INTRODUCTION
Throughout the history of pharmacy in the United States, its academic component has contributed significantly to the advancement of the profession through visionary and aggressive leadership. Early examples include (1) helping the profession to understand itself and how it is changing through a variety of studies, which it conducted over the years; (2) the development and proliferation of the concept of clinical pharmacy; (3) the development of experiential education; (4) the PharmD debate; (5) curricular change to prepare practitioners to deliver pharmaceutical care; and (6) workforce and manpower studies and programs. In many cases, academic leadership was and continues to be exercised in collaboration with pharmacy’s practitioner segment.

Today, the profession faces major issues in which academic leadership, in collaboration with its practice colleagues, will be needed in order for the profession to continue to evolve. These new issues include (1) contemporary competence and continuous quality improvement; (2) practitioner education in a rapidly changing health care environment; (3) alternate learning methods and distance education; (4) pharmacy as a caring profession; and (5) compensation for pharmaceutical care. If the past is prologue, we can count on hard work, debate, and collaboration to achieve success, but, as in the past, we will succeed.

EXAMPLES OF ACADEMIC LEADERSHIP
Understanding the Nature of the Profession
Within the past 100 years, the profession conducted four major studies of itself in efforts more fully to comprehend changes that occurred in it. These studies where the W.W. Charters study in 1927; the Elliott Survey of the Profession in 1948, the Standards of Practice Study in 1977, and the Scope of Practice Project in 1992. Each study provided a rich array of data about practice that served (1) as the psychometric basis for examining candidates for licensure to practice and (2) for revising the pharmaceutical curriculum. Of course, each study demonstrated that the profession had changed significantly from the previous study in terms of practitioner responsibilities and the functions they performed in fulfilling those responsibilities. These efforts helped the profession to understand itself more completely. They validated the claims of organized pharmacy’s leaders that the profession was evolving to meet patient care needs. But they were massive efforts requiring considerable human and capital resources. Academic pharmacy played significant roles in securing the financial and moral support, organizing, and carrying out each of these investigations. Academic pharmacy must play a leadership role in determining the need for and conducting future studies at more frequent intervals.

Clinical Pharmacy
Perhaps the most visible example of academic leadership within the profession, the development of clinical pharmacy, represented the realization of a vision, long articulated among some academics and practitioners that pharmacists must play significant roles in assuring rational drug therapy for patients. The first clinical pharmacy experiments took place in the academic setting. They demonstrated that pharmacists’ unique knowledge and skills contribute to better pharmacotherapeutic decisions for patient care.

Subsequent to these demonstrations, the rapid spread of clinical pharmacy in the curriculum came about as a result of academic leaders securing legislative language that awarded federal capitation funds to those pharmacy schools that included clinical pharmacy subjects in their curriculums (in addition to expanding their class sizes). These early clinical practices within the
academy and the clinically oriented practitioners they
produced laid the groundwork for pharmaceutical
care.

As energizing as it was to the profession in the
60’s, 70’s, and 80’s, clinical pharmacy has expanded
into pharmaceutical care, a conceptual evolution that
some in the academy and the profession have yet to
understand and appreciate completely, but a concep-
tual evolution that is vital for the continuing evolution
of the profession.

Experiential Education

Very early in the evolution of pharmacy in this
country, one became a pharmacist (apothecary) by
apprenticing oneself to an established apothecary. For
a period, therefore, experience was the only criterion
for becoming a pharmacist. As collegiate education
became the established mode of preparing pharma-
cists, experience in pharmacy became less important
in the minds of educators at the time, and eventually,
adademic pharmacy left the experience requirement to
the boards of pharmacy as a requirement for licensure.
The elaboration of clinical pharmacy reestablished the
importance of experiential learning as a critical com-
ponent of the professional curriculum. At that time,
all health professional students — even veterinary
students — were learning at the patient’s bedside —
except pharmacy students.

In instituting experiential education and training
as an integral part of the curriculum, academic phar-
macy built considerable educational structure into its
experiential educational systems. Elements such as
the qualifications, training, and selection of precept-
ors, the creation and expression of educational out-
comes for rotations, criteria for grading, and student
and preceptor evaluations became the norm for col-
leges and schools of pharmacy. A considerable expert-
ise in experiential education has grown up within
pharmaceutical education.

These results occurred as a result of the leadership
of a small but dedicated group of educators, whose
vision of student learning included a rich practice ex-
perience, and who had the background, energy, and
fortitude to see to it that experiential education was
done right. These unique educators and the practitio-
nner educators with whom they worked created the
practice-education interface, which became a rich
source of educational and practice innovation within
the profession.

