



Promoting Preventive Services for Adults 50-64: Community and Clinical Partnerships



Promoting Preventive Services for Adults 50–64: Community and Clinical Partnerships

is a landmark document intended to help promote lifesaving clinical preventive services for adults aged 50 to 64. As the first in a series, this innovative resource identifies a set of recommended preventive services, provides indicators and baseline data at national and state levels to monitor progress, and promotes successful strategies to facilitate their adoption and use. It is hoped that the Report will spark vigorous and sustained collaborations that make effective screening, counseling, vaccinations, and other recommended services a routine part of prevention for the nation's adults.

We thank our collaborating organizations and their Steering Committee representatives, the Executive Staff Team and consultants for giving countless hours in the development of the *Promoting Preventive Services for Adults Aged 50–64: Community and Clinical Partnerships* Report. Their many contributions have been invaluable.

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Our nation does an excellent job of ensuring that children are up to date with potentially life-saving clinical preventive services. By requiring recommended immunizations as a condition of school entry, we better guarantee that our youth are protected from disease and able to learn, play and thrive. We have no similar mechanism to ensure that adults receive recommended immunizations and screenings that can prevent disease and promote longer, healthier lives.

National experts agree on a range of recommended clinical preventive services for adults of various ages. We have effective vaccinations to protect against diseases such as influenza and pneumonia, and screening tools to identify risk factors for cancer, heart disease or stroke or diagnose these conditions in early stages when treatment can be more successful. Sadly, however, the percent of adults up to date with these clinical preventive services remains alarmingly low, particularly among adults aged 50 to 64.

To close this gap, the Centers for Disease Control and Prevention (CDC), AARP and the American Medical Association (AMA) have joined together to highlight key issues, strategies and resources for promoting broader use of preventive services among this age group. There is growing recognition that we cannot rely solely on an already thinly stretched healthcare system but must reinforce and bolster this system with strong linkages to community providers, public policies, and supportive environments. This Report, *Promoting Preventive Services for Adults 50-64: Community and Clinical Partnerships*, brings together valuable data and examples of successful strategies for promoting clinical preventive services in community-based settings where people live and congregate. It embodies the strategic thinking of multiple organizations and experts committed to ensuring adults are provided the full benefit of scientific advances to preserve and protect their health.

It is time to focus on what many consider to be the low-hanging fruit offered through prevention by combining the forces of our healthcare system and communities to prevent disease and improve the nation's health. CDC, AARP and AMA urge you to join us in this effort.

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“In the midst of a typical seasonal influenza epidemic, an extraterrestrial being walks into a hospital emergency room teeming with acutely ill older adults. Turning to the head nurse, he says, ‘There must be no prevention for this illness.’ She replies, ‘We have an effective vaccine.’ ‘Then the vaccine must be in very scarce supply,’ he counters. ‘Oh no,’ she replies, ‘We have lots of it. It’s in those bottles on that shelf.’ Puzzled, he suggests, ‘Well, it must be very expensive,’ to which she says, ‘No, it is very inexpensive, often free.’ He replies, ‘Well, can you explain to me why you don’t prevent this disease in these people?’ And to that, the head nurse replies, ‘No I can’t, I just can’t.’”

– **John W. Rowe, MD**

Past President, The Gerontological Society of America

Aligning Data With Action

By 2015, one of every five Americans will be between the ages of 50 and 64. As they enter this age group, 70 percent will already be diagnosed with at least one chronic condition and nearly half will have two or more. The resulting disease and disability may seriously compromise their ability to carry out the multiple roles they play at this point in their lives. National experts agree on a set of recommended clinical preventive services that can help detect many of these diseases, delay their onset, or identify them early in their most treatable stages. Despite the cost-effectiveness of many of these services, the percent of adults who are up to date on receiving them is low.

Assuring delivery of essential preventive services requires creative, sustained collaboration between healthcare and community providers. This Report identifies ways to strengthen those linkages by featuring critical data to inform state and local public health practitioners, aging services providers, clinical professionals, policy makers and others. With routine analysis of these data, successes can be highlighted and areas needing attention flagged. Focused community actions can then be designed to align messages, build awareness, create environments that make services accessible and convenient, and adopt constructive public policies. Unleashing the community’s potential to support the strengths of the healthcare system will

generate a powerful force for improving the nation’s health and quality of life.

The Indicators

At the core of this Report are 14 key indicators for monitoring the use of clinical preventive services among adults aged 50 to 64: four disease screenings, two immunizations, six risk factors, and two composite “up-to-date” measures that combine several select clinical preventive services specifically relevant to women or to men. Collectively, these indicators shine a light on health conditions that pose a significant public health burden, address one of three underlying risk factors (smoking, physical inactivity or unhealthy

diet), and have a major impact on the nation’s most vulnerable populations.

Healthy People 2010 (HP2010), a set of health objectives for the nation, identifies targets for 10 of the key indicators. Targets relating to screenings and immunizations call for increasing rates; those pertaining to risk factors aim for decreased prevalence of specific behaviors. Data from the Behavioral Risk Factor Surveillance System (BRFSS) sets the “starting line” for states, and routine monitoring will reveal the extent of progress over the coming decades. This Report is the first in a series that will track progress and highlight opportunities to increase access to and use of clinical preventive services.

Executive Summary

The State-by-State Picture

The number of Healthy People 2010 targets that have been met by the majority of states for adults ages 50 to 64 can be counted on one hand.

Mammogram within past 2 years50 states and DC met target of $\geq 70\%$
Cholesterol screening within past 5 years50 states and DC met target of $\geq 80\%$
Binge drinking within past 30 days45 states met target of $\leq 13.4\%$
Colorectal cancer screening33 states met target of $\geq 50\%$

The remaining six indicators leave room for improvement.

Pap test within past 3 years5 states met target of $\geq 90\%$
No leisure-time physical activity within past month . . .4 states met target of $\leq 20\%$
Smoking – current1 state met target of $\leq 12\%$
Influenza vaccination within past year0 states met target of $\geq 60\%$
Pneumococcal vaccination ever among persons at risk . .0 states met target of $\geq 60\%$
Obesity – current0 states met target of $\leq 15\%$

Spotlight on Innovations

An analysis of recent peer-reviewed literature yielded a handful of innovative strategies that have demonstrated increased access to and use of multiple preventive services for people aged 50 to 64. Two are evidence-based interventions vetted in a variety of real-world settings, while the third is a research study with potential replicability. These spotlighted interventions plan, offer and deliver two or more preventive services as a “bundle” in accessible community sites, emphasize hard-to-reach populations, and engage the community in all stages of planning and implementation.

WISEWOMAN (Well-Integrated Screening and Evaluation for WOMen

Across the Nation) is a CDC-sponsored program that instills lasting, healthy lifestyle changes in women at risk for heart disease, stroke and other chronic diseases.

SPARC (Sickness Prevention Achieved through Regional Collaboration) builds partnerships between community-based organizations and healthcare providers to increase the delivery of multiple clinical preventive services, namely vaccinations and screenings.

The Family Heart Study, directed by Johns Hopkins University, delivered multiple preventive services in a community setting to adults at high risk of cardiovascular disease.

CALLS TO ACTION!

Realizing widespread use of clinical preventive services will require broad-based efforts that build understanding and awareness, implement private and public sector policies, and expand the uptake of successful community-based strategies. To catalyze efforts and address critical opportunities and gaps, this Report calls for action to:

- ▶ **Increase understanding about social determinants of health** by expanding the collection of information on the social context of health in states and communities
- ▶ **Engage providers, physical activity professionals and community members** to become more physically active and support environmental and policy change to promote physical activity
- ▶ **Expand tobacco-cessation programs and policies** such as smoke-free laws and policies in public places, increased excise taxes on products, mass media campaigns that motivate users to quit, provider reminder systems that prompt counseling for tobacco use, and health insurance coverage for effective cessation treatments
- ▶ **Promote effective policy and environmental strategies for binge drinking prevention** to include increasing alcohol excise taxes, limiting alcohol outlet density, restricting days of sale, and insurance coverage of screening and counseling for alcohol misuse
- ▶ **Develop and promote policy recommendations** for enhancing clinical preventive service delivery and community public health strategies in the next two to three years among adults aged 50 to 64.



“Community engagement is essential in our work to increase recommended clinical preventive services for populations hardest hit by chronic diseases. We are committed to working with our partners to align clinical and community prevention strategies and promote them vigorously at the national, state and local levels.”

– Janet Collins, PhD

Director, National Center for Chronic Disease Prevention and Health Promotion, CDC

Background

The nation pays a high price for failing to deliver proven effective clinical preventive services to adults aged 50 to 64. Changing course requires a population-based health perspective, a realignment of resources and bold, innovative community and clinical partnerships dedicated to ensuring that preventive services reach all those in need.

Why Focus on Adults Aged 50 to 64?

Much national attention has been paid to the impact of longer life spans on the health of older adults in their 70s, 80s and beyond. Just one generation behind them is a group equally worthy of note. In 2007, Americans between the ages of 50 and 64 numbered nearly 55 million. By 2015, the aging of baby boomers will boost this group of adults to 63 million strong – nearly 20 percent of the population.¹

Adults in this mid-life stage wear multiple hats: spouse and partner, employee and employer, parent and caregiver, friend and community citizen. Ideally, they can balance the pressing and often competing demands of the current day and the impending challenges of shaping a fulfilling and affordable retirement. Staying healthy is essential to their quality of life; yet, by the time they reach their sixth decade, 70 percent will have been diagnosed with one or more chronic health conditions – and nearly half will have two or more.²

What Is Known about Preventive Services?

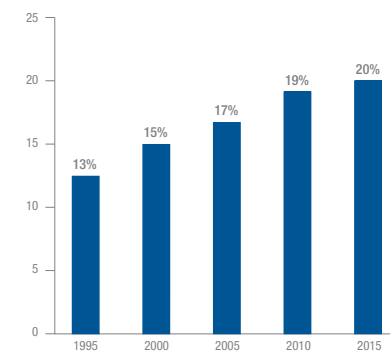
It is no secret that much of the disease, disability and death associated with chronic conditions is preventable. Thanks to ongoing efforts of such national bodies as the U.S. Preventive Services Task Force, the Advisory Committee on Immunization Practices and the Task Force for Community Preventive Services, widespread agreement exists on a recommended array of preventive services and effective ways to increase their use.³⁻⁵ A few examples:

- Routine mammograms in women ages 50 to 64 have been shown to significantly reduce deaths from breast cancer.⁶
- Healthy working adults who receive influenza vaccine report significantly fewer episodes of respiratory illness, fewer days of sick leave and fewer visits to the physician.⁷
- Screening and counseling for tobacco use can help life-long smokers quit the habit, reduce blood pressure and heart rates and increase life spans.⁸

Although these and other cost-effective preventive services have been recommended for years, they remain woefully underutilized. In 2002, fewer than one in four adults aged 50 to 64 received a core set of these preventive services.⁹ More than 50 percent of all women who develop cervical cancer have never been screened,^{10,11} less than half of all adults get the recommended amount of physical activity, and smoking remains the culprit in one of every five deaths in this age group.^{12,13}

The costs of recommended immunizations, screening and early detection, and counseling are far less than the expense of treating disease. Early detection of breast cancer can save up to 35 percent of the net cost of treatment and follow-up care,¹⁴ and screening for colorectal cancer for adults ages 50 and above was rated as one of the highest ranked preventive services with the lowest delivery costs.¹⁵

50- to 64-Year-Olds As a Percentage of the Total Population, 1995-2015¹



Virtually all employers understand that increasing their investment in high-impact and cost-effective clinical preventive services will turn the promise of improved health and reduced cost into a reality. All purchasers, public and private, must devote more attention to prevention, particularly among older workers, to reduce the prevalence and costs of chronic illness and disability.

– Helen Darling, MA

President, National Business Group on Health, a nonprofit association of more than 300 large employers

The Price of Delay

The cost of inaction impacts individuals, families, employers and the nation. Working adults aged 50 to 65 are estimated to have 48 million hours per week of health-related productivity loss (19.6 percent of the total hours of health-related productivity loss per week) at a projected cost of \$49 billion per year (21.6 percent of the total).¹⁶ Influenza alone costs \$4.6 billion in direct medical expenses and an additional \$5.6 billion in lost productivity.¹⁷ Using influenza as an example, vaccination is a high-impact, cost-effective preventive service for persons aged 50 and older. Over the lifetime of a birth cohort of 4 million, an estimated 275,000 quality-adjusted life years (QALYs) would be saved if influenza vaccination were provided annually to all people after age 50. In year 2000 dollars, the cost effectiveness of influenza was \$28,000 per QALY saved in persons aged 50 to 64.¹⁸ Not included in these figures are the intangible costs of pain, stress, loss of function and dependence that all too often accompany this preventable condition.

Further confounding this complex picture is the fact that one of every four adults aged 50 to 64 is uninsured or has inadequate insurance coverage – a number that is likely to increase as younger baby boomers reach mid-life.¹⁹ Over 7 million, or 14 percent, were uninsured for the entire year in 2005.¹ The majority of these uninsured (63 percent) were gainfully employed, most often working for themselves or small firms.¹ Older adults fortunate enough to have coverage pay higher premiums than younger adults and are inhibited by high out-of-pocket costs from seeking valuable preventive services.²⁰ Retirees are also increasingly vulnerable. Between 2000 and 2005, the number of retirees aged 50 to 64 who lacked health insurance increased more than 25 percent, from 874,000 to 1.1 million.¹

Expanding access to recommended clinical preventive services will yield enormous cost savings while preserving the health and well-being of this critical sector of the population.

Community-based innovations for this Report refer to strategies that are facilitated or conducted in community settings, and not offered solely by the health system. Community settings may include such venues as workplaces, places of worship, local shops, community and senior centers, and voting sites.

How Can Service Delivery Be Improved?

In early 2007, leadership from the Centers for Disease Control and Prevention (CDC), AARP and the American Medical Association (AMA) formally initiated a collaboration to focus on increasing the use of preventive services among adults aged 50 to 64. Envisioned was an innovative tool to highlight opportunities for linkages between community and clinical settings; embrace a public health, population-based approach; and reinforce and inspire action. United by an overarching goal of achieving health equity, they adopted several guiding principles: firm grounding in science; focus on primary and secondary prevention; importance of social determinants of health in providing context and influencing quality of life; and recognition of the inherent benefits of aligning community and clinical efforts.

A Steering Committee composed of key stakeholders guided the overall initiative, aided and informed by two focused expert panels, one on data and indicators and the other on strategies and interventions. For a conceptual framework, the Steering Committee embraced the Expanded

Chronic Care Model (see figure), which integrates the respective contributions of the health system and community in affecting outcomes.^{21,22} Addressing the complex challenges of increasing access to and use of preventive services requires a population-based health approach that promotes unique community-based innovations in support of clinical practice. To date, attention has been focused primarily on the health system's impact on health outcomes. This Report shines the light on the communities' role in supporting that system, a role that builds awareness of what is happening currently, creates supportive environments, adopts constructive public policies, and strengthens evidence-based community action.

Over the past few years, there has been an emerging recognition of the need for innovative delivery systems that integrate assets of both health and community systems. Many adults aged 50 to 64, particularly racial/ethnic minorities, are not connected to a regular healthcare provider who can ensure they get all the preventive services they need. Furthermore, adults in this age group are often unaware of the clinical preventive services recommended

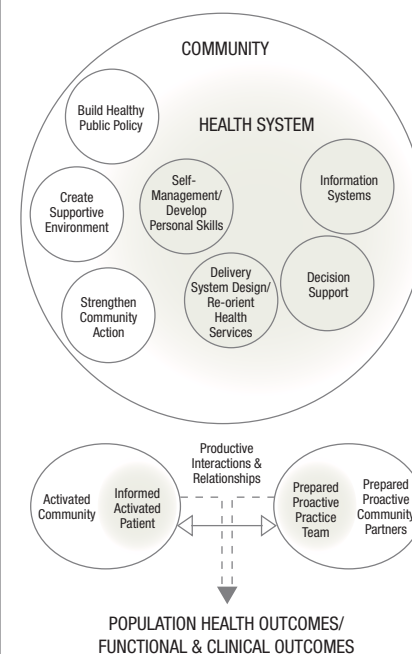
for their age, gender and risk factors – or do not consider themselves to be at risk.²³ In addition, systematic referrals between clinical and community providers are not consistently available or fully utilized. Clinicians and public health practitioners alike agree that integration of effective clinical and community-based strategies can expand access to and use of services.²⁴

What Does This Report Offer?

Promoting Preventive Services for Adults 50–64: Community and Clinical Partnerships is the result of the Steering Committee's 18-month effort to develop a report that is concise and easy to use and complements other ongoing prevention efforts. Specifically, the sections of this unique Report:

- Provide reliable national and state data on key indicators for monitoring the use of preventive services in adults aged 50 to 64
- Present complementary calls to action to enhance information, policy, marketing and research in clinical practice and community programming
- Foreshadow additional preventive services and health issues likely to have an increasing impact on this age group in the near future

The Expanded Chronic Care Model²¹





“The racial and ethnic composition of adults in the U.S. is becoming more diverse. We must take this trend into account as we promote the use of clinical preventive services to ensure that appropriate strategies are brought to bear to improve the health of all adults and the communities in which they live.”

– **Wayne Giles, MD, MS**

Director, Division of Adult and Community Health, National Center for Chronic Disease Prevention and Health Promotion, CDC

- Share a sampling of the many concurrent efforts sponsored by fellow agencies and organizations that support and further expand clinical-community linkages for prevention
- Spotlight innovative, successful strategies that have demonstrated an increase in access to and use of multiple preventive services among this age group and should be considered for widespread replication.

The Report should prove useful to a variety of audiences seeking opportunities to ensure that individuals aged 50 to 64 receive recommended preventive services: public health and aging services professionals in states and communities, community-based health and aging organizations, healthcare providers, policy makers, the media and researchers. Included in this mix are state and local aging services organizations, public

health departments, senior centers, senior housing entities and community-based organizations offering programs for smoking cessation, cancer screening, physical activity, and depression screening and management, to name just a few.

