We pharmacists have many dreams. Our biggest dream is to become a fully clinical profession. I have spelled out my version of this dream before, but, in brief, I dream that providing pharmaceutical care will become the central function, purpose, and responsibility of our entire profession. Counting from the 1985 Hilton Head Conference, this dream is now more than a generation old.\textsuperscript{1} Universal clinical pharmacy is surely pharmacy’s dream deferred.

Having a dream deferred for so long reminds me of a poem by Langston Hughes. As you may know, Hughes was a poet and novelist who was a major part of the Harlem Renaissance.

What happens to a dream deferred? Does it dry up like a raisin in the sun? Or fester like a sore—and then run? Does it stink like rotten meat? Or crust and sugar over—like a syrupy sweet? Maybe it just sag like a heavy load. Or does it explode?

Hughes was writing about the dream of racial equality. I certainly do not equate the clinical pharmacy movement with the civil rights movement. On the contrary, from an ethical point of view, they are opposites. Society is obliged to provide equal opportunity to every citizen. Society is not obliged to help pharmacists reach our 30-year-old dream that pharmacy will someday become a fully clinical profession.\textsuperscript{2}

In truth, we pharmacists owe society. We owe it our full participation in making drug therapy safe and effective. We incurred this debt when we completed our educations, which few of us fully paid for, even if we graduated owing money on student loans. We owe the patients and preceptors who tolerated our fumbling, early attempts on clinical rotations and residencies. We owe society a full measure of care in exchange for our very generous salaries, compared, for example, to the salaries of school-teachers or nurses. But most of all, we owe society pharmaceutical care in exchange for being trusted and because the people believe that we are already doing everything possible to protect them from preventable drug-related morbidity (PDRM).\textsuperscript{3,4}

Nonetheless, a dream is a dream, and a poem has meaning on many levels. Many of us feel the urge to reach our full potential, to be all that we can be, as an old Army recruiting slogan once put it. Many of us acknowledge our duty to society, but more than that, we dream of being more significant in health care and in people’s lives. This is a noble dream: to prevent harm and promote good, to help people make the best use of medications. Except for an energetic and fortunate minority, this is still pharmacy’s dream deferred.

So, what happens to a dream deferred? Our dream can end badly if we do not act with wisdom and courage. It can dry up “like a raisin in the sun” if we just talk about it but don’t practice it or if we spend too long on metaphysical arguments. We know what it is, or we should know by now. It can “fester like a sore” if it makes people feel inferior and defensive, if
it builds walls between clinical pharmacists and distributive pharmacists. But if we organize ourselves into teams with common themes, without rigid labels, then such walls as these will fall.

Our dream can stink if we paste a euphonious label like “pharmaceutical care” or the look-alike, sound-alike label of “pharmacist care” on the same old practice, when we do what is good for business instead of what is good for patients, or when we do not speak truth to power. Unfortunately, some of us do not speak truth to power. In the past 30 years, researchers have built a case, with study after study showing that pharmaceutical care can improve the quality of medication use at equal or lower cost for patients in hospitals, nursing homes, and ambulatory care settings.

In a critical review of the literature, Perez et al. found 15 well-designed studies evaluating the costs of pharmacy services published in 2001–05. The median ratio of benefit to cost was 4.8:1, meaning that each dollar spent to provide clinical pharmacy services returned $4.80. This financial benefit did not result from drug cost savings, which often increased slightly, but from large reductions in total costs of care (i.e., reducing the cost of correcting PDRM).

The review showed benefit-to-cost ratios ranging from 1:1 (clinical services essentially broke even) to nearly 35:1 (clinical services returned $35 for each dollar spent). This information is not new. If you do not like research abstractions like median benefit-to-cost ratios, please have a look at the Asheville Project. Furthermore, the balance of evidence debunks the conventional wisdom that prescribing restrictions in ambulatory care improve patient outcomes or even control total costs of care. I was brought up in hospital pharmacy. I learned at a young age that formularies are good practice. But the evidence, in ambulatory care at least, disputes this belief.

Has our appreciation of clinical pharmacy crusted over like a syrupy sweet? We should not merely assume that contributions that are valuable today will still offer value tomorrow. I do not see the ethical or financial justification for pharmacists to spend their time squeezing pennies out of a drug budget when drug-related morbidity, left unchecked, wastes dollars.

Now is the time to stand up for the truth. We can greatly improve patient outcomes and significantly reduce costs. But some of us seem to be saying that it is acceptable to preach evidence-based medicine while we ignore evidence-based pharmacy.

