Overcoming inertia: Achieving more-rapid transformation of pharmacy practice

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I'm very humbled and honored to have been selected to give this year’s John W. Webb Lecture. I would like to thank the ASHP Section of Pharmacy Practice Managers and Bill Gouveia and Dean Jack Reynolds of the School of Pharmacy at the Bouvé College of Health Sciences at Northeastern University for this honor. I'd also like to acknowledge the many individuals with whom I have had the pleasure to work throughout my career and who have contributed to my success. Among my early mentors and role models were Dan Ashby, Bruce Vinson, Larry Shoup, Doug Miller, David Solomon, Rich Lucarotti, Tim Covington, and Art Poremba. I'd also like to acknowledge my colleagues at West Virginia University, Wayne State University, the Detroit Medical Center, and the University of Michigan Health System and College of Pharmacy. My thanks also to the many dedicated colleagues I have collaborated with through ASHP and all of the pharmacists, fellows, residents, students, and technicians whom I have worked with, been inspired by, and learned from over the years. Finally, I’d like to thank my wife Julie, my daughter Emily, her husband Andrew, and my son Jim for supporting me as I have pursued my career.

I have to admit that I felt very humbled and somewhat intimidated when I received the call informing me that I had been selected to give this year’s Webb Lecture. The list of individuals who have been selected for previous Webb Lectures includes many whom I consider role models and whom I have highly respected as thought leaders in the profession. It is more than a little daunting to realize that I am now part of that group and that I had to develop a lecture that would meet their standards. The topic that I have selected is how we can achieve more rapid transformational change in pharmacy practice.

As I reflect on how pharmacy has changed over the past half century, I sometimes feel like the glass is half full and, at other times, half empty. For example, in the decade in which I was born, the American Pharmaceutical Association published its Code of ethics. It read, “The pharmacist does not discuss the therapeutic effects or composition of a prescription with a patient. When such questions are asked, he suggests that the qualified practitioner is the proper person with whom such matters should be discussed.” Pharmacists today are incredulous about this point of view. The development of clinical pharmacy could never have occurred under the limitations of this code, and it is unimaginable that pharmacists would be considered unqualified to discuss the therapeutic effects of medications with patients.

Since I entered the profession 30 years ago, pharmacy has undergone other substantial changes. When I started in the community pharmacy setting as an intern, I recall typing prescription labels on a manual typewriter and filling out, by hand, patient profiles and forms for third-party billing. In the hospital, patients’ medication profiles were paper forms that were updated by hand. We used a typewriter to generate i.v. labels.
There was virtually no automation, and we were all very excited to be implementing clinical pharmacy services such as pharmacokinetic dosing and nutritional support. Pharmacy education in those days typically comprised 2 years of pre-pharmacy education and 3 years of the professional pharmacy program before entering practice. Residencies and fellowship were much less common than they are today. Most advanced practitioners were coming out of small postbaccalaureate doctor of pharmacy (Pharm.D.) programs.

We have experienced substantial growth and improvement in our profession, with highly trained clinical pharmacists who are better educated than ever. We have pharmacy services in a variety of areas, such as the emergency department, the operating room, critical care units, and many others. We have participated in the development of significant technology in the medication-use process, including computerized prescriber order entry, dispensing robots, automated dispensing cabinets, bedside bar-code-assisted medication administration, and intelligent infusion devices.

I’m also very proud of the impact that some pharmacists have on interdisciplinary teams and of the actions they take on behalf of patients to help prevent medication-related problems and to ensure optimal outcomes. Today, pharmacists are considered to be indispensable members of the health care team in many settings.

Despite all of these wonderful advances in our profession and the individual contributions of pharmacists that I see on a daily basis in my own practice site, the adoption of these practices is not widespread, and there are other statistics that cause me to be concerned about pharmacy’s development.