The time has come for a major investment in prevention-oriented healthcare that aligns the community with physicians and other providers and brings effective screening, counseling, vaccinations and other recommended services into the mainstream of medicine and public health.^{23,24} To improve the health of the nation's adults, the complete array of effective clinical preventive services must be delivered creatively in community settings. Only by pursuing community and clinical partnerships will all adults aged 50 to 64 years have full access to and use of the preventive services that they need.²⁵

Increase Understanding About the Social Determinants of Health

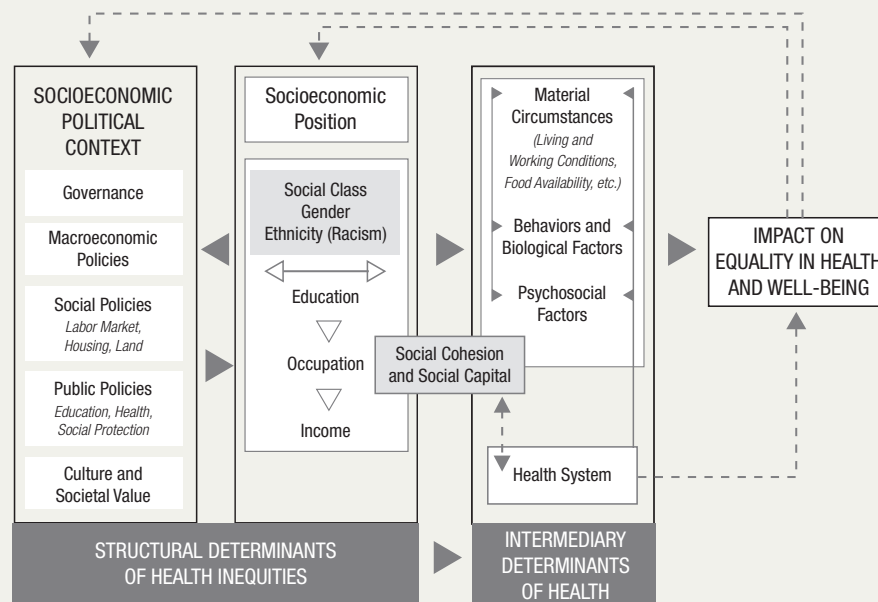
A substantial body of evidence suggests that addressing the social determinants of health is critical to further improvements in health outcomes. Public health messages, programs and policies will have the greatest impact if they accurately reflect the realities of everyday life. To better understand and monitor these social determinants, CDC recently developed the Social Context Module within the Behavioral Risk Factor Surveillance System (BRFSS). This new module, based on the work of the World Health Organization (WHO) Commission on Social Determinants of Health (see figure), consists of six questions that explore day-to-day concerns about access to housing and nutritious food, financial security, time at work and participation in civic activities. In 2009, the Social Context Module was used in 12 states and the District of Columbia.

CALL TO ACTION!

Information on the social context of health should be routinely collected at the state and national levels. Questions assessing access to housing and nutritious food, financial security, time at work and participation in civic activities should be collected in concert with other monitoring tools, such as geographic information systems, to fully understand the complex relationship between social determinants of health and access to and use of preventive services. States and communities can use this information both to identify necessary partners and to develop public health messages, programs and policies to address barriers related to social determinants of health and track progress over time.

The World Health Organization Commission on Social Determinants of Health's recommendations for promoting health equity include improving the circumstances in which people are born, grow, live, work, and age; tackling the inequitable distribution of power, money, and resources; and measuring the problem, evaluating action, and expanding the knowledge base.²⁶

Social Determinants of Health²⁷





Prevention/Wellness

“Our healthcare system must increasingly emphasize evidence-based preventive services so critical to maintaining quality of life as we age. The perfect time for this renewed focus on these services – to help us educate people about health risks, identify problems early, and manage conditions to minimize their impact on our lives – is in our vital years between ages 50 and 64.”

*– William Hall, MD
Board of Directors, AARP*

The Indicators

The cornerstone of this Report is 14 key indicators for monitoring the use of clinical preventive services in adults aged 50 to 64. This set of indicators serves as a new lens to gauge the health of the nation's adults.

Each of these indicators meets the core criteria:

- Applies to persons from 50 to 64 years of age
- Is grounded in science and recommended in The Guide to Clinical Preventive Services (A or B level), the Guide to Community Preventive Services, or the Advisory Committee on Immunization Practices
- Has measurable data from at least 35 states.

In addition, the indicators relate to health conditions of high burden and public health significance; address one of three underlying risk factors – smoking, physical inactivity and unhealthy diet; have a major impact on the most vulnerable populations; and hold the greatest promise for increasing the use of preventive services through community-based interventions.

The 14 indicators are organized into four categories: screenings, immunizations, up

to date with select clinical preventive services, and risk factors. The first three categories focus on the preventive services that need to be promoted, such as increases in routine cholesterol screening and annual influenza vaccination. The fourth category includes behaviors or clinical symptoms that should be prevented or diminished – binge drinking or current obesity, for instance. Ten of the indicators have Healthy People 2010 (HP2010) targets for the adult population (see Appendix A: Key Issues and Related Healthy People 2010 Targets). Healthy People 2010 is a set of health objectives for the nation, which is an initiative of the U.S. Department of Health and Human Services (www.healthypeople.gov).

The baseline of national and state-by-state data serves as a “starting line” and the Behavioral Risk Factor Surveillance

System (BRFSS) offers a reliable methodology to track progress (see Appendix B: Methodology for Indicator Data and Analyses). Confidence intervals should be used when comparing states because differences may not be significant if the confidence intervals for two states overlap (see Appendix C: State-by-State Data with Confidence Intervals). Collecting comparable data over time will enable practitioners at national and state levels to monitor trends, identify gaps and barriers, and refine interventions, programs and systems accordingly. It will also help communities to build the case for enhanced collaborative efforts focused on expanding clinical preventive services and promoting health system change, public policies and environmental supports.

“In order to improve the health of every American, we must change our current healthcare system’s focus on treating later stages of disease to one where effective primary prevention and early detection is the norm. Only by embracing preventive services as a core component of public health and primary care practice can we shift the playing field.”

– **Saul Levin, MD, MPA**
Vice President for Science,
Medicine, and Public Health,
American Medical Association

SUMMARY OF KEY ISSUES AND INDICATORS

	ISSUES*	INDICATORS†
SCREENINGS	Breast cancer screening	Mammogram within past two years
	Cervical cancer screening	Pap test within past three years‡
	Colorectal cancer screening	Colorectal cancer screening§
	Cholesterol screening	Cholesterol screening within past five years
IMMUNIZATIONS	Influenza vaccination	Influenza vaccination within past year
	Pneumococcal vaccination	Pneumococcal vaccination ever among persons at risk¶
UP TO DATE WITH SERVICES	Up to date with select clinical preventive services	Up to date with select clinical preventive services • Women: Influenza vaccination and breast, cervical and colorectal cancer screenings
		Up to date with select clinical preventive services • Men: Influenza vaccination and colorectal cancer screening
RISK FACTORS	Physical inactivity	No leisure-time physical activity within past month
	Smoking	Smoking – current
	Binge drinking	Binge drinking within past 30 days
	Obesity	Obesity – current
	High blood pressure	High blood pressure ever
	Moderate depressive symptoms	Moderate depressive symptoms within past two weeks

* For sources of recommendations see Appendix D: Key Issues and Related Recommendations from National Expert Panels

† Indicators are based on Behavioral Risk Factor Surveillance System

‡ Among women with intact cervix

§ Had home blood stool test within past year or colonoscopy or sigmoidoscopy within past 10 years

¶ Smoke currently or have diabetes, asthma or cardiovascular disease



This section presents brief profiles and data from the Behavioral Risk Factor Surveillance System (BRFSS) for each indicator. In the profiles, *Why This Matters*, the impact of the issue on adults aged 50 to 64 and at-risk or vulnerable populations, the value of the preventive service, and cost implications are highlighted. *What the BRFSS Data Show* features a graph or map depicting selected challenges to service delivery such as insurance status or geographic variations. Inserted throughout are *Calls to Action* that draw attention to critical areas warranting further research, policy or program development. A pullout table of *State-by-State Percentages for Key Indicators* will help establish baselines and track progress, and a concluding table offers *Summary Data for the Nation*.

Breast Cancer Screening

INDICATOR:

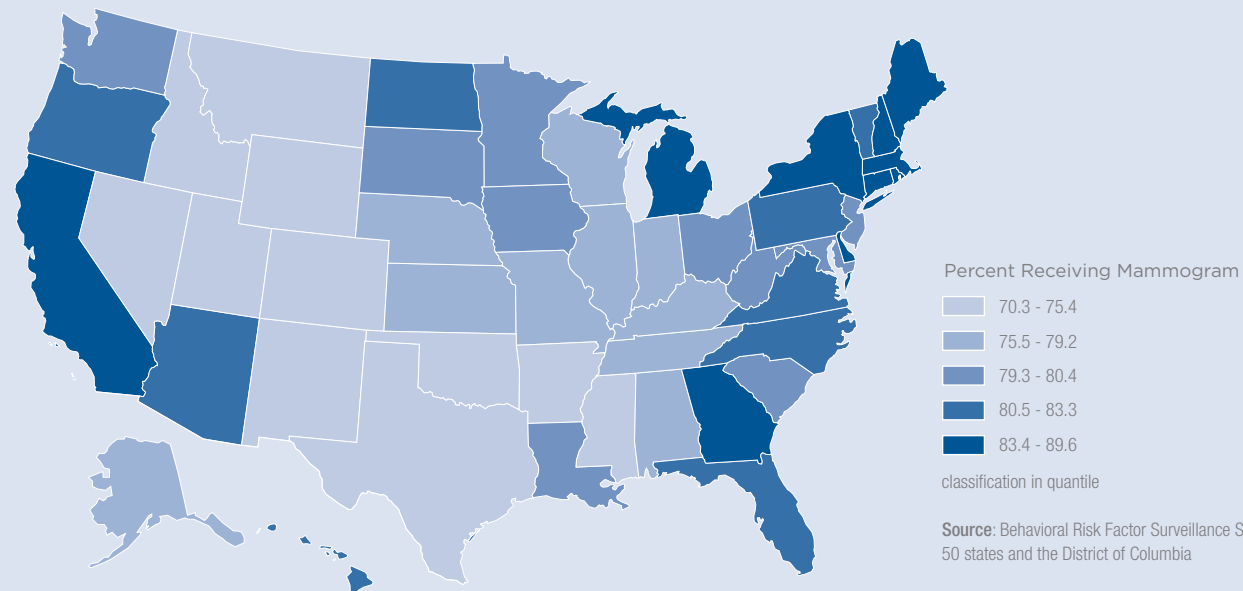
Percent of women who had a mammogram within the past two years

WHY THIS MATTERS

- ▶ Breast cancer is the second leading cause of cancer death among women in the United States¹ and the most commonly diagnosed non-skin cancer.
- ▶ Women aged 40 to 64 years accounted for 61 percent of all breast cancer *in situ* cases, 54 percent of invasive cases, and 40 percent of deaths in 2005.¹
- ▶ Mammography screening is a valuable early detection tool because it can identify breast cancer at an early stage, usually before physical symptoms or complications develop, and reduce mortality.²
- ▶ One of every four dollars spent on cancer in the U.S. goes toward the cost of breast cancer.³ Early detection can save up to 35 percent of the net cost of this care.⁴
- ▶ Asian women aged 40 years and older are 20 percent less likely than white women to have received a mammogram within the past two years.⁵

WHAT THE BRFSS DATA SHOW

Percent of Women Receiving Mammogram within Past Two Years by State, Ages 50-64, 2008



All states and the District of Columbia either met or exceeded the Healthy People 2010 target of $\geq 70\%$ for breast cancer screening.

Highest rates cluster along the Eastern and Western Seaboards, and are lower towards the nation's interior in the mountainous Western and Southwestern states.

For further detail, consult pullout of *State-by-State Percentages for Key Indicators*

Cervical Cancer Screening

INDICATOR:

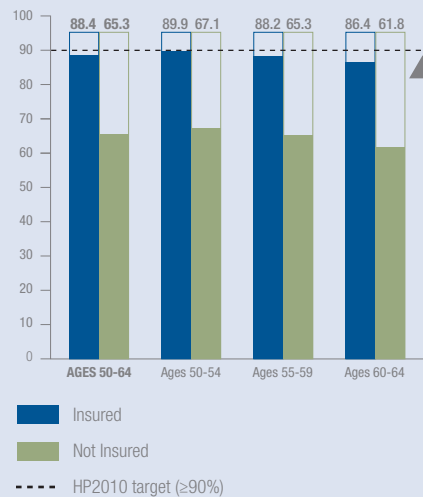
Percent of women with an intact cervix who had a Pap test within the past three years

WHY THIS MATTERS

- ▶ More than 50 percent of women who develop cervical cancer have never been screened and 60 percent of those who receive a diagnosis have not been screened in the previous five years.^{6,7}
- ▶ In 2005, 11,999 women were diagnosed with cervical cancer and 3,924 women died from the disease.⁸
- ▶ Early detection of cervical cancer through population-wide screening with the Pap test every three years can reduce the rate of invasive cervical cancer by 91 percent.⁹
- ▶ The chances of surviving cervical cancer are best when detected in its earliest stages. Five-year survival rates are 92 percent when the cancer is confined to the primary site (localized), but as low as 13 percent once it has progressed and metastasized.¹⁰
- ▶ The introduction of screening programs in areas previously lacking this preventive service reduces cervical cancer rates by 60-90 percent within three years.^{11,12}
- ▶ Poor women between 45 and 64 years of age are 25 percent less likely to have received a Pap test in the past three years compared with high-income adults.¹³

WHAT THE BRFSS DATA SHOW

Percent of Women Receiving Pap Test within Past Three Years by Insurance Status and Age Group, Ages 50-64, 2008



Note: Pap tests among women with intact cervix

Source: Behavioral Risk Factor Surveillance System, 50 states and the District of Columbia

Five states either met or exceeded the Healthy People 2010 target of $\geq 90\%$ for cervical cancer screening.

Women of all ages with insurance are far more likely to be screened routinely for cervical cancer.

For further detail, consult pullout of *State-by-State Percentages for Key Indicators*

Colorectal Cancer Screening

INDICATOR:

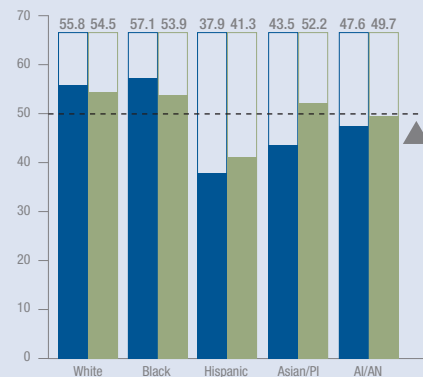
Percent of adults who had either a home blood stool test within the past year or a colonoscopy or sigmoidoscopy within the past 10 years

WHY THIS MATTERS

- ▶ In 2005, an estimated 141,405 Americans were diagnosed with colorectal cancer, making it the third most common cancer in both men and women. When detected early and treated promptly, the five-year survival rate is 90 percent.^{14,15}
- ▶ Screening can prevent colorectal cancer by allowing the removal of precancerous polyps before they develop into cancer. If everyone age 50 and older were screened regularly, as many as 60 percent of deaths from colorectal cancer could be prevented.¹⁶
- ▶ The cost of treatment for colorectal cancer is often lowest when the tumor is detected in an early stage.¹⁷

WHAT THE BRFSS DATA SHOW

Percent Receiving Colorectal Cancer Screening by Gender and Race/Ethnicity, Ages 50-64, 2008



Men
Women
--- HP2010 target (≥50%)

Asian/Pacific Islander
American Indian/Alaska Native

Note: Colorectal cancer screening included home blood stool test within past year or colonoscopy or sigmoidoscopy within past 10 years

Source: Behavioral Risk Factor Surveillance System, 50 states and the District of Columbia

Thirty-three states met or exceeded the Healthy People 2010 target of ≥50% for colorectal cancer screening.

The nation is on track to meet or exceed the HP2010 target for colorectal cancer screening among white and black adults.

Other racial/ethnic groups are not faring as well. This is particularly true for Hispanic men and women, who are less likely to report getting screened than white or black adults.

For further detail, consult pullout of *State-by-State Percentages for Key Indicators*

Cholesterol Screening

INDICATOR:

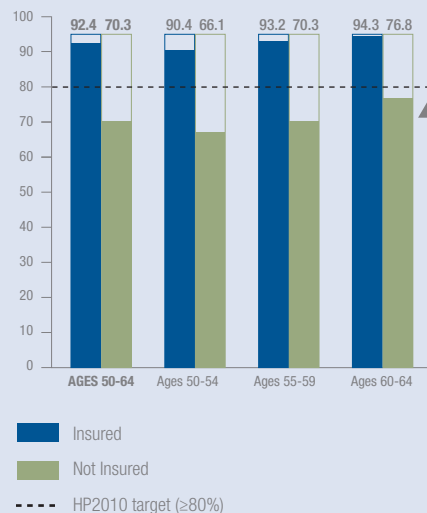
Percent of adults who had a blood cholesterol screening within the past five years

WHY THIS MATTERS

- ▶ Heart disease and stroke are major causes of premature death in persons younger than 65 years and principal causes of serious disability.¹⁹ High serum cholesterol is a major risk factor for these life-threatening conditions.²⁰
- ▶ Periodic cholesterol screening for early detection and treatment can decrease hospital and ambulatory services, prevent premature mortality from coronary heart disease, and avoid considerable disability, distress and pain.²¹
- ▶ Estimated direct and indirect costs of coronary heart disease, including those related to lost productivity, exceeded \$165 billion in 2009.²²
- ▶ Adults aged 45 to 64 with low incomes are 15 percent less likely to have received a cholesterol screening in the past five years compared with high-income adults.²³

WHAT THE BRFS DATA SHOW

Percent Receiving Cholesterol Screening within Past Five Years by Insurance Status and Age Group, Ages 50-64, 2007



Source: Behavioral Risk Factor Surveillance System, 50 states and the District of Columbia

All states and the District of Columbia either met or exceeded the Healthy People 2010 target of $\geq 80\%$ for cholesterol screening.

Most insured adults in this age group report being screened for cholesterol, achieving rates that exceed the HP2010 target.

Among the uninsured, however, only those in the oldest age bracket come close to this target.

For further detail, consult pullout of *State-by-State Percentages for Key Indicators*



“State health agencies have a critical role in protecting and promoting the health of individuals throughout their state. Surveillance is essential to public health because it allows us to focus on populations of greatest need and track our progress at both state and local levels. This is particularly critical to ensure delivery of the preventive services in this Report to a population of growing concern, people aged 50 to 64.”

