

Ideals and Idealists: Striving to Achieve our Societal Imperative

2007 Harvey A.K. Whitney Award Lecture

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*This above all: to thine own self be true,
And it must follow, as the night the day,
Thou canst not then be false to any man.
William Shakespeare, Hamlet*

Introduction

Standing high above the departure pier and gripping the guard rail on the ship's upper deck, the eight year old boy felt the adventure and fear of the moment. Initially it was saying good-bye to family, friends and the homeland; but later, it would be sailing the North Atlantic and arriving in Hoboken, New Jersey at the Holland-America Line's disembarkation pier. He didn't have a good sense of the encompassing nature and implications of it all. Little did he know that the North Atlantic is not a nice sea to sail in the middle of March. Nor did he comprehend that a different language, culture and social practices would face him. He definitely did not fully appreciate that the decision by his parents to pick up and leave, with four boys under the age of nine in tow, was predicated in long hours of thoughtful and oftentimes emotional debate and analysis. He had no way of knowing how the ideals of his mother and father drove the decision to immigrate to the United States. How was he to know how these idealists were planning to translate their ideals into action in the new land?

That boy was me 53 years ago. And I often have and continue to reflect on my parents and their decision to leave their home in the Netherlands and to start life anew in the United States. Had it not been for their ideals and their willingness to act on idealistic notions, I would not be standing before you today and to be honored with this astounding recognition. So, I am especially grateful to my mother and my father for the decision that they made.

Indeed, coming to the United States in the manner that our family did during the post-World War II era, has given me much pause for reflection over the past decades. These reflections have been distilled for the focus of my Harvey A.K. Lecture theme. Namely, that our world and our profession requires a hearty dose of idealism and a commitment to nurturing idealists.

Utopia

I'd like to begin our discussion of idealism and idealists by recalling the work of Sir Thomas More, the 16th century cleric and political antagonist of King Henry VIII. His essay, *Utopia*, introduced this word into the English vocabulary (1). He envisioned a non-existent place that had a perfect economic, social and political system. Sir More's thinking served to capture a vision of how a society might become more perfect through careful consideration of specific ideals relating to economics, social structure and political processes. He was no doubt influenced by the early Greco-Roman thinkers on this very subject. But more than likely, his work was also stimulated by observation of the social and political evolution of England. Sir Thomas More wished to stimulate a re-thinking of the social order.

The word Utopia has come to be used both as a term of idealism and as a term of derision. But either way, Utopia signifies an ideal that is being given voice by an idealist. It is probably not a stretch to conclude that America's founding fathers, in writing the Declaration of Independence, were indeed contemplating a Utopia that would be far

different from their experience in the 'old world' and the new colonies. No doubt, our Founding Fathers had a good knowledge of Sir Thomas More's ideal.

Emile

In the 17th Century, the French philosopher and educational theorist Jean Jacques Rousseau wrote *Emile* (2). Describing how Emile should be brought up through a nurturing process of mentoring in life lessons, Rousseau constructed an ideal that became the underpinning of modern educational psychology. In effect, he examined the world view of child development as it existed in 17th century Europe and through critical analysis, used the story of Emile to establish an ideal for raising and educating children.

Rousseau's work served to stimulate further thinking and application by educational theorists and behaviorists throughout the 18th and 19th century in Europe and the United States. His ideals were incorporated into the theoretical and pragmatic models of early childhood education which served to stimulate a re-thinking of how and when children learn.

In particular, the work of Johann Pestalozzi, the Swiss educational reformer, comes to mind (3). The thrust of his thesis was that teaching methods should conform to the natural order of development of the child and adjusted as the child matures and expresses his or her individuality. He went so far as to suggest that teacher training consists of a broad liberal education followed by a time for research and professional training. The

latter ideal has been largely adapted in contemporary European and American education, especially at the graduate level.

Pestalozzi's ideals later transferred to the seminal works of Jean Piaget. Piaget reinforced, through his own research and theoretical work, the phases of child development (4). He suggested that children will naturally learn specific topics as they become aware of the importance of their knowing these skills. Piagetian psychology continues to be an important touch point for curricular development and child rearing.

