Guideline Title


Bibliographic Source(s)


Guideline Status

This is the current release of the guideline.


Recommendations

Major Recommendations

The U.S. Preventive Services Task Force (USPSTF) grades its recommendations (A, B, C, D, or I) and identifies the Levels of Certainty regarding Net Benefit (High, Moderate, and Low). The definitions of these grades can be found at the end of the "Major Recommendations" field.

Summary of Recommendations and Evidence

Population: General adult population without a known diagnosis of hypertension, diabetes, hyperlipidemia, or cardiovascular disease (CVD).

Recommendation: Although the correlation among healthful diet, physical activity, and the incidence of CVD is strong, existing evidence indicates that the health benefit of initiating behavioral counseling in the primary care setting to promote a healthful diet and physical activity is small. Clinicians may choose to selectively counsel patients rather than incorporate counseling into the care of all adults in the general population.

Considerations: Issues to consider include other risk factors for CVD, a patient's readiness for change, social support and community resources that support behavioral change, and other health care and preventive service priorities.

Potential Harms: Harms may include the lost opportunity to provide other services that have a greater health effect.
Grade: This is a grade C recommendation.

Clinical Considerations

Patient Population under Consideration

This recommendation applies to adults aged 18 years or older in primary care settings who do not have CVD, hypertension, hyperlipidemia, or diabetes. It does not apply to adults who have known CVD, hypertension, hyperlipidemia, or diabetes. The USPSTF is in the process of updating its recommendation on behavioral counseling interventions for this group.

Effective Behavioral Counseling Interventions

Studies of medium- and high-intensity behavioral counseling interventions, but not low-intensity interventions, showed beneficial effects on behavioral and intermediate health outcomes. The intensity of the intervention was categorized by total patient contact time as low (1 to 30 minutes), medium (31 to 360 minutes), or high (>360 minutes).

In general, low-intensity interventions consisted of only mailed materials or of 1 to 2 single, brief sessions with primary care clinicians or other trained persons. Medium-intensity interventions involved a range of 3 to 24 phone sessions or 1 to 8 in-person sessions. High-intensity interventions involved a range of 4 to 20 in-person group sessions and were the only interventions to report sustained benefits beyond 12 months.

No high-intensity interventions and few medium-intensity interventions involved primary care clinicians as the providers of the intervention. Most interventions were delivered by health educators or nurses, counselors or psychologists, dieticians or nutritionists, or exercise instructors or physiologists.

In adults with a diastolic blood pressure of 80 to 89 mm Hg, high-intensity behavioral interventions to reduce dietary sodium content were associated with a clinically significant reduction in blood pressure (decreases of 1.9 mm Hg in systolic blood pressure and 1.0 mm Hg in diastolic blood pressure) and subsequent cardiovascular events.

Other Approaches to Prevention

The counseling interventions that were feasible in the primary care setting or were referable that the USPSTF reviewed demonstrated only small to moderate changes in behavior or intermediate health outcomes. Behavioral counseling may be more effective if delivered in the context of broader public health interventions that encourage healthy lifestyles.

Many public health resources addressing diet and physical activity may be useful resources for primary care clinicians. The U.S. Departments of Agriculture and Health and Human Services have jointly issued dietary guidelines for the general population. These guidelines recommend a diet that includes various fruits, vegetables, whole grains, and fiber; is low in saturated fat, cholesterol, and sodium; and balances calories with physical activity to maintain a healthy weight. The "2008 Physical Activity Guidelines for Americans" recommends that adults exercise for at least 150 minutes per week and include muscle-strengthening exercises at least twice per week.

The Million Hearts campaign is a national private–public initiative sponsored by the U.S. Department of Health and Human Services that aims to decrease the number of heart attacks and strokes by 1 million over the next 5 years. It emphasizes the use of effective clinical preventive services combined with multifaceted policy interventions. More information is available at http://millionhearts.hhs.gov.

The Community Preventive Services Task Force recommends several community-based interventions to promote physical activity, including community-wide campaigns, social support interventions, school-based physical education, and several environmental and policy approaches. The recommendations are available at www.thecommunityguide.org.

Related USPSTF Recommendations

The USPSTF recommends intensive behavioral dietary counseling for adult patients with hyperlipidemia and other known risk factors for cardiovascular and diet-related chronic disease (grade B recommendation). It is in the process of updating this recommendation.