– Paul Jarris, MD, MBA

Executive Director, Association of State and Territorial Health Officials

Influenza Vaccination

INDICATOR:

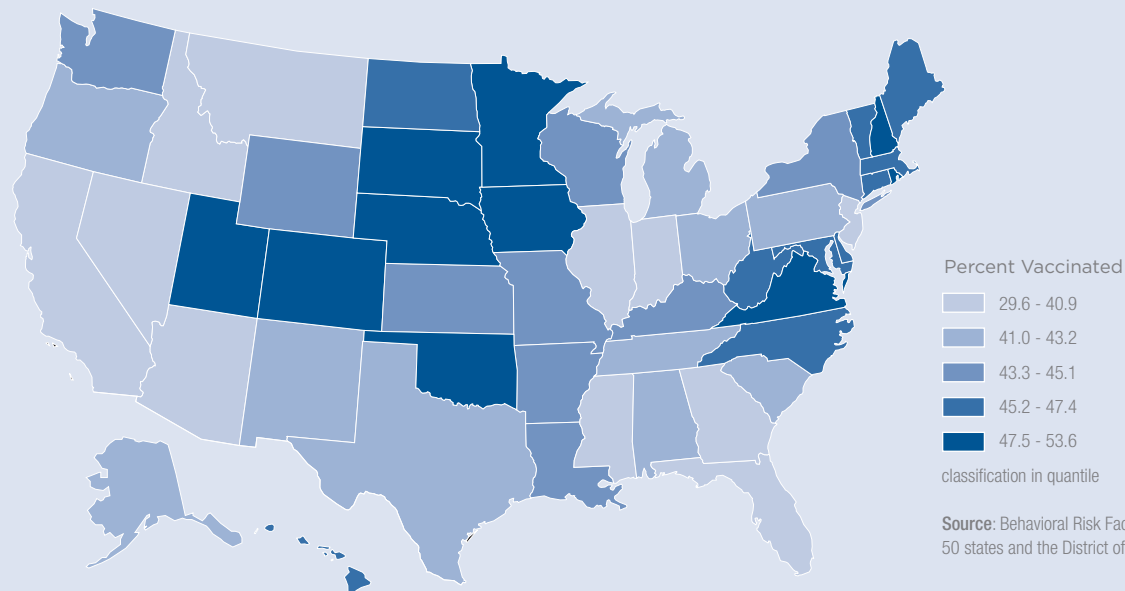
Percent of adults who reported influenza vaccination within the past year

WHY THIS MATTERS

- ▶ Among all age groups, influenza and pneumonia combined were the eighth leading cause of death in the United States in 2006, accounting for over 56,000 deaths.²⁴
- ▶ Influenza infection can exacerbate other underlying medical conditions and lead to hospitalization or even death.
- ▶ Healthy, working adults who receive influenza vaccines experience significantly fewer days of influenza-like illness, make fewer doctor visits for such illnesses, and miss fewer days of work than non-vaccinated workers.²⁵
- ▶ The cost of influenza among adults aged 18 to 64 years totals \$4.5 billion in direct medical expenses and an additional \$6.2 billion in lost productivity.²⁶
- ▶ Black adults aged 45 to 64 at high risk for influenza are 10 percent less likely than white adults in this age group to have received an influenza vaccination in the past year, whereas Hispanics at high risk for influenza in the same age group are 25 percent less likely than whites to have received an influenza vaccination in the past year.²⁷

WHAT THE BRFS DATA SHOW

Percent Receiving Annual Influenza Vaccination by State, Ages 50-64, 2008



No states met the Healthy People 2010 target of $\geq 60\%$ for influenza vaccination.

Ten states are close to the HP2010 target (with rates ranging from 47.5% to 53.6%) while another 11 are far behind (with rates of only 29.6% to 40.9%).

For further detail, consult pullout of *State-by-State Percentages for Key Indicators*

Pneumococcal Vaccination

INDICATOR:

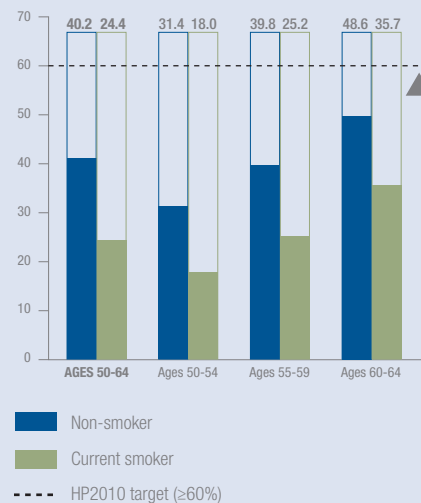
Percent of adults who reported current smoking, diabetes, asthma or cardiovascular disease who have ever had a pneumococcal vaccination

WHY THIS MATTERS

- ▶ Approximately 3,500 Americans under age 65 die every year as a result of pneumococcal disease.²⁸
- ▶ Pneumococcal infections cause an estimated 3,000 cases of meningitis, 50,000 cases of bacteremia, and 500,000 cases of pneumonia annually.²⁹ Pneumococcal vaccine can prevent up to 75 percent of all cases of pneumococcal bacteremia and meningitis.²⁹
- ▶ While pneumococcal disease can be treated, recent strains resistant to commonly used antibiotics complicate treatment and may result in longer hospitalizations and more expensive alternative therapy.³⁰ This underscores the value of preventing the disease with timely vaccination.
- ▶ On average, costs to employers are approximately five times higher for workers who had pneumonia than for the overall population of workers.³¹
- ▶ Hispanic adults aged 45 to 64 at high risk are one-third less likely than whites to receive the pneumococcal vaccine.³²

WHAT THE BRSS DATA SHOW

Percent of Pneumococcal Vaccination Ever Among Persons At Risk by Smoking Status and Age Group, Ages 50-64, 2008



Note: Persons at risk include those who smoke currently or have diabetes, asthma or cardiovascular disease

Source: Behavioral Risk Factor Surveillance System, 50 states and the District of Columbia

No states met the Healthy People 2010 target of $\geq 60\%$ for pneumococcal vaccination.

Less than half of all at-risk adults aged 50 to 64 are protected against pneumococcal disease.

While vaccination rates increase with age, they are strikingly low among at-risk adults who smoke.

For further detail, consult pullout of *State-by-State Percentages for Key Indicators*

Up To Date with Services

INDICATOR:

Percent of adults who were up to date for select clinical services according to their age and gender

For women: Influenza vaccination and breast, cervical and colorectal cancer screenings

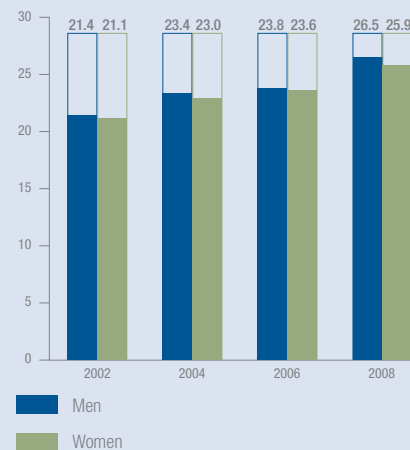
For men: Influenza vaccination and colorectal cancer screening

WHY THIS MATTERS

- ▶ The Up-to-Date indicator is a composite measure that reflects overall level of current use of select clinical preventive services. It is analogous to the commonly used percentage of children up to date with pediatric vaccinations.
- ▶ Each of the services in the Up-to-Date indicator is rated an A and B recommendation by the U.S. Preventive Services Task Force.³³
- ▶ Using a measure that includes multiple clinical preventive services offers a meaningful and practical summary of service delivery at the community level³⁴ and can bring together diverse stakeholders, identify opportunities for facilitating access to these services, assess disparities in the delivery of preventive services and better gauge progress toward measurable objectives.³⁴⁻³⁶

WHAT THE BRFSS DATA SHOW

Percent Up To Date with Select Clinical Preventive Services by Gender and Year, Ages 50-64, 2002-2008



Note: Colorectal cancer screening included home blood stool test within the past year or colonoscopy or sigmoidoscopy within the past 10 years. Cholesterol screening is not included because it was collected in 2007.

Source: Behavioral Risk Factor Surveillance System, 50 states and the District of Columbia

Only one of four adults aged 50 to 64 is current with certain recommended clinical preventive services.

These rates have remained virtually unchanged since 2002.

For further detail, consult pullout of *State-by-State Percentages for Key Indicators*

Physical Inactivity

INDICATOR:

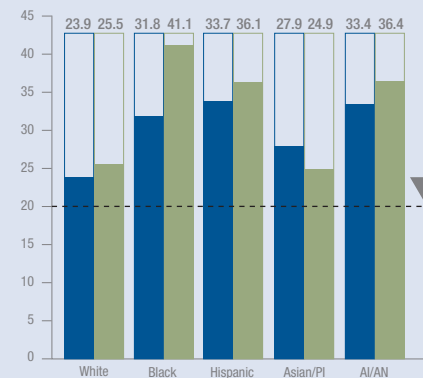
Percent of adults who engaged in no leisure-time physical activity within the past month

WHY THIS MATTERS

- ▶ Regular physical activity can reduce the risk for developing depression, diabetes, heart disease, stroke and certain kinds of cancer. It also plays a major role in preventing obesity, disabling conditions such as osteoporosis and arthritis, high blood pressure, and many other chronic disease conditions and risk factors.³⁷
- ▶ Despite the documented health benefits, less than half of all adults get the recommended amount of physical activity.³⁸
- ▶ The associated health-related cost that can be attributed to physical inactivity ranges from \$109 to \$1,305 per person.³⁹
- ▶ Obese adults aged 45 to 64 with less than a high school education are 13 percent less likely to report being encouraged by their healthcare provider to exercise than those who have some college education.⁴⁰

WHAT THE BRFSS DATA SHOW

Percent with No Leisure-Time Physical Activity within Past Month by Gender and Race/Ethnicity, Ages 50-64, 2008



Men
Women
--- HP2010 target (≤20%)

Asian/PI = Asian/Pacific Islander
AI/AN = American Indian/Alaska Native

Source: Behavioral Risk Factor Surveillance System, 50 states and the District of Columbia

Four states met the Healthy People 2010 target of ≤20% for no leisure-time physical activity.

Men generally tend to be more active than women.

Many adults of all ages and race/ethnicity groups report that they do not engage in any regular physical activity.

For further detail, consult pullout of *State-by-State Percentages for Key Indicators*

Doctors are more effective in counseling patients about healthy lifestyles when they practice what they preach. Research shows that physicians who exercise themselves are more likely to counsel patients, to counsel confidently and to be trained in counseling.

– **Posthumous, Ron Davis, MD, MPH**
Past President, American Medical Association

Healthcare providers can help facilitate behavior change in their patients by linking them to community resources and by advocating for community-level interventions or supports. In recognition of this pivotal role, AMA and the American College of Sports Medicine launched EXERCISE IS MEDICINE™ – a joint initiative for building capacity among providers to review and assess every patient's physical activity level routinely and deliver associated counseling and referrals.

• CALL TO ACTION! •

Providers, public health professionals, physical activity professionals and community members should be encouraged to identify steps that will help them become more physically active and support strategies to assist patients and their communities in being more active (see Guide to Community Preventive Services, www.thecommunityguide.org/index.html).

Physical Activity Recommendations for Adults⁴¹

All adults should be physically active. Some physical activity is better than none, and adults who participate in any amount of physical activity gain some health benefits.

For substantial health benefits, adults should do at least 150 minutes (two hours and 30 minutes) a week of moderate-intensity, or 75 minutes (one hour and 15 minutes) a week of vigorous-intensity, aerobic physical activity or an equivalent combination of moderate- and vigorous-intensity aerobic activity. Aerobic activity should be performed in episodes of at least 10 minutes and preferably spread throughout the week.

For additional and more extensive health benefits, adults should increase their aerobic physical activity to 300 minutes (five hours) a week of moderate-intensity, or 150 minutes a week of vigorous-intensity, aerobic physical activity or an equivalent combination of moderate- and vigorous-intensity activity. Additional health benefits are gained by engaging in physical activity beyond this amount.

Adults should also do muscle-strengthening activities that are moderate or high intensity and involve all major muscle groups on two or more days a week, as these activities provide additional health benefits.

Smoking

INDICATOR:

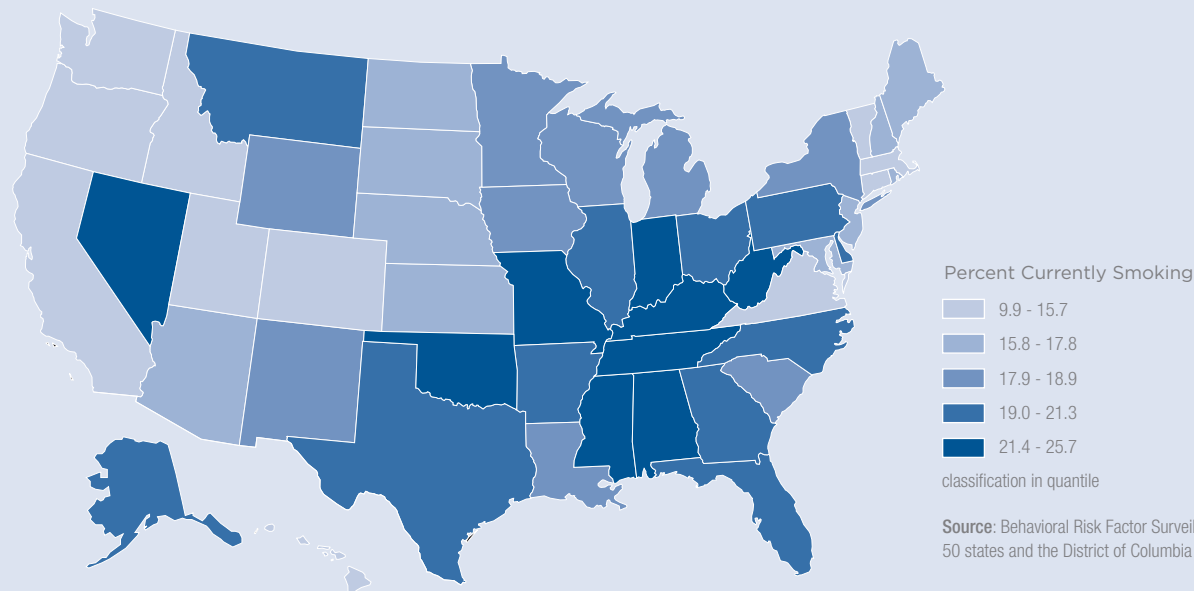
Percent of adults who have smoked at least 100 cigarettes in their entire life and still smoke every day or some days

WHY THIS MATTERS

- ▶ Cigarette smoking remains the leading cause of preventable death and disease, responsible for one of every five deaths.^{42,43}
- ▶ For every person who dies from a smoking-related disease, 20 more suffer with at least one serious illness from smoking.⁴⁴ Smoking increases the risk for lung and 17 other cancers, coronary heart disease, stroke, chronic obstructive pulmonary disease and other respiratory illnesses.⁴⁵
- ▶ Secondhand smoke contains more than 50 carcinogens and causes premature death and disease in nonsmokers.⁴⁶
- ▶ Seventy percent of current adult smokers report that they want to quit completely.⁴⁷
- ▶ Uninsured adult smokers with a checkup in the past 12 months are 20 percent less likely to receive advice to quit smoking compared with privately insured smokers.⁴⁸
- ▶ The total cost of smoking, including direct medical expenditures and productivity losses, exceeds \$193 billion each year.⁴²
- ▶ American Indians, Alaska Natives, persons with low levels of education and persons living below the federal poverty level are more likely to smoke.⁴⁹

WHAT THE BRFS DATA SHOW

Percent Currently Smoking Cigarettes by State, Ages 50-64, 2008



One state met the Healthy People 2010 target of $\leq 12\%$ for smoking.

Only nine states come close to achieving the HP2010 target of 12%, and an additional nine states have over twice that rate (21.4-25.7%).

For further detail, consult pullout of *State-by-State Percentages for Key Indicators*

Expand Tobacco-Cessation Programs and Policies

Tobacco dependence is a condition that often requires repeated intervention and multiple attempts to quit. Clinicians play a pivotal role by asking their patients if they smoke and offering counseling and medications to help them stop. Tobacco-cessation treatments – individual, group and telephone counseling as well as numerous available medications – are highly cost effective relative to other clinical interventions.

• CALL TO ACTION! •

Insurers and purchasers should ensure that all insurance plans cover counseling and medication treatments deemed effective in the 2008 update to the Clinical Practice Guideline, *Treating Tobacco Use and Dependence* (www.surgeongeneral.gov/tobacco/index.html). Public health and medical professionals should also support evidence-based community programs and policies shown to be effective in reducing tobacco use (<http://www.thecommunityguide.org/tobacco/index.html>):

- Smoke-free laws and policies in public places
- Increased excise taxes on tobacco products
- Mass media campaigns that motivate users to quit
- State telephone quitlines (available through 1-800 Quit Now)
- Provider reminder systems that prompt identification and counseling for tobacco use
- Health insurance coverage for effective cessation treatments.

Help in implementing these and other effective strategies is available through several sources, including the tobacco use recommendations from the Task Force on Community Preventive Services, available at www.thecommunityguide.org/tobacco/index.html; DHHS Smokefree Web site, available at www.smokefree.gov; and CDC Smoking & Tobacco Use Web site, available at www.cdc.gov/tobacco.



“Binge drinking is a leading cause of preventable death and a ubiquitous although still underrecognized risk factor for a variety of health and social outcomes. Even though we continue to fill gaps in knowledge, enough is known to begin aggressively implementing effective, community-based strategies to prevent binge drinking, such as increasing alcohol excise taxes, and we must work closely with our partners to do so.”

– Robert Brewer, MD, MSPH

Alcohol Program Leader, National Center for Chronic Disease Prevention and Health Promotion, CDC

Binge Drinking

INDICATOR:

Percent who reported binge drinking on at least one occasion within the past 30 days

For women: four or more drinks

For men: five or more drinks

WHY THIS MATTERS

- ▶ Binge drinking is responsible for over half of the approximately 79,000 deaths due to excessive drinking in the U.S. annually⁵⁰ and is a risk factor for a variety of health and social problems, including injuries, violence and cardiovascular diseases.^{50,51}
- ▶ Almost 30 percent of U.S. adults who drink report binge drinking in the past 30 days, resulting in about 1.5 billion episodes of binge drinking per year.⁵¹
- ▶ Most binge drinkers are not alcohol dependent.⁵²
- ▶ The economic cost of excessive alcohol use, including binge drinking, is over \$185 billion per year, most of which is due to lost productivity.⁵³
- ▶ Each dollar invested in screening and counseling for alcohol misuse saves approximately \$4 in healthcare costs and reduces the societal burden from this major public health problem.^{53,54}

WHAT THE BRFSS DATA SHOW

Percent Binge Drinking within Past 30 Days by Gender and Age Group, Ages 50-64, 2008



Source: Behavioral Risk Factor Surveillance System, 50 states and the District of Columbia

Forty-five states met the Healthy People 2010 target of ≤13.4% for binge drinking.

Men of all ages are more than twice as likely to engage in binge drinking as women. All women, but only men over age 60, fall below the HP2010 target of 13.4%.

For further detail, consult pullout of *State-by-State Percentages for Key Indicators*

Promote Effective Strategies for Binge Drinking Prevention

Binge drinking, defined as consuming four or more drinks on one occasion for women or five or more drinks on one occasion for men, typically results in acute impairment and is responsible for two-thirds of the approximately 2.3 million years of potential life lost due to excessive drinking in the U.S. annually.⁵⁰ While the prevalence of binge drinking (about 30 percent among U.S. adult drinkers) has remained fairly constant since the mid-1980s, the frequency of binge drinking increased 29 percent from 1.2 billion to 1.5 billion during the period 1993-2001,⁵¹ but decreased modestly to 1.4 billion in 2006.⁵⁵ Most of these episodes involve adults age 26 years or older.⁵¹ Furthermore, the average number of drinks consumed by adults per binge episode (8.0) also well exceeds the cut-points used for defining this behavior.⁵⁶ Even so, most binge drinkers are not alcohol dependent.⁵²

• CALL TO ACTION! •

Several effective policy and environmental strategies for preventing binge drinking are available and should be promoted. The Task Force on Community Preventive Services recommendations include increasing alcohol excise taxes, limiting alcohol outlet density, and restricting the number of days when alcohol is sold.^{57,58} A systematic review of studies assessing the effectiveness of increasing alcohol excise taxes found that a 10 percent increase in the price of alcoholic beverages would reduce total alcohol consumption by 7 percent.⁵⁷ Screening and counseling for alcohol misuse, another effective yet underutilized clinical preventive strategy, can reduce episodes of binge drinking by 40 percent among men and women while substantially reducing healthcare costs.⁵⁹⁻⁶¹ The U.S. Preventive Services Task Force recommends screening and brief counseling for excessive drinking among adults,⁶² and the National Business Group on Health has recently developed benefit plan language to facilitate health insurance coverage for this service.⁶³

Additional information and resources can be obtained through CDC's Alcohol and Public Health Web site, available at www.cdc.gov/alcohol/index.htm; the Task Force on Community Preventive Services chapter on Preventing Excessive Alcohol Use, available at www.thecommunityguide.org/alcohol/index.html; and the National Institute on Alcohol Abuse and Alcoholism, available at www.niaaa.nih.gov/.

