Introduction

On a bitterly cold February day in 2010, I went to a distinguished Boston hospital to pick up my uncle. He had just had a serious surgery, and after almost a week of recovery and rehabilitation, he was judged ready to return home.

I collected his belongings and the discharge papers that were scattered on his bedside table. I had just finished a decade of work in patient safety, so I asked him if he was clear on the instructions, particularly regarding his new medications.

“Not really,” he told me. A long-time Boston police officer and a one-time force of nature, he looked tired and shaken.

“OK,” I said, “is there someone we can talk to about that?”
He shrugged. I found a nurse in the hallway and asked for her help.

“I already talked about that with him,” she told me.

“I don’t think he’s clear on it,” I explained, and she returned with me to the room.

“You understand your meds, hon?” she asked him.

“Well, mostly,” he replied, smiling. “But could you repeat what you said to my nephew?”

She rattled off a list of five medications and when he should take them. As she spoke I tried to follow along in his discharge plan, reviewing two forms—one typed and one handwritten—that contained some of what she said and contradicted other parts of it. I pointed out the discrepancies.

“Don’t worry about that,” she said, gesturing at the papers. “Just do what I said and you’ll be all set.”

“I’m not sure I can remember what you said,” I told her.

“But you can, right, hon?” she said to my uncle. He nodded and smiled, and she began to back out of the room.

“Wait, are his prior medications included here?” I asked.

“Yes, they should be,” she said. She turned to my uncle, “All your old meds are included on the list, right?”

He nodded and smiled again.

I wasn’t so sure.

He insisted that we leave, though, and against my better judgment, I assented.

On the drive home, I was anxious. I wasn’t sure that we had a complete or correct medication list, and I wasn’t sure where I was going to get the answers I required. Ultimately—after almost 24 hours of politely pestering assorted physicians, nurses and pharmacists—my mother and I got a satisfactory medication list.

While the experience bewildered and frustrated me, I share it mainly because of the realization I had two days later when I was reflecting on the incident. I had seen a superb example of medication reconciliation only a few months
earlier, and it had occurred not in another part of the country, not in another part of the state, not in another local system but in the same hospital. It was astonishing.

Despite my interest in variation in cost and quality in the American healthcare system, despite years studying at the knee of Don Berwick and Jim Conway and a whole host of luminaries in the field of patient safety, I suddenly felt the impact of reality in a much more visceral and personal way. Variation in quality in American healthcare is not merely “interesting,” “troubling” or “worthy of deep research;” it’s fundamentally unjust. When we know how to do something that can save lives or reduce suffering, and we fail to reliably make it available to anyone who could benefit, we’re all at risk of seeing our loved ones subjected to avoidable harm. We can do better.

Spreading Knowledge Faster

The fact is that for nearly every known threat to our health and well-being—for nearly any social problem—a solution exists. We know, for instance, how to reduce carbon dioxide emissions. We know how to end chronic homelessness. We know how to rapidly improve literacy and high school graduation rates. Innovative models that get better results exist in pockets across the nation and around the globe.

This is especially true in healthcare. The research community continuously produces breakthrough biomedical innovations capable of saving many lives, and practitioners of care are themselves continuously innovating in care delivery in an attempt to better serve their patients. Obamacare, which demands significant change on many dimensions—including new approaches to managing population health, improvement in the quality of care and reductions in the cost of care—has only intensified the rate of innovation.
But while there’s no shortage of new ideas in healthcare, the slow rate at which evidence-based practices spread to everyone who could benefit from them is troubling. Balas and Boren famously suggested that it takes an average of 17 years to implement sound research at the front lines of care.\(^1\) Important studies on variation in quality and cost of care by Wennberg, Fisher and others underscore the point.\(^2\),\(^3\),\(^4\) Our critical enterprise, then, is not merely discovery but taking what’s known as rapidly as possible to everyone who could benefit from it. Addressing this challenge—identifying vehicles for spreading knowledge—has been a project of growing importance in the field in the last quarter century and forms the basis for this book.

A major insight in this period has been that traditional forms of dissemination don’t work in changing behavior at scale. Publishing, presenting and developing websites—while of some value in raising awareness of innovations—aren’t sufficient to lead to broad adoption of new practice. Nor does classroom-style teaching, for all of its familiarity, effectively transmit knowledge; passive learning of this kind rarely leads to meaningful behavior change.\(^5\) Instead, we’ve come to understand that distributed, networked hands-on learning—where every targeted adopter a) becomes an active agent of local change and adaptation to make the new idea thrive in their setting, and b) actively studies and learns from the challenges and solutions of their peer organizations (“all teach, all learn,” in the parlance of Institute for Healthcare Improvement)—is a more effective approach.

