Clinical Leadership for Physicians

KEY CONCEPTS

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Physician leadership is essential if medical organizations are to survive and prosper in the current environment, but many physicians do not understand why or how they should do this while engaged in active practice. If we see that our interactions with those who help us take care of our patients constitutes a clinical microsystem, where our impact is critical, and we learn to shape our behaviors to improve the microsystem, we will improve the care of our patients by building stable teams who can improve their practices over time.

Being an effective clinical leader does not require a formal degree in business or management, but it does require some reflection about the nature of medical practice, the nature of medical organizations, and the pressures of health care reform. It also requires some reflection about the differences between formal and informal leadership, and between clinical and managerial leadership.

While each article is meant to stand alone, there are several themes. First, I believe evidence-based medicine is distorting patient-centered care in ways that were not intended, just as the goals of creating value, as opposed to volume, and introduction of electronic health records are creating unintended distortions. I am a proponent of continuous quality improvement methods as a technique, but inappropriate application can cause damage that mitigates the gains. We should strive to standardize that which should be standardized, but no more. We also need to appreciate that the signals obtained about clinical practice are inherently fuzzy. Big data will not improve the certainty with which we can know the appropriate course of action in all patients at all times.

Medicine is big business and a major cost to the taxpayer. There is no chance the financial pressures for efficiency will abate. However, what makes sense at the macro level may not make sense at the individual patient level. But we know that much of what we do now is not helping improve outcomes, and we must be prepared to adjust our practice habits to become more effective as well as efficient. We must also learn to admit the limits of our ability to help patients. I predict we will develop a consensus that therapies of low, but not zero, utility should be applied less liberally than they are today.

Physicians have always possessed specialized knowledge and have faced the need to translate that knowledge into information patients can act upon. Today, we face the need to translate our knowledge of clinical realities into information businessmen and policy makers can act upon. My goal is to challenge you to think about how you practice medicine today and how you can make relatively small changes that will improve your practice environment both today and tomorrow.

Recently, I tripped over my assumptions. We often assume that those we talk with share our assumptions even though we know that is rarely the case. The reason I bring this up, of course, is that many of you do share my assumptions, even if you do not draw the same conclusion from those assumptions that I do. Let me enumerate some of them for your consideration and future discussion.

First, I assume that people will want medical care for the foreseeable future. Second, I assume the way we get paid to provide that care will change, probably in important ways, in the near future. Third, I assume that fee for service practice is on life support and its survival is problematic. Fourth, I assume that if fee for service survives, the reimbursement rate per unit of service will go down. Fifth, I assume that all hospitals must learn to break even on the Medicare book of business to survive, and that means most of them must wring at least 35% out of their current COST structure. Sixth, I assume that hospital administration cannot get a 35% reduction in real costs without real pain and without real changes in the way physicians practice medicine. Seventh, and last for this discussion, I assume that it is in the best interests of our community, including us, that we continue to have a vibrant, growing, high quality health care system.

These may not seem unreasonable assumptions to you, so why did I trip on them? Primarily, I forgot two things. First, the problems of today are easier to see and more certain than the problems of the future. This is why patients sometimes hesitate to take the risk of aggressive therapy for bad disease when they don't feel like they are dying just now. Of course, by the time they realize they are dying, it is too late to make the change. Organizations and the people who work in them have the same problem. For patients and organizations alike, there is an optimum time to take drastic action, but timing is important. The second thing I forgot is that people and organizations both have histories that influence what seems proper…

What is needed now is transparency, cooperation, and a lot more "frank and candid" discussion about our problems and what we need to do about fixing them. Or at least that is my conclusion. What do you think?

16 September 2010, updated 1 May 2014

https://www.practicingmdleaders.com/assumptions.html

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More than 25 years ago I was writing an article for my group about the challenges posed by managed care. I started by stating my conclusion: “Marcus Welby is dead.” The response was interesting. The older physicians laughed and the younger ones asked me who he was. I have noted since that many old TV series are available on cable, but not, apparently, “Marcus Welby, M. D.” Yet I suspect many physicians still think their primary job is taking care of one patient at a time. If they do it well, all will be well. But this formula has not been working well for the past decade or so, as evidenced by widespread dissatisfaction amongst physicians and now the need to accept direct government assistance as business has collapsed for some in the face of the pandemic.

Physicians need to ask themselves the following questions. First, am I going to retire or adapt? Second, if I am not going to retire, how do I regain some joy in my practice so I have the energy to adapt? Selling your practice and becoming an employee will not answer these questions. I suspect the biggest challenge for all physicians is to embrace the notion it is possible to provide quality patient care indirectly. The apprenticeship system for graduate medical education has not worked to create that understanding nor has it given physicians the knowledge and skill sets to be successful in achieving quality care through others. Yet regaining some sense of control of the process is one of the keys to restoring satisfaction to the practice of medicine.

https://www.practicingmdleaders.com/strategic-questions-for-physicians-part-1.html

Since physician leadership is a key emphasis, there have been many articles dealing with various aspects of it. These are addressed in the first few articles, but the subject is addressed in depth in a separate handbook.

A Data Driven Argument for Physician Leadership

I realize it is confirmation bias in action, but I was glad to see an article titled "Why the Best Hospitals Are Managed by Doctors" on the Harvard Business Review website recently.[1] The lead author is a physician leader at The Cleveland Clinic, but they cite a study from 2011 looking at the "top-100 best hospitals" as judged by US News and World Report and found that hospital quality scores ran about 25% higher in those run by physicians compared to those run by professional managers. They also found that the separation of clinical and managerial knowledge inside hospitals was associated with worse outcomes.

The authors postulate this finding is explained by "domain expertise," a concept from the management literature, where expert leaders in a given organization are associated with better outcomes. They also consider several "soft" possibilities, such as the ability of the clinician leader to create a more productive work environment for other clinicians or having a deeper understanding of the motivations and incentives of other clinicians.

This latter idea strikes me as particularly true. Over the years I have worked in several different environments, including a hospital which has maintained a wall of separation worthy of that between church and state for many years. As I have listened to managers talk (and complain) about the clinicians, it has become clear to me that they have not grasped any motivation other than money. Yet, when I talk to other physicians about this, we all agree it is not money that gets us out of bed in the middle of the night or keeps us in the hospital after our "shift" has ended making sure things are done. And while it would be naïve to assume money does not matter, it is also naïve to assume physicians don't really care about the quality of their care. I suspect one of the great contributors to the current epidemic of "burnout" is the recognition on the part of more and more physicians that the quality of their work is determined more by the system they work with than they had ever realized before. And when that system is making it harder, not easier, to achieve the goal of good patient care, they get discouraged.

The authors note from their own studies that a manager who knows through experience what is needed to complete a job to the highest standard is more likely to "create the right work environment, set appropriate goals and accurately evaluate others' contributions." Finally, we might expect a highly talented physician to know what "good" looks like when hiring other physicians.

[1] Stoller JK, Goodall A, Baker A. Why the Best Hospitals Are Managed by Doctors. https://hbr.org/2016/12/why-the-best-hospitals-are-managed-by-doctors.html.

This has been true in my multi-specialty group which is physician owned and physician led (with professional management of the business.) When we are hiring, we are looking for people who share our values and priorities. And, if we misjudge someone during the hiring process, we are prepared to separate from them. This does not mean they are bad physicians, but it does mean they are a bad fit with our value system. One of our professional managers once described us as "a for-profit organization that acts like a non-profit." It turns out we will take care of the patient first, even when we know we aren't going to get paid.

The article concludes by noting that successful physician-led organizations have a systematic approach to identifying and training the next generation of physician leaders. In some sense medical training has to begin with the notion that it is "I" who is important. I have to gain the knowledge and the skills to do the tasks involved in being a physician. It is only after I have gained the knowledge and the skills can I begin to deal with the fact that it is really "Thou" who is important. And getting to that point takes a long time, probably at least a decade from matriculation in medical school for most physicians. Clearly, not all physicians develop past the earlier stages of development, but most do, and more would if appropriate methods for coaching and mentoring were available.

Unfortunately, I do not think we can develop enough physician leaders and cannot develop them fast enough to guide medicine through these turbulent years of conflicting forces for change. What is needed, then, is a collaborative model that seeks to exploit the expertise of the clinical staff and uses the expertise of the professional managers to make sure the expertise becomes "the way we do things around here."

This is why I favor the notion of the clinical microsystem. Here the dominant issues are usually not "business," but medical. Yes, staffing and costs are relevant concerns, but are framed in the context of trying to deliver the best care for the patient every time. Physicians and nurses are the natural leaders in the clinical microsystem—it is up to the managers to make sure the microsystems are supported, sustained, and allowed to progress as far as they can. It is up to the physicians to get over their cynicism and reluctance to get over the notion that anything other than direct patient care makes one a "suit." I only hope it is not too late.

3 January 2017

Leadership Skills That Are Commonly Lacking

In many of my articles I have advocated for a focus on the small units—the clinical microsystem—which is where medical care actually takes place. For physicians of my generation, this emphasis seems intuitive, as it reflects the way medicine was practiced when we were being trained. However, I have many opportunities to see young physicians enter practice and see what their expectations are, and I realize that they have grown up professionally in a world that is much more bureaucratic, and probably more hierarchical, than the one I grew up in. This is not to say hierarchies were absent—far from it. But in a university hospital there was the chief, the senior staff, the junior staff and the house staff—it was relatively flat and administrators did not appear on the list. They were there, of course, but they just did not register in the minds of anyone other than the chief, and perhaps some of the senior staff. The medical hierarchy has not changed much, but it does not take much effort to establish that administrative hierarchies have mushroomed. (I have to point out that unrestrained growth in biology is called cancer, but this is apparently not taught in business school.)

Recognizing that we are not going back to the past, I have spent a good deal of time reading and thinking about how these organizations actually operate, as well as how they can be improved. Thus, it was with interest when I found an article by Liz Ryan, who is a consultant on workplace management.[2]

> "We are getting smarter about work and people and the intersection between them. More and more, working people are telling the truth about topics that they were afraid to talk about openly before. One of the stickiest topics is the quality of leadership found in large and small employers. We are starting to tell the truth about the fact that most people in leadership positions are lacking in critical skills. They don't know how to talk to their employees and they don't know how to listen. If they received any management training at all, they were probably trained to dole out work assignments and evaluate people. They don't know how to probe for understanding or how to create cohesion on a team."

She identifies these skills as perspective taking, "allowing," intellectual curiosity, critical thinking, connecting the dots, and humility. It struck me that in medical organizations the most difficult of these skills is "allowing." Ms. Ryan defines this as:

> "Real leaders allow people to be who they are, and they allow all the good things and the bad things that happen in any workplace to happen, because they know that they and their teammates can solve any problem if they keep their cool and resist the urge to place blame."

[2] Ryan, Liz. Seven Leadership Skills Most Managers Lack. Accessed 27 May 2016 at http://www.forbes.com/sites/lizryan/2016/05/26/seven-leadership-skills-most-managers-lack/#3529f5cc1cdb

Anyone who has tried to institute a quality improvement program knows that the first, and most important, hurdle is to build trust and drive out blame. I was talking to my hospital medical director the other day, who was excited about new dynamics that were emerging on his patient safety team, where true openness and problem-solving skills were emerging. He could see the possibility of real growth after almost seven years of effort to overcome the built in institutional fear of failure and the possibility of being blamed.

Ms. Ryan suggested several questions that managers should use to open dialog and build team effectiveness. I thought these were so appropriate for medical settings that I am reproducing them verbatim.

What do you need from me?

How can I help you surmount that obstacle?

What have you learned lately?

What can I do to be a better manager for you?

What parts of your job are most interesting to you?

What do you think we should do about this issue?

What are your goals for your job? What are your ideas for reaching those goals?

What else do you want to talk about?

As you can see, all of these questions are open-ended—the type physicians are taught to use in medical interviewing, but often drop under the pressure of time. However, I have found that routine use of "What do you think we should do about this issue?" in clinical practice actually saves time and often results in better decisions. Of course, for that to work, you have to invest the time in teaching your staff so they can have an informed opinion. You have to decide, and you have to own the decision, but you really don't have to either know or think up all the answers by yourself. Give it a try—you might be pleased with the results.

12 August 2016

Why Physicians Don't Lead

In several recent articles I have quoted others who have discussed the essential role physicians should play in healthcare organizations and have considered a variety of perspectives. In this article I want to take the perspective of the non-physician organizational leader who wants to get his/her medical staff involved in the workings of the hospital, but encounters apathy, if not outright resistance, when an effort is made to start. Why is it so difficult to get physicians to lead?

I'm not sure there is a definitive answer, but I have some observations. First, the education and training of a physician focuses on what the physician knows and does. Consider the surgical resident in the operating room. All his attention is focused on knowing the anatomy, knowing the surgical considerations, and learning the mechanical skills needed to execute the procedure. The operating room team is barely visible, and there is no time or mental energy to consider what they do to get the patient ready for the procedure, help execute it, and get the patient safely to the recovery room. And that is as it should be. But there is no course at the end of residency teaching the surgeon to expand his horizons and to recognize that the infrastructure supporting that OR determines his effectiveness and his success.

When the surgeon enters practice, he may find that he gets the same OR team and develops rapport. He may even come to believe this rapport contributes to success, so will want that team every time he operates. Management, on the other hand, knows the surgeon only operates two days per week and rarely uses the entire day in the OR. Mindful of the need to efficiently use expensive resources, including skilled OR teams, the manager will resist "blocking" the team for one surgeon. Sometimes, the manager will even suspect inappropriate boundary violations if the surgeon advocates for "his" team too strongly. Thus, instead of cooperation, we end up with confrontation.

A surgeon may decide he wants a leadership position in the organization, so he can "fix" the operating room problem, but soon finds it isn't possible. (And using one's position for personal advantage will undercut the leader almost immediately with everybody.) Alternatively, the surgeon may be told by the physician with responsibility for operations in the OR that his request is denied. Being a leader, then, seems to consist mainly in telling people no. If they have had experience with their own children going through the terrible two's, they may decide they can do just fine without a job that consists of saying "no, no, no." Finally, I have long maintained the prolonged adolescence of medical education is something that some physicians never grow out of. Persistence of teenaged behaviors underlines many of the war stories administrative folk tell about doctors when they want to vent.

Perhaps related to this intense personal focus, physicians have a strong preference for informal leaders and tend to adopt the Roman consul and proconsul concept when faced with a crisis. (Of course, they don't recognize that is what they are doing. For those who don't recall, the consul was effectively the head of state and given the power of the veto, but his term was limited to one year. And, as time went by, his powers were limited in that other consuls could veto each other. In times of crisis, consuls could be named proconsuls for extended terms, but their authority was always exercised OUTSIDE of Rome itself. And the person with the greatest influence is often NOT the consul of the moment.) This ad hoc approach to leadership is mystifying to those coming from a business or bureaucratic background.

I started my leadership career in military medicine. In the military, formal hierarchy is established by emblems worn visibly on one's uniform, but so, too, are the emblems signifying one is a physician. But there were some telling details. For instance, doctors with a rank less than colonel (or captain in the Navy) usually called themselves doctor to almost everyone. Second, the medical "chain of command" was established by rank, but the daily clinical operations were determined more by influence—who was the best clinician to deal with the patient's problem. This was recognized and valued by the commanders in my time, some of whom were influencers and some of whom were not.

Lastly, even when physicians perceive the need for leadership in their organizations, they don't value it. In all the years of serving in various leadership roles, I can recall fewer than five times when someone came up and said thanks for making things better. I can recall a lot more instances when I was called various unflattering things because I did not agree with the physician's desired course of action and told him/her so. And in physician organizations, no one wants overhead to go up to actually pay money to another physician to do the job—they presumably should do it for the privilege of doing it.

All these forces practically assure most organizations will find physician leaders only among their senior staff, who are financially and professionally secure, and who have become convinced they need to put their shoulder to the wheel and try to make things better for everyone, not just themselves. So, what advice would I give to that nonphysician executive looking to get started?

First, figure out who the influencers are on your medical staff. If you have someone from your staff already involved, they may be able to give you the short list, but one way to find out is to ask, "Who would you recommend to a patient with ____ problem?" Not all the best clinicians use their influence, but they are the ones with the potential.

Second, get to know your influencers. Find out what they think and feel about your organization and their role in it. Find out what they are passionate about. If it is a clinical topic, good. If it is about their own efficiency, skip them for now, but keep them alive—you will need them later. (If you can operationalize their efficiency along with everyone else, you will reduce operational expenses.) Look for the common issues that keep coming up in the conversation—that is your agenda.

Third, organize an ad hoc group of the passionate influencers, including yourself and at least one doctor-friendly manager, to address one of those common issues and feed them lunch. Give them the power to make changes—not just recommend something you will consider. Yes, it may look like carte blanche, but commit to make happen whatever is decided upon. Then tell everyone what happened—it will get others to think about joining the next effort. Then repeat *ad infinitum*.

Does this sound too simple, too elementary? Does it sound boring and time-consuming? Maybe. But if you can make it work, and you get your medical staff on your team you will move your organization. Yes, you can delegate the task to someone else, but then that person must have the same authority you do to move the organization and commit resources.

Physicians almost never want to manage the operation; but they do want to practice medicine in an environment that responds to their needs and their thoughts about what makes for better patient care. In most organizations, it is up to the non-physician executive to create the conditions that foster participation, then bolster it with training and further opportunities to address problem areas. But remember, physicians did not go to medical school to be managers—keep the assignments focused, short term, and decisive. Remember the Roman consul. Those who want to pursue medical management careers instead of practice should be considered proconsuls—they can work in the colonies, but not in Rome.

20 February 2018

Thinking in terms of "time-span preferences" has implications for the leadership roles physicians should undertake. I have found proceduralists usually are most effective, and happiest, working on projects that are well-defined, they would say specific, and have outcomes that are straightforward. Projects that are hard to bring into focus, or where it may not be clear how to measure the outcome, tend to be the province of those physicians whose practice is mostly "evaluation and management."

https://www.practicingmdleaders.com/time-span-preferences-and-physician-leadership.html

Dunbar's Number

Dunbar's number arose when a scientist named Robin Dunbar decided to plot the size of primate troops against the volume of the neocortex and came up with a reasonably straight line. He then extended this to human brain volumes and came up with an estimate of 148 for the human "troop," which he rounded to 150. He argues that this is about the number of emotionally important relationships humans can have, because of the limits of our brains. Naturally, this was criticized as being both too high and too low an estimate. In his most recent formulation, he argues that 150 represents the upper limits of the number of people any one person can have an emotional investment in at any one time. But he also argues that for most people, the break points are 5, 15, 50 and then 150. Five represents the number of truly intimate relationships, fifteen the next layer of intensity, and 50 the usual size of emotionally significant social networks. There is a body of research suggesting these are reasonable estimates, given the difficulty of both defining and measuring such relationships.

https://www.practicingmdleaders.com/dunbars-number.html

Leadership does not occur in a vacuum—it always takes place in a specific context with specific objectives. For practicing physicians, that is the exam room, the hospital room, OR, or ER. What the physician needs to accomplish in each setting may be the same, but often has to be done differently. The term I have appropriated for this notion is the clinical microsystem as defined by Richard Bohmer.

Clinical Microsystems

The leaders of the Keystone ICU project emphasized the importance of informal clinical leadership for success as well as paying attention to both the technical and the adaptive work involved in making successful change. Richard Bohmer of Harvard Business School has taken this one step further, describing "clinical microsystems" as the key to improvement.[3]

> "Clinical microsystems are composed of and controlled by front-line clinicians whose primary work is patient care. Although many have little interest in leading, the success of health care reform depends on them."

He goes on to define four key tasks for the clinicians leading microsystems. First, and most importantly, they have to establish the group's purpose and emphasize that the goal is both shared and requires collective action. Having done this, it becomes necessary to ensure the clinical team can actually execute its plans.