The USPSTF has recommendations addressing the most substantial causes of CVD. It recommends that adults 18 years or older be screened for hypertension. For selected adults, the USPSTF recommends screening for lipid disorders and the use of aspirin to prevent CVD. The USPSTF recommends that clinicians screen all adult patients for obesity and offer intensive counseling and behavioral interventions to promote sustained weight loss for obese adults. Other recommendations on reducing risk for CVD are available on the USPSTF Web site at www.uspreventiveservicestaskforce.org.

Definitions:
What the U.S. Preventive Services Task Force (USPSTF) Grades Mean and Suggestions for Practice

<table>
<thead>
<tr>
<th>Grade</th>
<th>Grade Definitions</th>
<th>Suggestions for Practice</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>The USPSTF recommends the service. There is high certainty that the net benefit is substantial.</td>
<td>Offer/provide this service.</td>
</tr>
<tr>
<td>B</td>
<td>The USPSTF recommends the service. There is high certainty that the net benefit is moderate or there is moderate certainty that the net benefit is moderate to substantial.</td>
<td>Offer/provide this service.</td>
</tr>
<tr>
<td>C</td>
<td>Note: The following statement is undergoing revision. The USPSTF recommends selectivity offering (or providing) this service to individual patients based on professional judgment and patient preferences. There is at least moderate certainty that the net benefit is small.</td>
<td>Offer/provide this service only if other considerations support offering or providing the service in an individual patient.</td>
</tr>
<tr>
<td>D</td>
<td>The USPSTF recommends against the service. There is moderate or high certainty that the service has no net benefit or that the harms outweigh the benefits.</td>
<td>Discourage the use of this service.</td>
</tr>
<tr>
<td>I</td>
<td>Statement</td>
<td>The USPSTF concludes that the current evidence is insufficient to assess the balance of benefits and harms of the service. Evidence is lacking, of poor quality, or conflicting, and the balance of benefits and harms cannot be determined.</td>
</tr>
</tbody>
</table>

USPSTF Levels of Certainty Regarding Net Benefit

Definition: The USPSTF defines certainty as "likelihood that the USPSTF assessment of the net benefit of a preventive service is correct." The net benefit is defined as benefit minus harm of the preventive service as implemented in a general, primary care population. The USPSTF assigns a certainty level based on the nature of the overall evidence available to assess the net benefit of a preventive service.

<table>
<thead>
<tr>
<th>Level of Certainty</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>High</td>
<td>The available evidence usually includes consistent results from well-designed, well-conducted studies in representative primary care populations. These studies assess the effects of the preventive service on health outcomes. This conclusion is therefore unlikely to be strongly affected by the results of future studies.</td>
</tr>
<tr>
<td>Moderate</td>
<td>The available evidence is sufficient to determine the effects of the preventive service on health outcomes, but confidence in the estimate is constrained by such factors as: the number, size, or quality of individual studies; inconsistency of findings across individual studies; limited generalizability of findings to routine primary care practice; and lack of coherence in the chain of evidence. As more information becomes available, the magnitude or direction of the observed effect could change, and this change may be large enough to alter the conclusion.</td>
</tr>
<tr>
<td>Low</td>
<td>The available evidence is insufficient to assess effects on health outcomes. Evidence is insufficient because of: the limited number or size of studies; important flaws in study design or methods; inconsistency of findings across individual studies; gaps in the chain of evidence; findings that are not generalizable to routine primary care practice; and a lack of information on important health outcomes. More information may allow an estimation of effects on health outcomes.</td>
</tr>
</tbody>
</table>

Clinical Algorithm(s)

None provided

Scope

Disease/Condition(s)
Cardiovascular disease

Guideline Category
Counseling
Prevention

Clinical Specialty
Family Practice
Internal Medicine
Nursing
Nutrition
Preventive Medicine

Intended Users
Advanced Practice Nurses
Allied Health Personnel
Dietitians
Nurses
Physician Assistants
Physicians
Public Health Departments

Guideline Objective(s)
To update the 2003 and 2002 U.S. Preventive Services Task Force (USPSTF) recommendation statements on behavioral counseling to promote a healthful diet and physical activity in adults without preexisting cardiovascular disease or its risk factors

Target Population
General adult population without a known diagnosis of hypertension, diabetes, hyperlipidemia, or cardiovascular disease (CVD)

Interventions and Practices Considered
Low-, medium- and high-intensity behavioral interventions to promote a healthful diet and physical activity

Major Outcomes Considered
Key Question 1: Do primary care–relevant behavioral counseling interventions for physical activity or healthful diet reduce cardiovascular disease (CVD) in adults?
Key Question 2: Do primary care–relevant behavioral counseling interventions for physical activity or healthful diet improve intermediate outcomes
Key Question 3: Do primary care–relevant behavioral counseling interventions for physical activity or healthful diet change associated health behaviors in adults?

