Enhancing Use of Clinical Preventive Services Among Older Adults

Closing the Gap

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This new report, ***Enhancing Use of Clinical Preventive Services Among Older Adults – Closing the Gap***, calls attention to the use of potentially lifesaving preventive services by our nation's growing population of adults aged 65 years and older. By presenting and interpreting available state and national self-reported survey data, the Report aims to raise awareness among public health and aging services professionals, policy makers, the media, and researchers of critical gaps and opportunities for increasing the use of clinical preventive services, particularly among those who are currently underserved.

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Acknowledgments

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Unfortunately, many older adults do not currently benefit from vaccinations, screenings, and other available preventive services offered covered by Medicare. Through concerted partnerships and new opportunities, we must close the current gaps so that all of our nation's older adults enjoy long, productive lives and age with dignity and strength.

Introduction

Opportunities through Health Reform

Older Americans have long been recognized as having unique social, economic, and health needs. Since the passage of the landmark Medicare Act in 1965, numerous policies and programs have evolved to support and improve the health and quality of life for adults aged 65 and older. The most recent addition is the 2010 Patient Protection and Affordable Care Act which addresses coverage for clinical preventive services with a U.S. Preventive Services Task Force (USPSTF) rating of an A or B, immunizations recommended by the Advisory Committee on Immunization Practices, and numerous additional wellness benefits for older adults. Recently issued rules to implement the legislation call for Medicare to eliminate out-of-pocket costs for previously covered preventive services in January 2011.[1] The new law also entitles Medicare beneficiaries to a free annual wellness visit that includes a schedule of recommended preventive services.[1] Additionally, a few states have already eliminated co-pays for some cancer screenings and more are poised to do so.[2]

The USPSTF recommends a range of clinical preventive services for older adults. In 2006, these services were ranked by the National Commission on Prevention Priorities (NCPP), a nonpartisan organization of business, nonprofit and government leaders convened by the Partnership for Prevention. Using innovative evidence-based methods, the NCPP identified 25 clinical preventive services that have the biggest impact on health and are most cost effective. The majority of these services are relevant to older adults aged 65 and older. Of the six top services, three are specific to this age group including colorectal cancer screening and influenza and pneumococcal vaccinations.[3]

The NCPP's work was updated recently to estimate the cost of adopting a package of 20 of the 25 recommended preventive services.[4] Among the list are seven of the eight preventive services featured in this Report (influenza and pneumococcal vaccination; screening for breast cancer, colorectal cancer, lipid disorders and osteoporosis; and smoking cessation counseling) and six of the seven additional preventive services discussed briefly (aspirin use; screening for blood pressure and cervical cancer; and screening and counseling for alcohol misuse, depression, and obesity). Findings suggest that over two million people would have been alive during 2006 if these 20 services had been used widely as recommended. This translates into longer lives for as many as 780 people in a city of 100,000 residents – all without an increase in net cost.[4]

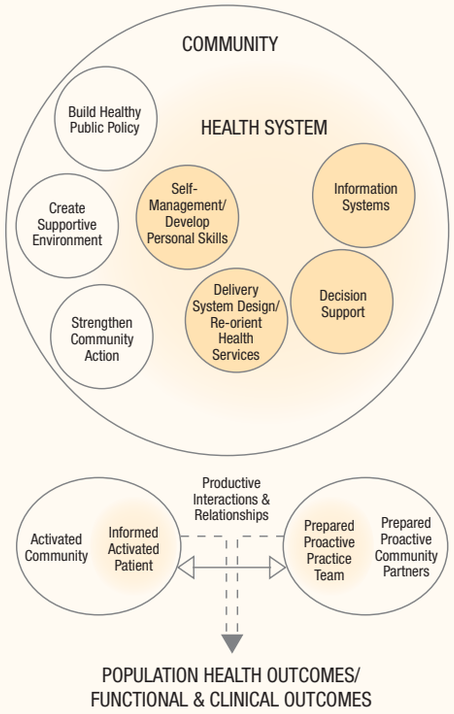
Further underscoring the significant benefits of clinical preventive services is a recent study estimating the number of deaths that could be prevented each year by increasing the use of nine recommended services, all of which pertain to older adults and are in this report: influenza and pneumococcal vaccination; screening for breast, cervical and colorectal cancer; screening for blood pressure and lipid disorders; aspirin use; and smoking cessation counseling. The study concludes that "while the benefit of expanded insurance coverage is substantial, the benefit of more consistent use of a small number of proven preventive services is even greater."[5] The use of such services should be accorded a higher priority by community and health systems alike.

Challenges for Older Adults

As the U.S. begins to implement health reform, it behooves us to take stock of current levels of use of recommended clinical preventive services by older adults. Unfortunately, in doing so, what we discover is that many of these services are woefully underutilized. While nearly 90 percent of Medicare beneficiaries visit a physician at least once a year and make an average of six visits during the year, many do not receive the full range of recommended covered preventive services. Removing the cost barrier has much potential to improve utilization rates; however, there are other significant barriers. It is unlikely that eliminating cost, by itself, will result in widespread use of these lifesaving preventive services.[6]

Major gaps in the use of clinical preventive services among groups of adults are also evident. In a public health context, these gaps or disparities can occur in the quality of health and health care across age, gender, race or ethnicity, income, education, geographic location, disability, and sexual orientation.[7] In general, low-income Americans and racial and ethnic minorities experience disproportionately higher rates of

The Expanded Chronic Care Model[16]



disease, fewer treatment options, and reduced access to care.[8] This is true for the use of evidence-based clinical preventive services among adults aged 65 years and older as well. For example, from January to March 2010, 65 percent of Hispanic adults and 61 percent of non-Hispanic black adults reported **never** having received the pneumococcal vaccination – significantly more than the 35 percent of non-Hispanic white adults of the same age who reported **never** having been vaccinated.[9]

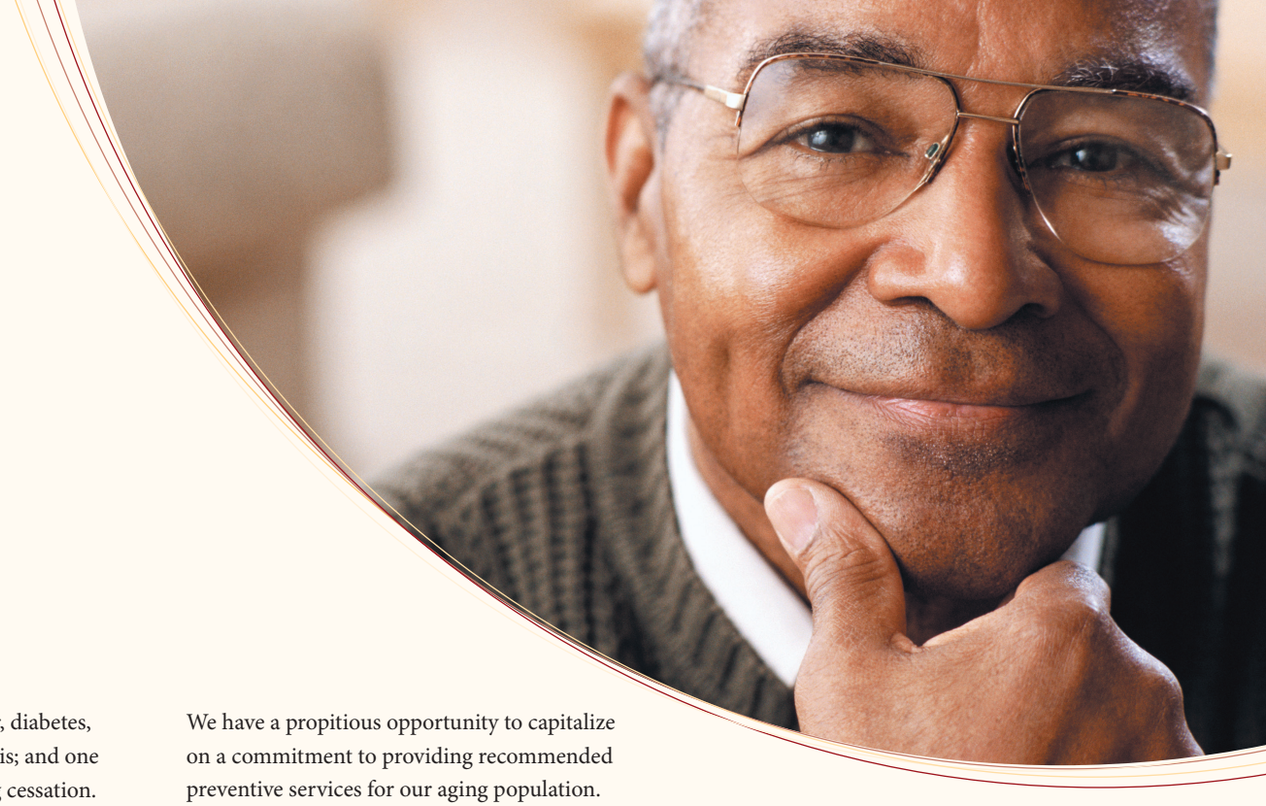
The challenges underlying these disparities are complex and reach beyond the traditional health care arena of patient-provider interactions. Older adults may not be aware of the services recommended for their age group or may not know that the services are covered by Medicare. Many do not have a primary care provider or usual source of care; those who do may not visit their provider regularly.[10] Some may face physical or social barriers that prevent them from accessing services such as transportation, disabilities, culture or language challenges; others may fear pain related to a preventive service or fear test results. Often, older adults may rely on their physicians to recommend or refer them for the services yet health care providers may not remember or take the time to promote their use.[11] Providers may also question the safety and efficacy of vaccines and other preventive services for older populations or lack familiarity with age-based recommendations.[12] Furthermore, community-based programs designed to promote the use of clinical preventive services may not be directed at segments of the population where use is especially low.

Focusing on disparities and gaps is not only a matter of social justice. It is also an expedient strategy to raise the use of preventive services by all older adults and thereby improve the overall health of the nation.[13]

Linking Community and Clinical Efforts

Addressing the complex challenges of increasing access to and use of preventive services and ensuring health equity requires collaboration across multiple spheres of influence. The respective contributions of health care systems and communities must be integrated to positively affect health outcomes.[14] Public health strategies at local, state, and national levels are needed that expand beyond individual and clinical interventions into the community to embrace long-lasting protective interventions, adopt policies that modify environments to support sustained change, and address poverty and other socioeconomic factors that impact health.[15] As depicted in the Expanded Chronic Care Model,[16] public health has a unique and vital role to play in moving from individual to population health, particularly in relation to closing gaps and disparities among underserved populations.

Around the country, public health departments are partnering with the aging services network to positively impact the lives of older adults. This network is a valuable infrastructure for the dissemination of clinical preventive services, as it touches the lives of many older adults. It is made up of state and territorial Units on Aging, Area Agencies on Aging, and Tribal and Native Hawaiian Organizations dedicated to promoting the independence, safety, and dignity of older



Americans. The Administration on Aging provides grants to the network to promote the delivery of health and social services in local communities. Combining forces of the national public health infrastructure, community-based organizations, and the aging services network affords a real opportunity to make a difference.

Using This Report

Enhancing Use of Clinical Preventive Services Among Older Adults examines recommended clinical preventive services for older adults and uses timely self-reported survey data to suggest important gaps in their use. The Report's four sections should prove particularly valuable for public health and aging services professionals, policy makers, researchers, and the media as they strive to make a difference in the lives of older adults.

- **Featured Preventive Services** looks at eight services for which sufficient data at the state or national level exist: two vaccinations that protect against influenza and pneumococcal disease; five screenings for early detection of breast cancer, colorectal cancer, diabetes, lipid disorders, and osteoporosis; and one counseling service for smoking cessation.
- **Additional Preventive Services** briefly discusses seven other services recommended for older adults: alcohol misuse screening and counseling, aspirin use, blood pressure screening, cervical cancer screening, depression screening, obesity screening and counseling, and zoster vaccination.
- **Making a Difference** addresses the implications of the survey data and offers examples of recent interventions that have successfully increased use of clinical preventive services in diverse communities.
- **References** are provided for those who wish to delve further.

We have a propitious opportunity to capitalize on a commitment to providing recommended preventive services for our aging population. By the year 2030, one of every five Americans is expected to be aged 65 years and older, with those 80 years and older constituting the fastest growing segment of the total population.[17]

Strategic data collection and monitoring can better enable states and communities to identify potential opportunities to increase the use of these services among all older adults, with particular emphasis on those who are currently underserved. It is our hope that this Report will promote continued tracking of service use, spotlight gaps in data at national and state levels, and stimulate effective programs and policies to further guarantee that all older adults receive the benefit of potentially lifesaving preventive services.

This section presents recent state and national data on the use of eight clinical preventive services: two vaccinations that protect against influenza and pneumococcal disease; five screenings for early detection of breast cancer, colorectal cancer, diabetes, lipid disorders, and osteoporosis; and one counseling service for smoking cessation.

These services were chosen carefully to include:

- Clinical preventive services that are recommended for adults aged 65 and older by the U.S. Preventive Services Task Force (i.e., received an A or B recommendation) or by the Advisory Committee on Immunization Practices; and
- Clinical preventive services for which timely and sufficient data on their use by older adults are available at the state or national level.

The U.S. Preventive Services Task Force (USPSTF) conducts scientific evidence reviews of a broad range of clinical preventive services and develops recommendations for primary care clinicians and health systems, and the Advisory Committee on Immunization Practices (ACIP) issues recommendations for the routine administration of vaccines to children and adults. Both are well-respected independent bodies of experts with long-standing experience in promulgating firmly grounded recommendations.

