it is different from the way they are already doing their work.
- Start small. It is smart to start small, engaging the passion of those who believe in this work, and using that passion as energy to build momentum and create pull for the ideas and practices throughout the organization.
- Creating a culture of interprofessional collaboration requires multiple reinforcing practices. Mutually reinforcing practices work together to eventually shape an organization in which "this is just how we do things around here"—a definition of culture.

Promising Practices to Implement and Promote Interprofessional Collaboration

We observed a wide variety of impressive interprofessional work taking place in each of the site visit organizations. In looking across the set, we noticed the following patterns that emerged as the most potent set of practices to develop, foster, and sustain interprofessional collaboration.

- 1. Put patients first. The power of putting patients and families first is a driving force that enables interprofessional practice. In many institutions, while health care providers truly believe that the interests of patients and their families are most important, it is clear that the systems of care are not always designed to achieve that end. Emphasizing patient-centered care from the boardroom to the front line can be achieved by asking, and honestly answering, questions like, What is best for the patient? Patients notice the difference this makes, describing that it makes them feel important, remembered, and like they are part of the team. Focusing on the patient from their unique perspective serves as an equalizer across each team member, in that patients' interests supersede the potentially competing interests of individual team members. It also helps people "connect the dots" between their particular role, patient care, and the mission of their organization.
- 2. Demonstrate leadership commitment to interprofessional collaboration as an organizational priority through words and actions. The partnership among clinical leadership at all levels was essential to each site's ability to focus on interprofessional collaboration. We saw this most prominently between the chief medical officer and chief nursing executive roles, but it also appeared in different settings with senior leaders in behavioral health, pharmacy, therapy, and administration. Talking about interprofessional collaboration is important, but people need to see it in action to understand what collaboration really means, and that it is an organizational commitment.
- 3. Create a level playing field that enables team members to work at the top of their license, know their roles, and understand the value they contribute. We heard the phrase "creating a level playing field" in almost every organization we visited, but what does it mean? You need a way to look beyond the silos, history of professional training, and identity to help team members feel like they can make a meaningful contribution to the work. In other words, the "level playing field" mitigates the hierarchy and enables team members to experience their individual contributions and collective value. Numerous organizations do this by engaging interprofessional teams in quality improvement, safety, and process improvement work. This work requires team members to learn new language, skills, and expertise together, with the benefit of also learning what each team member actually does for the team.

- 4. Cultivate effective team communication. Communication, communication, communication—was shared over and over again as a key driver of interprofessional collaboration. Each profession brings with it its own language and way of communicating. Enabling team members with shared language and tools to promote effective communication helps overcome the barriers associated with the different communication styles and expectations that can impede collaboration.
- 5. Explore the use of organizational structure to hardwire interprofessional practice. We learned that while organizational structure is important, it is necessary but not sufficient in itself. Many organizations used organizational structure in different ways, from front-line teams to senior leadership. One chief operating officer (COO) explained, "If I don't have the structure in place, they are unlikely to work together. But that's only the beginning. There is so much more to making that structure work." This sentiment was shared across the board, emphasizing the need to have numerous types of practices and supports in place to advance interprofessional collaboration.
- 6. Train different disciplines together so they learn how to work together. Interprofessional collaboration must be learned—which is no easy feat, given the current structure of training and education across the numerous professions we expect to come together in the service of integrating care for patients. While we did not set out to study interprofessional education, it is clear that promoting interprofessional collaboration early and often in training will help establish behaviors and promote strong relationships so they can be strengthened over time.

Making the Case

Leaders from each of the organizations that participated in this project believe that interprofessional collaboration is making a difference. Those with whom we met reported how their efforts have improved patient *and* provider satisfaction, created a safer environment, enhanced the quality of care, and aligned efforts in a way that helps get work done more effectively and efficiently. For example, one site attributes success in several areas to a nurse-physician collaboration model that has reduced fall rates by 50 percent, decreased length of stay by 0.6 days from a prior hospitalist model, increased annualized bed turns by 20 percent, and increased discharges before noon from 10 percent to 30 percent. In another site, interprofessional work to improve start times in surgical services decreased turnover time by 20 percent, increased first-case on-time starts to 75 percent from 33 percent, and cut 700 hours of delay time in the past four years. Despite these impressive results, it is important to recognize that more work needs to be done both to study the benefits of interprofessional collaboration and to directly link those benefits to outcomes and their impact on health.

We hope this work will inspire others to take these ideas and find ways to make them their own inside their own institutions.



Introduction

Interprofessional collaboration between and among physicians, nurses, pharmacists, social workers, and other clinical and administrative professionals is playing an increasingly important role in the future of health care delivery. Many long-standing assumptions that have shaped the organization, delivery, and financing of health care are shifting beneath our feet. Interprofessional collaboration holds the potential to significantly contribute to the emerging model of care in the United States—one that is fundamentally transitioning from treating people who are sick to keeping people healthy, and from paying for volume to paying for value.

The Robert Wood Johnson Foundation (RWJF), in their commitment to building a Culture of Health in America, initiated a project entitled *Identifying and Spreading Practices to Enable Effective Interprofessional Collaboration* to better understand the role of interprofessional collaboration in advancing a Culture of Health. The project aims to both encourage and enable collaboration that will improve care by exploring, explaining, and disseminating some of the most useful practices and supports for effective interprofessional collaboration. By sharing these practices more broadly, the project hopes to catalyze efforts across the country to advance effective interprofessional collaboration.

We set out to identify a broad range of health care organizations representing different parts of the health care continuum, different geographies, different sizes, and different points along their journey toward interprofessional collaboration. In the end, we interviewed nearly 20 organizations, conducted site visits at seven, and met with interprofessional leaders at a day-long convening at RWJF to understand three main things:

- 1. What are the interprofessional practices in play?
- 2. What are the supports that make interprofessional collaboration possible?
- 3. What is the difference that this work makes for patients and families?

"You have to change the culture. That's where leadership is important.
Teamwork has to become the norm."

- Women and Infants Hospital

¹ A complete list of project participants is located in Appendix A of this paper.

The project findings are summarized in this report. We synthesized a set of guiding principles that describe the elements necessary to create and sustain an environment and culture of interprofessional collaboration. Additionally, as the goal of the project is to look at interprofessional collaboration in practice, we emphasize specific practices that have been effective for the organizations that participated in the project, using a series of rich case studies. We hope these examples will spark new ideas for interprofessional collaboration across a spectrum of practice settings.

Moving Beyond Teamwork to Interprofessional Collaboration

"Interprofessional collaboration requires leaving your comfort zone. It pushes you to break down silos and to see yourself as part of a whole."

Cincinnati Children's Hospital
 Medical Center

The Institute of Medicine report, *The Future of Nursing: Leading Change, Advancing Health* (2011), highlighted the significant role that team-based care will play in health care. The report states, "As the delivery of care becomes more complex across a wide range of settings, and the need to coordinate care among multiple providers becomes ever more important, developing well-functioning teams becomes a crucial objective throughout the health care system."²

Yet in many health care environments, traditional concepts about teams (e.g., as stable units) and team effectiveness fall short. Depending on the setting, multiple people of many disciplines and with different training come together quickly to meet a patient need (possibly disbanding just as quickly as they came together)—not to mention the inherent uncertainty related to the unique needs of every patient they face. The concept of "team intelligence" is often lacking in these situations, and the care team as a whole is certainly not greater than the sum of its parts. Suzanne Gordon, author and journalist, defines team intelligence as "the active capacity of individual members of a team to learn, teach, communicate, reason, and think together, irrespective of position in any hierarchy, in the service of realizing shared goals and a shared mission." But how can this kind of interaction consistently take place in the many different types of teams—intact or temporary—that come together in many health care settings in the service of the patient? Harvard Business School Professor Amy Edmonson's concept of "teaming" turns the idea of a team from a noun into a verb—she calls it teamwork on the fly. More importantly, she writes, "teaming helps individuals acquire

² Institute of Medicine. 2011. The Future of Nursing: Leading Change, Advancing Health. Washington: National Academies Press, 72.

Gordon, Suzanne, Patrick Mendenhall, and Bonnie Blair O'Connor. 2012. Beyond the Checklist: What Else Health Care Can Learn from Aviation Teamwork and Safety. Ithaca: IRL Press, 10.

knowledge, skills, and networks... Teaming is a way to get work done while figuring out how to do it better; it's executing and learning at the same time." Edmonson calls out five important behaviors for successful teaming, including:

- ► **Speak Up**—Communicate honestly and directly with others by asking questions, acknowledging errors, raising issues, and explaining ideas.
- **Experiment**—Take an iterative approach to action that recognizes the novelty and uncertainty inherent in interactions between individuals and in the possibilities and plans they develop.
- ▶ **Reflect**—Observe, question, and discuss processes and outcomes on a consistent basis to reflect the rhythm of work.
- Listen Intently—Work hard to understand the knowledge, expertise, ideas, and opinions of others.
- ▶ **Integrate**—Synthesize different facts and points of view to create new possibilities.

Together the skills for teaming and team intelligence are crucial in health care, and the practices that we are about to explore advance each of these ideas in some way. Effective teams, well-versed in these kinds of skills, increase the quality of care they provide. Project participants agreed that this was their own experience.

Defining Interprofessional Collaboration

In studying interprofessional collaboration, we pushed the concepts of teaming and team intelligence further to take into account the many different disciplines required to promote health and provide health care. As such, we defined effective interprofessional collaboration in a particular way:

Effective interprofessional collaboration promotes the active participation of each discipline in patient care, where all disciplines are working together and fully engaging patients and those who support them, and leadership on the team adapts based on patient needs.

Effective interprofessional collaboration enhances patient- and family-centered goals and values, provides mechanisms for continuous communication among caregivers, and optimizes participation in clinical decision-making within and across disciplines. It fosters respect for the disciplinary contributions of all professionals.

This definition guided our work, particularly the emphasis on engaging patients and those who support them—a step toward more fully understanding and enacting patient- and family-centered care.

Edmondson, Amy C. 2012. "Teamwork On the Fly: How to Master the New Art of Teaming." Harvard Business Review (April): 72–80.

Lessons From the Field: Promising Interprofessional Collaboration Practices

"Relationships make things work for our patients.

Our team is very passionate about the work they do. It's about relationships and employee engagement."

- Intermountain Healthcare

A number of organizations, collaboratives, and researchers are conducting important work on interprofessional collaboration, often focusing on the competencies required for education and collaboration. The RWJF project set out to identify interprofessional collaboration *in practice*. In other words, what are the day-to-day activities that health care organizations around the country are doing to put the concept of interprofessional collaboration into action? RWJF invited CFAR, Inc., a consulting firm whose work is driven by understanding human systems and culture, to identify promising practices in interprofessional collaboration. Why focus on practice? Because practice is the basis of culture.

