

TECHNICAL ASSISTANCE DOCUMENT

IMPLEMENTING U.S. PREVENTIVE SERVICES TASK FORCE (USPSTF) RECOMMENDATIONS INTO HEALTH PROFESSIONS EDUCATION

September 21, 2010



Agency for Healthcare Research and Quality
Advancing Excellence in Health Care • www.ahrq.gov

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Introduction

Purpose

This document was developed as part of an Agency for Healthcare Research and Quality (AHRQ) initiative to increase the use of the U.S. Preventive Services Task Force (USPSTF) recommendations and resources in campus and community-based health professions educational programs. It is a resource that organizations that are affiliated with academic institutions, such as Area Health Education Centers' (AHECs), can share with community faculty and other educators to promote preventive services training and practice. Using examples of lesson plans and teaching activities from instructors at academic institutions who have successfully integrated the USPSTF recommendations into their curricula, this document provides guidance for AHECs interested in promoting the use of USPSTF recommendations and resources in learning activities.

Target Audience

Faculty and educational administrators who seek to implement USPSTF recommendations in their educational programs can incorporate the case studies provided in this document and reference the resources provided in the appendix for additional tools. AHECs can further facilitate the process through their close working relationship with health professions academic programs. AHECs are well positioned to implement USPSTF recommendations through student clinical training, community faculty development and continuing medical education, especially in rural and underserved communities. Using case examples from institutions that have successfully integrated the USPSTF recommendations into their curricula, this document provides practical strategies for utilizing USPSTF recommendations and tools in learning activities.

This document is organized in three parts:

- Section One presents the background on the USPSTF and its work.
- Section Two introduces the AHRQ tools developed from the recommendations and presents case examples of how the USPSTF recommendations have been incorporated in lesson plans and teaching activities.
- Section Three is an appendix with additional resources.

Each case example provided in Section Two features a brief introduction to a fictional patient with specific characteristics and directions for students to use AHRQ tools to determine preventive care recommendations for the patient.

Background

The U.S. Preventive Services Task Force¹

The USPSTF was first convened by the U.S. Public Health Service in 1984. Since 1998, the USPSTF has been sponsored by AHRQ. The USPSTF is the leading independent panel of private-sector experts in prevention and primary care. The USPSTF recommendations are based on rigorous, impartial assessments of the scientific evidence for the effectiveness of a broad range of clinical preventive services, including screening, counseling, and preventive medications. The mission of the USPSTF is to evaluate the benefits of individual services based on age, gender, and risk factors for disease; make recommendations about which preventive services should be incorporated routinely into primary medical care and for which populations; and identify a research agenda for clinical preventive care. Recommendations issued by the USPSTF are intended for use in the primary care setting.

The work of the USPSTF is supported by an Evidence-based Practice Center, which conducts systematic reviews of the evidence on specific topics in clinical prevention that serve as the scientific basis for USPSTF recommendations. The USPSTF reviews the evidence, estimates the magnitude of benefits and harms for each preventive service, reaches consensus about the net benefit for each preventive service, and issues a recommendation. The USPSTF grades the strength of the evidence from "A" (strongly recommends), "B" (recommends), "C" (no recommendation for or against), "D" (recommends against), or "I" (insufficient evidence to recommend for or against).

Current USPSTF members include primary care clinicians such as internists, pediatricians, family physicians, gynecologists/obstetricians, and nurses. Additionally, the USPSTF partners with organizations from the fields of primary care, public health, health promotion, policy, and quality improvement, and Federal health agencies to peer review the draft USPSTF documents and help disseminate the work of the USPSTF to their members.

The Implementation Project Team

To promote the uptake of the USPSTF recommendations in academic settings, AHRQ convened a group of experts to assist AHECs in integrating the USPSTF recommendations into learning experiences. The experts, consisting of two academic professionals, Tim Quigley, M.P.H., P.A.-C and George Sawaya, M.D., and a past and current AHEC director, Shirley Weaver, Ph.D. and David Garr, M.D. respectively, provided guidance for the development and use of this manual. The project representative from AHRQ is Barbara Kass, M.P.H. (Barbara.Kass@ahrq.hhs.gov).

¹ Agency for Healthcare Research and Quality. About USPSTF. Accessed from <http://www.ahrq.gov/clinic/uspstfab.htm> on 02/01/2010.

Implementing in Academic Curricula

Tools for Implementation

The work of the USPSTF has been translated into several free, easy to use tools that are accessible to all health care professionals, students, and consumers. The major tools are:

1. The Electronic Preventive Services Selector (*ePSS*)
2. Pocket Guide to Clinical Preventive Services, 2009 (updated annually)
3. These tools are available on the USPSTF Web site at <http://www.uspreventiveservicestaskforce.org/>.

ePSS

The Electronic Preventive Services Selector (*ePSS*) is an application designed to help primary care clinicians identify the screening, counseling, and preventive medication services that are appropriate for their patients. The *ePSS* is available both as a Web application and a mobile application.