The information provided in this section relies on self-reported data from three surveys: the Behavioral Risk Factor Surveillance System; the Medical Expenditure Panel Survey; and the Medicare Current Beneficiary Survey. A caveat of these surveys is their reliance on self-reported information. Respondents may not accurately remember which services they received or when they received them, particularly as they age. Additionally, adults may tend to avoid reporting socially undesirable behaviors such as smoking. In such instances, subsequent survey questions that ask about screening, and counseling for such behaviors would be missed.

For six of the services, state level data are available from the Behavioral Risk Factor Surveillance System. When appropriate, data are displayed on U.S. maps showing *The State-by-State Picture*. Additionally, graphs are shown depicting *Critical Gaps* in the use of the preventive services among major racial and ethnic groups. For some of the indicators, additional significant disparities related to gender, insurance coverage, or education are also noted.

A unique feature of this Report is its focus on the relative gaps or inequalities related to the use of clinical preventive services. To highlight these gaps, the indicators and data are cast in terms of adults **not** receiving a featured service, be it vaccination, screening, or counseling. Current gaps are made evident by comparing groups **not** receiving the service with the group that has the **lowest** (or "best") rate.

Complementing the data are brief profiles highlighting why the clinical preventive service is of value or *Why This Matters*. Many efforts are currently underway to support increased access to and use of clinical preventive services. Thanks to submissions from supporting agencies and their partners, a sampling of this work is shared to provide a foundation for action. Some of the examples provided fall outside of current Medicare payment policies. Additional examples of proven effective community-based interventions are included in a later section of the Report titled *Making a Difference*.

Detailed descriptions of the surveys and analytic methods can be found in *Appendix A: Data Sources and Statistical Methods*. The tables in *Appendix B: State-by-State Data with Confidence Intervals* itemize statistics for each state, the District of Columbia and, where available, the U.S. territories. When drawing comparisons, confidence intervals should be used because differences may not be significant if the confidence intervals overlap.

Additional resources on the 15 preventive services addressed in this Report are located in *Appendix C: Resources*.

Featured Preventive Services

SUMMARY OF FEATURED SERVICES, RECOMMENDATIONS AND INDICATORS

	SERVICES	RECOMMENDATIONS	INDICATORS*
VACCINATIONS	Influenza vaccination	The ACIP recommends annual influenza vaccination for all persons aged six months and older.[1]	Percent of adults aged 65 and older who reported **not** having an influenza vaccination within the past year
	Pneumococcal vaccination	The ACIP recommends pneumococcal vaccination of all persons aged 65 and older, including previously unvaccinated persons and persons who have not received vaccine within five years (and were less than 65 years of age at the time of vaccination).[1]	Percent of adults aged 65 and older who reported **not** ever having a pneumococcal vaccination
SCREENINGS	Breast cancer screening	The USPSTF recommends biennial screening mammography for women aged 50 to 74 years.[2]	Percent of women aged 65 to 74 who reported **not** having a mammogram within the past two years
	Colorectal cancer screening	The USPSTF recommends screening for colorectal cancer using fecal occult blood testing (FOBT), sigmoidoscopy, or colonoscopy for adults beginning at age 50 and continuing until age 75. The risks and benefits of these screening methods vary.[3]	Percent of adults aged 65 to 75 who reported **not** having: a home blood stool test (using FOBT) within the past year; sigmoidoscopy within the past five years and FOBT within three years; or a colonoscopy within the past 10 years
	Diabetes screening	The USPSTF recommends screening for type 2 diabetes of asymptomatic adults with sustained blood pressure (either treated or untreated) greater than 135/80 mm Hg.[4]	Percent of adults aged 65 and older without diagnosed diabetes who reported **not** having a test for high blood sugar or diabetes within the past three years
	Lipid disorder screening	**Men:** The USPSTF recommends lipid disorder screening for men aged 35 and older. **Women:** The USPSTF recommends lipid disorder screening for women aged 45 and older if they are at increased risk for coronary heart disease.[5]	Percent of adults aged 65 and older who reported **not** having a blood cholesterol test within the past five years
	Osteoporosis screening	The USPSTF recommends routine osteoporosis screening for women aged 65 and older, and routine screening beginning at age 60 for women at increased risk for osteoporotic fractures.[6]	Percent of women Medicare beneficiaries aged 65 and older who reported **not** ever being screened for osteoporosis with a bone mass or bone density measurement
COUNSELING	Smoking cessation counseling	The USPSTF recommends that clinicians ask all adults about tobacco use and provide tobacco cessation interventions for those who use tobacco products.[7]	Percent of current smokers aged 65 and older with a checkup in the last 12 months who reported **not** receiving advice to quit smoking

* Based on self-reported survey data

Influenza Vaccination

INDICATOR: Percent of adults aged 65 and older who reported **not** having an influenza vaccination within the past year

WHY THIS MATTERS

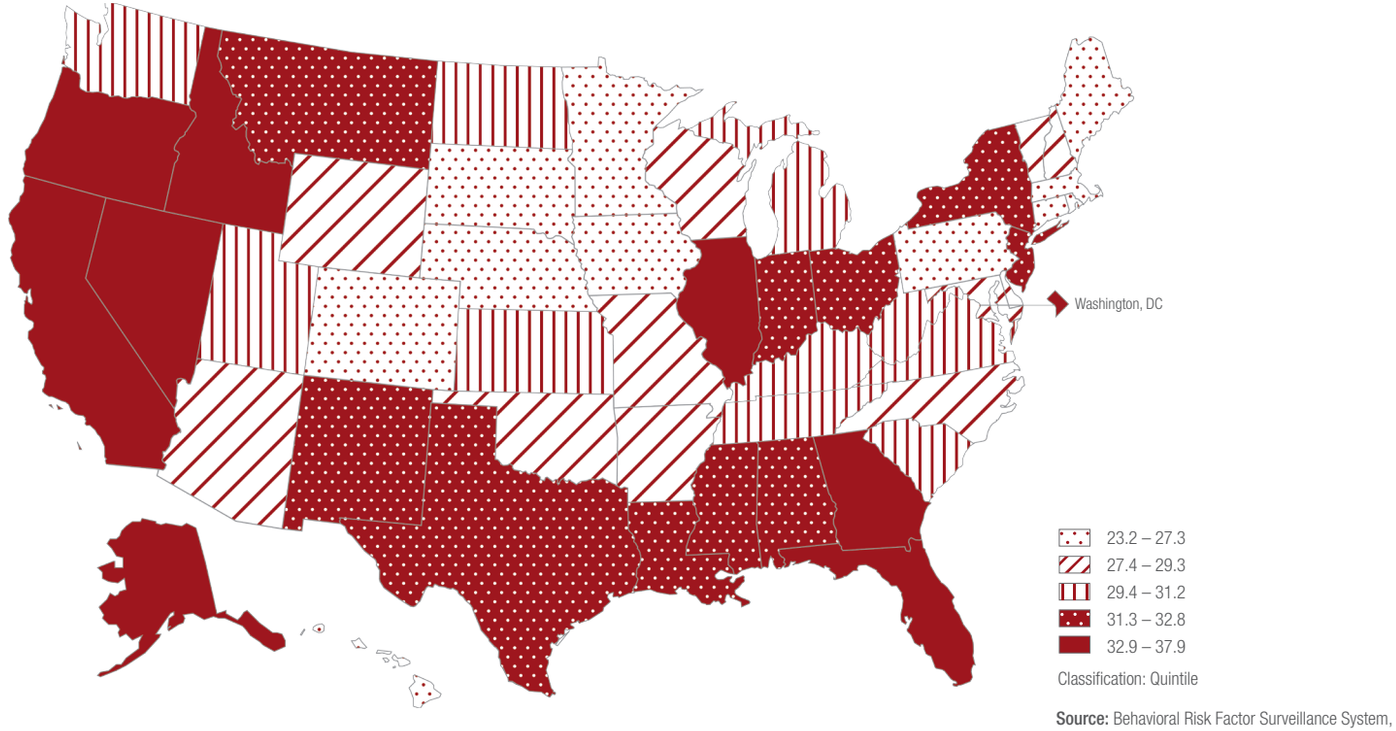
- About 85 percent of deaths and 63 percent of hospitalizations attributed to influenza occur in person 65 years of age and older.[8]
- Influenza vaccination of adults aged 65 to 79 significantly reduces hospitalizations and lowers costs, while also averting deaths.[9]

THE STATE-BY-STATE PICTURE

- More than 31 percent of older adults reported **not** receiving an influenza vaccination in the past year.
- Across states, the percent of older adults who reported **not** receiving an influenza vaccination ranged from 23 percent to 38 percent. Minnesota, Rhode Island, and Colorado had the lowest rates; Alaska, Nevada, and Idaho had the highest reported rates of **not** receiving a vaccination.

Consult Appendix B for state-by-state percentages

Percent of Adults Aged 65 and Older Who Reported Not Receiving Influenza Vaccination within Past Year, by State, 2009

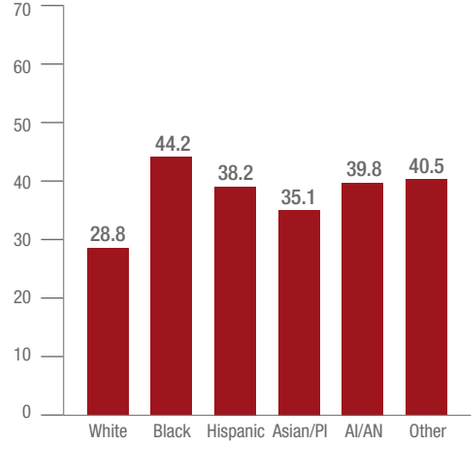


Source: Behavioral Risk Factor Surveillance System, 50 states and the District of Columbia

CRITICAL GAPS

- Forty-four percent of blacks reported **not** receiving influenza vaccinations compared to 29 percent of whites, a 15 percent difference. For Hispanics, American Indian/Alaska Natives, and Other, the difference was approximately 10 percent.
- In addition, among adults with less than a high school education, more than 37 percent reported **not** receiving an influenza vaccination in the past year, 10 percent higher than college graduates. (Data not shown.)

Percent of Adults Aged 65 and Older Who Reported Not Receiving Influenza Vaccination within Past Year, by Race/ Ethnicity, 2009*



Asian/PI = Asian/Pacific Islander

AI/AN = American Indian/Alaska Native

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

* An additional 0.4 percent of adults aged 65 and older reported only receiving Flu Mist vaccinations "sprayed in the nose."

VOTE & VAX

Vote & Vax is a public health initiative directed by the nonprofit organization SPARC (Sickness Prevention Achieved through Regional Collaboration). This initiative is funded by the Robert Wood Johnson Foundation and AARP, and SPARC works in partnership with the Centers for Disease Control and Prevention (CDC). Vote & Vax is focused on expanding protection from influenza by helping public health agencies and other licensed immunizers provide flu shots at or near polling places on Election Day. There are 186,000 polling places across the U.S. and these facilities are statutorily required to be accessible to persons with disabilities. Election Day is early in the flu shot season, and more than 120 million Americans go to the polls in Presidential election years. Approximately two-thirds of these voters are age 50 and older, a priority group for influenza vaccination.

In 2008, 21,434 persons received influenza vaccinations at 331 Vote & Vax Clinics in 42 states and the District of Columbia on Election Day; 62 percent of vaccine recipients were age 50 and older. Results indicate that 60 percent of African-American and 65 percent of Hispanic participants were not regular flu shot recipients, as compared with 42 percent of white participants – suggesting that these clinics reached underserved populations not otherwise likely to be immunized.

www.voteandvax.com

To learn more about what you can do, see ***Making a Difference***.

