



**AMERICAN ASSOCIATION
OF COLLEGES OF PHARMACY**

Center for the Advancement of Pharmaceutical Education

Educational Outcomes 2004

AACP, the national organization representing and supporting colleges and schools of pharmacy and their faculties, is committed to education and scholarship for improving drug therapy.

Founded in 1900, the American Association of Colleges of Pharmacy (AACP) is the national organization representing pharmaceutical education in the United States. AACP's mission is to serve member colleges and schools and their respective faculties by acting as their advocate and spokesman at the national level, by providing forums for interaction and exchange of information among its members, by recognizing outstanding performance among its member educators, and by assisting member colleges and schools in meeting their mission of educating and training pharmacists and pharmaceutical scientists.

The material expressed in this document is meant as a resource and does not necessarily represent the views of the Board of Directors of the American Association of Colleges of Pharmacy, views of the membership at large, nor has it been adopted as official Association policy.

American Association of Colleges of Pharmacy, 1426 Prince Street, Alexandria, VA 22314.
Available at www.aacp.org.

Background

In 1992, to support and facilitate the efforts of colleges and schools of pharmacy in the US to transform their curricula to support the education of future practitioners to deliver pharmaceutical care, AACP initiated a series of initiatives under the Center for the Advancement of Pharmaceutical Education (CAPE). Significant to the design of new curricula were the CAPE *Educational Outcomes*, which were intended to be the target toward which the evolving pharmacy curriculum should be aimed.

The development of the CAPE *Educational Outcomes* was guided by a consultant and an advisory panel composed of educators and practitioners nominated for participation by practitioner organizations. The advisory panel used as resources the papers of the AACP Commission to Implement Change in Pharmaceutical Education, the AACP Focus Group on the Liberalization of the Professional Curriculum, and the results of the Scope of Practice Project survey that was supported by AACP, the American Pharmacists Association (then the American Pharmaceutical Association), the American Society of Health-System Pharmacists, and the National Association of Boards of Pharmacy. The CAPE *Educational Outcomes* were completed and distributed in 1994.

The AACP Board of Directors, during its July 1997 meeting, determined that, in light of the continued evolution of pharmacy practice and the roles and functions of pharmacists, a review and possible revision of the *Educational Outcomes* was needed. The CAPE Advisory Panel on *Educational Outcomes* was reconvened for that purpose and a revised document was made available in 1998.

2004 Revision Process

At the urging of the 2001-02 AACP Academic Affairs and Professional Affairs Committees, the AACP Board of Directors committed to a review and revision of the CAPE *Educational Outcomes* during 2003-04. This revision process was timely given the anticipated revision of the ACPE Accreditation Standards and Guidelines for the Professional Degree Program in Pharmacy Leading to the Doctor of Pharmacy Degree. Periodic review and revision is necessary to assure the contemporary validity of the educational content and outcomes with emerging sciences and scientific developments and evolving roles of the pharmacist in serving patient and public health needs. In addition to guiding curriculum development, the resultant CAPE *Educational Outcomes* were anticipated to assist students in making a connection between what they are learning and the practice of pharmacy and, when taken in whole, the CAPE *Educational Outcomes* would “tell the story” to external audiences about the role of the pharmacist.

Nine practitioner organizations were invited to nominate members to serve on an advisory panel and participate in the review, revision, and development of the updated *Educational Outcomes*. Individuals with a commitment to the educational process and, if possible, an understanding of instructional planning and the use of outcomes statements to drive curriculum development were specifically sought. Six members of the CAPE Advisory Panel on Educational Outcomes were nominated by the practitioner organizations and six were appointed by AACP. The process was led by Gail D. Newton, Ph.D. (Purdue), who served as consultant to the project.