Key Question 4: What are the adverse effects of primary care–relevant behavioral counseling interventions for physical activity or healthful diet in adults?

Methodology

Methods Used to Collect/Select the Evidence

Hand-searches of Published Literature (Primary Sources)

Hand-searches of Published Literature (Secondary Sources)

Searches of Electronic Databases

Description of Methods Used to Collect/Select the Evidence

Note from the National Guideline Clearinghouse (NGC): A systematic evidence review was prepared by the Oregon Evidence-based Practice Center for the U.S. Preventive Services Task Force (USPSTF) (see the "Availability of Companion Documents" field).

Data Sources and Searches

To identify literature published for each key question since the previous recommendations, reviewers searched MEDLINE, PsycINFO, and the Cochrane Central Register of Controlled Trials from January 2001 to January 2010. The review staff supplemented its searches with suggestions from experts and reference lists from other relevant publications, including the 2 previous USPSTF systematic reviews and 9 related existing reviews.

Study Selection

Two investigators independently reviewed 13,562 abstracts and 481 articles against the specified inclusion criteria. Reviewers included trials with primary care–relevant counseling on physical activity (for example, aerobic activities, such as walking, cycling, or swimming, or resistance training) or healthful diet interventions (for example, appropriate calorie intake; increased intake of fruits and vegetables, whole grains, and fiber; balanced intake of fats; or decreased sodium). Reviewers excluded interventions primarily aimed at weight loss or those that provided controlled diets or supervised physical activity. Primary care–relevant counseling included interventions that were conducted in, judged feasible to be conducted in (such as phone or electronic interventions), or potentially referable from a primary care setting. Interventions had to be compared with usual care, a minimal intervention, or an attention-control group. Reviewers excluded interventions that targeted persons with known hypertension, hyperlipidemia, diabetes, or cardiovascular disease and trials in which more than 50% of the population had known heart disease or any one or a combination of these risk factors. They required a minimum follow-up of 6 months after randomization. A priori outcomes included true health outcomes (morbidity or mortality related to cardiovascular disease); intermediate outcomes and physiologic changes associated with health outcomes (blood pressure, lipid profile, fasting glucose level and glucose tolerance, and adiposity); and behavioral outcomes (any self-reported change in physical activity or dietary intake). Cost-effectiveness or cost-related outcomes were not included. For harms, reviewers included any observational studies that reported serious cardiovascular harms, such as acute cardiac events during or immediately after physical activity.

Number of Source Documents

Data from 73 studies (109 articles) were included.

Methods Used to Assess the Quality and Strength of the Evidence

Weighting According to a Rating Scheme (Scheme Given)
Rating Scheme for the Strength of the Evidence

Articles that met the inclusion criteria were critically appraised by 2 reviewers using the U.S. Preventive Services Task Force (USPSTF) and National Institute for Health and Clinical Excellence design-specific quality criteria (see Appendix B, Table 2 in the Evidence Synthesis [see the "Availability of Companion Documents" field]).

Methods Used to Analyze the Evidence

Meta-Analysis of Randomized Controlled Trials

Review of Published Meta-Analyses

Systematic Review with Evidence Tables

Description of the Methods Used to Analyze the Evidence

Note from the National Guideline Clearinghouse (NGC): A systematic evidence review was prepared by the Oregon Evidence-based Practice Center for the U.S. Preventive Services Task Force (USPSTF) (see the "Availability of Companion Documents" field).

Data Extraction and Quality Assessment

Articles that met the inclusion criteria were critically appraised by 2 reviewers using the USPSTF and National Institute for Health and Clinical Excellence design-specific quality criteria. The reviewers were each blinded to the other's initial ratings, and discrepancies were resolved by consensus. Articles were rated as good, fair, or poor quality. Good-quality studies met all of the specified quality criteria, whereas fair-quality studies did not but had no fatal flaws in the design, execution, or reporting of the study. Poor-quality studies were excluded from this review.

For included studies, 1 investigator extracted data on study setting, populations, interventions, and prespecified outcomes into standardized evidence tables and a second investigator verified all extracted data.

