



AMERICAN ASSOCIATION
OF COLLEGES OF PHARMACY

Caring for the Underserved
**A delineation of educational outcomes organized within the Clinical
Prevention and Population Health Curriculum Framework for
Health Professions***

* Allen JA, Barwick TA, Cashman S, et al. Clinical prevention and population health: Curriculum framework for health professions, *Am J Prev Med* 2004;27: 417-22.

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CONTENT	TERMINAL EDUCATIONAL OUTCOMES	INSTRUCTIONAL RESOURCES
I. Evidence Base for Practice		
A. Epidemiology and biostatistics		
<ol style="list-style-type: none"> 1. Rates of disease (e.g., incidence, prevalence, case fatality) 2. Types of data (e.g., nominal, continuous, qualitative) 3. Statistical concepts (e.g., estimation [relative risk/odds ratio and number needed to treat], statistical significance/confidence intervals, adjustment for confounding variables, causation) 	<ol style="list-style-type: none"> a. Determine how various measures of frequency of disease (incidence, prevalence, case fatality) are used to identify health care needs of an underserved population. a. Apply statistical concepts in the evaluation of epidemiologic data to determine risks and determinants of disease in an underserved population. b. Identify barriers to acquiring complete and accurate disease prevalence, severity, and outcomes data in underserved populations. c. Identify significant differences in types, rates or outcomes of disease that can be linked to ethnicity, socioeconomic status, access to health care providers and institutions, or other demographic characteristics common among underserved populations. 	<p>Greiner AC, Knebel E, eds., Committee on the Health Professions Education Summit, Institute of Medicine of the National Academies. <i>Health Professions Education: A Bridge to Quality</i>. The National Academies Press, Washington DC, 2003. Available at: http://fermat.nap.edu/books/0309087236/html/.</p> <p>Smedley BD, Stith AY, and Nelson AR, eds., Committee on Understanding and Eliminating Racial and Ethnic Disparities in Health Care Institute of Medicine of the National Academies. <i>Unequal Treatment: Confronting Racial and Ethnic Disparities in Healthcare</i>. The National Academies Press, Washington, DC, 2003. Available at: http://fermat.nap.edu/books/030908265X/html/R1.html</p> <p>Downes NJ. <i>Ethnic Americans for the Health Professional</i>, Kendall/Hunt, Dubuque, IA, 1997.</p> <p>Farmer RDT, Lawrenson R. <i>Lecture notes: Epidemiology and Public Health Medicine</i>. 5th ed. Boston, Mass: Blackwell Publishing; 2004</p> <p>Friedland DJ, Go AS, Davoren JB, Shlipak MG, Bent SW, Subak LL, Mendelson T. <i>Evidence-Based Medicine: A Framework for Clinical Practice</i>. Stamford, Conn: Appleton & Lange; 1998.</p> <p>Friis RH, Sellers TA, <i>Epidemiology for Public Health Practice</i>. 3rd ed. Boston, Mass: Jones and Bartlett; 2004.</p> <p>Galloway JM, Goldberg BW, Alpert JS. <i>Primary Care of Native American Patients: Diagnosis, Therapy and Epidemiology</i>. Boston, Mass: Butterworth Heinemann; 1999</p> <p>Goodman KW. <i>Ethics and Evidence-Based Medicine: Fallibility and Responsibility in Clinical Science</i>. Cambridge, UK: Cambridge University Press; 2003.</p> <p>Guyatt GH, et al, Users' Guides to the Medical Literature, series, <i>JAMA</i> 1993-2000</p> <p>Hulley SB, Cummings SR, eds, <i>Designing Clinical Research: An Epidemiologic Approach</i>, Baltimore, Williams and Wilkins; 2000</p> <p>Jenicek M. <i>Foundations of Evidence-Based Medicine</i>. New York, NY: Taylor & Francis; 2003.</p> <p>Lattanzi JB, Purnell LD. <i>Developing Cultural Competence in Physical Therapy</i></p>

		<p><i>Practice</i>. Philadelphia, Penn.: A.F. Davis Co; 2005.</p> <p>Motulsky H. <i>Intuitive Biostatistics</i>, New York, NY: Oxford University Press; 1995</p> <p>Norman GR and Steiner GL, <i>Biostatistics: The Bare Essentials</i>. 2nd ed.. Philadelphia, Penn.: BC Decker; 2000</p> <p>Riegelman RK, Hirsch, RP. <i>Studying a Study and Testing a Test: How to Read the Health Science Literature</i>. 3rd ed. Boston, Mass.: Little Brown & Co.; 1996.</p> <p>Straus SE, Richardson WS, Glasziou P, Haynes RB, <i>Evidence-based Medicine: How to Practice and Teach EBM</i>, 3rd ed. Edinburgh: Churchill Livingstone; 2005</p>
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B. Methods for evaluating health research literature