In considering hospital and health-system pharmacy, what is our utopia? What is our vision for the ideal relationship between pharmacists and other health professionals, between pharmacists and patients? Unless we articulate that ideal and refine it continuously, we risk becoming stuck in the stereotypical rut that has and continues to shackle pharmacy.

Some Pharmacy Examples

Albert Prescott also had an ideal; namely, to move pharmacy education out of an apprenticeship and 'night school' model and bring it into laboratory-based University education (5). Much to the chagrin of the profession (he lost his APhA delegate credentials), he established the first University-based pharmacy curriculum in the United States after the Civil War at the University of Michigan (6). Included in Prescott's ideal for the professional education of pharmacists were his notions of a science-based curriculum that was grounded in experimental work and the liberalization of the mind in

a comprehensive University. These were heady thoughts for a profession that was grounded in a 'look and see' model of vocational training!

Early thinking about a clinical role for the pharmacist began in the 1940s. Inspired by the revolution in drug development that came as a consequence of an expanding pharmaceutical industry and University-based research laboratories, pharmacy idealists such as W.W. Charters (7) and George L. Webster (8), inspired thinking about the need to have a well-educated and knowledgeable interface between the prescriber and the patient: namely, the pharmacist. These notions are inferred in The General Report of the Pharmaceutical Survey, 1946-1949, directed by Edward C. Elliott (9). This Report served as the grounding ideal for the six-year Doctor of Pharmacy degree program. That recommendation was made in 1948!

Harvey A.K. Whitney was an outspoken idealist for hospital pharmacy and its future beginning in the 1930s. In a recollection of some of Mr. Whitney's ideals, Dr. Warren McConnell, in an oral history interview in 1995 noted that Whitney desired hospital pharmacists to become knowledgeable in the language of medicine and consequently, to be able to work side by side with physicians in ensuring safe and effective drug therapy (10). He required his interns to observe autopsies and to read medical textbooks.

Others advocated an important ideal for the profession in the early 1950s; namely, that a structured, post-graduate experience should be constructed for pharmacists wishing to practice at a higher level of competence and experience (11-13). Several thinkers cited

the ideal that hospital pharmacy in particular would be greatly advanced if its practitioners completed such a program (14). This ideal served to develop residency programs and to have them accredited by the American Society of Health-System Pharmacists in order to ensure their quality and linkage to desired pharmacy services (15).

A reading of each of the previous Harvey A.K. Whitney Lectures reveals that these awardees were idealists with significant ideals for practice, education and science in hospital and health-system pharmacy (16). Many of the ideals expressed in these lectures have been implemented and put into practice. But like most ideals, some will take many more years to take root and expand into reality. We must therefore continue to read and re-read the works of our visionaries. We must also think carefully about the philosophies that undergirded their visions. And if we adapt our own thinking to these philosophical premises, we have a duty to find ways to advocate for and implement their visions.

The future of our profession and its practice will face the normal challenges of change, fueled by social, economic and cultural evolution and the development of new science and technologies. We are forever a profession at a crossroad. And that is how it should be. While there are many issues and challenges facing us at the emerging crossroads, I would like to single out three areas that, in my view, are deeply in need of ideals and idealists. These include: i) The competence and quality of our workforce, ii) genomics, pharmacogenomics and the other 'omics,' and iii) global connections in a 'flat world.' Each of these areas is garnering much discussion in both professional and lay circles;

however, there is plenty of room in each of these areas for ideals to be formed and for idealists to sow the seeds of a directed future.

The Competence and Quality of our Workforce

Our nation is undergoing a dramatic self-examination of the quality, safety, efficiency and cost-effectiveness of our health care services system. Medication use and related misadventures have come under closer scrutiny as specific measures, safety goals, standards and ‘never-events’ lists are created (17-18). However, as we in health-system practice know, the complexity of drug misadventuring will not be easily remedied. We need a broader and deeper social and professional vision regarding appropriate drug therapy and its concomitant policy and implementation requirements.