Obesity

INDICATOR:

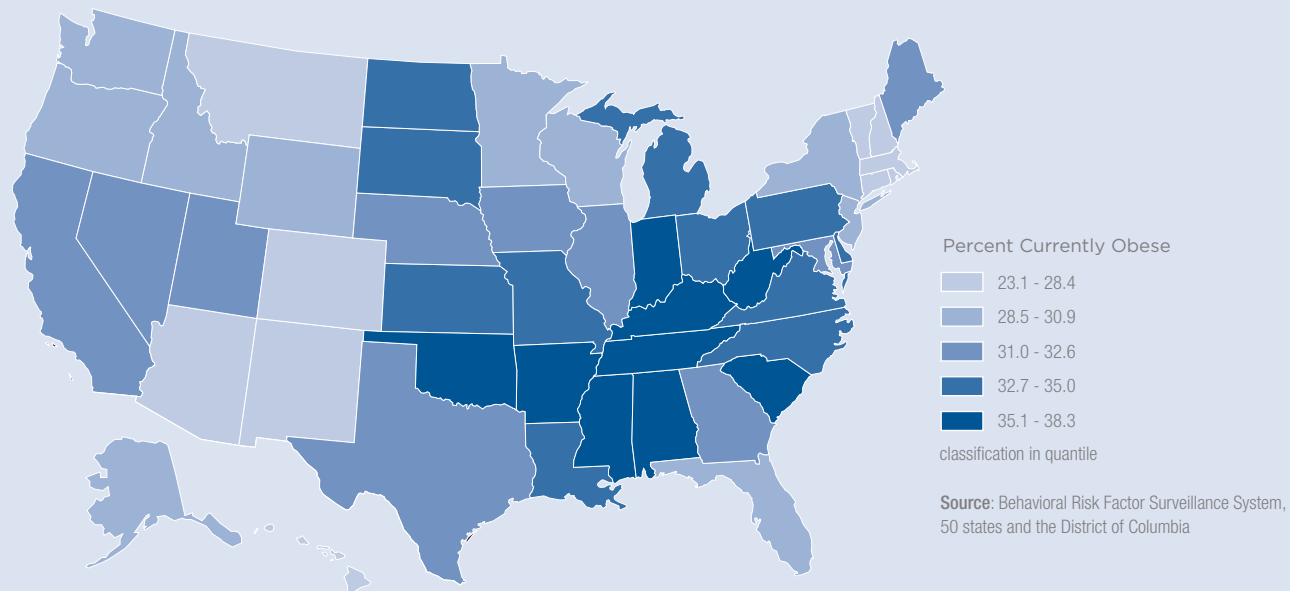
Percent of adults with a body mass index (BMI) of 30.0 or higher

WHY THIS MATTERS

- ▶ Between 1980 and 2004, the prevalence of obesity doubled among adults in the United States.⁶⁴ Over 72 million people, or more than one-third of all adults, were obese in 2005-2006.⁶⁴
- ▶ Nearly 80 percent of obese adults suffer from diabetes, high blood pressure, coronary artery disease, high cholesterol, osteoarthritis or a combination of these conditions.⁶⁵
- ▶ As little as a 5 percent to 7 percent reduction in body weight will decrease the risk of Type 2 diabetes, reduce blood pressure and improve lipid profiles.⁶⁶
- ▶ In 2000, obesity-related healthcare costs totaled an estimated \$117 billion.⁶⁷ Approximately 39 million work days are lost to obesity-related illnesses each year,⁶⁸ costing employers \$13 billion annually.⁶⁹
- ▶ Obese Mexican-American adults are 14 percent less likely than white adults to be told by a physician they are overweight.⁷⁰

WHAT THE BRFSS DATA SHOW

Percent Currently Obese by State, Ages 50-64, 2007



No states met the Healthy People 2010 target of $\leq 15\%$ for obesity.

The vast majority of states have obesity rates more than twice the HP2010 target.

Areas with the lowest BMIs among adults include New England and the mountain region.

For further detail, consult pullout of *State-by-State Percentages for Key Indicators*

High Blood Pressure

INDICATOR:

Percent of adults who have ever been told by a health professional that they have high blood pressure

WHY THIS MATTERS

- ▶ High blood pressure (hypertension) is the most common primary diagnosis in the nation, affecting one in every three adults.⁷¹ In 2003-2006, based on measured blood pressure from the National Health and Nutrition Examination Survey, prevalence of hypertension was 50.2 percent for men aged 55 to 64 and 54.4 percent among women of the same age group.⁷²
- ▶ Adults with untreated or poorly controlled hypertension are at increased risk of heart disease, stroke, peripheral artery disease, end-stage renal disease, retinopathy and aortic aneurysm.⁷¹
- ▶ High blood pressure is easily detectable with routine screening. Once under control, the benefits are striking: a 12- to 13-point reduction in systolic blood pressure reduces heart attacks by 21 percent, strokes by 37 percent, and all deaths from cardiovascular disease by 25 percent.⁷³
- ▶ Among those with hypertension, 22 percent are unaware of their condition, 68 percent are taking antihypertensive medication and, among those taking medication, only 64 percent have their blood pressure under control.⁷⁴
- ▶ Estimated direct and indirect costs of hypertensive disease, including those related to lost productivity, exceeded \$73 billion in 2009.⁷⁵
- ▶ Poor adults with hypertension are 30 percent less likely than adults with high incomes to have controlled blood pressure.⁷⁶

WHAT THE BRFSS DATA SHOW

Percent with High Blood Pressure Ever by Gender and Race/Ethnicity, Ages 50-64, 2007



Asian/PI = Asian/Pacific Islander
AI/AN = American Indian/Alaska Native

Source: Behavioral Risk Factor Surveillance System, 50 states and the District of Columbia

Hypertension does not discriminate by gender, but is more prevalent among blacks and American Indians.

For further detail, consult pullout of *State-by-State Percentages for Key Indicators*

Moving Beyond Self-Reported Assessment of Hypertension

The state level prevalence of self-reported hypertension is available for adults aged 18 years and older through the Behavioral Risk Factor Surveillance System (BRFSS). Data on hypertension are collected as part of the BRFSS core every other year. In 2007-08, three state health departments (Arkansas, Washington, Kansas),⁷⁷ with funding support from CDC, tested the feasibility of conducting state health examination surveys that included blood pressure measurements.⁷⁸ These exams provided state prevalence estimates of hypertension, including uncontrolled and undiagnosed hypertension.⁷⁹ All three states reported successfully conducting the clinical measures and obtaining estimates of state-specific prevalence rates of hypertension (www.cdc.gov/dhdsp/examination_survey.htm).

Moderate Depressive Symptoms

INDICATOR:

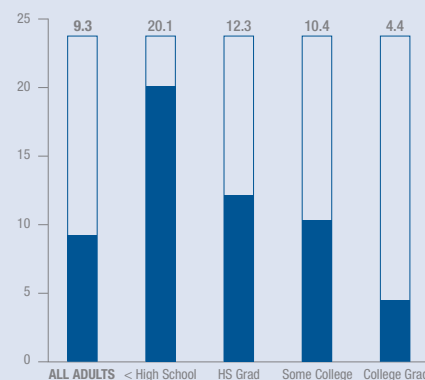
Percent of adults reporting moderate depressive symptoms within the past two weeks, having scored 10 or higher on the Patient Health Questionnaire (PHQ)

WHY THIS MATTERS

- ▶ As many as 18.8 million people – or one in every 10 adults – will suffer from depression in a given year.⁸⁰ An even higher number (up to 12 percent of men and 25 percent of women) will have at least one major depressive episode during their lifetime.⁸¹
- ▶ Routine, systematic screening can successfully identify adults who are depressed and direct them to appropriate treatment.⁸² Eighty percent of people with depression, if properly screened and treated, will improve dramatically.⁸³
- ▶ Among working-age adults, depression is a major cause of disability, absenteeism and lost productivity. In a three-month period, depressed adults miss an average of 4.8 workdays and suffer 11.5 days of reduced productivity,⁸⁰ costing employers \$17 to \$44 billion each year.⁸⁴
- ▶ Hispanic adults are 30 percent less likely to receive treatment for depression compared with white adults.⁸⁵

WHAT THE BRFSS DATA SHOW

Percent with Moderate Depressive Symptoms within Past Two Weeks by Education, Ages 50-64, 2006



Source: Behavioral Risk Factor Surveillance System, 50 states and the District of Columbia

Nearly 10% of adults in this age group report moderate depressive symptoms.

Those who have not completed high school are four times more likely to have moderate depressive symptoms than college graduates.

For further detail, consult pullout of *State-by-State Percentages for Key Indicators*



“We promote evidence-based preventive services at every stage of life as part of value-based purchasing and applaud this particular focus on adults age 50 to 64. One of the ways National Business Coalition on Health has used A Purchaser’s Guide to Clinical Preventive Services is as a source for our health plan performance analysis tool, eValue8. Our member coalitions increasingly use such tools as they work with community public health officials to improve population health as a business economic imperative.”

*– Andrew Webber, President and CEO
National Business Coalition on Health*

Initiate Public and Private Policy to Move Preventive Services Forward

Significant increases in added years of life for the U.S. population over the past century can in large part be attributed to public health policy.⁸⁶ Notable examples include tobacco policies such as smoking bans and cigarette taxes,⁸⁷ standing order immunization policies for influenza and pneumococcal vaccinations,⁸⁸ and school immunization laws requiring children entering school to be vaccinated.⁸⁹ Public- and private-sector policy initiatives can have a profound and lasting effect on increasing access to and use of clinical preventive services.

• CALL TO ACTION! •

Policy recommendations should be developed and promoted for enhancing clinical preventive service delivery and community public health strategies in the next two to three years among adults aged 50 to 64. This ideally would be accomplished by an expert panel guiding a systematic review of current policies. The panel should consist of individuals with community and clinical preventive service policy expertise in a variety of sectors, including but not limited to medicine, public health, aging services, employers, insurers and public policy.



“Promoting healthier lifestyles, encouraging widespread use of clinical preventive services, and developing community partnerships are primary roles of local health departments. This Report will guide them as they strategize to serve individuals in an age group with growing concerns about chronic conditions and health insurance.”

- Gary Cox, JD

President, National Association of County and City Health Officials

SUMMARY DATA FOR THE NATION: PREVALENCE BY AGE GROUP

	INDICATORS	BRFSS YEAR	ALL ADULTS AGES 50-64	AGES 50-54	AGES 55-59	AGES 60-64
SCREENINGS	Mammogram within past two years	2008	80.3	78.7	81.4	81.4
	Pap test within past three years*	2008	85.5	86.8	85.3	83.6
	Colorectal cancer screening†	2008	53.3	43.9	56.9	63.1
	Cholesterol screening within past five years	2007	89.7	87.3	90.6	92.2
IMMUNIZATIONS	Influenza vaccination within past year	2008	42.3	35.4	43.1	51.6
	Pneumococcal vaccination ever among persons at risk‡	2008	32.9	24.0	33.2	43.9
UP TO DATE WITH SERVICES	Up to date with select clinical preventive services • Women: Influenza vaccination and breast, cervical and colorectal cancer screenings	2008	25.9	19.2	27.4	34.0
	Up to date with select clinical preventive services • Men: Influenza vaccination and colorectal cancer screening	2008	26.5	18.4	28.1	36.9
RISK FACTORS	No leisure-time physical activity within past month	2008	27.1	25.6	27.6	28.8
	Smoking – current	2008	18.4	20.4	18.5	15.3
	Binge drinking within past 30 days	2008	10.6	12.8	10.6	7.2
	Obesity – current	2008	31.7	30.6	33.1	31.6
	High blood pressure ever	2007	40.4	33.6	41.7	49.1
	Moderate depressive symptoms within past two weeks§	2006	9.3	9.9	10.2	7.2

Source: Behavioral Risk Factor Surveillance System

* Among women with intact cervix

† Had home blood stool test within past year or colonoscopy or sigmoidoscopy within past 10 years

‡ Smoke currently or have diabetes, asthma or cardiovascular disease

§ From 38 states and the District of Columbia



“Meaningful health system reform must include timely coordination of screening and intervention between public health and medical disciplines to prevent the progression of disease and disability. Leveraging community resources can quickly and easily make preventive health services accessible so that patients can conveniently seek the care they need.”

*– Edward Langston, MD, RPh, ABFM
Board of Trustees, American Medical Association*

Issues on the Horizon

ADDITIONAL CLINICAL PREVENTIVE SERVICES

The key indicators highlighted in this Report by no means reflect the complete list of available clinical preventive services that can impact the health of adults aged 50 to 64. Several screening and counseling interventions cannot be monitored with available surveillance data or are being reviewed by the U.S. Preventive Services Task Force (USPSTF). A few are highlighted briefly below, in the hope of reaching future consensus on indicators with which to gauge their adoption and use.

PROSTATE CANCER

Prostate cancer is the most common non-skin cancer in men, second only to lung cancer as a cause of cancer-related death. In 2007, an estimated 218,890 men received a new diagnosis of prostate cancer.¹ The risk of disease increases with age; approximately 2 percent of men who are currently 50 years old will get prostate cancer sometime in the next 10 years and 8 percent will develop prostate cancer before they turn 70.²

While several screening tests can detect prostate cancer in its early stages, it is not yet known definitively whether the potential benefits

of screening outweigh the harm.³ The USPSTF concludes that the current evidence is insufficient to assess the balance of benefits and harms of prostate cancer screening in men younger than age 75 years and recommends against screening for prostate cancer in men age 75 years or older.⁴ Given the uncertainty about the benefit of screening, the principal public health approach is to support informed decision-making about screening. At this time, there are no tracking mechanisms to monitor clinicians' counseling for prostate cancer screening.

VISION LOSS

Vision loss affects 3.3 million Americans age 40 and older. A total of 242,000 aged 50 to 64 report vision impairment and 70,000 are blind.⁵ Vision loss is defined as corrected visual acuity of 20/40 in the better seeing eye. The leading causes of vision loss – macular degeneration, cataract, diabetic retinopathy and glaucoma – are potentially treatable or preventable. Exemplifying the growing magnitude of these issues, cases of macular degeneration are expected to double between 2010 and 2050, increasing to 3.8 million,⁶ and diabetic retinopathy is expected to increase from 5.5 million in 2005 to over 15 million by 2050. Adults aged 50 to 64, particularly blacks and Hispanics, are most likely to experience

diabetic retinopathy. A four-fold increase in diabetic retinopathy is expected to occur among Hispanics between the ages of 50 and 64 between 2005 and 2050.⁷ Presbyopia, the natural age-related loss of focusing ability, usually begins between ages 38 and 45, and affects virtually every adult by age 52.⁸

Vision loss is associated with higher prevalence of morbidity,⁹ mortality,¹⁰ falls and injuries,¹¹ depression and social isolation.¹² The total economic burden for all visual disorders in the United States is \$35.4 billion.¹³ Given new evidence, the USPSTF is in the process of updating its 1996 recommendation.

HEARING LOSS

Hearing loss, when left uncorrected, diminishes quality of life and leads^{14,15} to social isolation,¹⁶ cognitive decline¹⁷ and decreased mobility.¹⁸ Difficulties with hearing can also affect emotional well-being and necessitate help with activities of daily living.¹⁹ In 2006, 37 million American adults had trouble hearing (ranging from a little trouble to being deaf), a substantial increase over 31.5 million just six years earlier.^{20,21} This trend is compounded by age.²² From 1971 to 1990, hearing difficulties jumped 26 percent among those age 45 to 64,²³ and more than 150 percent from 1965 to 1994 for those age 50 and older.²⁴ Increases seem to be particularly striking among men 45 to 69 years of age.²⁴

The nation is becoming more aware of the implications of hearing loss. Nearly half of all adults believe that they have suffered some hearing loss and know that hearing loss is not just a natural part of aging.²⁵ However, many are not aware of the common sources of hazardous noise at home (e.g., lawn mowers or vacuum cleaners) that may impact hearing²⁶ and only 39 percent have had a hearing test in the last three years.²⁵ Given new evidence, the USPSTF is currently revisiting its 1996 recommendation.

PERTUSSIS

Pertussis is a highly contagious disease caused by the bacterium *Bordetella pertussis*. Its most common symptom is a prolonged cough that typically lasts more than three weeks and can persist for many months. Adults with extended illness often undergo extensive medical evaluations by providers in search of a diagnosis, if pertussis is not considered, or make repeated visits for medical care.²⁶ The Advisory Committee on Immunization Practices (ACIP) currently recommends that:

- Adults aged 19 to 64 years receive a single dose of Tdap to replace tetanus and diphtheria toxoids vaccine (Td) for booster immunization against tetanus, diphtheria and pertussis if they received their last dose of Td more than 10 years earlier and they have not previously received Tdap

- Intervals shorter than 10 years since the last Td be used for booster protection against pertussis
- Adults who have or who anticipate having close contact with an infant under 12 months of age (e.g., parents, grandparents under age 65, childcare providers and healthcare personnel) receive a single dose of Tdap to reduce the risk for transmitting pertussis.²⁷

To monitor uptake of this relatively new ACIP recommendation, BRFSS is offering an optional module, Module 15: Tetanus Diphtheria (Adults), for the first time in 2009. Eight states have opted to implement this module, which contains one question relevant to pertussis: “Did your doctor say your recent tetanus shot included the pertussis or whooping cough vaccine?”

ADDITIONAL ISSUES OF HEALTHY AGING

The looming health and economic impact of an aging society compels public health and medical communities to increase emphasis on preventing unnecessary disease, disability and injury. It is certainly better to start healthy habits early and sustain them for a lifetime; however, it is also almost never too late to intervene.²⁸ An enhanced focus on health promotion is critical to preserving individuals' independence and reducing long-term care needs over time. The groundbreaking book, *Successful Aging*, emphasized a focus on factors that enable older adults to not only preserve but also enhance their mental and physical vitality in later life.²⁸ These factors, along with the Expanded Chronic Care Model (see Background section) and a socio-ecological view of healthy aging,²⁹ raise additional issues that influence optimal physical, mental and social well-being and functioning of adults aged 50 to 64. Based on input from the Steering Committee, three issues were deemed critical to maintaining health and

quality of life throughout the lifespan.²⁹ They should be tracked using available surveillance systems and carefully considered as Healthy People 2020 objectives and targets and future prevention strategies are developed (www.healthypeople.gov/hp2020/).