- Medication errors harm an estimated 1.5 million people in the United States each year, resulting in upward of $3.5 billion in excess medical costs.²
- One study found that 11% of patients discharged to home from general medicine services developed adverse drug events.³
- A study involving hospitalized pediatric patients found a medication error rate of 5.7%, with more than half of the errors involving i.v. medications.⁴
- Other studies have shown that suboptimal medication use is a major cause of hospital readmissions and emergency department visits.⁵,⁶

Studies that have focused on the ability of pharmacists to improve outcomes and costs of care have consistently shown positive results. Yet, we have not been able to move pharmacists into these roles on a significant scale.

Coupled with the studies showing a high frequency of medication-related problems among patients, a survey of hospital pharmacy practice found that there are significant gaps between what we consider to be ideal and what is actually occurring in practice.⁷ For example,

- Only 22% of hospitals report that pharmacists provide discharge counseling for at least 75% of high-risk patients,
- Only 23% of hospitals report that at least 50% of discharged patients or their caregivers recall speaking with a pharmacist while in the hospital, and
- Only 21% of pharmacists who work in hospitals with electronic medical records use the medication-relevant portions for managing patients’ medical therapy.

These data and our own experiences make it clear that there is still a long way to go in meeting our goals.

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John W. Webb Lecture Award

The John W. Webb Lecture Award recognizes a hospital or health-system pharmacy practitioner or educator who has distinguished herself or himself through extraordinary dedication to fostering excellence in pharmacy management.

This annual award was first established as the John W. Webb Visiting Professorship in Hospital Pharmacy by the Northeastern University College of Pharmacy and Allied Health Professions, Boston, Massachusetts, in 1985. In 2006, a memorandum of understanding between ASHP and Northeastern University transferred responsibility for administration of the award to ASHP. Beginning in 2006, the recipient delivered the award lecture at the ASHP Conference for Leaders in Health-System Pharmacy and presented a lecture as Visiting Professor in Hospital Pharmacy at Northeastern University. Beginning with the 2007 award recipient, the selection process has been conducted by the ASHP Section of Pharmacy Practice Managers.

Past Recipients

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I’m very fortunate to have worked in some outstanding organizations during my career, including my current practice site—the University of Michigan Health System and College of Pharmacy. Michigan has been especially rewarding for me because of its long history of innovative pharmacy leaders, such as Albert Prescott, who revolutionized pharmacy education, and hospital pharmacy leaders, including Harvey A. K. Whitney, Don and Gloria Francke, George Phillips, and previous Webb Lecture Award recipient Rich deLeon. One of the joys of being at Michigan was getting to know George Phillips and Gloria Francke and to hear their stories of how pharmacy was practiced decades ago and how it has developed. In fact, before her death, Gloria passed on to me some of the historical photos and papers that she and Don had accumulated over their careers. In reviewing these, I came across the text of a speech that Don Francke gave at the ASHP Midyear Clinical Meeting in 1974, almost 36 years ago. In his remarks, he described the key “ingredients” in his prescription for the future of pharmacy in the U.S. health care system in 10 years (i.e., that he hoped would be achieved by 1984). I’d like to share some of these ingredients with you. The first element was to have virtually all pharmacists practicing in a multidisciplinary setting working in teams to prevent drug-related problems and promote the safe and appropriate use of drugs. The second element of his vision was that pharmacists would be supported by a cadre of well-trained pharmacy technicians. He said, “The U.S. cannot much longer remain about the only industrialized country in the world without an approved program for the training and utilization of pharmacy technical personnel.”

Third, he proposed to increase the clinical training of pharmacists at the PharmD. level so that we would be better prepared to prevent and resolve drug-related problems. He also stated that clinical pharmacy educators should be practitioners, with at least 50% of their time spent taking personal responsibility for the safe and effective use of drugs in a defined population on an ongoing basis. This would reinforce the relevance of clinical pharmacy training to the actual care of patients.

While he recognized that some of his thoughts would be resisted by some in the profession for many decades, I was struck by the way he closed his remarks in 1974, stating, “Someday we will wonder why on earth it took us so long to make changes that seem so obvious.”