At the root of this vision, must be thoughtful contemplation about the quality and competence of our workforce. While we have made significant gains through the expansion and revision of the curricula in our schools and colleges of pharmacy, we still need to do some deep thinking about the level and scope of competence required of our practitioners in hospitals and health systems. Equally, we need to contemplate our long term vision with regard to post-graduate residency requirements, credentialing, licensure for advanced scopes of practice and how to retain and develop our current cadre of pharmacists. Very important for our vision is a need to resolve our profession’s “dirty little secret”: namely, the lack of a national consensus and action on the education, training, certification, and regulatory oversight of the pharmacy technician component of our workforce (19).

Our vision must also be directed to the quantity and quality of our faculty that will be required in this time of unbridled expansion of the pharmacy education enterprise. We must also direct our vision toward ensuring that our nation has the capacity to accommodate an ever growing student body for quality experiential education, especially the depth and breadth of clinical rotations in hospitals and health systems. And we need to give careful thought to the numbers of qualified leaders and the skills that will be required to lead our academic institutions during this time of rapid expansion and critical shortages of faculty. Our vision must ensure that the gains made in the past quarter century in successfully implementing a clinically and scientifically robust curriculum are absolutely not compromised.

In the hospital and health-system practice environment, the effective deployment of our workforce should be guided by well-guided ideals. From the application of automation, to appropriate utilization of pharmacy technicians, to collaborative practice with our colleagues in medicine and nursing, our visionaries must engage us in futures thinking and doing. We should perhaps more forcefully and comprehensively define our desired future in hospital and health-system pharmacy practice. And then, in our respective spheres of influence, assure that our vision is realized.

In effectively developing a competent and qualified workforce for tomorrow, we must today, collectively ask ourselves where we are going. Secondly, we must question if our path is in the right direction. Ultimately, each of us in our respective spheres of influence must strive to achieve a superior level of practice in providing quality medication therapy

management and patient care. The ASHP Vision for the Future Workforce in Hospitals and Health-Systems (20) and the Vision for Future Practice articulated by the Joint Commission of Pharmacy Practitioners (21) should be forceful guides.

Genomics, Pharmacogenomics and the other ‘...Omics’

The identification of the genetic code in the double helix of DNA, and the eventual unraveling of the Human Genome are presently serving as the basis for the new scientific revolution in therapeutics and diagnostics. The visions of Watson and Crick in the 1950s and subsequently the leaders of several scientific groups around the world eventually led to the Human Genomic Project at the National Institutes of Health and laboratories throughout the world. Their visions are now being realized in the fields being referred to as ‘genomics’, ‘pharmacogenomics’, proteomics and other terms using the suffix ‘omics’. Personalizing therapeutics based on genetic characteristics and predictions is now being seriously contemplated and their clinical realities are being demonstrated in oncology, neurology and psychiatry, hematology, and anesthesiology (22-24). More and more drugs and their actions are being characterized from these perspectives. Moreover, gene therapy continues to be investigated and developed. The vision of being able to thwart or otherwise mitigate or even prevent certain pathologies is being realized in the laboratory and the clinical setting from a genetic perspective. The U.S. Food and Drug Administration and regulatory bodies around the world are struggling with their present authority as these new applications push the envelope of current law and regulations (25). Re-consideration of what should be included in labeling is a serious contemporary agenda issue among the world’s drug, biologicals and food regulators.

However, we need a vision for the role of the pharmacist in this exciting frontier of basic science, clinical medicine and drug regulation. Some early pioneers in our profession are making their way forward. The *AJHP* has begun to publish scientific investigations around this subject (26). Conferences are being organized around this theme (27). There is not yet clarity in our profession as to how pharmacy should be engaged. We need ideals and a vision about this.

We must also have a vision for the ethical and moral dimensions of these new scientific endeavors and their applications. As I have noted in previously published work, there is a well-established basis for legitimate concern about human experimentation in genetic therapies (28). What is our vision for ethical principles that should guide our work in this new and brave world? How should our work in the genetic sciences be overseen? To whom are we ultimately accountable? How are patients to be engaged in dually monitoring and applying new discoveries? What should we absolutely not be doing? These are but a sampling of the questions that need to be raised and answered.