Dietary factors are associated with four of the 10 leading causes of death – coronary heart disease, some types of cancer, stroke and Type 2 diabetes.³⁰ In addition, dietary factors are linked to high blood pressure, osteoporosis, iron deficiency anemia and other conditions. Many Americans do not consume recommended levels of fruits and vegetables and even fewer adhere to the overall recommendations in the Dietary Guidelines for Americans.³⁰ Nutrition among the U.S. population needs major improvement. Many of the Healthy People 2010 objectives that address nutrition and overweight focus on assessing the nation's progress toward

meeting the recommendations of the Dietary Guidelines for Americans.³¹

Oral health is increasingly recognized as an important component of general health and well-being. The association between poor oral health status and other systemic diseases and the impact of oral health on diet, nutrition and even social activities is well documented.³² For a variety of reasons, however, oral health is often overlooked and neglected – particularly as adults age. Nearly all adults aged 50 to 64 have dental caries missing or filled permanent teeth,³³ while more than 10 percent have no remaining teeth at all.³⁴ Toothaches are the most common pain of the mouth or face, reported by one of every four adults,³⁵ and most adults show signs of periodontal (gum) disease,³⁵ which is associated with diabetes and possibly cardiovascular disease and stroke. The Healthy People 2010 oral health objectives focus on

community fluoridation and the prevention of oral disease in persons aged 44 years and younger.³¹

Cognitive health is not merely the absence of diseases of the brain³⁶ but encompasses vital functions of learning, intuition, judgment, language and memory.³⁷ A clear and active mind is valued at all ages; as Americans grow older, they fear losing their mental capacity far more than their physical ability (62 percent vs. 29 percent).³⁸ Adults and others experiencing cognitive impairment may be unable to care for themselves, participate in social activities, or manage their health and finances. Currently, the USPSTF concludes there is insufficient evidence to recommend for or against routine screening for dementia in older adults.³⁹ That body of evidence is likely to expand significantly over the coming years, as scientists better understand the factors that increase the risk of developing cognitive impairments.⁴⁰

Screening and Counseling (%)	2014	2015	2016	2017	2018	2019	2020
Mammogram	18	32.3	30.2	30.1	30.2	30.1	30.1
No Pap Test	34.2	32.3	30.2	30.1	30.2	30.1	30.1
No Cholesterol Screening	18	64.0	72.6	72.6	72.6	72.6	72.6
No Colorectal Screening	34.2	32.3	30.2	30.1	30.2	30.1	30.1
IMMUNIZATIONS (%)							
No Flu Vaccine		64.0	56.2	56.2	56.2	56.2	56.2
No Pneumococcal Vaccine		32.3	24.2	24.2	24.2	24.2	24.2
TO-DATE WITH SELECT CLINICAL PREVENTIVE SERVICES		57.6	41.2	41.2	41.2	41.2	41.2

Filling Gaps in Monitoring Clinical Preventive Services in States

Public health surveillance systems are an important source of information about the nation's use of clinical preventive services. A major state-based surveillance system is CDC's Behavioral Risk Factor Surveillance System (www.cdc.gov/brfss). This valuable survey is composed of core questions that all participating states agree to ask, although not necessarily in the same year, supplemented by optional modules that cover additional health topics. Each year states select optional modules that they will use based on their needs and resources. BRFSS data are used to identify emerging health problems, focus attention on national, state and community issues, and track progress in improving adults' health and quality of life. For many states, it is the only source of recent, accurate state-level information to support health policy development and health-related legislation.

A major challenge is providing more inclusive data on the public's use of clinical preventive services. A few considerations concerning tracking data at the state level would greatly improve knowledge and understanding.

- **Surveillance or tracking data should be collected consistently to align with the USPSTF recommendations.** Several USPSTF recommendations relate to counseling for the prevention of binge drinking, obesity and cardiovascular events through aspirin use. No current state level data exist with which to assess the receipt of appropriate counseling for these issues. Additionally, several surveillance measures (e.g., those related to colorectal cancer screening) should be designed to allow distinctions between tests used for screening and those used for diagnostic purposes.
- **Constructing a comprehensive Up-to-Date measure.** Ideally, the Up-to-Date indicator should include the full array of services recommended by the USPSTF and ACIP. In order to calculate the Up-to-Date measure proposed in this Report, questions related to all of the included preventive services must be asked in the same year because different individuals are sampled each year. Furthermore, indicators targeted to persons at high risk require the full array of risk-related questions in order to calculate a denominator.

An expert panel will be convened to examine the Up-to-Date measure, a composite measure that reflects overall level of current use of select clinical preventive services. The purpose of the panel will be to review and provide input on the current Up-to-Date measure included in this Report and recommend how the measure can be refined and expanded for inclusion in other surveillance systems.



“Our 40 million members rely on us for information about their health and wellness. Increasing the availability of preventive services where our members live, work and play will make it easier for them to get the right services. It is essential that the delivery of these services be age- and gender-appropriate and customized to diverse audiences.”

*– Jennie Chin Hansen, RN, MS, FAAN
President, AARP*

Sampling of Related Efforts

Many efforts are currently underway to support increased access to and use of clinical preventive services in community settings. Thanks to submissions from the Steering Committee partner agencies and organizations, a sampling of this work is shared to provide a foundation for future community-clinical partnerships.

COMMUNITY HEALTH ASSESSMENT AND GROUP EVALUATION (CHANGE) TOOL

The CHANGE tool, currently under development by CDC's Healthy Communities Program, will provide community leaders with a snapshot of local policies, systems and environmental change strategies currently in place and identify areas where such health strategies are

lacking. The CHANGE tool is designed to assist communities in defining and prioritizing areas for improvement while measuring incremental changes and progress. The tool is currently being pilot tested.

EVIDENCE-BASED CLINICAL-COMMUNITY LINKAGES TO PROMOTE HEALTHY BEHAVIORS

The Agency for Healthcare Research and Quality (AHRQ) is leading an initiative to increase physical activity, healthy diet and tobacco avoidance by facilitating linkages, communication and coordination between clinical practices and community-based organizations. Researchers will review the literature, conduct an environmental scan, collect case studies on innovations and practice improvements, and describe lessons learned. This initiative reinforces AHRQ's

support of Practice-based Research Networks to improve design of primary care delivery through health information technology and care coordination services, and furthers the goal of its Prevention and Care Management Portfolio to build the evidence base for activities that improve primary care and clinical outcomes through clinical and community linkages. A final report is expected early in 2010 and will be available on AHRQ's Web site, www.ahrq.gov.

A HEALTH TEST CARD

The American Cancer Society, the American Diabetes Association and the American Heart Association created a "health test card" to help adults aged 50 to 64 quickly identify recommended screenings by age and gender. With this simple tool, being offered to medical practices across the nation and available on the Web site (www.everydaychoices.org), the three collaborating organizations hope to facilitate communication between patients and

providers about recommended health tests and increase screening for chronic diseases. They are also working together to promote comprehensive healthcare reform that emphasizes access to and delivery of key preventive services for all adults, including evidence-based community services and programs that address major risk factors for chronic disease such as poor diet, lack of physical activity and smoking.

INTERACTIVE WEB SITE: PROMOTING PREVENTIVE SERVICES FOR ADULTS 50–64: COMMUNITY AND CLINICAL PARTNERSHIPS

Early in 2010, CDC will release an interactive version of *Promoting Preventive Services for Adults 50–64: Community and Clinical Partnerships* on its Healthy Aging Program Web site, www.cdc.gov/aging. This site is designed to make the data and strategies from the Report accessible online to public health and aging professionals, researchers, healthcare providers, journalists, policymakers and others interested in facilitating access to and use of preventive services for adults aged 50 to 64. It will feature data on the 14 indicators at the national, state and metropolitan and micropolitan levels, calls to action, additional preventive service issues,

spotlights on evidence-based community initiatives, references and resources. Envisioned is a dynamic site that will expand as new data and innovative strategies are generated and help support program and strategic planning that targets resources to areas of need, tracking and monitoring of key indicators, comparisons with national and other state data, development of grant proposals for enhancing preventive service delivery, policy reports and testimony, and health news reporting.

IOWA HEALTH REFORM

The AARP Iowa State Office played a significant role in enacting healthcare reform during the state's 2008 legislative session. Prevention and chronic disease management served as the initial consensus building blocks of the bill, even as the larger legislation was in jeopardy, and the health reform bill eventually passed with strong bipartisan margins. As a key feature, the

bill established a Prevention and Chronic Care Advisory Council that will submit recommendations for state prevention and chronic care initiatives. Discussions thus far include the need to fund and develop community resources for patient self-education and screenings.

MODEL PRACTICES AND PARTNERSHIPS

The National Association of County and City Health Officials (NACCHO) is engaged in several activities assisting local health departments and community partners to increase access to and use of clinical preventive services in community settings for adults aged 50 to 64. The NACCHO Model Practice Program maintains an online, searchable collection of peer-reviewed practices across the field of public health (www.naccho.org/topics/modelpractices/database/index.cfm) that enables local health departments to benefit from others' experiences, learn what works and invest their resources wisely. In addition,

a compendium of partnerships between local health departments, area agencies on aging and other organizations, *Building Healthier Communities: Local Collaborations to Promote Healthy Aging* (www.naccho.org/publications/HPDP), highlights work in such areas as access to care, Medicare Part D education, HIV prevention, physical activity, nutrition, mental health and caregiver support. Two additional documents under development will delineate the functions of a chronic disease division in a local health department and outline a health equity curriculum.

NATIONAL EVALUATION OF PURCHASER'S GUIDE TO CLINICAL PREVENTIVE SERVICES

CDC, in partnership with the National Business Group on Health (NBGH) and AHRQ, developed *A Purchaser's Guide to Clinical Preventive Services: Moving Science into Coverage* (www.businessgrouphealth.org/benefitsttopics/topics/purchasers/index.cfm). Distributed in 2006 to NBGH's members, the *Purchaser's Guide* describes recommended clinical preventive services, supporting evidence and cost savings, strategies for prioritization and ways to improve their delivery and use. The University of Washington, in collaboration with CDC and NBGH, is evaluating the effectiveness of a tailored dissemination in improving coverage

of selected health services and wellness programs among large employers. Ninety-three companies were randomly assigned to one of two groups. Each employer in the enhanced dissemination group received the *Purchaser's Guide* along with a customized health benefits report and an individualized phone consultation to help tailor coverage to beneficiaries' needs; those in the control group received only the *Purchaser's Guide*. Outcomes were assessed using pre/post surveys along with reports on preventive benefits offered through company health plans and other programs. Results are anticipated in fall 2009.

WEB-BASED INNOVATIONS EXCHANGE

AHRQ has created the Innovations Exchange Web site, www.innovations.ahrq.gov/learn_network/resources-for-linking.aspx, to promote healthy patients, families and communities through integrated delivery of clinical and community-based prevention and health-promotion interventions. The site allows for a growing inventory of innovative efforts

that will help identify key features of successful linkage programs and suggest ways to tailor them to local, state and regional needs. The site profiles organizations involved in implementing integrated programs, provides access to tools for developing linkages, and allows users to share experiences and lessons learned.

WELLNESS TOUR

AARP and Walgreens launched a Wellness Tour in April 2009 to deliver free health screenings and health education to people in hundreds of communities, with a special emphasis on diverse and underserved areas. The nationwide tour features nine customized education and health-screening buses that will travel 240,000 miles across 48 states, stopping in more than 3,000 communities in 300 cities, and offer six free health screenings:

total cholesterol, blood pressure, bone density, glucose, waist circumference and body composition/body mass index. The two-year goal is to deliver more than 2.5 million of these screenings for early detection and prevention of disease, with a value of over \$60 million. As of early May 2009, more than half of the people screened were from diverse populations and a third were uninsured.



“Innovative models for public health interventions and primary care delivery are being tested that support people where they live and work and make connections for a healthier population.”

*– CAPT **Tricia L. Trinité**, MSPH, ANP-BC
Director, Prevention/Care Management Implementation, Agency for Healthcare
Quality and Research*

Spotlight: Initiatives Addressing Multiple Preventive Services

With the recommended set of clinical preventive services and indicators as a benchmark, it is now possible to turn attention to how to intervene and promote the uptake of these services. In the hopes of generating creative approaches to foster strong community-clinical partnerships, three interventions are offered to improve the delivery of multiple clinical preventive services for adults.

The literature is replete with reviews of preventive services delivered in a clinical setting or offered as a single intervention in a community setting. Far less common are proven models that engage community resources and assets in the delivery of multiple clinical preventive services. Thus, the critical question is:

What effective community-based interventions have documented increased access to and/or use of multiple clinical preventive services among adults aged 50 to 64?

A comprehensive review of the literature helped to identify three interventions (see Appendix E: Methodology for Spotlight Selection). Two are evidence-based interventions that have been

vetted in a variety of real-world settings: WISEWOMAN (Well-Integrated Screening and Evaluation for WOMen Across the Nation), supported by the Centers for Disease Control and Prevention (CDC) and implemented in 19 states and two tribal organizations; and SPARC (Sickness Prevention Achieved through Regional Collaboration), a community-based collaboration in four states. The third example, the Family Heart Study directed by Johns Hopkins University, has not yet been replicated outside the research setting but may foster future interest in similar community-based initiatives.

While each of these initiatives focuses on different groups and indicators, they share key features that contribute to their success.

- Two or more preventive services are planned, offered and delivered as a “bundle” in accessible community sites.
- Interventions are based on science, evidence-based practices and clinical guidelines.
- Emphasis is placed on hard-to-reach populations or those less likely to use or have access to services in clinical settings.
- The community at large and the populations to be served are engaged at all stages of planning and implementing.
- Strong partnerships are formed between community organizations and clinical providers for vaccinations, screenings, risk reduction and lifestyle services and diagnostic and follow-up care.

WISEWOMAN

(Well-Integrated Screening and Evaluation
for WOMen Across the Nation)

WISEWOMAN is a program that instills lasting, healthy lifestyle changes in women at risk for heart disease, stroke and other chronic diseases.

Who is reached?

Funded by CDC since 1995, WISEWOMAN serves low-income, underinsured or uninsured women aged 40 to 64. The 21 programs in 19 states and two tribal organizations (see figure, next page) have reached 84,000 women with risk factors for heart disease and stroke. Between January 2000 and June 2008, participating women had the following risk factors: overweight or obese (74 percent); high blood cholesterol (40 percent); smoking (29 percent); high blood pressure (28 percent); or diabetes (23 percent).¹ More than one-third are from racial and ethnic minority populations.

What multiple preventive services are offered?

A typical WISEWOMAN program:

- Screens women for hypertension, cholesterol and diabetes

- Offers strategies for healthy nutrition and physical activity as well as smoking cessation
- Works with women to set goals, develop support networks and maintain heart-healthy strategies in their daily lives
- Facilitates referrals for needed treatment and medication
- Monitors and evaluates progress through regular follow-up visits.²

WISEWOMAN participants also receive breast and cervical cancer screening through the National Breast and Cervical Cancer Early Detection Program.

In what community settings?

Screening and counseling services are delivered primarily by local health departments, community health centers,

clinics, hospitals, solo clinician practices and visiting nurses services.³ Interventions rely on one-on-one, face-to-face interaction supplemented by telephone follow-up, but more recent innovations include self-help, video, computer or Web-based delivery and group counseling.²

With what outcomes?

Thanks to WISEWOMAN, many women are now aware that they are at risk for cardiovascular disease. Between January 2000 and June 2008, WISEWOMAN identified more than 7,674 new cases of high blood pressure, 7,928 new cases of high cholesterol and 1,140 new cases of diabetes.¹ Furthermore:

- Participants were more likely to continue to have regular health screenings⁴
- Seven percent of the participants who smoked had stopped⁴

- Blood pressures and cholesterol levels had been lowered²
- Women were at much lower risk of chronic heart disease and cardiovascular disease (5.4 percent less for 10-year estimated chronic heart disease risk and 7.6 percent for five-year estimated cardiovascular disease risk).¹

Best of all, these improvements in health and quality of life have been achieved at a reasonable cost of \$4,400 per estimated year-of-life saved.⁵

What contributes to success?

High performing WISEWOMAN sites share many distinguishing features.³ A few of the more salient commonalities are their commitment to:

- Form relationships with providers and community organizations and use multiple recruitment strategies

“Opportunities are expanding for public health interventions in the workplace and in community settings that may be more advantageous than the traditional clinical setting for addressing behavioral issues related to tobacco control, diet and physical activity.”

– Alan Balch, PhD

Preventive Health Partnership for Healthcare Quality and Research

- Apply behavior change theory, tailor interventions, use incentives and assure stable resource levels
- Embrace the team approach and tailor plans to meet individual needs
- Train staff
- Establish multiple partnerships for referrals
- Develop and use tracking systems to monitor changes in risk factors over time.

Want to learn more?

If you work in a state that does not currently have a WISEWOMAN program, consider:

- Creating and implementing a WISEWOMAN “look-alike” program using the WISEWOMAN model and lessons learned

- Exploring the potential of becoming a new WISEWOMAN program as CDC funding becomes available.

If you work in a clinic, health department or other community-based organization interested in linking with the WISEWOMAN program, consider:

- Identifying eligible women in your community and referring them to participating sites
- Exploring the potential to add your clinical preventive screening to an existing WISEWOMAN program
- Promoting policy, environmental and system changes that support adoption and maintenance of heart-healthy behaviors among underserved populations in your area

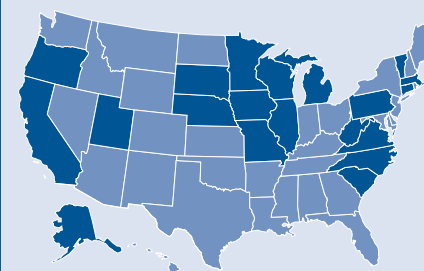
- Implementing evidence-based, low-cost individualized lifestyle intervention programs to help underserved populations in your area achieve and maintain their heart-healthy behaviors

For general information:
www.cdc.gov/wisewoman/

For effective interventions and best practices:
www.wiseinterventions.org

For state/tribal program contacts:
www.cdc.gov/wisewoman/project_locations/index.htm

CDC’s WISEWOMAN Programs in the United States, 2008



■ States with WISEWOMAN Program

SPARC

(Sickness Prevention Achieved through
Regional Collaboration)

The SPARC program builds partnerships with and between community organizations and healthcare providers to increase the delivery of multiple clinical preventive services, namely vaccinations and screenings.

Who is reached?

Over the past 12 years, SPARC and its many partners have touched the lives of tens of thousands of residents in four adjacent counties at the intersection of Massachusetts, Connecticut and New York.⁶ A recent expansion to nine counties in and around Atlanta⁷ has already served over 4,000 men, women and children.

What multiple preventive services are offered?

SPARC promotes influenza and pneumococcal vaccinations, cancer screening (mammograms, Pap tests and colorectal cancer), and cardiovascular screenings (including cholesterol and blood pressure) with follow-up as needed.

In what community settings?