Organizational culture is built on what people do, rather than what they say they do. As such, we can think of culture as a collection of behavioral practices that together comprise the "way things get done around here." These behaviors can thrive if they are supported by infrastructure that makes them as easy as possible to do (think of hand sanitizer stations used to promote hand-washing). If you want to change culture—you need first to change practice. This is often easier said than done. Cultural and organizational change experts Mal O'Connor and Barry Dornfeld write, "When you observe people's behaviors in getting work done, you see that many of them are not formally defined but are tacit: not openly spoken about, although generally understood. Others are explicit: openly stated, shared, and discussed." We knew we would need to learn about both. For this reason, we took an ethnographic approach that allowed us to

⁵ Cox, Malcolm and Mary Naylor, eds. 2013. "Transforming Patient Care: Aligning Interprofessional Education with Clinical Practice Redesign." Proceedings of a conference sponsored by the Josiah Macy Jr. Foundation, New York, January.

⁶ O'Connor, Malachi and Barry Dornfeld. 2014. *The Moment You Can't Ignore:* When Big Trouble Leads to a Great Future. New York: Public Affairs, 6.

compare and contrast what organizations say they are doing with observations to understand how interprofessional collaborative practices work on the ground—both tacit and explicit. We then worked backwards to understand the guiding principles that cut across the practices we observed.

Guiding Principles

At the highest level, we learned that the journey toward interprofessional collaboration embodies a number of guiding principles:

- ▶ **It takes time.** This work does not happen overnight—it takes time, patience, and perseverance to build interprofessional collaboration, supported by leadership and the ability to think long-term.
- ▶ **Relationships matter.** People are the building blocks of teams—developing relationships between and among team members makes a difference.
- Pockets of interprofessional practice already exist. Creating an environment for interprofessional collaboration is not a linear process—if you look, you will find that the kind of interprofessional practice you want to create is already happening in small ways inside your organization. These "pockets" of promise can be highlighted, resourced, and spread.
- Name it. The term *interprofessional collaboration* itself might be viewed as a transitional concept until it becomes embedded in the culture. In other words, you may have to "name it" in order for people to recognize that it is different from the way they are already doing their work.
- Start small. It is smart to start small, engaging the passion of those who believe in this work and using that passion as energy to build momentum and create pull for the ideas and practices throughout the organization.
- Creating a culture of interprofessional collaboration requires multiple reinforcing practices.
 Mutually reinforcing practices work together to eventually shape an organization in which "this is just how we do things around here"—a definition of culture.

Through interviews, site visits, and the convening, we learned from organizations about numerous barriers that make it difficult to advance a culture of interprofessional collaboration in their organizations. Many of the barriers are entrenched, the result of historical approaches to training and the development of professional identities that have contributed to conflicting approaches to communication, hierarchy, a lack of understanding of other roles, and (sometimes) a sense of entitlement about one's own role. Additionally, many organizations can be overwhelmed by the amount of work they believe it will take to get their culture to embrace interprofessional practice. Some also expressed that there are few models from which to learn.

Despite all the challenges, we observed a wide variety of impressive interprofessional work taking place at each of the site visit organizations—and heard about many more innovative programs and practices at those organizations we were not able to visit. In looking across the set of organizations, we noticed several patterns that emerged as the most cogent areas in which to develop, foster, and sustain interprofessional collaboration.

On the pages that follow, we share examples that show how our project participants have overcome the obstacles. These practices serve as successful models, shared with the intent to inspire others to think about how they, too, can put these ideas into practice in their own cultures and organizations. The practices include:

- 1. Put patients first.
- 2. Demonstrate leadership commitment to interprofessional collaboration as an organizational priority through words and actions.
- 3. Create a level playing field that enables team members to work at the top of their license, know their roles, and understand the value they contribute.
- 4. Cultivate effective team communication.
- 5. Explore the use of organizational structure to hardwire interprofessional practice.
- 6. Train different disciplines together so that they learn how to work together.



Put patients first

and design systems of care to achieve that end.

Why is this practice important?

"It makes a difference in the patient experience. You can't achieve quality without workforce development and a leadership model."

- Virginia Mason Health System

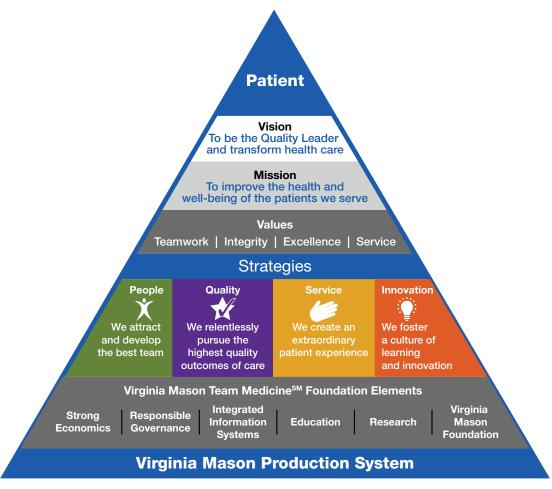
Ask any health care provider if they put patients' needs first, and they will most likely tell you yes. In reality, and despite best intentions, many health care organizations fall short of this aspiration. As Paul Batalden, MD, of the Geisel School of Medicine at Dartmouth has famously said, "Every system is perfectly designed to get the results it gets." Often, our systems of care are designed in ways that do not enable truly patient-centered care. What we learned in this project is that putting patients and families first is perhaps the most important way to enable interprofessional practice. Asking questions such as, "What is best for this patient?" is an equalizer across care team members, administrators, and board members alike. This is most powerful when patient-centered care lives at the core of an organization's strategy—starting at the board level and filtering through the organization to the front line of care. It also helps people "connect the dots" between their particular role, patient care, and the mission of their organization.

What does this practice look like in action?

The organizations we visited used their vision and mission to express a dedication to patients as the central focus of the organization. Many of these organizations told us that interprofessional collaboration is essential to achieving the best outcomes for their patients, while also meeting the goals of the Triple Aim (1. Improve patients' care experience; 2. Improve the health of patient populations; and 3. Reduce the per capita cost of health care). A shared vision that embraces the need for interprofessional collaboration aligns strategy and helps teams work together toward a common goal. "A philosophy that values participation, fairness, freedom of expression and interdependence is essential for the

Carr, Susan. 2008. "A Quotation with a Life of Its Own." Patient Safety & Quality Healthcare (July/August). Lionheart Publishing, Inc., Accessed December 5, 2014. www.psqh.com/julaug08/editor.html.

development of collaboration within heath care teams." Intermountain Healthcare and Virginia Mason Health System (see case examples, pages 18 and 19) both exemplified patient-centered strategic alignment in action. At Virginia Mason, for example, teams frequently start their meetings by reviewing the pyramid visual that summarizes the organization's strategic goals—and the patient is at the top.



©2009 Virginia Mason Medical Center

Sites also referenced the literature, which states that patient-centered care and the inclusion of the patient and family as part of the care team make care safer. Patients explained a sense of feeling empowered by their inclusion in the care team, with one telling us that her "attitude, support system, hope, and faith were all very important to [her] wellness, and [her] doctors and the team were aware of that and took it into consideration." Many sites also described the role of patient-centeredness as a powerful tool to overcome potential turf battles and combat personal agendas among different disciplines. In this way, the patient's interests drive decision-making, versus the particular interests of any given team member. This is affirmed in the literature, where professionals abiding by the mission and living into patient-centered values can advance

⁸ San Martin-Rodriguez, Leticia et al. 2005. "Determinants of Successful Collaboration." Journal of Interprofessional Care (May, Supplement 1): 132–147.

McDonald, Christine and Antoinette McCallin. 2010. "Interprofessional Collaboration in Palliative Nursing: What Is the Patient-Family Role?" International Journal of Palliative Nursing (16:6), 285–288.

interprofessional collaboration in ways that "supersede value differences between professions." ¹⁰ Interprofessional collaboration is also strengthened by "flexible team members who agree to work on the basis of patient needs and not solely their own professional dictates." ¹¹ One way this is accomplished at Yale New Haven Hospital in New Haven, Connecticut, is through an interdisciplinary quality council that sets corporate goals to focus and align the system to promote patient-centered care.

We also heard that actually using the term "interprofessional collaboration" can be a powerful way for leaders to help people understand how different it is from traditional methods of interaction among health professionals, and to claim it as a new way of working. Stephanie Leach, National Nursing Policy Consultant at Kaiser Permanente, explained how interprofessional collaboration "is now given a lot of attention and is frequently called out by physician and nurse champions as a way to deliver better care."

Several examples of more specific practices include:

- 1. Encourage clinical and administrative leadership and staff to **put patients first** by asking:
 - "What is best for the child?"
 - "What is best for the patient?"
- 2. Partner with the Board of Trustees to create a **shared understanding of the value** of interprofessional collaboration. Patient representatives can contribute their experience.
- 3. Embed **goals** into the strategic plan and tie them to the **performance incentives** of key leaders and influencers.
- 4. Invite multiple disciplines to contribute equally to goal-setting, with an emphasis on what participants need to do to advance the goals.
- 5. Use stories and **narrative to help people connect** organizational priorities and patient impact.
- 6. Use the term **Interprofessional Collaboration** to **name the work** so that people know what it is and can model it.
- 7. **Develop compacts** that lay out negotiated agreements about how different roles or professions will work together—what they will give and what they will get in return in the service of providing excellent patient care.

A shared mission, centered on the patient, has the potential to create alignment among different professions in ways that promote coming together to explore and provide what is best for the patient, rather than becoming embroiled in professional turf wars or disagreements.

Reese, Dona J. and Mary-Ann Sontag. 2001. "Successful Interprofessional Collaboration on the Hospice Team," Health & Social Work (August, 26:3), 167–175.

¹¹ Academic Health Council, Champlain Region. 2011. Barriers and Enablers to Interprofessional Collaboration in Health Care: Research Report. Ottawa: University of Ottawa. www.ahc-cas.ca.

Cases: Examples of Putting Patients First

CASE 1: Intermountain Healthcare

In the mid-1970s, the board of Intermountain Healthcare in Salt Lake City, Utah, was charged with two goals: (1) provide the highest quality care at the lowest possible cost, and (2) be a model health system. The board and hospital and system leadership adhere to these behaviors to this day—and expect their teams to live the mission and values of the organization.



Intermountain Healthcare includes patients and families as part of the care team.

In fulfilling the two goals, the board at Intermountain Healthcare embraces and demonstrates a strong commitment to interprofessional collaboration. Kim Henrichsen, RN, MSN, vice president of clinical operations and chief nursing officer, and Brent Wallace, MD, chief medical officer, explained that the board supports doing the right thing for patients, "even if it has a negative impact on the bottom line."

Primary Children's, the children's hospital inside Intermountain Healthcare, includes parent representatives on their board. It's a bold and important way of demonstrating their strong commitment to the strategic goals of the organization and the deeply held philosophy

of including patients and families as part of the care team. We had the chance to meet with a parent member of the board during a family advisory council meeting, and she explained, "... when we see Katy [CEO of Primary Children's] writing down what we're saying, we know it's going to be addressed." The perspective of patients and families is tremendously valued at Intermountain Healthcare, as high as the board level, reinforcing the commitment to their mission and the practice of interprofessional collaboration.

