

Priorities for America's Health: Capitalizing on Life-Saving, Cost-Effective Preventive Services

Preventive Care is front and center as health care purchasers, insurers and policymakers explore ways to improve the health of our nation and rein in rising health care costs. But which preventive services do experts recommend? Do some have a greater effect on health than others? Which offer the most benefit for the dollar invested? Employers who provide health insurance coverage for their employees must balance competing demands on their financial resources — and they need answers to these important questions.

In a landmark study, Partnership for Prevention ranked the health impact and cost effectiveness of 25 preventive health services recommended by two nationally recognized sources: the U.S. Preventive Services Task Force and the Advisory Committee on Immunization Practices. The resulting rankings — published in a leading medical journal and presented in this guide — offer key information employers can use to inform their medical plan design and other employee health programs.

Highest Ranking Preventive Services

Discuss daily aspirin use — men 40+, wm 50+

Childhood immunizations

Smoking cessation advice and help to quit — adults

Colorectal cancer screening — adults 50+

Hypertension screening and treatment—adults

Influenza immunization—adults 50+

Pneumococcal immunizations — adults 65+

Problem drinking screening and counseling — adults

Vision screening — adults 65+

Cervical cancer screening — wm

Cholesterol screening and treatment — men 35+,wm 45+

Breast cancer screening — wm 40+

Chlamydia screening — wm under 25

Discuss calcium supplementation — wm

Vision screening — children

Services in the same group were tied in the ranking.

Services in bold have the lowest utilization rates nationally ($\leq 50\%$).

See page 6 for the complete rankings.



Maximize Your Health Care Investment

Invest in High-Value Clinical Preventive Services

The rankings presented in this guide provide health impact and cost effectiveness information for 25 clinical preventive services. Evidence shows that each of these services contributes to improved health and thus you should expect that healthcare providers offer these services. Examine the services that are covered in your medical plans and consider adding coverage for the highest priority preventive services that are important to you. Also consider the following:

Evaluate Barriers to Use of High-Value Preventive Services

Cost-Sharing: Reduce the out-of-pocket costs for the preventive services and preventive medications (e.g., cholesterol-lowering drugs or nicotine replacement therapies) that you really want your employees to use. Review your annual request for bids to make certain that high value preventive services are included with limited cost-sharing.

Knowledge: Many of your employees do not know which preventive services are recommended, do not understand their own risk factors, or think that certain preventive services will not work for them. Educating your employees about the preventive services covered under your medical plan will empower them to seek effective age and gender-appropriate preventive care.

Convenience: Explore ways to make high value preventive services more convenient for your employees, such as working with healthcare providers and nearby clinics to develop convenient times and locations for delivery of certain preventive services, or investigate the costs associated with a temporary onsite clinic or mobile van that health care providers can bring to your workplace for influenza vaccinations or screenings.



Did You Know...

...That the study's authors:

- Evaluated only those clinical preventive services **proven to be effective**
- Conducted a **thorough review** of the scientific literature
- Used a consistent approach to evaluating each service, so as to ensure **comparability** among them



Work as a Partner with Your Health Insurer

For example, you could:

- Engage your health plan in evaluating your current coverage for preventive services.
- Work with your health plan to get important information about preventive services into the hands of your employees and their families. Explore opportunities such as newsletters, pay stub notices, health fairs, emails, etc.
- Ask your health plan whether it offers access to telephone information and support lines for promoting healthy behaviors, such as smoking cessation counseling and dietary advice.
- Talk with your health plan about ways to encourage employees in following up on their preventive service needs. What comes after the screening — preventive care treatment — is critical to achieving better health outcomes. For example, 70% of people with high blood pressure and over 80% of those with high cholesterol do not have their conditions under control. Screening for these conditions can only tell you that you have a problem; adhering with medications is the key to achieving better health.
- Ask your health plan how it evaluates healthcare providers' performance in delivering high-value preventive services and how you can get access to this information. Work with other employers in your community to learn how they are getting good value for their medical benefit dollars.

Learn more about proven strategies for increasing use of preventive services in the Guide to Community Preventive Services, published by the CDC-supported Task Force on Community Preventive Services: www.thecommunityguide.org.



Did You Know...