The Web application is a user friendly interface that is available in a print friendly format and is compatible with major browsers. The mobile application has the full functionality of the USPSTF Web application and provides for full mobility without the need for wireless or internet connectivity. The program is compatible with iPhone/iPod touch, BlackBerry, Palm OS, and Windows Mobile devices. Users can also subscribe to receive email notifications of available updates and user friendly *ePSS* data updates. *ePSS* information is based on the current recommendations of the U.S. Preventive Services Task Force and can be searched by specific patient characteristics, such as age, sex, and selected behavioral risk factors. Instructions on how to install the AHRQ *ePSS* application for BlackBerry is available at <http://epss.ahrq.gov/PDA/index.jsp>.

Print version of the *Guide to Clinical Preventive Services*

Updated annually, the *Guide to Clinical Preventive Services 2009* is a spiral bound book that covers all USPSTF recommendations. Recommendations are organized for quick reference and easy searching, including an A-Z Topic Index. One section matches recommended preventive services to patients—men, women, pregnant women, and children. Single print copies of the *Guide* are available free from AHRQ at: 1-800-358-9295 or AHRQPubs@ahrq.hhs.gov or can be ordered online at <http://www.ahrq.gov/ppip/pporder.htm>.

USPSTF Web site

The USPSTF recommendations are available on their Web site at <http://www.uspreventiveservicestaskforce.org/>. In addition to the recommendations, the site provides a description of the USPSTF composition, methodology, and tools for primary care practice. The site also provides an opportunity for the public to comment on draft USPSTF recommendations.

Framework for Implementation

Health professions programs have several avenues for teaching preventive services. The common avenues identified include:

- Classroom/didactic
- Pre-clinical
- Clinical/preceptorship
- Continuing medical education (CME)

Classroom/didactic

Prevention education can be easily incorporated in the didactic portion of health professions education. This is usually in the form of case studies for students to review, student assignments, and questions included in tests. The duration and intensity of prevention education varies for each program based on the resources available and aims of the course.

Pre-clinical

Opportunities exist to incorporate prevention education in the pre-clinical portion of health professions education. The pre-clinical period, usually the first couple years of the program focuses on basic and clinical science foundational courses, and may also include courses on "doctoring" to educate students on patient care, professionalism and other key competencies required of health professionals.

Clinical/Preceptorship

Health Profession students observe and interact with patients in doctor's offices in their clinical years of education. Preceptors could set an example for students through their use of USPSTF recommendations in patient care.

Continuing medical education (CME)

Some health professions program may develop and deliver continuing medical education courses to health professionals in their institutions and community. These courses present an opportunity to reinforce preventive services.

The case examples provided below can be used in of the learning environments described above with slight modifications. To aid educators in selecting the appropriate case study for use, the chart below maps teaching environment to specific case studies. Additionally, the appendix has examples of additional learning tools used by educators.

Educational Setting	Suggested Case Study
Classroom/didactic	1, 2, 3
Pre-clinical	1, 2, 3
Clinical/preceptorship	1, 3
Continuing medical education	1, 2, 3

CASE EXAMPLE 1 - ePSS

Curricular Innovations at the University of California, San Francisco (UCSF) School of Medicine

Background

At the University of California, San Francisco (UCSF) School of Medicine, required coursework in epidemiology and evidence-based medicine (E/EBM) begins in the first year and continues throughout the third year. Material in the first 2 years is presented in large-group format with small group sessions of 10-12 students per group. These small group sessions are focused on study design and critical appraisal skills. In the third year, the E/EBM curriculum continues during a course entitled “Intersessions.” Students leave the wards 3 times during the third year and go back to the classroom to focus on cross-cutting themes: ethics, health policy, advances in medical sciences and clinical decision making (CDM). The CDM course is an extension of the E/EBM curriculum and is considered “applied E/EBM.”

The link between clinical research and clinical decision making is explicit in the CDM course. A 90-minute panel session entitled: "The critical link: evidence at the point of practice change" capstones the week. The overarching goal of the panel is to demonstrate the value of evidence-based medicine to a variety of stakeholders in clinical decision making including patients, clinicians, prepaid health plans, and society at large, and to stress its importance in real-world practice. The course strives to make the connection between conceptualizing evidence-based medicine as a scientific discipline to implementing it in clinical practice with the overarching goal of improving health outcomes.

To achieve this goal, small group materials have been developed that provide explicit tools for direct clinical decision making on the wards and in the clinic. These tools include materials produced by AHRQ.

Curricular materials

Large group sessions: As part of a lecture devoted to applying the principles of evidence-based medicine to patients at the point of care, students are introduced to the ePSS as a resource for efficient, tailored information for preventive care.

Small group sessions: In the small group session linked to the large group session above, students are asked to answer questions prior to the small group.

The following is an example of a small group session entitled “*Finding and Applying Evidence-based Guidelines.*” This module takes about 30 minutes to complete.