In this arena of professional and civic debate, we must have a liberally educated pharmacist. Our profession will find it difficult to address these ethical issues from a purely scientific foundation, which is what we have in contemporary pharmacy education. Deeper humanistic and spiritual dimensions than provided by pharmacy education alone are needed to address these aspects of the genetic revolution. Maybe there is hope in the fact that more students who enter pharmacy school today already hold a degree in another field. But do the admission committees of schools of pharmacy give

more priority to applicants who have a science degree than those who have a degree in the liberal arts?

Global Connections

Thomas Friedman's book, *The World is Flat: A Brief History of the Twenty-First Century*, has raised up a vision for a world that is fully globally connected (29). We have all seen or experienced the effects of globalization: accessing products from many countries with whom the United States has trade agreements, customer service agents who are based in countries outside of the U.S., the provision of certain medical specialty services (eg. Interpretation of radiographic images by physicians who are doing their reviews outside of the American borders and more of our patients going to foreign countries to seek required or elective surgical services at a lower price than that offered in the U.S.). Our world is indeed becoming more 'flat' through the Internet; faster, wider and cheaper airlines routes (e.g. Fly from Washington, DC to Beijing, PRC in fourteen hours); higher dependence on foreign workers; and a host of other factors.

It is easy for us Americans to be isolated in the 'flat' world. We have a strong, individualistic self-concept as a nation: there is little we can't do on our own. But we would do so at our peril. This is true for the profession of pharmacy as well. The recently concluded World Congress of Pharmacy and Pharmaceutical Sciences 2007 demonstrated the global connections in science and technology: multi-country groups of researchers working on similar issues and sharing findings (30). The upcoming 67th International Congress of the International Pharmaceutical Federation, to be held this coming August

in Beijing, has as its theme “From Anecdote to Evidence: Pharmacists Helping Patients Make the Best Use of Medicines.” Next year’s conference, to be held in Basel, Switzerland, will have as its theme, “Reengineering Pharmacy Practice in a Changing World.” Do these themes sound familiar? They reflect the global concerns around rational drug therapy, quality of the drug supply, responsiveness to patient needs around drug information, and structuring pharmacy practice to meet new governmental and social demands. As a result, our profession is becoming more globally connected. And we are coming to need each other as we position our profession for the future. With the rapid pace of global change impacting our profession daily, interconnections with our global counterparts is vital. We must begin to work together to tackle these changes and develop universal standards to improve the quality of care and safety we provide our patients. ASHP’s 2015 Initiative is one opportunity Americans have in leading these efforts. Our colleagues at the Canadian Society of Hospital Pharmacists have largely adopted ASHP’s 2015.

It will also do us well to monitor the developments going on in the National Health Service (NHS) of the United Kingdom (31). With Scotland taking the lead, pharmacists are being granted the right to prescribe medicines (32). This initiative is being stimulated by issues of access, cost, and patient demand. It also reflects a desire to have pharmacy practitioners more integrated into the NHS as health care providers. The health care services system of Australia is pursuing similar objectives and in fact, reimbursing pharmacists for drug use review. In this process, pharmacists must send reports of their findings to the prescribing physicians. Substantial reform of pharmacy practice and

pharmacy education is presently taking place in the Pacific Rim countries. Thailand, Japan, South Korea, Taiwan and Singapore are each re-examining the role of pharmacists in their respective countries and consequently, reforming the pharmacy curriculum, and the nature and scope of practice. But none of this is easy. It requires mutual support and encouragement between academics and practitioners in our global pharmacy community.

Fundamentally, the economic and social cost of inappropriate use of medicines has come to be a global issue. Moreover, the more effective use of the pharmacist workforce is being increasingly examined by national governments as well as the World Health Organization (WHO) (33). The International Pharmaceutical Federation (FIP) is advocating strongly with the WHO on a variety of fronts, to include workforce issues, public health initiatives using pharmacists and ensuring the integrity of the drug supply (34).

A global vision for hospital pharmacy practice will be the focus of a 2008 invitational conference. Hospital pharmacy leaders from around the world, inclusive of those from developing, transitional, and developed countries, will be asked to create a consensus vision for practice in hospitals. That articulated vision will then serve as the agenda for advocacy and implementation around the world. The world is indeed 'flat.' It would serve our profession well to include a vision of global pharmacy in our contemplation of the future.