Data Synthesis and Analysis

Reviewers conducted random-effects meta-analyses to estimate the effect size of counseling on all intermediate health outcomes and behavioral outcomes. They combined all trials with a given outcome and conducted separate analyses for each of the 3 intervention targets (physical activity, healthful diet, and combined) and, if applicable, for the specific dietary message (sodium reduction, focus on fruits and vegetables only, or general low-fat or heart-healthy dietary counseling). Analyses were stratified by estimated intervention intensity (low [≤30 minutes], medium [between 31 minutes and 6 hours of contact], or high [≥6 hours of contact]). Trials were also categorized by population risk as being unselected or selected only on the basis of age; selected for suboptimal behavior (such as sedentary behavior or poor dietary intake); or selected for individual or population risk factors for increased incidence of cardiovascular disease (such as mildly elevated diastolic blood pressure or fasting glucose or serum lipid levels, obesity, or poverty or poor access to health care).

Reviewers assessed the presence of statistical heterogeneity among the studies by using standard chi-square tests and estimated the magnitude of heterogeneity by using the $I^2$ statistic. Tests of publication bias to determine whether the distribution of the effect sizes was symmetric with respect to the precision measure were performed by using funnel plots and the Egger linear regression method. Meta-regressions were performed on the basis of the random-effects models to examine the effect of 4 a priori variables of heterogeneity (intervention intensity, intervention target, study population risk, and recruitment method [volunteer vs. study-identified]) on effect size. To interpret effect sizes of standardized mean differences, the Cohen's $d$ statistic was used, in which an effect size of 0.2 to 0.3 generally represents a small effect; 0.5, a moderate effect; and 0.8, a large effect.

All analyses were performed by using Stata, version 10.0 (StataCorp, College Station, Texas).

Methods Used to Formulate the Recommendations

Balance Sheets

Expert Consensus
Description of Methods Used to Formulate the Recommendations

The U.S. Preventive Services Task Force (USPSTF) systematically reviews the evidence concerning both the benefits and harms of widespread implementation of a preventive service. It then assesses the certainty of the evidence and the magnitude of the benefits and harms. On the basis of this assessment, the USPSTF assigns a letter grade to each preventive service signifying its recommendation about provision of the service (see table below). An important, but often challenging, step is determining the balance between benefits and harms to estimate "net benefit" (that is, benefits minus harms).

Table 1. U.S. Preventive Services Task Force Recommendation Grid

<table>
<thead>
<tr>
<th>Certainty of Net Benefit</th>
<th>Magnitude of Net Benefit</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Substantial</td>
</tr>
<tr>
<td>High</td>
<td>A</td>
</tr>
<tr>
<td>Moderate</td>
<td>B</td>
</tr>
<tr>
<td>Low</td>
<td>Insufficient</td>
</tr>
</tbody>
</table>

*A, B, C, D, and I (Insufficient) represent the letter grades of recommendation or statement of insufficient evidence assigned by the U.S. Preventive Services Task Force after assessing certainty and magnitude of net benefit of the service (see the "Rating Scheme for the Strength of the Recommendations" field).

The overarching question that the Task Force seeks to answer for every preventive service is whether evidence suggests that provision of the service would improve health outcomes if implemented in a general primary care population. For screening topics, this standard could be met by a large randomized, controlled trial (RCT) in a representative asymptomatic population with follow-up of all members of both the group "invited for screening" and the group "not invited for screening."

Direct RCT evidence about screening is often unavailable, so the Task Force considers indirect evidence. To guide its selection of indirect evidence, the Task Force constructs a "chain of evidence" within an analytic framework. For each key question, the body of pertinent literature is critically appraised, focusing on the following 6 questions:

1. Do the studies have the appropriate research design to answer the key question(s)?
2. To what extent are the existing studies of high quality? (i.e., what is the internal validity?)
3. To what extent are the results of the studies generalizable to the general U.S. primary care population and situation? (i.e., what is the external validity?)
4. How many studies have been conducted that address the key question(s)? How large are the studies? (i.e., what is the precision of the evidence?)
5. How consistent are the results of the studies?
6. Are there additional factors that assist the USPSTF in drawing conclusions (e.g., presence or absence of dose–response effects, fit within a biologic model)?

The next step in the Task Force process is to use the evidence from the key questions to assess whether there would be net benefit if the service were implemented. In 2001, the USPSTF published an article that documented its systematic processes of evidence evaluation and recommendation development. At that time, the Task Force's overall assessment of evidence was described as good, fair, or poor. The Task Force realized that this rating seemed to apply only to how well studies were conducted and did not fully capture all of the issues that go into an overall assessment of the evidence about net benefit. To avoid confusion, the Task Force has changed its terminology. Whereas individual study quality will continue to be characterized as good, fair, or poor, the term certainty will now be used to describe the Task Force's assessment of the overall body of evidence about net benefit of a preventive service and the likelihood that the assessment is correct. Certainty will be determined by considering all 6 questions listed above; the judgment about certainty will be described as high, moderate, or low.