<ol style="list-style-type: none"> 1. Study designs (e.g., surveys, observational studies, randomized clinical trials) 2. Quality measures (e.g., validity, accuracy, reproducibility, biases) 3. Sampling and statistical power 	<ol style="list-style-type: none"> a. Critically analyze literature with regards to study design, methodology, findings, and conclusions, and determine how these may affect findings and the application of results to a given underserved population. b. Compare and contrast the use of meta-analyses, reviews, randomized control trials, cohort studies, case control studies, case reports, and animal and laboratory studies. <ol style="list-style-type: none"> i. Consider the inclusion or exclusion of underserved populations in a study, and how it may affect the implication of the findings. ii. Determine the extent to which investigators have considered cultural practices (e.g., non-traditional or alternative medicine, holistic or spiritual-based healing practices) and/or pharmacogenetic patterns relevant to the study population in the project design, and the impact of their inclusion or omission on the application of findings to specific underserved populations. c. Propose how a study that did not take critical factors relevant to underserved populations into account could be redesigned to enhance relevance to disadvantaged groups. <ol style="list-style-type: none"> i. Identify barriers to implementing the ideal study design. d. Evaluate a research study report, with respect to study design, appropriate use of statistics, unbiased presentation of results, supported conclusions, and applicability of results to a selected underserved population. <ol style="list-style-type: none"> i. Identify strategies that would enhance the validity of extrapolating study results to that population. e. Integrate evidence with clinical expertise and patient 	<p>Smedley BD, Stith AY, and Nelson AR, eds., Committee on Understanding and Eliminating Racial and Ethnic Disparities in Health Care Institute of Medicine of the National Academies. <i>Unequal Treatment: Confronting Racial and Ethnic Disparities in Healthcare</i>. The National Academies Press, Washington, DC, 2003. Available at: http://fermat.nap.edu/books/030908265X/html/R1.html</p> <p><i>Journal of Healthcare for the Poor and Underserved</i>. The Johns Hopkins University Press . Available at: http://muse.jhu.edu/journals/journal_of_health_care_for_the_poor_and_underserved/</p> <p>U.S. Congress, Office of Technology Assessment. <i>Health Care in Rural America</i>. OTA-H-434.23 [Internet]. Washington, DC; U.S. Government Printing Office; 2000. Available at: http://www.wws.princeton.edu/ota/disk2/1990/9022_n.html</p> <p>Ascione FJ. <i>Principles of Scientific Literature Evaluation: Critiquing Clinical Drug Trials</i>. Washington, DC: APhA Publications; 2001</p>
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	preferences to develop and implement pharmaceutical care programs in underserved populations.	
C. Outcome measurement, including quality and costs		
<ol style="list-style-type: none"> 1. Measures of mortality (e.g. infant mortality rates, life expectancy) 2. Measures that include quality of life/utility (e.g., quality-adjusted life years) 3. Measures that include cost (e.g., cost effectiveness, incremental cost effectiveness) 4. Measures of quality of health care (e.g., health status disparities, health plan employer data and information set [HEDIS]) 	<ol style="list-style-type: none"> a. Using hypotheses generated by descriptive epidemiology, design formal epidemiologic studies to confirm or disprove such hypotheses in a selected underserved population. b. Describe public health and related issues (e.g., unemployment rates) that impact the mortality, quality of life and/or overall health status in underserved populations. c. Using mortality and/or quality of life data, determine if there is an indication for additional health services for a specific underserved population. d. Evaluate a given plan for the provision of health services for a specific underserved population for cost-effectiveness and make recommendations for improvement. e. Conduct an analysis of the ability of the target underserved community to pay for proposed services, and identify alternative resources, including extramural funding, essential to the successful implementation of the plan. f. Design a plan to assess the impact of a health services implementation project on the recipient population. Include qualitative research strategies (e.g., focus group discussions, patient interviews, etc.) as well as data outcome measures, in the assessment plan. g. Describe literature-supported frameworks for evaluating critical issues related to financing health care initiatives to underserved populations, comparing and contrasting where appropriate. 	<p>U.S. Department of Health and Human Services, Agency for Healthcare Research and Quality. <i>2005 National Healthcare Disparities Report</i>, Publication No. 06-0017; Dec. 2005. Available at http://www.ahrq.gov/qual/nhdr05/nhdr05.pdf</p> <p><i>Journal of Healthcare for the Poor and Underserved</i>. The Johns Hopkins University Press . Available at: http://muse.jhu.edu/journals/journal_of_health_care_for_the_poor_and_underserved/</p> <p>National Minority Health Month Foundation. Available at http://www.nmhmf.org/</p> <p>U.S. Department of Health and Human Services, Centers for Disease Control and Prevention. <i>Morbidity and Mortality Weekly Report</i>. Available at: http://www.cdc.gov/mmwr.</p> <p>Hulley SB, Cummings SR, eds, <i>Designing Clinical Research: An Epidemiologic Approach</i>, Baltimore, Williams and Wilkins; 2000</p>
D. Health Surveillance		
<ol style="list-style-type: none"> 1. Vital statistics/legal documents (e.g., birth certificates, death certificates) 2. Disease surveillance (e.g., passive surveillance [reportable disease], active surveillance for epidemics and bioterrorism) 3. Biological, social, economic, geographic, and behavioral risk 	<ol style="list-style-type: none"> a. Describe how vital statistics and legal documents are used in epidemiological studies to determine health needs of an underserved population. <ol style="list-style-type: none"> i. Identify characteristics of the selected underserved population that would facilitate, and those that would hinder access to these data and documents. b. Describe how epidemiologic surveillance is used to track distribution and determinants of notifiable diseases. <ol style="list-style-type: none"> i. Use this information to evaluate health risks and address health needs for an underserved region or population. c. Propose how disease surveillance could be effectively conducted in a selected underserved population, and then used to identify and treat or prevent a non-notifiable disease. d. Integrate surveillance data to tailor the provision of 	<p><i>Journal of Healthcare for the Poor and Underserved</i>. The Johns Hopkins University Press . Available at: http://muse.jhu.edu/journals/journal_of_health_care_for_the_poor_and_underserved/</p> <p>National Minority Health Month Foundation. Available at http://www.nmhmf.org/</p> <p>U.S. Department of Health and Human Services, Centers for Disease Control and Prevention. <i>Morbidity and Mortality Weekly Report</i>. Available at: http://www.cdc.gov/mmwr.</p> <p>World Health Organization. Available at: http://www.who.int/en/</p> <p>Choi BCK. Perspectives on Epidemiologic Surveillance in the 21st Century. <i>Chronic Diseases in Canada</i>. 2000;19(4). Available at: http://www.phac-</p>

factors	<p>pharmacy services to an underserved population.</p> <p>e. Determine how an underserved population may be affected by biological, social, economic, geographic, and behavioral risk factors.</p> <p>f. Identify needs of individuals in underserved communities that compete with health care (e.g., housing, food, transportation, literacy, security) and analyze their potential impact on the ability to secure and adhere to quality care services.</p>	<p>aspc.gc.ca/publicat/cdic-mcc/19-4/b_e.html</p> <p>Farmer RDT, Lawrenson R. <i>Lecture notes: Epidemiology and Public Health Medicine</i>. 5th ed. Boston, Mass: Blackwell Publishing; 2004</p> <p>Friis RH, Sellers TA, <i>Epidemiology for Public Health Practice</i>. 3rd ed. Boston, Mass: Jones and Bartlett; 2004.</p> <p>Shilts, R. <i>And The Band Played On: Politics, People and the AIDS Epidemic</i>, New York: St. Martin's Press; 1987</p>
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E. Determinants of Health		
<p>1. Burden of illness (e.g., distribution of morbidity and mortality by age, gender, race, socioeconomic status, geography)</p> <p>2. Contributors to morbidity and mortality (e.g., genetic, behavioral, socioeconomic, environmental, health care [access and quality])</p>	<p>a. Recognize disparities in the burden of illness between different age, gender, race, socioeconomic and geographic populations.</p> <p>b. Determine how genetic, behavioral, socioeconomic, environmental, and health care access and quality factors contribute to morbidity and mortality.</p> <p>c. Utilizing projections of U.S. population demographics and life expectancy, compare the overall burden of illness today to that anticipated 25 years from now for selected underserved populations.</p> <p>d. Describe the various roles that the health care provider working in underserved communities must assume in order to assure optimal patient care outcomes in an era of scarce resources.</p> <p>e. Using the IOM report “Health Professions Education: A Bridge to Quality” as a reference, identify the advantages and challenges of interdisciplinary team-based care in underserved populations. Suggest strategies to optimize opportunities and overcome barriers to health.</p> <p>f. Construct a list of literature-supported “best practices” for decreasing morbidity/mortality and optimizing health in an underserved population.</p>	<p>U.S. Department of Health and Human Services, Agency for Healthcare Research and Quality. <i>2005 National Healthcare Disparities Report</i>, Publication No. 06-0017; Dec. 2005. Available at http://www.ahrq.gov/qual/nhdr05/nhdr05.pdf</p> <p>Smedley BD, Stith AY, and Nelson AR, eds., Committee on Understanding and Eliminating Racial and Ethnic Disparities in Health Care Institute of Medicine of the National Academies. <i>Unequal Treatment: Confronting Racial and Ethnic Disparities in Healthcare</i>. The National Academies Press, Washington, DC, 2003. Available at: http://fermat.nap.edu/books/030908265X/html/R1.html</p> <p>Greiner AC, Knebel E, eds., Committee on the Health Professions Education Summit, Institute of Medicine of the National Academies. <i>Health Professions Education: A Bridge to Quality</i>. The National Academies Press, Washington DC, 2003. Available at: http://fermat.nap.edu/books/0309087236/html/.</p> <p>Assertive Community Treatment Association, Available at: http://www.actassociation.org/</p> <p><i>Journal of Healthcare for the Poor and Underserved</i>. The Johns Hopkins University Press . Available at: http://muse.jhu.edu/journals/journal_of_health_care_for_the_poor_and_underserved/</p> <p>National Minority Health Month Foundation, Available at: http://www.nmhmf.org/</p>

