Our Assets, Achievements and Aspirations

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It has been a great honor and privilege to have an opportunity to serve the academy as your president. I appreciate your support and confidence in me to represent you at various professional and scientific meetings as well as at some universities. These experiences have reaffirmed my belief that the enterprise of pharmaceutical education is strong and vibrant. We are attracting a growing number of applicants with stronger academic records and portfolios. Our curricula have been revised with the goals of achieving desired competencies and outcomes among our students. Our faculties are working hard to meet the mission and objectives in the areas of teaching, research and scholarship, patient care, and service. Our administrations are aggressively seeking resources. We are collaborating with other health sciences and practice settings to strengthen our educational and research programs. Finally, we are serving our communities to improve the quality of life of our citizens.

To illustrate the progress we have made over the last 25 years, I would like to take you back to 1977 when I started my academic career at Ohio State as one of four full-time pharmacy practice faculty. As a clinical faculty member, I did not even know the term "start-up package" let alone ask for one. There was no clear roadmap for developing a practice site and a clinical research program. There were no required courses in pathophysiology, therapeutics, and clerkships. We developed these courses and began clinical practice. On my first day of ward rounds, a physician was puzzled when he found a pharmacist working outside of the hospital basement. The physician had never heard of a PharmD degree. After developing the practice, I wrote my first grant as a principal investigator and the physician co-investigator offered to get it typed and submitted. When it was funded, I learned he had made himself PI without any consultation. Although I thought this was unfair, I said nothing to him because we needed the clinical site. In subsequent years, assignment of authorship on articles and presentations had to be worked out with collaborators. Many of my clinical colleagues faced similar situations in the 1970s. I am happy to say that we have established our roles as educators, practitioners, and researchers.

As we look to the future, we must draw upon our most important assets - faculty, students, practitioners, associations, alumni, and the community. Our faculty have the strongest impact on the quality of pharmaceutical education, research, and practice. All of our faculty, including preceptors, aspire to offer the best classroom and clinical experiences for our stu-

students. They make difficult concepts and content appear easy, and show how to make connections and establish patterns and relationships between theory and practice. We offer contemporary curricula in the pharmaceutical and clinical sciences, which build upon a series of courses in liberal arts and humanities as well as physical, chemical and biological sciences. A well-educated student needs this knowledge and skills to develop a value system, a set of ideas, aspirations, and goals to succeed in a career and life. Article 26 of the UN Universal Declaration of Human Rights states that "Education shall be directed to the full development of the human personality. It's not just academic achievement, but about understanding, tolerance and friendship."

We influence our students not only through a series of courses (the formal curriculum) but also by our attitudes and values (the "hidden curriculum"). The formal curriculum focuses on knowledge, facts, reasoning and cognition while the hidden curriculum is delivered by examples we set as faculty, practitioners, and individuals. We must show the students the importance of caring for and addressing concerns of the patients. They should realize that paying attention to a patient's worries is more important than focusing on isolated laboratory data. Similarly, we should improve student life by getting involved with various professional and social events outside the classrooms. Further, we need to consider students' input in improving their academic and professional experience. We must not only provide knowledge to our students, but also inspiration, confidence and belief in themselves that they can make a difference.

Curriculum committees can no longer be content with reviews of brief course syllabi, and identifying obvious overlaps and conflicts. Today's committees must assess the effectiveness of our entire curriculum (didactic and experiential) to achieve the desired outcomes among our students. The AACP-ACPE Task Force on Assessment and Accreditation did their initial work to develop strategies and methodology for achieving this goal. This work will continue to offer guidelines and templates to institutions for the purpose of assessment and accreditation.

We must offer a curriculum which incorporates emerging concepts and knowledge in the areas of pharmacogenomics, pharmacogenetics, proteomics, and bioinformatics. The Academic Affairs Committee has addressed important questions:

1. How will pharmacogenomics change the practice of pharmacy?
2. Over what timeframe will we see the impact of pharmacogenomics on the practice of pharmacy?
3. How might pharmaceutical education respond in light of this evolving knowledge base and meet the needs of the profession, health care system, and society?