> "Local care systems must address two perceived tensions—one between evidence-based medicine and patient centered care, which requires the flexibility to deliver standard care where the evidence is strong, and customized care where it isn't, or when standard care conflicts with the patient's preferences; and one between medical and human needs, by ensuring caring and compassion as well as clinical precision.
>
> These requirements may suggest that creating an effective microsystem is a technical design challenge requiring recruiting, staffing, task allocation, information technology selection, and process design. But since a microsystem's performance is as influenced by its culture as by its processes, the challenge is one of leadership. The team's culture guides decision making where protocols fail to provide appropriate variation and encourages compassion in technical settings. And the way local clinical leaders speak and act to model the balance between standard and custom, technical and human, helps define local team culture."

The third task is monitoring system performance, although he points out that for many clinicians, "control at a distance" is challenging. The final task is improving performance.

[3] Bohmer, Richard M. J. Leading Clinicians and Clinicians Leading. N Engl J Med 2013;386:1468-470.

> "Clinical leaders must model the combination of humility, self-doubt, restless curiosity, and courage to explored beyond accepted boundaries that drives organizations to relentless improvement despite colleagues' preferences for stability and familiarity…Without formal authority, the only tool that clinical leaders have is their behavior; what they say, how they say it, and how they model good practice."

I have been involved in leading dialysis units for more than 30 years in several settings. Dialysis units constitute a clinical microsystem, and it is instructive to consider the factors that seem to be associated with success or failure.

As medical director for outpatient dialysis units, I have a role defined in statute and incorporated into a contract that I have with Dialysis Clinic, Inc, (DCI), the owner of the units. Originally, those terms covered all clinical aspects of patient care; more recently the requirements have become increasingly specific and "rules" are being constantly refined and imposed through the survey process. When I took on the position, the unit had been in operation for 13 years, six under another local medical director, whose approach to clinical care was not congruent with mine. I was fully aware that my first task was to define my expectations as clearly and as consistently as possible.

Since my office and primary hospital are not co-located with any of the dialysis units, I knew I was going to be dependent upon the skills of my nursing staff to be my "eyes and ears" at the chair side. The better they could describe what was happening to the patient, the better decisions I could make. I also realized it would take time for those skills to develop and mature, so I needed to make the position attractive to nurses who were willing to make long-term commitments to the job. I knew from previous experience that the high death rates and high turnover of patients was a major cause of compassion fatigue, which led to turnover. The solution, it seemed to me, was to develop indicators of nursing "craftsmanship." These intermediate goals might help the nursing staff place the mortality rates in perspective and give them something they could be proud of. This was the impetus behind our first CQI project.

I was successful and I now have a cadre of nursing leaders who have been with me for many years. My "rookie" nurse manager is a five-year veteran, and I have two with more than 25 years' experience. This contrasts with the reported median experience of 18 months. As a result, we have been able to attain and maintain clinical performance that meets or exceeds norms, to have hospitalization rates consistently below the norm, and to operate in a financially successful way despite constrained reimbursement.

There were organizational supports for this effort. First, DCI's human resources policy included a generous benefits package and rewarded longevity. Second, the company had the notion that medical directors were in the best place to know the local demands, and largely left me to my own devices as to how I went about my tasks. As regulatory requirements became increasingly specific, the central office and the local units worked together to make sure required items were accomplished. Units that found better ways to do things were encouraged to share best practices. Third, the company operated the business primarily through its local administrators.

The way the administrator did her job mattered to the operational and clinical success, though. To build a long-service professional workforce, I built a clinical system that stressed mutual respect, trust, and accountability, and actively worked to drive blame out of the picture. My first administrator, though, was temperamentally incapable of being positive. For instance, I instituted a new clinical protocol that required nurses to make an assessment and make a choice from a menu of actions. This required me to trust the nurse would make good decisions.

The very same week she sent out a memo threatening termination for any nurse manager who let her staff work overtime. Even when I talked to her about the discordance, she was unable to see how the two were related. My second administrator was attuned to clinical goals and was able to get her job done in ways that facilitated attaining them. When she needed to curb overtime, she would talk to the nurse manager and find out what was going on with the patients first, before deciding if an administrative intervention was needed. In other words, she trusted the nurse to tell her the truth, too.

The contrast with the hospital's dialysis unit is instructive. When I first came to town, the unit consisted of two nurses, two dialysis machines, and one room. There were two nephrologists and we both interacted with the nurses as physicians rather than as medical directors, but since both of us were experienced outpatient medical directors, we were able to provide the necessary guidance. After a couple of years, I was asked to help design a new unit, where we expanded to six beds and an appropriate number of nurses. However, this advice was informal (and uncompensated.) With the growth in numbers of patients and procedures, the cost began to mount, and so the hospital and dialysis company reached an agreement to contract out dialysis services. I became the formal medical director as a result of that contract. Although I was paid by the dialysis provider, my role in terms of the medical staff was still defined by hospital Medical Staff rules.

When the growth in procedures continued unabated, the hospital became convinced it could provide the services cheaper than the contract price. This opinion arose mostly because of the difference between the acquisition costs of the supplies and the contract price. Following termination of the contract, the hospital attempted to run the unit without a formal medical director, but the increased burden of regulations made that impractical, so they contracted with me to provide *advice* to them. The contract specifically excluded any operational control of the unit.

The unit was led by a dialysis nurse, but most management functions were provided by nursing directors with various levels of interest and understanding of the needs of a specialized unit. As a result, turnover became a problem. Experience and skill levels have continued to fluctuate as nurses serve out their bonus time and move on.

Bohmer addressed this issue in his paper as well.

> "Institutional leaders can encourage and support unit-level and front-line clinical leadership by framing the organizational purpose as value creation, giving local leaders the authority to make microsystem changes, tolerating the failure of some new delivery ideas, and creating professional pathways for clinicians who want to make leadership a career option…CEOs may resist investing in developing clinical leadership and decentralizing control or may believe the process is too slow to address current pressures. But the need is evident, the tasks are clear, and the skills are at hand—data orientation, the relentless pursuit of excellence, and a habit of inquiry are all second nature to clinicians. Ultimately, investment in such leaders will be essential to achieving the goals of health care reform."

While the financial pressures on providers are obvious, the benefit of the change, either in clinical or financial terms is less obvious. We had a recent discussion with our CFO about calculating savings from clinical initiatives, and he admitted it was difficult, and required a lot of educated guesses. In the end he wasn't sure that most initiatives actually saved any money. If administrators and clinicians don't operate from a basis of mutual trust and respect, and a shared understanding of the other's reality, then paralysis is the likely result.

Some years ago, I heard a speaker, whose name I have forgotten, talk about institutional change. He told the story of watching a TV news report where an man who survived a fire on an oil platform in the North Sea was being interviewed. The interviewer pointed out that the platform was more than 100 feet above the surface of the water, it was winter time, the water was cold, and staff had been trained to never jump into the water as survival time before fatal hypothermia was about four minutes. Given all this, the interviewer asked the man why he jumped. He replied that he chose the probability of death over the certainty of death. The speaker stated most people made change only when their platform was on fire.

Many of our medical organizations are on fire, but not everyone admits it and there is real tension between those who want to jump and those who want to stay despite the certainty of death. Where are you? Are you willing to lead the microsystems of importance to you and your patients? Are you willing to work with your nurses and administrative staff to develop effective teams along the lines outlined here?

15 August 2014

Leading Through Teams

The Gallup organization recently published a survey of U. S. businesses showing 84% of employees are "matrixed," that is, work on multiple teams every day reporting to the same or different managers.[4] They further subdivided this into three groups. 49% served on multiple teams some days, (slightly matrixed), 18% served on multiple teams every day, but usually reporting to the same manager, (matrixed), and the remaining 17%, the supermatrixed, worked on different teams every day reporting to different managers.

Quoting an article in "The Economist," the Gallup authors note teams are a two edged sword—they may provide insight, creativity and knowledge, but may also lead to confusion, delay, and poor decision-making. Furthermore, competition among teams can hinder progress and employees may become less clear about their roles and accountability, which are important drivers of employee engagement. The authors note:

> "Gallup research indicates that an engaged, high-performing workforce is founded on clarity of expectations. Clear and accountable roles promote organizational health and performance…The matrix structure is notorious for frequently obscuring lines of accountability. One common complaint is that matrixed organizations lack clarity of responsibility and expectations, and it can be difficult to understand who reports to whom. Leaders need to address the problem of role ambiguity that pervades matrixed companies, helping employees by continually setting clear expectations that are in step with company objectives. This clarity should involve frequent conversations between managers and workers about the specific role each person plays in advancing organizational goals. It's on leaders' and managers' shoulders to ensure that employees understand whom they answer to and the duties for which they are responsible."

A related article published in The Harvard Business Review, Fitzsimons notes:[5]

> "Consider the challenges of the 21st century enterprise: things change too fast for one individual to know how to best respond; there are many explanations for any event, and multiple perspectives are needed to understand what that event means and decide what to do; a pipeline of future leaders is essential to companies' long term success. No wonder organizations today are drawn to the benefit of leadership that is shared, rather than concentrated in a single, charismatic individual. Regardless of the exact organizational structure or what it's called, the times seem to call for leaders who can be first among equals…

[4]Rigoni B, Nelson B. The Matrix: Teams are Gaining Greater Power in Companies. 17 May 2016. Accessed 20 May 2016 at http://www.gallup.com/businessjournal/191516/matrix-teams-gaining-greater-power-companies.aspx?utm_source=email&utm_content=morelink&utm_campaign=syndication.

[5]Fitzsimons D. How Shared Leadership Changes Our Relationships at Work. Harvard Business Review, 12 May 2016. https://hbr.org/2016/05/how-shared-leadership-changes-our-relationships-at-work.

…Recent research on change management teams, virtual teams and new startup teams has shown that teams in which leadership is shared, rather than vested in a single individual, can be very effective, demonstrating through quantitative methods that shared leadership can, and does, lead to improved organizational performance. And yet organizations remain stubbornly hierarchical. Anyone who has tried to share the burdens and privileges of leadership in their teams has probably noticed that doing so is far from straightforward."

He reports on his experience helping an international professional services firm deal with shared leadership over an 18 month period. He notes the changed relationships may be difficult to navigate. Specifically, the vice-president in charge of each area may have difficulty holding his/her colleagues accountable for performance, and may scapegoat one manager for the failure of the project. They may also set up the nominal leader for failure as a way of avoiding their responsibility.

Team leadership also makes relationships with subordinate levels difficult.

"For starters, you may notice attempts to export conflicts. Difficult conversations that the team is avoiding may get acted out in the level below. The classic sign is that while your team celebrates its harmony, those who report to them develop increasingly acrimonious relationship among each other. Your job is to ensure that good feelings in the senior team do not come at the expense of confusion and frustration in the level below.

Also, a senior team going through the transition to shared leadership may prefer to keep its doors more firmly closed to other managers than usual, while they sort out their relationships. We learn early to keep our team's struggles behind closed doors, and this is normal to an extent. However, it may contribute to feelings of confusion in the levels below, and adversely influence motivation and performance. Finally, executive team members may bolster their view of themselves as truly sharing leadership by developing a story that blames the levels below for the very difficulty described above. You may hear complaints about middle managers' lack of mutual accountability, dependency on their boss, resistance to change, and so on—the very same issues you and your team may be struggling with."

Clearly, the team based approach to getting work done has its difficulties. Since I have strongly advocated for a team-based leadership structure in medical organizations, it is important to think about these issues and how they might differ in a hospital, for instance, than in a typical business organization.

Medical organizations have an inherent duality—they are clinical enterprises designed to deliver medical care, but they are also big businesses with complicated financial and regulatory structures. The people who deliver the care aren't really qualified to deal with the business, but the business people aren't really qualified to deal with the medical care. Successful organizations must find a functional way to link these two aspects of the business at every level, which means team leadership.

So how can a medical organization function with team leadership in an environment where the delivery of medical care depends upon ad hoc assemblies of teams, which I call the clinical microsystem, and avoid some of the traps outlined in these two articles? The short answer, of course, is that the traps are there for every organization, because they are rooted in human behaviors.

Having experimented with shared leadership on the clinical side for thirty years with many different individuals, I have found there are some who simply cannot function in that sort of environment. They find taking responsibility for making decisions too anxiety-provoking. It is more comfortable to call "the boss" and pass all decision making along to him/her.

The second challenge is avoiding the traps inherent in the psychological triangle involved in medical leadership team of physician, nurse, and administrator. The Russians have a long history of the "troika" as a means of controlling absolute power, because of the probability of division 2 to 1 along any issue or challenge. In the context of dialysis units, where I have the most practical experience, this usually means the administrator and the nurse are in conflict, and both try to enlist the medical director as an ally, usually without telling the physician what the issue really is.

The third challenge, is that all members of the leadership team have to have respect for the skill sets the other persons bring to the task. If respect and skill exist, then a problem can be defined as mainly in one or the other member's "sphere of expertise" to steal a geopolitical phrase, and they can be expected to have the deciding voice. Again, using the dialysis unit as the model, a contract issue is clearly in the administrator's sphere, but the physician and nurse manager need to know if the contract is going to place demands on them that are different from routine work, and need to make sure they can deliver on the contract before it is signed. An issue involving medical care ultimately belongs to the physician, but the team has to be included in the decision making, since the change has to be paid for and the staff have to be able to execute the new plan.

Teams are not a panacea—they do not solve all the organizations problems. But in the context of healthcare organizations, there really is no question in my mind that they are superior to command and control models of decision making which are dysfunctional. Perhaps it is an echo of Churchill's epigram on democracy—it may be bad, but it is better than any other model of government.

21 May 2016

Team Building

Lately I have been concentrating on team building with my leadership group. A recent focus of discussion was an article by DeSteno called "How to Cultivate Gratitude, Compassion, and Pride on Your Team."[6] He began the article by looking at Google's Project Oxygen, designed to identify managerial attributes associated with team success.

> "What they found is that yes, driving a team to be productive and results-oriented mattered, but so did being even-keeled, making time for one-on-one meetings, working with a team in the trenches to solve problems, and taking an interest in employees' social lives. In fact, these "character" qualities outranked sheer drive and technical expertise when it came to predicting success."

My team thought the most important element was being in the trenches solving problems, which is not surprising. After all, I select nurse managers based on their effectiveness as dialysis nurses—being at the patient's side is their first love and their core expertise. The administrator and I usually think they are overly involved in their staff's personal lives—in small units it is hard not to have "too much information." Sometimes this information makes it hard for them to put the needs of the patients and the unit ahead of the individual's perceived needs.

DeSteno writes, "So what is the best way to instill grit and grace in your team? My research shows that its about cultivating three specific emotions: gratitude, compassion, and pride." He notes the power of appreciation in motivating people, but as my team discussed these ideas, it became clear the key issue was trust. Do the staff see the nurse manager as trustworthy? Does the nurse manager see the staff as trustworthy?

I have concluded some people simply lack the capacity to trust—probably because the adults in their lives were not reliable when they were very young. But for many, the problem is one of mindset. What do I mean by this? Let me give a couple of examples.

How does the leader view the staff? Are they employees or, God forbid, FTE's? Or are they Mary, Susie, Bob, and Joe? In the days when medicine was almost exclusively a cottage industry everyone expected to know the individuals working with them. When I entered practice, I expected to have at least passing familiarity with the nurses on the units where I saw my patients. Now with corporatization of medical practice, younger associates don't even expect to know their colleagues, much less the staff. We have exceeded Dunbar's number, and forgotten getting things done always comes down to the people who must do it. This corporate perspective also makes it difficult to see the individual known as "patient" to the clinician, or "customer" to the manager.

[6] DeSteno D. How to Cultivate Gratitude, Compassion, and Pride on Your Team. HBR 20 February 2018. Accessed 21 Feb 2018 at https://hbr.org/2018/02/how-to-cultivate-gratitude-compassion-and-pride-on-your-team.html.

How does the leader view the team, as opposed to the individuals on the team? Is it a static thing or a dynamic thing? Belief that there is something called the "status quo" is one of the bigger impediments to team function. Leaders, and team members sometimes forget the team, like a marriage, must be worked on all the time. Team building is never "done." But we want it to be that way—it seems to hard to have to keep doing it.

Then there are real issues with the bad apples. It is all well and good to assume that most people want to come to work and do their best, but there are some who do not. Dimmock and Gerken addressed this issue recently in the same forum.[7]

> "And while it would be nice to think that the honest employees would prompt the dishonest employees to better choices, that's rarely the case. Among co-workers, it appears easier to learn bad behavior than good. For managers, it is important to realize that the costs of a problematic employee go beyond the direct effects of that employee's actions—bad behaviors of one employee spill over into the behaviors of other employees through peer effects."

The authors constructed a data set by examining regulatory filings about complaints concerning financial advisers with special focus on that adviser's ecosystem. They controlled for organization, presence of a new supervisor, and ethnicity matching between supervisor and adviser, and found the effect remained about the same except for ethnicity, where the effect was doubled if the supervisor and adviser shared ethnicity.

> "We found that financial advisers are 37% more likely to commit misconduct if they encounter a new co-worker with a history of misconduct. This result implies that misconduct has a social multiplier of 1.59—meaning that, on average, each case of misconduct results in an additional 0.59 cases of misconduct through peer effects."

All medical organizations depend upon payment from government health programs, none more so that dialysis clinics, so maintaining integrity of the process is critical for regulatory approval. But this study suggests most of the top down "compliance efforts" don't do much to prevent contagion. After all, it is unlikely the financial firms in the study said anything that could have suggested it was okay to be dishonest. The authors conclude it is informal social networking that works to stop the contagion plus getting rid of the bad apple.

However, improving quality and safety in dialysis units must be about design, not inspection. Picking out the bad apples won't improve the rest of the crop. From the manager's perspective, though, it is hard to be positive, encouraging, and open to adaptive change, while making sure the bad apples don't spoil the entire enterprise.

[7] Dimmock S, Gerken WC. Research: How One Bad Employee Can Corrupt a Whole Team. HBR 5 March 2018. Accessed at https://hbr.org/2018/03/research-how-one-bad-employee-can-corrupt-a-whole-team.html.

So how can one maintain equipoise? For me, the issue is to assume people want to do their best and need organizational definition of what "best" means in the context of their jobs. With this approach, people often exceed my expectation of their capabilities. I prefer to be disappointed with the occasional person who does not measure up—and separate them as quickly as possible. The opposite approach, to expect the worst and be occasionally surprised that someone does better than the minimum, is not a recipe for a healthy, satisfying work environment.

In the final analysis, then, I contend all unit performance, clinical and financial, depends on small unit leadership maintaining a focus on quality and safety of care first. But it is not what you say that matters—it is what you do. If you don't like what you see in your team, start by looking in the mirror. We get the teams we model, not the ones we say we want.

6 March 2018

Making Leaders

There has been a long-standing debate about whether leaders are made or born. A recent study reported on NPR concluded there may be a genetic basis, because leaders all share one key trait:

> "Leaders make decisions for a group in the same way that they make decisions for themselves. They don't change their decision-making behavior, even when other people's welfare is at stake."

The study, published in *Science*, was done at the University of Zurich, Switzerland, and was focused on trying to understand the neurobiology of leadership. Their starting observation was being in a leadership role means having to make decisions that will impact on other people. Some people seem to be able to deal with this and others do not.

https://www.practicingmdleaders.com/making-leaders.html

Measuring Teamwork

I have previously discussed the critical nature of clinical teams in producing high quality results in healthcare organizations, and I have considered the detrimental effects of turnover on maintaining highly reliable teams. One problem facing health system leaders is the difficulty in measuring the value of the team. So, I want to consider measuring teamwork, but I do not mean productivity. Here, I mean the question of how well teams accomplish their fundamental work, which I would define as an internal focus on maintaining the team and an external focus on accomplishing the work.

In 2007, the Canadian Health Services Research Foundation published a review of the subject of effective teamwork in healthcare.[8] Their definition of healthcare teams is explicit.

> "Teamwork requires an explicit decision by the team members to cooperate in meeting the shared objective. This requires team members sacrifice their autonomy, allowing their activity to be coordinated by the team, either through the decisions of the team leader or through shared decision making. As a result, the responsibilities of professionals working as a team include not only activities they deliver because of their specialized skills or knowledge, but also those resulting from their commitment to monitor the activities performed by their teammates, including managing the conflicts that may result."