Patient Case One

A 45-year-old man presents to your clinic for an annual examination. His only complaint is occasional elbow pain that he attributes to using a new tennis racquet. He reports no medical illnesses and his only prior surgery is a hernia repair 10 years ago. He takes one low-dose aspirin per day, does not smoke and reports having an occasional alcoholic beverage. He reports no family history of early heart disease or cancer. Last year, his total cholesterol (TC) and high-density lipoprotein cholesterol (HDL-C) were normal. He is married and in a monogamous relationship. Since testing negative for STIs (including HIV) many years ago, he reports no potential for new exposures. On examination, he is not overweight and not hypertensive. He wants to know about prevention, and you wonder about the appropriate preventive services to recommend.

Students are asked to use the Electronic Preventive Services Selector (*ePSS*) to answer the following questions. The answers are provided in blue text below.

Question 1: What prevention services would you recommend? (10 minutes)

The *ePSS* software cross-references the patient characteristics entered with the applicable USPSTF recommendations and generates a report specifically tailored for that patient.

After the requested patient information is entered (Age: 45; Sex: Male; Pregnant: Unchecked; Tobacco User: No; Sexually Active: Yes), the following Grade A and B recommendations are shown:

For this 45-year-old sexually active man who takes aspirin and has had prior normal testing for HIV, lipid disorders and syphilis and an otherwise average-risk profile, the USPSTF Grade A and B recommendations are fairly few:

SECTION TWO

11 - Recommended (A, B)			
Grade	Title	Risk Info.	Details
A*	Aspirin to Prevent CVD: Men age 45 to 79 to prevent myocardial infarctions		
A	HIV: Screening – Adults and Adolescents at Increased Risk		
A*	High Blood Pressure: Screening – Adults 18 and Over		
A	Lipid Disorders in Adults: Screening – Men 35 and Older		
A	Syphilis: Screening – Men and Women at Increased Risk		
B	Alcohol Misuse: Screening and Behavioral Counseling – Men, Women, and Pregnant Women		
B*	Depression: Screening – Adults age 18 and over – When staff-assisted depression care supports are in place		
B	Healthy Diet: Counseling – Adults with Hyperlipidemia and Other Risk Factors for CVD		
B	Obesity: Screening and Intensive Counseling – Obese Men and Women		
B*	Sexually Transmitted Infections: Behavioral Counseling – Sexually Active Adolescents and Adults at Increased Risk		
B*	Type 2 Diabetes Mellitus: Screening Men and Women – Sustained BP 135/80+		

The goal of this exercise is to illustrate where to find this information, not to discuss the rationale behind each recommendation. Students can read the full reports on-line. Instructors are therefore urged to not to get bogged down in the details of each recommendation.

Question 2: He was told at a local health fair that the American Diabetes Association (ADA) recommends that he be screened for diabetes. He wonders why he is not being tested. Based on your search using the ePPS tool, what is the USPSTF recommendation for diabetes screening in this patient? What is their rationale behind not screening? (15 minutes)

From the ePPS tool search, the USPSTF gives diabetes screening a “B” recommendation among men with hyperlipidemia and/or hypertension; this patient has neither. The USPSTF gives diabetes screening an “I” statement for all other average-risk adults, meaning that evidence is insufficient to make a recommendation for or against routine testing.

Here is what you’ll see (in part) if you click the link “Details” and then the tabs:

Specific recommendations: The USPSTF recommends screening for type 2 diabetes in asymptomatic adults with sustained blood pressure (either treated or untreated) greater than 135/80 mm Hg.

Clinical considerations: Patient Population under Consideration: This recommendation concerns adults without symptoms of diabetes or evidence of possible diabetes complications. Symptoms of diabetes include polyuria, polydipsia, and polyphagia. Possible diabetes complications include nonhealing ulcers or infections and established vascular disease (for example, coronary artery disease, stroke, and peripheral artery disease). Persons with these symptoms or conditions should be tested for diabetes.

Suggestions for practice regarding the “I” statement: In persons with blood pressure of 135/80 mm Hg or lower, screening may be considered on an individual basis if knowledge of diabetes status would help inform decisions about coronary heart disease (CHD) prevention strategies, including assessment of CHD risk and subsequent consideration of lipid-lowering agents or aspirin. For example, consider a patient for whom lipid-lowering treatment would be recommended if his or her 10-year CHD risk was 20% or greater (found in Risk Assessment section directly below). If the patient's calculated risk was 17% without diabetes and greater than 20% with diabetes, then screening for diabetes would be useful in determining lipid treatment. However, if the calculated risk was 10% without diabetes and 15% with diabetes, then the screening test result would have no effect on the decision whether to use lipid-lowering treatment.

Risk assessment: Blood pressure is an important predictor of complications of cardiovascular disease (CVD) (including CHD and stroke) in persons with type 2 diabetes mellitus and should be measured as the first step in applying this recommendation. The examination of global CHD and stroke risk allows the clinician to determine how aggressive treatment for CVD risk factors needs to be. In making this assessment, clinicians should use any of several validated CHD risk assessment calculators, such as the calculator based on Framingham Heart Study data (available at www.intmed.mcw.edu/clincalc/heartrisk.html).