I concur with their recommendations:

- to reconvene CAPE Advisory Panel on Educational Outcomes to assure contemporary validity of the educational outcomes of PharmD programs, especially in emerging areas such as pharmacogenomics and pharmacogenetics;
- to compile and maintain an online inventory of the activities of our member institutions related to pharmacogenetics, pharmacogenomics, and bioinformatics, that is categorized into patient care, education, research, and graduate.

We must recruit, develop, reward, and retain the outstanding faculty and students. A recent book, *The War for Talent*, describes strategies for recruitment. The authors suggest ways to attract the best talent. The faculty shortage in some areas requires our immediate attention. The majority of our institutions have open positions, sometimes for more than a year. We have to find ways to entice students to taste the excitement of teaching, clinical practice, and research. Teaching and research rotations are one way to attract students to consider academic careers. Job satisfaction is critical in attracting and more important, in retaining faculty. Junior faculty have been found to be most satisfied with their teaching role and least satisfied with their research role.(1) In another study, pharmacy faculty were found to be only moderately satisfied with their lifestyles, and experienced considerable conflict between work and personal lives. This emphasizes the need to achieve a balance between work and personal life(2).

Our faculty have been successful in securing competitive research funding and contributing new knowledge to the literature. With the advances in science and technology, we are in a position to answer complex questions through multidisciplinary basic and applied research. These advances coupled with the availability of external funding have led to an increasing number of funded interdisciplinary institutional programs (IPs) on our campuses. I agree with the recommendations of our Research and Graduate Affairs Committee:

- to offer programming that addresses the increasing influence of IPs on research, teaching, and service responsibilities of our faculty, particularly those faculty with dualappointments (IP and college/school);
- to share specific policies and procedures regarding appointments, space allocations, financial support, evaluation, tenure and promotion on faculty holding appointments within the college/school and an IP; and,
- to provide substantive discussion regarding the impact of IPs on faculty recruitment, retention; and evaluation in future leadership programs.

Successful involvement in any joint program requires a unique contribution from each participant. We must work hard to bring measurable quality to research efforts within various IPs.

The Committee raises important questions:

1. What is the return on investment for establishing IPs (centers, institutes, laboratories, and programs)?
2. How do we use IPs to maximize the college/school's ability to attract the most talented faculty and graduate students to our research enterprise?
3. How do we reward faculty for collaborative research efforts within a system that traditionally assigns credit to a single principal investigator?

How do we develop college/school research foci that are unique and of the highest quality, and are best positioned to take optimum advantage of the increasing role of university-wide IPs?
Our former graduates, the practicing pharmacists, are also an important asset. They provide the best drug product to patients, improve the outcomes of their drug therapy, and serve as teachers and role models for our students. We need to closely work with our practitioners and part-time faculty to make certain that their input is considered for program improvement, the rotations continue to provide quality experience, and they are recognized for their contributions to teaching.

Numerous studies over the last three decades have shown that our clinical faculty and practitioners can make positive contributions to health care in many settings, including hospitals, clinics, long-term care facilities, and community pharmacies. Our health care system, however, continues to struggle in assuring optimal drug therapy. Despite the knowledge that an ACE inhibitor reduces mortality, a minority of CHF patients received it; stations reduce stroke and MI, these drugs are under-prescribed and underused; and, warfarin prevents stroke in patients with atrial fibrillation, it is underprescribed and INR is inadequately monitored. The author(3) raised the question: "whose responsibility is it anyway?" The answer is obvious: it is the joint responsibility of pharmacists, physicians, nurses and other health care providers.

