matters can greatly facilitate or impede quality improvement processes (Shortell et al in press).

Follow the theory of "small wins." Professional organizations, in general, and health service organizations, in particular, have often been characterized as "organized anarchy." Thus, it is naive to think that the implementation resembles a linear process. Instead, management should capitalize on emerging interests and activities of professionals within the organization. The theory of small wins quickly emphasizes implementable interventions of moderate importance (Weick 1984). This approach can provide necessary building blocks, visible accomplishments that serve as a model, and a source of encouragement to others who try to implement the approach. The ability to accomplish small wins provides an opportunity to attract the attention of people who have a short-term perspective or information overload by giving them visibility and an opportunity to be successful within an ongoing process.

Build on existing and emerging governance mechanisms. Every institution has a number of ongoing efforts, such as CQI, and governance mechanisms, such as peer review committees and quality improvement councils. Enlist these efforts, if they are respected, into the guideline adoption process. Their legitimacy can ease the way to acceptance and implementation, reducing the stress on individual champions and perhaps discouraging potential adversaries. Moreover, organizational membership in various types of alliance structures provides another institutional mechanism for benchmarking and establishing credibility within a larger environment, thereby facilitating the implementation process.

Be proactive. New technologies, new pharmaceuticals, new diagnostic entities, and new litigation are always on the horizon. Organizations need to constantly and selectively scan the boundaries to see how these developments might necessitate changes in routine clinical practices. Organizations that take a defensive position are likely to foster a climate of mutual confrontation. A far more constructive approach is to develop a proactive plan and timetable for guiding the formulation and implementation of guidelines. This plan and timetable would demonstrate to external stakeholders an ethic of accountability and at the *same* time project an image of the organization as one that strives to achieve a standard of quality.

Conclusion

Clinical guidelines are here to stay, and the challenge is how to manage the implementation process. CQI and academic detailing represent significant organizational strategies for facilitating the process. Reengineering, while not presently operational throughout health services, is likely to receive increased attention. Although the potential for the use of guidelines is great, the challenges are substantial. Without a managerial commitment and organizational strategy, guidelines will remain an irritant and a perceived threat to the autonomy of both the clinician and the organization. Both managers and policymakers must pay more attention to the "how" as well as the "what" of guidelines. Despite the variety of guidelines, there is a pattern to their successful implementation, one that we hope health care managers will study, learn, and improve for the future.

Integrating Behavioral and Systems Strategies to Change Clinical Practice

THOMAS E. BACKER, PHD

A diverse and creative palette of strategies is needed to change clinical practice at the individual and organizational levels. Results from behavioral and management science research confirm that "contextual engineering" is essential to success both in changing individual behavior and in changing systems. This integrative approach has been used in studies on innovation and change conducted by the Human Interaction Research Institute (Los Angeles) for the past 35 years (Backer 1991, 1992). However, we are only in the early stages of analyzing health services from a global perspective, and much more work needs to be done before we can apply fully what is known from the behavioral and management sciences to clinical practice. This paper describes four strategies that are relevant both to

Thomas E. Backer, PhD, is President, Human Interaction Research Institute, Los Angeles.

individual and to systems change and can be integrated into a larger framework.

Strategy 1:

Changing clinical practice requires setting the process of change itself into a larger context.

Tools for change (education and training, task forces, legislation, strategic planning, and so on) cannot be viewed merely in the context of change in physician practice or even change in health care, but must be examined against the total context of change that is occurring in society as a whole. Like other members of society, physicians, other providers, patients, and their families are confronting changes not only in health care but in every other area of their lives. Change on this scale has cumulative effects on the individual and on professional practice.

In addition, the *nature* of change itself is changing in at least three dimensions:

- *Change is happening faster and faster.*
- *Change is accompanied more and more by destabilization and diminishing resources.*
- *Change is unpredictable.*

These forces reflect what is happening in health care. For example, the work of Shortell and colleagues (1994) suggests how much change is occurring in that former bastion of non-change, the American hospital. By 1995, predicted Shortell in a speech on Capitol Hill, 75% of all medical procedures will be performed outside of hospitals, and half of all deaths will occur in hospices or at home. Shortell also predicts that there will be even fewer hospitals in the future, they will be smaller and more focused, and they will be organized as cost centers rather than revenue centers. As a consequence, in the future the hospital will no longer be the core of the American health care system.

Against this background of relentless change, we also need to ask, What stays constant? The answer—human behavior—leads to the second strategy.

Strategy 2:

Changing clinical practice requires complex behavioral interventions at the microlevel, including attention paid to nonrational forces.

The importance of group interaction (academic detailing, small study groups and other methods for stimulating collegial interaction, interventions by opinion leaders, social consensus) for changing clinical behavior is well cited (Kaegi 1991). However, these strategies, for all their creativity, are still often presented in the context of a tacit rational-man assumption about behavior change. That is, they tend to overemphasize the impact of logic and the responsibility of the profession and neglect the reality that nonrational forces underlie most behavioral change.