Pneumococcal Vaccination

INDICATOR: Percent of adults aged 65 and older who reported **not** ever having a pneumococcal vaccination

WHY THIS MATTERS

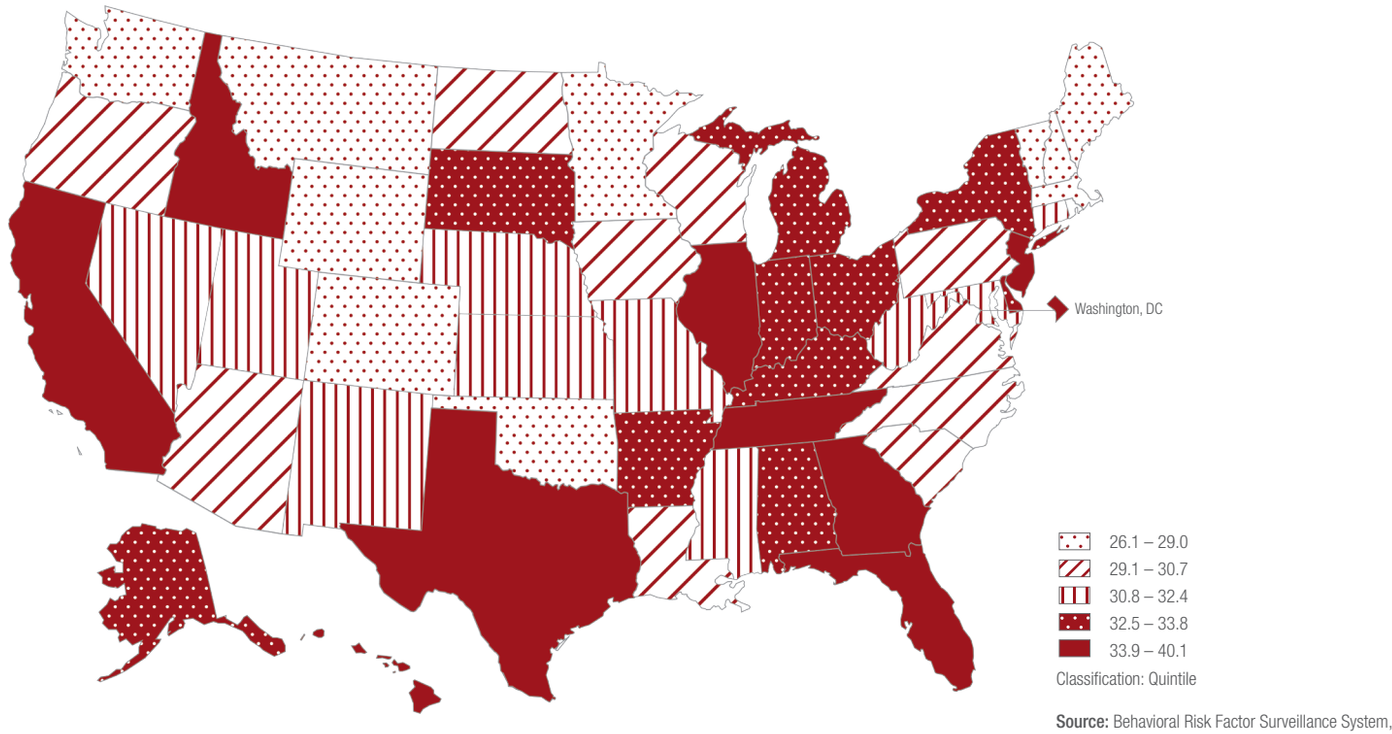
- Vaccination against pneumococcus in adults aged 65 years and older is associated with improved survival, decreased chance of respiratory failure or other complications, and decreased length of stay among hospitalized patients with community-acquired pneumonia.[10]
- Recent analyses indicate that pneumococcal vaccine is cost-effective and potentially cost-saving among adults aged 65 years and older in the prevention of bacteremia.[11]

THE STATE-BY-STATE PICTURE

- More than 33 percent of adults in this age group reported **not** ever receiving a pneumococcal vaccination.
- Across states, the percent of older adults who reported **never** receiving pneumococcal vaccination ranged from 26 percent to 40 percent. Colorado, Minnesota, and Oklahoma had the lowest rates; California, the District of Columbia, and New Jersey had the highest reported rates of **never** receiving pneumococcal vaccination.

Consult Appendix B for state-by-state percentages

Percent of Adults Aged 65 and Older Who Reported Not Ever Receiving Pneumococcal Vaccination, by State, 2009

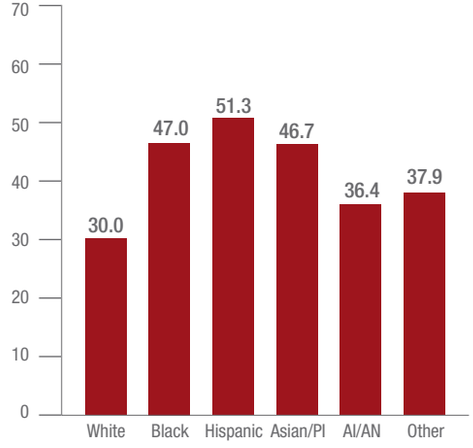


Source: Behavioral Risk Factor Surveillance System, 50 states and the District of Columbia

CRITICAL GAPS

- Fifty-one percent of Hispanics reported **not** ever receiving a pneumococcal vaccination compared to 30 percent of whites, a 21 percent difference. Furthermore, 47 percent of blacks and Asian/Pacific Islanders reported **not** ever receiving a pneumococcal vaccination, a 17 percent difference from whites.
- In addition, among adults with less than a high school education, nearly 41 percent reported **never** receiving a pneumococcal vaccination, more than 10 percent higher than those with some college education. (Data not shown.)

Percent of Adults Aged 65 and Older Who Reported Not Ever Receiving Pneumococcal Vaccination, by Race/ Ethnicity, 2009



Asian/PI = Asian/Pacific Islander

AI/AN = American Indian/Alaska Native

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

SPARC: COLLABORATING TO MAKE SERVICES CONVENIENT

Sickness Prevention Achieved through Regional Collaboration (SPARC), a New England-based nonprofit agency, has developed an effective model for overcoming critical roadblocks to higher delivery rates of preventive services in community settings. SPARC's approach is to enlist active, ongoing collaboration among local community-based organizations, government agencies, health care providers, hospitals, and others to catalyze and coordinate community-wide service delivery.

In 2006, CDC facilitated a partnership between SPARC and the Aging Services Division of the Atlanta Regional Commission to increase service delivery rates in metropolitan Atlanta. Serving as Atlanta's area agency on aging, the Aging Services Division established county-based coalitions to deliver adult screenings and vaccinations. Among the key features of the SPARC model is making services available in locations that are particularly convenient to residents' homes, places of employment, or sites they frequent in the course of daily activities such as churches, beauty salons, barbershops, polling places, public schools, and community centers. Whenever feasible, multiple services are bundled for expedient "one-stop shopping."

By offering pneumococcal vaccinations at all community influenza vaccination clinics, SPARC has doubled the annual rate of vaccination delivery. Another successful strategy has been to offer women appointments for mammography as they receive their influenza vaccination in convenient, nonclinical settings. Doing so has been shown to double the mammography rate among women attending these clinics due to proactive efforts in scheduling appointments, setting aside blocks of time on hospital mammography schedules, and providing free transportation to and from mammography sites.[12]

www.cdc.gov/pcd/issues/2008/jan/07_0139.htm

To learn more about what you can do, see ***Making a Difference***.

Breast Cancer Screening

INDICATOR: Percent of women aged 65 to 74 who reported **not** having a mammogram within the past two years

WHY THIS MATTERS

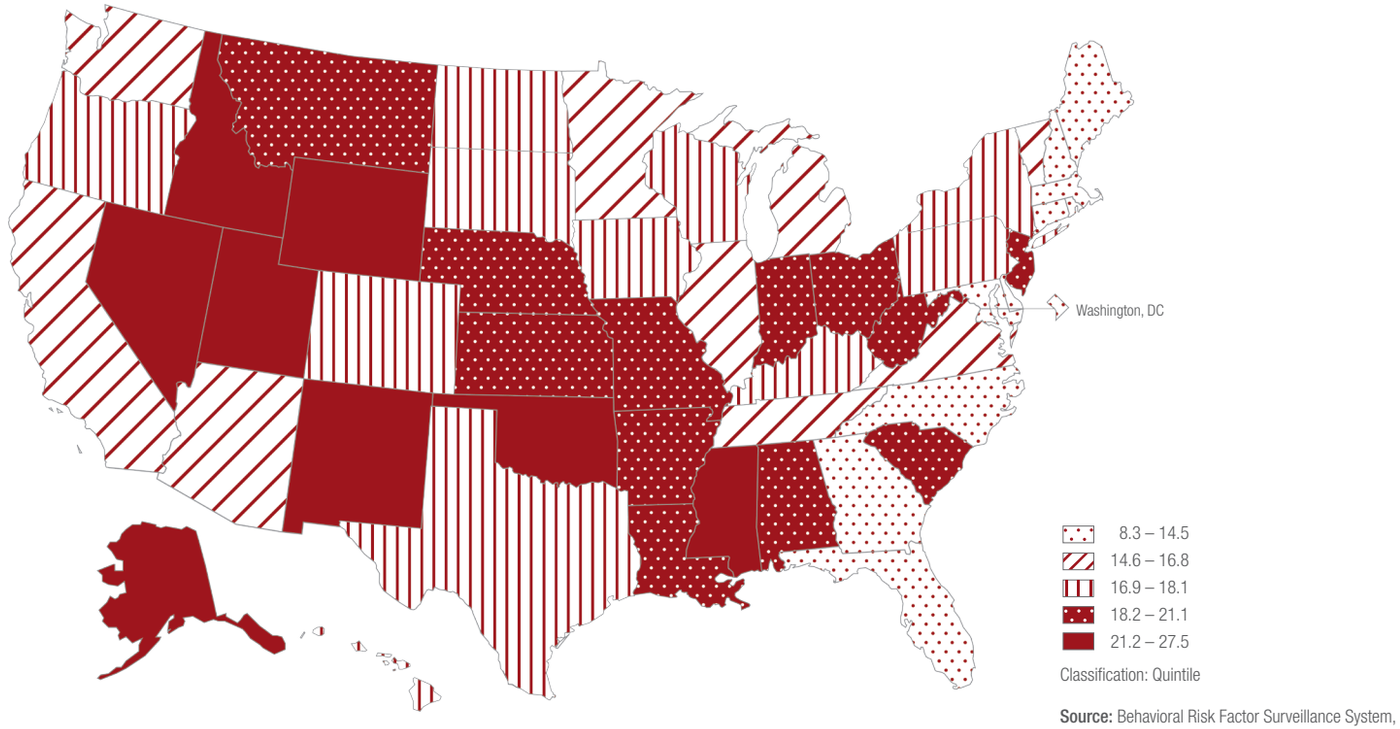
- Almost half of all new cases and nearly two-thirds of deaths from breast cancer occur in women 65 years of age and older.[13]
- Mammography screening every two years for women aged 65 to 74 has been shown to reduce mortality.[14]

THE STATE-BY-STATE PICTURE

- Nearly 17 percent of older women in this age group reported **not** receiving a mammogram within the past two years.
- Across states, the percent of women aged 65 to 74 who reported **not** receiving a mammogram ranged from eight percent to 28 percent. The District of Columbia, Maine, and Massachusetts had the lowest rates; Alaska, Wyoming, and Mississippi had the highest reported rates of women **not** receiving a mammogram.

Consult Appendix B for state-by-state percentages

Percent of Women Aged 65 to 74 Who Reported Not Receiving Mammogram within Past Two Years, by State, 2008

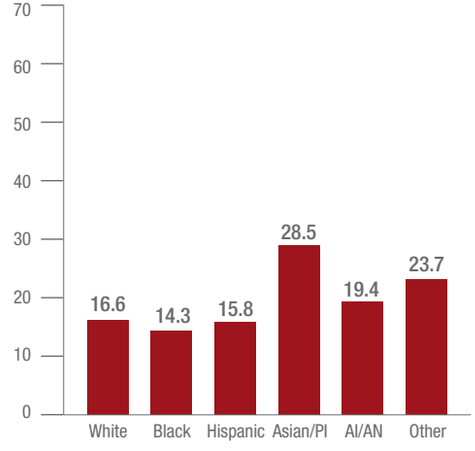


Source: Behavioral Risk Factor Surveillance System, 50 states and the District of Columbia

CRITICAL GAPS

- Twenty-nine percent of Asian/Pacific Islander older women reported **not** receiving mammography screening within the past two years compared to 14 percent of blacks, a 15 percent difference. A higher percent of white women (17 percent) reported **not** receiving screening than blacks.
- In addition, among older women with less than a high school education almost 25 percent reported **not** receiving mammography screening, nearly 12 percent higher than college graduates. (Data not shown.)

Percent of Women Aged 65 to 74 Who Reported Not Receiving Mammogram within Past Two Years, by Race/Ethnicity, 2008



Asian/PI = Asian/Pacific Islander

AI/AN = American Indian/Alaska Native

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

LA HORA DE LA ALIANZA: TAILORING RADIO MESSAGES

The Alliance for Aging, located in Southeastern Florida, has developed a radio show geared toward elder advocacy that targets the older Hispanic population. The Alliance for Aging is the area agency on aging for Miami-Dade and Monroe Counties. The radio show, called La Hora de la Alianza (Hour of the Alliance), addresses health issues and is paid for by funds received through the Older Americans Act, as well as from Coventry Health and WWFE 670 AM, the radio station that airs the show.

Every week the radio show includes a one-hour health education segment that features experts from well-respected community institutions such as the University of Miami, the Health Foundation of South Florida, and the local health department. Other community partners who have provided experts include the Alzheimer's Association and the American Heart Association. Guest experts discuss a range of issues including disease prevention and the value of clinical preventive services. Some of the specific topics covered include breast cancer screening and awareness, smoking cessation, and education and screening for heart disease and diabetes. Using an open phone line, callers can pose questions to the guest experts. Station coverage spans all of Southeast Florida and reaches millions of Hispanic individuals. La Hora de la Alianza represents a successful partnership between many community partners who have come together to improve the health of older Hispanics.

http://miamihchssol.blogspot.com/2010/06/sol-on-la-poderosa-radio-on-breast.html

To learn more about what you can do, see ***Making a Difference***.