CASE 2: Virginia Mason Health System



Virginia Mason Health System is centered on the patient rather than the provider.

Virginia Mason Health System, in Seattle, Washington, was a physicianowned, multispecialty group practice until 1986, when it became a not-for-profit institution. At that time, the organization was centered on physicians and how best to meet their needs. In 2000, Virginia Mason experienced its first-ever negative bottom line and very low physician satisfaction. The board called for a new strategic plan, and the physicians

elected the first new CEO in two decades. The Virginia Mason strategic plan turned the organization on its head by **placing the patient at the forefront**—a significant shift. The charge has had a powerfully positive effect on the organization ever since. The plan was—and remains today—visually represented in a pyramid, with the patient at the top and the Virginia Mason Production System as the base (see page 16). But it was not enough to have a new strategy—leaders knew that they had to engage people across the entire organization to understand the strategy and how it would impact their day-to-day work.

Over the next few years, Virginia Mason worked at many levels to **develop compacts** with physicians, administrative leaders, and board members, which set the stage for stronger interprofessional collaboration in the years to come. These compacts outlined the mutual expectations for what each party would contribute to the relationship and what they could expect

to get in return. For example, the Virginia Mason Board Member Compact called for board members to "foster innovation and continuous improvement" and to "pursue necessary organizational change." The board at Virginia Mason spurred and fostered the creation of an organization that centered on the patient, rather than the provider. By doing so, they established a platform from which interprofessional collaboration has thrived.



Demonstrate leadership commitment

to interprofessional collaboration as an organizational priority through words and actions.

"Collaboration starts at the top. We need to continue to work on our relationships and be role models for the rest of the organization. We hope we can break down those artificial barriers. We make that a priority."

- Aurora Health Care

Why is this practice important?

Partnership between and among clinical and administrative leadership was essential to each site's ability to focus on interprofessional collaboration. We saw this most prominently between the chief medical officer (CMO) and chief nursing officer (CNO) executive roles, but it also appeared in different settings with senior leaders in behavioral health, pharmacy, and administration. Talking about interprofessional collaboration is important. However, people really need to see it in action to understand what it means to engage in interprofessional work and, more importantly, to recognize that it is an organizational commitment. "The development of collaboration among team members is facilitated by having leaders who know how to convey the new vision of collaborative practice, who motivate professionals to take up collaborative practice, and who are able to create an organizational setting that fosters collaboration."12 In order to be effective, leadership must model collaboration on a daily basis and also foster trust and respect across the organization.

What does this practice look like in action?

Each of the CMO and CNO pairs we met demonstrated a strong interpersonal relationship. In many cases, their offices are located next to each other. Physical proximity creates regular access to each other, in addition to the regular interaction established in formal, standing meetings. Stan Ashley, MD, chief medical

¹² San Martin-Rodriguez et al. "Determinants of Successful Collaboration," 132–147.

officer, and Jackie Somerville, PhD, RN, senior vice president for patient care services and chief nursing officer at Brigham and Women's Hospital, have neighboring offices. Somerville told us, "We both report to the president. We have offices right next to each other. We co-chair critical care leadership and the safety committee. These things send a strong message to the organization about the value of collaboration."

In meetings and during informal check-ins, these pairs work through issues behind closed doors in order to ensure that they **represent a unified front.** Cincinnati Children's Hospital Medical Center's Cheryl Hoying, PhD, RN, NEA-BC, FACHE, FAAN, senior vice president of patient services, and Arnie Strauss, MD, former chief medical officer, explained their ability to model interprofessional collaboration by "understanding a common goal and rounding together, so the whole organization sees that we're together." Additionally, incentives that promote interprofessional collaboration can also play an important role—and not only monetary incentives. Many of the people we interviewed share performance incentives for which they have mutual accountability in meeting shared goals and objectives together. Intermountain Healthcare requires that each clinical program establish board goals to which compensation is tied: meaning that Kim Henrichsen, RN, MSN, vice president of clinical operations and chief nursing officer, and Brent Wallace, MD, chief medical officer, themselves have shared board goals that they must work on together to achieve.

Leadership commitment is also apparent in whom leaders seek to hire and how that process unfolds. The right type of person can be difficult to find, and organizations have their own processes for hiring for cultural fit. We first learned about this from Sacred Heart Health System, located throughout the Florida panhandle, where they have a strong selection process designed to hire for fit. Stephanie Duggan, MD, vice president of medical affairs and chief medical officer of Sacred Heart Hospital of Pensacola, Florida, told us that "we can retrain, but we try to be selective upfront to make sure we are hiring the right people that fit into the culture." At Community Health Center, Inc., a statewide primary health care system in Connecticut, Mark Masselli, the founder and CEO, and Margaret Flinter, APRN, PhD, the senior vice president and clinical director, insist on interviewing every new hire. Flinter explained, "Interdisciplinary has to be embedded from day one. It's in our interview process. We need to ask candidates about their experience, comfort level, and thoughts about providing care in this way, because it's embedded in the regular flow of work. You don't stop your day to be interdisciplinary, that's how it becomes a part of the culture." Charleen Tachibana, DNP, MN, RN, FAAN, senior vice president, chief nursing officer, and hospital administrator at Virginia Mason, revealed that their hiring process deeply reflects the culture of the organization and succeeds greatly in finding those who are best suited to thrive in the organization. She explained, "People know pretty quickly whether this is going to be the place for them—and we know it, too."

Cincinnati Children's will target collaborators as they hire staff for an expansion at their Liberty campus. "Liberty will be staffed by a small niche team who will rely heavily on each other throughout the workday," says Frederick Ryckman, MD, senior vice president for medical operations at Cincinnati Children's. "Ideal candidates will be those with 'team' attitudes who are eager to collaborate to benefit patients and families."

At the organizational level, collaboration between CMOs and CNOs is visibly demonstrated through the CMO/CNO Alliance (see case example, page 24) at the University of Pennsylvania Health System (UPHS),

in Philadelphia, which, among other things, jointly establishes the agenda and budget for quality and safety initiatives across the entire health system. Intermountain Healthcare holds bimonthly **Clinical Operations Leadership Team** (COLT) meetings (see case example, page 25), in which clinical and administrative leadership comes together for a half day to collaborate and to provide insight and direction on system clinical strategy, projects, and issues.

Every site echoed the shared message that collaboration starts at the top. Senior leaders have to believe in it, model it, and live it. Here is a summary of the key practices described above.

- 1. Create visible partnerships, particularly at the senior leadership level.
- Discuss and debate issues in private, but speak with a shared and equal voice in public.
- 3. Embed goals into the strategic plan and tie them to the performance incentives of key leaders and influencers.
- 4. Demonstrate a commitment to collaborative partnerships through recruiting and onboarding processes.
- 5. Identify champions to serve as **role models of collaboration** throughout the organization.
- 6. Create **interprofessional alliances and groups** that can tackle existing work in new ways.

The tone set by organizational leaders—both clinical and administrative—can create a tremendous impact on the ability to foster interprofessional collaboration. Without support from leadership, creating a culture of interprofessional collaboration would be extremely difficult in terms of gaining support for the human, financial, and capital investments required to sustain it. Lack of leadership support is one of the main barriers to interprofessional collaboration, as explained in a recent report about the barriers and enablers to interprofessional collaboration. The report cites, "to ensure the smooth operation and efficacy of the interprofessional team, health facility administrators are needed to fulfill a leadership role in championing interprofessional collaboration and instituting policies in order to foster interprofessional collaboration." This point of view was echoed during the convening of site visit participants. But unlike some other initiatives, interprofessional collaboration does not need to be yet another project or activity to add to already overloaded to-do lists. Instead, leaders can demonstrate that it is a new way of doing the work that already has to be done.

¹³ Academic Health Council, Champlain Region. 2011.

Cases: Examples of Demonstrating Leadership Commitment

CASE 1:
University of
Pennsylvania
Health System—
CMO/CNO Alliance

In fall of 2006, the CMOs and CNOs of UPHS began to meet regularly to create a shared voice for patient safety. This work resulted in the Blueprint for Quality and Patient Safety, the system's framework for clinical strategy that is now undergoing its third refresh. The Blueprint not only established physician- and nurse-sponsored goals, but also created a vehicle for shared budgeting. Nurses and physicians no longer compete for resources to advance quality and safety work. Instead, they work together in a way that enables them to **negotiate with their fiscal partners with a united clinical voice.**



At UPHS, nurses and physicians negotiate with their fiscal partners with a united clinical voice.

During our site visit to UPHS, we had the opportunity to observe a meeting of the CMO/CNO Alliance, which meets monthly. The group is a working alliance of the CMOs and CNOs from UPHS' four hospitals, as well as the home care, rehabilitation, and physician practice departments. P.J. Brennan, MD, chief medical officer at UPHS, and Regina Cunningham, PhD, RN, AOCN, chief nursing executive and associate executive director of the Hospital of the University of Pennsylvania,

co-chaired the meeting, during which ideas flowed freely and the group showed a high level of comfort with each other.

The CMO/CNO Alliance represents a strong leadership commitment to interprofessional collaboration, where the CMOs and CNOs both model interprofessional collaboration for those who report to them at their hospitals and organizations, and also **come together to accomplish real work.**

CASE 2: Intermountain Healthcare— Clinical Operations Leadership Team

At Intermountain Healthcare, the Clinical Operations Leadership Team (COLT) is a systemwide group that meets six times a year. Included in the group are the CMO and CNO pairs from each of Intermountain Healthcare's four hospital regions, Primary Children's, the medical group, and home care, as well as clinical and administrative representatives and the health insurance department.



At Intermountain, the Clinical Operations Leadership Team promotes open dialogue, inquiry, and respect.

During our site visit, the COLT engaged in a structured yet open discussion, with a packed and well-organized four-hour agenda. The meeting was co-led by Brent Wallace, MD, chief medical officer, and Kim Henrichsen, RN, MSN, vice president of clinical operations and chief nursing officer. The meeting blended presentations with rigorous questioning and debate—both within and across many different professions.

It was clear that this group had **developed working agreements** over time that promoted open dialogue,
inquiry, and respect. Over the course of the meeting,
many powerful interactions and exchanges took place,
where differences of opinion within and across disciplines
were both listened to and valued. In one instance, two leaders
engaged in a rigorous debate regarding standardized order
sets. While the two respectfully disagreed with each other,
they actively sought solutions that would have a meaningful
impact on the organization. Their **ability to work through these differences** served as a powerful example of
leadership and how to foster and model a culture of
interprofessional collaboration.



Create a level playing field

that enables team members to work at the top of their license, know their roles, and understand the value they contribute.

"It takes practice.
When we make mistakes, we acknowledge those and are accountable. No one's good at it until you practice and then realize you can be better. There is always room for improvement."

- Clinica Family Health Services

Why is this practice important?