So, you see, we can fail to realize our dream. Its achievement will depend primarily on us. A lot of people have worked very hard to get us this far. We should be proud of that. Some people want to settle, to rest on our accomplishments. Perhaps the people who want to settle should pay attention to how fast the world is changing. We have to move quickly just to keep up and even faster to advance toward our dream.

Each of the possible sad endings to this dream has happened, but the dream is still alive. I see it in the hearts and minds of many pharmacists. I see it in our literature, in the ASHP leadership goals, in the 2015...
How does a dream explode?

A dream deferred can explode in many ways. These explosions sometimes seem to involve miracles. I define a miracle as an event that contradicts rational prediction, especially scientific prediction. Miracles are subject to the laws of nature, but we call them miracles because they demonstrate aspects of nature that we do not really understand. For example, all of our understanding of the biochemistry, genetics, and immunology of cancer is thrown into confusion when a proven, incurable lesion simply disappears. The wisest response is to admit that we do not understand as much as we think we do. A miracle can open the door to deeper understanding of a natural process. Gene expressions can be modified by a cell’s environment in ways we do not understand. Genetics is not destiny.

Our professional history is not destiny, either. Fundamental change is always possible, even when we do not expect it. If miracles result from natural processes that we had not noticed or had not understood, they should make us reassess our understanding. Maybe we can work in harmony with those processes.

Miracles are opportunities, not outcomes. A patient who has experienced a spontaneous remission of a fatal disease has received the opportunity to go on living. Whether that life is worth living depends on what the patient chooses to do with the opportunity.

The United States is now beginning to reform the financing and de-
livery of health care. Perhaps the passage of health reform legislation was not a miracle, but it was predicted to fail, and after 100 years of unsuccessful effort, it feels miraculous. In any event, health reform has opened the door to our dream a bit wider. Again, this is an opportunity, not an outcome. We pharmacists must decide what we will make of it.

I have heard people urge us to behave as warriors in the cause of patient care. I agree that warriors are needed. Warriors got us to where we are today. But we also need wizards. A wizard’s job is to understand what is happening well enough to recognize opportunities and take advantage of them. Health reform will bring us many opportunities.

I do not claim to understand all that is happening in the U.S. political process. Within the mess and confusion, however, I see that people on both sides of the political center feel that present-day arrangements for health care finance and delivery do not provide the care they want. They agree that health care must focus more on serving people. The desire for safe, effective, and accessible health care exists, regardless of political party. Political arguments, as nasty as they were, mostly concerned how best to obtain better health care, not whether reform was needed.

I would like to offer you an outline of my dream for the next 5–10 years. Five main points summarize how we can reach our dream of universal clinical pharmacy practice.

Put the patient at the center

“It has been said that more mistakes in medicine are made by those who do not care than by those who do not know.”¹¹ The people we have promised to take care of also have a dream. They dream of health care that is safe, timely, effective, efficient, equitable, and patient centered. The professions have promised to provide that, and now the people seem to be demanding that we keep our promise. So we pharmacists share a dream with the people of the United States, and we will succeed in reaching our dream to the extent that we help them reach theirs. Taking care of people is not only an ethical imperative, it is a political and social one as well.

Furthermore, we need to be visible when providing patient-centered care. Public service announcements with useful information about how to make the best use of common medications may help. But I think we should let patients see us caring for them, whenever we are doing that. Direct patient contact is also nourishing to a clinical pharmacist’s soul, in a way that caring for medical records all day can never be. Berwick¹² called the experience of patients and their families “true north.” This image of patient welfare as our guiding star reflects the statement of purpose proposed by a Presidential commission: “The purpose of the health care system must be to continuously reduce the impact and burden of illness, injury and disability, and to improve the health and functioning of the people of the United States.”¹³

Serving people is our north star, our compass. This is the direction in which we should explode. Whatever we do as pharmacists to move toward our dream of universal clinical practice should be evaluated according to its power to reduce the burden of illness, injury, and disability and to improve the health status and function of the people. This is the value that includes and trumps all others. It leads to three mandates for clinical pharmacy practice.

First, every clinical pharmacist owes primary responsibility to the patient. The pharmacist works cooperatively with others on behalf of the patient.

Second, the primary responsibility of every clinical pharmacist is to identify and resolve or refer drug therapy problems (i.e., any circumstance that might interfere with achieving a definite therapeutic objective intended to improve the patient’s quality of life).

Third, this practice is carried out one patient at a time.

From the six elements of safety, timeliness, effectiveness, efficiency, equitability, and patient centeredness, the authors of Crossing the Quality Chasm¹⁴ created a definition of quality and 10 basic “new rules” of health care.⁶¹² Each rule reflects an element of quality:

1. Care is based on continuous healing relationships.
2. Care is customized based on patient needs and values.
3. The patient is the source of control.
4. Knowledge is shared freely among providers and patients.
5. Decision-making is based on evidence.
6. Safety is a property of a system.
7. Transparency is necessary; secrecy is harmful.
8. Care anticipates patient needs rather than waiting to react.
9. Waste is continuously decreased.
10. Clinicians cooperate in providing care.