Colorectal Cancer Screening

INDICATOR: Percent of adults aged 65 to 75 who reported **not** having: a home blood stool test (using FOBT) within the past year; sigmoidoscopy within the past five years and FOBT within three years; or a colonoscopy within the past 10 years

WHY THIS MATTERS

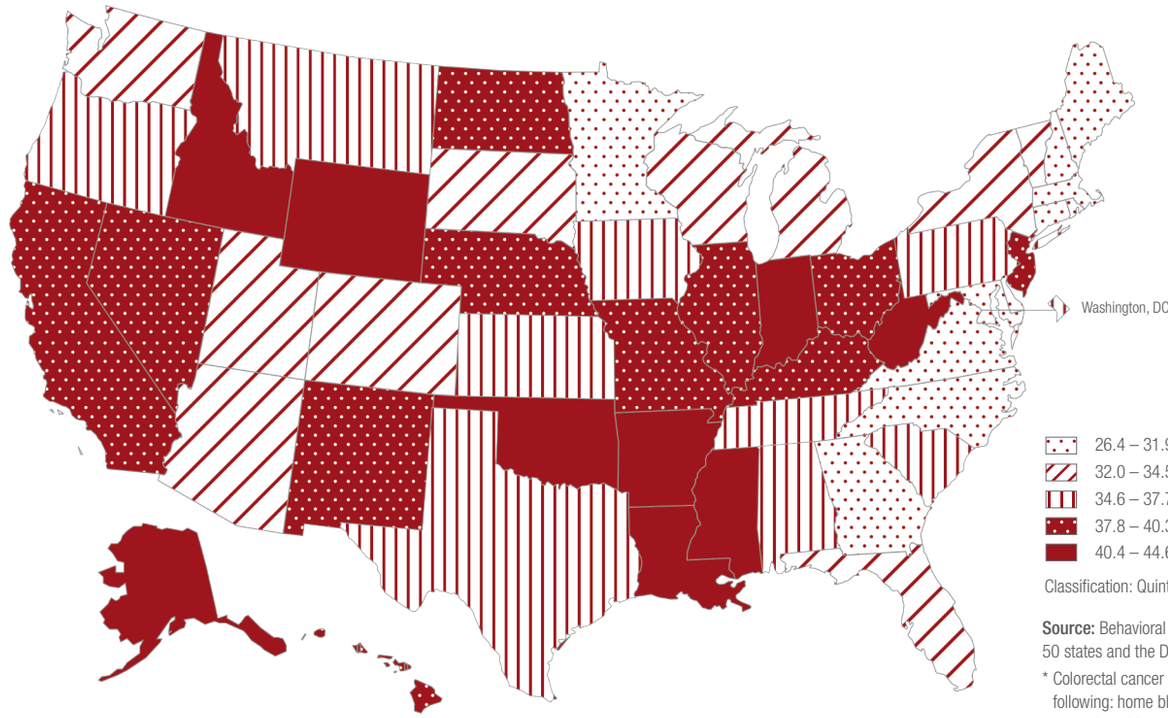
- The number of people diagnosed with colorectal cancer is predicted to increase over 50 percent by the year 2020 due to the aging of the population.[15] Currently, two-thirds of all new cases of colorectal cancer are in people aged 65 years and older.[16]
- Screening with any of the three recommended tests has been shown to reduce colorectal cancer mortality in adults aged 50 to 75 years.[15]

THE STATE-BY-STATE PICTURE

- More than 36 percent of adults in this age group reported **not** receiving colorectal cancer screening.
- Across states, the percent of adults aged 65 to 75 who reported **not** receiving colorectal cancer screening ranged from 26 percent to 45 percent. Maine, Delaware, and New Hampshire had the lowest rates; Louisiana, Idaho, and Oklahoma had the highest reported rates of **not** receiving colorectal cancer screening.

Consult Appendix B for state-by-state percentages

Percent of Adults Aged 65 to 75 Who Reported Not Receiving Colorectal Cancer Screening, by State, 2008*



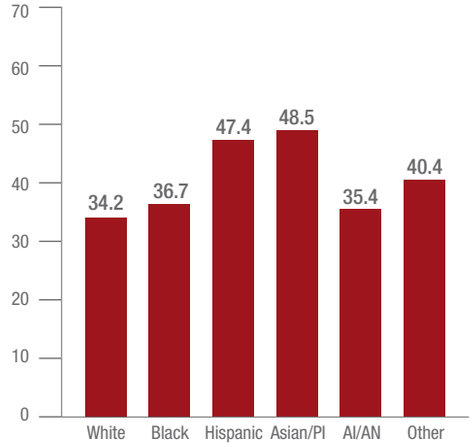
Source: Behavioral Risk Factor Surveillance System, 50 states and the District of Columbia

* Colorectal cancer screening included at least one of the following: home blood stool test (using FOBT) within past year; sigmoidoscopy within past five years and FOBT within three years; or colonoscopy within past 10 years.

CRITICAL GAPS

- Forty-nine percent of Asian/Pacific Islanders and 47 percent of Hispanics reported **not** receiving colorectal cancer screening compared to 34 percent of whites, a difference of more than 13 percent.
- In addition, 50 percent of adults with less than a high school education reported **not** receiving colorectal cancer screening compared to 29 percent of college graduates, a 21 percent difference. (Data not shown.)

Percent of Adults Aged 65 to 75 Who Reported Not Receiving Colorectal Cancer Screening, by Race/Ethnicity, 2008*



Asian/PI = Asian/Pacific Islander

AI/AN = American Indian/Alaska Native

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

* Colorectal cancer screening included at least one of the following: home blood stool test (using FOBT) within past year; sigmoidoscopy within past five years and FOBT within three years; or colonoscopy within past 10 years.

SHARING LEGISLATIVE MODELS

The ability to easily access information regarding effective models that have been implemented in other states equips policy makers with strategic direction and the rationale for promoting sound public health policies and programs in their own states and territories.

To assist legislators in more effectively addressing disease prevention and health promotion, the Association of State and Territorial Health Officials (ASTHO) compiles and highlights examples of state legislation that may serve as models for other states and territories. In the area of cancer prevention and control, ASTHO has included sample legislative language that has been enacted into law, represents action taken by a diverse collection of states, is self-contained within state statutes, and thus can be readily adapted by other states. Among the models provided is legislation designed to ensure that every health benefit policy covers colorectal cancer screening, examinations, and laboratory tests. Another model provides language limiting the amount of the co-pay for mammography screening.

www.astho.org/Programs/Prevention/Chronic-Disease/Cancer/

To learn more about what you can do, see ***Making a Difference***.

Diabetes Screening

INDICATOR: Percent of adults aged 65 and older without diagnosed diabetes who reported **not** having a test for high blood sugar or diabetes within the past three years

WHY THIS MATTERS

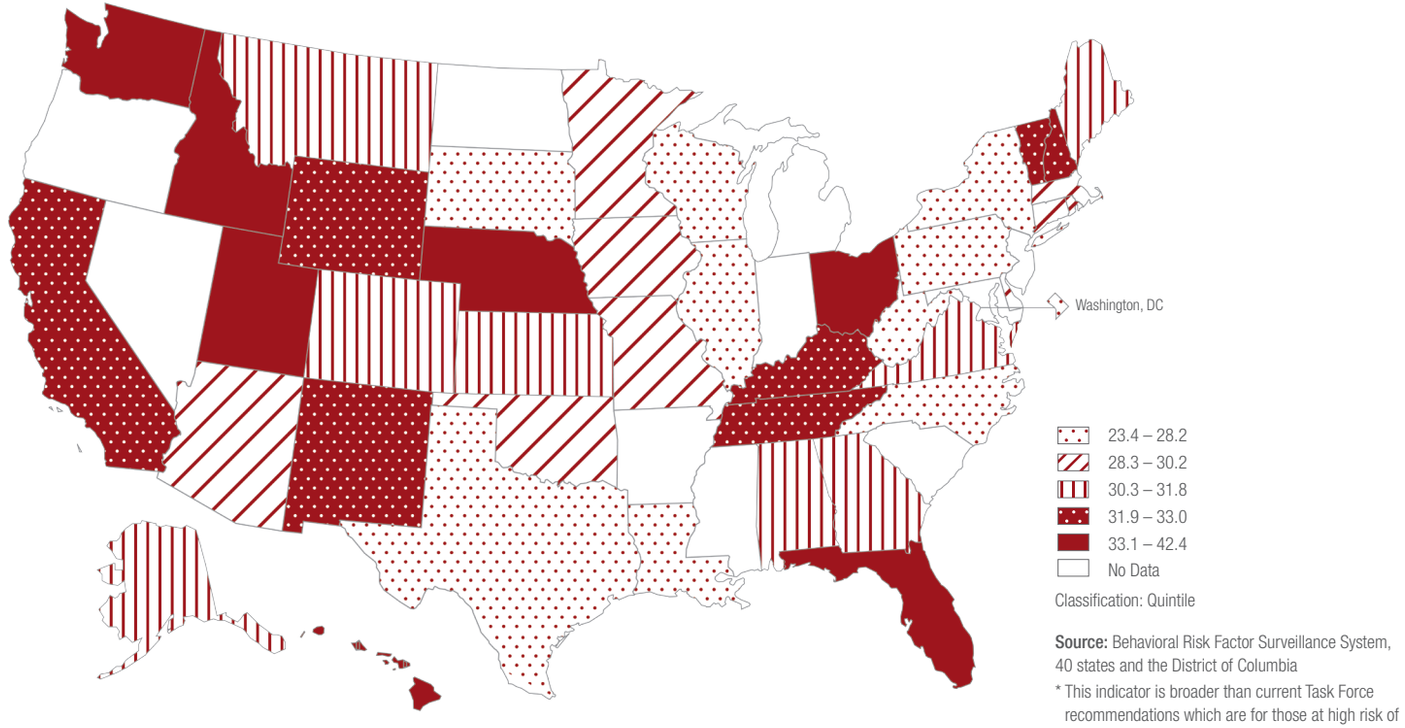
- Diabetes is very common in older adults, affecting almost 12 million, or one-fourth, of adults aged 60 years and older. Having diabetes more than doubles a person's risk of numerous complications, including vascular problems, geriatric syndromes, and disability.[17]
- Efficient detection of diabetes among older adults at high risk of the disease enables the provision of effective interventions that can prevent the progress of certain diabetes-related complications, improve glycemic control, and reduce vascular risk factors.[18]

THE STATE-BY-STATE PICTURE

- Nearly a third, or 31 percent, of older adults without diagnosed diabetes reported **not** receiving a test for high blood sugar or diabetes within the past three years.
- Across states, the percent of older adults without diagnosed diabetes who reported **not** receiving a test for high blood sugar or diabetes ranged from 23 percent to 42 percent. South Dakota, West Virginia, and North Carolina had the lowest rates; Hawaii, Ohio, and Florida had the highest reported rates of **not** having a test for high blood sugar or diabetes in the past three years.

Consult Appendix B for state-by-state percentages

Percent of Adults Aged 65 and Older Without Diagnosed Diabetes Who Reported Not Receiving Test for High Blood Sugar or Diabetes within Past Three Years, by State, 2009*



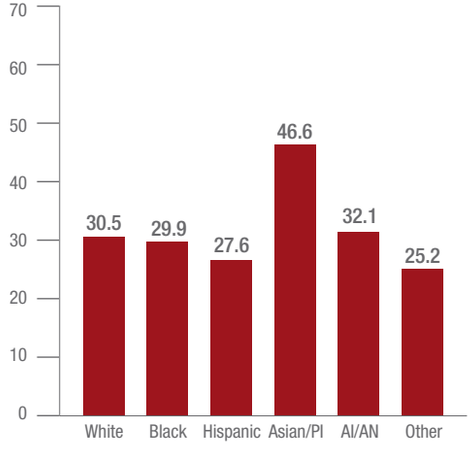
Source: Behavioral Risk Factor Surveillance System, 40 states and the District of Columbia

* This indicator is broader than current Task Force recommendations which are for those at high risk of Type 2 diabetes (adults with sustained elevated blood pressure of greater than 135/80).

CRITICAL GAPS

- Forty-seven percent of Asian/Pacific Islanders without diagnosed diabetes reported **not** receiving a test for high blood sugar or diabetes compared to 28 percent of Hispanics, a 19 percent difference.

Percent of Adults Aged 65 and Older Without Diagnosed Diabetes Who Reported Not Receiving Test for High Blood Sugar or Diabetes within Past Three Years, by Race/Ethnicity, 2009*



Asian/PI = Asian/Pacific Islander

AI/AN = American Indian/Alaska Native

Source: Behavioral Risk Factor Surveillance System, 40 states and the District of Columbia

* This indicator is broader than current Task Force recommendations which are for those at high risk of Type 2 diabetes (adults with sustained elevated blood pressure of greater than 135/80).

REACH U.S.: REDUCING DISPARITIES FOR AFRICAN AMERICANS

REACH U.S. (Racial and Ethnic Approaches to Community Health) is a national program supported by CDC and its National Diabetes Prevention Program to eliminate racial and ethnic disparities in health. The National Diabetes Prevention Program is a CDC partnership with community-based lifestyle programs, health payers, health care providers, academic centers, and collaborating federal agencies to ensure that high-risk persons with diabetes have access to affordable and high quality, evidence-based lifestyle interventions. Among the REACH U.S. program's 40 grantees is the Medical University of South Carolina (MUSC), funded to reduce the impact of diabetes-related complications among African Americans living in Charleston and Georgetown counties. Since 2007, MUSC has engaged in active partnerships to adopt systems and policies that substantially improve long-term outcomes for patients with diabetes discharged from the hospital. A thorough literature review, implementation of evidence-based practices, and widespread support of a plan for improving discharge policies are key program elements. In addition, to ensure individuals with diabetes know how to effectively manage their condition, MUSC designed a diabetes education program that is now active in 11 community-based organizations, faith communities, and clinics.

