Welcome to module three, “Evidence-based Prevention: Applying the U.S. Preventive Services Task Force (USPSTF) Guidelines. This model was created as part of the Enhancing Prevention and Population Health education series of educational models sponsored by the Association for Prevention Teaching and Research.

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The two objectives for this presentation include: explain the role of the U.S. Preventive Services Task Force (USPSTF) in improving health outcomes; and become familiar with available resources and support tools for evidence-based prevention, including online tools and applications for mobile devices.
Slide 4: Resources

This slide lists three resources that are available for information about evidence-based prevention and the specific web site to find the information including the Guide to Clinical Preventive Services, the site for the U.S. Preventive Services Task Force, and the site for the Electronic Preventive Services Selector or (ePSS).

Slide 5: US Preventive Services Task Force

The mission for the U.S. Preventive Services Task Force (USPSTF) includes: to evaluate the benefit of individual services based on age, gender, and risk factors for disease; to make recommendations about which preventive services should be incorporated routinely into primary medical care and for which populations; and lastly to identify a research agenda for clinical preventive care.

Slide 6: Process Basics

The process followed by the USPSTF to determine the evidence for preventive services includes: first to conduct a scientific review of clinical preventive services; next to estimate the magnitude of benefits and harms for each preventive service and to determine the net benefit; and finally to issue a recommendation.
Slide 7: Strength of Evidence

The strength of evidence is quantified by the task force and given a grade. The grade “A” means a prevention item is strongly recommended, “B” is recommended, “C” is no recommendation for or against, “D” is recommendation against, and “I” indicates that there is insufficient evidence to recommend either for or against the specific service.

Slide 8: Obesity in Children and Adolescents

For example we will discuss the issue of screening and intervention for obesity in children and adolescents, which was addressed by the USPSTF in 2010. In January 2010 the task force issued an update to the July 2005 recommendations on screening and intervention for overweight in children and adolescents. The recommendation is based on a targeted and systematic review of 13 studies of behavioral intervention in 1,258 obese children and adolescents.

Slide 9: Targeted Systematic Review for Treatment

The targeted review indicated that current research suggests that behavioral interventions can be effective in managing weight in obese children and adolescents. Secondly, combined behavioral pharmacologic interventions may be useful in very obese adolescents, particularly if research confirms that weight loss is maintained.
Thus the committee made a recommendation that for the population of children and adolescents age 6 to 18 years the recommendation is: screen children age six years old and older for obesity, offer or refer for intensive counseling and behavioral interventions. This recommendation was given a grade of “B,” in addition details are provided about what constitutes a screening test and what the evidence was. Specifically for the timing of screening there was no evidence found on appropriate screening intervals, but notations are made for what types of interventions patients should be referred. A discussion is made between the balance of harms and benefits and a link is given for other relevant recommendations.

The full recommendation is described in a supporting article called, “Effectiveness of Weight Management Interventions and Children: A Targeted Systematic Review for the USPSTF,” and the final conclusions read, “Over the past several years research into weight management in obese children and adolescents has improved in quality and quantity. Despite important gaps, available research supports at least short term benefits of comprehensive medium- to high-intensity behavioral interventions in obese children and adolescents.” This was published in the journal Pediatrics in 2010.

The full recommendation statement, supporting article, evidence synthesis and clinical summary can be found online. The website is shown on the slide. Similar full supporting documentation is available for any other condition or screening procedure that has been evaluated by the USPSTF, and the task force regularly considers and reconsiders many issues of importance. The age-specific preventive history card that was introduced in the other presentation in module three in part is based on the evidence review of the USPSTF. Such a pocket card can be used to support medical providers in assessing for age-appropriate screening and prevention; however there are other resources available as well.
Slide 13: Electronic Preventive Services Selector

We will next discuss the Electronic Preventive Services Selector (ePSS).

Slide 14: ePSS Online Form

The ePSS is an online form available through the website of the Agency for Healthcare Research and Quality (AHRQ), in which a healthcare provider or individual can search for age-appropriate recommendations. A screen shows that you enter a patient’s age, gender, and pregnancy status, whether or not they are tobacco user, weather not they are sexually active, and then appropriate recommendations will be shown. In addition, the grade of evidence is shown.

Slide 15: ePSS Online Form Filled In

For example: for a 25 year old male, who does not smoke, and is sexually active, we will review the recommended prevention needs.
Slide 16: Recommendations

This slide shows what is recommended. Grade “A” recommendations are HIV screening, high blood pressure screening, and syphilis screening. Grade “B” shows: alcohol misuse, depression, healthy diet, lipid disorders, obesity, sexually transmitted infections, and type 2 diabetes.

Slide 17: Not Recommended

In this slide we see that not recommended, are many things that receive a grade “D” recommendation.

Slide 18: Uncertain

And there is uncertainty about things shown in this slide. For all of these items for recommendations, things not recommended, and things that are uncertain, looking along the right side of the screen there is an icon where the user can click on the risk information and another to click to obtain further detail.

Slide 19: ePSS Widget for Website Use

This same program can be used or accessed through a ePSS widget, on the AHRQ website, which shows just the quick information that is needed to be entered, in order to obtain the information.
Slide 20: iPhone/Blackberry Input

A similar application is available for mobile devices such as an iPhone or Blackberry. Again the same information is entered and then the recommendations are shown. In this case an example is shown for the recommendations for a 25 year old female, who is a nonsmoker, but who is sexually active.

Slide 21: iPhone/Blackberry Output

In each case, each recommendation is listed and then the user can click the arrow for more information, for the grade of recommendation, and the specific thing needed.

Slide 22: Summary

In summary the USPSTF provides graded recommendations for clinical preventive services based on an extensive review of the evidence. There are support tools available mainly developed by AHRQ with which it is easy to determine what services are recommended for a patient’s age, gender, tobacco and pregnancy status. This information may be accessed through the AHRQ website, through a quick access widget to the website, as well as with applications for mobile devices such as an iPhone or Blackberry. In addition the age-specific preventive history cards, as described in the other presentation of module three, are also available.
Module 3: Evidence-based Prevention – Applying the USPSTF Guidelines

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