...That physicians discussing daily aspirin use with men over 40, women over 50, and others at risk for cardiovascular disease would save 80,000 lives annually and result in a net medical cost savings of \$70 per person advised?



Understanding the Tables

Clinical preventive services in this ranking are immunizations, screening tests, counseling, and preventive medications offered by healthcare providers in clinical settings. The scope included 21 services recommended by the U.S. Preventive Services Task Force for asymptomatic people and for people at high-risk of coronary heart disease. It also included 4 recommendations of the Advisory Committee on Immunization Practices: 3 for adults and 1 for a defined series of childhood immunizations.

The health benefits of preventive services were defined as **clinically preventable burden (CPB)** or the disease, injury, and premature death that would be prevented if the service were delivered as recommended to all people in the target population. CPB was measured in quality adjusted life years or **QALYs**, a measure of the effects of mortality and morbidity.

The economic value of services was measured as **cost effectiveness (CE)**, which compares the net cost of a service to its health benefits measured in QALYs. Net cost was defined as the cost of the service minus the cost avoided because of the service. CE provided a standard measure for comparing services' return on investment.

A scoring system was used to group services with similar value in order to make distinctions among services without overstating the precision of the CPB and CE estimates.

Services that produce the most health benefits received the highest CPB score of 5. Services that are the most cost effective received the highest CE score of 5. Scores for CPB and CE were then added to give each service a possible score between 10 and 2.

10 = highest impact, highest value among these evidence-based preventive services

2 = lowest impact, least cost effective among these evidence-based preventive services.



Did You Know...

...That 19,000 deaths could be prevented annually if all people age 50 and older were periodically screened for colorectal cancer? Yet 65% of people are not up-to-date on screening.

...That Chlamydia is the most common bacterial sexually transmitted disease in the U.S. — with 3 million new cases annually — and that screening and treatment is extremely cost effective? Yet 60% of this service's target population — young women - have not received this service.



How to Interpret the Scores

Score	CPB Range: QALYs saved	CE Range: \$/QALY saved
5	360,000	Cost-Saving
4	185,000 - 360,000	\$0 - \$14,000
3	40,000 - 185,000	\$14,000 - \$35,000
2	15,000 - 40,000	\$35,000 - \$165,000
1	15,000	\$165,000 - \$450,000

CPB, clinically preventable burden; CE, cost effectiveness QALY, quality adjusted life year
CE estimates are discounted to present value; CPB estimates are not.

ABOUT THE STUDY

Partnership for Prevention is a national membership organization dedicated to building evidence for sound disease prevention and health promotion policies and practices.

To guide the study, Partnership convened the **National Commission on Prevention Priorities**, chaired by former U.S. Surgeon General Dr. David Satcher and consisting of experts from health insurance plans, an employer group, academia, and governmental health agencies.

Partnership collaborated with researchers at **HealthPartners Research Foundation** in Minneapolis for all analytical work (hprf.org).

The federal **Centers for Disease Control and Prevention** (CDC) and **Agency for Healthcare Research and Quality** (AHRQ) sponsored the study.

For More Information

- These findings were published in the July 2006 issue of the *American Journal of Preventive Medicine*.
- Access the published articles, learn more about the study methods, and find data on disparities in health outcomes and use of preventive services by visiting prevent.org/ncpp.

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Eating a healthy diet and being physically active lead to improved health and lower healthcare costs. So where are these issues in the rankings?

The U.S. Preventive Services Task Force (USPSTF) did not recommend medical counseling to address physical activity and diet among the general population of adults or children because the research evidence compiled to date is not sufficient to issue strong evidence-based recommendations.

The USPSTF did recommend intensive counseling and referral to specialists (as opposed to brief counseling from a primary care provider) for selected groups: adult patients who are obese (see obesity screening) and adult patients with high cholesterol and other diet-related diseases such as diabetes (see diet counseling). Obesity screening and diet counseling were not among the services in this study offering the greatest health benefits due to low patient compliance with recommended behavior changes, among other issues.