The authors concluded creating functional teams became an important policy objective for Canadian authorities in 2004. They point out that teamwork and collaboration are often used interchangeably, but collaboration may occur without a formal team structure. Teamwork requires a formal structure, but cannot succeed without collaboration. They pointed out the greatest obstacle to change was the "hierarchical culture of healthcare." Barriers include "the self-regulation of professions, current malpractice and liability laws and funding and remuneration models." In a 2005 meeting of experts, barriers to creating teamwork listed, among other things, "the absence of efforts to capture evidence for success and communicate this to key stakeholders, including the public."

A review of interventions to improve team effectiveness was published in 2010.[9] The authors identified 48 articles, 42 of which were published after 2000. 32 of these articles were considered of low quality and often related to the non-technical aspects of teamwork such as communication, cooperation, coordination, and leadership. Eight studies studied the effect of Crew Resource Management (CRM) training on attitudes toward quality and safety. These tended to be more robust studies, but again, show very limited results.

[8] Clements, D., Dault, M., Priest, A. Effective Teamwork in Healthcare: Research and Reality. HealthcarePapers, 7(SP) January 2007: 26-34.doi:10.12927/hcpap.2013.18669. Accessed 12 September 2014 at http://www.longwoods.com/content/18669.

[9] Buljac-Samardzic, M., Dekker-van Doorn, C. M., van Wijngaarden, J. D. H., van Wijk, K. P. Interventions to improve team effectiveness: a systematic review. Health Policy 2010;94:183-195. Accessed 12 September 2014 at www.elsevier.com/locate/healthpol.

This program has been adopted in varying degrees in U. S. healthcare settings. The program comes from the aviation industry, where rigorous "failure" analysis showed that many fatal accidents could have been prevented if the team communicated better. Since aviation is also a hierarchical industry, the parallels with operating rooms and ER's has made it attractive. At its heart is a structured process for calling potential problems to the attention of the decision maker—the pilot in the case of an airplane, the doctor in the case of a healthcare setting.

Lastly, a review of the various instruments available to measure aspects of teamwork was published this year.[10] These authors were interested in the question of whether statistically valid measures exist, what properties of teamwork are measured, and have they been used in empiric studies linked to an outcome of interest? Their definition of teams included both formal teams, as outlined in the Canadian review, and also the informal teams, which they defined as collaborations. They identified 36 scales, only 15 of which were published in health services or medical journals. 12 scales had documented relationships with a non-self-reported outcome, (4 clinical, 6 non-clinical, and 2 a combination.) Seven of these 12 scales included a full set of psychometric properties, and 3 satisfied the four pre-specified criteria.

These 12 scales included questions designed to assess two dimensions of teamwork: the quality of the social interaction and the quality of the task-related interaction. The social interactions assessed included social support, respect, psychological safety, active conflict management, and group cohesion. The task-related interactions assessed included communication, shared decision making, use of all members' relevant expertise, full participation, collaboration, learning orientation, coordination and effort. The authors note, however,

> "The inclusion of items assessing both the quality of the task-related and social interactions between team members in all the scales but one suggests consensus that both of these elements are important components of teamwork. In contrast, the lack of consistency in the dimensions included to assess the quality of these interactions, and in how thoroughly each dimension is explored suggests lack of consensus about the fundamental sub-components of teamwork. The difficulty with this lack of conceptual consistency is that it limits what we can learn from research on teamwork and limits the ability to effectively intervene to improve teamwork."

This review concludes that teamwork incorporates both social (internal) and work (external) components. To those who approach healthcare from a financial background, the social component may seem too subjective and even ethereal, and so may be ignored. Those who approach healthcare from a personnel background may focus on the social component and fail to emphasize the work component. My experience in the dialysis unit suggests this split is common. The corporate administrators, who have financial responsi-

[10] Valentine, M. A., Nembhard, I. M., Edmondson, A. C. Measuring Teamwork in Health Care Settings: A Review of Survey Instruments. Med Care 2014 (Apr). Accessed 12 September 2014 at http://www.rrsstq.com/stock/fra/p.217.

-bilities, place a lot of emphasis on the work without considering the details. Nurse managers, on the other hand, put a lot of emphasis on trying to make sure everybody is getting along. I usually try to bridge the gap by pointing out to the nurse managers the goal is to be fair. It is not in a manager's power to "make" someone feel anything, much less happy. I point out to the administrators that the nurses are people who have events in their own lives that may temporarily impair their ability to do the work, but that person is still a valued employee and a valued member of the team.

A Working Approach to Measuring Team Effectiveness

Since there is no generally accepted measure of teamwork, what should we do while awaiting developments in the field? I suggest measuring the social aspects of teamwork by looking at longevity and turnover of the team members, vacancy rates, and time to fill open slots. We may not be able to measure teamwork, but people "vote with their feet." We should at least count the votes. While the organizational structure has an important impact on how teams perform, these effects should be fairly uniform within an organization. However, it should be clear that these measures are not directly comparable to data from other organizations. In other words, benchmarking is going to be difficult for the time being.

We can measure technical outputs by defining items of interest. These would include patient satisfaction, core measures, and safety measures. These items need to be measured at the unit level, not the organization level. Clearly, some items, say heart failure core measures, are not going to be useful measures of work on the orthopedic ward. On the other hand, falls and hospital acquired infections are likely important on all wards, but probably not useful in the operating room or the emergency room. I suggest establishing a battery of six items for each team of interest—three related to quality and three related to safety. In some cases, those items will be evident to outsiders, but it is equally valid to let the team members choose their own metrics.

Items measured must not only be relevant to the individual unit, they must also be compared to the individual unit.[11] The issue is not whether patient satisfaction on the labor and delivery ward is better than on the oncology ward, the issue is whether patient satisfaction improves over time.

Is there a role for traditional markers of work, such as occupied beds, number of cases, etc? These markers are commonly used to determine staffing levels, and certainly, staffing levels have an impact on team function. But the issue is to measure the effectiveness of the team function in ways that are meaningful to both the organization and to the individual members of the team.

[11] Competition between teams may be useful, but competition within teams impairs knowledge sharing, a key component of teamwork in healthcare. He, H., et al. Modeling Team Knowledge Sharing and Team Flexibility: The Role of Within-Team Competition. Human Relations. Early publication accessed 12 September 2014 at http://hum.sagepub.com/content/early/2014/02/03/0018726713508797.

Once the organization has working metrics for each team, the question becomes what can be done to improve results? Here, again, the literature is sparse. As has already been suggested, crew resource management training seems associated with improved communication and reduced errors. Team composition is another area where changes can be made. One research group, for instance, reported a study of 51 teams comprised of 652 employees showing that the teams scoring higher in general mental ability, extraversion, and emotional stability were deemed by supervisors to be both more effective and more viable.[12] Recent data suggest external leadership can also be important, even to empowered teams, although routine "leadership" activities seem to have no effect.[13]

Given the absence of proven pathways, each team needs to be given the freedom to make deliberate changes in its work processes that, in the opinion of the team, seem likely to improve performance on one or more of the chosen metrics. Of course, some outside review may be needed to make sure the changes are congruent with established legal and clinical standards, but, in general, management needs to be open to the ad hoc, experimental nature of such efforts. The key, as in all process improvement efforts, is frequent measurement of the items of interest and integration of the observed results into further efforts.

I appreciate that in these times of economic stress, it is not realistic to exclude money from the conversation, which I have done in this discussion thus far. So how should this be done? Traditional cost accounting methods do not, in my view, provide information actionable by clinical teams. This requires breaking expenses down to the individual unit level, and requires breaking down direct expenses such as personnel and equipment. However, revenue should not be attributed to each unit. Senior management determines the cost structures of the organization, not the clinical teams, and the latter have no control over payer mix, acuity level, or volume. On the other hand, the staff can be responsible for controlling the direct costs associated with each clinical activity. In such a system, each expense results in a "negative" balance for each unit, but clinical people can understand a goal such as "keeping our number less than -$100,000."

Organizations that wait for the perfect system will be getting further behind in the race to develop effective and resilient clinical teams. The scheme I have outlined may have gaps and certainly needs to be adapted to each local situation, but does cover the elements that the research base supports. Why not start now?

22 September 2014

[12] Barrick, M. R., Stewart, G. L., Neubert, M. J., Mount, M. K. Relating Member Ability and Personality to Work-Team Effectiveness. J Appl Psychol 1998 (Jun);83(3):377-391. doi: 10.1037/0021-9010.83.3.377. Accessed 12 September 2014 at www.longwoods.com/content/18669.

[13] Luciano, M. M., Mathieu, J. E., Ruddy, T. M. Leading Multiple Teams: Average and Relative External Leadership Influences on Team Empowerment and Effectiveness. J Appl Psychol 2014(Mar);99(2):322-331. doi: 10.1037/a0035025.

One unfortunate fact is that many healthcare organizations are not good places to work and so experience high turnover. This notion is captured in the phrase "toxic institutions." In order to improve clinical care it is necessary to think about this and its impact on staff turnover. It also means physician leaders need to understand the business notion of human capital.

Toxic Institutions

I went to a seminar on physician wellness and burnout presented at my alma mater. The organization became concerned about the topic several years ago, but initially thought in terms of helping individual physicians cope/recover. They started by looking for data using survey methodologies. Most of the studies presented had a response rate between 30 and 40%, which is typical for voluntary surveys. Of course, in this case there is concern that non-responders have become too apathetic or burned out to even bother to report. Nonetheless, a consistent finding was that about a third of respondents were reporting significant psychosocial distress. This finding was more common in medical students, then tended to level off. Curiously, among faculty in one department, the stress rate was highest at the associate professor level and lowest in the full professor ranks.

As I listened to the presentations it became clear to me that we have a systemic problem. We have created institutions that are toxic to the people who work there and there are no quick fixes for the problem. Although the presentations were focused on physicians, the findings in other healthcare workers are even more dramatic. Now the foundation stories of all health care organizations begin with people coming together to help alleviate pain, suffering, and disability for other persons. So how did we end up in this situation? Certainly no one in a leadership role wants to be leading a toxic culture, but what can they reasonably be expected to do about it?

David Brooks has published an article called "An Agenda for Moderates."[14] He argues that ideas which drive history, what he calls magnetic ideas, are in a state of change. Quoting a book written in 1999, he describes three ideas in American history. First was the idea of God and the Holy City. Second was the idea of the nation, or Manifest Destiny. Third was the idea of self and self-fulfillment which has characterized the current era. He notes we are leaving the era of self but are being presented with two different ideas of the future. The conservative idea is "the tribe." The liberal idea is "social justice." He notes both ideas are inherently negative. For the conservative, the enemy is the other. For the liberal the enemy is oppression by the other, often hidden, elites. As a raging moderate he wants to consider what policy options are open to him.

[14] Brooks, David. An Agenda for Moderates. *The New York Times*. 25 February 2019. Accessed at https://nytimes.com/2019/02/25/opinion/moderate-politics.html.

With all due respect to Mr. Brooks, another way of interpreting the big idea of our recent history is the growth of "big" organizations. My father grew up while his father was an active duty Army physician. As he reminisces about those days, what strikes me is how small the Army was. People he knew as a Boy Scout in Hawaii in the early 1930's became classmates at West Point, and he had a visceral family connection to many senior officers even as a cadet. One "lesson" of the Second World War, though, was that we needed big institutions to combat the enemy.

After the war, we continued with "big" business, such as General Motors or General Electric, and had "big" government. For 20 years or so after the war, the country had faith in its big institutions. Of course, the consensus broke down in the late 1960's. But the decades since then have seen those big institutions become even bigger. In return, many people, having no faith in the benign nature of those big institutions, have retreated to more private and personal goals and motives, the self if you will, to the point where today the conversation is about atomization and echo chambers and the decline of the public sphere.

I believe the challenge in medicine, then, is to find ways to humanize our big organizations so that people can feel as good about where they work as they do in the work itself. I don't hold out hope for reversing the bureaucratization of medicine, which I have certainly seen grow exponentially in my lifetime. Rather, the challenge is how can we create connections that lead to meaning?

A traditional answer is small group formation. Now some executives fear small groups as leading to rebellion and dissent. But if Dunbar's number is real, which I think it is, then we need to create subunits of 100 people or less that function together in important ways. In medicine, I have called these the clinical microsystem. Just as the body is made up of cells grouped into organs, so too our organizations need organs as well. I don't want to push the analogy too far, so I concede organizational groupings are looser and more ad hoc.

How might such clinical microsystems function and stay integrated into the whole? Interestingly, the use of technology, currently the bane of effective communication, might be turned into the means of creating the connective tissue of these systems. It does, however, require rethinking the purpose of our technology. The EMR, for instance, might work if it were re-constructed as a clinical tool to guide and record patient care rather than as it is now—a billing document that serves institutional needs first and patients only as an afterthought. Wiki technology could be used to serve broader institutional communication needs and to develop some cohesion within and between microsystems. Yes, it probably also involves committee meetings, but these can be organized to create systems for decision making rather than reporting and ratification as is now often the case.

What I don't think would work is the sort of rah-rah enthusiasm used to motivate sports teams or by the military in basic training of recruits. Such efforts are helpful only in the short-term and won't suffice for the sort of long-term effort needed to make our institutions better places to be. I also don't think this is something than can be achieved by a single program with a catchy slogan.

What leaders need to do is recognize the pervasive nature of the toxic environment and find ways to nurture the growth and development of the small units—the microsystems. One interpretation of the departmental data described earlier is that the senior members of the department are generally content with the status quo. They may not even recognize the problem is not that their juniors can't "cope" or are just too soft, but that we have created systems that guarantee everyone eventually fails. This is not a matter of blame—no one set out to create these toxic environments. But I have seen many highly motivated young leaders give up when the organization proves too rigid and resistant, and where implementing good ideas takes too long and too much effort. Yes, making changes might cost money. But can we afford to keep burning up our talent as we are doing now? Which is cheaper in the long-term?

27 February 2019

"Eventually he proposed four key factors that could help explain how teachers' expectations influence students. They boil down to climate (warm and friendly behavior), input (the tendency for teachers to devote more energy to their special students), output (the way teachers call on those students more often for answers) and feedback (giving generally more helpful responses to the students for whom teachers have the highest hopes).

So how might teachers or other leaders communicate these high expectations? What are their facial expressions, vocal tones and gestures like in these interactions? Alas, Rosenthal's research hasn't answered these questions, and there isn't much guidance from other nonverbal communication authorities."

Paul Ekman, a leading expert in the field who has never collaborated with Rosenthal, says that as a general rule, people communicate these high hopes via the degree to which they physically show their attentiveness. A fixed gaze and raised eyebrows conveys a different message than a wandering gaze and bored expression. In other words, it's all a matter of emotional investment and focus. These behaviors are usually instinctive, however. So the question remains: Can they be effectively taught?"

https://www.practicingmdleaders.com/on-leadership-and-the-pygmalion-effect.html

Turnover from the Perspective of the Departing

I had a conversation with the hospital's COO one day about nursing staff turnover. As a nurse himself, he was also concerned about the issue, and reported the exit interviews conducted by HR showed that money was the most frequently cited concern. I told him I thought we might benefit if we heard that as "you can't pay me enough to put up with…" as opposed to the need for a pay raise. Just today I heard a young RN, commenting about the difficulty of dealing with incontinent patients, "even for a $1000/hour I could not do that if I had to do that all day." Recently, Travis Bradberry published an article on Forbes.com, entitled "9 Things That Make Good Employees Quit."[15] His key point: "Managers tend to blame their turnover problems on everything under the sun, while ignoring the crux of the matter: people don't leave jobs; they leave managers." He then listed the nine most common problems.

First, good employees tend to be overworked. "New research from Stanford shows that productivity per hour declines sharply when the workweek exceeds 50 hours, and productivity drops off so much after 55 hours that you don't get anything out of working more." We were once trapped in a situation where we got behind on staffing at a time when workload was increasing, and employees were logging more than 10 hours of overtime. While there was some complaining at the time, most of the resignations came in when we finally got staffing up to decent levels and people could plan on their schedules being reasonably predictable. Once they got some sleep, they realized they could not go through that again.

The second and third points are similar: good work is not recognized and managers don't care about their employees. In medical environments when tend to expect quality work from employees and are quick to notice (and complain about) failure, but slow to say thanks. And the focus on the patient can cause people to forget about the other team members, particularly when status issues are involved. I once heard a young team leader tell a new janitor (in the middle of the night) that he always wanted to make sure the rooms he cleaned were cleaned thoroughly, because if he did not, the next patient might get sick. I did report the young man to management for commendation, as he clearly understood his role, but how many others do the same thing and are never acknowledged?

His fourth and fifth points: they don't honor their commitments and they hire and promote the wrong people. In some ways this is a corollary to not caring about employees, but represent personal failures on the part of the manager. I remember a vigorous discussion with some consultants, nursing leaders and myself, where I kept asking what I thought were probing questions. It soon became clear that some of the nursing leaders (but not the consultants) thought I was just being a nuisance and prolonging the meeting. They did not quite come out and say that, but I did get the message when one of them said she would not hire me. How often do we want to move the employee who keeps asking why and retain the one that just says okay? In a learning organization environment, the first employee is likely to be more valuable.

[15] http://www.forbes.com/sites/travisbradberry/2016/02/23/9-things-that-make-goodemployees-quit/#cdd6b2b260b3. Accessed 23 Feb 2016.

The last four seem to me the biggest factors in the health care environment. (6) They don't let people pursue their passions. (7) They fail to develop people's skills. (8) They fail to engage their creativity. (9) They fail to challenge people intellectually. Since medical care involves a great number of highly educated and trained people, you would think these four factors would come naturally to managers and employees at all levels, yet they don't.

Perhaps the biggest challenge is the current regulatory environment. All healthcare organizations are subject to repeated, often intrusive examination by various agencies of the state and private organizations. Each inspector has his/her own agenda, and is looking for the information that the organization is performing as required. Yet performance in medical care is, at best, a statistical proposition. Some proportion of our patients are going to die during the current admission, now matter how competent the medical care provided. Since we don't really know how much of what we do is critical to achieving desired outcomes, the temptation is to go with rigid protocols and to define "the right thing to do" as following the protocols. It is easy to see why passion, creativity, inclusiveness and thinking could be seen as threats to following the protocol.

Lest this seem too farfetched, how many of you have worked with doctors whose anxiety caused them to become enmeshed in the small details of a patient's care and badgered the nurses for more data? These anxious doctors may see themselves as more conscientious than their slovenly brethren who don't chase after all the details, but it is fairly clear there results are not superior and they have more problems with the patients and the staff than their peers. Can you see how these behaviors create an environment where nurses decide to leave?

I was talking to a group of dialysis unit medical directors about staff turnover. I suggested this might be a more important metric to monitor in our QAPI program than some of the indicators mandated by CMS. One young doctor, though, demurred. "Turnover is not my responsibility." Yet it is clear that physicians have a major impact on the working conditions of nursing staff—perhaps as much as HR practices and nursing leadership, which can be prone to all of the errors outlined by Bradberry. I suggest we all have a role to play in turnover, and organizations that find ways to give appropriate feedback will prosper, while those that do not will fail.

1 May 2016

A Physician View of Human Capital in Health Care

In a recent article, I discussed Oakeshott's distinction between formal knowledge and practical knowledge.[16] My friend Bud Hamilton, a professor of management with a research interest in strategic human capital, called my attention to the February 2014 Journal of Management, which was devoted to the issue of strategic human capital. I discovered:

> "The primary confusion appears to have arisen from an incomplete and perhaps inaccurate application of individual level theories of human capital, to unit-level concerns for how human capital resources can affect unit level outcomes.
>
> This lack of consensus about what human capital resources are, at what level they exist and to what unit level outcomes they are related creates roadblocks for integrating perspectives across disciplines ."[17]

The authors propose a definition of human capital resources as "individual knowledge, skills, abilities, and other characteristics that are accessible for unit-relevant purposes."[18] The point out that these "KSAO's" are based upon individuals, but become human capital to the extent they are relevant for achieving economic outcomes. These KSAO's become human capital resources if they are accessible for unit level performance. In this schema, human capital resources are relevant for "performance parity." Human capital resources become "strategic human capital resources" when those KSAO's at either the individual or the unit level are accessible for competitive advantage.