CONTENT	TERMINAL EDUCATIONAL OUTCOMES	INSTRUCTIONAL RESOURCES
II. Clinical Preventive Services—Health Promotion		
A. Screening		
<p>1. Approaches to testing and screening (e.g., range of normal, sensitivity, specificity, predictive value, target population)</p> <p>2. Criteria for successful screening (e.g., effectiveness, benefits and harms, cost, patient acceptance)</p> <p>3. Evidence-based recommendations</p>	<p>a. Describe the targeted underserved population and anticipate their preventive health care service needs</p> <ol style="list-style-type: none"> i. Analyze and assess demographic information to identify at-risk underserved populations (e.g. based on prevalence of risk factors and disease states). ii. Identify potential barriers to access to and use of services (e.g. transportation, insurance status, language, literacy). <p>b. Outline a community-based framework to address preventative health care services according to targeted population demographics (e.g. health status, disease status, socioeconomic status, barriers to accessing services), cultural beliefs, and preventative care needs.</p> <p>a. Describe methods for measuring and reporting the outcomes (e.g. clinical and economic) of service(s) provided.</p> <p>b. Assess outcomes of service(s) provided.</p> <p>c. Formulate a plan to address outcomes not achieved.</p> <p>a. Cite and describe examples from the literature that support the role of pharmacist-provided preventative health care services.</p> <p>b. Cite and describe examples from the literature of successful preventative health care delivery models.</p>	<p>U.S. Department of Health and Human Services, Agency for Healthcare Research and Quality. <i>2005 National Healthcare Disparities Report</i>, Publication No. 06-0017; Dec. 2005. Available at http://www.ahrq.gov/qual/nhdr05/nhdr05.pdf</p> <p>U.S. Department of Health and Human Services, Agency for Healthcare Research and Quality. <i>National Health Quality Report 2005</i>. Publication No. 06-0018; Dec. 2005. Available at: http://www.ahrq.gov/qual/nhqr05/nhqr05.pdf</p> <p>U.S. Census Information. Available at www.census.gov.</p> <p>U.S. Department of Health and Human Services, Centers for Disease Control and Prevention. Available at: www.cdc.gov/nchs/health_data_for_all_ages.htm</p> <p>Smedley BD, Stith AY, and Nelson AR, eds., Committee on Understanding and Eliminating Racial and Ethnic Disparities in Health Care Institute of Medicine of the National Academies. <i>Unequal Treatment: Confronting Racial and Ethnic Disparities in Healthcare</i>. The National Academies Press, Washington, DC, 2003. Available at: http://fermat.nap.edu/books/030908265X/html/R1.html</p> <p>Kaiser Family Foundation, Minority Health Web pages. Available at: www.kff.org/minorityhealth.</p> <p>National Minority Health Month Foundation, Available at: http://www.nmhmf.org/</p> <p>US Department of Health and Human Services, Office of Minority Health. Available at: www.omhrc.gov.</p> <p>The Cross Cultural Health Care Program. Seattle, Washington. Profiles on various communities. Available at: http://www.xculture.org Ethnomed's website: http://ethnomed.org IIA</p> <p>The Provider's Guide to Quality and Culture. Management Sciences for Health. Available at http://erc.msh.org/mainpage.cfm?file=1.0.htm&module=provider&language=English</p> <p>Lipson JG, Dibble SL. <i>Culture and clinical care</i>. San Francisco, Calif.:</p>

		UCSF Nursing Press; 2005 Shilts, R. And The Band Played On: Politics, People and the AIDS Epidemic, New York: St. Martin's Press; 1987
B. Counseling		
<p>1. Approaches to culturally appropriate behavioral change (e.g., counseling skill training, motivation)</p> <p>2. Clinician-patient communication (e.g., patient participation in decision making, informed consent, risk communication, advocacy)</p> <p>3. Criteria for successful counseling (e.g., effectiveness, benefits and harms, cost, patient</p>	<p>a. Describe elements of your own health and healing beliefs and traditions (e.g. definition of health and illness; values, attitudes, beliefs, and practices regarding health and illness).</p> <p>b. Determine how your own culture may affect the care you provide to culturally diverse patients.</p> <p>a. Elicit the health and healing beliefs of any given patient.</p> <p>b. Identify potential cross-cultural barriers to accessing or using preventative health care services in targeted underserved populations.</p> <p>c. Develop plans to address barriers to accessing or using preventative health care services in targeted underserved populations.</p> <p>d. Identify resources to bridge language and literacy barriers.</p> <p>e. Demonstrate skills for working with limited health literacy patients.</p> <p>f. Demonstrate techniques and skills for working effectively with unskilled and skilled interpreters.</p> <p>g. Provide information regarding preventative health care services to patients in a culturally sensitive and non-judgmental manner (e.g., taking into account a patient's beliefs, values, practices, daily routine).</p> <p>h. Address patient concerns and questions regarding preventative health care services in a culturally sensitive and non-judgmental manner.</p> <p>i. Negotiate the use of preventative health care services with patients.</p> <p>j. Apply models of effective cross-cultural communication techniques.</p> <p>k. Advocate for patients seeking preventative health care services.</p> <p>a. Describe methods for measuring the outcomes (e.g. patient adherence to lifestyle modifications; clinical) of counseling provided.</p> <p>b. Assess outcomes of counseling provided.</p> <p>c. Formulate a plan to address outcomes not achieved.</p>	<p>Georgetown University Center for Child and Human Development. National Center for Cultural Competence. Available at: http://gucchd.georgetown.edu/nccc/pa.html</p> <p>Mutha S, Allen C, Welch M. <i>Toward culturally competent care. A toolbox for teaching communication strategies</i>. San Francisco, Calif: Center for the Health Professions, University of California, San Francisco; 2002.</p> <p>Worlds Apart. Four educational video modules produced at the Stanford University Center for Biomedical Ethics and distributed by Fanlight Productions, Boston Massachusetts. Available for purchase at: http://www.fanlight.com/catalog/films/912_wa.php.</p> <p>Berger B. <i>Communication skills for pharmacists</i>. 2nd edition. Washington DC: APhA Publications; 2005</p> <p>Association of American Medical Colleges. <i>Tool for assessing cultural competence training (TACCT)</i>. 2005. Available at http://www.aamc.org/meded/tacct/start.htm</p> <p>The Cross Cultural Health Care Program. <i>Communicating Effectively through an Interpreter</i>.(video instructional tool). Available for purchase at: http://www.xculture.org/resource/order/detail.cfm?PID=27&list=27%2C25%2C23</p> <p>National Council on Interpreting in Health Care. Available at http://www.ncihc.org</p> <p>American Medical Association Foundation Health Literacy Kit, <i>Health Literacy: Help Your Patients Understand</i>. 2003. Available at http://www.ama-assn.org/ama/pub/category/9913.html</p> <p>Health Literacy Consulting. Available at: http://www.healthliteracy.com</p> <p>Osborne, H. <i>Health Literacy from A to Z: Practical Ways to Communicate Your Health</i>. Boston, Mass: Jones and Bartlett Publishers; 2004</p> <p>Ethnomed. Seattle, Washington. Information about cultural beliefs, medical issues and other related issues pertinent to the health care of recent immigrants Available at: http://www.ethnomed.org.</p>