Screening tests: Three tests have been used to screen for diabetes: fasting plasma glucose, 2-hour postload plasma glucose, and hemoglobin A_{1c}. Each has advantages and disadvantages. The American Diabetes Association has recommended the fasting plasma glucose test for screening because it is easier and faster to perform, more convenient and acceptable to patients, and less expensive than other screening tests. The fasting plasma glucose test has more reproducible results than does the 2-hour postload plasma glucose test, has less intraindividual variation, and has similar predictive value for development of microvascular complications of diabetes. The American Diabetes Association defines diabetes as a fasting plasma glucose level of 126 mg/dL or greater and recommends confirmation with a repeated screening test on a separate day, especially for people with borderline results.

Treatment of Persons with Sustained Blood Pressure of 135/80 mm Hg or Greater: Blood pressure targets should be lower for persons who have type 2 diabetes mellitus than for those who do not. Lower blood pressure targets for persons with diabetes and high blood pressure reduce CVD events compared with higher targets. Attention to other risk factors for CVD, such as physical inactivity, lipid levels, diet, and obesity, is also important, both to decrease risk for CHD and to improve glucose control.

Screening intervals: The optimal screening interval is not known. The American Diabetes Association, on the basis of expert opinion, recommends a 3-year interval.

Other approaches to prevention: There is no evidence of benefit in health outcomes from screening for impaired glucose tolerance (IGT) or impaired fasting glucose (IFG). However, intensive programs of lifestyle modification (diet, exercise, and behavior) do reduce the incidence of diabetes. Regardless of whether the clinician and patient decide to screen for diabetes, people should eat a healthful diet, be active, and maintain a healthy weight - these behaviors have other benefits in addition to preventing or forestalling type 2 diabetes. The USPSTF recommends intensive interventions for obese persons who desire to lose weight. Population-based approaches to increasing physical activity and reducing obesity, as recommended by the USPSTF on Community Preventive Services, should be supported.

Useful resources: Evidence and USPSTF recommendations on blood pressure, diet, physical activity, and obesity are available at www.preventiveservices.ahrq.gov. The reviews and recommendations for the Task Force on Community Preventive Services may be found at www.thecommunityguide.org.

Other considerations: Research Needs: The types of studies that would help fill gaps in the evidence include a randomized (or nonrandomized), controlled trial of screening for type 2 diabetes mellitus; extended follow-up of the UKPDS (United Kingdom Prospective Diabetes Study) and other cohort studies; studies of glycemic control, with CHD outcomes, in screening-detected populations; studies of optimal lipid and blood pressure targets for people with screening-detected diabetes; and studies examining the impact of a diagnosis of prediabetes on the effectiveness of lifestyle interventions.

CASE EXAMPLE 2 – AHRQ Web site

Finding and Applying Evidence-based Guidelines Using the AHRQ Web site

Background

The following case was devised by George Sawaya, MD for the purposes of this implementation guide. The case guides instructors on how to navigate the AHRQ web site to arrive at the USPSTF recommendations. The USPSTF recommendations can be accessed directly from the Web site at <http://www.uspreventiveservicestaskforce.org/index.html>. Recommendations are available through an A-Z Topic Index on the Web site and through clinical categories/conditions organized by adults, children and adolescents. The Web site also features a list of topics that are currently under review by the USPSTF. The following example can be completed in a small group session and takes about 40 minutes to complete.

Patient Case Two

A 40-year-old woman presents to your clinic for a periodic examination. She reports no medical illnesses and has had no prior surgeries. She does not smoke or drink any alcoholic beverages. Her paternal grandfather was a heavy smoker and died of lung cancer at age 65. Otherwise, she has no other family history of cancer. She is married and in a mutually monogamous relationship. A colleague at work was diagnosed with breast cancer 5 years before and since that time this patient has performed periodic self-breast examinations. She reports no changes in her breasts, but she wants to know if she should get a mammogram.

Students are asked to use the AHRQ Web site to answer the following questions. The answers are provided in blue text below.

Question 1: What does the USPSTF recommend about breast cancer screening in a 40-year-old woman? (5 minutes)

The USPSTF recommendations for preventive services can be accessed from the AHRQ Web site at <http://www.uspreventiveservicestaskforce.org/index.html>. Recommendations are available through an A-Z Topic Index on the web site and through clinical categories/conditions organized by adults, children and adolescents. In the Topic Index, the breast cancer screening recommendation can be accessed at <http://www.uspreventiveservicestaskforce.org/uspstf/uspsbrca.htm>.

The recommendation reads: “The decision to start regular, biennial screening mammography before the age of 50 years should be an individual one and take patient context into account, including the patient’s values regarding specific benefits and harms. Grade: C recommendation.”

Question 2: In general, what does a “C” recommendation mean? How should such a recommendation be interpreted in clinical practice? What does a C recommendation mean in terms of certainty and magnitude of net benefit? (5 minutes)

Students will have been introduced to the USPSTF ratings in class. They should know that the “C” recommendation means that the USPSTF “recommends against routinely providing the service. There may be considerations that support providing the service in an individual patient.”

The USPSTF further states that services with a “C” be offered or provided only if other considerations support the offering or providing the service in an individual patient. In other words, such services should *not automatically be applied* to individuals without first considering other factors.