In making its assessment of certainty about net benefit, the evaluation of the evidence from each key question plays a primary role. It is important to note that the Task Force makes recommendations for real-world medical practice in the United States and must determine to what extent the evidence for each key question—even evidence from screening RCTs or treatment RCTs—can be applied to the general primary care population. Frequently, studies are conducted in highly selected populations under special conditions. The Task Force must consider differences between the general primary care population and the populations studied in RCTs and make judgments about the likelihood of observing the same effect in actual practice.
It is also important to note that one of the key questions in the analytic framework refers to the potential harms of the preventive service. The Task Force considers the evidence about the benefits and harms of preventive services separately and equally. Data about harms are often obtained from observational studies because harms observed in RCTs may not be representative of those found in usual practice and because some harms are not completely measured and reported in RCTs.

Putting the body of evidence for all key questions together as a chain, the Task Force assesses the certainty of net benefit of a preventive service by asking the 6 major questions listed above. The Task Force would rate a body of convincing evidence about the benefits of a service that, for example, derives from several RCTs of screening in which the estimate of benefits can be generalized to the general primary care population as "high" certainty (see the "Rating Scheme for the Strength of Recommendations" field). The Task Force would rate a body of evidence that was not clearly applicable to general practice or has other defects in quality, research design, or consistency of studies as "moderate" certainty. Certainty is "low" when, for example, there are gaps in the evidence linking parts of the analytic framework, when evidence to determine the harms of treatment is unavailable, or when evidence about the benefits of treatment is insufficient. Table 4 in the methodology document listed below (see the "Availability of Companion Documents" field) summarizes the current terminology used by the Task Force to describe the critical assessment of evidence at all 3 levels: individual studies, key questions, and overall certainty of net benefit of the preventive service.


Rating Scheme for the Strength of the Recommendations

What the U.S. Preventive Services Task Force (USPSTF) Grades Mean and Suggestions for Practice

<table>
<thead>
<tr>
<th>Grade</th>
<th>Grade Definitions</th>
<th>Suggestions for Practice</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>The USPSTF recommends the service. There is high certainty that the net benefit is substantial.</td>
<td>Offer/provide this service.</td>
</tr>
<tr>
<td>B</td>
<td>The USPSTF recommends the service. There is high certainty that the net benefit is moderate or there is moderate certainty that the net benefit is moderate to substantial.</td>
<td>Offer/provide this service.</td>
</tr>
<tr>
<td>C</td>
<td>Note: The following statement is undergoing revision. The USPSTF recommends selectivity offering (or providing) this service to individual patients based on professional judgment and patient preferences. There is at least moderate certainty that the net benefit is small.</td>
<td>Offer/provide this service only if other considerations support offering or providing the service in an individual patient.</td>
</tr>
<tr>
<td>D</td>
<td>The USPSTF recommends against the service. There is moderate or high certainty that the service has no net benefit or that the harms outweigh the benefits.</td>
<td>Discourage the use of this service.</td>
</tr>
<tr>
<td>I</td>
<td>Statement</td>
<td>Read the &quot;Clinical Considerations&quot; section of USPSTF Recommendation Statement. If the service is offered, patients should understand the uncertainty about the balance of benefits and harms.</td>
</tr>
</tbody>
</table>

USPSTF Levels of Certainty Regarding Net Benefit

Definition: The USPSTF defines certainty as "likelihood that the USPSTF assessment of the net benefit of a preventive service is correct." The net benefit is defined as benefit minus harm of the preventive service as implemented in a general, primary care population. The USPSTF assigns a certainty level based on the nature of the overall evidence available to assess the net benefit of a preventive service.

<table>
<thead>
<tr>
<th>Level of Certainty</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>High</td>
<td>The available evidence usually includes consistent results from well-designed, well-conducted studies in representative primary care populations. These studies assess the effects of the preventive service on health outcomes. This conclusion is therefore unlikely to be strongly affected by the results of future studies.</td>
</tr>
<tr>
<td>Moderate</td>
<td>The available evidence is sufficient to determine the effects of the preventive service on health outcomes, but confidence in the</td>
</tr>
</tbody>
</table>
Cost Analysis

A formal cost analysis was not performed and published cost analyses were not reviewed.