These nonrational forces include fear and anxiety about change even when it is desirable, competition and jealousy, resistance to change stemming from individual psychology and life experience, the need to be rewarded for taking risks, and the need for ownership of the process by which change will be introduced. Of these forces, the most important is the need for empowerment. Years of management research have shown that no innovation is so strong that it can fully withstand the subtle sabotage of withheld enthusiasm. The single best validated principle in the literature on management of change is that the people who will have to live with the results of change need to be deeply involved in designing and implementing new processes. Unfortunately, they rarely are.

Two other nonrational forces are taking important positions in the debate about designing change strategies. First is the call for moral responsibility. In *The Principle of Duty*, David Selbourne argues that no society has ever existed on a foundation consisting of rights alone to the neglect of duty, obligation, and the collective responsibility required (cited in Morais 1994). In creating change strategies for clinical practice, the challenge is to stimulate providers to take more responsibility for change and its results than they have in the past. This goal will be difficult to achieve in a moral climate where responsibility is more likely to be shirked than accepted, despite such valiant professional traditions as the Hippocratic Oath.

A second nonrational force creating resistance to change in health care is the demand by nonphysician providers for greater inclusion in practice and decision making. In a forthcoming book, George and Anne Allen argue that cost factors will drive nursing practice to give nurses more decision-making authority—part of the "coming revolution" in the profession. The Allens trace these changes back to the impact that nurses made on battlefield medical services in Vietnam, the subject of their previous book, and see clever strategies being

followed by many nursing groups to get on the train before it leaves the station. As Allyson Ross Davies asserted at a 1991 Agency for Health Care Policy and Research (AHCPR) conference on clinical practice guidelines dissemination: "we make a mistake when we focus solely on physicians. Patient goals and values are also important if adoption is to occur" (Kaegi 1991).

Strategy 3:

Changing clinical practice requires making complex interventions at the macrolevel through interorganizational networks and partnerships.

Given these complexities, as well as the fact that resources are limited, bringing the forces together needed for change demands the creation of networks and partnerships (Backer & Rogers 1993). We see unlikely partnerships among former competitors in the private sector all the time, and experiences from automobile, manufacturing, telecommunications, entertainment, and other fields need to be studied for their potential applications (Alter & Hage 1993). Many of these partnerships may fail, and to those that succeed, Woody Allen's comment may apply: "And the lion and the lamb shall lie down together but the lamb won't get much sleep."

At the level of local clinical organizations, studies on integrated, networked services are starting to appear. Bolland and Wilson (1994) analyzed these efforts in human service delivery operations for six Alabama counties. Results showed that the networked community organizations had interorganizational coordination and network dynamics for services, administration, and planning operations that were very different from those of non-networked organizations. Of the three operations, services coordination was the easiest to create, administration was of moderate difficulty, and planning coordination was the most challenging. There are disadvantages to these partnerships; for example, scarce resources have to be devoted to the maintenance of external relationships, and the more complex the organization, the greater the loss of autonomy and control. Other results from this research suggested that compatibility of services is an important component of effective coordination. The nonrational forces of turfism were critical in determining resistance to coordination—another confirmation of the importance of the second strategy.

Financing and regulatory bodies can also play a much more vigorous role than they have in the past in promoting clinical practice improvement, including being involved in networking and partnerships. In order for creative approaches to networking and partnership to be implemented, roles need to be expanded for other institutions, as well, such as medical schools and other schools (including public administration) that provide health professions education, business schools, health education organizations, the Veterans Administration Medical Centers, and accrediting bodies.

Rogers and Kincaid (1981) argued that a major reason for interorganizational networking was to increase the range of solutions available to solve problems in a system. Thomas Edison said it more poetically: The best way to have a good idea is to have lots of ideas. Partnerships, properly created and engineered, can be a source of and a catalyst for many good idea.

Strategy 4:

Changing clinical practice requires addressing both micro-change and macro-change simultaneously, through strategic planning that remains focused on human issues.

All these efforts for change must be seen as part of the need to think globally and act locally, though, in fact, there are elements of thinking and action at both extremes. Micro-change is represented by practice change for physicians and hospitals; macro-change is represented by health care reform and other changes in the whole health care system. Between these two opposing factors for change lies the platform of human behavior—the part of the system that is not changing but still exerts a powerful influence on outcomes at both ends of the spectrum of change. This is reflected in the sociopolitical sphere, in which entire nations are being fragmented by ethnicity at the same time that the world is being transformed by telecommunications technology into a global village.

Information technology, in fact, will play a critical role in the future for both individual practice and systems change in health care. Fitzmaurice (1994), an AHCPR official, wrote in a report on the National Information Infrastructure that the information superhighway has great potential to cut medical costs and improve access to health care. The superhighway has the potential to collect and organize clinical data and provide these data to clinicians, care systems, payers, and researchers, and to link national and community health networks with homes, offices and health care institutions.

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