At the outset of revision process, it was agreed that the CAPE *Educational Outcomes* document would be simplified from previous versions, with attention paid to assure that the document not be made too simple and vague, yet not so detailed that it is prescriptive. It was also agreed that, to the extent possible, the revised CAPE *Educational Outcomes* would employ similar language to other

competency/outcomes documents in the health professions (e.g., Institute of Medicine, Accreditation Council for Graduate Medical Education, Pharmacy's Framework for Drug Therapy Management, Medical School Objectives Project). The advisory panel reaffirmed pharmaceutical care as the philosophy of practice upon which the *CAPE Educational Outcomes* would continue to be anchored and used the evolving "desired future" vision within the Joint Commission of Pharmacy Practitioners (JCPP) strategic planning exercise as background.

The CAPE Advisory Panel offers in this document a new organizing framework for the *Educational Outcomes* that integrates science, professional attributes, interprofessional practice, and professionalism across new major headings of pharmaceutical care, systems management, and public health, as they are in the practice of pharmacy. Working from this broad framework, AACP's academic sections and faculties at member colleges and schools are encouraged to add discipline- and content-specific outcome statements that are meaningful within their context.

Susan M. Meyer, Ph.D.
Senior Vice President
May 2004

2004 CAPE Advisory Panel on Educational Outcomes

Nominated by ASCP

Susan W. Miller, Pharm.D.
Mercer University
Southern School of Pharmacy
3001 Mercer University Drive
Atlanta GA 30341

Nominated by ASHP

Diane B. Ginsburg, M.S.
University of Texas at Austin
College of Pharmacy
2409 University Avenue
Austin TX 78712

Nominated by AMCP

C. Eugene Reeder, Ph.D.
University of South Carolina
College of Pharmacy
715 Sumter, CLS-109
Columbia, SC 29208

Nominated by APhA

Warren Narducci, Pharm.D.
Nishna Valley Pharmacy
1208 W. Nishna Rd.
Shenandoah, IA 51601

Nominated by ACCP

Ralph H. Raasch, Pharm.D., FCCP, BCPS
University of North Carolina
School of Pharmacy
CB #7360, Beard Hall
Chapel Hill, NC 27599-7360

Nominated by NACDS

Greg Myrha
Wal-Mart
1030 Norwood Park Blvd
Austin, TX 78753

AACP appointees

Susan Paulsen, Pharm.D.
University of Colorado HS/C238
School of Pharmacy
4200 East Ninth Avenue
Denver, CO 80262-0238

George E. Francisco, Pharm.D.

The University of Georgia
College of Pharmacy
D.W. Brooks Drive
Athens, GA 30602-2351

June F. Johnson, Pharm.D.

Drake University
College of Pharmacy and Health Sciences
2507 University Avenue
Des Moines, IA 50311-4505

Noel E. Wilkin, Ph.D.

The University of Mississippi
School of Pharmacy
Thad Cochran Research Ctr - Rm 1026
P.O. Box 1848
University, MS 38655-1848

Timothy S. Tracy, Ph.D.

University of Minnesota
College of Pharmacy
5-130 Weaver-Densford Hall
308 Harvard Street SE
Minneapolis, MN 55455-0343

Thomas D. Zlatic, Ph.D.

St. Louis College of Pharmacy
4588 Parkview Place
St. Louis, MO 63110-1088

Consultant:

Gail D. Newton, Ph.D.

Purdue University
School of Pharmacy
P.U.S.H
601 Stadium Mall Drive
West Lafayette, IN 47907-2052