Table 1: Highest Priority Clinical Preventive Services

Services	Description	CPB	CE	Total	What Employers Should Know
Aspirin Chemoprophylaxis	Discuss daily aspirin use with men 50+, postmenopausal women, and others at increased risk for heart disease for the prevention of cardiovascular events	5	5	10	Although aspirin is cheap and accessible, very few adults are likely using aspirin consistently and need guidance from a healthcare provider to start and maintain an aspirin regimen. This service is cost saving.
Childhood Immunization Series	Immunize children: Diphtheria, tetanus, pertussis, measles, mumps, rubella, inactivated polio virus, Haemophilus influenzae type b, Hepatitis B, varicella, pneumococcal conjugate, influenza	5	5	10	The childhood immunization series is highly effective and cost saving. High immunization rates among U.S. kids may reduce parental absenteeism.
Tobacco Use Screening and Brief Intervention	Screen adults for tobacco use, provide brief counseling and offer pharmacotherapy	5	5	10	20% of adults smoke ¹ and 1/3 of smokers will die prematurely as a result. ² Smoking results in more than \$100 billion annually in medical costs. ³ This service is cost saving. An effective health plan should cover smoking cessation counseling and therapies — including over-the-counter cessation aids — and offer telephone quit lines.
Colorectal Cancer Screening	Screen adults 50+ years routinely with FOBT, sigmoidoscopy or colonoscopy	4	4	8	19,000 deaths could be prevented annually if all people 50+ were periodically screened for colorectal cancer. ⁴ Currently only about 1/3 of adults 50+ are up-to-date on screening. ⁵
Hypertension Screening	Measure blood pressure routinely in all adults and treat with anti-hypertensive medication to prevent the incidence of cardiovascular disease	5	3	8	30% of Americans age 20+ have hypertension; nearly 50% develop hypertension before age 65. ⁶ Hypertension and its complications result in over \$100 billion annually in medical costs. ⁷ Yet only 1 in 3 hypertension cases is controlled. ⁸ The maximum benefit of screening is gained only through long-term use of therapies. Generics for major drugs are available.
Influenza Immunization	Immunize adults aged 50+ against influenza annually	4	4	8	The flu is more than a bad cold — it may also result in hospitalization or death. The single best way to protect against getting the flu is to get a flu shot each fall. Among working-age adults, both injected and nasal flu vaccinations reduce absenteeism and presenteeism. ^{9,10}
Pneumococcal Immunization	Immunize adults aged 65+ against pneumococcal disease with one dose for most in this population	3	5	8	This cost-saving vaccine prevents a bacterial form of pneumonia that causes hospitalization and death. Emerging drug-resistant strains underscore the importance of prevention through vaccination.
Problem Drinking Screening and Brief Counseling	Screen adults routinely to identify those whose alcohol use places them at increased risk and provide brief counseling with follow-up	4	4	8	15% of adults report alcohol use that is consistent with binge drinking. Binge drinking is more common at younger ages but is still reported in 12% of those age 45-54. ¹ Many people are unaware that their alcohol use is excessive and will change their behavior when their doctor points it out.

Services in boldface are those with scores of 6+ for which data indicate that delivery to the U.S. population eligible for the services is likely ≤ 50%.