Method of Guideline Validation

Comparison with Guidelines from Other Groups

External Peer Review

Internal Peer Review

Description of Method of Guideline Validation

Peer Review. Before the U.S. Preventive Services Task Force (USPSTF) makes its final determinations about recommendations on a given preventive service, the Evidence-based Practice Center and the Agency for Healthcare Research and Quality send a draft evidence review to 4 to 6 external experts and to Federal agencies and professional and disease-based health organizations with interests in the topic. The experts are asked to examine the review critically for accuracy and completeness and to respond to a series of specific questions about the document. After assembling these external review comments and documenting the proposed response to key comments, the topic team presents this information to the USPSTF in memo form. In this way, the USPSTF can consider these external comments before it votes on its recommendations about the service. Draft recommendation statements are then circulated for comment among reviewers representing professional societies, voluntary organizations, and Federal agencies, as well as posted on the Task Force Web site for public comment. These comments are discussed before the final recommendations are confirmed.

Response to Public Comment. A draft version of this recommendation statement was posted for public comment on the USPSTF Web site from 22 February to 22 March 2011. Sixty-five responses were received during this period. In response to these comments, the USPSTF clarified the target population throughout the recommendation statement and refined the terminology describing both behavioral and intermediate outcomes. It added information to the Interventions section and expanded the Implementation section to provide further guidance to clinicians. It also added the Other Approaches to Prevention section to highlight important public health interventions addressing diet and exercise and expanded the Recommendation of Others section to include recommendations from other professional associations.

Recommendations of Others. Recommendations for healthy diets, dietary advice, exercise, or physical activity from the following groups were discussed: the U.S. Department of Agriculture, the U.S. Department of Health and Human Services (HHS), the Community Preventive Services Task Force, the American Heart Association, the American College of Sports Medicine, and the American Academy of Family Physicians. The Million Hearts campaign, an initiative sponsored by HHS, was also discussed.

Evidence Supporting the Recommendations

Type of Evidence Supporting the Recommendations

The type of supporting evidence is not specifically stated for each recommendation.
Benefits/Harms of Implementing the Guideline Recommendations

Potential Benefits

Benefits of Interventions to Change Behavior and Outcomes

In adult patients without known hypertension, diabetes, hyperlipidemia, or cardiovascular disease (CVD), there is adequate evidence that the benefits of medium- to high-intensity behavioral counseling interventions to improve diet and increase physical activity are small to moderate.

There is adequate evidence that the benefits of medium- to high-intensity behavioral counseling interventions to improve intermediate health outcomes (that is, decreased blood pressure, decreased blood lipid levels, and improved glucose tolerance) are small in the short term (up to 1 year). There is inadequate evidence that medium- to high-intensity behavioral counseling interventions directly decrease rates of mortality or CVD events.

Potential Harms

Harms of Counseling Interventions

There is adequate evidence that intense physical activity is only rarely associated with adverse cardiovascular events. None of the studies reviewed was designed to detect adverse effects of interventions to promote a healthful diet. The U.S. Preventive Services Task Force (USPSTF) determined that little to no potential harms are associated with these behavioral counseling interventions.

Qualifying Statements

Qualifying Statements

- The U.S. Preventive Services Task Force (USPSTF) makes recommendations about the effectiveness of specific clinical preventive services for patients without related signs or symptoms.
- It bases its recommendations on the evidence of both the benefits and harms of the service and an assessment of the balance. The USPSTF does not consider the costs of providing a service in this assessment.
- The USPSTF recognizes that clinical decisions involve more considerations than evidence alone. Clinicians should understand the evidence but individualize decision making to the specific patient or situation. Similarly, the USPSTF notes that policy and coverage decisions involve considerations in addition to the evidence of clinical benefits and harms.
- Recommendations made by the USPSTF are independent of the U.S. government. They should not be construed as an official position of the Agency for Healthcare Research and Quality or the U.S. Department of Health and Human Services.

Implementation of the Guideline

Description of Implementation Strategy

General Implementation

The experiences of the first and second U.S. Preventive Services Task Force (USPSTF), as well as that of other evidence-based guideline efforts, have highlighted the importance of identifying effective ways to implement clinical recommendations. Practice guidelines are relatively weak tools for changing clinical practice when used in isolation. To effect change, guidelines must be coupled with strategies to improve their acceptance and feasibility. Such strategies include enlisting the support of local opinion leaders, using reminder systems for clinicians and patients, adopting standing orders, and audit and feedback of information to clinicians about their compliance with recommended practice.