It is remarkable that here we stand 36 years later, and, in many ways, we have yet to resolve these same ingredients identified by Francke almost two generations ago. The basis of his prescription was to position pharmacists to prevent drug-related problems and promote the safe and effective use of drugs. Given the data that I just summarized, I don’t think that we can say that we have succeeded in our goal of substantially improving overall medication-use outcomes for our patients. In his Whitney Lecture remarks earlier this year, Douglas Hepler spoke about “a dream deferred.” He made the point that while we have long stated a goal of having pharmacists serve to prevent harm and promote the best use of medications in society, as a whole our profession has not been successful in achieving this vision.

We have had several major initiatives in our profession to move us forward, including the Hilton Head Conference in the 1980s, Hepler and Strand’s inspiration to develop “pharmaceutical care” in the 1990s, and, more recently, the ASHP Health-System Pharmacy 2015 Initiative. Yet, significant problems with quality and safety continue to exist, and our progress has been frustratingly slow.

It is clear that pharmacists still have not completely realized the clinically focused practice envisioned by Don Francke or Hepler and Strand. Unfortunately, the world of health care is changing so rapidly that I fear we cannot afford to allow the evolution of pharmacy practice to continue at its current pace. The pressures to reform and improve the delivery of health care will only grow over the coming decade. As we embrace ASHP’s Pharmacy Practice Model Initiative to move our profession forward, what can we as leaders do to accelerate the necessary changes that we have discussed for so long?

John Kotter, a professor in the Harvard Business School, has authored some of the seminal work on transformational change and the necessary elements to lead a major change effort. He described an eight-step process for leading change that is applicable across a wide variety of settings. Kotter makes a distinction between management and leadership in the change process. Management is a set of processes that can keep a complex system of people and processes running efficiently. This includes planning, budgeting, organizing, staffing, and problem solving. Leadership, on the other hand, creates organizations in the first place or helps them adapt to significantly changing circumstances. Effective leaders define what the future should look like, align people with the vision, and inspire them to achieve the vision despite the obstacles. While we may feel that with health care reform and the development of an improved pharmacy practice model we need to manage change, the reality is that the gap that we need to address is in leading change.

When we examine pharmacy practice in health systems, one of our major problems is that we have our attention heavily focused inward. This includes managing budgets, implementing complex technology, and improving internal processes to enhance efficiency and meet an increasing number of regulatory
Kotter mentioned several sources of complacency, some of which clearly apply to pharmacy in health systems and may account for some of our inertia, including:

1. **Absence of a major and visible crisis.**
   How many of us come to work each day feeling that there is a crisis in medication use among our patients that must be urgently addressed? Unfortunately, the inward focus mentioned earlier means that most of us do not have the significant problems in medication use within our health system or in the transitions of care in the forefront of our thoughts and actions each day.

2. **Too many visible resources.**
   We are a very highly paid and well-respected profession so it is easy to become comfortable and lose the urgency to change.

3. **Organizational structure focused on narrow functional goals.**
   Short-term challenges, such as passing the Joint Commission survey, meeting budget challenges, and implementing new technology, can easily consume our time and attention, leaving no time to dedicate to transformational change efforts.

4. **Internal measurement systems that don't focus on the right things.**
   Unfortunately, few of us have performance metrics that include broad measures of the key elements of pharmaceutical care, such as medication-related events, medication-related hospital readmissions, and emergency department visits. How many of our managers and leaders have any real performance incentives based on whether we improve the overall quality of care or improve safety?

5. **Positive results in many areas cause us to have a false sense of security and accomplishment.**
   Jim Collins,\(^\text{15}\) in his famous book *Good to Great*, wrote: “Good is the enemy of great. And that is one of the key reasons why we have so little that becomes great. . . . The vast majority of organizations never become great, precisely because the vast majority become quite good—and that is the main problem.”

