QUALITY BY DESIGN

A Clinical Microsystems Approach

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Foreword by Donald M. Berwick

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FOREWORD

Donald M. Berwick

It is remarkable, and sad, that a large proportion of health care professionals today—maybe a majority—would likely describe the environment of their work in terms that bespeak alienation. They might call themselves "battered," "pressured," "hassled," and, deeply, "misunderstood." I do not think they would generally say that about their clinical work; these are not their feelings about their relationships with patients—their experience of trying to help and to heal. These are their feelings about those who set in place the conditions of their work—the rule makers, the paymasters, and to some extent the institutional executives.

It is also remarkable, and sad, that those who shape the environment—the rule makers, the paymasters, and many executives—feel no less pressured than the clinicians do. I believe that many of them feel hassled by their own sense of ineffectiveness. They have hard jobs, involving the navigation of a no-man's-land of goals while also guarding limited resources and pursuing the great ambitions of modern medicine. They are the stewards of possibility, and they seem to me perplexed that the clinical forces so often misunderstand them.

I sat once in a meeting at the highest level in an academic medical center and heard the chief of surgery refer, in public, to the chief finance officer as a "pointy-headed dweeb." The distance between them was vast and the damage to spirit incalculable. This is not at all a one-way problem. How many times have you heard—even laughed at—the unfunny assertion that leading doctors is like "herding cats?" What does the doctor feel who hears that? At least the physicians and

nurses have the quiet refuge of the consulting room to retreat to in search of their own meaning. Where does the executive, so abused and so misunderstood, go for renewal?

I sometimes call this the *line-in-the-carpet* problem. I was walking through a multibillion-dollar major medical center once with its powerful CEO. He wanted to introduce me to a clinical leader and brought me to that physician's outpatient clinical office. But the CEO did not walk into the clinical area. At the margin, where the carpet changed color from the deep tan of the waiting area to the lighter tan of the clinical suite, the CEO brought his toes exactly up to the carpet seam, like a racer at the starting line, and leaned awkwardly into the clinical space, asking a passing nurse if Dr. X could be found. He did not set a single foot in the place of patient care. It was as if the CEO of Boeing did not walk into the factory or the CEO of McDonald's avoided the kitchen.

Perhaps it was simply a sign of respect for the flow of work or the confidentiality of patients. But I think not. I think it was a symbol of the torn fabric of health care, deeply divided along the seam between the work of care and the work of shaping the environment of care. Much respected health care management teaching has, I believe, instructed the executives of the future to stay out of the clinical arena—to leave the care to the doctors and nurses—while they, the executives, run the organization that supports the clinicians' work. Elaborate structures involving divided governance, medical staff rituals, hospital bylaws, and even clothing keep the parties on their respective sides of no-man's-land. "Working well" means that neither troubles the other too much and that treaties are fashioned and honored. "Working poorly" leads to open talk of dweebs and cats.

But, even when it produces organizations that are "working well" by these measures, the two-worlds theory of the proper leadership of health care holds the seeds of a disruptive, insulting, dispiriting harvest. When resources are evidently abundant and when patients are generously forgiving, then apparently we can get by. We have so far. In effect we can buy ourselves peace through the allocation of waste. The radiologist gets his (not-truly-needed) new MRI, and the medical staff vote reluctant approval of the hospital's marketing plan. Elaborate medical staff dinners host the visit of the CEO to congratulate retiring physicians and to report on how healthy the organization is. Elaborate executive dinners host the visit of the newly recruited chief of oncology to meet management and tell about the magic of modern chemotherapy in a thirty-minute summary.

But cut the budget, reduce the cash, spend a year or two in red ink, and watch the fabric tear. Misunderstanding takes charge. The clinicians become convinced that the managers could care less about the patients, and the managers become convinced that these "cats" are narcissists who want to have it all.