Preventive services are offered at key locations where community residents can be reached easily, such as churches, beauty salons, barbershops, worksites, polling places, public schools, community centers, physician practices, low-income housing and flu shot clinics. The locations can be expanded depending upon the particular opportunities in each community served.⁸

As a nonprofit health organization, SPARC serves as a catalyst and “bridge” by bringing community organizations and healthcare agencies together to:

- Create local networks of healthcare and social service providers that take responsibility for population-wide access to and delivery of preventive services

- Develop efficient programs by bundling services for one-stop delivery at multiple community sites
- Coordinate outreach for preventive services across the entire community
- Identify and reach out to groups most in need
- Provide screening results as follow-up to participants’ healthcare providers
- Provide guidance and training to local healthcare practitioners as appropriate
- Monitor and continually enhance community-wide efforts.

Common agencies and organizations that partner with SPARC include state and local health departments, hospitals, mayors, community advocacy groups, faith-based

organizations, visiting nurse and home health agencies, local election authorities, media, home-delivered meal programs, public housing authorities, schools, area agencies on aging, quality improvement organizations and businesses.

With what outcomes?

SPARC’s initiatives have successfully increased the use of influenza vaccinations, pneumococcal vaccinations, hepatitis B vaccinations, tetanus booster and mammography.

- In 1997, SPARC led a broad program to ensure the delivery of pneumococcal vaccinations (PPV) at all community flu shot clinics in two of its counties. Using Medicare reimbursement data, SPARC doubled the annual PPV delivery in both counties.⁹

“Chronic Disease Directors recognize the imperative of a sustained commitment to increase access to and use of preventive services among adults, specifically those most vulnerable. We are committed champions to building partnerships between healthcare providers and communities in all 50 states and U.S. territories.”

– **Victor Sutton, PhD, MPA**

President, National Association of Chronic Disease Directors

- SPARC pioneered a mechanism to provide mammography appointments at flu shot clinics for women who were behind schedule for breast cancer screening. This simple innovation resulted in a doubling of mammography rates among women attending these flu shot clinics.¹⁰
 - Relying on the leadership of a “neutral convener” agency that does not deliver preventive services and therefore does not compete with local providers
 - Building on the in-depth knowledge of the community that local partners bring to the collaboration
 - Involving all local sectors, including healthcare, social and aging services, local government, nonprofit organizations and private sector participants
 - Bundling clinical preventive services together and linking them to a convenient community delivery platform
 - Evaluating the results of the intervention.¹¹
- What contributes to success?**
- The SPARC program is the glue that binds collaborating healthcare and other community services agencies, facilitates access to multiple preventive services, and tracks and provides guidance for community-wide efforts. Some of the key attributes contributing to SPARC’s success include:
- Assuming responsibility for needs that fall between the cracks of medicine and public health

Want to learn more?

If you are a community agency seeking to improve and protect the health of your residents, you are encouraged to consider developing a SPARC in your community. To get started:

Read more about SPARC:
www.sparc-health.org/

For specific questions about SPARC’s design and operation:

Douglas Shenson, MD, MPH

SPARC

76 Prince Street

Newton MA 02465

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dshenson@sparc-health.org

In 2008, SPARC launched a national Vote & Vax program, supported by the Robert Wood Johnson Foundation, to offer flu vaccinations at polling places across the country. In partnership with local public health practitioners, the initiative delivered more than 21,000 flu shots at 331 polling places in 42 states on Election Day (www.voteandvax.org).

Johns Hopkins Family Heart Study

The Family Heart Study, directed by Johns Hopkins University, documented the merits of delivering multiple preventive services in a community setting to adults at high risk of cardiovascular disease.

Who was reached?

A total of 360 African Americans, 30 to 59 years of age, participated in the study. All had a sibling who had been hospitalized for coronary heart disease in one of 10 Baltimore hospitals and at least one additional cardiovascular risk factor other than family history.¹²

What prevention services were offered?

Participants were randomly assigned to one of two groups: the Enhanced Usual Care Intervention or the Community-based Care Intervention.¹²⁻¹⁴ Both groups received:

- Physical exams and medical histories (initially, at one-year and at five-years) to determine blood pressure, body mass index, cholesterol, physical activity level and smoking status

- Recommendations based on national guidelines and tailored to individual risk factors
- Pharmacy charge service cards to authorize prescriptions free of charge at any pharmacy
- Free entry to risk reduction seminars, diet and exercise programs and smoking cessation classes.

In what settings?

The Enhanced Usual Care Intervention was based in primary care physicians' offices. Physicians received screening and measurement results, along with copies of the same risk-specific educational materials and recommendations for risk factor management sent to the participants. They then provided their usual standard of care, including office visits, education,

pharmacotherapy and adherence monitoring. Pharmacy service cards and coupons for free local YMCA exercise programs were mailed to the physician, and the participants were instructed to ask for them.

The Community-based Care Intervention, designed by a community advisory panel, was implemented at a Family Heart Center – an apartment-based, nonclinical site with free parking or easily reached by foot, bus or subway.¹³ Services were delivered by nurse practitioners and community health workers, with oversight from primary care physicians.

During an average 30-minute visit, the nurse practitioner measured blood pressure, evaluated pharmacotherapy and monitored compliance. Changes in pharmacotherapy were shared by mail with the participant's

primary care physician. In addition, community health workers provided dietary counseling, smoking cessation, exercise counseling, and culturally sensitive support to help fill and use prescriptions, shop for and prepare healthier foods, and access an exercise facility. They invited participants to join them at the local YMCA for two evening exercise sessions per week, or urged them to use the Family Heart Center's exercise room. Periodic telephone calls afforded another method for offering encouragement and for monitoring progress.

With what outcomes?

After only one year, participants in the Community-based Care group had significantly lower cardiovascular disease risk than their Enhanced Usual Care counterparts.¹²

The Community-based Care group:

- Was twice as likely to achieve goal levels of low-density lipoprotein cholesterol and blood pressure than the Usual Care group, and significantly more effective at reducing risk of coronary heart disease
- Decreased its smoking rate by 16.2 percent compared with a 7 percent reduction in the Usual Care group
- Was twice as likely to receive a prescription card and use it to fill prescriptions and 13 times more likely to use the cholesterol-lowering medication
- Had higher physical activity rates; 20 percent exercised at the YMCA compared with none in the Usual Care group.

Even more remarkable is that some of these outcomes were sustained for the next five

years. Participants receiving Community-based Care were significantly more likely to sustain their cholesterol levels throughout the five-year period, while those receiving Usual Care were significantly much less likely to ever reach their goal levels for either cholesterol or blood pressure.¹⁴

Want to learn more?

For study methodology, results and additional questions:

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“In New Mexico, the state medical society and Department of Health have a long-standing partnership to improve the quality of care while enhancing the delivery of clinical preventive services. Three key elements – physician champion, commitment to at least one preventive service and funding source – transform this partnership into much more than just good intentions.”

*– Richard Kozoll, MD, MPH
Co-Founder and Co-Chair, New Mexico Clinical Prevention Initiative*



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Appendix A:

Key Issues and Related Healthy People 2010 Targets

Healthy People 2010 Objectives are national health goals for the United States to achieve over the first decade of the new century (www.healthypeople.gov). These objectives set specific targets to help guide states, communities, professional organizations, and others in developing programs and policies to improve health for all Americans. Healthy People 2010 objectives and targets were developed in consultation with a wide range of experts on the basis of the best available and

current scientific knowledge. The Healthy People 2010 targets cited in this Report are for adults overall and not specific to the 50 to 64 age group. National health surveys (e.g., National Health Interview Survey, National Health and Nutritional Examination Survey) are used to track Healthy People 2010 targets at the national level. The Behavioral Risk Factor Surveillance System is the only data source at the state level, and is used for this Report.

	ISSUES	HEALTHY PEOPLE 2010 OBJECTIVE STATEMENTS	HEALTHY PEOPLE 2010 TARGETS
SCREENINGS	Breast cancer screening	3-13. Increase the proportion of women aged 40 years and older who have received a mammogram within the preceding two years.	70%
	Cervical cancer screening	3-11b. Increase the proportion of women aged 18 years and older who received a Pap test within the preceding three years.	90%
	Colorectal cancer screening	3-12a. Increase the proportion of adults aged 50 years and older who have received a fecal occult blood test within the preceding two years. 3-12b. Increase the proportion of adults aged 50 years and older who have ever received a sigmoidoscopy.	50%
	Cholesterol screening	12-15. Increase the proportion of adults who have had their cholesterol checked within the preceding five years.	80%
IMMUNIZATIONS	Influenza vaccination	14-29c. Increase the proportion of adults aged 18 to 64 years who are vaccinated annually against influenza.	60%
	Pneumococcal vaccination	14-29d. Increase the proportion of adults aged 18 to 64 years who have ever been vaccinated against pneumococcal disease.	60%
UP TO DATE WITH SERVICES	Up to date with select clinical preventive services	No target specified.	—
RISK FACTORS	Physical inactivity	22-1. Reduce the proportion of adults who engage in no leisure-time physical activity.	20%
	Smoking	27-1. Reduce tobacco use (cigarette smoking) by adults aged 18 years and older.	12%
	Binge drinking	26-11c. Reduce the number of adults engaging in binge drinking of alcoholic beverages during the past month.	13.4%*
	Obesity	19-2. Reduce the proportion of adults who are obese.	15%
	High blood pressure	BRFSS is based on self-report data and is not consistent the operationalization of the Healthy People objective.	—
	Moderate depressive symptoms	No target specified.	—

* Changed at HP 2010 Midcourse review

Appendix B:

Methodology for Indicator Data and Analyses

Data

The Behavioral Risk Factor Surveillance System (BRFSS) has been a major source of information on the health habits of U.S. adults since the mid-1980s. The ongoing BRFSS telephone surveys address health behaviors, preventive health screenings and immunizations related to the leading causes of death and disability. In order to cover such a wide range of topics the questionnaires vary from year to year and allow states the flexibility to select optional topics. The BRFSS is administered and supported by the Division of Adult and Community Health, National Center for Chronic Disease Prevention and Health Promotion at the Centers for Disease Control and Prevention (CDC). Information from the survey is used in a number of ways, including determining the need for health promotion programs, monitoring progress toward objectives such as Healthy People 2010, and evaluating the effectiveness of large-scale programs. The survey is currently conducted in all 50 states, the District of Columbia and some territories. In this Report, data are limited to adults aged 50 to 64 in the 50 states and the District of Columbia and are reported for all adults age 50 to 64 years and sub-groups of those aged 50 to 54, 55 to 59 and 60 to 64. Because not all topics are addressed every year, this Report includes the most recently available data, usually 2008 but in some instances 2007 and 2006. Details of the survey methodology are available on the CDC Web site.¹

A total of 130,258 adults aged 50 to 64 were surveyed in 2008 (range 876 in Alaska to 7,740 in Washington) and 132,432 adults in 2007 (range 766 in Alaska to 12,418 in Florida). Data on depressive symptoms are based on 59,027 adults aged 50 to 64 in 38 states and the District of Columbia that used this optional module in 2006. Because survey results are estimates for a larger population, the margin of error (a measure of precision) of each estimate is important to consider. In general, a larger sample size (N) will produce more precise estimates; sample sizes of 500 and greater are usually considered adequate. All states had total sample sizes of greater than 500 each year for adults aged 50 to 64. When the sample size for any group is less than 50, results are often not reported as they are thought to be unreliable. None of the results reported for any of the age groups in any state are based on sample sizes less than 83 and only two were less than 100. In 2008, there were a total of 51,064 male survey respondents aged 50 to 64, including 17,029 aged 50 to 54; 17,625 aged 55 to 59 and 16,410 aged 60 to 64 years. There were 79,194 women aged 50 to 64 in 2008, which included 27,035 aged 50 to 54; 26,474 ages 55 to 59 and 25,685 aged 60 to 64 years. Among the men aged 50 to 64 with known race/ethnicity there were 42,669 non-Hispanic whites, 3,211 non-Hispanic blacks, 2,034 Hispanics of any race, 728 Asian/Pacific Islanders and 716 American Indian/Alaska Natives; among the women there were 64,572 non-Hispanic whites, 6,814 non-Hispanic blacks, 3,527 Hispanics of any race, 1,015 Asian/Pacific Islanders and 1,050 American Indian/Alaska Natives. Distributions were similar for the other years.

¹ Centers for Disease Control and Prevention. Behavioral Risk Factor Surveillance System Survey Data. Atlanta, Georgia: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention Web site. Available at: www.cdc.gov/brfss.

Measures

Measures are grouped as screenings, immunizations, Up-to-Date measures or risk factors such as smoking. All screening indicators include a time frame, such as “within the past two years” or “ever” and risk factors are either current or include a time frame. Respondents with missing values were excluded from that measure unless otherwise noted.

Screenings

Breast cancer screening: Percentage of women who had a mammogram within the past two years. This was determined from answers to two separate questions about ever having a mammogram, and how long it had been since the last one.

Cervical cancer screening: Percentage of women with an intact cervix who had a Pap test within the past three years. The measure excludes women who reported they had a hysterectomy.

Colorectal cancer screening: Percentage of adults who had either a home blood stool test within the past year or a colonoscopy or sigmoidoscopy within the past 10 years. (The BRFSS did not distinguish between these two tests). In this case, respondents were not excluded from the measure if they had a missing value for one of the questions as long as they reported having the other test within the time frame.

Cholesterol screening: Percentage of adults who had a blood cholesterol screening within the past five years.

Immunizations

Influenza vaccination: Percentage of adults who reported influenza vaccination within the past year, determined from a single question: A flu shot is an influenza vaccine injected in your arm. During the past 12 months, have you had a flu shot?

Pneumococcal vaccination among persons at risk: Percentage of adults who reported current smoking, diabetes, asthma or cardiovascular disease who have ever had a pneumococcal vaccination.

Up-to-Date Measures

Up to Date with select clinical preventive services: Percentage of adults who had the selected services needed to be up to date according to their age and gender. For women, the composite measure included influenza vaccination plus a mammogram within the past two years; a Pap test within the past three years, unless the woman had had a hysterectomy, and colorectal screening as described above. Because a large number of women in this age group have had hysterectomies; and Pap tests are not normally recommended for such women, they were included in the measure but were not required to have a Pap test to be up to date. In other words, women who had a hysterectomy needed only three tests to be up to

date, while all other women required four. For men, this composite measure included influenza vaccination and colorectal cancer screening as described above. To be up to date, men had to have had both, with no missing values except as noted for colorectal cancer screening. In order to calculate the Up-to-Date measure, BRFSS questions about the selected clinical preventive services must be asked in the same year because different individuals are sampled every year. Thus, cholesterol screening is not included in the Up-to-Date measure because it was collected in 2007.

Risk Factors

Physical inactivity: Percentage of adults who engaged in no leisure-time physical activity within the past month, from responses to this question: During the past month, other than your regular job, did you participate in any physical activities or exercises such as running, calisthenics, golf, gardening or walking for exercise?

Smoking: Percentage of adults who have smoked at least 100 cigarettes in their entire life and still smoke every day or some days (current smoking).

Binge drinking: Percentage of women who reported four or more drinks and men who reported having five or more drinks on at least one occasion within the past 30 days, from the question: Considering all types of alcoholic beverages, how many times during the past 30 days did you have four or more drinks for women or five or more drinks for men on an occasion?

Obesity: Percentage of adults with a Body Mass Index (BMI) of 30.0 or above, as calculated from self-reported current height and weight.

High blood pressure: Percentage of adults who have ever been told by a health professional that they have high blood pressure.

Moderate depressive symptoms: Percentage of adults reporting moderate depressive symptoms within the past two weeks, having scored 10 or higher out of 24 on a series of BRFSS questions. A modification of the Patient Health Questionnaire 8 (PHQ-8) was used to assess depressive symptoms for the 38 states that selected this optional BRFSS module in 2006. The PHQ-8 is a standardized and validated instrument for the measurement of the prevalence and degree of severity of current depression.² Responses were phrased in terms of the number of days in the past two weeks that the person experienced the particular mood and were converted into a total score for the eight questions. Each

² Kroenke K, Spitzer RL, Williams JBW. The PHQ-9: Validity of a brief depression severity measure. *Journal of General Internal Medicine* 2001;16:606-613.

question was scored as follows: 0–1 day = 0; 2–6 days = 1; 7–11 days = 2; 12–14 days = 3; resulting values were summed to create a total score for the eight questions ranging from 0–24. Respondents with missing values for any of the eight questions were excluded from the measure.

Statistical analyses

Prevalence estimates and 95 percent confidence intervals were obtained using Stata Version 9.0, which accounts for the complex sample design of the BRFSS. These analyses used sample weights that account for different probabilities of selection and are further adjusted so that results are representative of the adult population in each state by age and gender. Prevalence estimates were determined as mean values for variables coded as 1 for the measure of interest, or 0 for all others with non-missing responses. Stata, by default, computes standard errors and confidence intervals using first-order Taylor linearization; other software packages (e.g., SUDAAN) may use different methods and may produce slightly different confidence intervals, but the same point estimates. Results are presented for the total U.S. (50 states and the District of Columbia) and for each state, for all adults aged 50 to 64, and for groups aged 50 to 54, 55 to 59, and 60 to 64 years.

Maps were produced by rank ordering state results for all adult aged 50 to 64 and grouping these into quantiles. Results for the other figures were obtained using analyses as described above, for race/ethnicity, insurance status, education, year, smoking status and/or gender. Published data were used to complete the trend graph for the Up-to-Date indicator.³ The minimum sample size represented by a single bar on any graph was 163 (out of 727) for physical inactivity among American Indian males. With the exception of bars for Asian/Pacific Islander and American Indian/Alaska Native adults, all bars represent at least 850 adults out of a total of 1,000 or more respondents.

While the BRFSS has provided some very valuable data on health behaviors and conditions, it does have some limitations. Because it is a telephone survey, households without telephones or using only cell phones are excluded. Also excluded are adults in institutions such as nursing homes, and those that have physical or mental impairments that prevent them from participating in the survey. Results are based on self-reported information on receipt of screenings and vaccinations which has not been verified through chart or record reviews. Respondents also have a natural tendency to underreport undesirable behavior (e.g., smoking or drinking) or their weight and overreport their height. However, the BRFSS has been shown to be a reliable and valid source of health data.⁴

³ Shenson D, Adams M, Bolen J, Delivery of preventive services to adults aged 50-64: monitoring performance using a composite measure, 1997-2004. *Journal of General Internal Medicine* 2008;23(6):733-40.

⁴ Nelson DE, Holtzman D, Bolen J, Stanwyck CA, Mack KA. Reliability and validity of measures from the Behavioral Risk Factor Surveillance System (BRFSS). *Social and Preventive Medicine* 2001;46(Suppl 1):S03-S42.