Educational Outcomes

1. **PHARMACEUTICAL CARE** Provide pharmaceutical care in cooperation with patients, prescribers, and other members of an interprofessional health care team based upon sound therapeutic principles and evidence-based data, taking into account relevant legal, ethical, social, economic, and professional issues, emerging technologies, and evolving biomedical, sociobehavioral, and clinical sciences that may impact therapeutic outcomes.
 - a. Provide patient-centered care.
 - i. Design, implement, monitor, evaluate, and adjust pharmaceutical care plans that are patient-specific and evidence-based.
 - ii. Communicate and collaborate with prescribers, patients, care givers, and other involved health care providers to engender a team approach to patient care.
 - iii. Retrieve, analyze, and interpret the professional, lay, and scientific literature to provide drug information to patients, their families, and other involved health care providers.
 - iv. Carry out duties in accordance with legal, ethical, social, economic, and professional guidelines.
 - v. Maintain professional competence by identifying and analyzing emerging issues, products, and services that may impact patient-specific therapeutic outcomes.
 - b. Provide population-based care.
 - i. Develop and implement population-specific, evidence-based disease management programs and protocols based upon analysis of epidemiologic and pharmaco-economic data, medication use criteria, medication use review, and risk reduction strategies.
 - ii. Communicate and collaborate with prescribers, population members, care givers, and other involved health care providers to engender a team approach to patient care.
 - iii. Retrieve, analyze, and interpret the professional, lay, and scientific literature to provide drug information to other health care providers and to the public.
 - iv. Carry out duties in accordance with legal, ethical, social, economic, and professional guidelines.
 - v. Maintain professional competence by identifying and analyzing emerging issues, products, and services that may impact population-based, therapeutic outcomes.

2. **SYSTEMS MANAGEMENT** Manage and use resources of the health care system, in cooperation with patients, prescribers, other health care providers, and administrative and supportive personnel, to promote health; to provide, assess, and coordinate safe, accurate, and time-sensitive medication distribution; and to improve therapeutic outcomes of medication use.
- a. Manage human, physical, medical, informational, and technological resources.
 - i. Apply relevant legal, ethical, social, economic, and professional principles/issues to assure efficient, cost-effective utilization of human, physical, medical, informational, and technological resources in the provision of patient care.
 - ii. Communicate and collaborate with patients, prescribers, other health care providers, and administrative and supportive personnel to engender a team approach to assure efficient, cost-effective utilization of human, physical, medical, informational, and technological resources in the provision of patient care.
 - iii. Carry out duties in accordance with legal, ethical, social, economic, and professional guidelines.
 - iv. Maintain professional competence by identifying and analyzing emerging issues, products, and services that may impact management of human, physical, medical, informational, and technological resources in the provision of patient care.
 - b. Manage medication use systems.
 - i. Apply patient- and population-specific data, quality assurance strategies, and research processes to assure that medication use systems minimize drug misadventuring and optimize patient outcomes.
 - ii. Apply patient- and population-specific data, quality assurance strategies, and research processes to develop drug use and health policy, and to design pharmacy benefits.
 - iii. Communicate and collaborate with prescribers, patients, caregivers, other involved health care providers and administrative and supportive personnel to identify and resolve medication use problems.
 - iv. Carry out duties in accordance with legal, ethical, social, economic, and professional guidelines.
 - v. Maintain professional competence by identifying and analyzing emerging issues, products, and services that may impact medication use systems, to develop use and health policy, and to design pharmacy benefits.

3. **PUBLIC HEALTH** Promote health improvement, wellness, and disease prevention in cooperation with patients, communities, at-risk populations, and other members of an interprofessional team of health care providers.
- a. Assure the availability of effective, quality health and disease prevention services.
 - i. Apply population-specific data, quality assurance strategies, and research processes to develop identify and resolve public health problems.
 - ii. Communicate and collaborate with prescribers, policy makers, members of the community and other involved health care providers and administrative and supportive personnel to identify and resolve public health problems.
 - iii. Carry out duties in accordance with legal, ethical, social, economic, and professional guidelines.
 - iv. Maintain professional competence by identifying and analyzing emerging issues, products, and services that may affect the efficacy or quality of disease prevention services to amend existing or develop additional services.
 - b. Develop public health policy.
 - i. Apply population-specific data, quality assurance strategies, and research processes to develop public health policy.
 - ii. Communicate and collaborate with prescribers, policy makers, members of the community and other involved health care providers and administrative and supportive personnel to develop public policy.
 - iii. Carry out duties in accordance with legal, ethical, social, economic, and professional guidelines.
 - iv. Maintain professional competence by identifying and analyzing emerging issues, products, and services that may affect public health policy, to amend existing or develop additional policies.