Based on the silos in which different professionals are educated, and the history of silos within organizations themselves, "students and caregivers...[do] not have a very detailed understanding of other caregivers' fields of practices or of what they [do] at the facility." At each site we visited, people at every level told us "you need to create a level playing field." But what did they mean? We learned that this is a way to look beyond the silos and history of professional training and identity to help each team member feel like they can make a meaningful contribution to the work. It is critical that each team member both understands and values the contribution that is made by the other team members. We were surprised to learn what a challenge this can be, and what a difference it can make. So in the end, "leveling the playing field" mitigates historical hierarchies and enables team members to understand and experience both their individual contributions and their collective value.

What does this practice look like in action?

Numerous organizations "level the playing field" by **engaging interprofessional teams in quality improvement, safety, and process improvement work** in ways that break down barriers to interprofessional collaboration. Quality improvement (QI) projects do not necessarily "solicit program-specific knowledge or skills, nor...require clinical experience," so they can be an excellent way to level the playing field and build interprofessional teams.¹⁵ This work

¹⁴ Academic Health Council, Champlain Region. 2011.

Pierre Robichaud et al. 2012. "The Value of a Quality Improvement Project in Promoting Interprofessional Collaboration." *Journal of Interprofessional Care* 26: 158–160.

requires team members to learn new language, skills, and expertise together, with the benefit of also learning what each team member actually does for the team.

Additionally, each team member participating in the project brings a different background, perspective, and skill set to the team. It provides an opportunity for team members to learn from one another and to leverage the collective skills of the group. The Hospital for Special Surgery in New York City presents an achievement award for the best interprofessional collaboration for process improvement. The use of process improvement to create a level playing field is epitomized by Virginia Mason, which is internationally renowned for its Virginia Mason Production System (VMPS) (see page 16). This model, based on a LEAN philosophy, represents a constant source of interprofessional interaction and collaboration around improvement at every level of the organization. Through that work, professions not only work to improve quality and processes, but also come to understand and appreciate each other's roles.

Furthermore, "power differences based in gender stereotypes and disparate social status" and "a strong cultural affinity for autonomy" impede collaborative practices and can prevent interprofessional collaboration from occurring. In order to break down these issues of gender, social status, and autonomy, some institutions, such as Cincinnati Children's and their Patient Care Governance Council (see case example, page 29), have put structures and models in place to create a level playing field that balances the strength of each individual discipline with the potential that each discipline can achieve through interprofessional collaboration.

Creating a level playing field reduces the challenges of the traditional hierarchy represented in the care team. Below are some of the specific practices we've referenced:

- 1. Ensure that team members understand both their own role and the role of everyone else on the team.
- 2. Model speaking up with respect.
- 3. Train different disciplines together.
- 4. Get to know people as people.
- 5. Teach and **empower parents and caregivers** to be part of the team.

By understanding the "complementarity of contributions of various professions in the team and of their interdependence" through quality improvement, process improvement, or safety initiatives, interprofessional groups are able to build a culture of mutual respect—essential for building a culture of interprofessional collaboration.¹⁷ Through these projects, people are also able to see and understand how their work contributes to the overall success of the team in meeting their objectives.¹⁸ It was somewhat surprising to hear how often different members of the care team do not fully understand nor appreciate the roles their colleagues play—and perhaps even more surprising to see what a difference this simple practice can make.

¹⁶ San Martin-Rodriguez et al. "Determinants of Successful Collaboration," 132–147.

¹⁷ San Martin-Rodriguez et al. "Determinants of Successful Collaboration," 132–147.

¹⁸ San Martin-Rodriguez et al. "Determinants of Successful Collaboration," 132-147.

Cases: Examples of Creating a Level Playing Field

CASE 1:
Cincinnati
Children's Hospital
Medical Center—
Patient Care
Governance
Council and the
Interprofessional
Practice Model

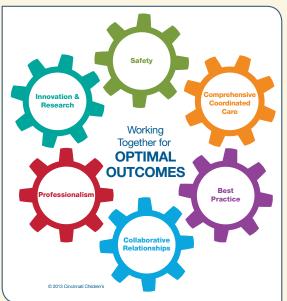
The Patient Care Governance Council (PCGC) at Cincinnati Children's Hospital Medical Center serves as an **enabling infrastructure for every profession to come together** in a shared governance structure. The goals of the PCGC are to achieve the best patient care possible, while remaining focused on the Triple Aim, to create a voice for each professional discipline, and to better coordinate quality improvement efforts across professions. Efforts to create an interprofessional governance council began in 2005, as interprofessional care began to increase at Cincinnati Children's, **organized around initiatives to deliver better patient care.**¹⁹

While at Cincinnati Children's, we had the opportunity to meet with Derek Wheeler, MD, associate chief of staff in the division of critical care medicine

and president elect of the medical executive committee; Dawn Nebrig, MSW, LISW-S, education consultant in the center for professional excellence; Jane Garry, BSN, RN-II, CPN, RN-NIC, chair of the nursing profession coordinating council, neonatal intensive care unit; and Lisa Adamson, BSN, RN-II, CNRN, chair of the nursing professional practice council. The four shared how the PCGC is working to create a culture of interprofessional collaboration at Cincinnati Children's.

Each profession is able to see themselves in this model, maintaining their identity while still finding ways to be part of a team and to advance the tenets of the Interprofessional Practice Model. Adamson shared how the PCGC "enlightens you outside your scope," helping each member of the council to **understand the roles and responsibilities of those outside their own profession,** while strengthening their own professional voice.

Nebrig explained that the PCGC structure has enabled people of different professions to establish relationships and build trust. Wheeler said that "talking collaboratively is a step in the right direction, and this is an evolutionary process. The fact that this is embraced by all disciplines is more important than perfection."



The PCGC allows each profession to understand the roles and responsibilities of other professions while strengthening their own professional voice.

¹⁹ Hoying, Cheryl and Susan Allen. 2011. "Enhancing Shared Governance for Interdisciplinary Practice." Nursing Administration Quarterly (July–September, 25:3), 252–259.

CASE 2: Virginia Mason Health System— Virginia Mason Production System

Each team member uses tools and techniques that allow a shared language and approach.

The VMPS (see diagram, page 16) represents the organization's focus on and commitment to LEAN methods and process improvement. Virginia Mason began this systemwide program to change the way it delivers health care to improve patient safety and quality in 2002, when it adopted the tenets of the Toyota Production System. People across all disciplines and levels of the organization learn about and apply LEAN-based tools

and methods in the **pursuit of ongoing improvement** to make patient care better, safer, and less expensive. Numerous events such as Rapid Process Improvement workshops and Kaizen events take place each week across inpatient, ambulatory, and corporate areas. Team members come from many different disciplines, often including patients and families, and the events are true opportunities to create collaboration.

During our site visit to Virginia Mason, we had the opportunity to sit in on a weekly VMPS report-out session. These sessions take place every Friday during lunch, and

leaders from across the organization are able to hear about the VMPS events that occurred throughout the week, and about updates on lessons learned from previous events.

During each of the presentations, members of the team take turns presenting a different part of the process and its results. Each member of the team uses a **shared language and approach** through tools and techniques learned through VMPS. We were surprised to see how effective simple, handwritten time studies and charts could be in engaging the interprofessional teams and in effecting positive change.

VMPS has become truly embedded in the culture. People at Virginia Mason frequently use Japanese vocabulary and other terminology with ease in their daily conversations—it is part of their vernacular that supports the culture. The focus is on the patient and the care team, with the emphasis on the notion that the **best ideas come from the people who are doing the work.**

Cultivate effective team communication

giving team members shared language and tools.

"Communication is a two-way street. It lets us give and receive feedback and strengthens the team."

- Women and Infants Hospital

Why is this practice important?

Ineffective communication can act as a barrier to interprofessional education with health professionals' immersion in differing "philosophies, values, and basic theoretical perspectives inherent to their respective professions" throughout the education process. ²⁰ However, the presence of standards, policies, and protocols, including "unified and standardized documentation; and sessions, forums, or formal meetings involving all team professionals" can overcome the barriers of communication by creating shared mechanisms. ²¹ Each profession brings with it its own language and cultural agreements about what counts as effective and clear communication. Enabling team members with shared language and tools to promote effective communication helps overcome the barriers associated with the different communication styles and expectations that can impede collaboration.

What does this practice look like in action?

Communication, communication, communication, was shared over and over again as a key driver of interprofessional collaboration. Effective and respectful communication is a central, unifying capability of all the practices that enable interprofessional collaboration. Understanding and communicating a commitment to patient-centered care is the first step. Effective communication does not always equate to in-person, face-to-face interaction. We observed several examples of technology-based communication supports that promoted virtual collaboration. For example, at Community Health Center, Inc. (CHC), providers participate in **Project ECHO**, which links primary care clinicians with specialist care teams to manage patients with chronic conditions requiring complex care. CHC

²⁰ San Martin-Rodriguez et al. "Determinants of Successful Collaboration," 132–147.

²¹ San Martin-Rodriguez et al. "Determinants of Successful Collaboration," 132–147.

partners with the Integrative Pain Center of Arizona (IPCA) to host a videoconference on chronic pain management to connect primary care clinicians with the specialists at IPCA. CHC has also worked hard to enable the care team to see all the aspects of the patient record in their electronic health record (EHR) system (see case example, page 36). Physicians, nurses, and the behavioral health team have full access to information so they can tailor a holistic approach to patient care.

In order to overcome the challenge of communicating across professional silos, Penobscot Community Health Care, a statewide community health system in Maine, is building a framework to assist with writing consults, building mutual respect, and understanding roles. George Case, FNP, nurse practitioner residency director, explained, "We have a lot of conversations to help residents better understand what others do within the organization and how to interact with others in a way that will be received well. The **style in which you write your consult is important**. A team-based approach is nonjudgmental. Building a framework around that has meant ensuring mutual respect and understanding and valuing the roles."

Interprofessional rounding is another highly effective practice that allows individuals to understand both their own and others' contributions to the team, as well as to allow constructive negotiations with other professionals.²² Open and respectful communication can also contribute to problem-solving as a group, as an "open discussion of differing perspectives may serve as a stimulus for new questions, growth, and development of the team."²³

All the sites we visited use various forms of interprofessional rounds (see case examples). Sometimes they are "board rounds," while other times teams cluster in rooms or in hallways. There is a process, pace, and shared language that enables these rounds to work well. We collected a number of examples of "rounding sheets" that provide the framework for an effective rounding session. These rounds require both listening and contributing, and work best when someone is accountable for both summarizing and documenting the key agreements and ensuring that the responsible parties know what they need to do to follow through on those agreements.

Effective communication must be structured and expected—"Communication is a two-way street," as Angelleen Peters-Lewis, PhD, RN, senior vice president and chief nursing officer at Women and Infants Hospital in Providence, Rhode Island, affirmed. Many project participants noted communication that enables honesty and the ability to give (and receive) feedback as critical to interprofessional collaboration—but this can be easier said than done. Many project participants use SBAR as one practical tool to support clear communication. SBAR, an acronym that stands for "situation, background, assessment, and recommendation," is used around the world. In the United Kingdom, the National Health Service's Institute for Innovation and Improvement describes it as "…an easy to remember mechanism that you can use to frame conversations, especially critical ones, requiring a clinician's immediate attention and action. It enables you to clarify what information should be communicated between members of the team, and how. It can also help develop teamwork and foster a culture of patient safety."²⁴

²² San Martin-Rodriguez et al. "Determinants of Successful Collaboration," 132-147.