As a result of these efforts, South Carolina's Charleston and Georgetown communities report a sharp decrease in rates of diabetes-related lower-extremity amputations among African Americans with diabetes. In Charleston County, for example, the percent of diabetes-related lower-extremity amputations among African-American men who were hospitalized for diabetes has decreased by almost 54 percent. In addition, disparities in results for A1c testing, lipid profiles, kidney testing, eye exams, and blood pressure control for African Americans and whites (initially ranging from 11 percent to 28 percent) have been successfully eliminated.

http://academicdepartments.musc.edu/reach/

To learn more about what you can do, see ***Making a Difference***.

Lipid Disorder Screening

INDICATOR: Percent of adults aged 65 and older who reported **not** having a blood cholesterol test within the past five years

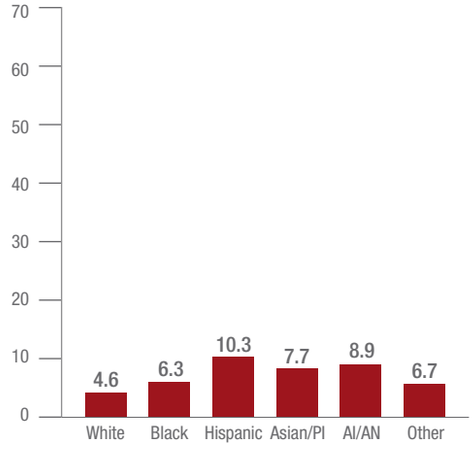
WHY THIS MATTERS

- High serum cholesterol is a major risk factor for heart disease and stroke, two of the major causes of premature death in adults under 65 years of age and primary causes of serious disability.[19]
- Screening for lipid disorders can prevent premature mortality from coronary heart disease and avert substantial disability, distress, and pain.[20]

CRITICAL GAPS

- Nationwide, only five percent of adults aged 65 and older reported **not** receiving blood cholesterol screening within the past five years. Across states, the percent of adults who reported **not** being screening ranged from three percent to 10 percent.
- Ten percent of Hispanics reported **not** receiving blood cholesterol screening compared to five percent of whites, a five percent difference. For Asian/Pacific Islanders, the difference was approximately three percent.

Percent of Adults Aged 65 and Older Who Reported Not Receiving Blood Cholesterol Test within Past Five Years, by Race/ Ethnicity, 2009



Asian/PI = Asian/Pacific Islander
AI/AN = American Indian/Alaska Native
Source: Behavioral Risk Factor Surveillance System, 50 states and the District of Columbia

MISSISSIPPI HEALTH FIRST COLLABORATIVE

Launched in October 2009, the Mississippi Health First Collaborative is a partnership between federal and non-federal entities sponsored by the Centers for Medicare and Medicaid Services (CMS). Other federal agencies participating include CDC, Administration on Aging, Health Resources and Services Administration, National Institutes of Health, Housing and Urban Development, and U.S. Department of Health and Human Services' Office of Minority Health. The Collaborative provides diabetes self-management training and health education literature primarily to medically underserved residents on how to best control blood sugar, blood pressure, and cholesterol levels. Training is offered in convenient public locations, such as community and senior centers, instead of traditional medical facilities and addresses primary health providers, nutrition, exercise, housing arrangements, and support networks. Thus far, about 40 adults have participated in the eight-hour training class, and six have graduated. Evaluation data on impact are anticipated in 2011.

www.CMSPulse.org

To learn more about what you can do, see ***Making a Difference***.

Osteoporosis Screening

INDICATOR: Percent of women Medicare beneficiaries aged 65 and older who reported **not** ever being screened for osteoporosis with a bone mass or bone density measurement

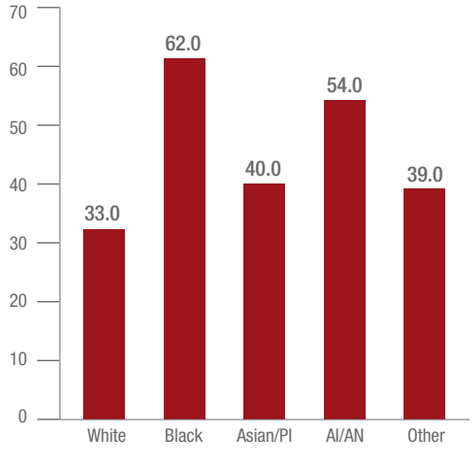
WHY THIS MATTERS

- At some point in their lifetime, 30 to 50 percent of women and 15 to 30 percent of men will experience an osteoporotic fracture.[21]
- Osteoporosis screening with hip DEXA scans and follow-up management in older adults has been shown in a large population-based cohort study to be associated with 36 percent fewer incident hip fractures over six years compared with usual medical care.[22] While screening alone would not have an effect on fractures, it may lead physicians to implement management strategies that may decrease fractures. Medicare spent more than $8 billion in 1999 to treat injuries to seniors, with fractures accounting for two-thirds of the spending.[23]

CRITICAL GAPS

- State data are not available for this indicator.
- Sixty-two percent of black women and 54 percent of American Indian/Alaska Native women reported **never** receiving osteoporosis screening compared to 33 percent of white women, a difference of 29 and 21 percent, respectively.

Percent of Women Medicare Beneficiaries Aged 65 and Older Who Reported Not Ever Receiving Screening for Osteoporosis, by Race, 2006*

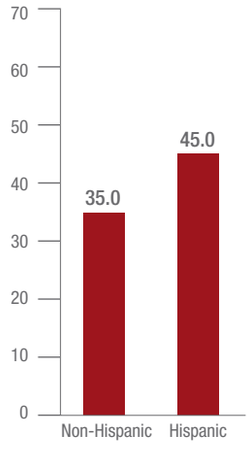


Asian/PI = Asian/Pacific Islander
AI/AN = American Indian/Alaska Native
Source: Medicare Current Beneficiary Survey
* Osteoporosis screening with a bone mass or bone density measurement

CRITICAL GAPS

- Forty-five percent of Hispanic women reported **never** being screened for osteoporosis compared to 35 percent of non-Hispanic women, a 10 percent difference.
- In addition, 57 percent of women who qualify for both Medicare and Medicaid and 47 percent of those who had just basic Medicare coverage reported **never** being screened for osteoporosis, compared to 29 percent of women who had private insurance coverage to supplement their Medicare benefits. (Data not shown.)

Percent of Women Medicare Beneficiaries Aged 65 and Older Who Reported Not Ever Receiving Screening for Osteoporosis, by Ethnicity, 2006*



Source: Medicare Current Beneficiary Survey
* Osteoporosis screening with a bone mass or bone density measurement

PROMOTING SCREENING THROUGH WELLNESS TOURS

In 2009, AARP and Walgreens began an initiative to bring free health screenings to diverse and underserved communities across the U.S. and Puerto Rico. Nine customized buses were equipped to offer six free health screenings: cholesterol, blood pressure, bone density, glucose levels, waist circumference, and body mass index (BMI). All tests were conducted by certified health screeners. Between April 2009 and February 2010, the Wellness Tour administered over a million free screenings of nearly 195,000 individuals. Of those screened, almost 27 percent were uninsured, 29 percent were Hispanic, and 16 percent were African American. The average age was 52, and 31 percent of participants did not have a primary care physician. Test results revealed a high level of undetected disease: 40 percent had high total cholesterol, 64 percent abnormal blood pressure, 37 percent abnormal bone density, almost 15 percent out-of-range glucose, 52 percent abnormal waist circumference, and 68 percent high BMI.

Following the screenings, results are reviewed with the individuals and referrals provided to a pharmacist or local health care resource (if necessary) and self-guided educational information offered. Attendees also have an opportunity to ask questions about their medications and are offered AARP's Personal Medication Record for tracking prescription drugs, over-the-counter medications, herbs, and supplements. The second year of the Wellness Tour began in April 2010 and is expected to yield similar results.

www.aarp.org/Walgreens

To learn more about what you can do, see ***Making a Difference***.

Smoking Cessation Counseling

INDICATOR: Percent of current smokers aged 65 and over with a checkup in the last 12 months who reported **not** receiving advice to quit smoking

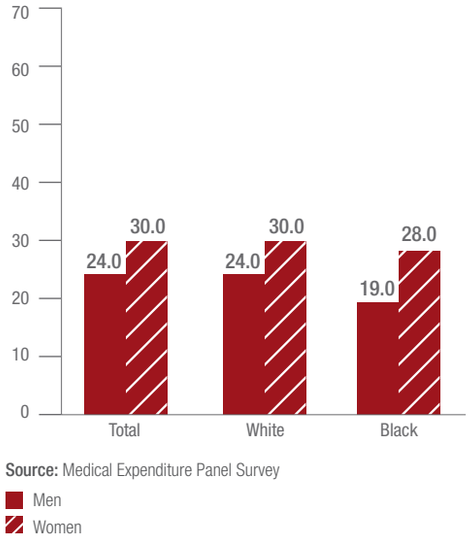
WHY THIS MATTERS

- While smoking rates among adults have been decreasing over the past few decades, the rate of decline has been slowest in older adults over age 65.[24] An estimated $73 billion is spent each year on smoking-related medical care.[25]
- The National Commission on Prevention Priorities ranks smoking cessation counseling the second most important preventive service for adults, preceded only by daily aspirin use.[26]

CRITICAL GAPS

- State data are not available for this indicator.
- Thirty percent of women aged 65 and older reported not receiving advice to quit smoking during their annual checkup compared to 24 percent of older men, a six percent difference.
- The gender gap remains consistent when race is taken into account.

Percent of Current Smokers Aged 65 and Older with Checkup in Last 12 Months Who Reported Not Receiving Advice to Quit Smoking, by Gender and Race, 2002-2007



Source: Medical Expenditure Panel Survey

RECRUITING BENEFICIARIES FOR SMOKING CESSATION

CMS funded a seven-state smoking cessation demonstration project to test the effectiveness and cost-effectiveness of Medicare coverage for smoking cessation therapy.[27] The project compared the impact of three different interventions – physician counseling alone, physician counseling with pharmacotherapy (nicotine patch or bupropion), and a telephone counseling Quitline service and pharmacotherapy (nicotine patch) – with usual care. Follow-up with participants revealed that the free Quitline service in conjunction with low cost pharmacotherapy was the most effective approach for promoting smoking cessation among older beneficiaries motivated to quit.[28]

An innovative approach to increasing interest in participating in the demonstration among Medicare beneficiaries who smoke was a direct mailing of print advertisements with the demonstration enrollment telephone number as part of Medicare carrier mailings of Medicare Summary Notices, monthly (now quarterly) statements sent to Medicare beneficiaries listing services and supplies billed to Medicare. As a result, average call volume increased by more than 200 percent in five of the states which carried out these mailings for eight weeks and dramatically boosting enrollment into the demonstration.

To learn more about what you can do, see ***Making a Difference***.

In addition to the eight preventive services featured in this Report, many more are recommended by the U.S. Preventive Services Task Force (USPSTF) and the Advisory Committee on Immunization Practices (ACIP) for adults aged 65 and older. Seven of these services concerning vaccination, counseling, and screening are highlighted briefly below.

RECOMMENDATIONS FOR ADDITIONAL PREVENTIVE SERVICES

SERVICES	RECOMMENDATIONS
Alcohol misuse screening and counseling	The USPSTF recommends screening and behavioral counseling interventions to reduce alcohol misuse by adults, including pregnant women, in primary care settings.[1]
Aspirin use	The USPSTF recommends the use of aspirin for men aged 45 to 79 years when the potential benefit due to a reduction in myocardial infarctions outweighs the potential harm due to an increase in gastrointestinal hemorrhage. The USPSTF recommends the use of aspirin for women aged 55 to 79 years when the potential benefit of a reduction in ischemic strokes outweighs the potential harm of an increase in gastrointestinal hemorrhage.[2] The USPSTF concludes that the current evidence is insufficient to assess the balance of benefits and harms of aspirin for cardiovascular disease prevention in men and women 80 years or older.
Blood pressure screening	The USPSTF recommends screening for high blood pressure in adults aged 18 and older.[3]
Cervical cancer screening	The USPSTF recommends screening for cervical cancer in women who have been sexually active and have a cervix. The USPSTF recommends against routinely screening women older than age 65 for cervical cancer if they have had adequate recent screening with normal Pap smears and are not otherwise at high risk for cervical cancer.[4]
Depression screening and counseling	The USPSTF recommends screening adults for depression when staff-assisted depression care supports are in place to assure accurate diagnosis, effective treatment, and follow-up.[5]
Obesity screening and counseling	The USPSTF recommends that clinicians screen all adult patients for obesity and offer intensive counseling and behavioral interventions to promote sustained weight loss for obese adults.[6]
Zoster vaccination	The ACIP recommends routine vaccination of all persons aged 60 and older with one dose of zoster vaccine. Persons who report a previous episode of zoster and persons with chronic medical conditions (e.g., chronic renal failure, diabetes mellitus, rheumatoid arthritis, and chronic pulmonary disease) can be vaccinated unless those conditions are contraindications or precautions.[7]

Additional Preventive Services

Unfortunately, timely and sufficient community data on the self-reported use of these services by older adults are not currently available at the state or national level – and the challenges in collecting this type of data are difficult to overcome. For some of the services, adults may not realize they are being screened and thus not respond accurately to relevant survey questions. For example, a person might have his weight and height measured and not be aware that these measurements are being used to screen for obesity. Similarly, adults might be asked questions about feelings of sadness and not realize they are being screened for depression. In addition, two of the primary surveys for measuring service use (i.e., the Medical Expenditure Panel Survey [MEPS] and Medicare Current Beneficiary Survey [MCBS]) can be completed by family members (e.g., wife, husband, or adult child) who may not know if their loved one was screened or counseled about depression, alcohol misuse, obesity, or other sensitive issues.