<p>acceptance)</p> <p>4. Evidence-based recommendations</p>	<p>a. Cite and describe examples from the literature of validated models for communicating effectively with patients (e.g., transtheoretical model of behavioral change, motivational interviewing).</p> <p>b. Apply and adapt evidence-based models to individual patient interactions based on patient-specific factors.</p>	<p>Web sites of various health care professional organizations dedicated to patients with various disease states (e.g. American Diabetes Association-ADA) who may have patient education materials in different languages on a variety of topics available to download.</p>
<p>C. Immunization</p>		
<p>1. Approaches to vaccination (e.g., live vs. dead vaccine pre-vs. post-exposure, boosters, target population, population-based immunity)</p> <p>2. Criteria for successful immunization (e.g., effectiveness, benefits and harms, cost, patient acceptance)</p> <p>3. Evidence-based recommendations</p>	<p>a. Recommend yearly influenza vaccine for vulnerable populations according to CDC guidelines.</p> <p>b. Recommend pneumococcal vaccines for certain populations according to CDC guidelines.</p> <p>c. Administer injections to adults who are eligible for influenza and pneumococcal vaccines.</p> <p>d. Provide counseling regarding the need to obtain other immunizations including DPT, Haemophilus influenzae type b conjugate, Hepatitis A, Hepatitis B, IM and oral poliovirus, measles-mumps-rubella, varicella, meningococcal, and other currently available vaccines.</p> <p>a. Assess whether there is a decrease in influenza and pneumonia in their constituency.</p> <p>b. Assess the decrease in diseases for which immunizations provide protection.</p> <p>c. Assess whether there is a decrease in the number of hospitalizations due to diseases that immunizations were targeting.</p> <p>d. Assess the adverse effects secondary to immunizations in the area of their constituency.</p> <p>e. Analyze the costs of providing immunizations in the above-mentioned areas.</p> <p>f. Identify barriers to achieving target immunization rates in a given population.</p> <p>g. Assess patient beliefs regarding benefits of prevention.</p> <p>a. Assess appropriate Web sites to determine the most appropriate recommendations for immunizations (e.g., CDC guidelines)</p> <p>b. Assess appropriate articles that assess the impact of providing immunizations for prophylaxis of different disease states.</p> <p>c. Apply and adapt evidence-based models to providing immunizations for prophylaxis of different disease states to underserved populations.</p>	<p>U.S. Department of Health and Human Services. Centers for Disease Control and Prevention. Advisory Committee on Immunization Practices. Available at: www.cdc.gov/nip/acip</p> <p>American Academy of Family Physicians. Available at: http://www.aafp.org/online/en/home/clinical/immunizations.html</p> <p>American Academy of Pediatrics. Available at: http://www.aap.org/healthtopics/immunizations.cfm</p> <p>U.S. Department of Health and Human Services. Centers for Disease Control and Prevention. Available at: http://www.cdc.gov/</p> <p>U.S. Department of Health and Human Services. Centers for Disease Control and Prevention. <i>General recommendations on immunization: Recommendations of the Advisory Committee on Immunization Practices (ACIP) and the American Academy of Family Physicians (AAFP)</i>. MMWR 2002;51:1-35. Available at: http://www.cdc.gov/mmwr/preview/mmwrhtml/rr5102a1.htm</p> <p>U.S. Department of Health and Human Services. Centers for Disease Control and Prevention. <i>Prevention and control of influenza: Recommendations of the Advisory Committee on Immunization Practices (ACIP)</i>. MMWR 2004;53:1-40. http://www.cdc.gov/mmwr/preview/mmwrhtml/rr5306a1.htm</p> <p>Immunization Action Coalition. Online vaccine information sheets in a wide variety of languages. Available at: http://www.immunize.org/vis</p> <p>Ada G. Vaccines and vaccination. <i>N Engl J Med</i>. 2001;345:1042-53</p> <p>Englund JA. Maternal immunization with inactivated influenza vaccine: Rationale and experience. <i>Vaccine</i>. 2003;21:3460-4</p> <p>Francois G, Duclos P, Margolis H, <i>et al</i>. Vaccine safety controversies and the future of vaccination programs. <i>Pediatr Infect Dis J</i>. 2005;24:953-61</p>

	<p>d. Cite and describe examples from the literature of successful examples of pharmacists providing immunizations and the possible role in prevention of disease.</p>	<p>Goodman MJ, Nordin J: Vaccine adverse event reporting system reporting source: a possible source of bias in longitudinal studies. <i>Pediatrics</i> 2006;117:387-90.</p> <p>Lindenauer PK, Behal R, Murray CK, <i>et al</i>: Volume, quality of care, and outcome in pneumonia. <i>Ann Intern Med.</i> 2006;144:262-9.</p> <p>Sokos DR. Pharmacists' role in increasing pneumococcal and influenza vaccination. <i>Am J Health Syst Pharm.</i> 2005; 62:367-77</p> <p>Zimmerman RK, Middleton DB, Burns IT, <i>et al</i>. Routine vaccines across the life span, 2005. <i>J Fam Pract</i> 2005; 54(1 Suppl):S9-26.</p>
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D. Chemoprevention		
<p>1. Approaches to chemoprevention (e.g., pre- vs. post-exposure, time limited vs. long term)</p> <p>2. Criteria for successful chemoprevention (e.g., effectiveness, benefits and harms, cost, patient acceptance)</p> <p>3. Evidence-based recommendations</p>	<p>a. Determine whether appropriate prophylaxis is being done [e.g., ocular prophylaxis at birth, fluoride supplementation; MVI with folate administered before conception and during pregnancy; adequate calcium intake among postmenopausal women, persons on chronic steroids, those who do not drink milk; limited HRT for postmenopausal women; aspirin for myocardial protective effect; folate and vitamin B6/B12 for those with high homocysteine; statin therapy where appropriate].</p> <p>b. Assess appropriate duration of chemoprevention.</p> <p>a. Assess use of chemoprevention during medication history taking.</p> <p>b. Determine a patient's understanding of the benefits and harms of participating in a chemoprevention protocol.</p> <p>c. Determine whether the patient is experiencing any adverse effect secondary to the chemoprevention therapy.</p> <p>d. Determine whether the patient understands the cost-benefit of chemoprevention.</p> <p>e. Determine whether the patient accepts and condones use of chemoprevention therapy.</p> <p>a. Access appropriate Web sites and articles that assess the impact of chemoprevention for the disease states mentioned above.</p> <p>b. Apply and adapt evidence-based models to chemoprevention in underserved patient populations.</p> <p>c. Cite and describe examples from the literature of successful examples of pharmacists providing information and recommendations on the role of chemoprevention and the possible role in prevention of disease.</p>	<p>U.S. Department of Health and Human Services. Centers for Disease Control and Prevention. National Center for Chronic Disease Prevention and Health Promotion. <i>Goals for 2010</i>. Last reviewed 12/2. Available at: http://www.cdc.gov/reach2010/goals.htm</p> <p>Committee on Genetics. American Academy of Pediatrics. Folic acid for the prevention of neural tube defects. <i>Pediatrics.</i> 1999;104:325-7</p> <p>U.S. Department of Health and Human Services. Centers for Disease Control and Prevention. <i>Health Promotion</i>. Available at: http://www.cdc.gov/node.do/id/0900f3ec80059b1a</p> <p>U.S. Department of Health and Human Services. <i>Dietary Guidelines for Americans 2005</i>. Available at: http://www.healthierus.gov/dietaryguidelines/</p> <p>U.S. Department of Health and Human Services. <i>Healthy People 2010</i>. Available at: www.healthypeople.gov/.</p> <p>March of Dimes Birth Defects Foundation. <i>Birth Defects: Strategies for Prevention and Ensuring Quality of Life</i>. Available at: http://www.marchofdimes.com/aboutus/855_1939.asp</p> <p>Babb VJ, Babb J. Pharmacist involvement in healthy people 2010. <i>J Am Pharm Assoc.</i> 2003;43:56-60.</p> <p>Botto LD, Moore CA, Khoury MJ, Erickson JD. Neural-tube defects. <i>N Engl J Med.</i> 1999;341:1509-19</p> <p>Calis KA, Hutchinson LC, Elliott ME, <i>et al</i>. Healthy people 2010: challenges, opportunities, and a call to action for America's pharmacists. <i>Pharmacotherapy</i> 2004;24:1241-94.</p>