While we can be proud of the progress we have made, we need to have a healthy dissatisfaction with the status quo and be motivated by how far we still need to go to achieve our potential.

Based on Kotter’s\(^\text{13}\) steps for transformational change, there are several ways in which we might establish a sense of urgency to transform our practice more quickly.

1. **Communicate more clearly and frequently the degree to which medication-related problems are affecting our society.** If we can translate this into understanding the effect on our own patients and organizations, the message will be even more effective.

2. **Create specific goals around the transformation needed, not simply around the typical functional goals with which we are accustomed.**

3. **Share more information about weaknesses in our medication-use systems and how medication-related problems personally affect patients. Individual stories can be very powerful.**

4. **Continue to share information on the future possibilities and positive outcomes that can result from a true transformation of our practice.** According to Kotter,\(^\text{13}\) the goal that is established should be “sensible to the head and appealing to the heart.”

**Create a guiding coalition**

Another essential step in achieving transformational change is to create a powerful guiding coalition. Individual leaders alone, no matter how influential, never have all of the assets needed to overcome inertia. Incremental change and improvement are possible, but truly trans-
formational change does not occur without a critical mass.

According to Kotter, there are four key characteristics in creating this guiding coalition:

- Enough key individuals in leadership roles (both formal and informal) must be on board so that those not on board cannot block progress,
- Various points of view that are relevant are adequately represented so that informed and intelligent decisions will be made,
- The group has to have enough people with credibility among the whole, and
- The group has to have enough leaders to be able to drive the change process and must have both management and leadership skills to be successful.

Much has been made of the profound effect of the “tipping point” described by Malcolm Gladwell. The tipping point is the point at which a trend or idea catches fire, spreading exponentially through the population. This concept finds its origins in diffusion theory, which is a set of generalizations regarding the typical spread of innovations within a social system. A key publication on this idea is Diffusion of Innovations by Everett Rogers, which has become the standard reference on diffusion studies. His work is an insightful explanation of the conditions that are necessary for an innovation to reach the tipping point.

The most striking feature of diffusion theory is that, for most members of a social system, the innovation decision depends heavily on the decisions of the other members of the system. In fact, the successful spread of an innovation follows an S-shaped curve. There is typically a small group of early adopters, typically about 10–20% of system members, followed by relatively rapid adoption by the remaining members and a period in which the holdouts finally agree to adopt. These early adopters comprise the guiding coalition that must be formed within each of our organizations as a critical step for transformational change to occur.

**Develop a vision and strategy and communicate them clearly**

Underestimating the power of vision is another key error that will result in the failure to produce transformational change. Vision refers to a description of the future with explicit reasons about why people should strive to create it. Vision enables transformation by helping to direct, align, and inspire actions by others. Without this vision, a major change effort can easily become a confusing, poorly coordinated effort that quickly fails. In some cases, even when leaders do have a sense of direction, it is too abstract or complicated to be effectively understood. A good vision should have an elegant simplicity. I believe that this is one of the key reasons we have failed to move our practice model forward more rapidly. How many pharmacy leaders can clearly articulate what the desired practice model looks like, except in abstract terms? If the leaders have difficulty articulating this, imagine how few pharmacists can clearly understand and act on the vision.

A primary challenge is that we not only have to elevate the level of practice of individual pharmacists but also coordinate these activities into a comprehensive program—a team of pharmacy practitioners. In Hepler’s Whitney Lecture, he stated that “Pharmaceutical care requires clinical pharmacy teams—people with various skills and levels of competence. Each team member must cooperate to achieve a common aim.” The fact that a team effort is required makes the vision that much more complex and difficult to communicate. It is not a vision of something that can be done alone. We must have collaboration, coordination, and communication with other team members in order to achieve our ultimate aim. This is one of the primary factors that we are addressing in attempting to advance the pharmacy practice model in my own
Empower broad-based action

While the term empowerment has been used for many years, we need to examine which elements in our departments are preventing empowerment and undermining the transformation of pharmacy practice. One area to start with is our organizational structure. Frequently, this is built around drug distribution systems, not pharmacists’ clinical practice needs. In the current configuration, most hospital pharmacists function in the “production” elements of the medication-use process. In many cases, this routine production function of the pharmacy circumvents innovative thinking and planning for the best use of pharmacy’s intellectual capital.