The authors of this book have spent years now creating a way to heal this rift. Gene Nelson, Paul Batalden, Margie Godfrey, and their colleagues have come to understand that the line-in-the-carpet problem is a deeply embedded cause of the failure of those who give care and those who shape the environment of care to understand themselves, each other, and the mission they share in such a way as to nurture much deeper, authentic respect for all and much more effective action on care itself. What these authors have done is to show us all—clinicians, executives, payers, regulators, and so on—a window through which to understand our shared purpose and our integrated roles. That window is the *clinical microsystem.* The idea seems to me beautifully simple. If our work, at its core, is "to heal and to help" people in distress, then we can get great benefit and guidance for our actions by seeing the work and then figuring out how we can best help *that.* The patient's pain meets the help exactly, and only, at the microsystem—nowhere else. That is in effect the very definition of a clinical microsystem. It is as if all that we do—all that we all do—comes to a point there, and proper judgments about the value of an action or a resource, in the end, can be made only by understanding its effects at that point. Equally, innovations and designs can be judged, in the end, only by tracing them to that point. The microsystem is the exclusive pathway to value. Policy, payment, regulation, clinical training, management training, congressional bills, new drugs, new computers, new architecture, today's meeting, professional ethics, malpractice reforms, the leader's act—all of this can be judged best, improved best, by predicting and tracing its effects on the microsystem where the pain meets the helping.

If clinicians, executives, managers, and others who shape the health care system as a whole can master what this book has to teach, we will have begun a crucial process of reunification of the efforts of many who, in my opinion, at the moment deeply misunderstand each other. We can replace the sadness and insult that come from distance if we will stand together at the window on our work that the microsystem view opens. It is what we are about. Improve microsystems, and we improve everything. Microsystems are where we meet not just the patients we serve but each other as well.

January 2007 *Boston, Massachusetts*

We dedicate this book to

The pioneers—luminaries in the field of improvement, in particular our mentor James Brian Quinn, the "father" of microsystem and macrosystem thinking, and other great thought leaders including W. Edwards Deming, Avedis Donabedian, Parker Palmer, Karl Weick, Donald Schön, and Donald Berwick

All members of the clinical microsystem—all the current and future frontline staff and health care leaders who enjoy the trust of their communities that they will provide the best possible care and caring, as well as all the patients and families who have the potential to benefit from health care done in the right way, in the way they want and need

Our families—all our loved ones who support our passion for excellence in health care, even though it results in peculiar work habits and absences from home

PREFACE

This book is about clinical microsystems—the places where patients and families and careteams meet. It is also about what leaders, at all levels of a health system, need to know and do to create the conditions of excellence in the front lines of care delivery. At the end of the day each patient's care is only as good as the care that is actually delivered by frontline staff. Is the care . . . correct? timely? caring? desired? efficient? The answers pour forth millions of times a day as real patients interact with real providers in real clinical microsystems, the naturally occurring building blocks of every health care system.

In reading this book and in using this book, you will discover many important things about using microsystem thinking and approaches to make lasting improvements in the quality and value of care. Here's a list of distinguishing features of clinical microsystems, the relatively small frontline units of health care. A clinical microsystem is a

- Professional formation locus: the place where people learn how to become competent health care professionals and develop over time
- Living system laboratory: the place to test changes in care delivery and to observe and understand complexity
- Source of workforce motivation or alienation: the place where pride in work flourishes or flounders

- Building block of health care: the place that joins together with other microsystems to make a continuum of care
- Locus of clinical policy in use: the place where clinical care is actually delivered and thereby the place that reflects the authentic clinical policy
- Maker of health care value and safety: the place where costs are incurred and the *sharp end* where reliability and safety succeed or fail
- Maker of patient satisfaction: the place where patients and families interact with staff and experience care as meeting or not meeting their needs

Health professionals, if they are to be effective, should understand these distinguishing features. Here are further illustrative behaviors related to each one:

- *Clinical microsystems are the setting for professional formation.* Professionals *form* themselves over a lifetime. The development and integration of the learning of "the head, the hands, and the heart" that occurs over time and in response to the need to take action linked to values in a particular context is at the heart of the development and formation of the health professional.
- *Clinical microsystems are living, complex systems that have some structure, some patterns of ordered relationships, and some processes; the processes are the means of connecting the patterns and structures to create the output and work.* These microsystems offer opportunities to understand the work of small delivery systems in their natural context. The problems they face are simple, complicated, and complex. Because they are complex, the parts or elements of the systems themselves can change, thereby changing the patterns of interactions and relationships.
- *Clinical microsystems are the locus of control for most of the workforce dissatisfiers and many of the genuine motivators for pride and joy in work.* The *hygiene* factors in work, identified long ago by Herzberg and colleagues, such as work policy and administration, supervision, interpersonal relations, and working conditions, are largely made manifest in the microsystems (Herzberg, 1987). So too, the *motivating factors,* such as the work itself, responsibility, recognition, and a sense of achievement, are found—or not—in the microsystems.
- *Clinical microsystems are the basic building blocks of health care.* In primary, secondary, and tertiary care settings these small systems connect the core competencies of health professionals to the needs of patients, families, and communities. In personal care settings and in public health settings these small systems must operate well if the knowledge, skills, and values of sophisticated professionals are to be applied. In both relatively economically advantaged and relatively economically disadvantaged settings the small frontline system can work well or poorly as a system. In isolation or in concert with other microsystems the clinical microsystem makes it easy or difficult to do the *right* thing. Microsystems

exist—not because we have installed them—but because today we have noticed them and we have noticed that they are the way real health care work gets done. The idea that patients and providers are *members* of the same system is not new. In the 1930s the famed physiological biochemist L. J. Henderson noted that patients and their caregivers were best thought of as members of the same system (Henderson, 1935).

- *Clinical microsystems are the units of clinical policy-in-use.* Much has been made of formal guidance for caregivers, from the aphorisms of Hippocrates to today's guidelines, protocols, pathways, and evidence syntheses. Often, however, this formal guidance is the guidance we *espouse* but do not *practice*. Clinical microsystems have policies-in-use about access, about the use of information and telecommunication technologies to offer care, about the daily use of science and evidence, about staffing and the continuing development of people, and more. Sometimes a policy-in-use is written, sometimes not. Debates often rage about the espoused policies, whereas the policies-in-use often remain misunderstood and unexamined.
- *Clinical microsystems are where good value and safe care are made.* Clinical microsystems, like other systems, can function to make it *easy to do the right thing* in the work of clinical care, or not. If added energy and work are required to be sure that the right care is offered for the right patient at the right time, the inherent value of that clinical microsystem is less than the value of the microsystem that does not require that added investment to do the right thing. Microsystems that work as high-reliability organizations, similar to those described by Weick and colleagues, are "mindful" of their interdependent interactions (Weick, 2002; Weick & Sutcliffe, 2001).
- *Clinical microsystems are the locus of control for many, if not most, of the variables that account for patient satisfaction with health care.* Ensuring that patients get access when they want and need it is, or is not, a goal of the scheduling processes of the microsystem. Making needed information readily available is, or is not, a priority of the microsystem. A culture that reflects genuine respect for the patient and careful listening to what patients have to say results in *social learning* for the microsystem; a less responsive culture results in something else. The patterns of staff behavior that the patients perceive and interpret as meeting their special needs, or not, are generated at the level of the microsystem (Schein, 1999).

Because microsystems are so critically important to patients, families, health care professionals, and the communities they serve, and because they have heretofore been for the most part, overlooked or invisible, we felt it was imperative to write this book. In doing so we hope that the reality and the power of health systems thinking in general—and clinical microsystem thinking in particular—can

be unleashed and popularized so that outcomes and value can be improved continuously (from the inside out and from the bottom up) and that health professionals at all organization levels may have a better chance of having their everyday work be in sync with their core values and their strong desire to do the right thing well.

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