²³ Reese and Sontag. 2001. 167–175.

National Health Service Institute for Innovation and Improvement. 2013. "SBAR – Situation – Background – Assessment – Recommendation." Accessed October 15, 2014. www.institute.nhs.uk/quality_and_service_improvement_tools/guality_and_service_improvement_tools/sbar_-_situation_-_background_-_assessment_-_recommendation.html

Facilitators can play a significant role in promoting and integrating communication. We saw this deftly advanced when we visited the Center for Senior Health and Longevity at Aurora Health Care in Milwaukee, Wisconsin (see case example, page 35). Michael Malone, MD, medical director for Aurora Senior Services and Aurora Visiting Nurse Association of Wisconsin, served as the facilitator for the "Most Difficult Case" discussion, drawing on the insights and experiences of numerous clinicians and social workers to support the primary care provider in managing a particularly complex geriatric patient. One of the most straightforward and powerful requests he used to invite people into the conversation was simply: "I want to know what you think."

Communication must be structured and expected. The practices that made the biggest difference for project participants include:

- 1. Make interdisciplinary rounds routine.
- 2. **Take advantage of technology** that brings otherwise disparate team members together to share their expertise and develop appropriate plans of care.
- 3. Use SBAR.
- 4. **Employ facilitators** as a tool to promote and integrate communication.
- 5. State explicitly, "I want to know what you think."
- 6. Encourage communication that promotes honesty and the ability to give and accept feedback.
- 7. Enable different disciplines to have access to all notes in the medical record.

Effective communication creates an opportunity for each team member to demonstrate his or her value to the team. In doing so, it enables interprofessional teams to act as a whole that is greater than the sum of its parts.

Cases: Examples of Cultivating Effective Team Communication

CASE 1: Women and Infants Hospital— Interprofessional Rounds



Interprofessional rounds can include up to 10 professionals and the infant's parents.

Women and Infants Hospital operates one of the nation's largest single-family-room Neonatal Intensive Care Units (NICU), where we had the opportunity to observe interprofessional rounds during our visit. The rounds included a team of nearly 10 people, including an attending physician, a nutritionist, a pharmacist, a nurse practitioner, a resident, a respiratory therapist, and the infant's parents. The nurse practitioner presented the case, speaking on behalf of the team who had cared for the infant—one of two twins who were both in the unit—overnight. The NICU uses **geographic rounding,** meaning that the team goes to the room where the nurse is caring for the infant. This allows the nurses to fully participate in rounds without leaving their patients.

After the case was presented, the attending asked the nurse practitioner for the plan of care. She responded that she wanted help from the team with establishing the care plan, indicating a **willingness to ask for help and a level of trust with the team.** At this point, the attending, bedside nurse, and pharmacist all gave their recommendations and asked questions about the care plan as it was developed. The team communicated effectively, **involving the infant's parents,** asking, "Mom and Dad—are you comfortable with this plan?" The parents spoke up with questions about the care plan. The fellow, nurse, and attending worked together to answer the parents' questions and to take their thoughts into account when finalizing the care plan.

These rounds demonstrated the importance of communication between and among all members of the care team—including the parents. Their concerns were listened to and heard with as much importance as those of practitioners, and addressed to ensure that everyone on the team was comfortable with the care plan. When someone on the team had a question, they felt comfortable expressing their thoughts, indicating a level of trust and understanding among the group. By completing interdisciplinary rounds, the care team is able to communicate often, efficiently, and effectively with each other in a way that integrates their collective experience into an actionable care plan for the patient.

CASE 2: Aurora Health Care Center for Senior Health and Longevity— Most Difficult Clinical Case



All professions have a shared framework for considering a patient's case.

The Center for Senior Health and Longevity at Aurora Health Care is a primary care and consult clinic created to assess and address the needs of vulnerable adults. An interdisciplinary outpatient team at the Center **meets weekly at lunchtime to review their most difficult or challenging cases, focusing on** one patient each week. We met with a team of 10, including two geriatricians, a geriatric fellow, a geriatric nurse practitioner, clinic nurses, research scientists, a care manager at iCare insurance, a senior services program coordinator, and a senior services director.

The team frames their conversation using the **Wisconsin Star Method**, which is a five-point star with medication, medical problems, social needs, behavioral health, and "important to the patient" at each of the star's points. At the center of the star is the most difficult aspect of the case. The framing of the case through the Wisconsin Star Method allows all to have a **shared framework and system through which to think about the case**, rather than exclusively through their own profession's language or approach.

The session was **facilitated** by Michael Malone, MD, medical director of Aurora Senior Services and Aurora Visiting Nurse Association of Wisconsin. In the case we observed, a doctor initially presented the case before opening the floor to others. She asked the case manager to speak to the patient's social needs, saying, "You know him better than I."

After presenting the information, Malone facilitated a discussion, asking fellows and nurses to speak up and ask any questions they may have had, before he opened the floor to others. This creates an open and equitable environment, where *all* members of the team are encouraged to speak up and communicate. The entire team is able to brainstorm and offer suggestions on the care of the patient.

This team problem-solving is enabled by the safety, comfort, and support garnered by the **iterative assessment process**. Malone has created a patient-centered culture of learning, where the team is able to problem-solve and learn while doing real work.

CASE 3: Community Health Center, Inc.— Shared Electronic Health Record

Community Health Center, Inc. uses a single electronic health record, which integrates records across all services: medical, behavioral, and dental. The EHR enables providers across all disciplines to see the entire chart, supporting truly integrated, continuous care. Each team member is aware of the care that other providers are giving. Physicians know if patients have been attending therapy sessions, and behavioral health providers know if there is an illness that may be affecting their client's well-being.



The EHR allows providers across all disciplines to support integrated, continuous care.

The shared EHR allows interprofessional teams to work together, facilitating communication through the record and in **weekly panel management meetings.**

There, the whole team sits together to look at their panel, using the EHR to mutually identify and follow up with patients. The EHR serves as a clinical decision support system, and can be used to alert the team to care that is needed. Since transitioning to a shared EHR, providers have seen the difference it has made in the care they are able to deliver to patients, and patients' overall wellness as a result.

Explore the use of organizational structure

to hardwire interprofessional practice.

Why is this practice important?

As we described earlier, practice is the sum of two things: (1) desired behavior and (2) the supports that make that behavior sustainable over time and easy to do. Structure is a prime example of one kind of support that can make desired behaviors easy to enact and sustainable. It helps to first understand the behaviors you want and need—and then use structure to bolster those behaviors. This hypothesis was confirmed throughout the project.

What does this practice look like in action?

As suspected, we learned that while organizational structure is important, it is necessary but not sufficient. The organizations we visited used organizational structure differently to support the work of groups, from the front-line teams to leadership. One COO explained, "If I don't have the structure in place, they are unlikely to work together. But that's only the beginning. There is so much more to making that structure work." This sentiment was shared across the board, emphasizing the need to have numerous types of practices and supports in place to advance interprofessional collaboration.

In many health care teams, there is "a strong cultural affinity for autonomy...[that can] foster and support individualism and specialization rather than collaborative practice." Organizational structure can be used as a forcing mechanism to help teams overcome their preferences for autonomy within each profession in order to create a culture of interprofessional collaboration. Consider

"Have an infrastructure that allows teams to come together. Some talk about having teams work on interdisciplinary collaboration, and then don't give them time to do it. The infrastructure must allow staff and teams to come together to work on processes, improvements, and problems."

- Hospital for Special Surgery

²⁵ San Martin-Rodriguez et al. "Determinants of Successful Collaboration," 132 – 147.

the **Operational Excellence framework** at Cincinnati Children's—a partnership between the physician and nursing directors for each unit. The structure empowers units to look at their own data and set their own goals as a unit. These partnerships provide a united approach to build the best outcomes, experience, and value for employees, patients, and families. The **RN/Physician Collaborative** model at Aurora Health and the **Unit-Based Clinical Leadership** model at UPHS are two other examples of how structure supports interprofessional teams' ability to come together (see case examples, pages 40 and 41).

Co-location of interprofessional care teams also plays an important role at Clinica Family Health Services in Colorado, where care teams include three primary care providers, a medical assistant, a nurse coordinator, a case manager, a behavioral health professional, half-time nursing support, a half-time dental hygienist, a half-time medical records staff person, and two office technicians. Their practice care team model has been in place for over a decade, and, as Karen Funk, MD, MPP, vice president of clinical services, told us, "It began with care transformation and space transformation, how we practice as a care team and physical co-location.... It created time in our day for teams to talk together. We huddle to talk about care, but sometimes about how we are doing as a care team."

Salud Family Health Centers in northeastern Colorado found that "when people say they have integrated teams, but are not co-located, it's a failure." Tillman Farley, MD, executive vice president for medical services, said that when physicians are not co-located with the rest of the care team, they become "invisible" and exist in a consultative model. Tillman stressed that co-location is the most important structure in place to creating a culture of interprofessional collaboration.

The structure and supports required to hardwire interprofessional collaboration come in many different forms. A few of the most robust examples include:

- **Dyad and triad partnerships** that span clinical and administrative functions
- Pods and shared patient panels that enable different providers to huddle, overhear each other, and generally interact in the service of patients.

In addition, we heard that the following skills are critical for enabling these structures to work:

- Maximizing influence and persuasion
- Managing in a matrix
- Knowing how to run a meeting
- Understanding how to get work done through others
- Role modeling.

Structure can take many shapes, also including physical structure or even technological supports. We saw many examples of effective structure at work.

Cases: Examples of Organizational Structure

CASE 1:
Community Health
Center, Inc.—
Pods

Primary care providers (including physicians, nurse practitioners, and physician assistants) at Community Health Center, Inc. (CHC) sit and work together in pods along with their team members, who include medical assistants, registered nurses, behavioral health providers, and, on a part-time basis, specialists such as registered dietitians, certified diabetes educators, podiatrists, and chiropractors. The pods also allow room for training the next generation, with seats for interdisciplinary students and residents, giving students the opportunity to learn and train in a truly interprofessional practice model. These pods share a patient panel



Community Health Center co-locates interprofessional teams in pods.

and work together to provide seamless care for their patients.

CHC of Middletown was designed and built specifically to fit the health center's needs, with an emphasis on arranging care rooms nearby the pods.
Other sites have been renovated to make this

structure work. The providers who work in these pods shared the benefits of sitting with each other to overhear and **actively engage** in conversations about their collective patients.

During our visit to CHC of Middletown, we talked with a medical assistant who told us of a time when, while talking with a nurse about a particular patient, a social worker overheard the conversation and was able to contribute valuable information based on his own professional perspective. Similarly, the social worker explained how being able to connect with medical providers supplies important insight into the way that an illness might affect their patients' mental health. At CHC of New Britain, a nurse practitioner explained that working in a pod allows them to "work like a finely oiled machine."