		<p>Dervin B. Libraries reaching out with health information to vulnerable populations: guidance from research on information seeking and use. <i>J Med Libr Assoc.</i> 2005;93(4 Suppl):S74-80</p> <p>Morrison EH. Preconception care. <i>Prim Care.</i> 2000;27:1-12</p> <p>Parker DR, Assaf AR. Community interventions for cardiovascular disease. <i>Prim Care</i> 2005;32:865-81</p> <p>Wang YR, Pauly MV. Preventive care in managed care and fee-for-service plans: Is it cost effective? <i>Manag Care Interface</i> 2003;16:47-50.</p>
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CONTENT	TERMINAL EDUCATIONAL OUTCOMES	INSTRUCTIONAL RESOURCES
III. Health Systems and Health Policy		
A. Organization of Clinical and Public Health Systems		
<ol style="list-style-type: none"> 1. Clinical health services (e.g., continuum of care—hospital, ambulatory, home, long-term care) 2. Public health responsibilities (e.g., public health functions [Institute of Medicine], ten essential services of public health) 3. Relationships between clinical practice and public health 4. Use of technology to improve access to health services** 	<ol style="list-style-type: none"> a. Identify access points that comprise the US health care safety-net system in ambulatory and inpatient care settings. b. Develop a program that increases access to affordable medications for uninsured patients. <ol style="list-style-type: none"> a. Apply the “essential services” of public health to the delivery of pharmacy services in a community. b. Demonstrate a commitment to serving one’s community. <ol style="list-style-type: none"> a. Recognize opportunities where the profession of pharmacy’s infrastructure can contribute to public health initiatives. <ol style="list-style-type: none"> a. Outline the application of telepharmacy systems to expanding access to underserved communities. b. Recognize opportunities for emerging technologies to support expanded access to pharmaceuticals or the expertise of a pharmacist to underserved communities. 	<p>Harrell, JA and Baker, EL. <i>The Essential Services of Public Health</i>. American Public Health Association http://www.apha.org/ppp/science/10ES.htm</p> <p>U.S. Department of Health and Human Services. Health Resources and Services Administration. <i>Resources and Technical Assistance for Clinical Practice</i>. Available at: http://www.hrsa.gov/servicedelivery/default.htm</p> <p>U.S. Department of Health and Human Services. Public Health Service. Office of Public Health & Science. Available at: http://phs.os.dhhs.gov/ophs/default.htm.</p> <p>Public Health Foundation Available at: www.phf.org</p> <p>Collins L, Quigley CJ, Bingham FG. Using Technology to Expand Services: An Application of Satellite Distribution in the Pharmaceutical Market. <i>P&T</i>. 2005;30(5):292-295. Available at: www.ptcommunity.com/ptjournal/fulltext/30/5/PTJ3005292.pdf.</p> <p>Peterson CD, Anderson HC. <i>Telepharmacy</i>. Available at: http://telepharmacy.ndsu.nodak.edu/publications/TELEPHARMACY-TAD1.pdf</p>
B. Health Services Financing		
<ol style="list-style-type: none"> 1. Clinical services coverage and reimbursement (e.g., Medicare, Medicaid, employment based, uninsured) 2. Methods of financing of health care institutions (e.g., hospitals, long-term care, community health centers) 3. 340b drug program** 	<ol style="list-style-type: none"> a. Articulate differences in the populations served, services provided and how the profession interfaces with public programs, specifically Medicare and Medicaid. b. Outline a safe, effective, and efficient role for the use of sample medications and medications obtained from manufacturer-sponsored patient assistance programs in the delivery of medications to underserved patient populations. <ol style="list-style-type: none"> a. Recognize the role of cost-based reimbursement as it applies to safety net providers, including community health centers (FQHCs) and critical access hospitals (CAHs). b. Recognize the role of private funding sources (e.g., insurance, foundations, and grants) for financing health care institutions. c. Determine if funding sources contribute to disparities in the provision of health care. <ol style="list-style-type: none"> a. Leverage the PHS 340B Drug Pricing program to increase 	<p>American Society of Health-System Pharmacists/Pharmacy Services Support Center Patient Assistance Program Resource Center. Available at: http://www.ashp.org/pap/.</p> <p>U.S. Department of Health and Human Services. Centers for Medicare and Medicaid Services. Available at: http://www.cms.hhs.gov/</p> <p>U.S. Department of Health and Human Services. Health Resources and Services Administration. Pharmacy Affairs & 340B Drug Pricing Program. Available at: http://www.hrsa.gov/opa.</p> <p>U.S. Department of Health and Human Services. Health Resources and Services Administration. Pharmacy Services Support Center. Available at: http://pssc.aphanet.org/</p> <p>Richardson, K, Schwed DH, Sorenson, T. <i>Implementing a Comprehensive 340B Contracted Pharmacy Service: Information and tools for community pharmacists</i>. Available at: http://pssc.aphanet.org/documents/pharmacy_001.pdf</p>

<p>4. Methods of financing of public health services</p> <p>5. Other models (e.g., international comparisons)</p>	<p>access to affordable medications and comprehensive pharmacy services in covered entities.</p> <p>b. Employ federal and state programs (grants, favorable drug purchasing or reimbursement strategies, MTM initiatives) to address medication therapy-related disparities in underserved populations.</p> <p>a. Demonstrate awareness state and federal funding programs directed to disease prevention, disease management, or populations at risk.</p> <p>b. Value opportunities for pharmacists to serve the public health system through contributions of personal resources (knowledge, skill, time, etc.) via advocacy and volunteerism.</p> <p>c. Identify private funding sources (e.g., foundations and grants) to assist with the development and implementation of pharmacy services to underserved populations.</p> <p>a. Compare and contrast the US health system with universal health care systems and how this affects the provision and management of pharmaceutical care/health services to underserved populations.</p>	<p>U.S. Department of Health and Human Services. Office of Public Health & Science. Office of Disease Prevention and Health Promotion. Available at: www.odphp.osophs.dhhs.gov</p> <p>US Department of Health and Human Services, Office of Minority Health. Available at: www.omhrc.gov</p> <p>U.S. Department of Health and Human Services. Office of Pharmacy Affairs. Pharmacy Technical Assistance. Available at: http://www.pharmta.net/index1.asp</p> <p>U.S. Department of Health and Human Services. Health Resources and Services Administration. Pharmacy Affairs & 340B Drug Pricing Program. <i>Glossary of Pharmacy-Related Terms</i>. Available at: http://www.hrsa.gov/opa/glossary.htm</p> <p>Resources for Pharmacy Grant Opportunities. Available at: http://pssc.aphanet.org/documents/ResourceGuideforPharmacyGrantOpportunities2.pdf.</p> <p>Rural Assistance Center. Critical Access Hospitals. Available at: http://www.raconline.org/info_guides/hospitals/cah.php</p> <p>Richardson, K. <i>The Bridge to 340B Comprehensive Pharmacy Services Solutions in Underserved Populations: Information and tools for decision makers</i>. Available at: http://pssc.aphanet.org/documents/bridge-340B_001.pdf.</p> <p>The University of Maine. <i>The US Health Care System: Best in the World or Just the Most Expensive?</i> Available at: http://dll.umaine.edu/ble/U.S.%20HCweb.pdf</p> <p>Hohman JA. International Healthcare Systems Primer. Miami University (Ohio) Class of 2006. American Medical Student Association. Available at: http://www.amsa.org/uhc/IHSprimer.pdf.</p>
<p>C. Health Workforce</p>		
<p>1. Methods of regulation of professions and health care (e.g., certification, licensure, institutional accreditation)</p> <p>2. Discipline-specific</p>	<p>a. Understand federal definitions of Health Professions Shortage Areas (HPSAs) and Medically Underserved Areas (MUAs) and the role of these designations in supporting government programs.</p> <p>b. Describe the National Health Service Corps.</p> <p>a. Understand the role of pharmacists and their contributions</p>	<p>U.S. Department of Health and Human Services. Agency for Healthcare Research and Quality. <i>Planning culturally and linguistically appropriate services: Guide for managed care plans</i>. Available at: www.ahrq.gov/about/cods/planclas.htm.</p> <p>Ross H. <i>HHS' Office of Civil Rights Focuses on Title VI Policy Provides Guidance for Ensuring Linguistic Access: Closing the Gap, Cultural Competency Part II</i>, February/March 2001. Available at:</p>