A position paper of the American College of Physicians and American Society of Internal Medicine discussed the pharmacist's scope of practice. The physician authors acknowledged that within hospitals, pharmacists' involvement in drug information services, medication administration histories, cardiopulmonary resuscitation, and clinical research led to lower mortality rates. Further, pharmacists' participation in drug use evaluation, adverse drug event monitoring, drug information service, protocol management, ward rounds, and medical histories led to lower health care costs. Finally, pharmacists' efforts led to improved health outcomes and lower costs from managing ambulatory patients with hyperlipidemia, diabetes, and asthma, and offering immunization and anticoagulation services. The authors concluded that "to participate in collaborative drug therapy, pharmacists need access to patients and medical records, knowledge and skills, documentation, and compensation."

Pharmacists are an integral part of health care teams within Veterans Administration (VA) medical centers. As examples, therapeutic drug monitoring services are offered by over 90 percent, anticoagulation by over 80 percent, and lipid management by over 60 percent of the VA medical centers. In the U.S., drug information is provided by 92 percent of all hospitals, dosage adjustment in renal failure by 88 percent, antimicrobial service by 79 percent, pharmacokinetic consultations by 77 percent, nutritional support by 47 percent, and patient teaching by 46 percent.

In community settings, pharmacists are spending an increasing amount of time with patients. Pharmacists' participation has led to decreased hospitalizations, emergency department visits, and urgent care visits in patients with asthma. APhA's Project Impact showed a decrease in cholesterol and triglyceride concentrations in patients with hyperlipidemia. Substantial savings have been achieved by offering pharmaceutical care in many hospitals, clinics, and rural pharmacies. Kaiser Permanente in Denver has pharmacists assigned to primary care physician offices. Pharmacists also serve as consultants to subspecialties including infectious diseases, oncology, and psychiatry. They offer services to both individuals and to populations.

Although the current circumstances do not allow provision of comprehensive pharmaceutical care to all patients, we must commit to achieving this goal. In the meantime, however, we must offer pharmaceutical care at least to the high-risk individuals-patients who are very young or very old, have multiple diseases requiring multiple medications, have history of noncompliance, and are not responding to medications as expected.

To prepare the practitioner of the future, the Professional Affairs Committee's report states that:

AACP join with other health care organizations to discuss and develop strategies for restructuring clinical education to be consistent with the current and evolving health care system and assess the implications of these changes for provider credentialing programs and their funding; AACP reconvene the CAPE Advisory Panel on Educational Outcomes to examine the 1998 Educational Outcomes to ensure their validity relative to the roles and responsibilities of pharmacists today and in future practice scenarios.

The Committee found gaps in the current CAPE Educational Outcomes in several areas including medication safety, systems management, health literacy, preventive medicine, technology application for practice, and collaborative drug therapy practice. We emphasize education and training in medication safety, preventive medicine, and development and implementation of collaborative practice agreements.

• We foster and develop interdisciplinary didactic and experiential programs to educate and train pharmacy students in conjunction with other health professions students so that they can successfully participate, collaborate, interact, and cooperate in a health care team.

• We invest resources to create models of practice, which allow pharmacists to use their skills to maximize contributions to patient care in the community and outpatient settings.

• We assure that the practice experiences for students are designed to achieve confidence in providing pharmaceutical care.

I had asked the Argus Commission to consider the changing nature of health professions' education in general and pharmaceutical education in particular, examine forces of change in the stakeholders of pharmaceutical education, and recommend any changes in Association structure that may result from these discussions. In its report "How Should AACP Adapt to Change?" the Commission suggested that AACP should embrace stakeholders beyond its core constituency of pharmacy schools and pharmacy faculty, including practitioner preceptors, residency and fellowship directors and preceptors, technician educators, and continuing education providers. The Commission also advocated that more attention be paid to students.

Patients and communities we serve daily are an extremely important asset. Their well-being and quality of life directly contributes to a healthy society and economy. They trust us to make good decisions for their health care. I am indebted to thousands of patients and their families or caregivers for allowing me to be a part of their care. It is amazing that a large percentage of them agreed to participate in clinical research, even when there was some risk and limited or no direct benefit to them at all. They were willing to give their time and also expe-
rience inconvenience and discomfort, with the hope that future patients may benefit from the research projects. We must continue to serve our patients and respect them as individuals, by addressing their concerns and worries. The public continues to rank health care among their top concerns. We must work with our communities to address the health care needs of the public through prevention and treatment of illnesses.