The report urged us to develop systems that have these 10 properties. If ASHP wants to describe practice models that will bring clinical pharmacy into the 21st century, these are the most important criteria to consider.

In my opinion, we already have a clinical practice philosophy that incorporates most of these criteria. For the past 20 years, we have called it pharmaceutical care.¹⁵ This practice philosophy was years ahead of its time in its recognition of problems and in its proposed solutions. Now that other professions have “seen the light,” so to speak, we must not let the opportunity pass us by.

Before I move on from this topic of taking care of people, let us recognize that the major need for improvement in medication use and the greatest
opportunity for growth in clinical pharmacy are in ambulatory care. Zellmer and Abramowitz have already discussed this issue in more detail than I can describe here, so I will not try to improve on their work. Let me just add my opinion that our nonsystem of drugstores is facing a vast reorganization into ambulatory care networks and that health-system pharmacy should be involved from the beginning.

**Address the demand side**

Most of the work done so far to advance our dream of universal clinical practice has addressed what pharmacists do and how valuable clinical pharmacy is to patients and society. For example, our doctor of pharmacy, residency, and fellowship programs affect the supply of clinical pharmacists and the quality of their services. The 2015 Health-System Pharmacy Initiative and the PPMI are mainly supply-side projects. Given the realities of health care economics, however, we also must address the demand for clinical pharmacy services. (By demand, I mean desire accompanied by dollars.) Whether we call it budgeting, reimbursement, or professional fees, we need to address demand before we can advance much further.

If pharmaceutical care becomes more widely accepted but has no sustainable revenue attached to it, we may experience opportunity overload. As Breland explained, “Pharmacy has more opportunities to affect patient care than pharmacists have time to provide patient care.” Clinical pharmacy has to find a way to become financially self-sustaining rather than be seen as part of overhead costs.

Exploration of the demand side of clinical pharmacy should include opportunities to make it a revenue source. If pharmacists provide direct patient services of proven value, a health care organization should be able to bill for those services in some cases. Certainly, ambulatory care clinical pharmacy should be able to do that. In particular, the expansion of Medicare will include expanded medication therapy management services.

Health reform will insure millions of people who are presently uninsured. This will increase health care revenue, which will provide opportunities to increase clinical staffing. The millions of newly insured will overload the delivery system. This is a major reason why I believe the time has come for our dream to be realized. It is time to assert our value, offer our help, and, most of all, make commitments in exchange for a sustainable financial basis.

**Encourage the use of performance indicators**

Health care organizations and third-party payers may be unable to recognize the presence of PDRM in their patients and members, respectively. For example, in one study, only 18% of drug-related admissions (determined by medical audit) had been coded as such in hospital records by the admitting physicians. In a more-recent study, about a third of emergency department (ED) visits for adverse drug events were not recognized as such by the ED physician.

If an organization cannot see PDRM, it may not believe that the studies showing favorable benefit-to-cost ratios from clinical services would apply to its patients. The problem of invisible PDRM can be overcome by the use of medication-related performance indicators. This approach is feasible in organizations with electronic medical records, including most third-party payers that reimburse based on transactions.

I acknowledge that process indicators have been misapplied in ways that distract pharmacists from their real priorities. That is not the manner of use that I advocate, however. Perhaps an analogy would help. If you had a patient with asthma who started to wheeze but would not believe that he needed treatment, a peak-flow measurement would provide clear evidence to convince him of his problem. You would learn how to interpret the measurement correctly because you were using it for a real purpose.

Likewise, performance indicators may be necessary to assess the quality of a medication-use system. Indicators applied to an electronic record system can provide timely and specific information. They can encourage adoption of necessary innovations and help to overcome irrational defenses against change. We can learn to use them correctly.

The indicators used in medication-use systems are analogous to the much-narrower indicators used in drug-use evaluations, but they reach far beyond drug identity and dose. Medication-use indicators can also reflect nontreatment, duplicate therapies, length of therapy, patient compliance (doses received as a proxy for doses consumed), follow up, and medication-use outcomes, especially PDRM.

Indicators are available from the National Quality Measures Clearinghouse, National Committee for Quality Assurance, and Joint Commission. My research group at the University of Florida did not feel that those indicators were comprehensive enough, so we developed and field-tested a new set of indicators that can identify instances of PDRM associated with inappropriate processes of care. These indicators appear to have great promise, not only for assessing the quality of medication use in a population but also for managing pharmaceutical care systems.