CASE 2: Aurora Health Care— RN/Physician Collaborative Model



The RN/PC model includes co-rounding with a focus on patient and family education.

At Aurora Health Care, the RN/Physician Collaborative (RN/PC) model enables nurses and hospitalists to work together as a care delivery team with defined communication and action points throughout the day, with the goal of creating an enhanced, more efficient care delivery infrastructure in which all team members understand and own the care plan. The team definition is both geographical and functional, with hospitalists and nurses working and located together in care pods on the floor. This improves patient-centered care with real-time discussion and enhancement of the care plan. Designed and initiated under the leadership of David Weidig, MD, system director of hospital medicine, and Andrew McDonagh, MD, chief medical officer at West Allis Medical Center, the RN/PC model includes co-rounding with a focus on patient and family education, using **teachback** in order to ensure a successful transition from the hospital.

During our site visit to Aurora Health Care, we had the opportunity to spend time at Aurora West Allis Medical Center, where the RN/PC began in June 2011. We met with members of a pod on the fifth floor, including Laura Weidmeyer, RN, and Kelly Berthelsen, RN, along with Orlando Alvarez, MD, and Paresh Mistry, MD, both hospitalists. Working in a shared workspace within physical proximity to different professions reduces territoriality and facilitates collaboration.²⁶ The team can communicate much more efficiently, demonstrating teamwork in real time. Mistry told us that the biggest advantage is the geographical unit, because hospitalists are "here all the time, and able to communicate with the patient, their family, and their primary care provider." Weidmeyer told us how fall rates have decreased considerably with a more "all hands on deck" approach to patient care at the bedside. Fall prevention was no longer the "nurses' job," and could be shared by all the professionals working on the team. In this unit at West Allis, fall rates decreased by 50 percent.

Preliminary data from the implementation of the RN/PC model also show a decreased length of stay by 0.6 days from the prior hospitalist model. On the unit we visited, annualized bed turns have increased by 20 percent and discharges before noon have increased from 10 percent to 30 percent.

²⁶ San Martin-Rodriguez et al. "Determinants of Successful Collaboration," 132–147.

CASE 3:
University of
Pennsylvania
Health System—
Unit-Based
Clinical Leadership

The UBCL uses unit-based data to improve patient outcomes.

The Unit-Based Clinical Leadership (UBCL) structure at UPHS grew out of the Blueprint for Quality and Patient Safety. The structure works to promote an interprofessional approach to achieving patient safety and quality in patient care throughout the system, with the main goals being to improve coordination of care and reduce variations in practice to lead to better patient outcomes. The teams include a nurse leader, a clinical nurse specialist, a physician (who practices on the unit),

and a quality and safety project manager (who has access to a "data-mart," created for the UBCL teams to use data at the unit level). Many teams also include a pharmacist, and UBCL meetings can include dozens of people who can participate, as needed, as members of the care team on each unit.

During our time at UPHS, we visited the medical intensive care unit (MICU), which served as the precursor of the UBCL model. UPHS' MICU is an exemplar because of the strong working relationship between the unit's medical director, Barry Fuchs, MD, and nurse manager Cheryl Maguire, MSN, CCRN. Their relationship grew organically, and they began wanting to collect and utilize unit-based data in order to improve patient outcomes. The addition of the quality and safety project

manager to the unit has made data more readily available and actionable, as units are able to make decisions based on data.

Fuchs explained to us that in the MICU, "If the nurse doesn't know the plan, there is no plan." Both Maguire and Fuchs explained a culture of teamwork, and Maguire stressed that nurses are taught how to speak with physicians in order to get what they need (using techniques such as SBAR), and are encouraged to think critically and be autonomous. The pair has worked with their team to develop protocols and guidelines in order to improve processes on the 24-bed unit. We had the opportunity to speak with Angela Piech, BSN, a clinical nurse on the unit. She explained that "collaboration is expected, and the partnerships created through collaboration are mutually beneficial."



Train different disciplines together

so that they learn how to work together.

Why is this practice important?

"Create opportunities for people to share and solve problems together."

University of Pennsylvania
 Health System

The Institute of Medicine (IOM) reports teamwork and communication failures as a cause of medical errors. It also states that health care training should incorporate "proven methods of teamwork training, like simulation." Training provides an opportunity to break down the professional silos that exist in health care. Interprofessional collaboration must be learned—which is no easy feat, given the current structure of training and education across the numerous professions we expect to come together in the service of integrating care for patients. While we did not set out to study interprofessional education, it is clear that promoting interprofessional collaboration early and often in the education and training of different health professions will help establish behaviors and promote strong relationships so that they can be strengthened over time.

What does this practice look like in action?

The Future of Nursing report called for nurses to achieve higher levels of education and training through an improved education system that promotes academic progression. We learned on our site visits that emphasizing higher levels of education for nurses builds a higher level of professionalism—starting with BSN-prepared nurses and an increasing number of DNP- and PhD-prepared nurses. With education levels closer to that of others on the team, including physicians, pharmacists, and social workers, nurses feel better prepared to think critically and speak up in their work. At the same time, higher levels of nursing education often have the counterintuitive effects of enabling physicians and nurses to both differentiate their skill sets from each other and to enable each to practice in ways that increase the satisfaction of each profession.

Additionally, many sites stressed the importance of learning together as a team. There are increasing demands for interprofessional education models. In these models, "students trained using an interprofessional education approach are more likely to become collaborative interprofessional team members who show respect and positive attitudes toward each other and work toward improving patient outcomes." Educating learners on the value of interprofessional collaboration is advantageous because it works to circumvent the barrier of professional silos. At Cincinnati Children's, the concept of teamwork is integral to the "Transition to Practice Program" for new advanced practice nurse practitioners (APRNs) and physician assistants (PAs). The program's curriculum and observational experiences with other effective teams support best practices for team-based care and a culture where APRNs/PAs are treated as equals. At Women and Infants Hospital, we saw how team training could help create a measureable improvement in patient care by engaging the full operating room team in the work of significantly improving operating room start times (see case examples, pages 46 and 47).

At Penobscot Community Health Care, the residency program includes both nurse practitioner and pharmacy residents rounding together. 2014 marked Penobscot Community Health Care's third year of collaborative rotations, in which pharmacy residents are paired with nurse practitioner residents to conduct collaborative visits within the health center and also to complete interdisciplinary rounds. Felicity Homsted, PharmD, BCPS, director of pharmacy and residency program director, explained that Penobscot Community Health Care's leadership "understands the importance of developing our own—not just to join us here in our health center, but to send out well-trained individuals to the health care industry." The emphasis on interprofessional training during residency provides these individuals with the essential skills they need to work in a culture of interprofessional collaboration.

While new health care professionals entering the workforce are beginning to be trained in an interprofessional model, this is only the beginning, and there is more work to do to create truly interprofessional education models. Premier Health, located throughout Ohio, is working toward creating opportunities for interprofessional education through trainings that span across physician and nursing groups. Tammy Lundstrom, MD, JD, system vice president and chief medical officer, explained how physicians are beginning to attend interprofessional simulations that they previously would not have attended.

On our site visits, we were able to see many simulation centers and to understand how **simulation can work to create a culture of interprofessional collaboration** by developing a common framework for interprofessional interaction for members of the care team. Participants are able "to 'see' the impact of interprofessional efforts and reflect on the experience to help reinforce interprofessional learning outcomes."²⁸ At Cincinnati Children's, we were able to see the powerful effects of reflection on a simulation, and how the realizations that occur during reflection can translate to improving interprofessional collaboration and patient care (see case example, page 46). As Tom LeMaster, who formerly led Cincinnati Children's Center

²⁸ Bridges et al. 2011.

²⁷ Bridges Diane R. et al. 2011. "Interprofessional Collaboration: Three Best Practice Models of Interprofessional Education." Medical Education Online 16: 6035, accessed October 16, 2014, doi: 10.3402/meo.v16i0.6035.

for Simulation and Research, said, "It is important to train as people work. Instead of nurses practicing with nurses and doctors practicing with doctors, training should be as multidisciplinary teams—physicians, nurses, respiratory therapists—working together, just as in the clinical environment. This is what we do."

At the end of the day, interprofessional collaboration is more than a philosophy—it is about getting real work done through teams. Here is a reminder of some of the practices we've discussed:

- 1. Remind teams to first and foremost focus on the patient.
- 2. Use **shared tasks** that need to be solved and **real work** that must be done.
- 3. Understand that **simulation** is a powerful way to teach, experience, and reflect on interdisciplinary practice.
- 4. Train in teams for safety and quality interventions.
- Consider using the rich tools to support effective teamwork in **TeamSTEPPS®** (Strategies and Tools to Enhance Performance and Patient Safety) from the Agency for Healthcare Research and Quality (AHRQ).
- Engage in daily operations meetings that bring together all of the relevant clinical and administrative players to promote real-time problem-solving and trust among team members.

In addition to learning to do real work together, there are other ways to actively foster a culture of interprofessional collaboration on care teams. Doing real work to solve collective problems and engage in quality improvement projects can be very powerful, as we've already seen in some of the earlier case examples. The palliative care team at Intermountain Primary Children's Hospital attends regular **group therapy sessions** as a team, which enable them to overcome the barriers of their professional silos (see case example, page 48).

Cases: Examples of Training Different Disciplines Together

CASE 1:
Cincinnati
Children's Hospital
Medical Center—
Center for
Simulation and
Research



The simulation debrief enables participants to make connections between their skills and those of their teammates.

The Center for Simulation and Research at Cincinnati Children's Hospital Medical Center provides simulation education to interdisciplinary teams. Through simulation, health care providers are given the ability to practice nontechnical skills, such as teamwork and communication, in a safe environment to improve the quality and safety of patient care.

Tom LeMaster, RN, MSN, Med, REMT-P, EMSI, the former program director,

and Kristin Boggs, JD, MHI, RN, acting vice president and chief patient services informatics officer, toured us through the center, introducing us to the various simulators ranging from infants to adults, with a variety of abilities to resemble an actual patient. It is clear that they are both passionate about their work and the **power of simulation as a tool to advance teamwork and communication.** They described how, using specific scenarios, interdisciplinary teams are placed in real-life patient care settings—often planned in advance at the Center and sometimes put into action on the units in surprise training scenarios. The simulation itself is critical, but what is even more important is the debriefing and reflective work that follows. Skilled facilitators observe and film the situation as it unfolds. They watch for positive behavior, which should be reinforced, and flag opportunities for discussion and improvement.

A beloved physician leader participated in a Pediatric Advanced Life Support (PALS) simulation. The rest of the team, including a mix of residents, other physicians, and nurses had just completed a training using the new PALS guidelines. When the simulation began, the physician purposely began to administer the wrong ratio of breaths to chest compressions. His "planned mistake" was done to teach participants the importance of speaking up. One nurse mumbled quietly to a colleague in the back, but didn't say anything out loud. The same thing happened with several other participants. During the debrief, the facilitator asked what people had been whispering about. One brave soul finally said that the doctor wasn't implementing the guidelines appropriately. Others slowly started to nod their heads in agreement. The physician asked emphatically, "Why wouldn't you tell me?" They replied, "But you're Dr. X." It was an important moment for the physician, who took the opportunity to be clear that he wants feedback, as well as an important moment for the rest of the team, who learned they should trust their judgment and speak up.