The authors stress that "accessibility" of these individual attributes for accomplishing the purposes of the team is the key notion, but they go on to say:

> "However, we do not imply that every capacity that is accessible for the unit is understood or even recognized by the managers of that unit to be a valuable resource…Prior scholars have suggested that a classic motivational dilemma exists related to the question of how investments in human capital are made. Many have focused on the distinction between firm-specific and generic human capital and identified a potential unwillingness of firms to invest in specific human capital…
>
> The definitional framework highlights distinctions between individual capacities that directly influence unit level outcomes from unit-level capacities that directly influence unit-level outcomes. Examples of individual level capacities influencing unit relevant outcomes are replete in the stars literature and the CEO literature…Examples of unit level capacities influencing unit relevant outcomes are more common in the human capital resources literature…Human capital resource research that focuses on crossing levels is only starting to appear."

[16] In the human capital literature this is referred to as formal and tacit knowledge.

[17] Ployhart, R. E., Nyberg, A. J., Reilly, G., Maltarich, M. A. Human Capital is Dead: Long Live Human Capital Resources. J Management 2014;40(2):371-398. doi: 10.1177/0149206313512152.

[18] Ibid., p. 374.

I found several other articles relevant to my primary concern with healthcare systems and the development of functioning teams of clinicians. Not surprisingly, sports teams have been subjected to analysis, since there is often a statistically robust database about individual and team performance. Crocker and Eckhardt examined the relationship between individual performance and "managerial unit-level resources" by looking at Major League Baseball.[19] They note their paper is an explicit attempt to examine how human capital resources at the unit level impact the individual. Their study examined the performance of 452 MLB pitchers who played in the 2012 regular season. Using available statistics, they were able to determine both the pitcher's individual efficiency and the contribution of his teammates to his success. They also developed a metric to measure the experience of the coaching staff so as to assess the managerial component of the team's performance. Their analysis showed:

> "…our multilevel analysis of detailed individual-level and functional unit–level human capital data found that the relationship between individual-level human capital and individual-level performance was positive but strongly dependent on the presence of high-quality functional unit–level human capital resources. Additionally, we found that a high-quality managerial unit can enhance the performance that can be derived from individuals with less abundant knowledge and skills…while higher levels of individual human capital are associated with higher performance when coupled with a knowledgeable and skilled functional unit, such performance benefits substantially reduce when functional human capital at the unit level is low. This suggests that simply hiring or developing human capital at the individual level may not result in higher performance unless such human capital is coupled with a highly capable functional unit… "

Campbell and associates also looked at sports teams, but in their study they looked at professional basketball, and specifically examined the performance of players who were traded as an individual compared to those who were traded in a group. They conclude:[20]

> "that employee mobility has a temporary adverse impact on human capital of moving employees consistent with the loss of location-specific and colleague-specific human capital as captured by a decrease in individual performance. Additionally, we show that moving players experience a loss of human capital that is moderated if they move with previous colleagues and thus can maintain the value of some colleague-specific human capital. Contrary to our hypotheses, we do not find that the human capital of incumbent players is significantly affected by inbound mobility events."

[19] Crocker, A., Eckardt, R. A Multilevel Investigation of Individual- and Unit-Level Human Capital Complementarities. J Management 2014;40(2):509-530. doi: 10.1177/0149206331511862.
[20] Campbell, B. A., Saxton, B. M., Banerjee, P. M. Resetting the Shot Clock: The Effect of Comobility on Human Capital. J Management 2014;40(2):531-536. doi: 10.1177/0149206313516679.

These studies, then, suggest individual performance depends on what I would call the ecosystem of the new team. If the new system has a strong team, then strong members "live up to their potential," while less talented members perform better than would be predicted. They also suggest moving a group of players, rather than individuals, produces better results. Some of this parallels the U. S. Army's decision to abandon the individual replacement system instituted during WWII with a return to a traditional unit replacement system.[21]

Human capital literature has looked at "productivity stars," particularly gifted researchers for drug companies, previously. However, Grigoriou and Rothaermel looked at the problem somewhat differently.[22] They note research is very seldom the product of a "lone wolf," but result from the work of individuals embedded in the social and knowledge networks of their firms. Consequently, they looked at "productivity stars," those who were outliers in their ability to generate new knowledge or ideas, but also looked at "relational stars," those who were outliers in their ability not only to generate knowledge, but also to "form, maintain, and effectively manage knowledge relationships within firms."

> "A sole focus on star performers and their superior productivity not only advances an impoverished and under-socialized view of human behavior, but also may even be misleading in our quest for the locus of knowledge within firms. First, we neglect to take into consideration the fact that individual creativity has an apparent social side and thus risk overemphasizing the role of the individual while underemphasizing the role of the team and ignoring the systemic aspects that affect firm performance…"

In their review of the literature setting up their hypotheses, they note:

> "To further understand the role of human-capital-based knowledge advantage, therefore, we suggest going beyond simply individual productivity to a set of individual-level social and collaborative skills that have not been considered sufficiently and in combination with human capital in their potential effect on firm-level outcomes. The importance of relational skills by knowledge workers within firms is especially critical to continued innovation, because innovation is conceptualized as a socially intensive process of knowledge recombination and knowledge transformation…It is important to note that these individual-level relational skills within broader knowledge networks have been studied in the social capital and networks literature. There is research about the effect of an individual's network position on

[21] National Guard units, which were and are very geographically based organizations, were federalized at the start of the war. One such unit was Co. A., 116th Inf. Regt., 29th Inf. Div., which included 35 men from the small town of Bedford, Va. 19 were killed in the D-Day landing in Normandy, and 3 more died later in the campaign. At the time, the population of the town was only 3,200.

[22] Grigoriou, K., Rothaermel, F. T. Structural Microfoundations of Innovation: The Role of Relational Starts. J Management 2014;40(2):586-615. doi: 10.1177/0149206313513612.

> a host of meaningful individual-level outcomes…[but] we have limited theory and evidence linking individual positions in individual-level networks with firm-level knowledge outcomes. Existing theory and evidence explore the role of individuals that are strong in either human or social capital. Taken together, we have a limited level of understanding on how the development of individual-level social capital and human capital interact to result in firm-level knowledge advantages."

This paper goes on to develop a number of specific arguments about collaboration that seem to me a more scholarly statement of the arguments made by Malcolm Gladwell.[23] Their key conclusion was:

> "Conceptualizing innovation as a process of recombinant search, we argued for the critical role of two individual types: integrators and connectors. We argued that firms with integrators and connectors in their network enjoy a knowledge advantage when it comes to the quantity and quality of their innovation output."

If, instead of innovation, we substituted "process improvement," the connection with healthcare becomes evident, but there are important differences. For instance, the individuals they studied were looking for new knowledge that would lead to patents and economic advantage for the firm. In healthcare, we eschew the notion of special knowledge. Individuals or firms that claim special knowledge are generally assumed to be fraudulent. On the other hand, we often claim we are especially skilled at our ability to apply the knowledge that is generally available. Ironically, it is in application that the strength of the team, rather than the individual becomes more important.

Teams and the Process of Medical Care

In traditional human resource terms, the goals are to (1) determine requirements for positions; (2) recruit and select qualified people; (3) train and develop employees to meet future organizational needs; (4) provide adequate rewards to attract and retain top performers.[24] In the introduction, I quoted the authors as defining human capital resources as those skills available to the unit that are necessary for maintaining performance parity. In medical terms, this means things like meeting CMS "core measures," or reliably delivering standard health care when the data are clear as to what that is. It also means being able to adapt performance as goals change in response to new information. Clearly, these are all team-based activities. This has led Fried and Fottler to propose the term strategic human capital resource management, an expansion of the traditional concept to include things like team-based decision making, including hiring new team members.

[23] Gladwell, M. The Tipping Point: How Little Things Can Make a Big Difference. (New York: Little, Brown, 2000.)

[24] Fried, Bruce J., Fottler, M. D. Human Resources in Health Care: Managing For Success, 3rd ed. (2008). Accessed at https://www.ache.org/pubs/Fried%20Sample.pdf 11 August 2014.

I have argued repeatedly that it is team performance that determines the outcome of most healthcare processes, yet there is almost no discussion about creating robust organizational support for building and sustaining productive teams. Perhaps it is because we don't have a robust way to measure the contribution of the team apart from the individuals who constitute the team. If strategic human capital is conceived of as something of value if and only if it is unique, there is no reason for a healthcare organization to invest in it. If, on the other hand, it is conceived of as a web of relationships that permit reliable production of clinical services that are safe and effective, then investing in developing and sustaining those webs makes more sense. I think in today's medical environment, the ability to produce reliable, safe service, will provide competitive advantage.

Putting It All Together

Health care is a people business. In every healthcare organization, the cost of personnel is far and away the greatest expense. So why am I arguing that we aren't doing enough? Basically I am arguing that we are stuck meeting the lower levels of Maslow's hierarchy of needs[25] and are not addressing self-actualization, particularly problem solving as it relates to the purpose of a healthcare organization.

I think the primary reason we have these problems stems from a conception of finance, particularly hospital finance. I have been privileged to attend one seminar on the subject, and participated in numerous discussions. One axiom is that hospitals have very high fixed costs.[26] The ratio of fixed to total costs is generally taken as being 70%. In this view, financial success requires high volume in order to spread those fixed costs over as many episodes of care as possible.

It does not take a physician to realize, though, that demand for medical services is seasonal and quite variable. Given the need to economize, how does a hospital or health system maintain its ability to handle surges in demand? The traditional solution is to ask people to work overtime, hire temporary staff, and otherwise "stretch" to cover the surge. This is okay for a day or two, but performance of the staff on safety, competence, and compassion measures will degrade, often quickly.

[25] Maslow, A. A Theory of Human Motivation. Psychological Rev 1943;50(4):370-396. He argued for five levels of motivation starting with physiological, then safety, love/belonging, esteem, and self-actualization. Curiously for organizations that deal in caring, most health care organizations I know do a remarkably poor job filling the love/belonging needs. We seem to think if we pay enough, then the individual can do the rest of these things on their own time. Since most employees spend more awake time at work than anywhere else, I think this is likely misguided.

[26] In my discussions with Bud Hamilton, I mentioned that hospital administrators sometimes thought personnel were a fixed cost rather than a variable cost. He commented that the government was the only place where he had encountered that before. On the other hand, hospitals like mine are the largest employer in town. The trustees and management feel tremendous pressure to maintain employment and avoid layoffs. So maybe they really are "fixed costs."

I believe the resiliency of clinical teams is the key determinant of a hospital or system's ability to handle surges. Let me give a specific example. I have described elsewhere the results of using data driven management to build stable teams of people to deliver dialysis to patients in my outpatient units. This system was recently challenged when 48 extra patients were transferred into these units over a period of five days. These extra patients represented an increase in demand of about 20%, but the demand was uneven. One unit experienced a 50% increase, while others experienced a minimal impact. Because the teams were functional, this surge was accommodated without clinical harm. However, we did sustain damage to our team resiliency. We have had a couple of nurses decide they could not cope and decide to move on. It has taken six months to begin to get new staff trained to help ease the strain of too many long days working without a break.

Performance on some clinical indicators also took a transient dip, but financial performance was obviously very good—more patients without more staff means the only increase in costs were the truly variable costs. But we have had to hire and train more staff, some of whom have not worked out, and those costs are difficult to measure. On balance, I suspect we are really closer to even than cursory examination of our financial statements would indicate. Hospital managers might argue they are under more financial pressure, but I think the analogy is fair as our payer mix is such that we are basically paid only the Medicare rate for our services. We have no ability to increase services to insured patients to capture more dollars, which hospitals try to do regularly.

The notion of resilience has also been explored by Nemeth and associates, who looked at the response of an emergency room staff to a surge in volume.[27]

> "Standardization and automation are just a few of the current popular notions about how to improve safety and performance in health care. However, resources that appear to be superfluous in normal operations may have latent value that is realized during crises. Combined with economic pressures, initiatives that seek to simplify and lean down organizations actually whittle down reserves, buffers, and other undervalued resources. This makes it difficult for an organization to tap resources to meet new demands when they arrive. Resilience engineering is a new approach to this problem that strives to identify and correctly value behaviors and resources that contribute to a system's ability to respond to the unexpected. Put another way, efforts to lean down organizations risk suffering from what an economist would term "cost externalization."

The authors cite an interesting catalog of problems that I often hear in the doctor's lounge today.

[27] Nemeth, C., Wears, R., Woods, D., Hollnagel, E., Cook, R. Minding the Gaps: Creating Resilience in Health Care. In Henriksen K, Battles JB, Keyes MA, et al., editors. Advances in Patient Safety: New Directions and Alternative Approaches, (Vol. 3: Performance and Tools). Rockville (MD): Agency for Healthcare Research and Quality (US); 2008 Aug. Accessed 12 August 2014 at http://www.ncbi.nlm.nih.gov/books/NBK43670/pdf/advances-nemeth_116.pdf

> "Efforts to improve health care without a basis in science do more damage than good by making systems unable to change in response to circumstances—what Sarter, et al., term "brittle." For example, Ash, et al., found that health care information technology systems that are intended to reduce errors can also foster them. In another instance, Perry, et al., found that the introduction of tighter procedures that were intended to improve glycemic monitoring ironically had the opposite result. In a further example, efforts to standardize between-shift handoffs clashed with the initiatives that clinicians had developed to cope with the complexity, variety, and uncertainty in their work domain. Such interventions are not benign; instead, they induce unforeseen outcomes. They waste time, attention, and resources that could be spent more productively. They also delay progress toward genuine improvement."

They go on to define three types of response to a surge in demand. The first is characterized as a limited response with rapid recovery. The ER might recruit physicians from other areas to help out. This is precisely what we have done when tornados have caused damage to our city. Several of us who live close to the hospital have gone in and helped assess and treat patient as a supplement to the regular ER staff. While it made for a long night, the ER volumes returned to normal the next day and things went on as usual.

The second is characterized as a matched response with a protracted recovery. This is typical during the flu season, when the sustained demand for services requires extending shifts, working double shifts, and calling back ER physicians who are post call. "After such a surge, it would take days until the staff could return to normal."

The third type is different demand from usual. Here a different set or scale of resources is required. This type of demand is particularly disruptive and takes time to accomplish. An example would be going "on diversion" for all but the most acute cases. (Or absorbing a large number of dialysis patients in the example above.)

The authors point out that the ER (or any other clinical system) in its normal function is operating at an equipoise inside of three boundaries: acceptable clinical performance, economic failure, and unacceptable workload. The forces being exerted to maintain that equipoise are management pressure for greater economic efficiency (driving away from economic failure,) a gradient toward least effort (driving away from unacceptable workload,) and a gradient for safety and clinical goal achievement (driving away from the failure of clinical performance boundary.)

> "Effective organizations are constantly looking for signs that specify how the organization actually operates and to use this information to be better calibrated. Studies of high- and low-reliability organizations have documented the problems created when organizations are poorly calibrated with respect to their operating point. Management that correctly understands the operations of any system would also be likely to correctly estimate how well its strategies would work when unforeseen challenges occur."

Back to my example. I saw that it was in the long-term interests of both the unit and the patient to admit the extra patients, but I also knew that it would require structural changes, and these would take time to implement. I alerted all the members of my team as soon as possible about what was occurring and what we needed to do. I also made it clear what we would stop doing on a temporary basis to help reduce workload—we went on diversion for some optional projects. The administrator started trying to hire new staff. Initial efforts to hire staff with dialysis experience was unsuccessful and we ended up having to train a new group of nurses, some of whom did not pan out. Simultaneously I had to meet with corporate administrators and fend off their attempts to drive the economic set point in ways that I was convinced would aggravate the staff shortage for the long term. We also had to meet about expanding facilities, a long-term project, which we have not yet completed.

Because we had a management system based on data, and a cadre of trained and experience staff, we survived the surge, although I can't say things are "back to normal." As I like to put it to staff, we are at a "new normal." We also had a situation where the medical director (me) and the administrator were in the habit of working together, spoke a common language, and had a shared set of priorities that began with taking good care of the patient. All of these intangibles did provide economic advantage in a competitive environment, even though the costs in building the system and the benefits reaped are difficult to quantify. Perhaps what we need most of all is a new accounting system that puts human capital on a par with financial capital and physical assets.

11 September 2014

Fourth, we need to realize that high quality medical care cannot be achieved by force or from afar—be it Nashville, Washington, or your state capital. Trying to force quality is like pushing cooked spaghetti—it simply does not work. At the risk of straining my metaphor, high quality medical care can only be achieved by pulling people forward to do more than they thought they were capable of doing.

https://www.practicingmdleaders.com/on-leadership-and-the-pygmalion-effect.html

Putting Patients at the Center of the Organization

I have previously quoted Porter and Lee, who argue the successful healthcare organization of the future will put patient care as their focus,[28] but I have suggested some reasons most will find this difficult to do. So how can the increasingly large, bureaucratic, business-centric healthcare organizations make sure their focus is really on patients? One approach, which I think needs wider implementation, is the notion of the clinical microsystem.

I did not encounter the term until a couple of years ago, but the notion has been promoted by Dartmouth Institute for Health Policy and Clinical Practice for many years. The notion of the clinical microsystem as a means for quality improvement has also been supported by the Joint Commission on Accreditation of Healthcare Organizations and the Institute for Quality Improvement. The clinical microsystem, as conceived by the Institute, "is a small group of people who work together on a regular basis to provide care to discrete subpopulations of patients. A clinical microsystem is a complex adaptive system, and as such it must do the primary work associated with core aims, meet the needs of its members, and maintain itself over time."

This is a more formal statement of the notion that medical care is delivered by teams of people, and as they work together, they develop both explicit and tacit knowledge about how to achieve good outcomes. This has always seemed intuitive to me, and it was a surprise to discover the barriers to implementation, some of which I have outlined in discussions of human capital and staff turnover.

Formal presentations of this idea often show a "bulls-eye" diagram with patients in the center, surrounded by a ring representing clinical microsystems as the first layer, followed by "meso-systems" as the second outer ring, and "macro-systems" as the third and final outer ring. Visually this creates the notion that the patient is the target, which makes sense to me as a clinician. But I find that our medical organizations are increasingly organized around the "business school" model. At the risk of over-simplifying, this conceives of organizational structures are vertical pyramids with the CEO at the top, and the front-line workers at the base (along with the patients, if they show up at all.)

Lest this appear too simple, consider the public discussion around the news reports that Volkswagen installed software in their diesel-powered cars to defeat emissions testing by the EPA. The CEO said he was not aware of the cheating. While this may be true, he was forced to resign and is being investigated for criminal misconduct by the German authorities. On the other hand, it is clear that his strategic goal for the company was to become the world's largest auto manufacturer, and to do so, the company had to increase its market share in the United States, where buyers have traditionally shunned diesel engines. In this case, the culture of growth clearly caused some in the organization to take shortcuts, which may yet prove ruinous to the enterprise. For our purposes, though, the question is: Can this happen in healthcare organizations? I think the answer is almost certainly it can.

[28] Porter ME, Lee TH. Why Strategy Matters Now. N Engl J Med 2015;372(18):1681-84.

Given the popularity of the "business" model in healthcare, and the deliberate attempts to eliminate the "craftsman" model of healthcare most physicians carry around in their heads, can we escape pyramidal models? I suspect not, so I have a modest suggestion. Why not visualize the organization as an inverted pyramid?

At its most basic, all health care involves the interaction of two human beings, one providing the care and one receiving the care. This dyad is the inescapable minimum, the atom if you will, of the complex molecule that represents a healthcare organization. In this organic model, the clinical microsystem represents a collection of numerous dyads organized around a ward, clinic, or other small unit. What if the "meso-structures" such as clinical departments, and the "macro-structures" such as hospitals and clinics, were all thought of as infrastructure to promote optimal function of the dyads? In this model, the CEO is at the point of the pyramid. His/her function is to balance all of the forces so as to maintain organization equipoise and so create the conditions for optimal functioning of the dependent microsystems.

