

Clinical Preventive Services: When Is the Juice Worth the Squeeze?

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OVERVIEW — *This paper provides an overview of clinical preventive services, including a definition of such services and the role of the U.S. Preventive Services Task Force in recommending which services should be routinely offered to patients. It also describes efforts to analyze the cost effectiveness of clinical preventive services and reviews the insurance coverage policies of private and public payers. Barriers to increased uptake of appropriate services are discussed, and policy-relevant issues are summarized.*

Clinical Preventive Services: When Is the Juice Worth the Squeeze?

The health care system is often derided as a “sick care” system that focuses predominately on treating disease rather than promoting health. While this characterization may be accurate when viewed in terms of dollars spent or number of services used, clinical preventive services are, nevertheless, a pivotal and highly visible aspect of medical care. For many fortunate Americans, their only contact with the health care system is for preventive services, such as well child visits and annual physicals, services that establish long-standing relationships with health care providers before significant health care needs arise.

Although prevention-oriented services are firmly embedded in primary care practice, many people believe health care providers should play an even more active role in preventing disease and disability. Chronic conditions, such as heart disease, diabetes, and cancer, are increasingly common and contribute to escalating health care costs. Many of these conditions are influenced by modifiable lifestyle choices, amenable to behavioral interventions, and easier to treat if diagnosed early.

The most appealing answer to skyrocketing health care costs seems tantalizingly simple: reduce the underlying burden of disease. This approach would keep people healthy, increase worker productivity, minimize service utilization, and reduce spending. Prevention has been a cornerstone of the managed care movement since its inception, and preventive services continue to evolve and improve. Yet the promise of prevention has never been fully realized, and some critics worry that ineffective preventive services are only adding to, rather than reducing, unnecessary service utilization.

WHAT ARE CLINICAL PREVENTIVE SERVICES?

Clinical preventive services are delivered to asymptomatic people in a clinical setting by a health care professional. Such services can prevent the onset of a disease process, detect risk factors that could lead to disease, or diagnose disease in its earliest stages before symptoms have surfaced. These services can be divided into three broad categories:

- **Immunization and preventive medicine** involve the administration of biological material or chemical compounds that serve to prevent disease onset. Immunizations are the most common example of this

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type of preventive service. However, chemoprevention, such as the regular use of aspirin in individuals at high risk for heart disease, also represents a form of preventive medicine.

- **Disease screening** includes a wide variety of screening tools, tests, and techniques that detect disease or risk factors. Examples include screenings for hearing impairment, blood glucose levels, and depression. Disease screens may, but do not necessarily, involve radiological imaging or laboratory testing. These clinical preventive services promote early diagnosis because they are administered in a routine manner to people who are not yet exhibiting disease symptoms.
- **Behavioral counseling interventions** assist patients in adopting, changing, or maintaining behaviors known to affect health outcomes or health status. Examples include smoking cessation and dietary counseling.

Some preventive services, such as invasive disease screenings like cervical cancer tests, are only available in clinical settings. Other preventive services, such as behavioral counseling, are perhaps more available outside the traditional health care provider practice than within. Some prevention services are delivered collectively to large numbers of people and are commonly known as community prevention services. Community preventive services can be delivered through health care systems; community settings, such as schools and workplaces; or applied to entire communities in the form of laws, regulation, or mass media campaigns. These community preventive services do not focus on individual patients. Although they might involve the input of health care practitioners, they are not clinical in nature. This paper focuses only on those services delivered by a health care provider or a member of the provider's staff in a clinical setting.

Clinical preventive services are sometimes described as either "primary" or "secondary" prevention. Primary prevention generally refers to services provided before a disease process has been initiated. Secondary prevention refers to services that seek to detect disease or disease risk factors early, before physical symptoms are evident, to improve treatment effectiveness and reduce complications. In general, most forms of behavioral counseling, immunizations, and preventive medicine are seen as primary prevention, whereas disease screenings are often viewed as secondary prevention.

The line between primary and secondary prevention can get blurry, however. Determining when abnormal biomedical markers represent a disease state and how different diseases and symptoms relate to one another depends on the diagnostic criteria being used. These criteria are established through professional consensus and can change as an improved understanding of the disease process develops. Distinctions between primary and secondary prevention are likely to shift as disease models become more nuanced, diagnostic technology becomes increasingly more sophisticated, and the evidence base linking risk factors with disease grows.

Clinical Preventive Services

Delivered to
individuals
in a clinical setting

Community Preventive Services

Delivered to
populations through
community settings, such as
schools and workplaces

ROLE OF THE U.S. PREVENTIVE SERVICES TASK FORCE

Scientific and technological advances have led to tremendous growth in the range and type of clinical preventive services available. In the not-too-distant past, the notion of a healthy person visiting the doctor would have been inconceivable.¹ Today, consumers are bombarded with advertisements for full-body scans and other types of diagnostic wizardry that promise to detect physical problems they never even dreamed about. The emerging science of genomics is likely to amplify this trend, opening a universe of screening possibilities. Consumers and clinicians alike are increasingly challenged to determine whether and under what circumstances these preventive services are necessary and appropriate and, conversely, when a service might be wasteful or even harmful.

Although preventive services may commonly be perceived as benign interventions, they can pose very real threats, ranging from the rare adverse reaction to vaccines to high false-positive rates from disease screenings that trigger unnecessary and possibly harmful follow-up testing and treatment interventions. Because preventive services are delivered to a large number of healthy people, even adverse outcomes that occur at relatively low rates could lead to a substantial amount of harm.

The U.S. Preventive Services Task Force (USPSTF) was established in 1984 to give health care professionals advice about which forms of preventive care should be routinely offered to asymptomatic patients. The original USPSTF, empanelled by the U.S. Public Health Service, consisted of 20 nonfederal experts.

These experts were charged with reviewing the scientific evidence for specific clinical preventive services and making recommendations regarding which services should be a standard part of primary care practice.

Although its composition and methods have changed somewhat since its founding, the USPSTF continues to identify the “gold standard” of clinical preventive services that pass a rigorous, evidence-based assessment. A complete list of currently recommended services is provided in an appendix to this paper. Resource and time constraints have precluded the USPSTF from conducting an exhaustive review of all preventive services. Therefore, the USPSTF has identified specific services to assess through a prioritization process that elicits input from a variety of stakeholders and considers the richness of the evidence base likely to be available to support decision making.

Advisory Committee on Immunization Practices (ACIP)

The ACIP is composed of 15 experts in fields associated with immunization selected by the Secretary of the Department of Health and Human Services (DHHS) to provide guidance on the most effective ways to circumvent vaccine-preventable diseases. The Committee develops written recommendations for the routine administration of vaccines for both children and adults.

The U.S. Preventive Services Task Force has archived its 1996 recommendations related to childhood immunizations in recognition of the ACIP’s role in evaluating the clinical appropriateness of vaccines.

The current USPSTF remains an independent body that is supported through the Agency for Health care Research and Quality (AHRQ) and receives research synthesis support through AHRQ's network of Evidence-based Practice Centers (EPCs). The USPSTF conducts systematic evidence reviews to determine whether a particular intervention has a meaningful positive impact on health outcomes and whether these health benefits outweigh any potential harm or adverse events the intervention could engender.²

The USPSTF does not conduct its own evaluative research; rather it relies on the existing evidence base to develop its recommendations. The process the USPSTF uses clearly and explicitly acknowledges the limitations, strengths, and weakness of this evidence base. The quality of the evidence—the strength of both individual studies and the collective body of studies—is carefully considered and graded as good, fair, or poor.

The USPSTF must frequently rely on multiple, unrelated studies to assess the causal chain between the intervention, health benefit, and harm, and it has developed a methodical approach to making these linkages. The most rigorous research design for establishing the effectiveness of interventions, randomized clinical trials (RCTs), often has not been applied to clinical preventive services. When RCTs of preventive services have been conducted, the study time frame is often too short to establish long-term preventive health benefits. Therefore, the USPSTF typically examines separate studies and determines if the studies fit together in a logical, rational manner.