The Degree Debate

During the 70’s and 80’s, pharmaceutical education
came under considerable criticism from segments of the
practice community for its refusal to adopt the Doctor of
Pharmacy as the universal degree for entry into the pro-
fession. Despite continuous debate within academic
pharmacy, the American Association of Colleges of
Pharmacy (AACP) failed several times to adopt policy
toward this end. More than forty years elapsed from the
time that the Elliott Survey Report recommended that
pharmaceutical education adopt the PharmD as the entry
degree to AACP’s approval of its PharmD policy in

To some, this is an example of an egregious lack of
leadership on the part of academic pharmacy. To others
it is the perfect expression of academic leadership. Dur-
ing the intervening years between 1948 and 1992, the
academy debated this issue probably more intensely
than any other issue in the history of American pharma-
cutical education. It was also an issue in which the pro-
fession took enormous interest with two of its largest
professional societies, the American Pharmaceutical
Association (APhA) and the American Society of
Health-System Pharmacists (American Society of Hos-
pital Pharmacists at the time) encouraging, in strong
policy language, that the PharmD become the entry de-
gree for all the profession.

Academic pharmacy demurred. Notwithstanding the
desires of some in the academy, the case for such a ma-
jor change simply had not been made to the majority
of the academy. It took the introduction and adoption by
the profession of the vision and mission of pharmaceuti-
cal care and leadership of nine academicians and one
practitioner (The AACP Commission to Implement
Change in Pharmaceutical Education) to make that case.
In its reports to the academy, the Commission pointed
out that the profession had adopted pharmaceutical care
as its vision and mission, and pharmaceutical education
must do likewise (and it did). Moreover, preparing prac-
titioners to deliver pharmaceutical care would require a
curriculum considerably different from the current one.
Such a curriculum should prepare practitioners not only
with the knowledge of pharmacotherapy (which the
clinical pharmacy curriculum had done quite ade-
quately), but also to prepare practitioners who would be
critical thinkers, problem solvers, leaders, ethical and
caring providers who could use the knowledge of phar-
macotherapy in the direct, responsible care of patients.
The case made clearly, persuasively, and concisely, aca-
demic pharmacy adopted the PharmD in 1992.
In a major example of academic leadership, after academic pharmacy adopted its policy to make the PharmD the sole entry degree for practice, it mounted a profession-wide program to make it possible for pharmacists holding the baccalaureate degree to earn the PharmD degree via nontraditional educational pathways.

**Curricular Change**

Leadership frequently is a matter of speed, of seizing the initiative to institute change when time is of the essence. This precisely is what happened after 1992. The academy adopted the Pharm.D. as its entry degree, but the real work lay in creating a curriculum that would achieve the general outcomes articulated by the Commission to Implement Change in Pharmaceutical Education in a timely fashion. The profession was waiting. Accepting this leadership challenge, the academy (1) developed and adopted specific educational outcomes that a curriculum should produce in graduates (CAPE outcomes); (2) identified and adopted learning strategies that faculties could implement to achieve the outcomes; and (3) created the excitement and energy for faculties to engage in the process of completely rebuilding their curriculums from the ground up. Here was a perfect example of academic leadership in action. Faculties who had engaged in comprehensive curricular change assisted those who were just beginning. Over a relatively short period of eight to ten years, almost all pharmacy colleges and schools completely overhauled their curriculums.

**Workforce/Manpower**

Issues related to workforce and manpower are vital for any organized profession, and pharmacy is certainly no exception. Indeed compared to medicine and dentistry, pharmacy is deficient in workforce structures that should provide data about the profession and on which critical planning decisions could be made. That being the case, academic pharmacy has been a leader regarding workforce since the American Association of Colleges of Pharmacy conducted a census of the profession under contract with the Bureau of Health Professions in the mid 1970’s. Unfortunately the project was not continued and the data became suspect in the late 80’s when the profession began to question its size and demographic composition. At that time, AACP joined with the National Association of Boards of Pharmacy to organize the Pharmacy Manpower Project, Inc. This time, other professional organizations and societies were invited and agreed to participate and support the effort. The result is an agency of the profession, composed of the profession’s organizations that conduct and support studies of the profession’s workforce. Several recent contributions include a survey of the profession to update its demographic profile, the creation of a Demand Index that provides information on a monthly basis relative to the demand for pharmacists by state, and a conference held in October 2001 to discuss the professionally determined need for pharmacists in 2020.