To spread a new practice, we can’t merely teach or exhort others; we must unleash them to operate at their highest levels of creativity and intensity. We need to deliberately build a corps of motivated change agents arrayed across the area we seek to serve—curious, data-driven, avid for improvement and willing to share their ideas and their challenges. The benefits of this kind of empowerment and collaboration are striking. Participants apply new ideas, refine and improve upon them, and a much larger community, of colleagues and patients and families, benefits in turn.
The specific vehicles we can use for creating distributed, networked hands-on learning are several—campaigns, collaboratives, extension agency, wave sequencing and grassroots organizing, to name a few. All, however, contain some key similarities: They bring together many individuals or organizations in a network; they take expert-vetted content and seek to spread it to the group, encouraging local adaptation; they create a structure wherein participants regularly test new practices (and receive feedback on their progress); and they seek to facilitate exchange of practical knowledge among participants.

Importantly—and despite significant debate on the topic—there’s no single “best” approach. Each is appropriate for different contexts at different moments in time. As seminal thinkers in the field such as Everett Rogers have noted, a number of factors require consideration in the selection of the right method for spreading effective practice:

- **Nature of the innovation**: Are we introducing an innovation or practice that’s thoroughly tested and well-established? Or are we still refining it? Is the practice in question straightforward (e.g., easy to introduce, located in a single setting)? Or is it more complex? Will we have to persuade people of its value? Or will its value be readily apparent?
- **Size and nature of the audience we seek to reach**: How many people do we need to reach if we are to bring our intervention to everyone who could benefit from it? What’s the disposition of the audience we seek to reach? What’s the disposition of key executives and opinion leaders? How does the audience break down on the continuum from “highly innovative” to “highly reluctant”? How much experience do they have in adopting new practices? How are they arrayed geographically? Which types of facilities do they represent?
- **Available resources and infrastructure**: Is there independent funding to support construction of the network? Do we need to build it organically, with no new resources? What kind of staff support is available to run the network?
Will we be able to bring people together in person? Will there be access to tools and technologies to connect people to one another?

- **Time frame to drive change:** How much time is available to spread the practice in question? Is it fixed? Is it mutable?

There are resources that address these factors while offering guidance on which approaches to spreading change are appropriate and when they should be applied, though more thorough treatments of this topic would be welcome. 7

## Coming Together Effectively

Of all of the previously mentioned approaches to spreading improvement, the collaborative is the one that’s come onto the scene most forcefully in recent years. Pioneered by the Institute for Healthcare Improvement in the mid-1990s, it’s become increasingly common as a way for non-profits, foundations, health plans and governments to bring together the healthcare providers and organizations they seek to reach with new innovations. Fields outside of healthcare like education and human services now use it as well.

In its generic form, a collaborative is usually a collection of healthcare organizations of a similar type that come together over a fixed period to pursue a shared and measurable improvement aim—perhaps reducing the rates of unneeded cesarean sections or reliably managing diabetes, for example. During the course of the initiative, they come together—sometimes in person, sometimes by phone or webinar—to report to one another on progress, sharing their challenges and offering one another advice. The collaborative provides a structure and rhythm (e.g., weekly conference calls might require participants to test new ideas and report on their progress each week) and creates shared
expectations for improvement. In between, email lists, websites and online workspaces allow participants to ask questions, make notes on what’s working and celebrate breakthroughs, big and small. Common tools allow participants to collect their data and array it over time, using the rules of statistical process control to identify meaningful changes in performance.

Many of the best examples of healthcare improvement I’ve witnessed came in collaboratives. I recall watching a collection of hospitals and clinics in a rural South African district came together in an attempt to rapidly expand access to antiretroviral treatment for HIV/AIDS, making remarkable progress within a matter of months. I think of Rashad Massoud’s wonderful work across several large oblasts in Russia to improve neonatal outcomes. I remember the wonderful energy and outcomes of Bay Area Patient Safety Collaborative, previously discussed in the introduction, which later became BEACON, totally transforming expectations about what’s possible in patient safety across the entire region. At their best, these efforts build vibrant, generous and fun communities that facilitate rapid learning, creating lasting relationships and reusable infrastructures that they use to address other systemic problems in healthcare. Following is a case study from the Carolinas HealthCare System.

Case Study: System Spread vs. National Spread

By Jason Byrd, J.D.