<p>history, philosophy, roles, responsibilities</p> <p>3. Racial/ethnic workforce composition including underrepresented minorities</p> <p>4. Relations of discipline to other health care professionals</p> <p>5. Legal and ethical responsibilities of health care professionals (e.g., malpractice, health care information privacy, confidentiality)</p>	<p>to underserved populations through the Indian Health Service and other federal Public Health Service programs.</p> <p>b. Adhere to the principles outlined in the Oath of the Pharmacist and the Code of Ethics for Pharmacists.</p> <p>a. Describe the challenges of providing culturally competent care to a population whose culture is different than one's own.</p> <p>b. Recognize disparities in pharmacy workforce composition and distribution between rural vs. urban areas and low-income vs. middle/upper income areas.</p> <p>a. Describe successful interprofessional models for medication therapy management in safety-net organizations.</p> <p>a. Describe legal issues associated with providing health services to non English-speaking patients.</p> <p>b. Describe the CLAS standards and their implications for the provision of culturally and linguistically appropriate health care.</p> <p>c. Demonstrate techniques and skills for working effectively with unskilled and skilled interpreters.</p>	<p>http://www.omhrc.gov/assets/pdf/checked/Guidance%20for%20Ensuring%20Linguistic%20Access.pdf.</p> <p>American Pharmacists Association. Oath of the Pharmacist and Code of Ethics for Pharmacists. Available at: http://www.aphanet.org/AM/Template.cfm?Section=Home</p> <p>U.S. Department of Health and Human Services. Health Resources and Services Administration. Bureau of Health Professions. <i>National Center for Health Workforce Analysis Reports</i>. Available at: http://bhpr.hrsa.gov/healthworkforce/reports</p> <p>U.S. Department of Health and Human Services. Health Resources and Services Administration. Bureau of Health Professions. <i>Shortage Designation</i>. Available at: http://bhpr.hrsa.gov/shortage/</p> <p>U.S. Department of Health and Human Services. Health Resources and Services Administration. <i>Geospatial Data Warehouse</i>. Available at: http://datawarehouse.hrsa.gov/.</p> <p>Minnesota Department of Human Services Guidelines for Culturally Competent Organizations. 2nd ed. May 2004. Available at: http://archive.leg.state.mn.us/docs/2005/other/050050.pdf.</p> <p>U.S. Department of Health and Human Services. Health Resources and Services Administration. National Health Service Corps. Available at: http://nhsc.bhpr.hrsa.gov</p> <p>U.S. Department of Health and Human Services. Indian Health Service. Available at: http://www.ihs.gov/</p> <p>Cohen JJ, Gabriel BA, Terrell C. <i>The Case For Diversity In The Health Care Workforce: Interventions to improve the racial and ethnic diversity of the U.S. medical workforce should begin well before medical school</i>. Project HOPE-The People-to-People Health Foundation. September/October 2002. Available at: http://content.healthaffairs.org/cgi/reprint/21/5/90.pdf</p> <p>Hartley D, Gale J. <i>Tools for Monitoring the Health Care Safety Net Rural Health Care Safety Nets</i>. Agency for Healthcare Research and Quality. Available at: http://www.ahrp.gov/data/safetynet/hartley.htm#contents.</p> <p>U.S. Department of Labor. Bureau of Labor Statistics. Available at: http://www.bls.gov/.</p> <p>The Cross Cultural Health Care Program. <i>Communicating Effectively</i></p>
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		<p><i>through an Interpreter.</i>(video instructional tool). Available for purchase at: http://www.xculture.org/resource/order/detail.cfm?PID=27&list=27%2C25%2C23</p> <p>Smedley BD, Butler AS, Bristow LR. eds. Institute of Medicine of the National Academies. <i>In the Nation's Compelling Interest: Ensuring Diversity in the Health Care Workforce.</i> The National Academies Press, Washington, DC, 2004. Available at: http://fermat.nap.edu/books/030909125X/html.</p> <p>National Area Health Education Center Organization. Available at: http://www.nationalahec.org/home/index.asp</p> <p>US Department of Health and Human Services, Office of Minority Health. <i>National Standards for Culturally and Linguistically Appropriate Services in Health Care.</i> March 2001 http://www.omhrc.gov/assets/pdf/checked/finalreport.pdf</p> <p>McRhee T. <i>Pharmacy staffing: A silent but critical concern.</i> The Center for the Health Professions, University of California, San Francisco, July 2002. Available at: http://futurehealth.ucsf.edu/pdf_files/pharmacistIB.pdf.</p> <p>Mutha S, Allen C, Welch M. <i>Toward culturally competent care. A toolbox for teaching communication strategies.</i> San Francisco, Calif: Center for the Health Professions, University of California, San Francisco; 2002.</p> <p>The Network for Multicultural Health. <i>Health Care Providers' Language Assistance Responsibilities: Major Federal and California Requirements.</i> 2003. Available at: http://futurehealth.ucsf.edu/pdf_files/CA_US_langasst_reqs1.pdf</p> <p>Worlds Apart. Four educational video modules produced at the Stanford University Center for Biomedical Ethics and distributed by Fanlight Productions, Boston Massachusetts. Available for purchase at: http://www.fanlight.com/catalog/films/912_wa.php</p>
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D. Health Policy Process		
<p>1. Process of health policymaking (e.g., local, state, federal governments)</p>	<p>a. Describe the role of the federal Health Services Administration in eliminating health disparities in underserved populations.</p> <p>b. Differentiate the role of legislation vs. agency-developed policy in defining government regulation of health care.</p> <p>c. Describe the development of the Healthy People 2010 initiative.</p>	<p>U.S. Department of Health and Human Services. <i>Healthy People 2010.</i> Available at: www.healthypeople.gov/</p> <p>The Institute of Medicine of the National Academies, <i>Robert Wood Johnson Health Policy Fellowship Reports</i> http://www.iom.edu/?id=12906</p> <p>Babb VJ, Babb J. Pharmacist involvement in healthy people 2010. <i>J Am Pharm Assoc.</i> 2003;43:56-60</p>

<p>2. Methods for participation in the policy process (e.g., advocacy, advisory processes)</p>	<p>a. Participate in legislative grassroots advocacy. b. Recognize the role of and opportunities for health professions associations to engage elected officials and government agencies on pharmacy access issues. c. Identify state Boards and Commissions in which pharmacists can be active participants.</p>	<p>Calis KA, Hutchinson LC, Elliott ME, <i>et al.</i> Healthy people 2010: challenges, opportunities, and a call to action for America's pharmacists. <i>Pharmacotherapy</i> 2004;24:1241-94</p>
<p>3. Impact of policies on health care and health outcomes including impacts on vulnerable populations</p>	<p>a. Describe health disparities that are associated with medication use patterns within geographic, economic or cultural-based populations. b. Describe the impact of the Healthy People 2010 initiative.</p>	<p>Shilts, R. <i>And The Band Played On: Politics, People and the AIDS Epidemic</i>, New York: St. Martin's Press; 1987</p>

** not included in the original curriculum framework as published in Allen JA, Barwick TA, Cashman S, et al. Clinical prevention and population health: Curriculum framework for health professions, *Am J Prev Med* 2004;27: 417-22.