This section briefly spotlights these services and shares data on the prevalence of the preventable diseases and the use of recommended services by older adults, when available. As the use of these effective services in clinical and community settings improves, the design of systems to monitor critical gaps in their use is also imperative.

Alcohol Misuse

Alcohol misuse is strongly associated with health problems, disability, death, injury, social disruption, and violence.[8] In the United States, excessive alcohol consumption generates nearly $185 billion in annual economic costs (1998), largely due to lost productivity.[8] Much of this burden is preventable, as evidenced by the National Commission on Prevention Priorities (NCPP) ranking of alcohol screening and brief counseling as the third most important clinical preventive service for adults (behind daily aspirin use and smoking cessation counseling).[9]

Although most individuals who drink alcohol do so without developing problems, one measure of alcohol misuse is binge drinking. Using data from the Behavioral Risk Factor Surveillance System (BRFSS), 3.8 percent of adults aged 65 and older reported binge drinking in 2009 on at least one occasion within the past 30 days (95% CI 3.6-4.0).* The BRFSS has also included an optional question to assess the prevalence of binge drinkers being counseled by a health professional during a routine checkup in the past 12 months. When this question was asked in 1997, 77 percent of binge drinkers reported **not** receiving alcohol misuse counseling. Ten states were included in this survey and no age-specific analyses were conducted.[10] Only five states included the question in 1999, and no states have asked it since then.

* Binge drinking is defined as four or more drinks for women and five or more drinks for men within a short period of time.

Aspirin Use

Heart disease and stroke remain the number one and number three causes of death among adults over age 65. In 2009, the USPSTF recommended that people at high risk for coronary heart disease or a stroke to use aspirin.[2] In addition, the effectiveness of aspirin therapy in reducing risk for myocardial infarction, stroke, and fatal coronary events among people with preexisting atherosclerotic vascular disease has been documented.[11] Approximately 45,000 lives could be saved each year if at least 90 percent of Americans consistently used aspirin for primary prevention of cardiovascular events.[9] The NCPP ranked daily aspirin use as the highest priority clinical preventive service for adults at high risk of heart disease.[9]

The BRFSS includes an optional question on daily aspirin use; however, the question was used by only 19 states in 2007 and 14 states in 2009 and cannot be used to derive national estimates. Using MEPS data, over 51 percent of adults aged 65 to 79* in 2007 reported taking aspirin every day or every other day, leaving almost half of the adults at risk of heart disease **not** receiving the benefits of regular aspirin use. Also of note, 57 percent of blacks and 64 percent of Hispanics did **not** report using aspirin for primary prevention of cardiovascular events compared to about 45 percent of whites, a gap of 12 and 19 percent, respectively.

* Includes only adults aged 65 to 79 with either diabetes, high blood pressure, high cholesterol, or current smoker; excludes those with cardiovascular disease or a condition that prevents taking aspirin

Blood Pressure

Nearly 71 percent of older adults have hypertension, with the prevalence increasing with age. Overall, high blood pressure affects approximately 65 million Americans based on a preliminary report from the National Health and Nutrition Examination Survey in 2005-2006.[12,13] Screening for high blood pressure is one of the most well-established clinical practices in health care settings. According to the USPSTF, there is a high level of certainty that the benefits of screening for high blood pressure outweigh the harms[14] yet only half of all older adults treated for hypertension achieve control. Although pharmacologic therapy is associated with common side effects, serious adverse events are uncommon.[15]

Older women are more affected by hypertension than men (76.6 percent vs. 63.0 percent) and are less likely to have their blood pressure under control (42.9 percent vs. 57.9 percent).[16]

For many years, the BRFSS included a question to ascertain self-reported blood pressure screening rates. Using these data, in 2000, approximately 98 percent of all adults aged 65 and older reported that they had received this screening in the past two years.[17] Because this figure was so high, the BRFSS omitted this question.[18]

Cervical Cancer

Screening recommendations for cervical cancer in women after age 65 are complex, making it extremely difficult to use available routine and ongoing surveys to collect valid self-reported information on the use of this service by older women. Practical experience suggests that some women may not differentiate cervical cancer screening (Pap test) from other reasons for a pelvic examination, which may affect accuracy of recall. The USPSTF supports stopping screening at age 65, provided women have had adequate recent screening with normal Pap results. The American Cancer Society (ACS) suggests stopping cervical cancer screening at age 70, except when women have not been previously screened, when information about previous screening is unavailable, or when screening is unlikely to have occurred in the past (e.g., among women from countries without screening programs). The ACS guidelines recommend that older women who have had three or more documented, consecutive, technically satisfactory normal/negative cervical cytology tests, and who have had no abnormal/positive cytology tests within the last 10 years, can safely stop screening.[19]

Depression

Depression in older adults is often misdiagnosed and undertreated. Health care providers may mistake symptoms of depression as just a natural reaction to illness or the life changes that may occur with aging, and therefore do not view depression as a treatable condition. Older adults themselves often share this belief and do not seek help because they do not understand that they could feel better with appropriate treatment.

The BRFSS includes questions that assess the symptoms of depression using the Patient Health Questionnaire (PHQ8). In 2006, 39 states administered this module and documented a 5.1 percent prevalence (95% CI 4.6-5.4) of depressive symptoms among adults aged 65 years and older.[20] This PHQ8 was not included in 2007 or 2009, and only eight states used it in 2008.

Obesity

Obese adults 65 years of age and older experience a lower quality of life than normal-weight adults, particularly in terms of physical functioning and physical well-being.[21,22] Given the current epidemic of obesity, data on the prevalence of this condition have become more widely available. For adults aged 65 and older, the prevalence of obesity in 2009 was 22.8 percent (95% CI 23.4-24.2) using BRFSS data from 50 states and the District of Columbia.[23]

Zoster Vaccination

At some point in their lives, 20 to 30 percent of Americans develop shingles (herpes zoster), a painful blistering skin rash. Since the risk of shingles increases with age, half of all adults will have had shingles by their 85th birthday.[24] The zoster vaccine has been proven effective in preventing shingles and post-herpetic neuralgia (i.e., long-term pain that persists after a shingles rash is healed) in adults aged 60 and older.[25,26]

For adults aged 60 years and older, national estimates for zoster vaccination from the National Health Interview Survey were 6.7 percent in 2008 (95% CI 5.9-7.5)[27] and 10 percent in 2009 (95% CI 9.1-11.0).[28]

Gaps and Opportunities

Of all the preventive services featured in this Report, the largest gap in use can be found for osteoporosis screening by women aged 65 years and older. For example, there is a gap of 29 percent between white women and black women getting osteoporosis screening. Gaps in use for five of the remaining recommended services – colorectal cancer and diabetes screening, influenza and pneumococcal immunizations, and smoking cessation counseling – are somewhat smaller but still significant.

The highest reported use is for blood cholesterol testing, nationwide only five percent of adults aged 65 and older reported not receiving this service. The next highest level is for mammography screening, a service used by 83 percent of older women within the past two years. While this relatively high rate is good news in many respects, it still reflects a gap of 17 percent of women who are not screened routinely for breast cancer.

Upon closer examination, it comes evident that opportunities to increase use of preventive services exist in every population group. The chart highlights opportunities to increase use of clinical preventive services by race and ethnicity.

The need to improve preventive service use is the result of many factors, including multiple socioeconomic factors such as education and income, availability of health care providers, and access to services. Adults with fewer years of education and lower incomes are less likely to have had recommended preventive services.

The challenge before us is clear. Public health and aging services practitioners at federal, state, and local levels have an important role to play in: reaching out to older adults to ensure they receive the benefits of recommended vaccinations, screening, and counseling; linking health care systems and communities to make these preventive services a priority; and embracing policies and supportive environments that remove barriers and close gaps. Only through ongoing, concerted, and collaborative commitments will we be able to ensure routine use of recommended services for all older adults, particularly those who are currently underserved.

USE OF CLINICAL PREVENTIVE SERVICES BY RACE AND ETHNICITY

For American Indian/Alaska Native Adults
40% need influenza vaccination
36% need pneumococcal vaccination
35% need colorectal cancer screening
32% need diabetes screening
19% need breast cancer screening

For Asian/Pacific Islander Adults
49% need colorectal cancer screening
47% need diabetes screening
47% need pneumococcal vaccination
35% need influenza vaccination
29% need breast cancer screening

For Black Adults
47% need pneumococcal vaccination
44% need influenza vaccination
37% need colorectal cancer screening
30% need diabetes screening
14% need breast cancer screening

For Hispanic Adults
51% need pneumococcal vaccination
47% need colorectal cancer screening
38% need influenza vaccination
28% need diabetes screening
16% need breast cancer screening

For White Adults
34% need colorectal cancer screening
31% need diabetes screening
30% need pneumococcal vaccination
29% need influenza vaccination
17% need breast cancer screening

Making A Difference

Recommended Interventions

Provided throughout this Report are examples of interventions implemented at the local, state, and national levels to enhance the use of the featured preventive services by underserved communities. These represent a fraction of the many system-, provider-, and client-oriented interventions that can serve as examples aimed at increasing the use of these services community-wide.

A well-respected primary source for effective community-based interventions is the Task Force on Community Preventive Services, a group of public health and prevention experts which oversees systematic reviews and recommends interventions that promote population health. Summaries of these reviews, published in *The Guide to Community Preventive Services* (Community Guide) share what is known about the effectiveness, economic efficiency, and feasibility of interventions to promote community health and prevent disease. It is important to note that the focus of the Task Force on Community Preventive Services is different than the USPSTF, thus recommendations may differ.

The table on page 27 highlights the interventions that are recommended in the Community Guide for each of the preventive services featured in this Report. Among the more commonly recommended interventions are the following:

- Reducing out-of-pocket costs, one of the prime features of health reform.
- Promoting annual wellness visits, where adults can have meaningful and informed conversations with their health care providers about the preventive services they need, test results and needed follow-up.
- Issuing client reminders in the form of letters, postcards, or phone calls to alert adults that it is time for their cancer screening or vaccination. Some reminders note only that the test is due, while others include facts about the service or offer to help set up an appointment.
- Using "small media" to increase awareness of available services and convey messages about their benefits. Videos and printed materials such as letters, brochures, and newsletters can inform adults about vaccinations, screenings, or counseling offered in their community and motivate them to use these services.
- Tailoring messages, information, and services to meet the needs of each adult. This includes making translators available and developing or adapting material to be culturally sensitive.
- Issuing "standing orders" as a way to reduce missed opportunities at the point of care or in the physician's office. Such orders allow non-physician personnel to screen and administer vaccines or other preventive services according to an institution-approved protocol, without requiring an exam or physician's order.
- Reducing structural barriers that make it difficult for adults to make or keep their appointments – distance from a service location, limited hours of operation, caregiver responsibilities, or work commitments. A few example strategies include providing transportation to and from the mammogram or colonoscopy; adjusting hours of operation to include some evenings and weekends; offering back-up caregiver services; and dispatching community health care teams to provide needed services, a key feature of the Patient Protection and Affordable Care Act.[1]
- Expanding access beyond traditional health care settings to community sites and locations that are more convenient to residents' homes, places of employment, or sites frequented in the course of daily activities such as senior living facilities, churches, beauty salons, barbershops, polling places, public schools, and community centers.
- Offering multiple services in one location and at the same time for expedient "one-stop shopping."

Adopting relevant recommendations through strong community and clinical partnerships can have a significant impact on closing gaps and enhancing the use of potentially lifesaving services by all of our nation's older adults. Care should be taken to pursue those recommendations that are appropriate for the selected targeted services and groups. For further information please refer to the Community Guide Web site: www.thecommunityguide.org/index.html.

REACH U.S.: REDUCING DISPARITIES FOR ASIAN AND PACIFIC ISLANDERS

The Promoting Access to Health for Pacific Islander and Southeast Asian Women (PATH for Women) Coalition, based in Orange County, California, is one of CDC's REACH U.S. grantees. The program seeks to prevent breast cancer among women in California's Asian and Pacific Islander communities by increasing mammography screening through greater breast cancer knowledge. Cancer incidence and cancer-related mortality in Orange County is among the highest for Asian and Pacific Islander women in the nation.[2] The program specifically targets Orange County's Cambodian, Chamorro, Hmong, Laotian, Marshallese, Native Hawaiian, Samoan, Thai, Tongan, and Vietnamese communities.

Using a variety of outreach tools and approaches, REACH PATH for Women activities over the last five years have educated more than 30,000 community members regarding breast cancer prevention, early detection and treatment. Coalition members also documented over 500 hours of training to patient navigators who, in turn, provided services to more than 3,000 women and their families across the entire cancer care continuum. These efforts were supported by the creation and dissemination of more than 50 breast and cervical cancer educational materials created in Cambodian, Lao, Hmong, Thai, Vietnamese, Samoan, Chamorro, Marshallese, Hawaiian, Korean, Chinese, Hindi, Bengali, Gujurati, and Tongan languages. Through these efforts the percent of Asian women over age 65 in the community who received a mammogram in the last two years increased from 60 percent in 2002 to 80 percent in 2008.

www.cdc.gov/reach/index.htm

A variety of interventions are recommended in the Community Guide for each of the preventive services featured in this Report. Some of the selected interventions focus on clients whereas others support enhanced provider and health systems.