A “production culture” may distort organizational dynamics to the point where the department’s clinical services assume a subservient role to daily production demands. Consider the messages we send in how we prioritize work. In times of staff shortages, it is not uncommon to see managers retrench and take resources from direct patient care services in order to cover drug distribution needs. While there is a certain and clear accountability by pharmacy departments for drug distribution, dealing with this at the expense of clinical pharmacy services sends a clear message of priorities that is counterproductive.

Similarly, we have spoken for years about utilizing pharmacy technicians to a greater degree in order to allow pharmacists to provide more direct patient care services, yet we still practice in an age where pharmacy technician education is relatively nonstandardized, and much of it is simply on-the-job training. We have vision statements in our profession that call for well-trained and competency-certified pharmacy technicians. But what have we done to develop a viable strategy to achieve this goal? Remember, Don Francke identified this as one of his “key ingredients” in the 1970s, yet we are still struggling with this today. If we do not develop a specific and effective strategy to expand the capacity of accredited technician training in our country, we are likely to be still discussing this as a problem in another generation.

If we examine today’s pharmacists’ activities, it is easy to see the immense opportunity costs of underutilization of pharmacy technicians, as well as the potential capabilities of our information systems and automation. We must take a fresh look at our medication-use processes and determine whether there are new roles for supportive personnel or technology that need to be developed in order to enable and advance the direct patient care practice of pharmacists. Collins pointed out that “those who built the good-to-great companies made as much use of ‘stop doing’ lists as ‘to do’ lists.” We need to critically examine what pharmacists do each day and determine which things we should stop doing so that we can create the time to do great things for our patients. We need to carefully consider the concept of the opportunity costs of our actions and make serious changes in what we do.

Cost pressures are significant and growing for the U.S. health care system. We spend twice as much on health care compared with most developed countries, without significant differences in many global outcome measures. Today’s model of care simply won’t be tomorrow’s. It is critical for pharmacists to firmly establish a valued and essential role in the emerging health care system.

Our successes to date have largely been due to a focus on improving patient safety, ensuring quality medication use, and pursuing optimal clinical and cost outcomes; yet these problems still persist to a significant degree. If we are to be successful in this environment, we will need to carve out the time for innovation to occur. This priority needs to come from our pharmacy leaders. There will be no hospital administrators driving this activity or any regulatory body that mandates this change. The time for this to occur has to be created from the time we have available and has to be prioritized with the various other mandates, projects, and goals that are imposed on us.

Harness the power of information technology

Information systems and automation will undoubtedly be critical to our future success. They not only have the potential to improve the accuracy of the medication system but also to help redeploy pharmacist time from production tasks to more direct patient care services. However, we need to learn to master these systems to better serve us and enable more direct patient care rather than view them as a distraction from our vision. While we have been quick to adopt many technological advances in information systems and dispensing automation, in many cases we have become servants to this technology.

The potential for these systems to bring pharmacists closer to the patients, prescribers, and nurses has not yet been realized. We need to take a broad view of the medication-use system to determine where technology fits and how it can be integrated into an overall strategy. We need to develop a vision of the optimal system, promote standardization, and require more interoperability among systems. If we do not impose these requirements on our vendors, then we will continue to have the uncoordinated conglomeration of disparate systems that many hospitals have today. The current situation imposes a significant burden on pharmacists and pharmacy resources to maintain...
these systems in some form of synchronization. Information must flow seamlessly among the various components of our medical information systems and automation if we are to be successful. This seamless flow of information must occur not only when patients are in the hospital but through and across all points of care.