CONTENT	TERMINAL EDUCATIONAL OUTCOMES	INSTRUCTIONAL RESOURCES
IV. Community Aspects of Practice		
A. Communicating and Sharing Health Information with the Public		
<p>1. Methods of assessing community needs/strengths and options for intervention (e.g., community-oriented primary care)</p> <p>2. Media communications (e.g., strategies of using mass media, risk communication).</p> <p>3. Evaluation of health information (e.g., Web</p>	<p>a. Implement effective strategies to assess health care needs for underserved populations and create interventions for unmet healthcare needs of this target population.</p> <p>i. Compare and contrast health care needs of the underserved patient populations with the general patient population.</p> <p>ii. Demonstrate appropriate methodology for identification and assessment of a particular community's health care needs.</p> <p>iii. Apply evidence-based principles and individual creativity to establish pharmacist-based interventions that overcome unmet health care needs of the underserved patient population.</p> <p>iv. Describe cultural, socioeconomic, and educational determinants of health in underserved populations that may influence pharmacist-based interventions intended to overcome unmet health care needs.</p> <p>a. Evaluate and design scholarship relating to health care for the underserved populations as a means to improve knowledge of pertinent health care issues within this community.</p> <p>i. Describe the role of scholarship as a tool for education/ communication of health care needs within the professional community.</p> <p>ii. Interpret and evaluate verbal and written sources of scholarship regarding health information.</p> <p>iii. Demonstrate the scientific method in the application of scholarship relating to health care for the underserved patient population.</p> <p>iv. Create pertinent scholarship for the underserved patient population that will improve education/knowledge of health care needs.</p> <p>v. Develop plans to promote and market services to targeted underserved populations.</p> <p>vi. Develop plans to promote the profession through dissemination of information about its activities and services targeting underserved populations to the media and lay public.</p> <p>a. Identify and critically evaluate sources of consumer health information for appropriateness in serving the underserved</p>	<p>Smedley BD, Stith AY, and Nelson AR, eds., Committee on Understanding and Eliminating Racial and Ethnic Disparities in Health Care Institute of Medicine of the National Academies. <i>Unequal Treatment: Confronting Racial and Ethnic Disparities in Healthcare</i>. The National Academies Press, Washington, DC, 2003. Available at: http://fermat.nap.edu/books/030908265X/html/R1.html</p> <p>U.S. Department of Health and Human Services, Agency for Healthcare Research and Quality. <i>National Health Quality Report 2005</i>. Publication No. 06-0018; Dec. 2005. Available at: http://www.ahrq.gov/qual/nhqr05/nhqr05.pdf</p> <p>U.S. Department of Health and Human Services, Agency for Healthcare Research and Quality. <i>2005 National Healthcare Disparities Report</i>, Publication No. 06-0017; Dec. 2005. Available at http://www.ahrq.gov/qual/nhdr05/nhdr05.pdf</p> <p>U.S. Census Information. Available at www.census.gov.</p> <p>U.S. Department of Health and Human Services, Centers for Disease Control and Prevention. Available at: www.cdc.gov/nchs/health_data_for_all_ages.htm</p> <p>Kaiser Family Foundation, Minority Health Web pages. Available at: www.kff.org/minorityhealth</p> <p>National Minority Health Month Foundation. Available at http://www.nmhmf.org/</p> <p>US Department of Health and Human Services, Office of Minority Health. Available at: www.omhrc.gov.</p> <p>U.S. Department of Health and Human Services. Office of Minority Health and Agency for Healthcare Research and Quality. <i>Setting the agenda for research on cultural competence in health care</i>. August 2004. Available at: http://www.ahrq.gov/research/cultural.htm</p> <p>Winker MA, Flanagan A, Chi-Lum B, et. al. Guidelines for Medical and Health Information Sites on the Internet: Principles Governing AMA Web Sites. <i>JAMA</i>. 2003;283:1600-06.</p> <p>American Medical Association Foundation Health Literacy Kit, <i>Health</i></p>

<p>sites, mass media, patient information [including literacy level and cultural sensitivity])</p>	<p>patient populations.</p> <ol style="list-style-type: none"> i. Identify, list and describe common sources of health information for underserved populations. ii. Apply evidenced-based principles for content, advertising, privacy and confidentiality to critically evaluate sources consumer health information available and utilized by underserved populations. iii. Evaluate the health literacy level of written sources of health information. <p>b. Adapt health information to fit the cultural preferences of the patient or targeted population.</p>	<p><i>Literacy: Help Your Patients Understand.</i> 2003. Available at http://www.ama-assn.org/ama/pub/category/9913.html</p> <p>Health Literacy Consulting. Available at: http://www.healthliteracy.com</p> <p>Osborne, H. <i>Health Literacy from A to Z: Practical Ways to Communicate Your Health.</i> Boston, Mass: Jones and Bartlett Publishers; 2004</p>
<p>B. Environmental Health</p>		
<ol style="list-style-type: none"> 1. Sources, media, and routes of exposure to environmental contaminants (e.g., air, water, food) 2. Environmental health risk assessment and risk management (e.g., genetic, prenatal) 3. Environmental disease prevention focusing on susceptible populations 	<ol style="list-style-type: none"> a. Describe the impact of the environment on the health of the underserved patient populations and demonstrate methods to assess and/or prevent disease secondary to this environmental exposure. <ol style="list-style-type: none"> i. Discuss common environmental exposures that adversely impact the health of the underserved patient population (i.e., lack of clean/adequate supply of water and food, lack of shelter, exposure to pesticides, lead, smoke, carcinogens, mercury, etc.). ii. Demonstrate methods to prevent disease secondary to environmental exposure for the underserved patient populations. b. Describe tools utilized to assist in the assessment of health risk for the underserved patient population. c. Describe the principles of environmental justice. 	<p>Rodricks, JV. <i>Calculated Risks: Understanding the Toxicity of Chemicals in Our Environment.</i> Cambridge: Cambridge University Press; 2001</p> <p>U.S. Environmental Protection Agency. Available at: http://www.epa.gov/</p> <p><i>Environmental Health Perspectives.</i> Available at http://www.ehponline.org/</p> <p>National Institute of Environmental Health Sciences, Heath Disparities Research. Available at http://www.niehs.nih.gov/oc/factsheets/disparity/home.htm</p> <p>U.S. Department of Labor. Occupational Safety and Health Administration. Available at: http://www.osha.gov/.</p> <p>World Health Organization. Available at: http://www.who.int/en/</p> <p>U.S. Environmental Protection Agency. <i>Environmental Justice.</i> Available at: http://www.epa.gov/compliance/environmentaljustice/</p> <p>The Collaborative on Health and the Environment. Available at: http://www.healthandenvironment.org/</p>
<p>C. Occupational Health</p>		
<ol style="list-style-type: none"> 1. Risks from employment-based exposures 2. Methods for control of occupational exposures 3. Exposure and prevention in health care settings 	<ol style="list-style-type: none"> a. Demonstrate appropriate safety practices that minimize occupational hazard in providing care to the underserved patient population. <ol style="list-style-type: none"> i. Identify occupational hazards commonly confronted when providing care to the underserved patient population. b. Describe and apply OSHA standards for the prevention and control of occupational exposures in the workplace. 	<p>U.S. Department of Labor. Occupational Safety and Health Administration. Available at: http://www.osha.gov/.</p> <p>National Institute of Environmental Health Sciences, Heath Disparities Research. Available at http://www.niehs.nih.gov/oc/factsheets/disparity/home.htm</p>