In each of these examples, academic pharmacy, either through the active participation of its professional society, AACP, or individual academicians acting in collaboration with practitioner organizations or individual practitioners, succeeded in achieving major advances in the profession. This leadership of collaboration was made possible because of the shared visions, the respect, and the close relationships of those who took part in the activities.

**Academic Leadership in the Future**

**Contemporary Competence/Continuous Quality Improvement.** How this matter is resolved will have enormous consequences for the profession and health care. All health professions are attempting to understand the issues involved and create programs to provide assurances to the public that health care is safe and practitioners are competent. Before pharmacy enacts programs to achieve these results, it must first understand the issues by understanding the nature of the problems it is attempting to resolve. The issues concern both individual practitioners - what they know, how they think, and how they perform and the systems in which pharmacists practice — how patients fare within these systems. Both are important and both must be attacked simultaneously.

**Individual Practitioners**

The profession has continued to evolve through the years, but the pace of evolution has increased in the past quarter century. This evolution has affected pharmacists’ practice responsibilities and what pharmacists do in fulfilling those responsibilities. Academic pharmacy demonstrated its appreciation for this evolution in revising its curriculums through the years to keep pace with pharmacy’s changing definition. The adoption of the PharmD Degree is an example of this recognition of the profession’s evolution.

As the profession has evolved, the need also evolved for individual practitioners to demonstrate to themselves, their patients, their employers, their peers, and regulatory agencies that they are practicing in keeping with the most recent contemporary definition of pharmacists’ responsibilities. Initially, continuing education was considered the appropriate vehicle to equip
practitioners with new knowledge. When the quality of continuing education programs became of concern, the academy supported the designation of the American Council on Pharmaceutical Education (ACPE) as the agency to develop standards for and approve the providers of continuing education. Later, as the profession’s evolved into patient care functions, colleges and schools of pharmacy along with professional associations created more rigorous and lengthy educational programs combining didactic, experiential, and evaluation components (certificate programs). The academy encouraged ACPE to develop standards for certificate programs and, AACP, in collaboration with ACPE, sponsored a consensus conference of the profession to achieve that outcome.

The profession has evolved to the point where it is now questioning whether it should consider means other than simply relying on continuing education to verify that its practitioners are performing to contemporary standards. Initial steps are encouraging; they include the creation of the Board of Pharmaceutical Specialties, the Commission for Certification in Geriatric Pharmacy, the National Institute for Standards in pharmacist Credentialing, and the Council on Credentialing in Pharmacy. AACP is a founding member of this latter organization.

While the profession appears to be addressing contemporary competency in specialized and/or differentiated areas of practice, the vast area of general practice remains elusive. The profession’s regulatory agencies have recognized their responsibilities, but the issues are complex and controversial. Many of the problems stem from a lack of accepted definitions (e.g., what is competence?), and a thorough understanding of and a lack of consensus about the nature of the problem we are attempting to resolve. The leadership of the academy must assist the profession as it works its way through these thorny issues. As in the debate related to the degree, a resolution will be found in a dialogue within the profession in which all pertinent issues are identified, explained, explored, debated, and decided upon. Because of the sensitivities of the debate, the academy is best positioned to lead this dialogue. Clearly, a strategy cannot be developed and accepted by the profession until there is understanding within it that the strategy will be understandable, fair, and addresses the underlying professional and public needs.

Among the issues that need to be resolved are the following:

- What is the problem we are attempting to solve?
- What is our objective?
  - Assure that practitioners are engaged in a program of continuing education?
  - Determine that pharmacists have the knowledge to practice according to the most recent definition of general practice?
  - Determine that pharmacists perform according to accepted standards?
  - Assure that pharmacists do not commit errors?
  - Assure that various pharmacy practice systems (chain, institutional, independent) are delivering services at a level of quality according to accepted standards?
- Competence to do what? The “what” is a contemporary definition of what pharmacists do in general practice. Four times in its history, the profession defined general practice. W.W. Charters did it in 1927; Elliott did it in 1948; AACP and APhA did it in 1978 (Standards of Practice Project); and a consortium of organizations did it in 1993 (Scope of Practice Project). Has general practice changed since its definition was last revised?
- Do we have standards of performance for individual practitioners and systems of practice that are considered contemporary?
- Who should develop these standards?
- Who should conduct the necessary assessments or assurances?
- What is the relationship between continuous quality assessment and assurance and contemporary competence?