Could such a system work? I am sure it could, but there are obvious barriers. The first is that the CEO and her Board of Directors would have to agree the primary objective of the job was to support the clinical enterprise. Most large organizations, though, have other roles. The organization, for instance, is probably a major employer and driver of the local economy. There is a large constituency supporting the importance, even primacy, of that role. Second, in an era of increased competition, at least in some markets, the work of supporting microsystems is largely invisible to the general public. Problems averted and complications prevented are difficult to measure and don't lend themselves to banner headlines in the local media. A new building, on the other hand, is a visible sign of power, although usually advertised as "progress." There are others, but I think the point is clear—there are competing priorities.

If we are going to make patients the center of the enterprise, everyone, from the Board of Trustees to the kitchen help have to buy into the notion. This is a huge cultural challenge and will certainly cost money, both directly and indirectly, over the near term with payoffs delayed into the future which may be difficult to measure. Can the organization afford it? I suggest the question is: can the organization afford not to?

29 September 2015

Organizing for Success—What is the Key Requirement?

I have pointed out previously the need for successful healthcare organizations to have effective dual (clinical and non-clinical) leadership at all levels and to balance the clinical, financial, and human drivers of outcomes in a comprehensive fashion. Val Jones, a *locum tenens* physician made some interesting observations about what makes for a great (or a toxic) hospital to work at.[29]

> "Hospital culture is largely influenced by the relationship between administrative and clinical staff leaders. In the "old days" the clinical staff (and physicians in particular) held most of the sway over patient care. Nowadays, the approach to patient care is significantly constricted by administrative rules, largely created by non-clinicians."

He goes on to note that in a few hospitals, the old order still holds, but that is no guarantee of success.

> "This can lead to its own problems, including unchecked verbal abuse of staff, inability to terminate bad actors, and diverting patients to certain facilities where they receive volume incentive remuneration...And so, when physicians are empowered, they can be as corrupt as the administrations they so commonly despise."

Titrating the balance of power seems to him to be a necessary, but not sufficient condition for creating a great hospital. It is also necessary to pay attention to the personalities of the leaders, as that determines the culture.

> "Leaders must be carefully curated and maintain their own balance of business savvy and emotional IQ. Too often I find that leaders lack the finesse required for a caring profession, which then inspires others to follow suit with bad behavior. Unfortunately, the tender hearts required to lead with grace are often put off by the harsh realities of business, and so those who rise to lead may be the ones least capable of creating the kind of work environment that fosters collaboration and kindness."

Emotional intelligence is the new term for the more old-fashioned notion of temperament. Oliver Wendell Holmes famously said of Franklin D. Roosevelt that he had a second-class mind but a first-class temperament.[30] What he was getting at was the idea that Roosevelt was not a scholar. He did not write books like his cousin Theodore Roosevelt, but he had the emotional temperament that made him an effective leader. Evaluating temperament is difficult, and inherently subjective, which makes people uncomfortable. We tend to want to rely on "facts" not "intuition" when searching for a candidate for a leadership position, yet success is going to rely more on the latter.

[29] Jones V. What Creates a Toxic Hospital Culture? 28 October 2015. Accessed 12 March 2016 at http://www.kevinmd.com/blog/2015/10/what-creates-a-toxic-hospital-culture.

[30] President Bill Clinton included the quote in his discussion about presidential leadership. Clinton WJ. Getting It Right. *Time*, 24 June 2009. Accessed 19 July 2016 at http://content.time.com/time/specials/packages/article/0,28804,1906802_1906838_1906981,00.html.

My hospital is beginning a leadership search process. I have not participated in the discussions, but there will be a tendency to rely on credentials. Sometimes that can be helpful, of course, but as they say on financial prospectuses, "past performance is not a guarantee of future results." I wonder, though, how they will judge temperament. After all, the challenge is not necessarily to find the most experienced person, but the one who can communicate effectively and get an emotional commitment from all those people who are already here to lead the organization in the desired direction.

The other challenge, of course, is that leadership in large organizations is inherently bureaucratic. Pope Francis has made some pungent observations about the challenges of leadership facing those who work in a bureaucracy, Some of the points were summarized by Gary Hamel in the Harvard Business Review.[31]

"Then there is the disease of mental and [emotional] "petrification." It is found in leaders who have a heart of stone, the "stiff-necked;" in those who in the course of time lose their interior serenity, alertness and daring, and hide under a pile of papers, turning into paper pushers and not men and women of compassion. It is dangerous to lose the human sensitivity that enables us to weep with those who weep and to rejoice with those who rejoice! Because as time goes on, our hearts grow hard and become incapable of loving all those around us. Being a humane leader means having the sentiments of humility and unselfishness, of detachment and generosity."

"The disease of excessive planning and of functionalism. When a leader plans everything down to the last detail and believes that with perfect planning things will fall into place, he or she becomes an accountant or an office manager. Things need to be prepared well, but without ever falling into the temptation of trying to eliminate spontaneity and serendipity, which is always more flexible than any human planning. We contract this disease because it is easy and comfortable to settle in our own sedentary and unchanging ways."

"The disease of poor coordination. Once leaders lose a sense of community among themselves, the body loses its harmonious functioning and its equilibrium; it then becomes an orchestra that produces noise: its members do not work together and lose the spirit of camaraderie and teamwork. When the foot says to the arm: 'I don't need you,' or the hand says to the head, 'I'm in charge,' they create discomfort and parochialism."

Temperament is difficult to define, but usually evident when meeting people and spending some time with them. There in no one temperament that predicts who will be a successful leader, either. The challenge is to find the person with the right temperament to take your organization where you want it to go. It is difficult to do, but those that get it right function more efficiently and are better places to work and receive medical care than those that don't.

19 July 2016

[31] The 15 Diseases of Leadership According to Pope Francis. HBR 14 April 2015. Accessed 30 May 2016 at https://hbr.org/2015/04/the-15-diseases-of-leadership-according-to-pope-francis?utm_campaign=HBR&utm_source=facebook&utm_medium=social.

On Resilience

Do you tend to see events as a photograph or a movie? Let me try to explain the question by considering the recent vote by the citizens of Great Britain to leave the European Union. Is this a one-time event that can be understood by sifting the tea leaves, the statements of politicians and citizens both for and against the proposition, or is that part of some longer term trend? I don't know the answer to the question, and don't mean to suggest that either perspective is correct, but merely to illustrate the difference between a perspective that views things as events or processes.

So, what does this have to do with clinical leadership and medical organizations? I suggest that being able to focus on processes, and by doing so deal with the need for organizational resilience, is the key to long-term effectiveness. I have written previously about some of the items needed to build a resilient medical organization, including an awareness of financial, clinical, and human boundaries of failure and designing processes to keep the organization away from all three boundaries by constant adjustments. Given that "stuff happens" that is inherently unpredictable, what we need are flexible processes embedded in flexible structures that can be adjusted to produce reasonably stable desirable outcomes. In other words, we need systems and processes that possess inherent resilience—the ability to cope and adjust to the vicissitudes of life and fortune.

I have recently become aware of the ideas of Andrew Zolli, who had addressed this issue in some depth. In a 2012 op-ed piece in *The New York Times*, he wrote:[32]

> "For decades, people who concern themselves with the world's *wicked problems*…have marched together under the banner of "sustainability": the idea that with the right mix of incentives, technology substitutions and social change, humanity might finally achieve a lasting equilibrium with our planet, and with one another…Among a growing number of scientists, social innovators, community leaders, nongovernmental organizations, philanthropies, governments and corporations, a new dialogue is emerging around a new idea, resilience: how to help vulnerable people, organizations and systems persist, perhaps even thrive, amid unforeseeable disruptions. Where sustainability aims to put the world back into balance, resilience looks for ways to manage in an imbalanced world…The resilience frame speaks not just to how buildings weather storms but to how people weather them, too. Here, psychologists, sociologists and neuroscientists are uncovering a wide array of factors that make you more or less resilient than the person next to you: the reach of your social networks, the quality of your close relationships, your access to resources, your genes and health, your beliefs and habits of mind."

As he examines this notion in various contexts, he concludes by saying:

[32] Zolli A. Learning to Bounce Back. The New York Times, 3 November 2012. Accessed 22 June 2016 at http://www.nytimes.com/2012/11/03/opinion/forget-sustainability-its about-resilience.com.

> "Unfortunately, the sustainability movement's politics, not to mention its marketing, have led to a popular misunderstanding: that a perfect, stasis under-glass equilibrium is achievable. But the world doesn't work that way: it exists in a constant disequilibrium — trying, failing, adapting, learning and evolving in end-less cycles. Indeed, it's the failures, when properly understood, that create the con-text for learning and growth. That's why some of the most resilient places are, par-adoxically, also the places that regularly experience modest disruptions: they carry the shared memory that things can go wrong.
>
> *Resilience* takes this as a given and is commensurately humble. It doesn't propose a single, fixed future. It assumes we don't know exactly how things will unfold, that we'll be surprised, that we'll make mistakes along the way. It's also open to learning from the extraordinary and widespread resilience of the natural world, including its human inhabitants, something that…many proponents of sus-tainability have ignored."

All of this reflection was triggered by the fact that the trustees of our local health care system are trying to educate themselves about what is needed for the future. I have not talked with them and do not know where they are, but I am sure some started with the question of where does this put us in the future state if we make changes? Or, con-versely, where does this put us in the future state if we don't make changes? Having failed at this conversation at least four times in the past twenty years, usually because others wanted to concentrate on these two questions, I want to suggest a different way to frame thinking about what to do, as summarized by Krista Tippett.[33]

> "I'm glad for the language of resilience that has entered the twenty-first-century lexicon, from urban planning to mental health. Resilience is a successor to mere progress, a companion to sustainability. It acknowledges from the outset that things will go wrong. All of our solutions will eventually outlive their usefulness. We will make messes, and disruption we do not cause or predict will land on us. This is the drama of being alive. To nurture a resilient human being, or a resilient city, is to build in an expectation of adversity, a capacity for inevitable vulnerabil-ity. As a word and as a strategy, resilience honors the unromantic reality of who we are and how we are, and so becomes a refreshingly practical compass for the sys-tems and societies we can craft. It's a shift from wish-based optimism to reality-based hope."

Personally, I am convinced the solutions we crafted to accommodate the biomedi-cal revolution of the post World War II era have reached the end of useful life, and we need new solutions. We need new processes for making decisions to deal with the fruits, both good and poisoned, of our previous successes, as well as to address the short-comings of our current approaches.

[33] Tippet K. Becoming Wise: An Inquiry Into the Mystery and Art of Living. (New York: Penquin Press, 2016,) pp. 251-252.

I am reminded of a story I heard about a conversation President Kennedy had with President Eisenhower shortly after the failure of the Bay of Pigs invasion. Rather than talk about the outcome, Eisenhower only asked one question—how did you make the decision? In other words, what processes did you use to arrive at a decision. Kennedy decided he had been a victim of "group think" and set out to devise a new method. When the Cuban Missile Crisis developed the next year, he had a process in place that forced the advisers to confront all of the options in detail, so when he made his decision to risk nuclear holocaust, he was confident he had the best advice possible.

I do not think our decisions are of that cosmic scale and risk, but they do matter in the lives of ourselves, our employees, our patients, and our communities. I hope we spend as much time focusing on how we make decisions as we do on how much it will cost or save. That also means we need to spend time developing a process for making decisions about how to proceed as we do on the outcomes. Relying on hired guns won't really work—we need an organic solution that deals with the practical realities of who we are, how we are, and how we got to where we are—our shared history.

26 June 2016

In considering how to implement knowledge management, there are two broad options:

"Personalization: knowledge remains in its tacit form and is closely bound to the person who develops it; it is shared primarily through person-to-person contact. To make this strategy work, companies invest heavily in networks of people…In a sense this strategy is simply another form of traditional "internal labor market" as a powerful mechanism for capitalizing on, transferring and sharing knowledge. Both the problem and the knowledge are unique, and the service is expensive and time-consuming.

Codification: knowledge is transformed so that it can be stored in databases and then easily accessed and used by anyone in the company; while codification involves high fixed costs, it enables agents to perform a number of operations at very low marginal cost. This model is appropriate for… [organizations that]…deal repeatedly with similar problems. For them the efficient reuse of codified knowledge is essential, because their business model is based on fast and cost-effective service, which an efficient system of knowledge reuse provides…"

https://www.practicingmdleaders.com/knowledge-management.html

The place where physician leadership and organizational structures come together is in making sure the care of each individual patient is as good as it possibly can be. This has always been true, but now it is not enough to assert the care is good, it must be proved. The emphasis on measurement has produced its own issues.

Confronting the Quality Paradox—Part One

Biomed Central published a collection entitled *The Many Meanings of "Quality" in Healthcare* 19 June 2015.[34] This collection was cross disciplinary and addressed three broad themes: the practices of quality assurance, giving space to "the story," and addressing moral complexity in the clinic. This is the first of a series of articles dealing with individual papers that resonate with the practice of medicine today.

In their paper, *Caring for Quality of Care* Emmerich and associates lay out a perspective that is philosophical and sociological.[35] They start by noting:

> "There is a practical and moral obligation on health care organizations to manage the delivery of "care" or, perhaps more importantly, to ensure services are provided with care…It is in the manner of their delivery and the particularities of their provision that the essence of care is to be found…Care is not merely an attribute of a particular service, but the way it is provided or delivered. Care involves an emotional stance and relational quality that can, but may not, accompany the activities constitutive of health care provision."

This speaks to a concern many physicians and nurses have about quality assurance activities—it does not capture this fundamental aspect of the process. I think this is an elegant way of phrasing the ideas I have reviewed under the term clinical microsystems. Since care is fundamentally a group activity, the organization and training of the small group needs to take place in such a way that those things which should be standardized are, and those things which should not aren't. The authors address this problem, too, focusing on the problem of scale. They point out they are specifically NOT addressing the micro level of practice, or

> …the interaction between professional and patient, (where care is actually experienced in all its intersubjective nuance,) but the meso and macro level of social structure—the social organization of care and its institutional control…"

[34] Swinglehurst D, Emmerich N, Maybin J, Park S, Quilligan S. Confronting the Quality Paradox: Towards New Characterizations of "Quality" in Contemporary Healthcare. BMC Health Services Research 2015;15:240. doi: 10.1186/s12913-015-0851y. Accessed at http://www.biomedcentral.com/1472-6963/15/240, 21 June 2015.

[35] Emmerich N, Swinglehurst D, Maybin J, Park S, Quilligan S. Caring for Quality of Care: Symbolic Violence and the Bureaucracies of Audit. BMC Medical Ethics 2015;16:23. doi. 10.1186/s12910-1015-0006-z. Accessed at http://www.biomedcentral.com/1472-6939/16/23, 25 June 2015.

"...We suggest contemporary approaches to the care and the management of care reiterate the tendency to eliminate the messy business of "care itself" from the public sphere. The inherently (inter)subjective experiences of care and caring, the "life world" of individuals and small groups of individual participating in the actual provision of care are relegated to the private realm whilst only objectified measures of its "quality" are afforded "public"—managerial or political—significance."

They do note that caring, as opposed to quality of care, is an emotional action that can cause distress for the caregivers, and quote a paper from the 1960's that observed "a task-based, rather than a patient-centered division of labor provide for a degree of organizational defense or structured distance."[36] Task orientation, seeking refuge in the tasks rather than focusing on the patient, is common in physicians, too. If we conceive of care as a clinical microsystem, or team activity, team members can often support each other during difficult times.[37]

Physicians and nurses have always been concerned about maintaining standards of practice, but current efforts are different.

"Concern for standard(s) of practice has been translated into concern for not just the assessment, audit and evaluation of those standards, but a particular form or approach to "quality assurance." In practice any attempt to conduct "quality assurance" assessments will be embedded in specific managerial and bureaucratic processes…what is important enough to be measured and promoted within particular contexts is politically determined: it is a function of power."

In the U. S. context, most health care organizations understand that what is driving a lot of the quality assurance efforts of the Federal Government reflect the sense that we cannot afford to spend more than we currently are. On more than one occasion, when meeting with organizations struggling to meet a Federal mandate, I have stated my two rules in dealing with the government. First, no matter the stated agenda, the real issue is money. Second, the government assumes we are out to "steal" as much money as possible. The authors address this issue thusly.

"Whilst the social organization of social organization of health care can, and sometime does, militate against the caring dispositions of professionals, it would be facile to suggest that any and all bureaucratic procedures or managerial processes should be abandoned because of this; a lack of proper managerial oversight will also lead to failures in care… "

[36] Lyth IM. Social systems as a defense against anxiety. An empirical study of the nursing service of a general hospital. Hum Relat 1960;13:95-121.

[37] On several occasions, my dialysis team has experienced a particularly traumatic death—sometimes in the unit itself, but sometimes elsewhere. We have found it helpful to bring in an outside facilitator and have the group meet to discuss the events and process their feelings. We do pay them for their time and attendance, but the physicians and the administrator stay away, so they feel free to say what they need to say. This has been a very useful exercise, although we have resorted to it sparingly. More commonly we will do a "debriefing" informally amongst ourselves, to acknowledge the losses and the feelings of guilt and failure that accompany some of them.

"...What is required is a more sophisticated understanding of the relationship between the front line practices of care and the way(s) in which they are managed…From an "audit culture" perspective, the collection of data about a particular practice has tangible and immediate effects; it is fallacious and potentially harmful to dichotomize frontline practice and the managerial structures that command, control, and facilitate it."

The authors stress that the "law of unintended consequences," which in this part of the country we call the Kudzu principle, is alive and well, and so they discuss in depth the unintended consequences of the bureaucratic approach to quality assurance.

"The supposed objectivity of administrative and bureaucratic records, the instruments of governance, has brought about the dissolution of perspective and allowed an increase in "data" to be mistaken for an increase in insight and understanding."

They point out that there are two problematic assumptions imbedded in this approach, which are often not recognized. The first assumption is that information increases the transparency with which we can understand a subject. Second, that this information can be used to control or (re)engineer the project. But the logic of governance dictates "that which is measurable, standardizable, and auditable is measured and comes to represent the reality of interest. The corollary is that which is not measurable is not real

I have addressed the question of big data and its potential uses and limitations elsewhere, but the key point here is the notion that only what is measurable and subject to standardization is important. Now I don't want to minimize the value of standardization. In the context of dialysis units, my conception of the goal is to deliver dialysis in a standard fashion, since the goal for each individual patient in terms of the procedure is the same. However, this does not mean the goals of care for every individual are the same, which is the thrust of current government-mandated inspections and audit procedures. The blunt instrument of government mandates is actually hurting the care of some, but not all, individual patients. The authors address this rather bluntly.

"Audits are contemporary technologies of evaluation and should be considered part and parcel of the fields they render accountable. This is precisely because as forms of bureaucracy, as organizational devices, institutionalized audits act in such a way as to engender "audit-ability."…This creates the potential for bureaucracies to not only "slip from the model of reality to the reality of model," but for structurally embedded procedural imperatives to become privileged over the ends of practice"…The actual practice(s) of health care have become subordinated to "Quality of Care" and, rather than being responsive to patients, professionals are increasingly required to respond to the imperatives of the evaluative bureaucracy invested with the symbolic power to pass judgment."

This last point is one that is a common theme in conversations I have with thoughtful veteran practitioners. No matter how hard we try to keep our eye focused on the patient, we are constantly pulled toward meeting audit goals such as filling in blanks in the EMR, ordering laboratory tests, or giving medications of problematic util-

-ity, or otherwise putting the need to "look good" on the audit ahead of the primary needs of the patient to balance cost, side-effects, and effectiveness for his/her particular set of circumstances.

So what are we to do—we certainly aren't going to make bureaucracy or audits go away. In fact leaders of medicine are fully involved in the "accountability" motif as outlined in this paper. The authors have a number of specific suggestions which I find important from the practitioner perspective, so I will close by quoting from them at length.