In terms of certainty and magnitude of net benefit, a C recommendation means that there is “at least moderate certainty that the net benefit is small.”

Question 3: What are the benefits of mammography for an average 40-year-old woman? (5 minutes)

The USPSTF recommendation statement can be accessed at: <http://www.uspreventiveservicestaskforce.org/uspstf/uspsbrca.htm>. Here, the USPSTF clarifies the benefits, harms and balance between the two.

For benefits pertinent to this 40-year-old patient, the USPSTF states: “There is convincing evidence that screening with film mammography reduces breast cancer mortality, with a greater absolute reduction for women aged 50 to 74 years than for women aged 40 to 49 years.”

Question 4: What are the harms of mammography for an average 40-year-old woman? (5 minutes)

The USPSTF realizes that harms can take many forms. For general harms resulting from screening for breast cancer, the USPSTF lists the following:

psychological harms, unnecessary imaging tests and biopsies in women without cancer, and inconvenience due to false-positive screening results; treatment of cancer that would not become clinically apparent during a woman's lifetime (overdiagnosis), unnecessary earlier treatment of breast cancer that would have become clinically apparent but would not have shortened a woman's life; radiation exposure (a minor concern)

For harms pertinent to this 40-year-old patient, the USPSTF states:

“Adequate evidence suggests that the overall harms associated with mammography are moderate for every age group considered, although the main components of the harms shift over time. Although false-positive test results, overdiagnosis, and unnecessary earlier treatment are problems for all age groups, false-positive results are more common for women aged 40 to 49 years, whereas overdiagnosis is a greater concern for women in the older age groups.”

Question 5: How did the USPSTF estimate the magnitude of *net* benefit for mammography among average women in their 40s, and what did they conclude? (5 minutes)

In the Discussion section of the Recommendation statement

(<http://www.uspreventiveservicestaskforce.org/uspstf09/breastcancer/brcanrs.htm>), the USPSTF details the estimation of magnitude of net benefit:

“In 2002, the USPSTF concluded that there was fair evidence that mammography screening every 12 to 33 months could significantly reduce breast cancer mortality. The evidence was strongest for women aged 50 to 69 years, with weaker evidence supporting mammography screening for women aged 40 to 49 years. Since that recommendation, 1 new trial and updated data from an older study have been published that specifically address screening in women in the younger age group. These findings were combined in an updated meta-analysis, which resulted in an RR for breast cancer death of 0.85 (CI, 0.75 to 0.96; 8 trials) and a number needed to invite for screening of 1904 (CI, 929 to 6378) to prevent 1 breast cancer death in women aged 39 to 49 years.”

They conclude: “For women aged 40 to 49 years, the USPSTF had moderate certainty that the net benefits were small.”

Question 6: The USPSTF suggests that women make an informed decision about whether mammography is right for them based on personal values regarding specific benefits and harms. What can you tell this patient about her likelihood of having a false-positive test, additional imaging, breast biopsy and a cancer detected with a single mammogram? (10 minutes)

Shared informed decision making is the process by which patients and caregivers come to an agreement about a healthcare decision. It is especially useful when there is no clear "best" treatment option. The USPSTF “C” recommendations can be thought of as fitting this bill. The information used and methods employed to achieve shared informed decision making vary widely, ranging from passive to detailed and active.

Understanding the likelihood of various options in quantitative terms may be helpful for some patients. The USPSTF provides a table with outcomes per screening round in a theoretic cohort of women. These results indicate that in a single screening round, women

aged 40-49 have about a 9.8% chance of a false-positive mammogram, a 8.4% chance of additional testing and a 0.9% chance of a having a biopsy. Her chance of being diagnosed with breast cancer is 0.18%. She should be aware that even though her breast cancer may be detected by mammography, this does not mean that she will not die of breast cancer.

CASE EXAMPLE 3 – Annual Guide - *The Guide to Clinical Preventive Services*

Incorporating USPSTF Clinical Guidelines in a Physician Assistant Curriculum

Background

In the "Preventive and Behavioral Medicine" course for physician assistant students at Wichita State University, Timothy F. Quigley, MPH, PA-C, uses the U.S. Preventive Services Task Force recommendations as the foundation of his curriculum.

According to Quigley, the course in preventive medicine is offered as one of the first courses in the physician assistant program. The goals are to introduce and emphasize the importance of preventive and evidence-based medicine in the practice of medicine. For nearly 13 years, Quigley has used USPSTF materials—initially providing hard copies of the recommendations as part of his classroom resources. As the formats for the distribution of the recommendations have expanded, student resources have multiplied, too. In addition to being required to obtain a copy of the *Guide to Clinical Preventive Services* from AHRQ, students also use the online resources regularly for drilling deeper into the Evidence Review, etc.

The course is heavily dependent on the online course platform “Blackboard” where all readings, handouts, articles and web links are posted. For each section of the Preventive Medicine course (e.g. Cancer or Infectious Disease), there are hyperlinks taking the student directly to the USPSTF Web page on that topic. The students are basically expected to know all the A (strongly recommended) and B (recommended) services, and to be able to discuss the recommendations and rationale with patients and other clinicians. Finally, when the students enter their clinical rotations they are required to carry PDAs to log their clinical encounters and to access drug and prescribing information.