SUMMARY OF COMMUNITY GUIDE INTERVENTIONS FOR FEATURED SERVICES[3]

FEATURED SERVICES	CLIENT-ORIENTED INTERVENTIONS	PROVIDER- AND SYSTEM-ORIENTED INTERVENTIONS
Influenza and pneumococcal vaccination	• Home visits to increase vaccination coverage • Multi-component interventions for expanding access in health care settings • Reduced client out-of-pocket costs • Client reminder and recall systems • Multi-component interventions that include education	• Provider assessment and feedback • Provider reminder systems • Standing orders
Breast cancer screening	• Client reminders • Small media • One-on-one education, tailoring information to each person's needs • Reduced structural barriers • Reduced out-of-pocket costs	• Provider assessment and feedback • Provider reminder and recall systems
Colorectal cancer screening	• Client reminders for colorectal cancer screenings by fecal occult blood testing (FOBT) • Small media • Reduced structural barriers	• Provider assessment and feedback • Provider reminder and recall systems
Diabetes screening	Reviewed only for diabetes control • Diabetes self-management education in community gathering places	Reviewed only for diabetes control • Case management interventions to improve glycemic control • Disease management programs
Lipid disorder screening	Not reviewed	Not reviewed
Osteoporosis screening	Not reviewed	Not reviewed
Smoking cessation counseling	• Reduced client out-of-pocket costs for cessation therapies • Multi-component interventions that include telephone support	• Increased unit price of tobacco products • Mass media campaigns when combined with other interventions • Provider reminders when used alone or with provider education

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Behavioral Risk Factor Surveillance System

The Behavioral Risk Factor Surveillance System (BRFSS) conducts random telephone surveys of non-institutionalized U.S. adults that address health behaviors, preventive health screenings, and immunizations related to the leading causes of death and disability (www.cdc.gov/brfss). The state-based BRFSS is coordinated and supported by the Centers for Disease Control and Prevention (CDC) and is currently conducted in all 50 states, the District of Columbia, and some territories. Details of the survey methodology are available on the CDC Web site which also includes the public use data files.

In this Report, most results are limited to adults aged 65 and older in the 50 states and the District of Columbia. Because not all topics are addressed every year, only the most recently available data, either 2008 or 2009, are included. Sample sizes (N) for the 50 states and District of Columbia ranged from 111 for mammography among women ages 65-74 in Alaska in 2008 to 111,932 for influenza vaccination among whites in 2009, while for some territories the sample size was less than 100. 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 will produce more precise estimates; sample sizes of 500 and greater are usually considered adequate, while those below 50 are often not reported as they are thought to be unreliable. The table in Appendix B, *State-by-State Data with Confidence Intervals*, itemizes statistics for each state, the District of Columbia and, where available, the U.S. territories of Guam, Puerto Rico, and the Virgin Islands.

Measures: Measures are grouped as screenings and vaccinations. All indicators are cast in terms of those who did **not** report receiving the screening or vaccination within a specific time frame or never received it. Respondents with missing values were excluded from that measure unless otherwise noted.

Influenza vaccination: Percent of adults aged 65 and older who reported **not** having an influenza vaccination within the past year. Influenza vaccination prevalence estimates based on self-reported vaccination in the past 12 months reflect vaccinations that may span over three influenza seasons; therefore, estimates in this report may differ from other CDC published estimates for each season (e.g., CDC estimates 2008-2009 influenza season vaccinations based on 2009 NHIS data restricted to persons interviewed March-August 2009, and reporting influenza vaccinations received August 2008-February 2009).

Pneumococcal vaccination: Percent of adults aged 65 and older who reported **never** having a pneumococcal vaccination.

Breast cancer screening: Percent of women aged 65-74 who reported **not** having a mammogram within the past two years.

Colorectal cancer screening: Percent of adults aged 65-75 who reported **not** having: 1) a home blood stool test, also referred to as a fecal occult blood test (FOBT) within the past year; 2) a sigmoidoscopy within the past five years and FOBT within three years; or 3) a colonoscopy within the past 10 years. Respondents were not excluded if they had a missing value for one of the qualifying tests as long as they reported having another test within the time frame.

Diabetes screening: Percent of adults aged 65 and older without diagnosed diabetes who reported **not** having a test for high blood sugar or diabetes within the past three years.

Lipid disorder screening: Percent of adults aged 65 and older who reported **not** having their blood cholesterol checked within the past five years.

Statistical analyses: Prevalence estimates and 95% confidence intervals were obtained using Stata Version 11.0, 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 nonmissing 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. All data are statistically significant at $p < .05$ and are reported in quintiles.

BRFSS has been shown to be a reliable and valid source of health data but has some limitations. Because it is a landline survey of the noninstitutionalized population, households without telephones or those using only cell phones are excluded. Compared to landline households, cell phone only respondents are more likely to have a larger lower income population; however, BRFSS uses telephone interruption as an adjustment factor on data for people with no landline. Also excluded are adults in institutions such as nursing homes, and who 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.

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www.cdc.gov/brfss

Medical Expenditure Panel Survey

The Medical Expenditure Panel Survey (MEPS) is composed of three component surveys: the Household Component, the Medical Provider Component, and the Insurance Component.

- The Household Component (HC), an interviewer-administered CAPI (computer-assisted personal interview) household survey, which collects data from families and individuals;
- The Medical Provider Component, which supplements information gathered from the HC with data gathered from hospitals, physicians, home health providers, and pharmacies; and
- The Insurance Component, which surveys private and public sector employers to gather information on health insurance coverage issues.

The MEPS HC is a nationally representative survey of the U.S. civilian noninstitutionalized population, based on a random subsample of households participating in the previous year's National Health Interview Survey

Appendix A
Data Sources and Statistical Methods

(NHIS). The NHIS uses a multistage area probability design that permits the representative sampling of households and oversampling of Blacks and Hispanics. The MEPS HC oversamples households with Asian and low-income persons. Each year, MEPS collects data on more than 30,000 people. The overall response rate for the 2006 MEPS was about 58 percent.

The MEPS HC collects data on demographic characteristics, health conditions, health status, use of medical care services, charges and payments, access to care, satisfaction with care, health insurance coverage, income, and employment. Demographic characteristics include age, gender, race, ethnicity, education, industry and occupation, employment status, household composition, and family income. Race and ethnicity variables and categories changed in 2002 to be compliant with Office of Management and Budget (OMB) standards that required changes by 2003.

Included in MEPS are items that focus on specific topics, including sections on access to care, preventive care, child preventive care, health status, satisfaction with health plan, and priority conditions. The Quality supplement queries respondents about a group of diseases and conditions that the Agency for Health Care Research and Quality has deemed to be "priority conditions." These include sore or strep throat, diabetes, asthma, hypertension, coronary heart disease, angina, heart attacks, other heart disorders, strokes, emphysema, joint pain, and arthritis. The Diabetes Care Survey is among MEPS' supplemental survey tools; this is a self-administered paper questionnaire which is designed to gather more detailed information on preventive care and treatment for persons who indicated in their responses to the HC that they have diabetes.

MEPS is sponsored by the U.S. Department of Health and Human Services, Agency for Healthcare Research and Quality (AHRQ); and Centers for Disease Control and Prevention (CDC), National Center for Health Statistics (NCHS).

Measures: ***Smoking cessation counseling:*** Percent of current smokers aged 65 and older with a checkup in the last 12 months who reported **not** receiving advice to quit smoking.

This measure is referred to as measure 1-3c in Healthy People 2010 documentation.

The denominator for this measure included U.S. civilian adults, age 18+, who were noninstitutionalized and who indicated in the self-administered questionnaire that they were current smokers and had also had a routine medical check-up in the past 12 months. The numerator is composed of the subset of persons represented in the denominator who answered "No" to the following question: "In the past 12 months did a doctor advise you to stop smoking?" Records with missing values for smoking status, receipt of a medical checkup, and receipt of advice were excluded from the analysis.

Statistical analyses: Data from 2002-2007 are used. All percents and standard errors were derived using SUDAAN statistical software which accounts for MEPS' complex survey design. Estimates were weighted with the final self-administered questionnaire weight, to reflect the experiences of the adult, U.S. civilian, noninstitutionalized population, at the aggregate and subpopulation levels. Standard errors were computed using first-order Taylor linearization. Estimates were suppressed if the sample sizes were less than 100, or the relative standard errors were 30 percent or more. Round 4 and 2 demographic variables were used for this analysis.

References:
MEPS Survey Background: www.meps.ahrq.gov/mepsweb/about_meps/survey_back.jsp

MEPS Detailed Method www.ahrq.gov/qual/qrdr09/methods/meps.htm

www.ahrq.gov/qual/qrdr09/datasources/ahrq.htm

Medicare Current Beneficiary Survey

The Medicare Current Beneficiary Survey (MCBS) is conducted by the Office of Strategic Planning of the Centers for Medicare and Medicaid Services (CMS). It is a continuous, multipurpose survey of a nationally representative sample of the Medicare population, providing information on aged and disabled Medicare beneficiaries living in communities and long-term care facilities. The sample is selected from Medicare enrollment files, and sample persons are interviewed three times per year over a four-year period. Sample data are collected through computer-assisted personal interviews of the beneficiary or a proxy respondent if the sample person is not available for the interview.

Two public use files are created for each calendar year of data collected in the MCBS: Access to Care and Cost and Use.

- The Access to Care (AC) file contains information on beneficiaries' access to health care, satisfaction with care, and usual source of care. It contains results from a supplement gauging beneficiaries' sources of information about Medicare and from a supplement surveying Medicare HMO members.
- The MCBS Cost and Use (CU) files link Medicare claims to survey-reported events and provides complete expenditure and source of payment data on all health care services, including those not covered by Medicare.

Survey-reported data include information on the use and cost of all types of medical services, as well as information on supplementary health insurance, living arrangements, income, health status, and physical functioning. Medicare claims data include use and cost information on inpatient hospitalizations, outpatient hospital care, physician services, home health care, durable medical equipment, skilled nursing home services, hospice care, and other medical services.

Measures: ***Osteoporosis screening:*** Percent of women Medicare beneficiaries aged 65 and older who reported **not** ever being screened for osteoporosis with a bone mass or bone density measurement.

The denominator for this measure included full-year female community residents aged 65 and older who ever talked to a doctor about osteoporosis. The numerator represents the subset of the denominator who reported ever being screened for osteoporosis with a bone mass or bone density measurement.

Statistical analyses: Data from 2006 are used. The analytic variable and demographic variables were obtained from the AC files. Records with missing values, a "don't know" response, and those who refused to respond were excluded.

All percents are weighted estimates; standard errors were derived using SUDAAN statistical software which accounts for the complex survey design of the MCBS. Standard errors were computed using the Taylor Linearization Method. Estimates were suppressed if the sample sizes were less than 30 or the relative standard errors were 30% or more for statistical reliability, data quality, or confidentiality.

References:
MCBS: www.cms.gov/MCBS

MCBS entry in NHQR/DR Data Sources Appendix: www.ahrq.gov/qual/qrdr09/datasources

MCBS NHQR/DR Table Methods: www.ahrq.gov/qual/qrdr09/methods/mcbs.htm

NO INFLUENZA VACCINATION, 2009*				
State	Percent	Lower	Upper	N
AL	31.9	29.0	34.8	2,176
AK	37.9	31.0	44.9	380
AZ	28.4	25.4	31.5	2,057
AR	29.3	26.5	32.1	1,431
CA	34.9	33.0	36.8	4,782
CO	24.8	23.0	26.6	3,092
CT	26.3	24.0	28.6	2,109
DE	28.4	25.5	31.3	1,418
DC	32.9	29.6	36.2	1,051
FL	34.1	32.1	36.1	4,534
GA	33.4	30.6	36.1	1,683
HI	27.3	24.8	29.9	1,910
ID	35.9	33.2	38.6	1,668
IL	35.3	32.6	37.9	1,744
IN	32.3	30.1	34.4	2,754
IA	26.0	23.9	28.2	1,950
KS	30.6	29.3	31.9	6,057
KY	29.5	27.0	32.0	2,934
LA	31.9	29.7	34.0	2,747
ME	27.1	25.1	29.1	2,430
MD	28.5	25.9	31.0	2,341
MA	27.0	25.2	28.9	4,483
MI	31.1	29.2	33.1	2,973
MN	23.2	21.1	25.4	1,809
MS	32.6	30.8	34.5	3,873
MO	27.5	24.7	30.2	1,632
MT	31.3	29.1	33.5	2,439

NO INFLUENZA VACCINATION, 2009*				
State	Percent	Lower	Upper	N
NE	26.1	24.3	27.8	5,826
NV	36.5	32.5	40.4	1,196
NH	28.1	25.6	30.5	1,846
NJ	32.8	30.6	35.0	3,235
NM	31.7	29.6	33.9	2,637
NY	31.4	28.7	34.2	2,085
NC	28.4	26.4	30.5	4,110
ND	30.3	27.7	32.9	1,435
OH	32.5	30.5	34.6	3,005
OK	27.7	25.8	29.7	2,593
OR	35.4	32.7	38.0	1,482
PA	27.2	25.2	29.2	2,990
RI	24.3	22.1	26.6	1,852
SC	30.3	27.9	32.7	3,341
SD	25.0	22.8	27.1	2,301
TN	29.9	27.3	32.4	1,875
TX	32.7	30.0	35.3	3,374
UT	31.2	29.1	33.4	2,490
VT	28.0	25.8	30.1	1,930
VA	30.1	27.0	33.1	1,416
WA	29.9	28.5	31.2	6,351
WV	29.6	27.1	32.1	1,502
WI	28.0	24.5	31.4	1,287
WY	29.3	27.0	31.6	1,842
GU	49.6	40.4	58.7	161
PR	73.2	70.7	75.7	1,458
VI	61.2	56.2	66.1	500

* For specific indicators, see page 5.