For example, the USPSTF considered good evidence from RCTs that smoking cessation counseling combined with nicotine replacement therapy is effective in reducing smoking rates. However, these studies did not look longitudinally to assess the impact smoking cessation had on health outcomes. In this case, the USPSTF considered separate studies that provided good evidence that smoking cessation led to decreased rates of heart disease, lung cancer, and stroke. Balancing this evidence against evidence of potential harm, the USPSTF concluded that clinicians should screen all adults for tobacco use and offer cessation counseling to those who use tobacco products.

The USPSTF has set a high bar in demanding strong evidence of benefits and has been cautious in weighing benefits against harm. In many instances, it has concluded that the available evidence is insufficient to recommend either for or against a particular intervention. In others, the recommendation is narrowly focused on particular high-risk populations for whom the benefits of the intervention clearly outweigh the possible harm.

The USPSTF's recommendations involve some degree of value judgment and expert opinion.³ Reconciling conflicting pieces of evidence, assessing

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the magnitude of health benefits and harms, and weighing benefits against harms (particularly if the evidence related to harm is weak) can represent difficult decisions. Although value judgments are inherent in the assessment of the evidence, the USPSTF's process is firmly grounded in the evidence base and explicit decision rules have been established.

The USPSTF acknowledges that factors unrelated to the scientific evidence, such as practical considerations, liability concerns, and individual clinical circumstances, may lead clinicians to provide preventive services that the USPSTF does not broadly recommend due to insufficient evidence. Clinicians confronting the practical reality of patients who could be spared significant suffering through the use of a preventive service do not have the luxury of waiting until more evidence becomes available. Other panels and advisory bodies, such as physician specialty societies, may make recommendations based on expert opinion in the absence of a strong evidence base in order to help providers with this difficult clinical decision making. When the USPSTF's recommendations differ from other expert panels and advisory bodies, these differences are identified and discussed. The USPSTF also includes clinical considerations in all their recommendation statements to help clinicians navigate the difficult decisions they are likely to encounter.

For example, the USPSTF found that the evidence is insufficient to recommend for or against the routine screening of pregnant women for gestational diabetes. The American Diabetes Association recommends screening all women at risk for gestational diabetes, including all women who are older than 25, are overweight, are members of a high-risk ethnic group, have a family or personal history of glucose intolerance, or have had a prior poor obstetrical outcome.⁴ The American College of Obstetricians and Gynecologists (ACOG) recommends a similar risk-based approach, but notes that because only a small percentage of patients would be deemed low risk using these criteria, universal screening may be a more practical approach.⁵

Perhaps one of the most compelling practical issues that must be considered in assessing preventive services is cost. The USPSTF's methods for incorporating economic costs into its assessments continue to evolve.⁶ When the USPSTF was first established, it explicitly excluded cost considerations from its evaluative process. As methods to assess cost-effectiveness have become more sophisticated and policymakers and purchasers have clamored for cost-saving approaches to care, information about costs is increasingly factored into the USPSTF's deliberations. To the extent sound information is available, the USPSTF now considers the total economic costs that result from a preventive service, but costs are not the driving priority. When the USPSTF considers economic factors, those analyses are summarized in its recommendation statements.⁷

IS AN OUNCE OF PREVENTION WORTH A POUND OF CURE?

Preventive services are often heralded as a way to reduce spending for health care services, but this may be a simplistic and unrealistic standard. With the exception of some immunizations, most preventive services do not “save” money. There is a net cost associated with most preventive services because (a) significant costs are involved in delivering the intervention to a large, asymptomatic population from whom only a fraction would have required treatment had the intervention not been delivered and (b) many preventive services do not obviate the need for some form of health care treatment, although they may initiate treatment at a stage when the disease is easier and cheaper to treat. However, these treatment savings generally are not large enough to offset the costs associated with delivering the intervention to a broad population.

But this simple view of cost saving does not adequately capture the superior health care benefits derived from effective clinical preventive services. A more useful approach may be to consider the cost effectiveness of preventive interventions. Cost-effectiveness analyses seek to measure the value of a given intervention in terms of a ratio of net costs relative to the outcome achieved, that is, the net health benefit.⁸ Net costs include the costs of implementing the intervention, plus any costs related to treating the unintentional harm or side effects resulting from the intervention, minus the costs averted because of the intervention. Some analyses may include “costs avoided” beyond those that would be incurred in a health care setting, such as the costs an employer might avoid because the service prevented an employee from taking sick leave. Other analyses are more narrowly focused on health treatment costs, making it important to understand the perspectives being used in any comparison of cost-effectiveness measures.

Similarly, different cost-effectiveness analyses may use different metrics to gauge health outcomes or benefits. Health outcomes are frequently measured as life years saved or quality-adjusted life years (QALY) saved in order to facilitate comparisons across different types of interventions. Analyzing these outcomes for a population requires both an understanding of the long-term impact of the preventive service in reducing mortality and morbidity and a sense of the prevalence of the disease the service seeks to prevent (or likely prevalence if the service were not widely available).

Cost-benefit analyses pursue a similar approach but assign monetary value to the health outcomes achieved in order to allow for a more direct financial comparison. As a general rule of thumb, \$75,000 is commonly used as a benchmark for valuing for each QALY saved. Services with a cost-effectiveness ratio below \$75,000 per QALY saved (or a cost-benefit ratio of less than one) would be viewed as “worth it” from a purely financial perspective using this benchmark. Obviously, setting such a benchmark is fraught with subjectivity and can be problematic in a health policy context, given understandable uneasiness in assigning dollar values to human life and suffering.

Cost Effectiveness

$$\frac{\text{Net Costs}}{\text{Net Health Benefit}} = \frac{\$}{\text{QALY saved or life year saved}}$$

Even using a more conservative standard for valuing a quality year of life, most preventive services recommended by the USPSTF would be deemed cost effective. For a relatively small net cost, these recommended services produce valuable health outcomes. A recent analysis of preventive services⁹ calculated the following estimates of cost effectiveness:

- Pneumococcal vaccine for adults over 65 years old: cost saving (that is, less than \$0/QALY saved)
- Tobacco cessation counseling: likely cost saving to \$2,000/QALY saved
- Chlamydia screening for women 15–24 years old: \$2,500/QALY saved
- Colorectal cancer screening for people more than 50 years old: \$13,000/QALY saved

These examples showcase some of the clearest “good buys” in clinical preventive services.

The cost effectiveness of other services, particularly many behavioral counseling services, is harder to quantify. Efforts to estimate the cost-effectiveness of these services have been hampered by uncertainty related to a number of issues, including the long-term adherence to behavioral changes brought about by counseling services and heterogeneity in the nature of the services offered. For example, estimates of the cost effectiveness of screening to identify problem drinking followed by brief counseling can range from cost saving to over \$150,000 per QALY saved. The magnitude of this range is due to a lack of precision regarding a number of variables, including the cost of providing the screen, the long-term impact of the intervention on reduction of alcohol consumption, the prevalence of problem drinking in the population, the duration of morbidity resulting from problem drinking, the costs of care resulting from that morbidity, and the mortality associated with problem drinking.¹⁰

As the availability of sound cost-effectiveness analyses grows, the USPSTF is seeking to incorporate this information into its recommendations. In many cases, the USPSTF is directly sponsoring these analyses to better inform its decision-making processes. Although the role of cost information has not been fully resolved, the USPSTF is unlikely to evaluate the cost effectiveness of a preventive service relative to a treatment-only scenario. Rather, cost effectiveness analyses will likely be used to help determine when, how often, and to whom particular services should be delivered.

For example, a cost effectiveness analysis of cervical cancer screening found that a Pap test given every three years saved 97 percent of the lives that would have been saved by an annual screening and reduced costs by 67 percent.¹¹ While the USPSTF’s recommendation to provide cervical cancer screening at least every three years hinged on the health outcomes achieved with this testing frequency, in the future “closer calls” could be informed more directly by cost considerations.