I recommend that ASHP intensify its encouragement of medication-system indicators and that it consider developing an official guidance on the role of indicators in medication management.
Develop new management methods

Pharmaceutical care requires clinical pharmacy teams—people with various skills and levels of competence. Each team member must cooperate to achieve a common aim. Such teams require all of the usual functions of leadership and management (e.g., planning, organizing, directing, controlling, evaluating). Some people look to a loosely managed medical model, such as those found in academic medical centers or community hospitals. I do not believe that we can afford to try that, given the range of competence and professionalism that we are likely to have available as clinical pharmacy becomes more widespread.

Successful management methods for pharmaceutical care teams will differ from the methods most of us learned in school and our residency training. Top-down, direct supervision may be effective in managing a dispensary, but it will not work for managing pharmaceutical care teams. Instead, we need methods that allow large amounts of professional autonomy without sacrificing responsibility and accountability.

Performance indicators may be essential for such a managerial style. By using indicators, a manager can monitor many aspects of medication use and outcomes in a population. Measurements can be compared with targets and can be tracked over time. They can provide an objective basis for problem solving and monitor the effectiveness of remedial action.

Cultivate virtue

To implement and manage a pharmaceutical care system requires great strength of character. This may sound like a quaint idea, but we simply cannot avoid it. Many virtues comprise a person’s character, but here I will discuss just three of those aspects: courage, honesty, and optimism. Maya Angelou once said, “One isn’t necessarily born with courage, but one is born with potential. Without courage, we cannot practice any other virtue with consistency. We can’t be kind, true, merciful, generous, or honest.”

Some resistance to change comes from within the profession itself. It involves the character of some individuals and of the profession. I do not mean to demonize intelligent, well-meaning people who happen to have a view different from mine. Most of us chose pharmacy as our profession because we wanted to help people make the best use of medicines. But meaning well is not the same as doing good. From time to time, we all need ethical and scientific reflection. Character counts when we need to act on the result of that reflection.

Some pharmacists continue to spend time and money operating systems that do not improve outcomes. We may wish that this were acceptable, but is it? Can we justify the fact that a majority of pharmacists work in businesses that divert, even waste, their capacity to help people?

Our profession has a duty to health care organizations and to government. Bringing scientific expertise into bureaucracies is a time-honored, fundamental duty of professions and a major basis of our social value. If we do not convince them of what we know about the right way to provide drug therapy, who will do that for them or for us?

Why can’t every pharmacy practice manager and pharmacy benefit manager obtain support for services that have been shown to improve quality while generating cost savings? Do they not know the facts or do they not believe them? Do they acquiesce in other people’s uninformed opinion instead of speaking up?

I can understand why some might acquiesce, for a time. We all have responsibilities to ourselves and to our families, mortgages to pay, and so on. But when you consider how long we have been at this, the question becomes one of character. How long should we wait before speaking truth to power? I would like to ask every pharmacy director or pharmacy benefit manager who has not told his or her manager or medical director that expanded clinical pharmacy will be good for patients and save money for the institution: What will you say after your boss hears this from somebody else? Why have you not bothered to tell him or her until the message was understood?

In any case, not being able to sell pharmaceutical care is a little bit like not being able to sell an automobile that performs much better than other models, is much safer, and costs about one fifth as much to operate. Why can’t you sell that car?

Summary and conclusion

The dream of pharmacy as a clinical profession has been deferred for too long. The groundwork has been laid by thousands of courageous, committed pharmacists in the United States and across the world. We have demonstrated that pharmaceutical care is feasible in many clinical settings. We have achieved acceptance from patients, physicians, and nurses. We have proven that pharmaceutical care can significantly improve the outcomes of drug therapy at an equal or lower total cost of care. Fortunately, we have wise and effective professional leadership and organizations like ASHP with the vision and the means to lead us forward. Health care reform will increase dollar demand for high-quality health care and may overwhelm the supply of professional services. If pharmacists will take responsibility for managing medication use, we can contribute greatly to the welfare of our patients and the nation as a whole. There will never be a better time for us to make our dream deferred into a vision achieved.

I will close with an appeal to the younger men and women who desire a clinical practice. You are the ben-
Acknowledgments

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David Angaran and Max Ray read early drafts of this paper. Their advice showed me how to improve the quality of the final draft. I am, however, responsible for what I chose to include and how I chose to phrase it.

*PDRM includes adverse drug events, treatment failures, and nontreatment of a valid indication. See chapter 3 of reference 4.

*Lest this sound boastful, the “new rules” offer an opportunity to critically assess our philosophy of pharmaceutical care and to revise it as necessary.

References