> "The practicalities of bureaucracy, audit, evaluation and "quality assurance" methodology mean that whilst we can construct symbolic representations of the Quality of Care predicated on the practical delivery of health care, care itself remains a frontline task that can only be guaranteed by those who actually deliver it, their ethics and professionalism. The Quality of Care discourse finds its main usefulness in the management and organization of health and social care. As such it can contribute towards the provision of care, but cannot guarantee care as a moral phenomenon. Furthermore, the law of unintended consequences means that institutionalized auditing processes of such bureaucracies may actively militate against care as a moral practice…
>
> If we regard care as involving emotional investment…then it is not something that can be subject to a comprehensive audit. It cannot be considered fully accountable to any organizational device or bureaucracy, and any attempt to render it fully accountable will founder…
>
> Rather than adapting practice to bureaucratic structures…we should become attuned to the limitations of procedurally generated data and attend to the way in which this data is used. In this way the assurance of care quality becomes a form of ongoing experimentation and, ideally, one that encompasses the ability to reflexively respond to changes in practice, some of which will be produced through Quality of Care activities themselves."

Perhaps we would have more success if there was more focus on local institutions doing quality improvement activities for their own patient needs rather than to meet government targets. We certainly need more realistic attention to clinical performance measurements, as the present regulatory environment often equates ideal performance on a measure with expected performance. Ultimately, though, the challenge for us as physicians and nurses is to maintain our commitment to care for our patients "carefully" with the best data and tools available, and to constantly innovate with ways to make it better. Quality improvement is a worthwhile activity for clinicians, but not a good way to prove quality of care.

27 June 2015

> "EBM placed new emphasis on the relationship between clinical research and clinicians' practice patterns but shifted medicine's 'center of gravity' away from the space between clinician and patient to somewhere between research and clinician. Real progress has been made, but something has been lost, and we believe it must be recovered."[38]

Having been around a long time, I remember when the researchers at the medical schools routinely bemoaned the resistance of practitioners to incorporate "the evidence" into their practices, but now the academicians are beginning to recognize the practitioners were not quite as irrational as they presumed—they just saw different issues. The editorialists note "intuition-based medicine wasn't wrong—it was just limited to the data to which physicians had access." They then go on to point out that if we want to make "interpersonal medicine" part of medical practice, it must be taught. They also note that trust is a foundation of the clinician-patient relationship, so we must find a way to measure it if it is to be promoted. Are they dealing with a "straw-man?"

I don't think so. One problem is that "guidelines" with associated clinical performance measures are the way EBM has been put into operation. Tinetti and associates have done a follow-up to an article they first did 15 years ago called "Caring for Patients With Multiple Chronic Conditions."[39]

> "We concluded that 'The proliferation of multidrug regimens demands that we consider health priorities as well as the marginal benefit and harm associated with all medications when translating disease guidelines into prescribing decisions."

The authors see some progress. Some guidelines now acknowledge the uncertainty of benefit and the importance of avoiding harms. However, guidelines

> "continue to largely exist in silos that focus on individual diseases…Incentives continue to support aligning medication decision making with disease-focused guidelines rather than patient priorities…"

They suggest physicians should return to patient-centered decision-making, saying "we care for patients, not diseases." While I agree with the sentiment, I find it naïve to think it will succeed when all the incentives are in the other direction. Furthermore, there is increasing evidence that the perverse incentives driving clinical care today are demoralizing physicians, not motivating them to stand up for an unpaid ideal.

> "The increasingly sharp focus in the United States on the business contours of medicine and the related use of a productivity lens for basing salaries on Medicare relative value units (RVUs) have left many health care providers disheartened…

[38] Chang S, Lee TH. Beyond Evidence-Based Medicine. N Engl J Med 2018;379(21):1983-1985. doi. 10.1056/NEJMp1806984.
[39] Tinetti ME, Green AR, Ouelllet J, Rich MW, Boyd C. Caring for Patients With Multiple Chronic Conditions. Ann Intern Med 2019;170(5 February):199-200. doi:10:7326/M18-3269.

> "…Many of us sense the erosion of time for reflection, for inhabiting that uplifting, quiet place where we know who we are, where we are going, and what we hold to be true…Yet the institutional goals of abbreviating hospital stays and accelerating clinic visits are not the only factors feeding professional loneliness. Meaningful advances in technology have also levied a significant toll in the form of separation from patients and colleagues."

"It seems high time to challenge the assumption that increasing the rate of patient encounters and thereby increasing income is always beneficial for hospitals, practices, and individual practitioners."

I have certainly seen the quality of practice in my local area deteriorate as cost-containment efforts have pushed the organizational powers that be to push for more "productivity." A friend of mine says "all systems are perfectly designed to get the results they produce." Obviously, then, we have worked to build a system which emphasizes cash flow over all other possible values. But is that a system we want to care for us? I don't think so.

If we take a step back, I think we can detect a common error underlying all the issues cited by these articles. We want to find "the one best way" to treat diseases and patients, but we know this is not possible. We have different kinds of evidence, different kinds of issues, and multiple points of view regarding desired outcomes. Scientific training emphasizes reduction of variables, "controlling them," to the absolute minimum. But what we have in medical practice are nested matrices of influences and perspectives. We might be better off if we used chaos theory to model outcomes from manipulations, but in the end, we must also recognize that patients, payers, and providers don't mean the same thing by "medical care" and don't want the same things.

I have argued elsewhere that resilient health care systems are those that can maintain a dynamic equilibrium where the forces from all three perspectives are balanced. This seems clear at the level of the clinical microsystem. Perhaps, then, the common thread in these articles is that dynamic equilibrium needs to obtain at the macro level also. Presently the system is out of balance—money dominates all other concerns. I don't think that problem will go away, I but do think we need to find ways to balance it with the sometimes competing objectives of patients and providers.

12 February 2019

Greene and Loscalzo have published an interesting article on some implications of new research into networks.[40] They start by reviewing the concept of scientific reductionism, which they define as using the tools of another more basic science to explain biological phenomena. But in medical science and practice, reductionism is "often equated with disease as something that can be separated from the sick person and scrutinized with successively finer analytic tools." This approach has yielded some startling successes, such as control of tuberculosis. But it has also provoked reaction from those in the social sciences, who note "biomedical sciences objectified everything without necessarily improving patient care."

When looking at the Human Genome Project, they note that a straight-forward Mendelian approach to disease—one or a few genes, one disease—accounts for a minority of human diseases.

> "It is thus important to reconceive biologic and pathobiologic phenomena in terms of complex networks of interacting genes or gene products and layers of environmental modulators…Most biologic systems are clustered, or scale free: a few nodes are highly connected to others, while most are weakly connected to the network. This architecture has some interesting consequences for biologic systems, including facilitation of biochemical diversity at minimal energy cost. Mutations or polymorphisms in weakly connected nodes (genes) account for normal biologic variability and complex illness, whereas those in highly connected genes (hubs) lead to early death of an organism"

The authors go on to extrapolate this image into a broader context.

> "Network science could help us understand human disease at both micro and macro levels. Yet it is limited by decisions about what is included in, and excluded from, the data set it uses…Network analysis can also potentiate an understanding of the social and political contexts within which behaviors or environmental exposures contribute to disease development…In the arc of Western understandings of disease that began with the holism of the sick person and then atomized it into units of pathology, we are attempting a reassembly or reconstruction. The task of putting the patient back together again will be complex, arduous, and time consuming, but it promises a new articulation of the biologic and social sciences that are inextricably linked and essential to the advancement of medicine."

I don't think it reflects the realities of medical practice, as opposed to medical science. Some physicians may focus only on "the disease the patient has," but most are forced to recognize the importance of "the patient who has the disease." I also think most physicians are rather open-minded about where the evidence they use comes from—be it from biologic reductionism or social science. We tend to be more interested in whether it helps in daily care of sick people or not.

[40] Greene JA, Loscalzo J. Putting the Patient Back Together—Social Medicine, Network Medicine, and the Limits of Reductionism. NEJM 2017;377(25):2493-2499. doi: 10.1056/NEJMs1706744.

Pragmatism has always been the defining characteristic of medical practice. Of course, "in my experience" is denigrated as a source of wisdom by those who consider themselves "scientists," but the n=1 experiment also has power.

All of this leads to a consideration of equipoise. As defined by David Brooks, this is the ability to weave our multiple "identities" into a balanced whole. He notes the world's tendency is to label others by a single identity—a monad identity, and some persons do, in fact, allow this single identity to define who they are.[41]

> "The more vibrant attachments a person has, the more likely she will find some commonality with every other person on earth…The world isn't only a battlefield of groups; it's also a World Wide Web of overlapping allegiances…The final step is to practice equipoise…It's the ability to move gracefully through your identities—to have the passions, blessings and hurts of one balanced by the passions, blessings and hurts of several others. The person with equipoise doesn't feel attachments less powerfully but weaves several allegiances into a deep symphony."

Perhaps equipoise is what is needed more than anything else as we enter the new year. Rather than "doctors versus administrators," for instance, we need to see the overlaps. After all, most administrators want good care for patients just like most doctors do. To use the science analogy, if we could make some progress on agreeing where the reductionist approach works better, and where the network approach is more apt, I suspect we could see real improvements in both the quality of care as delivered, and reduce the cost. In this season of the "lion lying down with the lamb," this is not too much to hope for, but it will take real work on all sides to make it a reality.

26 December 2017

[41] Brooks D. In Praise of Equipoise. The New York Times, 1 September 2017, p. A23. Accessed that date at https://www.nytimes.com/2017/09/01/opinion/in-praise-of-equipoise.html.

> "The complexity aspect of a complex adaptive system means that the system in question is largely inscrutable, with causal relationships among elements in the system that are ambiguous and non-linear. Even more challenging, those relationships aren't stable. The actors in the system are continuously driving adaptation of the system. By the time we decide what to do, it is quite possible, if not likely, that the system has changed in ways that renders our decision obsolete by the time it is acted upon…Because of that adaptability, our design principle must be to balance the desire for perfection with the drive for improvement."
>
> https://www.practicingmdleaders.com/agility.html

Variation in Health Care—Good, Bad, or Inevitable?

Sean Evans, a professor of political science at Union University, published a great article in *The Jackson Sun* on March 11th.[42] He notes the current political argument between the two major parties about health care produces four central questions. First, should we provide universal coverage or universal access? Second, how much is America willing to pay for universal health care? Third, who should pay for expanded health care? Fourth, who should control health care decisions? Prof. Evans compares and contrasts the Republican and Democratic answers to these questions, but like a good professor, he also does not try to judge which answer is "better."

I certainly don't pretend to have the answer, but it is obvious that money, and how it is to be spent, are central to the first three questions, and certainly it is concern over money which drives much of the pressure being applied to physicians and health care systems every day. Which leads me to a consideration of the problem of variation in health care.

An economic analysis of Medicare data suggests a range of price-adjusted per member expenditures from $7,000 to $14,000 per year with patient acuity and poverty not explaining much of the variation.[43] So what does account for the variation? The authors set out to see if they could define, by survey methodology, how much variation was based on physician belief and how much was based on patient preferences. They concluded:

> "Ultimately, the largest degree of regional variation appears to be due to differences in physician beliefs about the efficacy of particular therapies. Physicians in our data have starkly different views about how to treat the same patients, and those views are not highly correlated with demographics, background, and practice characteristics, and are often not consistent with professional guidelines for appropriate care. As much as 36% of end-of-life Medicare expenditures, and 17% of overall Medicare expenditures are explained by physician beliefs that cannot be justified either by patient preferences or by clinical effectiveness."

The authors go on to divide physicians into "cowboys" and "comforters." The cowboys usually recommend care that is more aggressive than guidelines would suggest, while the comforters tend to recommend more palliative care. Of course, the differences are more at the extremes, as most physicians fall somewhere in the middle. However, the difference from a cost perspective were important: a 10% increase in the percentage of cowboys in a given area increased expenditures by 7.5%, while a 10% increase in comforters decreased expenditures by 4.1%. They conclude by noting the differences in percentages of cowboys and comforters is not explained solely by economic incentives—it is beliefs about efficacy that seem more dominant.

[42] Evans, S. Health Care Debate Spawns Questions. *The Jackson Sun*, Saturday 11 March 2017, p. 11A.
[43] Cutler D, Skinner J, Stern AD, Wennberg D. Physician Beliefs and Patient Preferences: A New Look at Regional Variation in Health Care Spending. National Bureau of Economic Research, Cambridge, MA, August 2013. http://www.nber.org/papers/w19320.

On the other hand, Hartzband and Groopman[44] note in a *New York Times* opinion piece that:

> "Contracts for medical care that incorporate 'pay for performance' direct physicians to meet strict metrics for testing and treatment. These metrics are population-based and generic, and do not take into account the individual characteristics and preferences of the patient or differing expert opinions on optimal practice…
>
> When a patient asks "Is this treatment right for me?" the doctor faces a potential moral dilemma. How should he answer if the response is to his personal detriment? Some health policy experts suggest that there is no moral dilemma. They argue that it is obsolete for the doctor to approach each patient strictly as an individual; medical decisions should be made on the basis of what is best for the population as a whole.
>
> We fear this approach can dangerously lead to "moral licensing" — the physician is able to rationalize forcing or withholding treatment, regardless of clinical judgment or patient preference, as acceptable for the good of the population."

A similar notion was expressed by Jauhar a month later in the same forum.[45]

> "In American medicine today, 'variation' has become a dirty word. Variation in the treatment of a medical condition is associated with wastefulness, lack of evidence and even capricious care. To minimize variation, insurers and medical specialty societies have banded together to produce a dizzying array of treatment guidelines for everything from asthma to diabetes, from urinary incontinence to gout.
>
> At some level, this makes sense. Some types of variation are unwarranted, even deadly…But the effort to homogenize health care presumes that we always know which treatments are best and should be applied uniformly. Unfortunately, this is not the case. The evidence for most treatments in medicine remains weak. In the absence of good evidence recommending one treatment over another, trying to stamp out variation in care is irrational.
>
> Even in my field, cardiology, a paragon of evidence-based medicine, most treatment recommendations are based on expert opinions, not randomized controlled trials. Rarely is there one best option. This is a basic conflict in modern medicine: treatment uniformity, which aims to optimize population health, versus treatment variation, which aims to respect individual choice. There is no obvious solution to this conflict, but the resolution will determine what medical care is going to look like in 10 or 20 years."

[44] Hartzband P, Groopman J. How Medical Care is Being Corrupted. *The New York Times*, 18 Nov 2014. http://www.nytimes.com/2014/11/19/opinion/how-medical-care-is-being-corrupted.htm.
[45] Jauhar S. Don't Homogenize Health Care. The New York Times, 10 Dec 2014. http://www.nytimes.com/2014/12/11/opinion/dont-homogenize-health-care.htm.

More than a decade ago, Gabbay and May published a paper in the British Medical Journal that has not received much attention in the mainstream medical literature regarding guideline versus patient-centered care.[46] They noted there was a knowledge-management literature from non-medical sources suggesting tacit, rather than explicit research-based knowledge underpins much professional work. From their study, they concluded this was true in this medical practice as well.

> "Primary care clinicians work in "communities of practice," combining information from a wide range of sources into "mindlines" (internalised, collectively reinforced tacit guidelines), which they use to inform their practice."

So is variation good, bad, or inevitable? I think it is the latter—we are never going to know "all there is to know" about a given condition and its "proper" treatment, much less the problem of individual patient preferences and biological idiosyncrasies. Since it is inevitable, a more productive conversation might be "How much variation is acceptable?" or "When is variation good and when is it not?"

As an example of the latter, we could use vaccination of children. Some parents are withholding vaccination against contagious diseases that can become public health threats, but enrollment in public schools requires that a child be "up to date" on his/her vaccinations. As physicians, we would probably argue that this variation is unacceptable. On the other hand, deciding whether or not to pursue aggressive surgery in the setting of advanced cancer might be highly variable, and we would decide this is acceptable.

Like in the health care funding debate, when we consider the problem of variation, we find more questions, not answers. At the macro-economic level, we might decide that we would not pay for certain medical interventions in certain circumstances, but at the individual patient level, we would still want the decision made by patients, families, and physicians. Similarly, we might decide that we want lower levels of variation in healthcare spending at the level of the metropolitan statistical area, but would accept higher amounts of variation at the level of the individual physician. Just as in the health care funding debate, we risk getting into trouble if we insist too rigidly on "the one best way" to address the issue.

12 March 2017

[46] Gabbay J, Le May A. Evidence Based Guidelines or Collectively Constructed "Mindlines?" Ethnographic Study of Knowledge Management in Primary Care. BMJ 2004 (30 Oct);329:1013. Accessed at bmj.com.

Changing Physician Behavior

In the article on financing healthcare that I posted last month, I observed "What has changed, it seems to me, is that in 1970, the "profit" went to the providers. Now the profit goes to the businesses and everyone is trying to manipulate the providers to behave in a way that looks out for their interests."

As you might expect, I read an opinion piece published by Gail Wilensky, PhD, entitled "Changing Physician Behavior Is Harder Than We Thought" with great interest.[47] She focused her comments on two reports: the midterm assessment of the Comprehensive Primary Care Initiative and the recently announced Comprehensive Primary Care Plus (CPC+) plans. She noted the midterm assessment showed:

> "…despite having paid the participating practices a median of $115,000 per clinician in care-management fees over two years, the midterm assessment found that practices have not demonstrated any net savings after taking the incentive payments into consideration. This is not surprising. Other pilot projects (including the Medicare Group Practice Demonstration and the CMMI's Pioneer Accountable Care Organization have shown that it is challenging even for large, seasoned group practices to produce savings. More surprising was the finding that the practices participating in the Comprehensive Primary Care Initiative have not shown many appreciable quality improvements to date."

I did not find these results surprising and many of the topics discussed previously illuminate various issues that impact the results. What did surprise me was that a major player in the policy scene was surprised. This is what I want to think about in this article. Dr. Wilensky is trained as an economist, so it is possible she assumes that the "economic man" model explains behavior. This model assumes that over the long run people will make decisions in their economic best interest. I used to have long discussions with my clinic administrator about the uses and abuses of this concept. We never really resolved the issue.

Perhaps part of the problem is that physicians do not make their decisions entirely on an economic basis. This is not to say that physicians are not self-interested. When I was actively involved in leading my medical group, I used to say there were only two things that divided us: money and night call. I am suggesting, though, that physician training does not start from an economic viewpoint. Instead, we are trained to look for the "best" decision. The fact that the best decision is conditional and depends heavily on the patient's perspective, and is therefore not totally predictable, means that the "cost" of care will vary not only from doctor to doctor, but from patient to patient.

However, let us consider the problem in the terms outlined—we spent a lot of money in the project, but don't have much to show for it. There were several assumptions underlying the project that were likely never articulated. First, "care management will

[47] Wilensky G. Changing Physician Behavior Is Harder Than We Thought. JAMA 2016;316(1):21-22. doi:10.1001/jama.2016.8019. Accessed 14 July 2016 at http://jama.jamanetwork.com/article.aspx?articleid=2531993.

save money" is based on the notion that we can prevent expensive complications of disease from occurring. Unfortunately, it would be more honest if we stated the hypothesis as "Care management may be able to defer complications until later."

A second assumption is that improved quality can be measured. As it stands now, we only have surrogates available, mostly process measurements. I would suggest using care management fees to make sure patients got more medications to meet more process measurements would cost more money than "usual care," but it would be difficult to see any delay in expensive care such as hospitalizations in just two years. We really do believe "more is better" when it comes to healthcare, despite a lack of compelling evidence it is true.

The third assumption is that changing payments would change behaviors. But physicians did not necessarily recognize the connection between the care management payments and the desired behavioral changes. Certainly my group is using its care management fees to hire ancillary staff to make sure patients keep follow up appointments and get recommended tests and examinations. In the meantime, the doctors are seeing the patients and doing what they always did.

Perhaps the real issue comes back to money. Dr. Wilensky has spent her career dealing with aspects of financing health care and I am sure she knows more about the policy implications of various changes than I do. However, I do have a short list of items that would save money.

The most immediate is to reduce hospitalizations—not just length of stay, but admissions per patient per year. Hospitals, of course, don't like this, and one side effect of current CMS efforts to change physician behavior is that many have opted to sign on with large hospital systems. Hospital systems will certainly try to ameliorate efforts by CMS to change hospitalization behavior. This means, of course we will need to invest in a care delivery system that maintains constant availability—the office is always open—and that has the resources to deliver home care of the sort previously done by extended family (most of whom now don't live anywhere nearby.)