We also need to become much more sophisticated in studying and demonstrating the capabilities and limitations of information systems and clinical decision support in creating an efficient, effective, and safe practice model. This is an exciting area for research and innovation that should provide data to support the necessary changes in pharmacy practice to harness the capabilities of our information systems. We are currently working on several projects in this area at the University of Michigan.

We should feel optimistic and excited about the potential to appropriately use information systems and technology to transform our practice. The ASHP Section of Pharmacy Informatics and Technology published a wonderful vision statement on technology-enabled practice in 2009.20 This document clearly articulated a vision of how technological advances could support new models of practice as well as the barriers that must be overcome.

Transform the education of future practitioners

Few would argue that students and residents are not adequately integrated into the pharmacy practice model. An examination of current pharmacy education clearly indicates that there is inadequate exposure to practice within the framework of a progressive model. The current educational focus in hospitals is on participating in multidisciplinary rounds and learning therapeutics. Certainly, in the area of therapeutics, we have better-educated pharmacists today than ever before. But what about the application of this knowledge? A typical day in the practice experience of a pharmacy student or resident might include preparing for rounds, participating in rounds, answering questions for the team, studying therapeutics topics, and reviewing cases with the preceptor. Direct patient care activities, such as medication histories, medication reconciliation, coordination of medications at the transitions of care, and patient education, are often done just enough to meet the rotation requirements. When we examine the unique role that pharmacists have in the health system, it is clear that a very strong knowledge base of drugs and therapeutics is critical, but only if it is applied effectively within a system of care to change patient outcomes. The “distinctive competency” of pharmacists that Dave Kvoln21 wrote of in his Webb Lecture is how well we can apply this knowledge to provide direct care to patients and to influence medication safety and outcomes. Clearly, our experiential component in pharmacy education has been inadequate in modeling a pharmacist’s optimal practice.

It is easy to see why students may not have a clear vision of what a progressive practice model looks like. Only a very small number of graduates will end up practicing under the clinical specialist type of model that they are so exposed to in their education. We need to increase students’ exposure to the roles and responsibilities of generalist pharmacists working in an effective practice model in health systems.

This problem in pharmacy education is not one that is borne solely by the colleges. In order to improve, there must be a true partnership between academia and health-system pharmacy departments to integrate students into more meaningful, non-artificial pharmacy practice experiences with direct patient care. These experiences should occur within the framework of an effective pharmacy practice model within the institution.

I see it as a major failure of our educational system that some pharmacists feel they can adequately care for patients by practicing largely behind a computer screen—reviewing medication profiles, performing pharmacokinetics consultations, and making therapeutic recommendations to the team, without ever really interacting with patients. The pharmacist–patient relationship is the cornerstone of our profession and is a core component of the covenant that makes the pharmacist accountable for medication therapy outcomes. We need to coach our current staff and educate future pharmacists that this direct interaction with patients, not just with physicians and other health professionals, is a key to our success as a profession.

Generate short-term wins and measure their impact

Major change takes time, and it is necessary to show some evidence that the effort is producing some positive results in order to maintain enthusiasm and momentum. Applied to transforming pharmacy practice in health systems, such evidence can be found in demonstration projects and pilot efforts. Strategies that attempt to change everything too quickly often fail. Instead, a strategy of implementing a new model in a small area and then building on the success of this model and extending to other areas of the institution is often more effective.

In addition to providing a formula for best practices, successful demonstration projects are necessary to evaluate new ways of doing things and give our colleagues the courage to attempt to make difficult changes. These demonstration projects must occur in all types of hospitals, not just academic medical centers. To advance this effort more quickly, we need to step up our support for our state and national foundations, like the ASHP Research and Education Foundation. These organizations are critical in helping to fund these
projects and to disseminate the results, both within and outside of our profession.