In the case of preventive services guidelines, implementation needs to go beyond traditional dissemination and promotion efforts to recognize the added patient and clinician barriers that affect preventive care. These include clinicians' ambivalence about whether preventive medicine is part of their job, the psychological and practical challenges that patients face in changing behaviors, lack of access to health care or of insurance coverage
for preventive services for some patients, competing pressures within the context of shorter office visits, and the lack of organized systems in most practices to ensure the delivery of recommended preventive care.

Dissemination strategies have changed dramatically in this age of electronic information. While recognizing the continuing value of journals and other print formats for dissemination, the USPSTF Task Force will make all its products available through its Web site. The combination of electronic access and extensive material in the public domain should make it easier for a broad audience of users to access USPSTF materials and adapt them for their local needs. Online access to USPSTF products also opens up new possibilities for the appearance of the annual, pocket-size Guide to Clinical Preventive Services.

To be successful, approaches for implementing prevention have to be tailored to the local level and deal with the specific barriers at a given site, typically requiring the redesign of systems of care. Such a systems approach to prevention has had notable success in established staff-model health maintenance organizations, by addressing organization of care, emphasizing a philosophy of prevention, and altering the training and incentives for clinicians. Staff-model plans also benefit from integrated information systems that can track the use of needed services and generate automatic reminders aimed at patients and clinicians, some of the most consistently successful interventions. Information systems remain a major challenge for individual clinicians' offices, however, as well as for looser affiliations of practices in network-model managed care and independent practice associations, where data on patient visits, referrals, and test results are not always centralized.

Implementation of This Guideline

Medium- or high-intensity behavioral interventions to promote a healthful diet and physical activity may be provided to individual patients in primary care settings or in other sectors of the health care system after referral from a primary care clinician. In addition, clinicians may offer healthful diet and physical activity interventions by referring the patient to community-based organizations. Strong links between the primary care setting and community-based resources may improve the delivery of these services.

If individual risk for CVD is uncertain, several calculators and models are available to quantify a person's risk for cardiac events over the next 10 years. The Framingham-based Adult Treatment Panel III calculator (available at http://hp2010.nhlbihin.net/atpiii/calculator.asp) performs well for the U.S. population. Persons with a 10-year risk for CVD greater than 20% are generally considered to be at high risk, those with a 10-year risk less than 10% are considered to be at low risk, and those in the 10% to 20% range are considered to be at intermediate risk. Persons at higher risk may benefit from counseling interventions more than persons at low risk, because even small improvements in intermediate outcomes in those at higher risk may result in clinically meaningful reductions in CVD events.

Implementation Tools

Foreign Language Translations
Mobile Device Resources
Patient Resources
Pocket Guide/Reference Cards
Staff Training/Competency Material

For information about availability, see the Availability of Companion Documents and Patient Resources fields below.

Institute of Medicine (IOM) National Healthcare Quality Report Categories

IOM Care Need
Staying Healthy

IOM Domain
Identifying Information and Availability

Bibliographic Source(s)


Adaptation

Not applicable: The guideline was not adapted from another source.

Date Released

1996 (revised 2012 Sep 4)

Guideline Developer(s)

U.S. Preventive Services Task Force - Independent Expert Panel

Guideline Developer Comment

The U.S. Preventive Services Task Force (USPSTF) is a federally-appointed panel of independent experts. Conclusions of the USPSTF do not necessarily reflect policy of the U.S. Department of Health and Human Services (DHHS) or DHHS agencies.

Source(s) of Funding

The U.S. Preventive Services Task Force (USPSTF) is an independent, voluntary body. The U.S. Congress mandates that the Agency for Healthcare Research and Quality support the operations of the USPSTF.

Guideline Committee

U.S. Preventive Services Task Force (USPSTF)

Composition of Group That Authored the Guideline

Task Force Members*: Virginia A. Moyer, MD, MPH (Chair) (Baylor College of Medicine, Houston, Texas); Michael L. LeFevre, MD, MSPH (Co-Vice Chair) (University of Missouri School of Medicine, Columbia, Missouri); Albert L. Siu, MD, MSPH (Co-Vice Chair) (Mount Sinai School of Medicine, New York, and James J. Peters Veterans Affairs Medical Center, Bronx, New York); Linda Ciofu Baumann, PhD, RN (University of Wisconsin, Madison, Wisconsin); Kirsten Bibbins-Domingo, PhD, MD (University of California, San Francisco, San Francisco, California); Susan J. Curry, PhD (University of Iowa College of Public Health, Iowa City, Iowa); Mark Ebell, MD, MS (University of Georgia, Athens, Georgia); Glenn Flores, MD (University of Texas Southwestern, Dallas, Texas); Adelfa Gonzales Cantu, RN, PhD (University of Texas Health Science Center, San Antonio, Texas); David C. Grossman, MD, MPH (Group Health Cooperative, Seattle, Washington); Jessica Herzstein, MD, MPH (Air Products, Allentown, Pennsylvania); Joy Melnikow, MD, MPH (University of California, Davis, Sacramento,
Financial Disclosures/Conflicts of Interest