Evidence does not equal certainty.

Cost-effectiveness analyses can also help differentiate between services or screening tests targeted at the same disease or risk factor. Often, newer technologies offer superior screening tools, such as fewer false negatives or false positives, but these tests may be far more expensive than the older screening techniques. Rigorous cost-effectiveness analyses can help determine whether the health benefits of the newer technologies justify the additional expense.

INSURANCE COVERAGE POLICIES

In the past, concerns about cost have made insurers and purchasers cautious about including a wide range of clinical preventive services in health benefit packages, but these attitudes are changing. Insurance coverage for clinical preventive services has improved significantly over the last several decades, but lack of coverage or inadequate reimbursement for some services continues to be a barrier to increased delivery. Some types of preventive services, such as immunizations and annual physicals, are now commonly covered, but coverage for other services, particularly behavioral counseling services, remains the exception rather than the rule.

Private Health Insurance

Employer-sponsored health plans generally do provide coverage for services such as annual physical or gynecological exams, breast cancer screening, and childhood immunizations. Coverage for adult vaccines and other types of screening services, such as colorectal cancer screening and chlamydia screening, is more variable. Coverage for lifestyle modification counseling, like weight loss and alcohol abuse, is relatively uncommon.¹² Although many large employers specifically negotiate with health plans to ensure the coverage of preventive services, medium and small employers are less likely to demand these specific benefits from health plans.¹³

Coverage for preventive services can differ significantly across insurance plans (Table 1, see next page). Historically, managed care plans have offered more generous preventive benefits than fee-for-service plans. However, traditional health insurance plans have also begun covering more preventive benefits, perhaps in an effort to attract the healthy people to whom preventive services appeal.

Improved coverage for clinical preventive services has been aided by the inclusion of prevention-related indicators in performance measurement efforts, such as the accreditation of health plans by the National Committee for Quality Assurance (NCQA). The extent to which accreditation incentives have influenced plans to broadly include recommended clinical preventive services in their benefit packages appears somewhat limited. Only 10 preventive services are included in current NCQA quality indicators, and only one of these, smoking cessation assistance, is a

TABLE 1
Percentage of Plans Providing Coverage for Selected Preventive Services in Employer-Sponsored Insurance by Plan Type

PREVENTIVE SERVICE	Coverage in PPO	Coverage in HMO	Coverage in POS
Physical exam	80%	84%	78%
Childhood immunizations	79	80	78
Influenza vaccine	57	66	58
Cholesterol screening	64	66	53
Breast cancer screening	90	91	80
Colorectal cancer screening	77	73	66
Weight loss counseling	16	21	13
Alcohol abuse prevention/identification	23	22	15

Source: Partnership for Prevention analysis of Mercer National Employer Survey; and M. A. Bondi et al., "Employer Coverage of Clinical Preventive Services in the United States," American Journal of Health Promotion, publication pending.

behavioral counseling service. Furthermore, the relation between performance on these indicators and employer or consumer selection of health plans is not well established.

State insurance mandates may also contribute to improved coverage for specific preventive services. A recent study of state mandates conducted by Partnership for Prevention, however, found that the majority of states do not require health plans to cover a broad array of preventive services.¹⁴ Services such as mammography and childhood immunizations were more likely to be subject to mandates than lifestyle-related behavioral counseling services.

States rarely tie their mandates explicitly to USPSTF recommendations, and many states lack mandates for recommended services. For example, only 15 states identify colorectal cancer screening as a required benefit, although this screening is strongly recommended by the USPSTF. States also require coverage of some services that are not recommended by the USPSTF. Prostate cancer screening benefits are required in 27 states, but the USPSTF concluded that the evidence base was insufficient to recommend either for or against this service. Furthermore, because self-insured plans, typically offered by large employers, are exempted from state mandates through the Employee Retirement and Income Security Act (ERISA) of 1974, the extent to which state mandates influence the availability of preventive benefits is unclear.

Medicare

Coverage of preventive services under Medicare has historically required explicit congressional authorization. The program's original authorization established that Medicare would only pay for services that were medically necessary to diagnose or treat "illness or injury or to improve the functioning of a malformed body member."¹⁵ This statutory language has historically been interpreted to mean that an act of Congress is necessary to add any and all preventive benefits to the fee-for-service Medicare program.

Proposals to add specific preventive services have often faced uphill political battles. A bill to cover Pap tests under Medicare was introduced annually for 15 years before it was enacted in 1989.¹⁶ Such proposals have often been subjected to a budget neutrality test, meaning that proposed increases in Medicare spending need to be offset by spending reductions or revenue increases. Because many services are not cost saving in the strictest sense, this requirement has stalled efforts to expand the preventive services benefit package. Although cost constraints have been an important political barrier, other factors make passage of these proposals difficult. Disease-specific expansions of preventive benefits are frequently viewed as low-priority items on the legislative agenda and are likely to get overshadowed by broader policy issues.

Despite these challenges, a number of preventive benefits have been added over the years. The Medicare Prescription Drug, Improvement, and Modernization Act (MMA) of 2003 recently expanded preventive service offerings even further.¹⁷ MMA provided for a "welcome to Medicare" physical examination and authorized blood tests to screen for cardiovascular problems and diabetes as general benefits.

These additions have not always harmonized with USPSTF recommendations. For example, in order to receive reimbursement for the "welcome" visit, physicians must provide an electrocardiogram. Although this requirement was included in the MMA's statutory language, it is not recommended by the USPSTF. The USPSTF recommends *against* routine electrocardiograms in adults at low risk for coronary heart disease and found that the evidence was insufficient to recommend such screening among adults at risk for coronary heart disease. Conversely, Medicare does not currently cover some preventive services recommended by the USPSTF, including screening for depression and alcohol misuse. Table 2 (see next page) provides a summary of preventive service benefits currently offered through Medicare.

Medicare managed care plans (formerly known as Medicare+Choice plans, and now known as Medicare Advantage plans) must cover all preventive benefits specifically authorized by Congress but can add additional services at their discretion. When managed care plans were first offered to Medicare beneficiaries under the Medicare+Choice program, people who selected the managed care options typically enjoyed broader coverage

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Medicare's preventive services policies do not completely match USPSTF recommendations.

TABLE 2
Medicare-Covered Preventive Services

PREVENTIVE SERVICE	COVERED POPULATION	FREQUENCY OF COVERAGE	COST SHARING
Hepatitis B vaccine	People at medium- to high-risk for hepatitis B	Series of three	Copayment after deductible
Influenza vaccination	All	Once every flu season	None
Pneumococcal vaccination	All	Once (<i>additional shots covered based on risk</i>)	None
Bone mass measurements	People at risk for osteoporosis	Every 24 months, or more frequently if medically necessary	Copayment after deductible
Cardiovascular screening blood tests	Ordered by clinicians for asymptomatic beneficiaries	Every 5 years	None
Diabetes screening tests	People at risk for diabetes or people who have been diagnosed with pre-diabetes	Every 12 months for individuals who have never been tested and were not diagnosed with pre-diabetes, or every 6 months for individuals diagnosed with pre-diabetes	None
Diabetes outpatient self-management training	People at risk for complications from diabetes	As medically necessary	Copayment after deductible
Colorectal cancer screening tests	All age 50 and older No minimum age for colonoscopy	Fetal occult blood test – every 12 months Flexible sigmoidoscopy – every 4 years Colonoscopy – every 10 years (<i>every 2 years for those at high risk for colorectal cancer</i>) Barium enema – every 4 years as a substitute for the flexible sigmoidoscopy, or every 2 years as a substitute for colonoscopy for those at high risk for colorectal cancer	Copayment after deductible
Prostate cancer screening tests	Men over age 50	Every 12 months	Copayment after deductible
Screening mammography	Women age 40 and older	Every 12 months (<i>women between ages 35 and 39 are eligible for one baseline mammogram</i>)	Copayment no deductible
Screening Pap smear and pelvic examinations	Women	Every 24 months (<i>every 12 months for women at high risk for cervical or vaginal cancer</i>)	Copayment no deductible
Screening for glaucoma	People at risk for glaucoma	Every 12 months	Copayment after deductible