Appendix C:

State-by-State Data with Confidence Intervals

MAMMOGRAM WITHIN PAST TWO YEARS*			
	Percent	L 95% CI	U 95% CI
State	80.3	79.8	80.8
AL	75.9	73.0	78.8
AK	75.6	69.9	81.2
AZ	81.0	76.6	85.3
AR	75.0	71.9	78.0
CA	83.5	81.4	85.6
CO	75.4	73.3	77.4
CT	88.1	85.6	90.7
DE	87.1	84.2	89.9
DC	82.9	79.8	85.9
FL	80.6	77.6	83.5
GA	84.1	81.7	86.5
HI	83.3	80.9	85.8
ID	71.4	68.0	74.8
IL	78.4	75.4	81.4
IN	75.8	72.2	79.4
IA	80.3	77.6	83.0
KS	79.2	77.1	81.4
KY	78.0	75.6	80.4
LA	80.1	77.6	82.6
ME	85.3	83.2	87.4
MD	80.1	77.6	82.6
MA	89.6	88.2	91.0
MI	84.0	82.1	85.9
MN	80.2	77.1	83.3
MS	71.0	68.3	73.6

MAMMOGRAM WITHIN PAST TWO YEARS*			
	Percent	L 95% CI	U 95% CI
State	80.3	79.8	80.8
MO	78.3	74.8	81.7
MT	74.0	71.1	76.9
NE	77.1	74.6	79.6
NV	70.3	65.9	74.8
NH	86.2	84.0	88.3
NJ	80.0	77.8	82.3
NM	73.6	70.5	76.7
NY	84.7	82.3	87.1
NC	82.2	80.5	84.0
ND	81.6	78.8	84.4
OH	79.8	77.9	81.8
OK	71.3	68.6	74.0
OR	82.2	79.6	84.8
PA	81.0	78.8	83.2
RI	86.8	84.4	89.2
SC	79.4	76.8	82.1
SD	80.2	77.5	83.0
TN	77.5	74.5	80.5
TX	74.4	71.5	77.3
UT	72.4	68.4	76.4
VT	82.5	80.3	84.8
VA	82.5	79.6	85.4
WA	80.4	79.0	81.8
WV	79.9	77.1	82.7
WI	78.8	75.5	82.1
WY	72.4	70.0	74.9

PAP TEST WITHIN PAST THREE YEARS,* WOMEN WITH INTACT CERVIX			
	Percent	L 95% CI	U 95% CI
State	85.5	84.9	86.1
AL	84.4	81.0	87.8
AK	86.1	80.9	91.3
AZ	81.8	76.1	87.6
AR	79.7	75.9	83.5
CA	87.2	84.9	89.4
CO	86.7	84.8	88.7
CT	88.6	85.8	91.3
DE	—	—	—
DC	89.6	86.8	92.4
FL	83.3	79.6	87.1
GA	87.1	84.1	90.1
HI	86.4	83.8	89.0
ID	80.5	76.5	84.6
IL	86.4	83.6	89.2
IN	81.1	76.9	85.3
IA	84.3	81.4	87.2
KS	87.0	84.7	89.3
KY	83.2	80.6	85.9
LA	79.2	75.8	82.6
ME	90.7	88.7	92.7
MD	86.8	84.4	89.2
MA	92.5	91.2	93.8
MI	89.1	87.2	91.1
MN	88.0	85.0	91.0
MS	77.7	74.4	81.0

Delaware data not available

PAP TEST WITHIN PAST THREE YEARS,* WOMEN WITH INTACT CERVIX			
	Percent	L 95% CI	U 95% CI
State	85.5	84.9	86.1
MO	81.1	76.8	85.3
MT	84.2	81.3	87.0
NE	84.3	81.9	86.8
NV	72.2	66.6	77.8
NH	90.5	88.4	92.6
NJ	83.0	80.7	85.3
NM	84.2	81.2	87.2
NY	87.5	84.9	90.1
NC	87.3	85.4	89.2
ND	86.2	83.2	89.2
OH	83.9	81.7	86.2
OK	75.6	72.2	79.1
OR	87.6	84.8	90.3
PA	85.1	82.8	87.4
RI	93.3	91.4	95.2
SC	85.4	82.2	88.5
SD	86.9	84.1	89.6
TN	84.0	80.6	87.4
TX	82.8	79.7	85.9
UT	78.9	74.1	83.7
VT	89.1	87.0	91.1
VA	91.4	89.0	93.9
WA	87.5	86.0	88.9
WV	82.8	79.4	86.3
WI	85.6	82.4	88.7
WY	81.2	78.4	83.9

COLORECTAL CANCER SCREENING††			
	Percent	L 95% CI	U 95% CI
State	53.3	52.8	53.8
AL	49.8	47.0	52.6
AK	44.4	39.5	49.3
AZ	50.2	45.4	55.0
AR	44.1	41.3	47.0
CA	51.9	49.7	54.2
CO	51.8	49.9	53.7
CT	61.0	58.0	63.9
DE	64.3	60.6	68.1
DC	60.3	56.9	63.6
FL	55.9	52.8	59.0
GA	55.5	52.6	58.5
HI	49.2	46.4	52.1
ID	44.1	41.2	46.9
IL	48.6	45.6	51.7
IN	48.0	44.7	51.2
IA	54.7	52.0	57.4
KS	52.3	50.3	54.4
KY	53.5	50.9	56.1
LA	48.6	46.0	51.3
ME	65.5	63.3	67.7
MD	61.0	58.7	63.4
MA	66.8	65.0	68.5
MI	58.1	56.0	60.3
MN	57.9	55.0	60.8
MS	47.3	45.0	49.7

COLORECTAL CANCER SCREENING††			
	Percent	L 95% CI	U 95% CI
State	53.3	52.8	53.8
MO	50.9	47.6	54.1
MT	45.7	43.2	48.2
NE	49.0	46.7	51.4
NV	42.5	38.5	46.6
NH	62.7	60.3	65.2
NJ	53.9	51.6	56.2
NM	45.1	42.3	48.0
NY	56.7	54.1	59.4
NC	57.7	55.9	59.5
ND	44.8	42.1	47.5
OH	50.8	48.8	52.8
OK	43.7	41.4	46.1
OR	54.6	51.9	57.3
PA	53.8	51.5	56.1
RI	59.8	56.8	62.7
SC	56.9	54.2	59.5
SD	50.7	48.1	53.3
TN	54.1	50.9	57.2
TX	46.3	43.8	48.9
UT	54.6	51.4	57.8
VT	59.0	56.8	61.2
VA	59.4	56.1	62.7
WA	55.0	53.6	56.4
WV	48.5	45.6	51.4
WI	53.6	50.4	56.8
WY	44.1	42.1	46.2

CHOLESTEROL SCREENING WITHIN PAST FIVE YEARS [†]			
	Percent	L 95% CI	U 95% CI
State	89.7	89.4	90.1
AL	90.3	88.8	91.8
AK	89.3	86.4	92.1
AZ	87.5	84.5	90.5
AR	85.6	83.6	87.6
CA	90.0	88.2	91.9
CO	90.2	89.1	91.2
CT	93.5	92.2	94.7
DE	95.3	93.9	96.7
DC	92.1	90.0	94.2
FL	89.1	87.7	90.5
GA	92.0	90.6	93.3
HI	88.7	86.8	90.6
ID	83.8	81.6	85.9
IL	88.8	86.6	90.9
IN	90.7	89.0	92.3
IA	89.8	88.2	91.5
KS	89.4	88.1	90.7
KY	87.0	84.8	89.2
LA	88.5	86.9	90.2
ME	91.6	90.3	92.9
MD	90.4	88.6	92.3
MA	94.2	93.2	95.2
MI	92.0	90.7	93.4
MN	90.1	88.2	92.0
MS	86.3	84.5	88.0

CHOLESTEROL SCREENING WITHIN PAST FIVE YEARS [†]			
	Percent	L 95% CI	U 95% CI
State	89.7	89.4	90.1
MO	87.0	84.6	89.5
MT	85.2	83.3	87.1
NE	87.6	85.6	89.6
NV	86.8	83.9	89.7
NH	91.7	90.2	93.1
NJ	92.1	90.4	93.7
NM	86.4	84.5	88.3
NY	91.3	89.7	92.9
NC	91.7	90.6	92.7
ND	88.3	86.5	90.2
OH	89.9	88.6	91.2
OK	85.8	84.0	87.5
OR	89.0	87.2	90.8
PA	88.4	86.5	90.2
RI	92.9	91.1	94.8
SC	91.2	89.9	92.4
SD	87.8	86.1	89.5
TN	90.3	88.5	92.1
TX	86.6	85.1	88.0
UT	87.3	84.9	89.7
VT	90.2	88.8	91.5
VA	92.6	91.2	94.0
WA	89.9	89.0	90.7
WV	90.1	88.3	91.9
WI	88.5	86.6	90.5
WY	89.4	87.9	90.9

INFLUENZA VACCINATION WITHIN PAST YEAR*			
	Percent	L 95% CI	U 95% CI
State	42.3	41.8	42.8
AL	41.8	39.0	44.6
AK	43.0	38.1	47.8
AZ	39.4	34.8	43.9
AR	44.9	42.1	47.7
CA	39.5	37.3	41.6
CO	48.6	46.7	50.4
CT	45.7	42.7	48.7
DE	46.7	42.8	50.5
DC	44.2	40.9	47.5
FL	32.4	29.6	35.1
GA	38.6	35.8	41.4
HI	47.4	44.6	50.2
ID	39.5	36.7	42.3
IL	38.6	35.7	41.6
IN	39.9	36.7	43.0
IA	48.2	45.6	50.9
KS	43.5	41.5	45.6
KY	43.6	41.0	46.2
LA	43.6	41.0	46.1
ME	47.3	45.0	49.6
MD	46.3	43.9	48.6
MA	45.8	44.0	47.6
MI	41.8	39.7	43.9
MN	50.4	47.5	53.3
MS	38.4	36.1	40.7

INFLUENZA VACCINATION WITHIN PAST YEAR*			
	Percent	L 95% CI	U 95% CI
State	42.3	41.8	42.8
MO	45.1	41.8	48.3
MT	40.9	38.5	43.4
NE	51.3	49.0	53.6
NV	29.6	26.1	33.0
NH	49.4	46.9	51.9
NJ	39.9	37.7	42.1
NM	42.3	39.5	45.0
NY	43.9	41.3	46.5
NC	47.3	45.4	49.1
ND	45.4	42.7	48.0
OH	42.0	40.0	44.0
OK	51.3	49.0	53.7
OR	43.2	40.6	45.9
PA	43.2	40.9	45.4
RI	49.9	47.0	52.9
SC	42.9	40.2	45.5
SD	53.6	51.0	56.2
TN	42.7	39.6	45.8
TX	42.1	39.6	44.6
UT	48.6	45.4	51.8
VT	46.9	44.7	49.1
VA	48.0	44.5	51.4
WA	44.2	42.8	45.5
WV	46.5	43.6	49.4
WI	44.4	41.3	47.6
WY	44.8	42.7	46.8

PNEUMOCOCCAL IMMUNIZATION EVER AMONG PERSONS AT RISK**			
	Percent	L 95% CI	U 95% CI
State	32.9	32.1	33.7
AL	32.9	28.9	36.8
AK	39.3	31.6	47.0
AZ	35.4	28.7	42.1
AR	31.4	27.5	35.4
CA	29.0	25.7	32.2
CO	37.9	34.5	41.3
CT	27.8	23.1	32.4
DE	29.0	24.1	34.0
DC	31.5	26.4	36.6
FL	30.4	25.9	34.9
GA	33.0	28.7	37.2
HI	30.5	26.0	35.1
ID	31.4	27.1	35.7
IL	26.4	22.2	30.6
IN	34.2	29.6	38.8
IA	36.2	32.0	40.5
KS	31.8	28.6	34.9
KY	33.4	30.0	36.8
LA	36.9	33.1	40.7
ME	35.0	31.2	38.7
MD	35.2	31.4	39.0
MA	35.7	32.8	38.7
MI	35.7	32.5	38.9
MN	32.1	27.7	36.5
MS	33.4	30.2	36.5

PNEUMOCOCCAL IMMUNIZATION EVER AMONG PERSONS AT RISK**			
	Percent	L 95% CI	U 95% CI
State	32.9	32.1	33.7
MO	34.4	29.9	38.9
MT	37.5	33.2	41.8
NE	35.5	31.5	39.5
NV	34.2	28.0	40.3
NH	37.8	33.6	42.0
NJ	27.6	24.3	30.9
NM	33.3	29.0	37.7
NY	30.0	26.0	33.9
NC	34.5	31.8	37.2
ND	37.7	33.2	42.2
OH	33.0	30.0	36.0
OK	39.7	36.3	43.1
OR	40.6	36.0	45.3
PA	35.5	32.0	39.1
RI	32.6	28.3	36.9
SC	38.9	34.8	43.0
SD	32.9	28.7	37.0
TN	33.6	29.4	37.8
TX	33.2	29.2	37.2
UT	36.4	30.8	41.9
VT	37.3	33.5	41.2
VA	33.9	29.4	38.4
WA	38.1	35.7	40.4
WV	41.7	37.6	45.8
WI	33.2	28.2	38.1
WY	35.8	32.5	39.0

UP TO DATE WITH SELECT CLINICAL PREVENTIVE SERVICES, WOMEN*			
	Percent	L 95% CI	U 95% CI
State	25.9	25.3	26.4
AL	24.2	21.1	27.2
AK	21.9	16.3	27.5
AZ	22.8	18.1	27.5
AR	21.6	18.7	24.4
CA	25.8	23.5	28.2
CO	29.2	27.0	31.3
CT	31.2	27.7	34.7
DE	—	—	—
DC	28.5	24.7	32.3
FL	21.1	18.4	23.8
GA	26.0	23.1	29.0
HI	27.0	23.8	30.3
ID	22.5	19.5	25.6
IL	19.8	16.9	22.7
IN	21.6	18.4	24.9
IA	29.7	26.6	32.7
KS	27.0	24.7	29.4
KY	25.1	22.5	27.7
LA	23.5	20.9	26.1
ME	34.9	32.0	37.7
MD	30.0	27.3	32.7
MA	32.0	29.8	34.1
MI	28.3	25.9	30.8
MN	32.8	29.3	36.3
MS	19.5	17.2	21.8

Delaware data not available for women

UP TO DATE WITH SELECT CLINICAL PREVENTIVE SERVICES, WOMEN*			
	Percent	L 95% CI	U 95% CI
State	25.9	25.3	26.4
MO	24.5	21.0	28.1
MT	21.4	18.9	24.0
NE	29.7	26.8	32.5
NV	14.4	11.4	17.4
NH	33.2	30.1	36.2
NJ	24.7	22.2	27.1
NM	20.5	17.7	23.4
NY	25.7	23.0	28.3
NC	31.8	29.6	34.0
ND	25.2	22.2	28.2
OH	24.8	22.6	26.9
OK	24.2	21.8	26.6
OR	27.3	24.2	30.3
PA	25.6	23.2	28.0
RI	32.8	29.4	36.1
SC	27.8	24.8	30.8
SD	32.5	29.3	35.7
TN	25.6	22.2	28.9
TX	24.7	22.2	27.2
UT	28.1	24.2	32.0
VT	29.9	27.3	32.6
VA	34.7	30.1	39.4
WA	27.4	25.8	28.9
WV	24.3	21.2	27.4
WI	28.9	25.2	32.7
WY	22.0	19.7	24.2

UP TO DATE WITH SELECT CLINICAL PREVENTIVE SERVICES, MEN*			
	Percent	L 95% CI	U 95% CI
State	26.5	25.8	27.2
AL	22.3	18.5	26.1
AK	25.2	19.0	31.5
AZ	27.5	20.2	34.7
AR	27.4	23.3	31.5
CA	22.7	20.0	25.3
CO	29.6	27.0	32.2
CT	32.9	28.6	37.2
DE	30.5	24.8	36.1
DC	30.5	25.6	35.3
FL	23.3	19.2	27.5
GA	22.6	18.6	26.5
HI	27.9	23.9	32.0
ID	22.8	19.1	26.5
IL	23.2	19.2	27.2
IN	22.9	18.7	27.1
IA	29.4	25.7	33.1
KS	25.9	23.1	28.6
KY	29.2	25.1	33.2
LA	25.4	21.7	29.2
ME	35.2	31.8	38.6
MD	32.6	29.1	36.1
MA	35.2	32.5	38.0
MI	27.3	24.3	30.2
MN	32.7	28.6	36.8
MS	23.0	19.9	26.2

UP TO DATE WITH SELECT CLINICAL PREVENTIVE SERVICES, MEN*			
	Percent	L 95% CI	U 95% CI
State	26.5	25.8	27.2
MO	24.1	19.9	28.3
MT	23.8	20.5	27.0
NE	28.5	25.0	32.0
NV	16.9	12.3	21.5
NH	34.3	30.6	38.0
NJ	26.3	23.2	29.3
NM	23.4	19.8	27.1
NY	31.6	27.8	35.5
NC	30.4	27.7	33.0
ND	22.0	18.6	25.4
OH	25.0	22.4	27.7
OK	26.6	23.2	29.9
OR	27.3	23.6	30.9
PA	26.1	22.9	29.3
RI	30.7	26.4	35.0
SC	28.9	25.0	32.8
SD	30.2	26.6	33.8
TN	25.5	21.1	29.8
TX	24.5	21.1	27.9
UT	31.5	27.1	35.9
VT	32.9	29.7	36.1
VA	29.3	24.3	34.2
WA	28.9	27.0	30.8
WV	26.9	22.8	31.0
WI	26.3	22.2	30.4
WY	23.2	20.7	25.8

NO LEISURE-TIME PHYSICAL ACTIVITY WITHIN PAST MONTH*			
	Percent	L 95% CI	U 95% CI
State	27.1	26.7	27.6
AL	33.9	31.4	36.5
AK	27.3	22.9	31.6
AZ	21.1	17.7	24.5
AR	33.8	31.2	36.5
CA	23.6	21.7	25.6
CO	19.0	17.6	20.5
CT	23.4	20.9	25.9
DE	23.9	20.8	26.9
DC	23.0	20.1	25.8
FL	27.1	24.3	29.8
GA	28.5	25.9	31.1
HI	20.1	17.8	22.4
ID	23.5	21.1	25.9
IL	29.7	26.8	32.7
IN	32.0	29.0	35.0
IA	26.4	24.1	28.7
KS	27.6	25.8	29.4
KY	34.5	32.1	36.9
LA	31.7	29.3	34.1
ME	23.0	21.1	24.9
MD	24.8	22.7	26.9
MA	23.3	21.8	24.8
MI	25.0	23.2	26.8
MN	20.0	17.7	22.4
MS	35.4	33.2	37.7

NO LEISURE-TIME PHYSICAL ACTIVITY WITHIN PAST MONTH*			
	Percent	L 95% CI	U 95% CI
State	27.1	26.7	27.6
MO	31.1	28.2	33.9
MT	22.9	20.8	24.9
NE	25.0	23.1	27.0
NV	29.8	26.0	33.6
NH	22.8	20.7	24.9
NJ	26.8	24.8	28.8
NM	24.2	21.7	26.6
NY	29.6	27.2	32.1
NC	27.9	26.3	29.6
ND	26.5	24.1	28.8
OH	28.3	26.5	30.1
OK	35.5	33.3	37.7
OR	20.7	18.4	22.9
PA	28.3	26.3	30.3
RI	25.5	23.0	28.1
SC	28.4	26.0	30.8
SD	26.8	24.5	29.0
TN	32.0	29.1	34.9
TX	32.4	30.0	34.9
UT	21.9	19.2	24.6
VT	19.8	18.0	21.6
VA	23.5	20.9	26.0
WA	18.6	17.6	19.7
WV	33.7	31.0	36.4
WI	23.5	20.9	26.1
WY	26.5	24.7	28.4