Successfully driving improvement relies upon understanding and using key tactics relevant to your target audience. Much like politics, all collaboratives must be seen as local. If local organizations and frontline teams don’t engage and execute, even the best learning collaboratives, whether national or local, ultimately fail. Though the tactics used by national and local efforts differ, common themes exist.
Leadership credibility is key to both national and local improvement initiatives, but it manifests itself in different ways. In national initiatives, leadership credibility is often related to the perspective, voice and reputation of an organization or individual. Organizations, such as Institute for Healthcare Improvement (IHI) and American College of Cardiology (ACC), have at least in part achieved success based on their ability to garner attention for their efforts. The attention is a byproduct of the reputations they’ve worked diligently to enhance among clinicians, administrators and policymakers. When credible organizations speak, collaborative participants listen.

Local improvement initiatives rely upon credible leaders in a different way. Successful local leaders bring their reputations, knowledge, and appreciation of local challenges and circumstances. They can engage provider organizations by translating national collaborative themes to a local impact. For example, as part of the Partnership for Patients Hospital Engagement Network (HEN) initiative, Carolinas HealthCare System found success in describing to an individual hospital how its harm reduction efforts feed into broader, national improvements to patient safety. In general, hospital teams are proud and excited to have their work and results seen by others across the nation. It’s essential to understand the complexities of local resources, patient populations and environmental contexts, and develop appropriate implementation strategies for improvement.

All successful learning collaboratives, and leaders in general, possess a healthy dose of self-awareness. They understand their role to provide solid evidence, consensus recommendations, value-added resources (e.g., change packages, templates, guidelines) and individual leaders capable of engaging the heart and the mind. Two key leaders who embody these dynamics are Don Berwick, former CEO of IHI during the 100,000 Lives Campaign, and Harlan Krumholz, cardiologist at Yale University and leader of ACC’s Door-to-Balloon (D2B) campaign.
Local efforts engage respected champions to further spread improvement and recognize the need to approach and engage one individual at a time. In addition, strong local data access affords opportunities to focus improvement efforts and accomplish broader national objectives. For example, understanding that patients with a sepsis or pneumonia diagnosis comprise the most significant portion of your readmission population provides better improvement opportunities than simply tackling a goal related to readmissions.

Finally, all successful collaboratives effectively use “unfunded mandates” to drive improvement. National efforts communicate to and convince audiences of the importance of significant issues (e.g., harm reduction, door-to-balloon times). They are the catalyst for a broader “movement” and cultural change, capitalizing on the readiness of the organizations, even when most won’t have additional resources to accomplish the work. Many of these efforts use competitive peer pressure to increase participation, particularly as national collaboratives grow and gain media attention.

But unfunded mandates in local efforts are a more complex challenge. At the individual organizational level, they navigate challenging discussions related to lack of resources. Influence and persuasion are key attributes to overcoming these obstacles. Further, successful local efforts are flexible in their understanding of local dynamics and adapting national recommendations that drive improvement.

While the balance of this book goes into the specifics of how to design and instrument a collaborative, it’s important to note that how the collaborative is managed—its leadership behaviors, its operating norms and its day-to-day cadence—is every bit as predictive of success as thoughtful strategy and design. A great deal of funding is squandered when it’s invested
in well-designed efforts that look good on paper but fail to see results across participating institutions. Devolving into a series of meetings or didactic webinar sessions, these are collaboratives in name only.

By contrast, the exceptional collaboratives mentioned previously are set apart by a spirit that animates all good work to spread change, regardless of the specific spread method selected. It’s relentless, agile, data-driven and completely results-focused, and it truly empowers all participants to be active engines of change themselves.

Specifically, the following are the operating values that infuse large-scale improvement initiatives that succeed in getting better results:

- **Quantifiable aims that all participants share:** “Reduce medication errors” isn’t an aim. Neither is “improve patient experience.” To create real tension for change among participants in a collaborative, it’s critical to have an aim that’s explicit and time-bound. Knowing exactly what we seek to accomplish—by a specific date—raises the stakes on performance and gives us a sense of whether we’re making meaningful progress. Moreover, we should expect every participant to meet the aim in their own setting, to make their contribution to the success of the overall group, creating shared accountability and additional incentive for collaboration. (Importantly, tracking measures is not the same as setting aims. Aims tell us what we aspire to, and commit to do, and measures allow us to assess our progress against those objectives.)