Sources: Partnership for Prevention, "Medicare Covered Preventive Services," www.prevent.org/publications/INFORMATION_sheet.pdf; Janet Heinrich, Government Accountability Office, "Medicare Preventive Services: Most Beneficiaries Receive Some but Not All Recommended Services," GAO-04-1004T, testimony before the Subcommittee on Health, Committee on Energy and Commerce, U.S. House of Representatives, September 2004, available at www.gao.gov/new.items/d041004t.pdf; and Centers for Medicare and Medicaid Services, "Medicare Preventive Services: Expanded Benefits," May 2005, available at www.cms.hhs.gov/medlearn/expanded_benefits_06-08-05.pdf

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for preventive services and had lower cost-sharing requirements for those services relative to fee-for-service beneficiaries. However, many Medicare+Choice plans exited the market, and many of the ones that remained reduced their coverage and increased their cost-sharing requirements.¹⁸ The preventive services currently offered through Medicare Advantage plans have not been collectively documented, therefore it is difficult to know whether beneficiaries now enrolled in managed care plans have access to a broader array of preventive services than those mandated by Congress.

Medicaid

Medicaid policies regarding clinical preventive services for children are governed by federally mandated coverage for Early and Periodic Screening, Diagnosis, and Treatment (EPSDT). This mandated benefit includes “necessary health care, diagnostic services, treatment, and other measures to correct or ameliorate defects and physical and mental illnesses and conditions discovered by the screening services, whether or not such services are covered under the state plan.” Providers and patients have complained that unless a service is explicitly identified in the state’s Medicaid plan, reimbursement may not be available. Because the mandate is so broadly defined, state interpretations of which services fall under this mandate have varied, federal oversight has been difficult, and state EPSDT policy has often been the subject of litigation.

Although Medicaid coverage for broadly defined preventive services for children is difficult to characterize, coverage for childhood immunizations is relatively clear and uniform. Childhood vaccines are centrally managed through the federal Vaccines for Children (VFC) program, which purchases vaccines for Medicaid beneficiaries, uninsured children, and underinsured children who receive services at community health centers. The Advisory Committee on Immunization Practices (ACIP) establishes a list of vaccines for the VFC Program, along with schedules regarding the appropriate periodicity, dosage, and contraindications applicable to pediatric vaccines.

ACIP-Recommended Vaccines

Child

- Hepatitis B
- Diphtheria-tetanus-acellular pertussis
- Haemophilus influenzae
- Inactivated poliovirus
- Pneumococcal conjugate
- Measles-mumps-rubella
- Varicella
- Hepatitis A
- Influenza
- Pneumococcal polysaccharide
- Meningococcal conjugate (adolescents)

Adult

- Tetanus-diphtheria (every 10 years)
- Influenza (yearly for adults over 50 and health care workers)
- Pneumococcal (adults over 65)
- Hepatitis B (at risk adults and health care workers)
- Measles-mumps-rubella (susceptible adults)
- Varicella (susceptible adults)

Source: www.cdc.gov/nip/recs/child-schedule.htm; www.cdc.gov/nip/recs/adult-schedule.htm

As a practical matter, the USPSTF has recommended relatively few preventive services for children beyond childhood immunizations; they include oral fluoride supplementation, newborn testing for congenital hypothyroidism and phenylketouronics, lead screening, vision screening, and ocular medication for newborns to prevent gonorrhea. The existing evidence base is insufficient to allow the USPSTF to make a recommendation either for or against many of the preventive services that advocates believe should be incorporated into primary care for children, such as screening for depression, counseling to prevent and address obesity, and tobacco use prevention counseling.

A comprehensive review of state Medicaid policy regarding specific clinical preventive services for adults is not currently available. It appears that coverage of adult preventive services varies significantly across states. Although 24 states and territories have elected to offer diagnostic, screening, and preventive services as an optional benefit, many limit coverage to diagnostic or screening services, and the specific tests and services covered under this option are at the states' discretion.¹⁹ At the same time, states that have not elected to cover this optional benefit may cover specific clinical preventive services through the physician service benefit. A recent study of Medicaid immunization coverage policies for noninstitutionalized adults found that although 48 states provided some level of adult immunization coverage, only 32 covered all the immunizations recommended by ACIP and most require significant cost sharing.²⁰

Medicaid managed care plans have the latitude to cover preventive services not normally offered through the state's traditional Medicaid program. States can also identify specific preventive services that must be covered by plans through contractual agreements. For example, 32 of the 48 states with contractual agreements for managed care or primary care case management explicitly cover HIV testing and counseling.²¹ Although such contractual specifications do not guarantee service delivery, they do provide assurances that providers will be reimbursed for these services.

The Uninsured

Expansions in clinical preventive service benefits do little to improve access to those services for the more than 40 million Americans who do not have health insurance. The uninsured use these services at much lower rates than insured populations; insurance status is perhaps the single best predictor of preventive service use.

Some level of access to preventive care is provided through federally funded health centers and other safety net providers. Direct funding for a limited number of cancer screenings is provided through the National Breast and Cervical Cancer Early Detection Program at the Centers for Disease Control and Prevention (CDC). The program funds states who, in turn, work with community-based partners to provide clinical breast

A comprehensive review of Medicaid's clinical preventive services policies is not available.

exams, mammography, Pap tests, surgical consults, and more definitive diagnostic testing, when needed, to uninsured or underinsured women. The program received \$204 million in fiscal year (FY) 2005 appropriations. Similarly the Section 317 immunization program provides funding to states for vaccines for uninsured adult and underinsured children, while VFC funds vaccines for uninsured children. The Section 317 program received \$479 million in FY 2005 appropriations.

PRACTICING WHAT IS PREACHED

Despite efforts to improve the evidence base and increase insurance coverage for clinical preventive services, the usage rates for many recommended services are unacceptably low, and, at the same time, ineffective services continue to be delivered. About 20 percent of preschool children have not been properly immunized.²² Approximately 37 percent of Medicare beneficiaries have never received a pneumococcal vaccine and about 30 percent did not receive their annual influenza vaccine.²³ Only 33 percent of adults over the age of 50 have been screened for colorectal cancer.²⁴

Available data suggest that adherence rates for behavioral counseling interventions are even lower than those for disease screenings, immunizations, and chemoprevention.²⁵ Vulnerable populations, including racial and ethnic minorities, the poor, and persons with limited education or English proficiency, are the least likely to have used recommended preventive services of all types.²⁶

The reasons for this gap between what the evidence base suggests and current medical practice are varied and complex. Despite insurance expansions, payment concerns continue to play some role in discouraging providers from offering clinical preventive services. Lack of coverage for many services (particularly counseling services), low reimbursement rates for covered services, high patient deductibles, and unclear billing protocols may make preventive services unappealing to some providers.

Factors beyond financial incentives also play an important role in the uptake of preventive services. Even when such services are well covered through insurance, adherence to evidence-based standards can be disappointing. Simply put, providers are often unaware of what preventive services should be delivered, or they lack the systems and processes necessary to ensure that these services are incorporated into primary care. In some cases, particularly for counseling services, providers may not see the provision of preventive services as their role.²⁷ They may be skeptical about patients' willingness to change behaviors,²⁸ may lack confidence in their own skills to support behavioral change, and may be uneasy about the impact such counseling could have on their relationships with patients.