Second, we need to develop operational definitions of frailty predictive of patients who will not respond well to aggressive interventions. When the frail patient does not respond to conservative management, we need to move toward palliative care approaches. This is not "rationing," in that the motive is not reduce expenditures, but it is a medical effort to recognize the limits of what we can do. In my grandfather's day, there were only a few things they could do, so as a physician he spent a lot of time watching. Now we have many things we can do, but we have not developed the collective wisdom to do these things wisely from the patient's perspective. In the old days, the patient and his/her personal physician made these decisions, usually in an implicit, informal way. Since Marcus Welby, M. D., died years ago, though, we need a replacement process that does not depend on a personal physician who knows what we want and whom we trust to get us what we need.

Lastly, we need to develop effective treatments for those who abuse drugs and alcohol, including tobacco. There is a lot of lip-service about treatment, but the fact is we do

not understand the biological basis of addiction currently, so don't have reasonably effective treatments that can be widely applied. Yes, there are some programs that deliver results, but the patient population has to be tailored for the program. We don't have something a family doctor can do as easily as he can treat hypertension.

Maybe the issue isn't so much changing physician behaviors as changing the structures in which physicians practice. Much of what we are doing in care management these days may be of value to patients. I don't know from my personal experience and I have not seen any data. But it is possible that patients will appreciate the extra attention and service provided in these programs. Perhaps, but only perhaps, it will reduce costs in the "out-years" as the policy folks say, but I don't know how you measure money not spent and costs not incurred in a meaningful way. By the same token, how do you measure the care I did not provide when I talked for a long time to a patient and family and we decided to stop dialysis? How do you measure the quality of that? All I know is the family almost always says "Thank you for being honest and helping us." I guess that will have to do.

20 July 2016

Lastly, we need to do deep thinking about what physician habits are useful in an organizational setting, rather than trying re-tool the educational process. I maintain that almost all physicians are masters at two skills: agenda setting and living with their decisions. All physicians prefer to be busy, probably too busy if truth be told, but they all are good at prioritizing their activities. From an organizational perspective they may not be prioritizing the way management would desire, but they do prioritize. So perhaps a starting spot is to get the physicians to identify the major problem/irritant/challenge they face in caring for their patients.

https://www.practicingmdleaders.com/perspectives-on-physician-leadership.html

All healthcare leaders must deal with the constant drumbeat for reform. Mostly motivated by cost, clinicians and their operators must ask the right questions, have necessary conversations and recognize the risk of system failure both with current operations and with efforts to change. Sometimes the ideas are large, sometimes small, but everyone must deal with the "value proposition" and the challenges of uncertainty.

Asking the Right Questions

Alice H. Chen, MD, recently gave a talk about innovation in health care.[48] Her credentials are impeccable, having served in a variety of positions before her current one as San Francisco Health Network's Chief Medical Officer and Deputy Director. She started her remarks by describing her approach to her first position as a medical director, where, like a typical doctor, she had diagnosed all the problems and developed solutions for them and then set about fixing them all at the same time. Some worked and "stuck," some did not.

> "The innovation that health care truly needs is not a shiny, new piece of technology, or a quick fix. It's about new and different ways of thinking about what we're really doing and to what end; and its about changing the questions we ask. The question we should be grappling with now: What is the purpose of our health care system? Is it to provide visits, diagnostic tests, and therapeutic interventions, or might it be to produce health?"

Talk about a question designed to upset the apple cart! Most people I talk to about health care usually think in terms of how we can do what we do more, or better, or cheaper, or more profitably. (Not that these are mutually exclusive.) But almost everybody assumes what they we are currently doing is a key component of "the healthcare system." Very few seem to consider that what might need to happen first is to stop doing what we are doing.

The challenge is not new. Many years ago, I had the opportunity to interview the founding physicians of my medical group. The acknowledged thought leader, Leland Johnston, MD, had graduated from medical school in 1928 despite contracting tuberculosis with a year in hospital and taking time out to study with Dr. Goodpasture in the pathology department before graduation, and then chose to do a year in New York (Belleview Hospital) before going on with internal medicine training. I asked him what the greatest advances he had seen in his many years of practice. He told me about a patient who had contracted tularemia during WWII. He had heard of penicillin and had a friend in the Army Medical Department whom he called and asked for a dose. The friend sent him a package of 5,000 units of penicillin on the bus. The patient was cured. When I asked him what, besides penicillin struck him, he replied "refrigeration." During his time at Belleview he had seen many young children who died of bacillary dysentery from drinking spoiled milk. This "epidemic" went away once refrigeration became widespread. Even as an old man, he was still thinking outside the box.

[48] Chen, Alice H. Health Care Innovation to What End? Asking the Right Questions. NEJM Catalyst, 14 January 2020. https://catalyst.nejm.org/doi/full/10.1056/CAT.20.0016?query=CON&c.

So, what sacred cows should we be questioning now? Your list might differ but here are some that are on my list. For clinicians: "the EMR will improve patient care and patient safety." (A corollary: AI is the wave of the future.) Medicine is based on data, so it is difficult to dispute that better data are important for advances to occur. But, I remember seeing a patient from a Middle Eastern country who had previously seen a Harley Street consultant in London about her problem. She had a copy of his "encounter note," which she shared with me. The consultant had hand-written a conversational letter to the referring physician in which he outlined her story, his observations, and his conclusions. At the time, we in the US were focused on "SOAP" notes and a telegraphic style of communication, and I realized there were some positive aspects of the old system that we had lost.

Now, in our worship at the feet of "objective" data, we have elevated it in our notes to the point where narrative and subjective context have disappeared. Perhaps they have disappeared from our thinking, too. But is this what we are about? Are we production workers who make sure all the recommended actions get done? Or are we knowledge workers who struggle to place the recommended actions into the patient's context?

For administrators: "more, and new, is better." Perhaps this was true once, but is it true now? For inpatient admissions of Medicare patients, payments are fixed in a narrow range; few hospitals make money on that book of business. Yet, I have heard presentations designed to show that the necessity of increasing that business even if money is lost. A similar argument is made for new technology. If we don't have the new whiz-bang gizmo, the fellows down the street will get it and "steal" all our patients. Some new things are valuable because they make things better. Laparoscopic surgical procedures come to mind as a real improvement occurring in my era. Imaging methods have also shown dramatic improvements. But some new things are changes that have marginal to no benefit for patients. However, one thing has remained constant—patients don't want to be in the hospital. Maybe we all need to learn to see hospitalization as a "failure" of the care system, not as a revenue opportunity.

Lastly, we all need to come to grips with our curative mindset. Our collective memory is the patient with tularemia cured by small doses of penicillin. Yet most of our care is trying to extend the functional life of patients with various chronic conditions we cannot cure. We also put a lot of emphasis on "preventive" measures, but few really pan out on closer study. It doesn't mean we should not try to ameliorate progressive diseases, but we need to quit thinking about it as the "cure" for our current dilemma. Lewis Thomas labeled maintenance hemodialysis as a "half-way technology." That was true then, and is true now, but it is also true for most of what we do. Perhaps the answer to our affordability problem is to recognize that "more is better" is not true for clinical practice any more than it is for solving financial problems in healthcare organizations.

4 February 2020

Necessary Conversations

In 2005 Wendell Berry wrote an essay called "Local Knowledge in the Age of Information" in which he articulated several themes germane to the challenge facing medical organizations in 2020.[49] He was particularly interested in farmers and the agricultural/ industrial complex, but his words seem applicable to medical care as well.

> "Insofar as the center is utterly dependent upon the periphery, its ignorance of the periphery is not natural or necessary, but is merely dangerous. The danger is increased when this ignorance protects itself by contempt for the people who know… Furthermore the danger increases as the periphery is enlarged...
>
> The general complacency about such matters seems to rest on the assumption that science can serve as a secure connection between land and people, designing beneficent means and methods of land use and assuring the quality and purity of our food. But we cannot escape the or ignore the evidence that this assumption is false."

In the 1980's academic centers discovered unexplained geographic variation such as between Boston and New Haven in use of hospital services.[50] Boston spent $300 million more annually than New Haven on a per capita basis, most of which was explained by discretionary admissions in medical illness. It was implicit that both could not be right, although both could be wrong. It was also clear the additional spending did not result in measurable improvement in population health, so most efforts in the years since have been designed to reduce variation and its associated "waste." There have been, in my view, three primary efforts: patient safety, quality improvement, and utilization management.

The patient safety effort has shown the value of checklists and proven bundles of steps to improve patient outcomes, particularly for procedures. Its utility in general medical problems has not been as satisfactory and the "pathway" movement has generally stalled. We reviewed the uneven impact of the quality movement in the recent article called Quality Improvement 3.0. There have been a few successes, but with limited impact on variation and little success in defining optimum steps. Utilization management mostly consisted of efforts by insurance companies to erect bureaucratic barriers, known as hassle factors by the clinicians, designed to discourage "thoughtless" ordering. I suspect the cost of creating the hassles is about the same as the money saved by discouraging/ denying the expensive procedure. "Tiering" the price structure has had similar effects. All three of these efforts, though, could be thought of as efforts by the "center" to control behavior on the "periphery."

[49] Berry W. Local Knowledge in the Age of Information. Reprinted in American Conservatism: Reclaiming an Intellectual Tradition. Ed. by A. J. Bacevich. (New York: Library of America, 2020,) pp. 481-492.
[50] Wennberg JE, Freeman JL, Culp WJ. Are Hospital Services Rationed in New Haven or Over-utilized in Boston? Lancet 1987;329(23May):1185-1189. doi.org/10.1016/S0140-6736(87)92152-0.

These efforts have been contemporaneous with the rise of the large medical organization, which also needs to "control" from the center what is going on in the periphery, meaning on the ward and in the clinic. Most consider including their clinicians in organizational decision-making, but few have found effective ways to do this for all but a few issues. And, unfortunately, the ignorance, if not outright disdain, of the center for the periphery has increased in many organizations.

The periphery, in this case practicing clinicians, know they are being ignored. There are a lot of articles discussing recalcitrant clinicians who don't apply evidence like the experts would want, clinician burnout, and persistent "waste," and problems with the electronic health records, all of which can be seen generally as resistance by the periphery to being ignored by the center. But what if the periphery knows something the center does not? Some years ago, Medicaid tried to control expenditures by limiting beneficiaries to five prescriptions monthly. I dutifully went through the lists trying to simplify hypertension and diabetes management only to find out the patients wanted me to refill their arthritis medication, their benzodiazepine, their proton pump inhibitor, and their Viagra. So, I knew early on the effort was doomed to fail, but no one was available to talk to about what else we might do and there was no way for clinicians to collectively report their common experience.

Berry also noted the issue and recommended conversation, as opposed to communication.

> "Communication, as we have learned from our experience with the media, goes one way, from the center outward to the periphery. But a conversation goes two ways; in a conversation the communication goes back and forth. A conversation, unlike a "communication," cannot be prepared ahead of time, and it is changed as it goes along by what is said. Nobody beginning a conversation can know how it will end. And there is always the possibility that a conversation, bringing its participants under one another's influence, will change them, possibly for the better."

Real improvement in health care does not require us to stop what we have been doing, but we need to realize the limits of the methods. We should continue to standardize and streamline that which should be standardized, particularly procedures, and we should continue to use the tools of CQI to help us improve outcomes where we can. But we also need to realize variation is multifactorial—some of it is the clinician, some of it is the patient, and some of it is a complex social interaction between the two with the local system. I suggest we need to decide how much variation is acceptable rather than strive to eliminate it. Perhaps we should suggest 60% standard to 40% variation as the right ratio, at least at the beginning. But we need to start by having more conversations to find out what tacit knowledge clinicians have that should inform implementation decisions.

15 September 2020

System Failure

Medicine has adopted the language of manufacturing with terms such as efficiency, reliability, and "lean processes." An unintended consequence may be increased risk of system failure. Twenty years ago, Dr. Richard I. Cook published a paper dealing with big ideas for safety in complex systems.[51] His first point was "complex systems are intrinsically hazardous systems." One idea that has become prominent recently is the notion of "never events." CMS will penalize hospitals that have one. While it seems laudable, there are some underlying assumptions about systems and the behaviors of the people who operate them that are faulty. Let me provide more quotes from Dr. Cook to explain why.

He noted "complex systems are heavily and successfully defended against failure" and "complex systems run in degraded mode." The defenses against failure are necessary because of the degraded nature of all systems despite technical, human, and regulatory processes which provide multiple layers of defense. Thus failure, an accident, requires failures in multiple processes occurring simultaneously.

Physicians by nature and training want to get an "A" and so do most managers. As money has become tighter, though, there has been greater emphasis on the part of everybody to improve "efficiency," which generally means getting rid of "unnecessary," and often costly, redundancies, particularly when it comes to staff. Yet it is difficult, if not impossible, to predict when curtailing redundancy decreases clinical safety and quality.

He emphasized that "catastrophe is always just around the corner." Some years ago, we had a unit in the hospital that had achieved a remarkable streak of infection-free days. I asked the medical director to describe what they had done to be so successful, which she did. She did not mention the problem of vigilance, but when I asked her if she expected the system to fail, her answer was: "Of course."

One of my major challenges as medical director was to remind my staff not to assume things were going to be okay. I found many instances where experienced staff made incredibly short-sighted decisions because "everybody was doing well." I tried to point out often the challenge for the successful dialysis nurse was to strive for a day where "nothing happened" while always being ready for the next cardiac arrest or bleeding episode. Too much emphasis on the risk leads to paralysis, too little leads to lackadaisical care. Keeping the balance is one of those issues of constant re-calibration, which requires experienced staff and thoughtful, attentive leadership. It is not a machine that "will go of itself."

A related issue is the failure to recognize the truth that systems operate "because people can make it function despite the presence of many flaws." Turnover of clinical staff remains a huge issue in most medical organizations. It has been true of nurses for years, and now that more physicians are being directly employed by hospitals, it is becoming true for them as well. Yet a newcomer, no matter how well-trained, is not going to be familiar with tacit knowledge needed to keep processes out of the ditch.

[51] Cook RI: How Complex Systems Fail. (Revision D [00.4.21]). Accessed 27 December 2019 at https://web.mit.edu/2.75/resources/random/How%20Complex%20Systems%20Fail.pdf.

> "Human operators have dual roles: as producers and as defenders against failure. This dynamic quality of system operation, the balancing of demands for production against the possibility of incipient failure is unavoidable. Outsiders rarely acknowledge the duality of this role."

Administrators may resent the way their clinicians disparage them as "the suits," but this is a defensive measure by clinicians. Clinicians are fully aware of the risk of failure and are personally liable in case of an accident, even if it was the result of a system failure beyond anyone's control. The organization may also be sued, but rarely is the administrator held personally responsible. As in the story about the difference in commitment between the chicken and the pig concerning a breakfast of ham and eggs, the clinician is the pig. Recognizing this leads to "defensive medicine," often used as a pejorative implying sloppy thinking and inefficient practice, is how clinicians try to increase safety. Likewise, clinician resistance to changing routines. Administrators may become frustrated when surgeons won't "flex" their OR routines, but experience has taught them it is safe. Getting change requires demonstrating how the change makes things even safer, not making them cheaper.

Dr. Cook made three other points worth emphasizing. First, "all practitioner actions are gambles." Second, "human practitioners are the adaptable element of complex systems." Third, human expertise in complex systems is constantly changing." Many of the "experts" are calling for more "reliability," often shorthand for doing it cheaper with less "unexplained" variation, and the regulatory environment makes administrators more eager to codify and "fix" things than might otherwise be the case. The challenge, of course, is to standardize those things that can/should be standardized, but no more, and for clinical care, there almost always needs to be a bypass system available. For instance, there is no reason for a hospital to forego a standard sliding scale insulin regimen. But the "standard" needs to be easily bypassed if the patient is known to be either brittle or resistant, as their needs won't be served by the usual approach. It may be fair to call for documentation of exceptions, but that should not serve as a deterrent. Too often, the bureaucratic hoops to making patient-centered decisions causes the clinician to simply give up and move on to the next patient. We need to recognize that all clinical decisions are calculated gambles. Having expert gamblers helps but does not make it a sure thing.

To summarize, all medical organizations have to deal with clinical failures regularly. Since it is not possible to eliminate the wager at the heart of clinical care, we need to recognize the need for redundant systems, eternal vigilance, and constant preparation for putting out the next fire. We need to be wary to the unspoken assumptions of the language of manufacturing processes, such as "lean," which may cause us to forget that clinical decisions involve much larger and much less controllable wagers. What is waste and what is necessary redundancy is both difficult and in need of constant re-calibration. Doing this well requires a common focus and expert practitioners in all areas, both clinical and managerial. Lastly, it follows that the tacit knowledge of current employees has operational value today. We need to get past "FTE" thinking and realize quality and safety of care is about knowledgeable staff able to interact flexibly with each other and their patients continuously and carefully.

6 January 2020

Simple Ideas

It seems like everybody has a new idea for making things better in healthcare, yet, somehow, things seem to be getting worse. For instance, Tessa Love reported on a project to reduce the noise pollution in hospitals, which has doubled over the past 50 years.[52] The proposal included redesigning alarm sounds to be less jarring, and creating a "tranquility room," characterized by subdued lighting, comfortable chairs and soothing background music, where staff can take breaks to recharge. Seems simple enough, and not really all that costly. Proponents tout the benefits for staff and the positive impact on patient safety.

On the other hand, nurses in New York are threatening to go on strike to force local hospitals to increase nurse to patient ratios because they feel they can't do the job well under existing conditions.[53] The crux of the issue seems to be whether nurse to patient ratios should be standardized and mandated. Reference is made to California, where such ratios have become part of state regulatory codes. Using these as "norms," nurses argue their staffing ratio is only about 80% of the appropriate level. Nursing management responds by arguing health care is too complex for simple numerical standards, and that their local unit managers can best assess the correct loads.

> "No two hospitals are alike," said Lorraine Ryan, a senior vice-president of the Greater New York Hospital Association. "Staffing decisions need to be made by nursing professionals based on patient acuity, the experiences and competencies of the nursing team delivering direct patient care, and other demands on the care-delivery team."

As the article notes, though, the real problem is financial. If the New York hospitals agreed to meet the California levels, costs would rise prohibitively. On the other hand, given the financial constraints, the probability is high that systems will be set to operate at a rate staff can't sustain. Clearly, this is an issue facing all healthcare organizations, even when nurses are not organized into a union and prepared to strike. Furthermore, in many areas of the country the supply of available nurses is finite. Even when management recognizes the need for more staff, finding them may be difficult.

I have previously emphasized the resilience model that views healthcare organizations at any level as a triangle. Each unit must operate with fiscal, human, and clinical constraints. Resilience is maintained only when the forces are reasonably balanced. The Institute for Healthcare Improvement has reported on the management practices that seem to support improvement activities.[54] I want to highlight a few of their points.

[52] Love, T. The Simple Change That Can Save Patient Lives. 14 August 2018. Accessed 15 August 2018 at http://www.bbc.com/future/story/20180810-the-simple-change-that-can-save-patients-lives.html.
[53] McGeehan, P. Patients "Hit the Call Button and Nobody Comes." Hospital Nurses Demand "Safe Staffing" Levels. 30 March 2019. https://www.nytimes.com/2019/03/30/nyregion/nyc-nurses-strike.html.
[54] Mate KS, Rakover J. The Answer to Culture Change: Everyday Management Tactics. 6 March 2019. Accessed 14 March 2019 at https://catalyst.nejm.org/high-performance-management-system/

They identify six management tactics key to supporting improvement. First is standardization—defining role-based daily and weekly standard work. Note this approach obviates "standard" nurse to patient ratios, but also recognizes care must be taken to define a normative amount of work, a standard productivity if you will. The second tactic is accountability—monitoring fidelity to standard work. The third is use of visual "dashboards" showing relevant data to everyone quickly. Fourth is developing problem solving methods to address issues that arise in daily work. This tactic requires specific delegation of authority to commit resources to solving the problem, though. This does not necessarily mean more people, but it may mean giving current staff time to work on the issue by reducing clinical loads. Fifth is escalation—when to "kick it upstairs" and get higher levels of management involved. Sixth is integration—bringing everyone to the table, particularly frontline and mid-level managers regularly to address issues on the spot.