Professional leaders in several other countries are developing their own responses to these questions. They include requiring practitioners to undergo periodic practice performance assessments in simulated practice situations (Canada) and requiring practitioners to engage in programs of continuing professional development (United Kingdom). These efforts offer the profession in the United States valuable experience that we should examine carefully.

Maintaining competence is not sufficient. Competence must be related to a contemporary definition of what competent practitioners do. Without the latter, the former becomes meaningless.
Continuing professional development is an organized effort to direct continuing education at specific goals. While needed and desirable, continuing education does not address the question of the quality of what practitioners do in serving patients, it is this latter issue that needs our prompt attention.

**Systems of Practice**

At the same time that the profession debates a strategy that focuses on individual practitioners, it must discuss and debate the responsibility of practice systems (independent pharmacies, chain pharmacies, institutional pharmacies, and other organized pharmacy practices) to define their practice outcomes and assess the extent to which they meet these outcomes. Strategies would include criteria related to the backgrounds and credentials of pharmacists employed within the practices and periodic assessments of their knowledge, skills, and performance. Certainly criteria related to errors committed in practice will be a part of these outcomes. Unlike other health professions, most if not all boards of pharmacy have the authority to license facilities in which drugs are stored and dispensed. It would appear that boards of pharmacy have the authority through their licensing power to require practice systems to develop quality assurance mechanisms.

As the profession evolves its response to the public need for assurances of competence and safety, it would be tragic for it to stop at the interim stage of continuing education or continuing professional development — as important as these strategies are. It must proceed to the rational endpoint of developing a policy embracing and promoting the continuous quality improvement of the systems in which pharmacists practice. The academy must lead the profession’s evolution into these systems.

**Practitioner Education.** Change creates uncertainty and enormous opportunities. No one disputes the increasing rapidity of change or evolution in pharmacy. The academy must develop education and training opportunities for practitioners to adapt to new practice opportunities. Practitioners must be willing to support financially these opportunities.

The recent report from the Pharmacy Manpower Project on the professionally determined need for pharmacists in 2020 indicates a decline in the demand for pharmacists in the order fulfillment/medication packaging functions and a corresponding spiraling in demand for pharmacists in the primary and secondary/tertiary caring responsibilities. Clearly, given this dynamic, if practitioners are to remain successful and competitive throughout their careers, they must have available to them rigorous and quality education and training opportunities. The profession with the active support and leadership of its academy laid the groundwork for these education and training opportunities when it elaborated the concept of the certificate education and training programs and requested the American Council on Pharmaceutical Education to create provider approval standards for this type of educational program. Moreover, academic pharmacy created a model for advanced practitioner education and training when it created and offered nontraditional PharmD pathways. Unfortunately, many colleges and schools are discontinuing their nontraditional PharmD programs and not replacing them with other rigorous practitioner educational programs.

Representatives from practice areas with the greatest need for pharmacists should collaborate with individual colleges or schools to create those educational programs to retrain practitioners for roles in these practice areas.

**Alternate Learning Systems.** New learning systems such as distance education are not universally accepted within the academy. While we should not accept all new ideas simply because they are new, we do ourselves a disservice by rejecting the new simply because they are new.

Since the degree decision, academic pharmacy has examined and implemented teaching strategies that result in those educational outcomes identified by the AACP Commission to Implement Change in Pharmaceutical Education and the subsequent CAPE Educational Outcomes. This set in motion an acceptance of teaching strategies that were different from those used in traditional collegiate education. As the academy faces the challenge of educating more pharmacists to satisfy a growing need, it is examining other alternate strategies, such as integrated campuses, branch campuses, and distance learning. Multiple campuses appear to be accepted as reasonable responses. However, distance learning is not universally accepted as an appropriate and effective strategy. It has not been evaluated in any comprehensive manner. The jury is still out.

Yet, in examining distance learning and other strategies in a serious way, the academy is exercising its leadership responsibilities. Evaluations will determine the appropriate role of distance education in the pharmaceutical curriculum. Evaluations will determine the extent to which this strategy will introduce efficiencies into the educational process.

Leaders frequently must take risks. Some risks fail; others succeed. We should not criticize leaders for tak-
Pharmacy as a Caring Profession and Collaborative Practice. The profession, with the leadership of its academic component, has made considerable progress in achieving its pharmaceutical care vision and mission. Academic pharmacy has a curriculum in place that is preparing practitioners to deliver care and an appropriate entry degree. Moreover, academic pharmacy participated in the development of a collaborative practice philosophy that is truly unique in health care. It recognizes that pharmacotherapy can be successful only when all professionals associated with it are involved in its planning and implementation.