Providers face a number of competing demands in organizing their patient care encounters. Visit times are short and are often focused on addressing the problem or complaint that led the patient to initiate the medical en-

Use rates for many recommended services are low, particularly among poor, minority, and other vulnerable populations.

counter. The average adult patient has about a dozen risk factors, requiring approximately 24 of the USPSTF's recommended clinical preventive services.²⁹ It would be difficult to accommodate all of these services in a single wellness-oriented visit. Furthermore, several of the recommended services, including mammography and colonoscopy, are not directly provided by primary care practitioners and would require referrals to different types of clinical providers.

Incorporating a comprehensive set of recommended preventive services into primary care practice is clearly challenging, but some providers appear better-prepared to tackle this challenge than others. A recent study sought to identify those characteristics of physician practice that were associated with the delivery of diabetic monitoring, cancer screening, and vaccinations. The characteristics associated with higher use of the services studied included practicing in a group with three or more physicians, being board certified, graduating from a medical school in the United States or Canada, and having a low proportion of total practice revenue derived from Medicaid.³⁰

Heavy reliance on Medicaid as a payer (and presumably a high proportion of Medicaid patients) appears to be associated with lower uptake of preventive services for physicians in private practice; however, it is not clear that this association holds for other types of safety net providers. A separate study found that community health center patients were no less likely to receive preventive services than the average patient receiving care from a private physician.³¹

The attitudes, competency, and knowledge base of individual providers may influence whether preventive services are delivered, but systematic changes are likely needed to substantially improve uptake rates. Organizational changes that fundamentally alter the way care is delivered, such as standing orders are among the most powerful interventions that can be taken to boost preventive service use rates. Efforts to give providers retrospective feedback regarding their compliance with preventive service recommendations have proven less effective than point-of-service interventions. Electronic health records, including point-of-service provider reminders and a team-based approach to care are often cited as important structural changes that must occur if preventive services are to be more widely delivered.

Retooling the care delivery process to better support prevention is necessary, but ideally such efforts would also be centered on the needs of patients. Even strongly motivated providers may face patient resistance to the use of preventive services. Financial concerns, as well as attitudes and beliefs, may make patients reluctant to use the preventive services offered to them. Consumers may be unaware of the benefits of such services, or they might undervalue those benefits if faced with out-of-pocket expenses in order to take advantage of them. Patient financial incentives

Fundamental changes in care delivery, such as electronic health records, may be necessary to increase use of preventive services.

are known to have a significant impact on preventive service use. For example, seniors lacking supplemental insurance to cover their Medicare cost-sharing obligations were 10 percent less likely to have received cholesterol screening, mammography, or Pap tests, relative to those patients with supplemental coverage.³²

Consumer-driven health care coverage models, such as health spending accounts in conjunction with high-deductible insurance plans, may further underscore the need to consider individuals' knowledge and understanding about the relative value of preventive services. As such coverage models become more common, concerns have been raised that preventive service use rates could be undermined if such services are not exempted from the deductible. Some high-deductible plans do provide "first dollar" coverage for preventive care to encourage beneficiaries to use these services.

Increased consumer control over benefits provides greater freedom for patients to decide what services are most appropriate for them in light of their individual circumstances. Consumers are arguably most in touch with their own risks, values, concerns, and preferences and are in the best position to determine which evidence-based preventive services meet their needs. Critics question whether patients will be armed with adequate information to make good decisions. For instance, consumers might bypass beneficial services if they are not sufficiently aware of the value of these services, or they could utilize unnecessary—and potentially harmful—services if swayed by the marketing pitches of opportunistic providers. Advocates and critics of consumer-driven plans agree that good information will be needed to help people make health care decisions and that it will be a challenge to ensure that information keeps pace with rapid technological advances.

POLICY IMPLICATIONS

Policymakers hoping to leverage the potential of preventive services face a number of challenges. These challenges can be summarized as they pertain to particular policy questions.

Should additional public funds be used to improve the evidence base?

Employers, insurers, providers, and consumers all require guidance in determining who should have access to which services and when these services should be provided. Bad decisions in this regard affect both private and public spending on health care services. Despite substantial progress in recent years, the evidence base related to clinical preventive services is not yet robust. The USPSTF has considered 52 services on which recommendations could not be made due to insufficient evidence either for or against the service. These services relate to a wide range of health

conditions, such as obesity, cardiovascular disease, and suicide, all of which place a tremendous burden of disease on society. The USPSTF has clearly identified research gaps in its recommendation statements.

The evidence base for counseling-related services is particularly weak. This weakness reflects the difficulty of assessing these types of interventions due to inconsistent delivery methods, the long time horizon typically associated with behavioral change and health outcomes, and the lack of a clear market incentive for private sector investment in such interventions. Pharmaceutical and device manufacturers can market disease-screening tools and chemopreventive agents and invest in RCTs in order to gain FDA approval for these products. Similar financial incentives generally do not exist for counseling services, leading to little private sector support for such studies.

The evidence base for disease screenings and preventive agents is far from ideal, however. Effectiveness studies on these products often focus solely on whether the test accurately diagnoses a particular condition or whether the chemical or biological agent prevents a particular disease. These studies are not likely to evaluate whether broad-based implementation of the intervention will result in a meaningful difference in health outcomes for a population.

Policymakers are left to consider the role of public sector financing to fill these holes in the evidence base to both avoid inappropriate utilization of needless preventive services and encourage use of valuable services. Private sector purchasers of health insurance also have an interest in assessing the appropriateness of preventive services. However, these parties may have a short-term perspective in determining the value of an intervention's impact, may not have sufficient resources to conduct an evaluative study independently, or may be reluctant to fund and publish work that would also benefit competitors. Ongoing collaboration with private sector interests will likely be needed to identify opportunities for publicly convened, but potentially co-funded, studies of clinical preventive service effectiveness.

How should health insurance coverage policies reflect the existing and emerging evidence base?

Once an evidence base for a particular service is established, both public and private insurers must decide whether and how to harmonize their coverage policies with these findings. Policymakers should consider how well the evidence regarding preventive services is made available to private sector insurers and examine the mechanisms through which this evidence is incorporated into the coverage policies of public insurance programs.

Critics have long argued that relying on congressional approval for each and every preventive service benefit under the Medicare program is imprudent, given the rapid proliferation of new interventions and the expanding evidence base related to these services. These critics maintain that a more streamlined process, such as a general approval for all

The evidence base for clinical preventive services is growing, but it needs further improvement.

services recommended by the USPSTF or the creation of an administrative process for modifying preventive coverage, should be put in place.

Others believe that private, market-based organizations are best suited to design benefit packages that meet consumers' needs and advocate for expanded reliance on Medicare and Medicaid managed care plans to fill this need. Whether the service in question is preventive or therapeutic, some policymakers contend that private plans are better equipped than a government bureaucracy to develop coverage decisions that are in line with the scientific evidence and free from political interference. However, the majority of Medicare beneficiaries are enrolled in the traditional program, so congressional interest in the evolution of clinical preventive services and the evidence base regarding these services will likely be needed for the foreseeable future.

At the same time, opportunities exist to assess the merit of preventive services that are covered through Medicare and Medicaid but are not yet supported by the existing evidence base. The new preventive benefits established for Medicare beneficiaries under the MMA were intended to improve the health and well being of beneficiaries, but the effect these services will have on health outcomes is unclear. The "welcome to Medicare" physical examinations delivered to new Medicare beneficiaries are likely to vary in content, comprehensiveness, and quality of follow-up services. Exploring the implications of this variation could provide important information regarding the best way to provide preventive services to seniors.

Private health plans serving both the publicly and privately insured will need assistance in keeping abreast of the evolving evidence base, as will employers and state-based purchasers. Private sector organizations, such as the National Business Group on Health, have collaborated with federal agencies to help purchasers pursue an evidence-based approach to health benefits design. Opportunities may exist to amplify efforts such as these.

In what way should providers be supported to implement evidence-based practices?