SMOKING – CURRENT*			
	Percent	L 95% CI	U 95% CI
State	18.4	18.0	18.8
AL	23.7	21.3	26.2
AK	19.0	15.6	22.5
AZ	17.1	14.0	20.2
AR	21.3	19.1	23.6
CA	13.5	12.0	15.1
CO	14.8	13.5	16.1
CT	13.9	12.0	15.9
DE	19.4	16.2	22.5
DC	18.3	15.8	20.8
FL	19.2	16.9	21.6
GA	20.5	18.1	22.9
HI	15.3	13.2	17.5
ID	15.7	13.7	17.8
IL	21.3	18.7	24.0
IN	24.4	21.6	27.3
IA	18.9	16.8	21.0
KS	17.1	15.6	18.7
KY	23.7	21.5	26.0
LA	18.7	16.7	20.7
ME	16.1	14.4	17.7
MD	16.1	14.4	17.9
MA	15.3	14.1	16.6
MI	18.4	16.7	20.0
MN	18.7	16.4	21.0
MS	22.9	21.0	24.9

SMOKING – CURRENT*			
	Percent	L 95% CI	U 95% CI
State	18.4	18.0	18.8
MO	21.4	18.9	23.9
MT	19.0	16.9	21.1
NE	17.1	15.3	18.9
NV	23.1	19.7	26.5
NH	16.6	14.8	18.5
NJ	16.3	14.7	18.0
NM	18.4	16.2	20.7
NY	18.4	16.4	20.4
NC	20.5	19.1	22.0
ND	17.1	15.1	19.1
OH	19.5	17.9	21.1
OK	25.7	23.6	27.7
OR	14.7	12.8	16.7
PA	20.3	18.4	22.1
RI	16.2	14.1	18.3
SC	18.5	16.6	20.5
SD	17.8	15.8	19.7
TN	24.3	21.6	27.0
TX	19.4	17.2	21.6
UT	9.9	8.1	11.7
VT	14.2	12.7	15.8
VA	15.1	13.0	17.3
WA	14.8	13.8	15.8
WV	22.7	20.3	25.2
WI	18.4	16.0	20.8
WY	18.3	16.7	19.9

BINGE DRINKING WITHIN PAST 30 DAYS*			
	Percent	L 95% CI	U 95% CI
State	10.6	10.2	10.9
AL	8.7	7.0	10.3
AK	12.8	9.5	16.0
AZ	10.6	7.5	13.8
AR	8.8	6.9	10.7
CA	11.4	9.9	12.8
CO	9.9	8.7	11.0
CT	11.6	9.7	13.5
DE	13.7	10.6	16.7
DC	8.5	6.8	10.2
FL	10.2	8.3	12.0
GA	8.7	7.0	10.4
HI	13.3	11.2	15.3
ID	9.7	8.0	11.5
IL	12.9	10.7	15.1
IN	11.1	9.1	13.2
IA	14.3	12.4	16.3
KS	8.9	7.7	10.2
KY	7.0	5.5	8.5
LA	9.5	8.0	11.0
ME	10.8	9.3	12.3
MD	9.6	8.2	10.9
MA	12.2	11.0	13.4
MI	12.9	11.5	14.4
MN	14.4	12.3	16.5
MS	8.0	6.5	9.4

BINGE DRINKING WITHIN PAST 30 DAYS*			
	Percent	L 95% CI	U 95% CI
State	10.6	10.2	10.9
MO	10.3	8.3	12.3
MT	13.3	11.5	15.1
NE	13.3	11.7	15.0
NV	13.5	10.6	16.5
NH	10.9	9.3	12.5
NJ	10.3	8.9	11.7
NM	9.3	7.5	11.2
NY	9.9	8.5	11.4
NC	8.7	7.6	9.8
ND	13.9	11.9	15.9
OH	10.9	9.6	12.2
OK	8.2	6.9	9.6
OR	9.8	8.2	11.4
PA	10.1	8.7	11.4
RI	12.5	10.4	14.6
SC	8.8	7.4	10.3
SD	12.0	10.3	13.7
TN	7.9	6.0	9.8
TX	11.0	9.3	12.8
UT	6.2	4.8	7.6
VT	10.6	9.2	12.0
VA	7.6	5.9	9.2
WA	11.1	10.1	12.0
WV	5.0	3.7	6.2
WI	15.8	13.5	18.2
WY	11.5	10.2	12.9

OBESITY – CURRENT*			
	Percent	L 95% CI	U 95% CI
State	31.7	31.2	32.2
AL	35.4	32.7	38.1
AK	30.9	26.3	35.4
AZ	26.3	22.3	30.2
AR	36.4	33.6	39.2
CA	31.1	29.0	33.1
CO	23.1	21.5	24.7
CT	24.7	22.1	27.3
DE	33.6	29.9	37.3
DC	28.4	25.2	31.5
FL	30.3	27.4	33.2
GA	32.1	29.4	34.9
HI	24.9	22.4	27.4
ID	30.6	27.9	33.2
IL	32.2	29.2	35.2
IN	36.5	33.3	39.7
IA	31.7	29.2	34.2
KS	35.0	33.0	37.0
KY	36.0	33.4	38.5
LA	35.0	32.5	37.6
ME	31.2	29.0	33.4
MD	32.4	30.1	34.6
MA	24.8	23.3	26.4
MI	34.5	32.5	36.6
MN	30.1	27.3	32.8
MS	36.9	34.5	39.2

OBESITY – CURRENT*			
	Percent	L 95% CI	U 95% CI
State	31.7	31.2	32.2
MO	34.0	30.9	37.2
MT	26.1	23.9	28.3
NE	32.6	30.4	34.8
NV	31.6	27.7	35.4
NH	27.4	25.2	29.7
NJ	28.7	26.7	30.8
NM	27.7	25.1	30.3
NY	29.1	26.7	31.5
NC	34.5	32.7	36.3
ND	33.3	30.7	35.9
OH	33.8	31.9	35.7
OK	36.1	33.8	38.4
OR	28.9	26.4	31.5
PA	33.2	30.9	35.4
RI	27.3	24.6	30.0
SC	35.7	33.1	38.3
SD	33.4	30.9	35.8
TN	35.3	32.3	38.4
TX	32.5	30.1	34.9
UT	31.6	28.5	34.7
VT	25.3	23.4	27.3
VA	32.7	29.3	36.1
WA	30.8	29.5	32.1
WV	38.3	35.4	41.2
WI	28.9	26.1	31.7
WY	30.5	28.6	32.5

Note: Only 39 states are included

HIGH BLOOD PRESSURE EVER†				HIGH BLOOD PRESSURE EVER†			
	Percent	L 95% CI	U 95% CI		Percent	L 95% CI	U 95% CI
State	40.4	39.8	40.9	State	40.4	39.8	40.9
AL	49.3	46.6	52.0	MO	44.6	40.9	48.2
AK	35.4	30.0	40.8	MT	33.5	31.0	35.9
AZ	38.0	33.5	42.5	NE	40.5	37.5	43.5
AR	44.8	42.2	47.5	NV	41.0	37.0	44.9
CA	36.4	33.5	39.3	NH	37.5	35.0	40.0
CO	33.4	31.7	35.2	NJ	38.0	35.0	40.9
CT	33.4	31.0	35.9	NM	36.4	33.7	39.0
DE	42.3	38.6	46.0	NY	41.0	38.3	43.7
DC	44.2	40.7	47.8	NC	44.0	42.2	45.9
FL	38.1	36.2	40.1	ND	35.7	33.0	38.4
GA	47.1	44.6	49.7	OH	39.5	37.5	41.5
HI	39.8	36.9	42.6	OK	46.0	43.5	48.5
ID	37.9	35.0	40.8	OR	37.8	35.2	40.5
IL	41.4	38.5	44.4	PA	39.5	37.0	42.0
IN	43.1	40.2	45.9	RI	41.0	37.8	44.1
IA	38.6	36.0	41.3	SC	43.7	41.6	45.8
KS	36.9	34.8	38.9	SD	35.8	33.4	38.3
KY	46.3	43.3	49.3	TN	48.1	44.8	51.4
LA	47.3	44.8	49.9	TX	43.1	41.2	45.1
ME	38.6	36.3	40.8	UT	33.7	30.7	36.7
MD	41.6	39.0	44.1	VT	32.2	30.1	34.2
MA	36.8	35.0	38.6	VA	42.3	39.1	45.5
MI	40.9	38.6	43.2	WA	36.3	35.0	37.5
MN	32.9	30.2	35.6	WV	44.4	41.5	47.2
MS	51.1	48.7	53.5	WI	39.1	36.2	41.9
				WY	34.7	32.4	36.9

MODERATE DEPRESSIVE SYMPTOMS WITHIN PAST TWO WEEKS*				MODERATE DEPRESSIVE SYMPTOMS WITHIN PAST TWO WEEKS*			
	Percent	L 95% CI	U 95% CI		Percent	L 95% CI	U 95% CI
State	9.3	8.8	9.8	State	9.3	8.8	9.8
AL	13.7	11.2	16.3	MO	10.6	8.5	12.7
AK	5.7	3.4	8.0	MT	6.8	5.5	8.2
AZ	—	—	—	NE	6.3	4.5	8.0
AR	11.6	9.8	13.3	NV	9.9	7.3	12.5
CA	10.9	8.7	13.2	NH	7.2	5.8	8.6
CO	—	—	—	NJ	—	—	—
CT	6.3	4.7	7.9	NM	10.8	8.9	12.6
DE	8.3	6.3	10.4	NY	—	—	—
DC	6.3	4.4	8.1	NC	—	—	—
FL	8.1	6.8	9.3	ND	6.0	4.3	7.8
GA	9.9	8.4	11.5	OH	—	—	—
HI	7.6	6.0	9.3	OK	12.2	10.4	13.9
ID	—	—	—	OR	6.9	5.5	8.3
IL	—	—	—	PA	—	—	—
IN	10.7	9.0	12.4	RI	9.0	7.1	10.9
IA	5.1	3.8	6.4	SC	9.9	8.5	11.3
KS	6.5	5.0	8.0	SD	—	—	—
KY	—	—	—	TN	11.4	9.2	13.7
LA	9.0	7.5	10.6	TX	10.7	8.0	13.4
ME	5.4	4.1	6.8	UT	8.7	6.8	10.6
MD	7.0	5.2	8.8	VT	6.0	4.9	7.1
MA	—	—	—	VA	5.1	4.0	6.3
MI	10.3	8.7	12.0	WA	6.1	5.1	7.1
MN	6.1	4.7	7.6	WV	15.2	12.9	17.5
MS	13.6	11.7	15.6	WI	6.1	4.7	7.5
				WY	8.7	7.1	10.3

* Based on 2008 data from 50 states and the District of Columbia
† Had home blood stool test within past year or colonoscopy or sigmoidoscopy within past 10 years
‡ Based on 2007 data from 50 states and the District of Columbia
§ Smoke currently or have diabetes, asthma or cardiovascular disease
‡ Based on 2006 data from 38 states and the District of Columbia

Source: Behavioral Risk Factor Surveillance System

Appendix D:

Key Issues and Related Recommendations from National Expert Panels

A firm grounding in science was one of the key guiding principles of this Report. To that end, recommendations made from two national expert panels, the U.S. Preventive Services Task Force (USPSTF) and the Task Force on Community Preventive Services, comprise the underpinnings of indicator selection and strategies used to build community-clinical partnerships for preventive services. For recommendations regarding immunization of children and adults, the USPSTF defers to the Centers for Disease Control and Prevention's Advisory Committee on Immunization Practices (ACIP). Each of these panels is introduced briefly below, followed by tables summarizing their recommendations for the 14 indicators in the Report. To date, no recommendations have been promulgated regarding up-to-date measures.

U.S. Preventive Services Task Force

Public Law 915 charges AHRQ to oversee the US Preventive Services Task Force (USPSTF), an independent panel of private sector experts on prevention and primary care, to conduct an impartial assessment of the scientific evidence for effectiveness of a broad range of clinical preventive services. The USPSTF evaluates the benefits of incorporating Clinical Preventive Services in routine primary medical care for individual services based on age, gender, and risk factors. The Task Force grades the strength of the evidence for delivery in clinical settings from A, strongly recommend, to I, insufficient evidence to recommend.¹ Results are published in *The Guide to Clinical Preventive Services*.

Task Force on Community Preventive Services

The Task Force on Community Preventive Services is an independent, nongovernmental, volunteer body of public health and prevention experts, whose members are appointed by the Director of CDC. Its role is to oversee systematic reviews led by CDC scientists, carefully consider and summarize results, recommend interventions that promote population health, and identify areas for more research.² Summaries of these reviews, published in *The Guide to*

Community Preventive Services, share what is known about the effectiveness, economic efficiency, and feasibility of interventions to promote community health and prevent disease.

Advisory Committee on Immunization Practices

The Advisory Committee on Immunization Practices (ACIP) consists of immunization experts who have been selected by the Secretary of the U.S. Department of Health and Human Services. The Committee provides advice and guidance to the Secretary, the Assistant Secretary for Health, and the Centers for Disease Control and Prevention on the control of vaccine-preventable diseases. The Committee develops written recommendations for the routine administration of vaccines to children and adults in the civilian population, including age for vaccine administration, number of doses and dosing interval, and precautions and contraindications. The ACIP is the only entity in the federal government that makes such recommendations.³

¹ U.S. Preventive Services Task Force. About USPSTF. U.S. Department of Health and Human Services, Agency for Healthcare Quality and Research Web site. Available at: www.ahrq.gov/clinic/uspstfab.htm.

² Centers for Disease Control and Prevention. The Task Force on Community Preventive Services. U.S. Department of Health and Human Services, Centers for Disease Control and Prevention Web site. Available at: www.thecommunityguide.org/about/task-force-members.html.

³ Centers for Disease Control and Prevention. Recommendations and Guidelines: Advisory Committee on Immunization Practices (ACIP). U.S. Department of Health and Human Services, Centers for Disease Control and Prevention Web site. Available at: www.cdc.gov/vaccines/recs/ACIP/default.htm.

TABLE A: RECOMMENDATIONS RELATED TO SCREENINGS AND RISK FACTORS

	ISSUE	U.S. PREVENTIVE SERVICES TASK FORCE	TASK FORCE ON COMMUNITY PREVENTIVE SERVICES
SCREENINGS	Breast cancer screening	Recommends screening mammography, with or without clinical breast examination, every one to two years for women aged 40 and older (Rating: B)	Recommends interventions that include one-on-one education provided in person or by telephone to encourage individuals to be screened for cancer Recommends interventions that reduce structural barriers such as distance from screening location, limited hours of operation, no daycare for children, and language and cultural factors Recommends interventions that reduce out-of-pocket costs to clients, such as those that reduce the costs of the screening tests, provide vouchers, reimburse clients or clinics, and/or reduce health insurance costs
	Cervical cancer screening	Strongly recommends screening for cervical cancer in women who have been sexually active and have a cervix (Rating: A) NOTE: Recommends against routine Pap smear screening in women who have had a total hysterectomy for benign disease (Rating: D)	Recommends interventions that include one-on-one education provided in person or by telephone to encourage individuals to be screened for cancer
	Colorectal cancer screening	Strongly recommends that clinicians screen men and women 50 years of age or older for colorectal cancer (Rating: A)	Recommends interventions that reduce structural barriers such as distance from screening location, limited hours of operation, no daycare for children, and language and cultural factors
	Cholesterol screening	Men: Strongly recommends screening men aged 35 years and older and for lipid disorders (Rating: A) Women: Strongly recommends screening women aged 45 years and older for lipid disorders if they are at increased risk for coronary heart disease (Rating: A)	Not available
RISK FACTORS	Physical inactivity	Concludes there is insufficient evidence to recommend for or against behavioral counseling in primary care settings to promote physical activity (Rating: I)	For worksites, recommends point-of-decision prompts to encourage use of stairs, and creation of or enhanced access to places for physical activity, combined with informational outreach activities
	Smoking	Strongly recommends that clinicians screen all adults for tobacco use and provide cessation interventions for those who use tobacco products (Rating: A)	For worksites, recommends implementing smoke-free policies to reduce tobacco use among workers, and providing incentives and competitions to increase smoking cessation when combined with additional interventions
	Binge drinking	Recommends screening and behavioral counseling interventions to reduce alcohol misuse by adults in primary care (Rating: B)	Not available
	Obesity	Recommends that clinicians screen all adult patients for obesity and offer intensive counseling and behavioral interventions to promote sustained weight loss for obese adults (Rating: B)	For worksites, recommends programs intended to improve diet and/or physical activity behaviors based on strong evidence of their effectiveness for reducing weight among employees Recommends behavioral interventions that reduce screen time by limiting time spent playing video or computer games, surfing the Internet, and/or watching TV, videotapes, or DVDs
	High blood pressure	Recommends screening for high blood pressure in adults aged 18 and older (Rating: A)	Not available
	Moderate depressive symptoms	Recommends screening adults for depression in clinical practices that have systems in place to assure accurate diagnosis, effective treatment, and follow-up (Rating: B)	Not available

TABLE B: RECOMMENDATIONS RELATED TO IMMUNIZATIONS

	ISSUE	ADVISORY COMMITTEE ON IMMUNIZATION PRACTICES	TASK FORCE ON COMMUNITY PREVENTIVE SERVICES
IMMUNIZATIONS	Influenza vaccination	Recommends that adults aged 50-64 years should receive one dose annually	Recommends multiple interventions implemented in combination To enhance uptake of flu vaccines in non-healthcare workers, recommends interventions with on-site, reduced cost, actively promoted vaccinations, such as posting signs to encourage stair use and health education classes
	Pneumococcal vaccination	Recommends that adults aged 19-64 years should receive one to two doses total	Recommends multiple interventions implemented in combination

Appendix E:

Methodology for Spotlight Selection

Interventions spotlighted in this Report were identified through a systematic process guided by the following question: What effective community-based interventions have documented increased access to and/or use of multiple clinical preventive services among adults aged 50 to 64?

Content experts, a Strategies/Intervention Expert Panel Workgroup, Steering Committee members and key stakeholders helped to develop the review process and identify search terms, databases and inclusion/exclusion criteria. Over 500 abstracts from peer-reviewed journals (year 2000 forward) were read and assessed using the following inclusion criteria:

- Serve adults, with a special emphasis on those serving adults aged 50 to 64
- Facilitate access to services delivered in the community setting, including worksites and the virtual community
- Focus on multiple clinical preventive services featured in the Report
- Demonstrate positive outcomes, including physiological and behavioral outcomes, that outweighed adverse outcomes
- Use appropriate methodology to document impact of the intervention
- Have potential for public health impact.

Once identified, potential for replicability was considered and three interventions were identified.



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