- **Engaged leadership that focuses on removing barriers:** The role of leadership—in those organizations orchestrating the initiative and in provider organizations—is critical. If leadership cares about the aim, those at the front lines of care who are charged with actually improving practice can feel that attention deeply. In addition, it’s important that leadership signals a strong interest in empowering those practitioners through active support and involvement, rather
than expecting reports on progress and creating fear by repeatedly exhorting and demanding results. They must visit the places that are delivering the care, understand impediments to success and use their.\textsuperscript{8} One promising collaborative to reduce multi-drug resistant tuberculosis in and around Lima, Peru, institutionalized this role through a team of local leaders who convened regularly to understand obstacles in securing needed resources, drugs and supplies and rapidly addressed these obstacles\textsuperscript{9}. Helping leaders to understand their proper role is a major enterprise of the collaborative. Many collaboratives require endorsement and regular participation from executives, for instance, while others go to great lengths to educate leaders on the human and financial costs associated with continued underperformance, as well as the benefits and opportunities created by improvement.

**Thoughtful use of data:** Good and timely data is an essential and positive element of collaborative improvement work when it’s used properly. Arrayed over time, with proper annotation, it gives participants a clear sense of whether they’re making sustainable progress and offers clues as to the sources of meaningful improvement (or underperformance). But when we use data for comparison and judgment, it can lead to fear and dispute. Some hide disappointing results while others challenge what the data says. No one asks questions, and therefore no one learns. It’s much better to ask participants to focus on how they’re improving against themselves, zeroing in on their own rate of progress instead of worrying about comparative outcomes.

**Rhythmic testing and adjustment (spirit of improvisation and learning):** In a surprising number of collaboratives, subject experts teach participants who have no obligation to actually test new interventions and practices themselves. The hypothesis, it seems, is that the participants will immediately adopt the lessons learned from these authorities. Everything we know about change management and quality improvement suggests that this is wishful thinking. A strong collaborative will not simply invite
its participants to listen and passively absorb new information; rather it will insist that they apply new ideas and practices—testing them at a rapid rate—to adapt them locally and improve faster. They must become innovators and improvisers if they are to succeed in their own setting, where they will surely encounter local resistance and context-specific challenges. In this respect, traditional, summative evaluations that ask participants to adhere strictly to guidelines to avoid contamination of the experiment, can be especially destructive. The goal is to allow participants in the learning network to make rapid adjustments, informing the whole group when they can share what worked in their specific context. A number of robust formative evaluation methods exist that are not at all incompatible with this approach.

- **Facilitation of tacit knowledge exchange:** Many collaboratives go to great lengths to catalogue evidence and build large libraries of general information on how to improve performance. However, as the organizational scientist Ikujiro Nonaka notes, this knowledge can be of limited use. He suggests that practical know-how (or “tacit knowledge”), often contained in the experience of practitioners, generates the most value for others. A well-documented protocol will often pale in comparison to timely advice on how to make that protocol work in a resource-constrained setting or in an environment where staff are resistant. The best collaborative networks will create a lot of space for that kind of informal, just-in-time exchange about the keys to implementation, to the great benefit of their participants.

- **Regular celebration of progress:** Like their colleagues in many professions, healthcare providers rarely experience recognition for their wonderful hard work and creativity. Effective collaborative leaders will address this deficit through proactive celebration of great work and active learning, even when it doesn’t immediately lead to improvement. This will give participants additional fuel to persist through the challenges of managing change.
A savvy collaborative leader will track progress on at least some of these dimensions as important proxies for the health of the network and, indeed, as predictors for success at spreading improved outcomes. Moreover, those who fund collaboratives, including foundations and governments, must mindfully create a context for improvement consistent with these operating values. These organizations can, sometimes inadvertently, create an environment of rigidity and fear by requiring excessive adherence to guidelines and inspection at the expense of learning and creativity. In successful cases, however, these funders foster great improvement by encouraging innovation and improvisation, helping all participants meet the collaborative’s aims, and introducing expertise and resources on a timely, as-needed basis to further support participants in their shared pursuit of these improvement objectives.

Conclusion

Importantly, effective collaborative leaders will apply similar principles of reflection and learning to themselves and to their work. They will understand that the process of running a collaborative should itself be subject to continuous analysis and improvement. They will energetically seek innovations in running effective collaborative improvement activities and study others across the country and around the world who seek to stimulate large-scale change.

Our hope is that this book helps them on this journey, defining the fundamentals of practice, refining existing skills, and introducing entirely new ideas and approaches to help the field. In addition, we hope that this content provides encouragement and inspiration for this important work, reminding us all of the importance of spreading known, better practice much faster.
Much more than an academic exercise, this activity is chiefly rooted in the belief that we can absolutely reduce the unjust variation in practice that plagues healthcare and deliver to anyone, anywhere, outstanding care.

Everyone has a parent, child, friend or uncle like mine, and they all deserve our very best.

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