Federal activities have historically supported the dissemination and adoption of best practices related to preventive care, and some argue that these efforts should be strengthened. The USPSTF was originally convened to synthesize the available evidence to help providers make sound clinical decisions. Since its inception, the USPSTF has looked for ways to make this information more readily available to practicing clinicians. AHRQ's Prevention Dissemination and Implementation (PDI) program (formerly known as Put Prevention into Practice) seeks to distribute USPSTF findings through multiple communication vehicles. PDI has developed Web-based tools, interactive search engines, PDA-based software, and listserv notices as means to broadcast updates of recommendations. A new pocket guide of USPSTF recommendations is available to order or download.³³ The program also provides clinicians

with tools and guidance to address the barriers that can impede the delivery of recommended services.

A variety of other government-sponsored efforts to increase both provider awareness and use of preventive services have been attempted. They include efforts by the Quality Improvement Organizations (QIOs) created by Centers for Medicare & Medicaid Services (CMS), as well as programming provided through the CDC, and the Health Resources and Services Administration (HRSA).

Some would argue that additional resources are needed to bring these activities up to scale and to allow for more active outreach to clinicians. Additional research on the barriers facing physicians and the most effective ways to overcome these hurdles has been suggested. Others have expressed concerns that targeted efforts to change preventive service practices could never achieve the critical mass necessary to ensure widespread dissemination and only contribute to the information overload and fragmentation experienced by clinicians. These observers call for a more integrated approach to improving the quality of primary care.

Broader policy efforts related to a national health information infrastructure, pay-for-performance initiatives, and medical education clearly have the potential to influence the delivery of preventive services. Federal funding and support for the development of information systems, revised educational expectations, revamped clinical processes, improved care-management techniques, and rigorous performance measurement may have an even greater influence on prevention-oriented care than those activities specifically directed at the uptake of clinical preventive services. In light of the systemic failings that undermine preventive care, policy initiatives that address these fundamental dysfunctions in the delivery system appear necessary for preventive and treatment practices alike.

Shifting health care providers' focus to health rather than disease is widely espoused as a critical dimension of high-quality primary care, but some believe that this goal is not realistic given the very nature of medical science, training, and financing. Those holding this perspective are skeptical that medical practice can adapt to the demands of wellness-centered care and advocate policies that look beyond the traditional biomedical, clinical model. The ambivalence with which many health care providers view their role in prevention, particularly in offering behavioral counseling, lends credence to this perspective. Others counter that no alternative infrastructure

Evaluating Alternatives to Clinical Prevention

CMS is designing a demonstration project, called the Senior Risk Reduction Program, which would use a variety of questionnaire-based risk assessment tools to screen fee-for-service beneficiaries for health risks, gauge use of preventive services, and refer beneficiaries to nonclinical settings for lifestyle modification and other support services. The project would test different methods for assessing risks and providing preventive services in home and community settings, including peer support groups and self-management tools. Although planned for some time now, the demonstration design has not yet been finalized and is awaiting clearance by the Department of Health and Human Services and the Office of Management and Budget.

is sufficiently developed and deployed to assume the preventive roles health care clinicians are now being asked to play. Although many acknowledge the shortcomings of medical practice, addressing these problems is often seen as a more viable approach than creating nonclinical alternatives like community- or worksite-based services. In reality, broad-scale uptake of preventive services may need to rely on multiple delivery mechanisms, including both clinical and nonclinical settings.

What type of information will assist consumers in making appropriate choices?

Although health policy debate has often focused on ways to improve the effectiveness and efficiency of health care providers, there is a growing recognition that consumers can play a pivotal role in shaping the care they receive. This understanding is perhaps most evident in the growing visibility of consumer-directed health insurance models, but it is also affecting more traditional approaches to health care financing and delivery. Actively engaging patients in their own care management has been shown to improve compliance as well as outcomes for both preventive and therapeutic interventions.

Consumer values, attitudes, and beliefs have long played a particularly strong role in the uptake of preventive services, considering these services have often required out-of-pocket outlays. In many ways, an examination of preventive service use could provide a useful window into a future driven increasingly by individual decision making and financial risk. The history of preventive services suggests that consumers do not always make decisions in alignment with their long-term health interests. The reasons for this “flawed” decision making are complex; consumers may lack complete information, may be unable to navigate the complexities of the information presented, or may place a higher value on other priorities or concerns.

Individuals’ care-seeking behavior is often not as rational as health economists would like to imagine. Decisions are frequently mediated by emotional responses, such as fears that may be disproportionate to actual risks, trust in professional and familial care givers, and expectations regarding quality of life and longevity, all of which have deep cultural, and sometimes religious, roots. The influence of these motivators is not fully understood, and important differences between racial, ethnic, and socio-economic groups have not been adequately explored.

Additional research is needed to determine how consumers access and use information in choosing preventive services and to measure the extent to which other factors, such as competing needs and personal values, influence these decisions. Findings from such research could aid in the development of consumer-oriented interventions to increase use of appropriate services and decrease use of unnecessary services.

Prevention may need to rely on multiple delivery mechanisms, including clinical and nonclinical settings.

CONCLUSION

The vision of a true *health* care system remains a compelling, but elusive, goal. Moving toward that goal will require improved scientific evidence regarding how best to prevent disease and disability, as well as a more nuanced understanding of how to motivate employers, insurers, providers, and consumers to act in a manner consistent with that evidence base. In the short term, budgetary constraints may require policymakers to choose between expanding the evidence base related to the value of preventive services and improving the implementation of prevention-oriented interventions known to be highly valuable.

ENDNOTES

1. Steven H. Woolf and David Atkins, "The Evolving Role of Prevention in Health Care: Contributions of the U.S. Preventive Services Task Force," *American Journal of Preventive Medicine* 20, suppl. 3 (2001): 13–20.
2. Russell P. Harris *et al.*, "Current Methods of the U.S. Preventive Services Task Force: A Review of the Process," *American Journal of Preventive Medicine*, 20, suppl. 3 (2001): 21–35.
3. Harris, "Current Methods of the U.S. Preventive Services Task Force," 26.
4. American Diabetes Association, "Gestational diabetes mellitus," *Diabetes Care*, 25, suppl. 1 (2002): S94–S96.
5. American College of Obstetricians and Gynecologists Practice Bulletin, "Clinical management guidelines for obstetrician-gynecologists," no. 30, in *Obstetrics & Gynecology* 98, no. 3 (September 2001): 525–38.
6. Woolf and Atkins, "The Evolving Role of Prevention in Health Care," 10.
7. Harris, "Current Methods of the U.S. Preventive Services Task Force," 28.
8. Somnath Saha *et al.*, "The Art and Science of Incorporating Cost-Effectiveness in Evidence-based Recommendations for Clinical Preventive Services," *American Journal of Preventive Medicine*, 20, suppl. 3 (2001): 35.
9. Ashley Coffield *et al.*, "Priorities Among Recommended Clinical Preventive Services," *American Journal of Preventive Medicine*, 21, no. 1 (2001).
10. Coffield *et al.*, "Priorities Among Recommended Clinical Preventive Services," 7.
11. Saha *et al.*, "The Art and Science of Incorporating Cost-Effectiveness," 37.
12. M. A. Bondi *et al.*, "Employer Coverage of Clinical Preventive Services in the United States," *American Journal of Health Promotion*, publication pending.
13. Bondi *et al.*, "Employer Coverage of Clinical Preventive Services in the United States."
14. Partnership for Prevention, *Preventive Services: Helping States Improve Mandates*, Washington, DC, 2002; available at www.prevent.org/publications/Preventive_Services_State_Mandate_Brief_FINAL.pdf.
15. Social Security Act, title XVIII, section 1862; available at www.ssa.gov/OP_Home/ssact/title18/1862.htm.
16. Gilbert S. Omenn, "Historical and Current Policy Issues in Establishing Clinical Preventive Services under Medicare from A Better Medicare for Healthy Seniors," in *Recommendations to Modernize Medicare's Prevention Policies*, Partnership for Prevention: Washington, DC, 2003, 14; available at www.prevent.org/publications/medicare.pdf.