Patient Case Three

A 66-year-old female presents at your clinic for an evaluation of the treatment for her 12-year history of hypertension. She has been a pack-a-day smoker since she was in college 45 years ago, but she does not drink alcohol. She is 20 years post-menopausal, and she reports annual, normal Pap smears for the last 10 years. She has been in a mutually monogamous relationship since her last STI screen in 1989. While evaluating the adequacy of her hypertension treatment, you want to take advantage of this clinical opportunity to offer recommended preventive services. What should you recommend for this patient?

Students are asked to use *The Guide to Clinical Preventive Services 2008: Recommendations of the U. S. Preventive Services Task Force* to answer the following questions.

Question 1: What prevention services would you recommend?

The *Guide*, which is designed to be a point-of-care clinical tool, includes a readily accessible table of recommended preventive services for adults, children and pregnant women. Section 2 offers abridged Recommendation Statements and abridged Clinical Considerations for each preventive service. (Users are encouraged to visit the more comprehensive web site, <http://www.uspreventiveservicestaskforce.org/index.html> to read the complete recommendation statements, including those that were published online after the latest *Guide* printing.)

By consulting the table, *Preventive Services Recommended by the USPSTF* (pages 3-9 of the 2009 guide) the following A and B recommendations are shown for this 66 year-old, post-menopausal, female smoker with hypertension, no sexual infection risk factors and recent normal Pap smears (shown under the column for ‘Women’):

Preventive Services Recommended by the USPSTF				
The U.S. Preventive Services Task Force (USPSTF) recommends that clinicians discuss these preventive services with eligible patients and offer them as a priority. All these services have received an “A” or a “B” (recommended) grade from the Task Force.				
For definitions of all grades used by the USPSTF, see Appendix A (beginning on P. 212). The full listings of all USPSTF recommendations for adults and children are in Section 2 (beginning on P. 11) and Section 3 (beginning on P. 179).				
Recommendation	Adults		Special Populations	
	Men	Women	Pregnant Women	Children
Abdominal Aortic Aneurysm, Screening ¹	✓			
Alcohol Misuse Screening and Behavioral Counseling Interventions	✓	✓	✓	
Aspirin for the Prevention of Cardiovascular Disease ²	✓	✓		
Asymptomatic Bacteriuria in Adults, Screening ³			✓	
Breast Cancer, Screening ⁴		✓		

continued

Recommended Preventive Services

Preventive Services Recommended by the USPSTF (continued)				
Recommendation	Adults		Special Populations	
	Men	Women	Pregnant Women	Children
Breast and Ovarian Cancer Susceptibility, Genetic Risk Assessment and BRCA Mutation Testing ⁵		✓		
Breastfeeding, Primary Care Interventions to Promote ⁶		✓	✓	
Cervical Cancer, Screening ⁷		✓		
Chlamydial Infection, Screening ⁸		✓	✓	
Colorectal Cancer, Screening ⁹	✓	✓		
Congenital Hypothyroidism, Screening ¹⁰				✓
Dental Caries in Preschool Children, Prevention ¹¹				✓

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continued

Recommended Preventive Services

Recommendation	Adults		Special Populations	
	Men	Women	Pregnant Women	Children
Depression (Adults), Screening ¹²	✓	✓		
Diet, Behavioral Counseling in Primary Care to Promote a Healthy ¹³	✓	✓		
Gonorrhea, Screening ¹⁴		✓	✓	
Gonorrhea, Prophylactic Medication ¹⁵				✓
Hearing Loss in Newborns, Screening ¹⁶				✓
Hepatitis B Virus Infection, Screening ¹⁷			✓	
High Blood Pressure, Screening	✓	✓		
HIV, Screening ¹⁸	✓	✓	✓	✓
Iron Deficiency Anemia, Prevention ¹⁹				✓
Iron Deficiency Anemia, Screening ²⁰			✓	

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continued

Recommended Preventive Services

Preventive Services Recommended by the USPSTF (continued)				
Recommendation	Adults		Special Populations	
	Men	Women	Pregnant Women	Children
Syphilis Infection, Screening ²⁹	✓	✓	✓	
Tobacco Use and Tobacco-Caused Disease, Counseling ³⁰	✓	✓	✓	
Type 2 Diabetes Mellitus in Adults, Screening ³¹	✓	✓		
Visual Impairment in Children Younger than Age 5 Years, Screening ³²				✓

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Recommended Preventive Services

Question 2: Since your patient is a longtime smoker, she wants to know why the recommendations do not include lung disease screening such as a chest x-ray or CT scan. By consulting the Guide, (pages 35 - 36, Lung Cancer Screening), one sees that the USPSTF concluded that the evidence is insufficient to recommend for or against screening asymptomatic persons for lung cancer with CT or chest x-ray. (Grade: I Statement)

The rationale for issuing the Grade I Statement is found under Clinical Considerations:

Lung Cancer Screening

Summary of Recommendation

The U.S. Preventive Services Task Force (USPSTF) concludes that the evidence is insufficient to recommend for or against screening asymptomatic persons for lung cancer with either low dose computerized tomography (LDCT), chest x-ray (CXR), sputum cytology, or a combination of these tests. *Grade: I Statement.*

Clinical Considerations

- The benefit of screening for lung cancer has not been established in any group, including asymptomatic high-risk populations such as older smokers. The balance of harms and benefits becomes increasingly unfavorable for persons at lower risk, such as nonsmokers.
- The sensitivity of LDCT for detecting lung cancer is 4 times greater than the sensitivity of CXR. However, LDCT is also associated with a greater number of false-positive results, more radiation exposure, and increased costs compared with CXR.
- Because of the high rate of false-positive results, many patients will undergo invasive diagnostic procedures as a result of lung cancer screening. Although the morbidity and mortality rates from these procedures in asymptomatic individuals are

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not available, mortality rates due to complications from surgical interventions in symptomatic patients reportedly range from 1.3% to 11.6%; morbidity rates range from 8.8% to 44%, with higher rates associated with larger resections.

- Other potential harms of screening are potential anxiety and concern as a result of false-positive tests, as well as possible false reassurance because of false-negative results. However, these harms have not been adequately studied.

This USPSTF recommendation was first published in:
Ann Intern Med. 2004;140:738-739.

Question 3: Your patient has faithfully received her annual Pap smear for many years, and she now questions why it is no longer recommended?

By consulting the Guide, page 25, one sees that that the USPSTF recommendation for cervical cancer is under review. Users are advised to visit the USPSTF Web site for the updated recommendation. The current recommendations noted on page 25 of the Guide involves a Grade D Recommendation against routinely screening women older than age 65 for cervical cancer if they have had adequate recent screening with normal Pap smears and are not otherwise at high risk for cervical cancer.

Additional explanation is provided under the Clinical Considerations section:

Discontinuation of cervical cancer screening in older women is appropriate, provided women have had adequate recent screening with normal Pap results. The optimal age to discontinue screening is not clear, but risk of cervical cancer and yield of screening decline steadily through middle age. The USPSTF found evidence that yield of screening was low in previously screened women after age 65. New American Cancer Society (ACS) recommendations suggest stopping cervical cancer screening at age 70. Screening is recommended in older women who have not been previously screened, when information about previous screening is unavailable, or when screening is unlikely to have occurred in the past (e.g., among women from countries without screening programs). Evidence is limited to define "adequate recent screening." The ACS guidelines recommend that older women who have had three or more documented, consecutive, technically satisfactory normal/negative cervical cytology tests, and who have had no abnormal/positive cytology tests within the last 10 years, can safely stop screening.

Screening for Cervical Cancer

NOTE: An update to this recommendation is in progress. Please visit our Web site at <http://www.preventiveservices.ahrq.gov> or the USPSTF's Electronic Preventive Services Selector (ePSS) at <http://epss.ahrq.gov> for the most current recommendation.

Summary of Recommendations

The U.S. Preventive Services Task Force (USPSTF) strongly recommends screening for cervical cancer in women who have been sexually active and have a cervix. *Grade: A Recommendation.*

The USPSTF recommends against routinely screening women older than age 65 for cervical cancer if they have had adequate recent screening with normal Pap smears and are not otherwise at high risk for cervical cancer (go to *Clinical Considerations*). *Grade: D Recommendation.*

The USPSTF recommends against routine Pap smear screening in women who have had a total hysterectomy for benign disease. *Grade: D Recommendation.*

The USPSTF concludes that the evidence is insufficient to recommend for or against the routine use of new technologies to screen for cervical cancer. *Grade: I Statement.*

The USPSTF concludes that the evidence is insufficient to recommend for or against the routine use of human papillomavirus (HPV) testing as a primary screening test for cervical cancer. *Grade: I Statement.*

Appendix

**Additional Prevention Materials and Resources from
AHRQ**

When you use *The Guide to Clinical Preventive Services 2009* in the classroom or in practice, here are some additional products AHRQ developed based on the recommendations that you may find helpful. These items can be printed from your computer or ordered through the AHRQ Clearinghouse (see information below):

- Adult Preventive Care Timeline poster
<http://www.ahrq.gov/ppip/timelinead.pdf> (APPIP06-IP001)
- Women: Stay Healthy at Any Age - Your Checklist for Health
<http://www.ahrq.gov/ppip/healthywom.htm> (10-IP002-AEnglish) (07-IP005-B Spanish)
- Men: Stay Healthy at Any Age - Your Checklist for Health
<http://www.ahrq.gov/ppip/healthymen.htm> (10-IP004-A English) (07-IP006-B Spanish)
- Staying Healthy at 50+ poster
<http://www.ahrq.gov/ppip/50plusposter.pdf> (08-IP003-A)
- Men: Stay Healthy at 50+ - Checklists for Your Health
<http://www.ahrq.gov/ppip/men50.htm> (08-IP002)
- Women: Stay Healthy at 50+ - Checklists for Your Health
<http://www.ahrq.gov/ppip/women50.htm> (08-IP001)
- How to Use I Statements in Clinical Practice (video)
<http://www.ahrq.gov/clinic/ivideos.htm> (Web only)

You can also order extra copies of *The Guide* (09-IP006) or view the recommendations online at <http://www.ahrq.gov/clinic/pocketgd09/>. AHRQ Publications Clearinghouse:

Order by Phone: 800-358-9295 (toll free in the United States).