Ultimately, in order to truly transform our practice, some of the current rules and regulations that we practice under will need to be modified. Years ago, pharmacists embarked on demonstration projects to show that technicians could take on some activities in the unit dose cart-fill process that previously could only be done by pharmacists.22,23 These “tech check tech” demonstration projects showed that the process of checking unit dose carts could be transformed, with appropriate oversight by pharmacists, and that significant pharmacist time could be reallocated to other clinical activities with greater value. A potential analogy in our current environment is the requirement of pharmacist review of first doses for medication orders. While well intentioned, I believe that this regulation imposes a significant opportunity cost on pharmacists, and my colleague Allen Flynn24 has written a compelling commentary on this topic. With the development of computerized prescriber-order-entry and clinical decision-support systems, other approaches must be studied to see if we can achieve similar or superior patient safety utilizing these informatics tools, allowing the redeployment of pharmacists to more direct patient care services. In order to convince regulatory agencies that this approach is equal or superior, robust data must be generated from demonstration projects.

Measurement systems will also need to be enhanced if we are to be effective. In his Whitney address, Hepler6 pointed out that many hospital admissions and emergency department visits that are due to drug-related problems are not recognized as such by current hospital coding systems. Further, he stated that if organizations cannot recognize the magnitude of the problem, they may not believe that enhanced levels of clinical pharmacist involvement will produce value in their setting. If we are to be successful in drawing attention to the impact of drug-related problems, and to measure the improvements brought about by pharmacists in progressive practice models, we will need to develop more effective measures of the performance of our medication-use systems. This will need to go far beyond the medication-use process logistics measures that are typically the only significant measures that many hospital pharmacies utilize today.

Well-designed studies of pharmacoeconomic outcomes and the associated consumption of health resources are critical in our quest to advance the pharmacist practice model. The importance of robust measurement of our models cannot be emphasized enough. Studies of the literature on the pharmacoeconomic and outcomes impact of clinical pharmacy services have found that many of the studies were poorly designed and lacked scientific rigor.25-28 The good news is that those few that were well designed did show positive outcomes, with a median return on investment of more than $4 for every $1 invested. It is clear that our profession needs to invest more in developing stronger health services research methods among our faculty and practitioners in order to better demonstrate the value of pharmacists and new models of pharmacy practice.

Another important consideration is that efforts to effectively measure our impact should be done in an interdisciplinary manner. We cannot conduct these evaluations and then share them only within the pharmacy community. These studies need to be conducted with coinvestigators from other disciplines and published in nonpharmacy journals so that health care administrators and other decision-makers can be fully aware of the importance of pharmacists in the emerging health care system. As we have seen with the medication safety initiative, rapid changes can occur when physicians and administrators become advocates of increased pharmacist involvement.

**Consolidate gains and produce more change**

The final step in the transformational change model is to consolidate the gains from these early, short-term wins and continue the momentum to produce more change. Leaders must be relentless in continuing to push forward, because resisters will always be ready to reassert themselves, and inertia can be reestablished. There will undoubtedly be other crises in our institutions or health care systems that could distract us from this mission to transform our practice.

As quality, safety, and outcomes improvements are demonstrated, there will be a need to work with regulatory authorities to revise some of the current rules and standards around the practice of pharmacy. If we are going to develop the role of technicians and utilize informatics and technology to improve care and to free pharmacists to provide more direct patient care services, legal and regulatory barriers must be addressed to consolidate the gains and enable the dissemination of the new practices throughout the profession.

**Summary**

Our profession has undergone significant change over the past five decades. Education has evolved to help future pharmacists provide more direct patient care and clinical services, though it has not provided a clear model for this to occur. We have worked diligently in pursuing our dream to be an essential clinical profession. But, today more than ever, we need strong leaders to continue this journey in an extremely complicated health care environment. In my opinion, we need passionate leaders who can build on past successes and
who will take into consideration the model for leading change that I have described today in order to accelerate this change.

With the demands of health care reform and the quality movement, there is no better time to make our vision a reality. Let’s make sure that we don’t look back in another generation and ask the question paraphrased from Don Francke’s address in the 1970s: “Why on earth has it taken us so long to make changes that seem so obvious?”

References