Endnotes / continued ►

Endnotes / continued

17. Public Law 108-173, Title VI, Subtitle B.
18. Jonathan E. Fielding and Peter V. Long, "Increasing Use of Clinical Preventive Services among Medicare Beneficiaries from A Better Medicare for Healthy Seniors," in *Recommendations to Modernize Medicare's Prevention Policies*, Partnership for Prevention, Washington, DC, 2003, 55; available at www.prevent.org/publications/medicare.pdf.
19. Kaiser Commission on Medicaid and the Uninsured, "Medicaid Benefits," compiled by Health Management Associates from Medicaid State Plans and Amendments, March 2003; available at www.kff.org/medicaidbenefits/diagnostic.cfm.
20. Sara Rosenbaum *et al.*, "The Epidemiology of US Immunization Law: Medicaid Coverage of Immunization for Non-institutionalized Adults," Center for Health Services Research and Policy, November 2003; available at www.gwhealthpolicy.org/downloads/Medicaid_Immunization_Study.pdf.
21. John Palen *et al.*, "Integrating HIV Prevention Services into the Clinical Care Setting in Medicaid and Ryan White CARE Act Programs: Legal, Financial, and Organizational Issues," Henry J. Kaiser Family Foundation, HIV/AIDS Policy Brief, December 2004; available at www.kff.org/hivaids/upload/Integrating-HIV-Prevention-Services-into-the-Clinical-Care-Setting-in-Medicaid-and-Ryan-White-CARE-Act-Programs-Legal-Financial-and-Organizational-Issues-Policy-Brief.pdf.
22. *Morbidity and Mortality Weekly Report*, "National, State, and Urban Area Vaccination Coverage Among Children Aged 19–35 Months—United States, 2004," 54, no. 29 (July 29, 2005): 717–721; available at www.cdc.gov/mmwr/preview/mmwrhtml/mm5429a1.htm.
23. Janet Heinrich, Government Accountability Office, "Medicare Preventive Services: Most Beneficiaries Receive Some but Not All Recommended Services," GAO-04-1004T, testimony before the Subcommittee on Health, Committee on Energy and Commerce, U.S. House of Representatives, September 2004; available at www.gao.gov/new.items/d041004t.pdf.
24. CDC, "Data 2010...the Healthy People 2010 Database," interactive database; available at <http://wonder.cdc.gov/data2010/focus.htm>.
25. Evelyn Whitlock *et al.*, "Evaluating Primary Care Behavioral Counseling Interventions: An Evidence-based Approach," *American Journal of Preventive Medicine*, 22, no. 4 (2002): 267–284.
26. H. Pham *et al.*, "Delivery of Preventive Services to Older Adults by Primary Care Physicians," *Journal of the American Medical Association*, 294, no. 4 (July 27, 2005): 480.
27. Whitlock, "Evaluating Primary Care Behavioral Counseling Interventions," 275.
28. *Accelerating the Adoption of Preventive Health Services: Building New Partnerships and Community Commitment*, NIHCM/CDC Conference Proceedings, September 2002; available at www.nihcm.org/prevention.pdf.
29. Coffield *et al.*, "Priorities Among Recommended Clinical Preventive Services."
30. Pham, "Delivery of Preventive Services to Older Adults," 473.
31. A. S. O'Malley and J. Mandelblatt, "Delivery of preventive services for low income persons over 50: A Comparison of CHCs to private doctors offices," *Journal of Community Health*, 28 (2003): 185.
32. Fielding and Long, "Increasing Use of Clinical Preventive Services," 64.
33. U.S. Preventive Services Task Force, Agency for Healthcare Research and Quality, www.preventiveservices.ahrq.gov.



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Appendix 1: Recommendations of Current U.S. Task Force for Preventive Services (as of July 24, 2005)

Recommended — Grade A (strongly recommended) and B (recommended)

SERVICE	POPULATION	COMMENTS
Screening for abdominal aortic aneurysm	Ever-smoking men ages 65 to 75 years: B	Never-smoking men ages 65 to 75: C Women: D
Screening for alcohol misuse	Adults: B	Adolescents: I
Aspirin for primary prevention of cardiovascular events	Adults at increased risk: A	No subgroups
Screening for asymptomatic bacteriuria	Pregnant women: A	Non-pregnant women and men: D
Discussion of chemoprevention of breast cancer	Women at increased risk of breast cancer and decreased risk of adverse events: B	Women not at increased risk of breast cancer: D
Screening for breast cancer with mammography	Women ages 40+: B	Screening with clinical breast exam or breast self exam: I
Structured breastfeeding education and behavioral counseling programs to promote breastfeeding	Women after child birth: B	Brief interventions or peer counseling to promote breastfeeding: I
Screening for cervical cancer with Pap smear	Women younger than age 65 who are sexually active and have a cervix: A	Women over 65 who have had previous negative screens: D Women who have had total hysterectomy for benign disease: D Screening with new technologies: I Screening with human papillomas virus test: I
Screening for chlamydia	Increased risk women: A Pregnant women at increased risk and age 25 and younger: B	Low risk women: C Low risk pregnant women and age 26+: C Men: I
Screening for colorectal cancer	Adults ages 50+: A	No subgroups
Prevention of dental caries	Preschool children, using oral fluoride supplementation in specific areas whose water is deficient in fluoride: B	Preschool children, using risk assessment: I
Screening for depression	Adults within a system of care: B	Children and adolescents: I
Screening for type 2 diabetes	Adults with hypertension or dyslipidemia: B	Adults without hypertension or dyslipidemia: I

continued ▶

A – Strongly recommended **B** – Recommended **C** – No recommendation for or against (*balance of harms and benefits too close to justify recomm.*)
D – Recommended against **I** – No recommendation for or against (*insufficient evidence*)

Appendix 1: Recommendations of Current USPSTF (July 24, 2005)

Recommended — Grade A and B (continued)

SERVICE	POPULATION	COMMENTS
Intensive behavioral dietary counseling	Adults with hyperlipidemia or other risk factors for cardiovascular disease: B	Routine behavioral counseling to promote a healthy diet: I
Screening for gonorrhea	Newborns: A Sexually active women, including those who are pregnant if they are at high risk : B	Men and women at low risk: D Men at high risk: I Pregnant women not at high risk: I
Screening for hepatitis B	Pregnant women: A	General non-pregnant population: D
Screening for HIV	All adolescents and adults at increased risk: A All pregnant women: A	All adolescents and adults not at increased risk: C
Screening for hypertension	Adults ages 18+: A	Children and adolescents: I
Screening for lipid disorders	Men 35+, women 45+: A Men 20 to 35, women 20 to 45 with other risk factors: B Screening including measurement of total cholesterol and high density lipoprotein cholesterol: B	Men 20 to 35, women 20 to 45 without other risk factors: C Screening including measurement of triglycerides: I
Screening for obesity with intensive counseling and behavioral interventions	Adults: B	Screening with low to moderate intensity counseling: I Counseling for overweight, not obese: I
Screening for osteoporosis	Women ages 65+ and women 60 to 64 with risk factors: B	Women younger than age 60 and women 60 to 64 without risk factors: C
Screening for syphilis	Increased risk and pregnant women: A	Not increased risk: D
Screen for tobacco use and provide tobacco cessation interventions	Adults: A Pregnant women: A	Screening for tobacco use or interventions to prevent or treat tobacco use among adolescents and children: I
Visual impairment to detect amblyopia, strabismus, visual field defect	Children younger than 5 years old: B	No other subgroups

continued ▶

A – Strongly recommended **B** – Recommended **C** – No recommendation for or against (balance of harms and benefits too close to justify recomm.)
D – Recommended against **I** – No recommendation for or against (insufficient evidence)

Appendix 1: Recommendations of Current USPSTF (July 24, 2005)