Table 1: Highest Priority Clinical Preventive Services *continued*

Services	Description	CPB	CE	Total	What Employers Should Know
Vision screening—Adults	Screen adults aged 65+ routinely for diminished visual acuity with the Snellen visual acuity chart	3	5	8	About 25% of older people wear inappropriate visual correction. ¹¹ Appropriate vision correction can reduce hip fractures from falls ¹² and improve quality of life.
Cervical Cancer Screening	Screen women who have been sexually active and have a cervix within 3 years of onset of sexual activity or age 21 routinely with cervical cytology (Pap smears)	4	3	7	Pap smear screening is highly effective and has been credited with a 30-year decline in cervical cancer mortality.
Cholesterol Screening	Screen routinely for lipid disorders among men aged 35+ and women aged 45+ and treat with lipid-lowering drugs to prevent the incidence of cardiovascular disease	5	2	7	21% of adults age 35+ have high cholesterol. Of these, most will develop high cholesterol before age 55. ¹⁶ One out of 4 adults who do not control their high cholesterol will have a cholesterol-attributable heart attack. One out of 3 will die of cholesterol-attributable coronary heart disease. ¹³ Long-term use of therapies is necessary to achieve maximum benefits of screening
Breast Cancer Screening	Screen women aged 50+ routinely with mammography alone or with clinical breast examination and discuss screening with women aged 40-49 to choose an age to initiate screening	4	2	6	Mammography currently prevents 12,000 deaths from breast cancer annually. ¹⁴ About 1 in 4 women over age 40 are not getting screened at recommended intervals. ¹⁵
Chlamydia Screening	Screen sexually active women under age 25 routinely	2	4	6	Chlamydia is the most common bacterial sexually transmitted disease in the U.S., with 3 million new cases annually. ¹⁶ Left untreated, Chlamydia will cause infertility in some women.
Calcium Chemoprophylaxis	Counsel adolescent and adult women to use calcium supplements to prevent fractures	3	3	6	Lifelong use of calcium prevents hip fractures. Few women use calcium supplements consistently and need regular physician guidance to encourage lifelong use.
Vision Screening—Children	Screen children less than age 5 routinely to detect amblyopia, strabismus, and defects in visual acuity	2	4	6	About 3% of preschoolers have visual impairments, ¹⁷ a portion of which would remain undetected at school age without screening. Screening and treatment are inexpensive and improve quality of life.

Services in boldface are those with scores of 6+ for which data indicate that delivery to the U.S. population eligible for the services is likely ≤ 50%.



Table 2: Other Effective Clinical Preventive Services

Services	Description	CPB	CE	Total
Folic Acid Chemoprophylaxis	Counsel women of childbearing age routinely on the use of folic acid supplements to prevent birth defects	2	3	5
Obesity Screening	Screen all adult patients routinely for obesity and offer obese patients high-intensity counseling about diet, exercise or both together with behavioral interventions for at least one year	3	2	5
Depression Screening	Screen adults for depression in clinical practices that have systems in place to assure accurate diagnosis, treatment and follow-up	3	1	4
Hearing Screening	Screen for hearing impairment in adults aged 65+ and make referrals to specialists	2	2	4
Injury Prevention Counseling	Assess the safety practices of parents of children less than age 5 and provide counseling on child safety seats, window/stair guards, pool fence, poison control, hot water temperature and bicycle helmets	1	3	4
Osteoporosis Screening	Screen women aged 65+ and women aged 60+ at increased risk routinely for osteoporosis and discuss the benefits and harms of treatment options	2	2	4
Cholesterol Screening — High Risk	Screen men aged 20 to 35 and women aged 20 to 45 routinely for lipid disorders if they have other risk factors for coronary heart disease and treat with lipid-lowering drugs to prevent the incidence of cardiovascular disease	1	1	2
Diabetes Screening	Screen for diabetes in adults with high cholesterol or hypertension and treat with a goal of lowering levels below conventional target values	1	1	2
Diet Counseling	Offer intensive behavioral dietary counseling to adult patients with hyperlipidemia and other known risk factors for cardiovascular and diet-related chronic disease	1	1	2
Tetanus-diphtheria Booster	Immunize adults every 10 years	1	1	2

Things to Know About 4 of These Services

Obesity screening: Patients must spend significant time on this intervention. If the monetary value of patients’ time were ignored, this high-intensity intervention may be very cost-effective.

Injury prevention counseling is aimed at a relatively small target population, which affects its overall health impact assessment. This is a cost-effective service, however, and would be a top priority in a list aimed solely at children.

Cholesterol screening in younger adults with risk factors for coronary heart disease also aimed at a relatively small target population. Cholesterol screening for the general, asymptomatic population received a higher score in this ranking.

Diabetes screening: Consistent with the evidence review of the US Preventive Services Task Force (USPSTF), the scores for this service reflect the marginal benefits of achieving lower blood pressure targets in people with diabetes (diastolic blood pressure < 80 mm Hg) rather than the conventional standard for all patients (≤90 mm Hg). All people should be screened for hypertension and high cholesterol and treated appropriately. The USPSTF did not find that screening/early detection of diabetes in the general population provided greater benefits than did clinical detection of diabetes. The exception is diabetes screening/early detection targeted to people with high blood pressure or high cholesterol, which can help healthcare providers more tightly control patients’ cardiovascular risks.

Go to prevent.org/ncpp for more information about all the services in the ranking...



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