The U.S. Preventive Services Task Force (USPSTF) has an explicit policy concerning conflict of interest. All members disclose at each meeting if they have a significant financial, professional/business, or intellectual conflict for each topic being discussed. USPSTF members with conflicts may be recused from discussing or voting on recommendations about the topic in question.

Potential Conflicts of Interest: Dr. Virginia A. Moyer: Consulting fee or honorarium: USPSTF. Support for travel to meetings for the study or other purposes: USPSTF. Disclosure forms from USPSTF members can be viewed at www.acponline.org/authors/icmje/ConflictOfInterestForms.do?msNum=M12-1261.

Guideline Status

This is the current release of the guideline.


Guideline Availability

Electronic copies: Available from the Annals of Internal Medicine Web site.

Availability of Companion Documents

The following are available:

Evidence Reviews:


Electronic copies: Available from the U.S. Preventive Services Web (USPSTF) site.

Background Articles:

The following are also available:


- A continuing medical education (CME) activity is available from the Annals of Internal Medicine Web site.

The Electronic Preventive Services Selector (ePSS), available as a personal digital assistant (PDA) application and a web-based tool, is a quick hands-on tool designed to help primary care clinicians identify the screening, counseling, and preventive medication services that are appropriate for their patients. It is based on current recommendations of the USPSTF and can be searched by specific patient characteristics such as age, sex, and selected behavioral risk factors.

Patient Resources

The following are available:


Print copies: Available from the Agency for Healthcare Research and Quality (AHRQ) Publications Clearinghouse. For more information, go to http://www.ahrq.gov/research/publications/index.html or call 1-800-358-9295 (U.S. only).

Myhealthfinder is a new tool that provides personalized recommendations for clinical preventive services specific to the user's age, gender, and pregnancy status. It features evidence-based recommendations from the USPSTF and is available at www.healthfinder.gov.

Please note: This patient information is intended to provide health professionals with information to share with their patients to help them better understand their health and their diagnosed disorders. By providing access to this patient information, it is not the intention of NGC to provide specific medical advice for particular patients. Rather we urge patients and their representatives to review this material and then to consult with a licensed health professional for evaluation of treatment options suitable for them as well as for diagnosis and answers to their personal medical questions. This patient information has been derived and prepared from a guideline for health care professionals included on NGC by the authors or publishers of that original guideline. The patient information is not reviewed by NGC to establish whether or not it accurately reflects the original guideline's content.

NGC Status

This summary was completed by ECRI on June 30, 1998. The information was verified by the guideline developer on December 1, 1998. This summary was updated by ECRI on December 13, 2002. The updated information was verified by the guideline developer on December 19, 2002. This summary was updated by ECRI Institute on September 26, 2012. The updated information was verified by the guideline developer on October 19, 2012.

Copyright Statement
Requests regarding copyright should be sent to: Lisa S. Nicolella, Senior Editor, Office of Communications and Knowledge Transfer, Agency for Healthcare Research and Quality, 540 Gaither Road, Rockville, MD 20850; E-mail: lisa.nicolella@ahrq.hhs.gov.

Disclaimer

NGC Disclaimer

The National Guideline Clearinghouseâ“¢ (NGC) does not develop, produce, approve, or endorse the guidelines represented on this site.

All guidelines summarized by NGC and hosted on our site are produced under the auspices of medical specialty societies, relevant professional associations, public or private organizations, other government agencies, health care organizations or plans, and similar entities.

Guidelines represented on the NGC Web site are submitted by guideline developers, and are screened solely to determine that they meet the NGC Inclusion Criteria.

NGC, AHRQ, and its contractor ECRI Institute make no warranties concerning the content or clinical efficacy or effectiveness of the clinical practice guidelines and related materials represented on this site. Moreover, the views and opinions of developers or authors of guidelines represented on this site do not necessarily state or reflect those of NGC, AHRQ, or its contractor ECRI Institute, and inclusion or hosting of guidelines in NGC may not be used for advertising or commercial endorsement purposes.

Readers with questions regarding guideline content are directed to contact the guideline developer.