No recommendation either for or against — Grade C

Although at least fair evidence exists that the service improves health outcomes, the Task Force concluded that the balance of benefits and harms is too close to justify a general recommendation

SERVICE	POPULATION	COMMENTS
Screening for abdominal aortic aneurysm	Never-smoking men ages 65 to 75	Men who have ever smoked, ages 65 to 75: B Women: D
Screening for chlamydia	Low risk women; Low risk pregnant women and age 26+	Increased risk women: A Pregnant women at increased risk and age 25 and younger: B Men: I
Screening for HIV	All adolescents and adults not at increased risk	All adolescents and adults at increased risk and all pregnant women: A
Screening for lipid disorders	Men ages 20 to 35 and women ages 20 to 45 with no risk factors	Men 35+ and women 45+: A
Screening for osteoporosis	Women younger than age 60 and women 60 to 64 without risk factors	Women ages 65+ and women 60 to 64 with risk factors: B

Recommended against — Grade D

SERVICE	POPULATION	COMMENTS
Screening for abdominal aortic aneurysm	Women	Ever-smoking men ages 65 to 75: B Never-smoking men ages 65 to 75: C
Screening for bacterial vaginosis	Average risk	High risk: I
Screening for asymptomatic bacteriuria	Men and non-pregnant women	Pregnant women: A
Beta carotene supplements	Adults	Supplemental vitamins A, C, and E or folic acid or antioxidant combinations: I
Screening for bladder cancer	Adults	No subgroups
Chemoprevention of breast cancer	Women not at increased risk of breast cancer	Women at increased risk of breast cancer and decreased risk of adverse events: B

continued ▶

A – Strongly recommended **B** – Recommended **C** – No recommendation for or against (balance of harms and benefits too close to justify recommendation.)
D – Recommended against **I** – No recommendation for or against (insufficient evidence)

Appendix 1: Recommendations of Current USPSTF (July 24, 2005)

Recommended against — Grade D (continued)

SERVICE	POPULATION	COMMENTS
Chemoprevention for hormone replacement therapy	Postmenopausal women Postmenopausal women who have had a hysterectomy	No other subgroups
Cervical cancer screening with Pap smear	Women over 65 who have had previous negative screens Women who have had total hysterectomy for benign disease	Women under 65 who are sexually active and have a cervix: A Screening with new technologies: I Screening with human papillomavirus test: I
Screening for coronary heart disease	Adults not at increased risk, using electrocardiography, exercise treadmill test, or electron-beam computerized tomography	Adults at increased risk: I
Screening for genital herpes	Asymptomatic women Asymptomatic adolescents and adults	No other subgroups
Screening for gonorrhea	Men and women at low risk	Sexually active women, including those who are pregnant if they are at high risk : B Newborns: A Men at high risk and pregnant women at low risk: I
Screening for hepatitis B infection	General population	Pregnant women: A
Screening for hepatitis C	Not at increased risk	Increased risk: I
Postmenopausal hormone therapy for primary prevention of chronic problems	Postmenopausal women: Estrogen plus progestin, or estrogen alone	No other subgroups
Screening for idiopathic scoliosis	Adolescents	No subgroups
Screening for ovarian cancer	Women	No subgroups
Screening for pancreatic cancer	Adults	No subgroups
Screening for syphilis	Not increased risk	Increased risk and pregnant women: A
Screening for testicular cancer	Men	No subgroups

continued ▶

A – Strongly recommended **B** – Recommended **C** – No recommendation for or against (balance of harms and benefits too close to justify recommend.)
D – Recommended against **I** – No recommendation for or against (insufficient evidence)

Appendix 1: Recommendations of Current USPSTF (July 24, 2005)

No recommendation either for or against due to insufficient evidence — Grade I (continued)

SERVICE	POPULATION	COMMENTS
Screening for alcohol misuse	Adolescents	Adults: B
Screening for bacterial vaginosis	Increased risk women	Average risk: D
Brief interventions or peer counseling to promote breastfeeding	Women after child birth	Structured breastfeeding education and behavioral counseling programs to promote breastfeeding: B
Breast cancer screening with clinical breast exam or breast self exam	Women ages 40+	Screening with mammography: B
Screening for cervical cancer with Pap smear	Screening with new technologies Screening with human papillomavirus test	Women younger than age 65 who are sexually active and have a cervix: A Women older than age 65 who are not at high risk or have had a total hysterectomy: D
Screening for chlamydia	Men	Increased risk women: A Pregnant women at increased risk and age 25 and younger: B Low risk women: C Low risk pregnant women and age 26+: C
Screening for coronary heart disease	Adults at increased risk of coronary heart disease events, using electrocardiography, exercise treadmill test, or electron-beam computerized tomography	Adults not at increased risk: D
Screening for dementia	Older adults	No subgroups
Prevention of dental caries	Preschool children, using risk assessment	Preschool children, using oral fluoride supplementation in specific areas whose water is deficient in fluoride: B
Screening for depression	Children and adolescents	Screening adults within a system of care: B
Routine behavioral counseling to promote a healthy diet	Adults	Intensive behavioral dietary counseling for adults with hyperlipidemia or other risk factors for cardiovascular disease: B

continued ▶

A – Strongly recommended **B** – Recommended **C** – No recommendation for or against (balance of harms and benefits too close to justify recommendation.)
D – Recommended against **I** – No recommendation for or against (insufficient evidence)

Appendix 1: Recommendations of Current USPSTF (July 24, 2005)

No recommendation either for or against due to insufficient evidence — Grade I (continued)

SERVICE	POPULATION	COMMENTS
Screening for family and intimate partner violence	Parents or guardians, women, older adults	No subgroups
Screening for gestational diabetes	All pregnant women without previous diabetes	No subgroups
Screening for type 2 diabetes	Adults without hypertension or dyslipidemia	Adults with hypertension or dyslipidemia: B
Screening for glaucoma	Asymptomatic adults	No other subgroups
Screening for gonorrhea	Men at high risk Pregnant women not at high risk	Sexually active women, including those who are pregnant if they are at increased risk: B Men and women at low risk: D Newborns: A
Screening for hepatitis C infection	Increased risk or sputum cytology	Not increased risk: D
Screening for hypertension	Children and adolescents	Adults ages 18+: A
Interventions to prevent low back pain	Adults	No subgroups
Screening for lung cancer	Smokers with low dose computerized tomography or chest x-ray	No subgroups
Newborn hearing screening	Newborns	No subgroups
Screening for obesity with low to moderate intensity counseling	Adults	Screening for obesity with intensive counseling and behavioral interventions: B
Screening for oral cancer	Adults	No subgroups
Screening for overweight with any intensity counseling	Adults	See above
Behavioral counseling to promote physical activity	Adults	No subgroups
Screening for prostate cancer with prostate-specific antigen test and/or digital rectal examination	Men	No subgroups
Counseling to prevent skin cancer	All	No subgroups

continued ▶

A – Strongly recommended **B** – Recommended **C** – No recommendation for or against (balance of harms and benefits too close to justify recommend.)
D – Recommended against **I** – No recommendation for or against (insufficient evidence)

Appendix 1: Recommendations of Current USPSTF (July 24, 2005)

No recommendation either for or against due to insufficient evidence — Grade I (continued)

SERVICE	POPULATION	COMMENTS
Screening for skin cancer with total body exam	All	No subgroups
Screening for suicide risk	Adults	No subgroups
Screening for thyroid disease	Adults	No subgroups
Screen for tobacco use and provide tobacco cessation interventions	Adolescents and children	Adults and pregnant women: A
Supplemental vitamins A, C, and E or folic acid or antioxidant combinations	Adults	Beta carotene supplements: D

A – Strongly recommended **B** – Recommended **C** – No recommendation for or against (balance of harms and benefits too close to justify recomm.)
D – Recommended against **I** – No recommendation for or against (insufficient evidence)

Source: Agency for Healthcare Research and Quality, www.preventive services.ahrq.gov.