AACP Commission to Implement Change in Pharmaceutical Education

"What is the Mission of Pharmaceutical Education?"

Background Paper 1

Introduction
The Commission to Implement Change in Pharmaceutical Education was charged in July, 1989 with the task of developing a series of recommendations to guide pharmaceutical education as it evolves to meet the changing demands of the profession, the health care system and society. As a principal means of carrying out its charge, the Commission will issue a series of background papers and recommendations for consideration and acceptance by the AACP Board of Directors and the AACP House of Delegates and implementation by AACP. The Commission intends that schools and colleges of pharmacy and individual pharmacy educators will use its background statements and recommendations in evaluating and refining existing educational efforts and in designing and implementing new educational endeavors.

Consistent with this strategy, the Commission first has examined the purpose of pharmaceutical education in society. It has prepared a mission statement for pharmaceutical education which is offered herein for acceptance by the pharmaceutical educational community.

As a fundamental premise to all its discussions, analyses and recommendations, the Commission is operating under the assumption that the "enterprise" of pharmaceutical education -- the combined inputs, outputs, strategies, and personnel of pharmaceutical education -- is an integral part of the profession of pharmacy.

In order to construct a mission statement for pharmaceutical education, the Commission developed working assumptions regarding a mission statement for the profession of pharmacy and pharmacy practice. The Commission differentiates between the mission of pharmacy practice and the mission of the profession. The latter should be broad and encompass pharmacy practice, pharmaceutical education and drug research and development.

The Commission does not wish to preempt others in the profession as they develop their own missions for the profession and practice. Rather, it hopes that these working statements may be of assistance to the profession as it strives to adopt its mission statements.

Mission for the Profession of Pharmacy
The Commission requested national pharmacy practice organizations to provide policies, statements or other documents that would provide those organizations' views regarding the mission of the profession or of practice. Most of the responses received were organization-specific. In addition, several of the Commission members attended the second Pharmacy in the 21st Century Conference which concluded that the profession needs a mission statement, and offered suggestions about the contents of such a statement.

Rather than develop a precise mission statement for the profession, the Commission is offering its thoughts to identify major concepts that in all likelihood would be included in a mission statement for the profession. These concepts are based on an analysis of existing policies, statements and documents within the profession. Consequently, the Commission feels assured that its view of the profession's mission will not differ markedly from that which emanates from the profession in the future.
Professions exist to serve society and the mission of the pharmacy profession must address the needs of society and individual patients. The profession is a major part of the system that discovers, develops, produces and distributes drug entities and drug products. It creates and disseminates knowledge related to drug entities, drug products and drug distribution systems.

The major outputs of the pharmacy profession are pharmaceutical care, knowledge, drug entities, and drug products. The primary personnel in the profession that produce these outputs are practitioners, educators, researchers and those involved with the manufacture and distribution of drug products. Pharmacy's mission statement must integrate the three elements of personnel, products and beneficiaries into a process that fulfills several broad responsibilities related to the needs of society and the expertise of the profession.

The profession assures that drug products are available to prevent, ameliorate, diagnose or treat illnesses. It fosters systems that provide patients with safe and effective drug therapy (that is, the best drug, dose and delivery system, for the right patient at the correct time, with due consideration for cost). It supports shared authority and responsibility between pharmacists and other health practitioners for planning, implementing and monitoring drug use. It advocates a covenantal relationship between pharmacy practitioners and patients through which practitioners hold patients' well-being as paramount. The profession creates and maintains systems for the evaluation and dissemination of accurate drug information to the pharmacy profession, other professions and the public; and the profession educates other professions and the public about the benefits of utilizing pharmaceutical care.

The profession assures its continuing service to society by recruiting, educating and training future members of the profession: practitioners, researchers and educators. It supports and fosters systems to assure the competence of all who serve society through the profession. It supports systems to assure the quality of the profession's outputs of care, knowledge and drugs. It continually analyzes and evaluates health care needs in order to maintain or alter the nature and scope of care, research and education that practitioners, researchers and educators provide.

Mission of Pharmacy Practice
In its analysis and discussion of a mission of pharmacy practice, the Commission examined statements and policies developed by professional pharmacy practice organizations. In addition, the Commission consulted works of Brodie and Hepler (a member of the Commission). The Commission also was guided by consensus statements produced by the second Pharmacy in the 21st Century Conference which was held in October, 1989.

Pharmacy practice is one means through which the profession delivers its knowledge and products to patients in society. The Commission believes that pharmacy practice should focus on the rational use of drugs. Historically, the major patient-oriented, professional functions associated with such practice involved preparing the drug product and providing the product to the patient. These continue to be important components of pharmacy practice. However, in recent times, the profession of pharmacy has evolved new functions and responsibilities in response to the increasing effectiveness, potency, preciseness, risk and cost of drug therapy and the increasing use of drugs in diagnosis. Thus the scope of contemporary activities includes:
- participating in the process of drug use decisions;
- selecting the drug product dosage form;
- selecting drug product source of supply;
- determining the dose and dosage schedule;
- preparing the drug product for patient use;
- providing the drug product to the patient;
- providing drug information to the patient;
- monitoring the patient to maximize compliance;
- monitoring the patient to detect adverse drug reactions and drug interactions; and
- monitoring the patient to enhance the probability that therapy proceeds in accord with patient care objectives.