D. Global Health Issues		
<p>1. Roles of international organizations</p> <p>2. Disease and population patterns in other countries (e.g., burden of disease, population growth, health and development)</p> <p>3. Effects of globalization on health (e.g., emerging and reemerging diseases/conditions)</p>	<p>a. Identify and delineate the role of international organizations in funding, providing care and services, and researching global health issues for the underserved patient populations.</p> <p>i. Identify and list international organizations involved in funding, providing care and services, and researching global health issues.</p> <p>ii. Describe the role of international organizations involved in funding, providing care and services, and researching global health issues.</p> <p>a. Interpret and evaluate epidemiological and population patterns and sources in foreign countries in order to provide appropriate health assessments of those regions.</p> <p>i. Identify and evaluate sources of information about population demographics related to health, disease prevalence, and health care services in other countries</p> <p>ii. Describe global patterns of health, disease, and quality of care.</p> <p>iii. Demonstrate appropriate methodology for identification and assessment of a particular region's health care needs.</p> <p>a. Describe the effects of health, disease prevalence, and quality of care in other countries on health, disease prevalence, and health care in the United States.</p>	<p>Bill and Melinda Gates Foundation. Available at: http://www.gatesfoundation.org/default.htm</p> <p>U.S. Department of Health and Human Services. Centers for Disease Control and Prevention. Available at: http://www.cdc.gov/</p> <p>Institute for OneWorld Health: a non-profit pharmaceutical company. Available at: http://www.oneworldhealth.org/</p> <p>UNICEF. Available at: http://www.unicef.org/</p> <p>World Health Organization. Available at: http://www.who.int/en/</p> <p>Kidder T. <i>Mountains Beyond Mountains: Healing the World: The Quest of Dr. Paul Farmer</i>. Random House, 2003.</p>
E. Cultural Dimensions of Practice		
<p>1. Cultural influences on clinicians' delivery of health services</p>	<p>a. Describe the impact of cultural influences on providing and receiving healthcare as well as methods to provide culturally competent health care.</p> <p>i. Value the importance of cultural, social, economic and community factors on health and strive to address them.</p> <p>ii. Describe elements of your own health and healing beliefs and traditions (e.g., definition of health and illness, values, attitudes, beliefs, and practices regarding health and illness).</p> <p>iii. Determine how your own culture may affect the care you provide to culturally diverse patients.</p> <p>iv. Describe the culture of health care and pharmacy as practiced in the United States.</p> <p>v. Recognize and describe institutional (e.g., hospital,</p>	<p>Association of American Medical Colleges. <i>Tool for assessing cultural competence training (TACCT)</i>. 2005. Available at http://www.aamc.org/meded/tacct/start.htm</p> <p>Gilbert MJ, <i>Principles and recommended standards for cultural competence education of healthcare professionals</i>. The California Endowment August 2002. Available at http://www.calendow.org/reference/publications/pdf/cultural/TCE0215-2003_Principles_and.pdf</p> <p>Georgetown University Center for Child and Human Development. National Center for Cultural Competence. Available at: http://gucchd.georgetown.edu/nccc/pa.html.</p> <p>Mutha S, Allen C, Welch M. <i>Toward culturally competent care. A toolbox</i></p>

<p>2. Cultural influences on individuals and communities e.g., health status, health services, health beliefs)</p> <p>3. Culturally competent health care</p>	<p>managed care, community) pharmacy cultural practices.</p> <p>vi. Describe common challenges to communication in cross-cultural situations.</p> <p>a. Describe historical, political, environmental, and institutional factors impacting health and health disparities in underserved populations.</p> <p>b. Describe cultural, and socioeconomic, and educational determinants of health in underserved populations.</p> <p>a. Demonstrate respect for a patient's/families' cultural values, beliefs and practices.</p> <p>b. Identify questions about health beliefs and practices that might be important in a specific community.</p> <p>c. Ask questions to elicit patients/families health and healing beliefs and traditions and listen in a nonjudgmental manner to their responses.</p> <p>d. Exhibit comfort and empathy when discussing cultural issues with patients/families/colleagues/community partners.</p> <p>e. Apply models of effective cross-cultural communication techniques.</p> <p>f. Identify resources to bridge language and literacy barriers.</p> <p>g. Demonstrate skills for working with limited literacy patients.</p> <p>h. Demonstrate techniques and skills for working with unskilled and skilled interpreters.</p> <p>i. Collaborate effectively with unskilled and skilled interpreters.</p> <p>j. Share decision making with patients and their families.</p> <p>k. Share information, make recommendations, and negotiate action plans that take into account a patient's cultural preferences and health literacy level.</p> <p>l. Collaborate with communities to develop and deliver preventative health care services.</p>	<p><i>for teaching communication strategies</i>. San Francisco, Calif: Center for the Health Professions, University of California, San Francisco; 2002.</p> <p>Worlds Apart. Four educational video modules produced at the Stanford University Center for Bioethical Ethics and distributed by Fanlight Productions, Boston Massachusetts. Available for purchase at: http://www.fanlight.com/catalog/films/912_wa.php</p> <p>B Berger B. <i>Communication skills for pharmacists</i>. 2nd edition. Washington DC: APhA Publications; 2005.</p> <p>The Cross Cultural Health Care Program. <i>Communicating Effectively through an Interpreter</i>.(video instructional tool). Available for purchase at: http://www.xculture.org/resource/order/detail.cfm?PID=27&list=27%2C25%2C23</p> <p>National Council on Interpreting in Health Care. Available at http://www.ncihc.org</p> <p>Health Literacy Consulting. Available at: http://www.healthliteracy.com</p> <p>Osborne, H. <i>Health Literacy from A to Z: Practical Ways to Communicate Your Health</i>. Boston, Mass: Jones and Bartlett Publishers; 2004 <i>Resources to bridge literacy barriers:</i></p> <p>Ethnomed. Seattle, Washington. Information about cultural beliefs, medical issues and other related issues pertinent to the health care of recent immigrants Available at: http://www.ethnomed.org</p> <p>Web sites of various health care professional organizations dedicated to patients with various disease states (e.g. American Diabetes Association-ADA) who may have patient education materials in different languages on a variety of topics available to download.</p> <p>US Department of Health and Human Services, Office of Minority Health. Available at: www.omhrc.gov.</p> <p>Fadiman A, <i>The Spirit Catches You and You Fall Down</i>, New York: Strauss and Giroux. 1997</p> <p>Gardenswartz L, Rowe A. <i>Managing Diversity in Health Care</i>, Jossey-Bass, San Francisco, 1996</p> <p>Lassiter, S. <i>Multicultural Clients: A Professional Handbook for Health Care Providers and Social Workers</i>, Greenwood Press, Westport, CT, 1995</p>
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		Purnell L. and Paulanka B. <i>Transcultural Healthcare: A Culturally Competent Approach</i> , FA Davis, Philadelphia, 1998
F. Community Services		
<p>1. Methods of facilitating access to and partnerships for health care</p> <p>2. Evidence-based recommendations for community preventive services</p> <p>3. Public health preparedness (e.g., terrorism, natural disasters, injury prevention)-</p>	<p>a. Describe traditional and non-traditional experiential and organizational models for providing health care to the underserved patient populations.</p> <p>i. Identify traditional models for providing health care to the underserved patient populations (institutional: emergency room, etc.).</p> <p>ii. Identify non-traditional models for providing health care to the underserved patient populations (community health centers, mobile medical units, outreach health care work).</p> <p>iii. Compare and contrast service-learning experiences in both traditional and non-traditional settings that provide healthcare to the underserved patient populations.</p> <p>iv. Identify and delineate the role of national and local organizations and associations in funding, providing care and services, and researching health issues for the underserved patient populations.</p> <p>a. Apply evidence-based medicine while providing pharmaceutical care for the underserved patient population.</p> <p>i. Describe the principles of evidence-based medicine.</p> <p>ii. Define pharmaceutical care.</p> <p>iii. Interpret and evaluate pharmaceutical data and related information needed to prevent or resolve medication-related problems or to respond to information requests.</p> <p>b. Demonstrate appropriate literature evaluation skills for the identification of evidence based disease state recommendations.</p> <p>a. Describe “best practice” models for pharmacy practice responses to public health disasters (e.g., emergency preparedness, access to safe and effective medications, access to appropriate medicine counseling/education).</p> <p>b. Describe the plan for the use of the National Stockpile, and the role of the pharmacists on an emergency preparedness or disaster management team.</p> <p>c. Develop strategies to ensure effective provision of services to all members of a community, including those with</p>	<p>U.S. Department of Health and Human Services. Centers for Disease Control and Prevention. Emergency Preparedness and Response. Available at: http://www.bt.cdc.gov/</p> <p>U.S. Department of Health and Human Services. Centers for Disease Control and Prevention. Available at: http://www.cdc.gov/</p> <p>American Red Cross. Available at: http://www.redcross.org/</p>

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