Despite its enormous potential, collaborative practice is little understood by most practitioners, educators, and clinicians. Not all pharmacists are providing pharmaceutical care. Not all colleges and schools of pharmacy are involved in collaborative practice; not all are providing pharmaceutical care; not all clinical faculty members are providing care. Still to be achieved is an appreciation by practitioners, educators, and students of what caring is. Still to be achieved are practice systems within a majority of academic pharmacy where care is provided to patients in collaborative arrangements with other health care providers. Still to be achieved is an understanding of those qualifications in candidates for entry into pharmacy schools that bode well for developing caring behaviors as practitioners.

The profession must move away from the philosophy of clinical pharmacy in which the pharmacists serve as a consultant to the prescriber. Clinical pharmacy is a component of pharmaceutical care, but it is not pharmaceutical care. We do our students a great disservice if we expose them only to practices in which students “recommend” therapy changes to prescribers. Students must experience the excitement of a successful therapeutic plan they developed and the frustration of therapeutic failure. The academy led the movement into clinical pharmacy and the academy must lead the movement out of it and into pharmaceutical care.

Academic pharmacy has a special responsibility to assure that caring behaviors are inculcated into students throughout their academic experience. This is not an outcome that we should leave to experiential rotations (although experiential education will play a major role in expressing a caring attitude among students). Caring must be integrated throughout the curriculum.

Admission committees should develop tools to assess a caring attitude or disposition among applicants. A number of pharmacy colleges and schools are using psychological testing as part of their admission qualification assessments. Academic pharmacy should evaluate these tests to determine their reliability and validity to predict a caring character among applicants, and, if proven effective, advocate their wide and routine use.

Colleges and schools are creating innovative curricular methods, such as service learning in communities, to introduce students to care giving opportunities. Faculty should evaluate their programs and share their results and experiences.

Compensation for Care. There is a widespread belief in the profession that it must change its economic base. For example, a number of professional organizations are supporting federal legislation that would include pharmacists as a provider of services under Medicare. A growing number of community practitioners are submitting statements to insurance companies for cognitive services provided to patients. Some college and schools of pharmacy are being compensated for care delivered to patients seen in school pharmaceutical care clinics. The profession appears on the cusp of a comprehensive revision of its economic base. As pharmacy practices and pharmacists are compensated for their services, it is reasonable to expect that changes in practitioner incentives will generate pressures on traditional employer-employee relationships. It is reasonable to expect that clinical faculty will begin to generate practice revenue for their departments and themselves. Changes in compensation practices will invariably lead to changes in practice structures. It would be far better for the profession and the academy to anticipate these changes and be prepared for them rather than to react to them after they occur.

CONCLUSION

The academy has been a leader in the profession by supplying individuals who exercised their own leadership. We acknowledge some of our leaders with awards, citations, and lectureships; and they deserve such recognition. However, it is not possible to recognize all our leaders, and in focusing our attention on, perhaps the most deserving, we tend to overlook the vast number of those who, in their own way, contribute significantly to the leadership within the profession. Academic leaders come from a variety of backgrounds — pharmaceutical scientists, clinicians, faculty members, administrators, those prepared as pharmacists, those not. This diversity contributes to the quality of the academy’s leadership.
Academic leadership frequently comes not from any one person. It emerges from a vast array of individuals within academic pharmacy, each contributing her or his own leadership for the benefit of the whole. The contributions of those leaders we have acknowledged and honored through the years occurred only because others listened to them, challenged their logic and conclusions, bought into the vision, modified it, and worked hard to accomplish it. The exciting, mysterious, and awesome aspect of this phenomenon is that over the years, the efforts of so many persons coalesced around major problems within academic pharmacy and the profession to find solutions. While these efforts were not coordinated by any “master leader,” they occurred because of an environment in which dedicated academicians would discuss issues and problems facing the profession, debate strategies, and enact those programs and projects deemed to be effective in serving the good of the academy and/or the profession. A significant fact that stands out is that these academicians realized the interdependency of the practice and academic elements of the profession.

The academy has been an intimate participant with its practice colleagues in leading the profession’s evolution throughout recent history. This closeness of this partnership is unique in pharmacy as compared with other health professions. As pharmacy confronts the complex and important issues facing it, the academy will be a valuable and contributing ally. Healthy debate accompanied by a mutual respect will generate comprehensive understandings of the issues and form the basis for aggressive and comprehensive strategies. The academy is proud of its leadership within the profession. It is poised for future leadership. The profession will be better for it.