These functions all support the rational use of drugs and are directed toward the patient. Some of these activities are performed by health professionals other than pharmacists; some are routinely performed by all pharmacists; and an increasing number of pharmacists are engaged in all of these activities.

The Commission believes that these procedures must be performed as a continuum and within a philosophy of practice which focuses on the patient as the beneficiary of pharmacists' acts. That philosophy of practice is pharmaceutical care.

Thus, the Commission believes that the mission of pharmacy practice is to render pharmaceutical care. Pharmaceutical care focuses pharmacists' attitudes, behaviors, commitments, concerns, ethics, functions, knowledge, responsibilities and skills on the provision of drug therapy with the goal of achieving definite outcomes toward the improvement of a patient's quality of life. These outcomes of drug use are: 1) cure of a disease; 2) elimination or reduction of symptoms; 3) arresting or slowing a disease process; 4) prevention of disease; 5) diagnosis of disease; and 6) desired alterations in physiological processes, all with minimum risk to patients. Just as it is generally assumed that physicians are primarily involved in medical care and nurses in nursing care, pharmacists are the primary providers of pharmaceutical care.

Pharmaceutical care involves judgments and decisions to avoid, initiate, maintain or discontinue drug therapy. Thus, the Commission believes that all patients in the health care system should have access to pharmaceutical care.

Pharmacy practice develops and applies specific indicators to determine the degree to which the outcomes of pharmaceutical care are achieved. It develops systems that assist practitioners to maintain their competence to provide pharmaceutical care.

Pharmaceutical care does not exist in isolation from other health care services. It must be provided in collaboration with patients, physicians, nurses and other care providers. Pharmacists are responsible directly to patients for the cost, quality and results of pharmaceutical care.

The mission of pharmacy practice also entails the provision of training programs for students, practitioners, the public and other health professionals about drug use, and the development, evaluation and dissemination of new knowledge regarding drug therapy and pharmaceutical care systems.
Mission of Pharmaceutical Education

Most, if not all, schools and colleges of pharmacy have mission statements that describe their specific roles in meeting the needs of the profession and society. The mission of pharmaceutical education, as outlined herein, is intended to provide an affirmative direction for the national "enterprise" of pharmaceutical education. Although the Commission does not expect all schools and colleges of pharmacy to incorporate all elements of this mission into their programs, the Commission expects all in pharmaceutical education to endorse the mission for pharmaceutical education as the totality of individual institutions, students and faculties.

The mission of pharmaceutical education derives from the mission of the profession and is consistent with the mission of pharmacy practice. While pharmaceutical education shares in the mission of the profession, it is responsible for fulfilling that portion of the profession's mission that relates to research and education.

Pharmaceutical education is responsible for preparing students to enter into the practice of pharmacy and to function as professionals and informed citizens in a changing health care system. It is responsible for generating and disseminating new knowledge about drugs and about pharmaceutical care systems.

Pharmaceutical education inculcates students with the values necessary to serve society as caring, ethical, learning professionals and enlightened citizens. It provides students with scientific fundamentals and fosters attitudes necessary to adapt their careers to changes in health care over a lifetime. It also encourages students prior to and after graduation to take active roles in shaping policies, practices and future directions of the profession.

Pharmaceutical education maintains a dynamic, challenging and comprehensive curriculum which provides:

- general education in the sciences and humanities;
- a foundation in the administrative, biological, biomedical, clinical, pharmaceutical, physical and social sciences that are the basis for pharmaceutical care and underlying research;
- experiences in developing communicative, interpersonal and problem-solving skills;
- a foundation in social, ethical, legal and economic issues involved in pharmacy and health care; and
- experiences in practice management and the provision of pharmaceutical care in a variety of contemporary pharmacy practice settings and environments.

Pharmaceutical education promotes advances in pharmaceutical care by fostering postgraduate residencies and fellowships in the clinical sciences and differentiated areas of pharmacy practice. It provides structured postgraduate education and training through which practitioners maintain their competence and acquire new competencies to serve the changing needs of society.
Pharmaceutical education is responsible to the profession and to society for generating new knowledge about drugs, drug products, drug therapy and drug use through the conduct of basic and applied research. It promotes the pharmaceutical sciences by fostering graduate education and research within its schools and colleges. Pharmaceutical education is responsible for both professional education and graduate education for research. The latter focuses on preparing students to discover new knowledge, primarily by the use of the scientific method. The goal is to prepare scholars to perform independent, creative research that addresses important questions related to the discovery and use of drugs.

Pharmaceutical education continually evaluates its mission, objectives, goals and outcomes and determines and implements necessary changes in the nature and scope of education and research performed within the purview of pharmaceutical education.

**Conclusion**
The Commission believes that pharmaceutical education, as an integral component of the pharmacy profession, must function in ways which are consistent with the mission, goals and objectives of the profession and practice. The Commission has developed working mission statements for the profession and practice, and, from these, prepared a comprehensive mission statement for pharmaceutical education. The Commission will proceed with its charge based on this mission.