In all of this globalization we need ideals and idealists. Just as the Schuman Declaration in 1950 expressed an ideal for a united Europe (35), which provided the basis of moving toward a European Union, we need ideals at the root of what we would like our profession to be from a global perspective. We can no longer be seen as ‘drug sellers’ (36). We must construct an ideal around the pharmacist’s real and present engagement in issues of global health and rational therapeutics.

Assuring the Nurturing of Ideals and Idealists

Our profession’s social imperative is clear: helping patients make the best use of medicines. It is perhaps not as succinctly stated in the legislative declarations of our state Practice Acts, the missions of our hospital and health-system pharmacy departments and the everyday working principles of our practitioners. But it all boils down to ensuring the rational, safe, effective, and efficient use of the pharmaceutical armamentarium: the drugs, biologics, vaccines, and diagnostic agents used by our patients. That is becoming an ever-increasing complex and daunting task.

Chemical and biological therapeutics will become even more complex. And so will the diagnostic markers that will be used to ensure desired therapeutic outcomes. The scientific revolution in genetics, the expansion of globalization, and our workforce challenges will fuel that complexity. Other factors can assuredly be added to this mix, but suffice it to say for now that we better formulate a vision for our future in what Aldous Huxley called “The Brave New World” (37).

Our times and their challenges call for us to nurture idealists, who in turn, will generate the ideals so desperately needed by our profession as it navigates the future's turbulent seas. Who are these idealists and where will they come from? Who will guide them and sustain them? And most importantly, who will listen and consequently, pave the way for them so that their ideals will find fertile fields?

Nurturing does not happen naturally or automatically. Directed efforts have to be applied. You and you and you have to be involved. We have to identify and nurture the dreamers among us. And those with a more pragmatic bent have to become translators of the ideals and to take the language of the dreamers and translate it into practical applications. As Val Cardinale (38) recently noted:

The next 25 years hold promise of more clinical involvement and collaboration—and more respect for pharmacists.

As always, we will need to continuously earn that respect. In every opportunity, we must strive to dispel the stereotypes of pharmacists within the healthcare community. Our actions must speak louder than our words. For to whom much is given, much is required. As seasoned practitioners in the profession of pharmacy, we must strive to pave the way for our future idealists. Therefore, I challenge each of you today, if you are not already, to start mentoring to 2-3 young practitioners.

The late Senator Paul Simon published a book titled, “We Can Do Better” (39). While he focused on our political sector through letters to President Clinton, his message is applicable here: namely, that we have the collective intellectual strength and prowess to do better. That premise is equally true in our profession: we can do better! But doing better requires an underlying vision. The admonition of President Abraham Lincoln is applicable here:

I do the very best I know how—the very best I can; and I mean to keep on doing so until the end (40).

As we contemplate these thoughts, let us also honor those who have been and continue to be our idealists---those who have done their best and those who have spoken to us through their words and deeds. We equally honor the ideals that have given us the basis of a way forward. Now it is our responsibility to call for and nurture a new cadre of idealists. We will welcome their voice and their visions. And we will sustain their dreams.

Acknowledgements

The late Walt Disney (41) noted:

It seems to me shallow and arrogant for any man in these times to claim he is completely self-made, that he owes all his success to his own unaided efforts. Many hands and hearts and minds generally contribute to anyone's notable achievements.

And so it is with me. The nurturing of my parents, the camaraderie of my brothers and brothers and sisters-in-law and their respective families, my small group of very personal and close friends and colleagues, the University faculty members with whom I have worked in Illinois, Minnesota and Iowa, and the superb staff and tireless volunteer Officers and Board members of ASHP that I have had the privilege to work with, have all contributed their immense gifts to any successes that I may have achieved.

But most of all, I want to pay tribute to my wife of 38 years, Arlynn Marie, and my children and their spouses: Bryan and Lauren, and Sheralynn and Jeff. They have endured my being away from home, my periodic having to 'work on something' and joining me in many 'boring' pharmacy events. Arlynn has been the 'rock' of my life and has helped me to appreciate the joys of family, the beauty of nature and the necessity of nourishing the spirit. Thank you my love!!

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