The debrief enables all individuals to better understand and adapt their behavior, but more importantly, to **make connections between their individual skills, expertise, and actions and those of their teammates.** The experience can prove invaluable, by breaking through traditional authority boundaries and expanding the concept of the team.

CASE 2: Women and Infants Hospital— Improving Operating Room Start Times

During our visit to Women and Infants Hospital, we had the opportunity to meet with Gary Wharton, MD, director of surgical services, and Lee Ann Quattrucci, RN, CNOR, assistant nurse manager for surgical services. The pair shared their story of how they were able to decrease turnover time, increase first-case on-time starts, and cut delay time in the operating room. They achieved these results through valuable tools provided to them by a cultural change toward interprofessional collaboration.



At Women and Infants, the safety and quality gains have been patient-directed.

Women and Infants Hospital provided surgical services with the tools for process and cultural training in order to shift from a culture of blame to one of problem-solving through interprofessional collaboration. Training involved a series of initiatives to improve processes in the operating room. These initiatives included pre-op, post-op, housekeeping, and other departments as part of the team, allowing for all members to gain a better understanding of the roles and responsibilities of others. Additionally, cultural training came from QUEST (Quality, Utilizing Engagement, Safety & Teamwork), a communication and teamwork-tools strategy, which stresses the importance and benefits of using closed-loop communication, constructive conflict resolution, resource management, and the empowerment of every member of the care team to speak up for safety.

Since beginning to work together to problem-solve on the issues in surgical services, Women and Infants Hospital has decreased turnover time by 20 percent, increased first-case on-time starts to 75 percent from 33 percent, and cut 700 hours of delay time in the past four years. These gains have been patient-directed, with safety and quality at the heart of every discussion.

CASE 3 Intermountain Healthcare— Palliative Care Team



"We have different goals and functions, but we are first a team."

On our visit to Intermountain Healthcare, we met with the interprofessional palliative care team called Rainbow Kids at Primary Children's Hospital. The team includes several different professions: Joan Sheetz, MD; Beth Nordfors, RN; Orley Bills, LCSW; Jeff Fleming, MA, BCC; Toni Sherwood, NP; and Kelly Kelso, NP.

Rainbow Kids is an inpatient consultative service that is available to patients and families with a referral from their physician or community pediatrician. The palliative care team holds a family meeting, which can include parents, a bishop, the child, and other family members, asking the family to tell them their story. This gives the palliative team the opportunity to develop a meaningful relationship with the family in a safe environment with no interruptions. They discuss goal-setting, medical decision-making, relationships, and support. Following the family meeting, the palliative care team puts together one summary note. The entire team provides input, and there is a formal consult to the child's primary pediatrician and subspecialists. There is also input from music therapy, child life, and community resources in developing the plan.

The palliative care team engages in **group therapy as a team.** For eight years, the group has been attending sessions twice a month. This fosters open communication, trust, and the ability to build strong relationships. The team has worked together as a cohesive group for several years, and has developed a strong sense of trust. The team strongly believes in mutual respect, with Sheetz telling us that "no one is above anyone else. We have different roles and functions, but we are first a team."

As the members of the team explained their process to us, the **passion** for their work was palpable. Bills told us that "we carry their story," expressing a dedication and deep commitment to the families they work with.

Fleming, the interfaith chaplain on the team, explained that members of the team "are not territorial. Our goal is to serve the family and meet their needs." The shared goal of palliative care to meet the needs of the patients fosters a culture of interprofessional collaboration across the team.

Assessing Organizational Readiness for Change

In order to begin or accelerate the journey toward a culture of interprofessional collaboration, it is important for organizations to be both open to and ready for change. During the convening of site visit participants, we consistently heard that organizational readiness to change was a key enabler in promoting interprofessional collaboration.

Virginia Mason told us about the concept of *nemawashi*, a Japanese word referring to "preparing the soil," used in the Virginia Mason Production System. Nemawashi is an informal process of quietly laying groundwork for a proposed change, involving talking with those concerned and gathering support and feedback. Successful nemawashi ensures that those participating in the change have had their voices heard and feel as though they are contributing to the change about to occur. Virginia Mason looks at a series of metrics, including leadership and staffing stability, in assessing whether an area is ready to prepare for transformation. Similarly, Cincinnati Children's Hospital Medical Center relies on tools and facilitators that emulate pieces of interprofessional collaboration and demonstrate how collaboration should work to prepare areas of the organization for change.

Intermountain Healthcare talked about the 15/35/35/15 rule, in which 15 percent of people act as open visionaries to change, 35 percent are early adopters, and 35 percent are late adopters. The final 15 percent may be recalcitrant to change, but 85 percent of the people have already embraced the change at this point, sweeping it in as part of a new culture. This approach to change involves using the social capital of those early supporters.

Fears that accompany change—including fears of increased workloads—are common barriers for organizations looking to foster a culture of interprofessional collaboration, so assessing organizational readiness for change is important before beginning the journey. Understanding the baseline and publicizing successes can help to prepare an organization for change toward a culture of interprofessional collaboration.

"Understand that it doesn't come without effort.
You need to dedicate time, effort, and energy to it. It's much easier said than done. The more time on planning what it will look like, the better."

- Premier Health



Next Steps on the Path to a Culture of Interprofessional Collaboration

has to be embedded in the regular flow from day one. You don't stop your day to be interdisciplinary.

That's how it becomes a part of the culture."

Community Health Center, Inc.

The guiding principles, practices, and case examples described in this report provide practical ways to address and overcome many of the historical barriers to interprofessional collaboration. The practices are particularly important, as they can be adapted to multiple settings in ways that are suitable to the unique culture of different organizations. We encourage those who read this report to consider places where these practices may already be showing up in some way and to use those places as the foundation from which to build your own efforts. For example, organizations can get started by asking questions about what they are already doing to:

- 1. Put patients first.
- 2. Demonstrate leadership commitment to interprofessional collaboration as an organizational priority through words and actions.
- 3. Create a level playing field that enables team members to work at the top of their license, know their roles, and understand the value they contribute.
- 4. Cultivate effective team communication.
- 5. Explore the use of organizational structure to hardwire interprofessional practice.
- 6. Train different disciplines together so that they learn how to work together.

Each of the leaders who participated in this project believe that their work is making a difference—in terms of improving patient *and* provider satisfaction, creating a safer environment for both, enhancing the quality of care, and creating alignment in a way that helps get work done more effectively and efficiently. They see evidence in their work together and in the experience of their patients.

At the same time, more work needs to be done to conduct evidence-based research on the outcomes of interprofessional collaboration. The lack of outcomes-based evidence creates a different kind of barrier to organizations assessing the prospective value of interprofessional collaboration as they debate whether to embark on their own journeys.

In order to spread interprofessional collaboration, there is a need to test the ground-level beliefs and experience that interprofessional collaboration is making a difference by showing demonstrable, outcomes-based evidence that it is working. Many of the participating hospitals and health care systems are beginning to take this next step, building on research findings that have shown that interprofessional collaboration yields a positive effect on patient satisfaction, reduces uncertainty, and improves pain management.²⁹ Participation in team simulations has increased participants' understanding of professional roles and the importance of interprofessional communication.³⁰ Similarly, units with team training and interprofessional collaboration have shown a positive culture of safety, teamwork climate, and high job satisfaction.³¹ While positive outcomes on patient and provider satisfaction are beginning to surface in research on interprofessional education and practice, much work remains to be done on research that shows improvements in quality of care and health outcomes.

The National Center for Interprofessional Practice and Education (https://nexusipe.org/), housed at the University of Minnesota, leads, coordinates, and studies the advancement of collaborative, team-based health professions education and patient care as an efficient model for improving quality, outcomes, and cost. It is a public-private partnership created in October 2012 through a cooperative agreement with the Health Resources and Services Administration (HRSA) (www.hrsa.gov) and three private foundations: the Robert Wood Johnson Foundation (www.rwjf.org), the Josiah Macy Jr. Foundation (www.macyfoundation.org), and the Gordon and Betty Moore Foundation (www.moore.org). The Center has extensive resources on interprofessional practice and education, as well as a collection of measurement instruments and tools for assessing interprofessional collaboration and practice. It is a terrific resource for those looking to learn more and to incorporate interprofessional practice into the day-to-day workings of their organizations.

We hope that this project inspires others to begin or to accelerate and strengthen their own efforts to build effective interprofessional practice. We also hope the paper will stimulate researchers to work with practitioners to measure the impact of interprofessional collaboration, as we begin to build the body of knowledge needed to further spark change and build a culture of interprofessional collaboration across the United States.

²⁹ San Martin-Rodriguez, Leticia, Danielle D'Amour, and Nicole Leduc. 2008. "Outcomes of Interprofessional Collaboration for Hospitalized Cancer Patients." Cancer Nursing 31(2):18-27.

Vyas, Deepti, Russel McCulloh, Carla Dyer, et al. 2012. "An Interprofessional Course Using Human Patient Simulation to Teach Patient Safety and Teamwork Skills." Journal of Pharmaceutical Education 76(4), Article 71.

³¹ Siassakos, Simitrios, Robert Fox, Linda Hunt, et al. 2011. "Attitudes Toward Safety and Teamwork in a Maternity Unit With Embedded Team Training." *American Journal of Medical Quality* 26(2):132–137.

Appendix A: Methodology

We took an ethnographic approach to the work, first to identify what organizations were doing and then to observe their actions in the field. We started by interviewing nearly 20 organizations across the United States, including community hospitals, community health centers, specialty hospitals, and academic health centers. We conducted interviews with the following organizations:

Aurora Health Care

- Mary Beth Kingston, RN, MSN, NEA-BC, Executive Vice-President and Chief Nursing Officer
- Jeff Smith, MD, Interim Chief Clinical Officer

Brigham and Women's Hospital

- Stan Ashley, MD, Chief Medical Officer
- Jackie Somerville, PhD, RN, Senior Vice President for Patient Care Services, Chief Nursing Officer

Cincinnati Children's Hospital Medical Center

- Cheryl Hoying, PhD, RN, NEA-BC, FACHE, FAAN, Senior Vice President of Patient Services
- Arnold Strauss, MD, Associate Director, Cincinnati Children's Research Foundation, former Chief Medical Officer

Clinica Family Health Services

- Malia Davis, ANP, Director of Nursing
- Karen Funk, MD, MPP, Vice President of Clinical Services

Community Health Center, Inc.