Students are our precious assets. They come to us because they see a bright future in a pharmacy career. Recent data show positive trends in the quality and quantity of applicants to our PharmD programs. In a book, *Millennials Rising: The Next Great Generation* (2000), the authors predict great things from the generation in college today. After conducting research and interviewing hundreds of young people across the country, they say that this generation is caring, optimistic, team-oriented, and poised for greatness on a global scale. They provide data showing their improved academic performance in schools, increased use of technology, greater involvement in service projects and with diverse groups, increased numbers taking AP exams, and decreased crime and risky behaviors.

We must get our students excited about learning, encourage them to imagine possibilities, show them the joy of discovery, nurture them to achieve their goals, and help them find their passion to succeed in their careers. We must share our values and enthusiasm, and sharpen their curiosity.

We must show the students the value of hard work, persistence, effective communication, flexibility, compassion, collaboration, quality, and balance. Dalai Lama has said that there are two sides to successful education - knowledge and skills, and a good heart: using both leads to happiness.

Very few goals are achievable without collaboration and teamwork. The students must observe how pharmacists effectively work with patients and their caregivers, pharmacy technicians, and other health care professionals. Even the most talented people achieved success because they surrounded themselves with good people. Isaac Newton said, "If I have been able to see farther than others, it is because I have stood on the shoulders of giants." Further, the students should see how we achieve balance between our work and personal lives.

Our students should know that there are enormous possibilities in pharmacy. They should have the confidence that they can change the world, a little bit at a time. They should have a relentless belief in themselves, just as their predecessors have done over the years. They should realize that we can achieve our goals with forward-looking ideas and focus on quality and action.

This was indeed a special year for AACP. Dick Penna, our Executive Vice President, received the Remington Medal, the highest honor in pharmacy. This was a fitting recognition of Dick's contributions to pharmaceutical education and to the profession of pharmacy. I always appreciated his thoughtful and wise counsel. We wish him and Laura all the best during the retirement. We are delighted to have attracted Lucinda Maine to become our EVP. She will be a tremendous asset to AACP. Lucinda has a clear vision and is full of energy and enthusiasm to lead us into the future.

George Cocolas has served as the Editor of *AJPE* for 22 years. We truly appreciate his distinguished service to AACP, and wish him and Erie well during the retirement. I am happy to announce that the Board of Directors has selected Joe DiPiro as the new Editor of *AJPE*. Joe is well known for his contributions to pharmacy practice, education, and research, and is a recipient of the 2002 Robert Chalmers Distinguished Pharmacy Educator Award.

The Board of Directors’ report to the House of Delegates provides the details of our activities this year, in various areas including advocacy (Pharmacy Education Act of 2001), faculty development, institutional research, leadership development, and student recruitment (PharmCAS). Thanks to the American Foundation for Pharmaceutical Education for its continuing support of our students and faculty.

In closing, I am truly grateful to all of you for giving me an opportunity to serve the profession through AACP. It was a joy to work with all of you, committee members and chairs, Board of Directors, past officers, and staff members. We indeed have the best people who care about pharmaceutical education and the profession. I wish to thank my mentors in India, and at Duquesne and SUNY-Buffalo for showing me the possibilities that pharmacy had to offer, my colleagues, Dean John Cassady, former Chair Dick Reuning, and former Dean Al Soloway for their support, my collaborators for their help in addressing problems I could not tackle by myself, my students and fellows for their hard work and inquisitiveness, and my family - especially my wife and daughter for their love and understanding.

It was only 29 years ago when I arrived in the U.S. to pursue higher education as a way to improve our family's situation. I grew up in a house with no running water, no electricity, no radio or TV, two sets of clothes for each of us, and just enough money for necessities. I could barely speak English. You have welcomed me, helped me, and showed confidence in my work. I look forward to our continued relationship. Thank you so much for your encouragement, kindness and friendship!

References