So back to the first two articles. Noise pollution may well be one of those invisible issues—everyone is inured to the beeps and tunes them out. As in the famous "gorilla" and the basketball teams experiment, you simply won't see what you aren't looking for if you are too focused on another task. Given the explosion of tasks and documentation in healthcare organizations, it is easy to miss the gorilla. Successful organizations must find ways to get fresh eyes on the issue.

Nurse stress, though, is prevalent, as is nurse turnover. All of these represent hidden costs. So, while we will continue to operate within a cost-constrained environment, we need to become smarter about those hard to capture costs associated with our current approach to getting the job done.

"Standard work" is a term designed to rile clinical staff, but if it is thought of as defining the necessary steps that must be done for each patient, rather than specifying what those steps have to be, it has the potential to permit more rational staffing levels. Current efforts at patient satisfaction may permit opportunity costing when staffing levels are too low and they make it easier to control "mission creep." I have been in many meetings where some good idea was being considered, but the implementation step was "get the doctors (or nurses) to do it." Since they are already too busy, the question needs to be what are we going to give up, so we meet the new requirement?

With all the uproar in medical organizations, it is necessary, but difficult, to focus on the basics. Getting the best care for the patient is going to require hard work from everyone and a willingness to change the way we do things. As one friend of mine used to say, "The ultimate disservice to our patients is to go broke." But maximizing profit at the expense of patient care is also a way to go broke. Are we at risk of failing this way, too? I think so.

8 April 2019

Fluid Intelligence Versus Crystallized Intelligence

The Atlantic this month had articles dealing with fluid intelligence and the notion that adaptive, problem-solving intelligence is different from task-specific skills, or crystallized intelligence. Jerry Useem looked at the U. S. Navy's experience with "minimally manned" staffing of ships.[55] Born of an experiment twenty years ago, the Navy abandoned its traditional staffing, where ships' crews were built with complements of sailors trained in detail about specific skills such as engineering, armaments, and so forth, and, instead, staffed a new class of ships with sailors who were expected to have one basic skill and perform several supplemental tasks. (Similar notions have caught on in business.) As the author notes:

> "The phenomenon is spread by automation, which usurps routine tasks, leaving employees to handle the nonroutine and unanticipated—and the continued advance of which throws the skills employers value into flux. It would be supremely ironic if the advance of the knowledge economy had the effect of devaluing knowledge. But that's what I heard, recurrently, while reporting this story…Minimal manning—and the evolution of the economy more generally—requires a different kind of worker, with not only different acquired skills, but different inherent abilities. It has implications for the nature and utility of a college education, for the paths of careers, for inequality and unemployment—even for the generational divide…How deep these implications go depends, ultimately, on how closely employers embrace concepts behind minimal manning."

As the Navy set about implementing the program, they did tests to assess individual sailor's ability to adjust to changing circumstances and found one predictor of failure was a strong tendency to "conscientiousness," which is normally thought of as a highly desirable trait. People who did best on various tests were open to new experience, and demonstrated what might be called distractibility, which is normally not thought of as positive in a candidate.

> "High in fluid intelligence, low in experience, not terribly conscientious, open to potential distraction—this is not the classic profile of a winning job candidate. But what if it is the profile of the winning job candidate of the future? If that's the case, some important implications would arise."

The second article looks at the impact of aging on intellectual capability and starts with the observations that most Nobel Prize-winning breakthroughs in the physical sciences are produced by scientists under thirty years of age.[56] While the age of peak performance varies by specialty, the author notes that intellectual decline is inevitable if you live long enough, and it may happen sooner than you think.

[55] Useem J. At Work Expertise Is Falling Out of Favor. The Atlantic, July 2019. Accessed 21 June 2019 at https://www.theatlantic.com/magazine/archive/2019/07/future-of-work-expertise-navy/590647/

[56] Brooks AC. Your Professional Decline Is Coming (Much) Sooner Than You Think. The Atlantic. July 2019. Accessed 21 June 2019 at https://www.theatlantic.com/magazine/archive/2019/07/work-peak-professional-decline/590650/

"In sum, if your profession requires mental processing speed or significant analytic capabilities—the kind of profession most college graduates occupy—noticeable decline is probably going to set in earlier than you imagine."

He goes on to look more closely at the notions of fluid and crystallized intelligence first developed by Raymond Cattell.

"Cattell defined fluid intelligence as the ability to reason, analyze, and solve novel problems—what we commonly think of as raw intellectual horsepower…It is highest in early adulthood and diminishes starting in one's 30's and 40's… Crystallized intelligence, in contrast, is the ability to use knowledge gained in the past. Think of it as possessing a vast library and understanding how to use it. It is the essence of wisdom. Because crystallized intelligence relies on an accumulating stock of knowledge, it tends to increase through one's 40's, and does not diminish until very late in life…Patterns like this match what I have seen as the head of a think tank full of scholars of all ages. There are many exceptions, but the most profound insights tend to come from those in their early 30's and 40's. The best synthesizers and explainers of complicated ideas—that is the best teachers—tend to be in their mid-60's or older, some of them well into their 80's."

The third article examined data showing most subject matter experts are bad at forecasting the future. They were highly specialized "hedgehogs." They knew one big idea and were resistant to others. The "foxes" were those could integrate "many little things" and were open to contradictory ideas. In a follow up study, a group of non-experts were matched against panels of experts. The "amateurs" who seemed the "foxiest" were curious about lots of things, crossed disciplines, and "viewed teammates as sources for learning, rather than peers to be convinced." They also consistently outperformed the experts.

What are the implications of these observations for physicians and for medical practice? Once I was making attending rounds as a visiting professor when the real attending had to take a phone call. I asked the assembled trainees what one skill would be improved 10 years hence. Some answered that they would be defter in procedural skills. I suggested the real answer is they would get better at talking to people—this was the one skill that could really improve over an entire practice. For that to happen, though, physicians need to come to value this skill as much as patients value it. The manual skills and application of the latest technology will always be the province of younger people. A good program will have a mix of both younger and older physicians and a process for incorporating both fluid intelligence and crystallized intelligence in the solving of patient and organizational problems. But for this to happen, peer input needs to be seen by all as a source of wisdom, not opposition. How is your program doing with this?

24 June 2019

Why the Value Proposition is Not Selling

Sometimes attributed to the late "Tip" O'Neill, the phrase "All politics is local," has become a truism. Of course, it was never quite as simple as the phrase implies, but nonetheless it has become a commonplace in American politics. In much the same way, "the value proposition" has become a catch phrase that may not be as simple as it seems. In a recent article, I looked at a couple of reports showing that efforts to create positive change in the name of the value proposition have not been very successful. In this article, I want to look are this question of resistance some more.

> "In particular, global payment and other risk-based strategies are designed to counteract fee-for-service incentives and promote efficient service delivery by putting physicians and practices at risk for excess spending. The results, so far, however, have been underwhelming."[57]

In Landon's view, the primary problem is the new payment models won't work unless they change physician behavior, and he notes that most require specifically changing the behaviors of primary care physicians. He also notes that most physicians currently operate their businesses with payment from both old and new sources.

> "There are competing hypotheses about how physicians might respond to incentive changes. One school of thought suggests physicians will customize their approach to each patient on the basis of the incentives associated with the patient's payer…An alternative theory is that physicians and practices will develop a relatively uniform approach to care that is consistent with their overall financial incentives without customizing their treatment decisions of the basis of the payment arrangements for the patient in front of them."

When I was medical director for my group, we were confronting the "managed care revolution" that was also a capitated payment model. At the time I specifically argued that we should keep our physician compensation model payer neutral. I believed then, and believe now, that the key to "groupness" was for the Clinic payer mix to be the individual doctor's payer mix. I did not want primary care doctors, for example, to refuse to see a Medicaid patient being followed by a specialist, because the pay was less. I was also convinced that maintaining our ability to deliver high quality care depended on doing our best for each patient within the limits of available resources. I still think both of those things characterize quality medical care organizations.

A critical flaw of all "new" payment models, then, is the belief that a physician will respond directly (and immediately) to changes in financial incentives. The evidence is overwhelming that most changes are slow and indirect. Landon summarizes this as:

> "Physician behavior consistent with such a strategy, which economists call the 'norms hypothesis,' results in treatment decisions that are responsive to the average needs and preferences of one's patients without requiring physicians to devote time and cognitive capacity to customizing each decision."

[57] Landon BE. Tipping the Scale—The Norms Hypothesis and Primary Care Physician Behavior. NEJM 2017;376(9):810-11. doi. 10.1056/NEJMp1510923.

Landon expands his discussion of the "norms hypothesis" and concludes that major change will occur only when practices reach a tipping point, but that point is not known. By implication, the way to get to make the value proposition real is to go all in, so practices that don't change, don't survive. Dr. Landon's article overlooks what I think is another key barrier—physician-delivered primary care in many areas, including mine, is in very short supply, and nothing suggests any impending increase in availability. But this is a topic for another day.

Is there a way forward toward more value? From the physician perspective, the answer requires asking two questions when making decisions about individual patients. The first question, which gets the greatest attention in training, is: "Is it indicated?" It, in this case, can be a procedure, a test, a medication, and some combination of all of these three. The second question, which is harder is: "Will it be beneficial?" The latter question is harder, in part, because most of our interventions do not "cure" the patient, but only stabilize the patient in some way, and most have significant downside risks. Based on experience mentoring many younger physicians, this second question is not dealt with well in our medical education. Groups like mine, which have lower spending per patient than some others, achieve their results by creating a culture that asks this question of all physicians. Are you doing this because you think it will help? If not, why are you doing it?

To be fair, not all decisions are that complicated, but the only way to address the problem that spending more money does not produce more "health" is to recognize the limits of what we do. Just because it is indicated, does not mean that it is beneficial. Policy makers don't like this approach, because it is not amenable to global answers. After all, each decision represents the complex interplay of the physician's biases, the patient's biases, the specifics of the case, and compensation arrangement mostly impact one of these three forces. Perhaps, in the final analysis, all medical care, like politics, is local, too.

17 April 2017

"The art of clinical medicine is making adequate decisions on the basis of inadequate data."

Original source unknown. Cited by Barondess J. "The Impossible in Medicine." Perspectives in Biology and Medicine 1986 (Summer);29(4):521-529. doi:10.1353/pbm.1986.0046. Accessed 24 October 2020 at https://muse.jhu.edu/article/403188.

Uncertainty

In my forty plus years of practice, I have long-since learned that in medicine there are only great questions, not great answers. That does not mean there is nothing to be done, but it does mean that what we do must be accepted as having uncertainty both as to best choices and to outcomes. Thus, it was a bit of a surprise to read an editorial in The New England Journal of Medicine titled "Tolerating Uncertainty—The Next Medical Revolution?"[58] Their premise is that physicians are rationally aware of uncertainty, but

> "...the culture of medicine evinces a deep-rooted unwillingness to acknowledge and embrace it…Too often, we focus on transforming a patient's gray-scale narrative into a black and white diagnosis that can be neatly categorized and labeled. The unintended consequence—an obsession with finding the right answer, at the risk of oversimplifying the richly iterative and evolutionary nature of clinical reasoning—is the very antithesis of humanistic, individualized patient-centered care."

In their discussion, the authors point out this issue is not simply a philosophical concern.

> "Great tensions are created by the conflict between the quest for certainty and the reality of uncertainty. Doctors' maladaptive responses to uncertainty are known to contribute to work-related stress. Physicians' difficulty accepting uncertainty has also been associated with detrimental effects on patients, including excessive ordering of tests that carry risks of false positive results or iatrogenic injury and withholding of information from patients."

From their vantage point in academia, they note the new generation of "digital-native" medical students seem frustrated and upset when the technology does not provide definitive answers to the questions they ask. They suggest we need to change our language to help arm students to deal with uncertainty. I am not sure language is the problem, so much as the need for experienced clinicians to pass on the hard-won experience that uncertainty has been and always will be with us. Sir William Osler famously stated the problem thusly. "Medicine is a science of uncertainty and an art of probability." Somewhere years ago I saw this paraphrased as: "The practice of medicine is making adequate decisions on the basis of inadequate data."

I suspect the complaint about students seeking the "right" answer is not a function of digital technology, but a desire every generation brings to wanting to "do the right thing." Most people pursue medical education to be able to help people by diagnosing and treating their ailments and helping them to live better. While our ability to do so has improved dramatically in my 46 years since starting medical school, so too has our ability to hurt patients. Perhaps this is more evident to the medical young than it was to us, hence driving their desire to be sure they are doing the right thing.

[58] Simpkin AL, Schwartzstein RM. Tolerating Uncertainty—The Next Medical Revolution? N Engl J Med 2016;375:1713-1715. doi.10.1056/NEJMp1606402.

On the other hand, it is clear that a lot of physician behaviors are driven by their reaction to the problem of uncertainty and their desire to help, not harm. Self-destructive behavior and chemical dependency are prevalent. In the past they were handled behind closed doors , but these issues are now being confronted, at least in Tennessee, by a therapeutic approach designed to return the physician to his/her previous functions. While the approach does not always work, it has made clear the scope of the problem.

As noted, test and procedure ordering behaviors are driven by uncertainty as well. In today's context, this can also mean "checking the boxes" behaviors. I recently saw one of my long-term patients who was wearing a life vest and 30-day event monitor after cardiac syncope in the setting of systolic heart failure. He is being evaluated for an implantable defibrillator/pacemaker. He also has diabetes related to his transplant rejection medication, and his A1c was greater than 10. In the context, I did not see much point in complicating his life lecturing him about the value of using more insulin, since he started the visit by saying "I'm falling apart." Indeed he is, but I felt a twinge about not checking the box, even though I did not think it mattered to him. While I am set in my ways, this episode made me realize the younger doctor would have retreated to giving the talk and moving on. He/she might not have visited with him about the travails he has dealt with in the past 25 years of our association. I think this conversation was more therapeutic for him than getting his A1c closer to goal. While some tension on these issues is inevitable, I have seen several good physicians drive themselves into early retirement because of the anxiety associated with uncertainty.

The authors conclude with a prediction, which I agree with completely, and have addressed in other ways in these articles.

> "As we move further into the 21st century, it seems clear that technology will perform the routine tasks of medicine for which algorithms can be developed. Our value as physicians will lie in the gray-scale space, where we will have to support patients who are living with uncertainty—work that is essential to strong and meaningful doctor-patient relationships."

Maybe "Star Trek" had it right. Dr. "Bones" McCoy had a device that made all the diagnoses and did the treatments. His job was to be the ultimate humanist who helped the patient understand what the device was telling him.

20 November 2016

Uncertainty Redux

A recent review of the state of the art in quality improvement concluded there have been real improvements in surgical mortality and hospital-acquired infections, and perhaps in readmissions, but many barriers remain.[59] First, high-value care is far from universal, being a prominent focus in public programs, but not in private ones. Care delivery is fragmented and so are quality improvement efforts. As a result, care is not patient-centered. Second, health equity concerns are growing. Mortality in Latino and black populations is consistently higher than in white populations. Maternal mortality if five times higher as is opioid use disorder and drug overdoses. One third of ED visits are by homeless people, 20% of the elderly are socially isolated, and one in six children lacks food security. Despite these issues, the authors assert the goals of the Institute of Medicine, (STEEEP) remain foundational, although they agree that "patient-centered care" is evolving more toward "person-centered care," and "effective" care needs to be changed to "appropriate care" in recognition that much care is not appropriate to the needs of the individual.

The following two questions are often posed to quality improvement professionals.[60] If progress is there, why not everywhere? If progress exists on that problem, why not all problems? They conclude:

> "It is time…to realize that changes in culture, investment, leadership, and even the distribution of power are more important for progress toward the Triple Aim than measurement, alone, ever was or ever will be."

Naturally, I agree as this has been central to the articles posted on this website, but I also agree we need to keep the best parts of the quality movement while relieving it of the burden of being the only tool in our kit to make care better. But the short-comings listed are "wicked problems" and do not admit of easy solutions. Besides, any efforts to attain high value care must take place in the context of a strained health care system that has been disrupted by a foreseeable problem—the pandemic. No, we could not know when, but this is not the first, and will not be the last, time to deal with epidemic disease; it is just more severe than some of the more recent ones.

So, what should leaders of our healthcare organizations be doing? I found some interesting advice on how leaders should react, (but not what should be done.)[61] The authors suggest five steps. First, stop and take a deep breath. Second, involve more people, not fewer. Third, make the critical small choices. Fourth, set up a mechanism to delegate tasks to teams and provide central coordination, and fifth, empower leaders who have judgment and character.

[59] D'Avena A, Agrawal S., Kizer KW, Fleisher LA, Foster N, Berwick DM> Normalizing high-value Care: Findings of the National Quality Task Force. 1 May 2020. Accessed 7 May 2020 at https://catalyst.nejm.org/doi/full/10.1056/CAT20.0063.

[60] Fleisher LA, Foster N, Berwick DM. A Review of the National Quality Measurement and Report System: How to Finish Its Aim. 1 May 2020. https://catalyst.nejm.org/doi/full/10.1056/CAT20.0063.

[61] Alexander A, DeSmet A, Weiss L. Decision Making During the Coronavirus Crisis. McKinsey and Company, 24 March 2020. Accessed 6 June 2020 at https://www.mckinsey.com/business-functions/organization/our-insights/decision-making-in-uncertain-times#

They also suggest looking for leaders who have survived a personal or professional crisis already, have made highly unpopular decisions because they thought it was the right thing to do, even if it harmed their career chances, or were willing to give bad news up the chain of command. Of course, as they note, these are precisely the behaviors that are punished in "normal times" in every large organization.

Their most important observation, though, is the distinction between strategic decision-making and tactical decision-making.

> "A strategic decision comes with a high degree of uncertainty, a large likelihood that things will change, difficulty in assessing costs and benefits, and a result of several simultaneous outcomes. A tactical decision comes with a clear objective, a low degree of uncertainty, and relatively clear costs and benefits. Tactical decisions are important—sometimes crucial. Yet they are often better left to those on the edges of the organization who can act effectively without raising the issue to higher levels."

The pandemic has shown just how fragile most of our healthcare organizations really are. We have been reminded that healthcare is highly regulated and has developed a highly bureaucratic structure in response. Consider this. Two of the three organizations I spent my career with entered into corporate integrity agreements with the government after reporting self-discovered billing errors as required by law. Each of these programs added yet another layer of bureaucracy, this time to mitigate penalties for future "compliance" failures. But the system is so mind-numbingly complicated that future failure is inevitable, so the compliance programs take on a life of their own.

We have also re-discovered just how critical "elective" surgery is for financial health. The forced closure of operating rooms has resulted in massive cash flow issues and lay-offs in most large hospitals, which combined with expenditures for supplies and staff to treat coronavirus-infected patients has caused major losses. Those without strong balance sheets are likely to collapse at the very time their communities need them most.

Our current state, then, can be defined as a system that is fragmented with many of the stakeholders burdened by financially fragile, bureaucratically rigid organizations with much of their "value" in hard assets like buildings and equipment, yet short on intellectual capital, leadership, and organizational and clinical resilience. Making organizational changes to improve outcomes that matter is a strategic decision with all the uncertainty associated with it. It behooves all stakeholders to ask themselves some key questions. What is my organizational purpose? How does my organization contribute to the health of our community? What is our community? Who else in our community has a role to play? How can we interact with these other stakeholders productively and how do we know? There are many possible "right" answers to these questions, but organizations likely to survive the crunch will have their senior leadership meeting with relevant parties to develop consensus answers to these questions. I also think it important that we not "medicalize" problems—it limits our thought processes. Many of our current failures are social and only become medical later. Other ways of thinking have value. If we do not find ways to access those other ways of thinking, medical organizations run the risk of making the medical equivalent of buggy whips.

8 June 2020

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