- Veena Channamsetty, MD, Chief Medical Officer
- Margaret Flinter, APRN, PhD, Senior Vice President and Clinical Director
- David Guggenheim, PsyD, Associate Chief Behavioral Officer
- Mark Masselli, Founder and CEO
- Bernadette Thomas, APRN, DNP, MPH, former Chief Nursing Officer

Hospital for Special Surgery

Stephanie Goldberg, RN, MSN, NEA-BC, Senior Vice President and Chief Nursing Officer

► Intermountain Healthcare

- Kim Henrichsen, RN, MSN, Vice President of Clinical Operations and Chief Nursing Officer
- Brent Wallace, MD, Chief Medical Officer

► Kaiser Permanente

- Carol Barnes, PT, DPT, GCS, Executive Consultant, Strategic Programs, Care Management Institute
- Shelly Fitzgerald, RN, BSN, Nurse Manager, Palliative Care
- Stephanie Leach, National Nursing Policy Consultant
- Lisa Yarick, MSW, Director of Continuing Care Services, Kaiser Permanente Woodland Hills and West Ventura

Penobscot Community Health Care

- Robert Allen, MD, FACC, Executive Medical Director
- George Case, FNP, Nurse Practitioner Residency Director
- Felicity Homsted, PharmD, BCPS, Director of Pharmacy and Residency Program Director

Premier Health

- Tammy Lundstrom, MD, JD, System Vice President and Chief Medical Officer
- Sylvain Trepanier, DNP, RN, CENP, Vice President and System Chief Nursing Officer

Sacred Heart Health

- Stephanie Duggan, MD, Vice President of Medical Affairs/Chief Medical Officer, Sacred Heart Hospital – Pensacola
- Nina Jeffords, Chief Nursing Officer/Chief Operations Officer Emerald Coast
- Gary Pablo, MD, Chief Medical Officer, Sacred Heart Hospital Emerald Coast
- Amy Wilson, RN, MSN, Vice President and Chief Nursing Officer, Sacred Heart Hospital Pensacola

Salud Family Health Centers

- Tillman Farley, MD, Executive Vice President for Medical Services
- Emily Kosirog, PharmD, BCACP, Clinical Pharmacist
- Katrin Seifert, PsyD, Director of Integrated Services and Psychology Training

University of Pennsylvania Health System

- P.J. Brennan, MD, Chief Medical Officer, UPHS
- Regina Cunningham, PhD, RN, AOCN, Chief Nursing Executive and Associate Executive Director, Hospital of the University of Pennsylvania, University of Pennsylvania Health System
- Victoria Rich, PhD, RN, FAAN, former Chief Nurse Executive, Hospital of the University of Pennsylvania

Virginia Mason Health System

- Michael Glenn, MD, FACS, Chief Medical Officer
- Charleen Tachibana, DNP, MN, RN, FAAN, Senior Vice President, Chief Nursing Officer, and Hospital Administrator

Women and Infants Hospital

- Angelleen Peters-Lewis, PhD, RN, Senior Vice President and Chief Nursing Officer, Patient Care Services
- Ray Powrie, MD, FRCP, FACP, Chief Medical Quality Officer

Yale New Haven Hospital

- Michael Bennick, MD, Medical Director for Patient Services
- Sue Fitzsimons, RN, PhD, Senior Vice President for Patient Services and Chief Nursing Officer

From that group, we identified seven organizations to visit. It was difficult to pare down the group, as each institution had something interesting to contribute. We made the final selection to create a representative set of organizations by geography, academic status, size, and type (hospital, system, community health center),

including where each is along its journey toward a culture of interprofessional collaboration (from just starting, to many decades along). The site visit organizations are described here:

1. Aurora Health Care—Milwaukee, Wisconsin

Aurora Health Care is an integrated health system with 15 hospitals, 159 clinics, 70 retail pharmacies, 30,000 caregivers (including 1,500 employed physicians), and the largest home care organization in Wisconsin. Aurora Health Care serves 30 counties and 90 communities throughout eastern Wisconsin and northern Illinois, providing more than 1.2 million unique patients (totaling 7.8 million patient encounters) with a comprehensive array of health care resources and access points. Annual revenue is \$4.1 billion. The purpose of Aurora Health Care is to help people live well.

2. Cincinnati Children's Hospital Medical Center—Cincinnati, Ohio

Cincinnati Children's is a nonprofit specialty academic medical center with a vision to be the leader in improving child health. Founded in 1883, it is one of the oldest and most distinguished pediatric hospitals in the United States. Its mission is to improve child health and transform delivery of care through fully integrated, globally recognized research, education, and innovation. In 2013, Cincinnati Children's had 30,804 admissions; 78,905 primary care outpatients; 13,852 employees; \$1.9 million in operating revenue; and more than \$157 million in research grants.

3. *Community Health Center, Inc.*—Middletown, Connecticut

Community Health Center, Inc. (CHC) was founded in 1972 as part of the national free clinic movement and currently serves 130,000 patients across 13 sites in Connecticut. Relying on Jack Geiger's interest in the notion of care that included everything, CHC has provided behavioral health, medical health, and dental services from its earliest days. The interdisciplinary team of medical, dental, and behavioral health occurred somewhat by happenstance, based on members of the community who were interested in coming together to provide care. CHC is driven by the belief that health care is a right, not a privilege.

4. *Intermountain Healthcare*—Salt Lake City, Utah

Intermountain Healthcare is a nonprofit health system with 22 hospitals, about 1,100 primary care and secondary care physicians employed at more than 185 clinics in the Intermountain Medical Group, and a broad range of clinics, services, and health insurance plans from SelectHealth. Intermountain Healthcare is the largest health care provider in the Intermountain West, with over 33,000 employees, and serves the health care needs of residents of Utah and southeastern Idaho residents. Its mission is excellence in the provision of health care services to communities in the Intermountain region.

5. *University of Pennsylvania Health System*—Philadelphia, Pennsylvania

The University of Pennsylvania Health System (UPHS) is an integrated health system with three hospitals and two regional medical centers. It is part of Penn Medicine, which also includes the Raymond and Ruth Perelman School of Medicine. Penn Medicine is a world leader in patient care, education, and research. UPHS has 1,637 licensed beds, 2,251 physicians, 75,588 admissions, and over 2 million outpatient visits, with an annual operating revenue of approximately \$4 billion. UPHS employs 11,354 people.

6. Virginia Mason Health System—Seattle, Washington

Virginia Mason is a nonprofit organization offering a system of integrated health services including a large multispecialty group practice of 460 primary and specialty care physicians, an acute-care hospital licensed for 336 beds, the Benaroya Research Institute at Virginia Mason, a network of medical centers throughout the region, and the Bailey-Boushay House, a nursing residence and chronic care

management center for people living with AIDS and other chronic or terminal illnesses. Virginia Mason employs 6,000 people with \$958 million in revenue and \$47.7 million in research volume. Through their team approach, Virginia Mason provides comprehensive care, ranging from primary and preventive care to complex services that put the needs of patients first.

7. Women and Infants Hospital—Providence, Rhode Island

Women and Infants Hospital of Rhode Island, a Care New England hospital, is one of the nation's leading specialty hospitals for women and newborns. Women and Infants Hospital is the primary teaching affiliate of the Warren Alpert Medical School of Brown University for obstetrics, gynecology, and newborn pediatrics, as well as a number of specialized programs in women's medicine. Women and Infants Hospital houses 167 adult beds (45 medical/surgical and 122 obstetrical), 80 neonatal intensive care unit beds, 60 newborn bassinets, and 10 operating rooms. In 2012, they recorded 20,260 discharges for inpatient services, 28,335 emergency room visits, and 8,362 deliveries, including 155 babies delivered in the Alternative Birthing Center.

Each of these organizations is at a different point along their respective journeys toward a culture of interprofessional collaboration. Each one taught us important lessons that we believe will help inspire others—no matter where they are starting—to improve interprofessional practice in their own organizations.

During the site visits, we set out to understand three main things:

- 1. What are the interprofessional practices in play?
- 2. What are the supports that make interprofessional collaboration possible?
- 3. What is the difference that this work makes for patients and families?

Following the site visits and a period of analysis, we held a meeting with representatives from each site visit at the Robert Wood Johnson Foundation in Princeton, N.J. The meeting, "Leadership Perspectives on Lessons From the Field: A Convening to Establish a Culture of Interprofessional Collaboration," was held on September 4 and 5, 2014. The participants at this meeting were:

- Mary Beth Kingston, RN, MSN, NEA-BC, Executive Vice President and Chief Nursing Officer, Aurora Health Care
- David Weidig, MD, System Director of Hospital Medicine, Aurora Health Care
- ► Cheryl Hoying, PhD, RN, NEA-BC, FACHE, FAAN, Senior Vice President, Patient Services, Cincinnati Children's Hospital Medical Center
- Frederick Ryckman, MD, Senior Vice President, Medical Operations, Cincinnati Children's Hospital Medical Center
- David Guggenheim, PsyD, Associate Chief Behavioral Health Officer, Community Health Center, Inc.
- Monte Wagner, APRN, MPH, DNP(c), Medical Director, Fairfield County, Community Health Center, Inc.

- Ed Clark, MD, Chief Medical Officer, Primary Children's Hospital, Intermountain Healthcare
- Ann Ziehm, RN, BSN, M.Ed, CNE, Nurse Administrator, Primary Children's Hospital, Intermountain Healthcare
- P.J. Brennan, MD, Chief Medical Officer, University of Pennsylvania Health System
- Regina Cunningham, PhD, RN, AOCN, Chief Nursing Executive and Associate Executive Director, Hospital of the University of Pennsylvania, University of Pennsylvania Health System
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- Ray Powrie, MD, FRCP, FACP, Chief Medical Quality Officer, Women and Infants Hospital

We shared an overview of our preliminary findings from the field, highlighting the promising practices in a brief presentation.

The participants engaged in interactive work designed to better understand the details of their interprofessional collaborative practices, and to understand the forces at play that both promote and restrain those practices from being adopted more broadly. They then brainstormed ideas to overcome critical barriers.

Appendix B: Strategies to Address Restraining Forces

Restraining Forces	Strategies to Address Forces
Fear of change Fear of more work	 Reframe—interprofessional collaboration is a more efficient way to work.
	▶ Publicize success.
	Assess readiness for change.
	Understand the baseline.
	Pull entire team for development.
	If you have one interprofessional structure, make it work for other projects.
Lack of well-publicized	▶ Integrate electronic medical records.
models for interprofessional collaboration	 Review and ensure explicit interprofessional collaboration in mission, vision, and values.
	▶ Hire to the mission—embed expectations on pre-boarding.
	 Build facilities that promote interprofessional collaboration (with a focus on the patient).
	Provide team infrastructure and leadership.
	► Promote facility- and team-based huddles.
Historical, traditional	▶ Prepare actual questions to assess readiness in hiring process.
training of professions	► Facilitate shadowing.
	▶ Train jointly at sites.
	▶ Establish mentorship programs.
	► Talk to educators/academia.
	► Identify exemplary training organization.
	▶ Use TeamSTEPPS® tools.
	 Form goal-oriented groups on specific tasks (quality, process, or safety improvement).
	▶ Educate early and often.
	Emphasize agreed-upon common goals and how this will help achieve goals.
Lack of alignment	▶ Gain leadership support.
Assumption of lack of time	 Have CEO message to staff re: behavior (expectations and consequences).

Appendix C: Bibliography

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