Order by E-mail: AHRQPubs@ahrq.hhs.gov.

Order Online: AHRQ Publications Online Store at
http://ahrqpubs.ahrq.gov/OA_HTML/ibeCZzpHome.jsp

Order by Mail or Fax:

AHRQ Publications Clearinghouse

P.O. Box 8547

Silver Spring, MD 20907

Fax: (703) 437-6922

Please Note: Charges may apply for delivery to addresses outside of the United States. If you wish to order bulk quantities for students, please contact Barbara Kass at Barbara.Kass@ahrq.hhs.gov or 301-427-1261.

For more information, contact:

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Fax: (301) 427-1597

E-mail: Robert.Cosby@ahrq.hhs.gov

SECTION THREE

Sample Resource List of Educators Teaching Preventive Services

Institution	Instructor	Health Professions Program	Educational Setting	Description of Prevention Education	Contact
University of California, San Francisco, Medical Center	Mary Beattie, MD	Medical School	Classroom	Teaches guidelines in classroom.	Mary.Beattie@ucsfmedctr.org
University of Massachusetts Medical School	Frank Domino, MD	Clerkship Program, Medical School	Clerkship	Incorporates USPSTF recommendations in third-year clerkship.	Frank.domino@umassmemorial.org 774-442-4814
University of Massachusetts Medical School	Warren Ferguson, MD	Dept. of Family Medicine and Community Health, Medical School	Preclinical and clinical rotations	Developed and use a preventive services Objective Structured Clinical Examination (OSCE) case; introduce students to the Electronic Preventive Services Selector (ePSS); third year students are required to study USPSTF recommendations and defend C, D, or I recommendations.	Warren.ferguson@umassmemorial.org 774-442-6669
Medical University of South Carolina	David R. Garr, MD, South Carolina AHEC	Community Medicine, Family Medicine, Medical School	Classroom and clinical rotations		garrdr@musc.edu 843-792-4431
Indiana University Medical School	Richard Kiovsky, MD, Indiana area AHEC Network	Clinical Family Medicine		Students develop primary care preventive services interventions for at least ten patients; developed video on prevention, utilizing recommendations from various sources. Future Activities: Developing OSCE case;	rkiovsky@iupui.edu 317-278-0310

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Institution	Instructor	Health Professions Program	Educational Setting	Description of Prevention Education	Contact
				reintroducing prevention into family medicine clerkship; working on measuring impact of ePSS tool.	
University of Illinois - Chicago, School of Public Health	Karen Peters, DrPH	Division of Health Policy and Administration, School of Public Health	Classroom	Teaches a class where she connects clinical preventive services with population-based health.	kpeters@uic.edu 312-413-9835
University of Washington Medical School	William Reiter, MD, Internist, Anaconda, MT	Medical, Physician Assistant, and Nurse Practitioner Programs	Clinical rotation	As a preceptor for clinical rotation for health professions students, Dr. Reiter uses USPSTF recommendations in his electronic registry at his small, rural, primary care practice.	wmreiter@reiterfoundation.org 406-563-8600
University of Kentucky Colleges of Public Health and Medicine	F. Douglas Scutchfield, MD, Associate Editor, American Journal of Preventive Medicine	Public Health and Medical School	Classroom	Utilizes USPSTF recommendations in classroom setting.	scotch@uky.edu 859-218-2024
University of Vermont	Martha Seagrave, PA-C	Department of Family Medicine	Classroom	Family medicine students undertake a half-day prevention education, which includes activities with the USPSTF web site and an online prevention-oriented online jeopardy game.	Martha.seagrave@uvm.edu
Michigan State University	Vince WinklerPrins, MD, FAAFP	Department of Family Medicine	Clerkship and classroom	Requires students to do a preventive care presentation based on USPSTF recommendations. Also incorporates USPSTF guidelines into multiple choice and oral exams for students.	Vince.winklerprins@hc.msu.edu 517-884-0435

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Institution	Instructor	Health Professions Program	Educational Setting	Description of Prevention Education	Contact
Albert Einstein College of Medicine Columbia University College of Physicians and Surgeons	Richard Young, MD, MPH Pablo Joo, MD	Family Medicine	Classroom and clinical rotation	They teach preventive services in program involving two medical schools (Columbia P&S and Albert Einstein College of Medicine) and link to students in clinical rotation around the US.	Rgy2103@columbia.edu Pabloo.joo@einstein.yu.edu http://pcore.cc.nmtl.columbia.edu

Submit feedback and questions on this Technical Assistance document to Barbara Kass, MPH, AHRQ, at Barbara.Kass@ahrq.hhs.gov.