NO PNEUMOCOCCAL VACCINATION, 2009*				
State	Percent	Lower	Upper	N
AL	33.7	30.7	36.6	2,115
AK	33.7	26.8	40.5	364
AZ	29.5	26.4	32.7	1,999
AR	32.7	29.7	35.7	1,390
CA	40.1	38.1	42.1	4,556
CO	26.1	24.2	28.0	2,983
CT	31.5	29.0	34.0	2,016
DE	33.5	30.3	36.6	1,394
DC	37.9	34.4	41.3	993
FL	34.7	32.6	36.8	4,410
GA	36.6	33.7	39.4	1,636
HI	35.6	32.7	38.4	1,816
ID	36.0	33.2	38.7	1,627
IL	36.7	34.0	39.4	1,708
IN	33.7	31.5	35.9	2,671
IA	30.1	27.8	32.4	1,898
KS	32.3	31.0	33.6	5,933
KY	33.2	30.5	35.8	2,868
LA	30.7	28.5	32.9	2,693
ME	28.6	26.6	30.7	2,350
MD	31.1	28.5	33.7	2,265
MA	28.7	26.8	30.6	4,277
MI	32.5	30.5	34.5	2,897
MN	27.4	25.2	29.7	1,768
MS	32.2	30.3	34.0	3,777
MO	31.7	28.7	34.7	1,590
MT	28.2	26.1	30.4	2,380

NO PNEUMOCOCCAL VACCINATION, 2009*				
State	Percent	Lower	Upper	N
NE	30.9	29.0	32.8	5,711
NV	32.3	28.4	36.3	1,152
NH	28.6	26.0	31.1	1,773
NJ	37.6	35.3	39.9	3,093
NM	32.4	30.3	34.6	2,550
NY	33.8	31.0	36.5	2,014
NC	30.1	28.0	32.3	3,989
ND	29.2	26.5	31.8	1,392
OH	32.6	30.5	34.7	2,950
OK	27.9	25.9	29.9	2,534
OR	30.5	27.9	33.1	1,425
PA	30.0	27.9	32.1	2,906
RI	29.0	26.5	31.4	1,810
SC	30.3	28.0	32.6	3,250
SD	33.8	31.4	36.3	2,251
TN	36.1	33.3	38.8	1,847
TX	34.0	31.4	36.7	3,280
UT	31.0	28.8	33.2	2,417
VT	28.2	26.0	30.5	1,842
VA	29.2	26.2	32.1	1,383
WA	29.0	27.6	30.3	6,150
WV	31.2	28.6	33.8	1,484
WI	30.0	26.4	33.7	1,267
WY	28.6	26.3	31.0	1,800
GU	80.9	74.3	87.5	151
PR	74.2	71.6	76.8	1,321
VI	63.8	58.7	68.8	466

* For specific indicators, see page 5.

NO BREAST CANCER SCREENING, 2008*				
State	Percent	Lower	Upper	N
AL	19.2	15.2	23.2	753
AK	27.5	16.1	38.9	111
AZ	15.4	10.6	20.3	765
AR	19.8	16.1	23.5	651
CA	15.6	12.0	19.3	987
CO	17.7	15.0	20.5	972
CT	12.2	8.8	15.5	594
DE	11.7	8.0	15.5	422
DC	8.3	4.8	11.8	371
FL	12.7	9.8	15.5	1,265
GA	11.0	8.4	13.7	598
HI	16.3	12.0	20.6	506
ID	23.4	19.0	27.7	447
IL	15.7	12.0	19.4	518
IN	21.1	16.4	25.8	497
IA	17.8	14.4	21.3	568
KS	18.3	15.4	21.2	821
KY	17.3	14.3	20.2	992
LA	19.0	15.5	22.4	647
ME	9.8	7.4	12.1	686
MD	14.5	11.0	18.0	822
MA	9.8	7.9	11.7	1,755
MI	16.0	13.3	18.7	949
MN	14.8	11.1	18.5	403
MS	24.8	21.6	27.9	937
MO	19.9	15.6	24.2	528
MT	20.5	17.0	24.1	703

NO BREAST CANCER SCREENING, 2008*				
State	Percent	Lower	Upper	N
NE	20.3	17.2	23.3	1,545
NV	22.6	17.1	28.0	463
NH	10.9	8.1	13.7	618
NJ	21.1	17.8	24.4	999
NM	22.4	18.2	26.6	601
NY	17.7	14.1	21.4	773
NC	14.4	12.3	16.6	1,709
ND	17.2	13.4	20.9	482
OH	19.0	16.2	21.7	1,292
OK	23.0	19.9	26.2	876
OR	18.1	13.8	22.3	449
PA	17.5	14.8	20.3	1,330
RI	12.2	8.8	15.6	434
SC	18.7	14.7	22.8	1,172
SD	17.5	13.7	21.3	633
TN	16.7	13.0	20.4	600
TX	16.9	14.0	19.8	1,113
UT	24.3	19.2	29.3	379
VT	16.8	13.6	20.1	604
VA	16.3	11.3	21.3	510
WA	15.8	14.0	17.6	2,284
WV	21.1	16.7	25.4	408
WI	17.2	12.7	21.7	608
WY	26.1	22.6	29.5	748
GU	27.2	11.0	43.4	38
PR	18.8	15.1	22.5	592
VI	22.9	15.6	30.2	159

* For specific indicators, see page 5.

Appendix B
State-by-State Data with Confidence Intervals

NO COLORECTAL CANCER SCREENING, 2008*†				
State	Percent	Lower	Upper	N
AL	37.1	33.6	40.5	1,217
AK	40.8	32.2	49.4	232
AZ	32.3	27.8	36.7	1,289
AR	42.8	39.4	46.2	1,103
CA	39.6	36.4	42.8	1,745
CO	34.5	32.0	37.1	1,727
CT	31.8	28.3	35.3	1,023
DE	28.0	23.7	32.3	721
DC	34.6	29.9	39.2	642
FL	33.5	30.2	36.7	2,186
GA	31.9	28.3	35.4	995
HI	38.8	34.9	42.8	970
ID	44.1	40.2	48.0	817
IL	37.9	33.9	41.8	834
IN	42.3	38.0	46.6	800
IA	35.6	32.2	38.9	972
KS	35.3	32.6	38.0	1,419
KY	38.8	35.4	42.1	1,537
LA	44.6	40.9	48.4	1,000
ME	26.4	23.6	29.3	1,191
MD	30.9	27.7	34.2	1,459
MA	29.0	26.7	31.3	2,923
MI	34.1	31.4	36.8	1,622
MN	31.4	27.6	35.2	687
MS	41.7	38.8	44.5	1,536
MO	38.8	34.9	42.6	928
MT	37.4	34.1	40.8	1,201

NO COLORECTAL CANCER SCREENING, 2008*†				
State	Percent	Lower	Upper	N
NE	40.3	37.3	43.3	2,728
NV	40.3	35.4	45.1	839
NH	28.2	25.1	31.3	1,109
NJ	38.5	35.4	41.5	1,767
NM	40.3	36.7	43.8	1,078
NY	32.3	29.2	35.5	1,306
NC	31.1	29.0	33.2	2,861
ND	39.4	35.8	43.0	842
OH	38.3	35.7	40.9	2,198
OK	43.4	40.5	46.4	1,484
OR	35.3	31.6	39.1	790
PA	36.4	33.6	39.3	2,236
RI	28.2	24.4	32.0	742
SC	35.1	32.1	38.2	2,038
SD	32.3	29.1	35.5	1,216
TN	34.9	31.2	38.7	1,006
TX	37.7	34.6	40.7	1,904
UT	34.3	30.1	38.5	713
VT	32.8	29.7	35.9	1,080
VA	31.9	27.8	36.0	910
WA	34.5	32.7	36.3	4,031
WV	41.7	37.8	45.6	722
WI	32.9	28.8	36.9	1,084
WY	41.7	38.8	44.7	1,293
GU	53.6	40.0	67.3	65
PR	55.9	52.3	59.4	973
VI	54.2	47.5	60.8	288

* For specific indicators, see page 5.

† Colorectal cancer screening included at least one of the following: home blood stool test (using FOBT) within past year; sigmoidoscopy within past five years and FOBT within three years; or colonoscopy within past 10 years.

NO DIABETES SCREENING, 2009*†				
State	Percent	Lower	Upper	N
AL	31.3	28.1	34.5	1,611
AK	30.8	24.1	37.6	313
AZ	30.0	26.7	33.3	1,684
CA	33.0	29.9	36.2	1,397
CO	30.8	28.0	33.6	1,387
CT	30.2	27.6	32.9	1,718
DE	28.9	25.4	32.3	1,015
DC	26.8	23.5	30.1	856
FL	35.2	32.8	37.5	3,343
GA	30.9	27.8	34.0	1,198
HI	42.4	37.9	47.0	787
ID	34.9	31.9	37.9	1,322
IL	27.2	24.5	29.8	1,452
IA	30.2	27.7	32.7	1,578
KS	31.2	29.3	33.2	2,458
KY	31.9	28.9	34.8	2,256
LA	26.1	23.8	28.3	1,990
ME	31.3	28.0	34.5	971
MA	30.1	28.0	32.3	3,282
MN	29.4	26.9	32.0	1,480
MO	28.3	25.0	31.6	1,291
MT	31.8	29.3	34.3	2,025

NO DIABETES SCREENING, 2009*†				
State	Percent	Lower	Upper	N
NE	34.9	31.4	38.3	1,553
NH	32.6	29.7	35.5	1,480
NM	32.1	29.7	34.5	2,135
NY	28.2	24.8	31.6	809
NC	23.7	21.6	25.9	3,137
OH	35.2	32.9	37.5	2,325
OK	28.4	25.2	31.6	953
PA	26.5	24.3	28.6	2,376
RI	29.3	25.6	33.0	767
SD	23.4	21.1	25.7	1,828
TN	33.0	30.0	35.9	1,557
TX	28.2	25.3	31.1	2,677
UT	33.4	31.0	35.9	1,980
VT	32.2	29.6	34.7	1,567
VA	31.5	27.7	35.2	1,020
WA	33.1	31.6	34.7	5,070
WV	23.5	20.7	26.3	1,109
WI	27.5	23.6	31.4	1,055
WY	32.7	30.2	35.3	1,556
GU	42.3	31.7	52.8	122
PR	12.7	10.4	15.0	1,004
VI	21.7	17.0	26.3	399

* For specific indicators, see page 5.

† Optional module asked in 40 states, the District of Columbia, and three territories

NO LIPID DISORDER SCREENING, 2009*				
State	Percent	Lower	Upper	N
AL	6.3	4.8	7.9	2,104
AK	10.0	6.1	13.8	371
AZ	4.5	3.2	5.8	2,060
AR	5.8	4.4	7.2	1,433
CA	6.8	5.7	7.8	5,115
CO	5.6	4.5	6.6	3,193
CT	4.1	3.1	5.1	2,065
DE	3.9	2.8	5.0	1,400
DC	6.0	4.4	7.5	1,048
FL	3.9	3.1	4.7	4,526
GA	6.2	4.7	7.7	1,683
HI	6.2	4.8	7.6	1,909
ID	8.2	6.7	9.7	1,663
IL	5.5	4.3	6.7	1,756
IN	6.2	5.1	7.3	2,747
IA	6.3	5.1	7.5	1,902
KS	6.0	5.3	6.6	5,860
KY	4.9	3.5	6.2	2,931
LA	5.3	4.2	6.3	2,682
ME	3.5	2.6	4.3	2,399
MD	5.3	3.8	6.8	2,329
MA	4.0	3.2	4.7	4,607
MI	4.3	3.4	5.3	2,936
MN	4.9	3.7	6.0	1,785
MS	6.4	5.4	7.3	3,797
MO	4.9	3.7	6.1	1,618
MT	7.4	6.1	8.6	2,398

NO LIPID DISORDER SCREENING, 2009*				
State	Percent	Lower	Upper	N
NE	6.6	5.7	7.4	5,769
NV	6.2	4.3	8.1	1,183
NH	4.3	3.2	5.3	1,817
NJ	5.7	4.7	6.7	3,282
NM	7.9	6.6	9.1	2,597
NY	3.9	2.9	4.9	2,087
NC	3.9	2.9	4.8	3,990
ND	6.2	4.9	7.6	1,428
OH	6.0	5.0	7.1	2,979
OK	6.0	4.9	7.1	2,504
OR	6.3	5.0	7.6	1,502
PA	4.4	3.6	5.3	2,990
RI	3.5	2.6	4.4	1,847
SC	3.9	3.0	4.9	3,286
SD	5.9	4.8	7.1	2,260
TN	6.6	5.2	8.0	1,893
TX	6.0	4.5	7.4	3,354
UT	7.3	6.1	8.5	2,414
VT	4.6	3.6	5.6	1,907
VA	3.3	2.3	4.3	1,441
WA	5.9	5.2	6.6	6,221
WV	5.0	3.8	6.3	1,465
WI	5.0	3.4	6.5	1,341
WY	5.5	4.4	6.7	1,815
GU	13.7	7.5	20.0	157
PR	7.0	5.6	8.5	1,456
VI	7.5	4.8	10.3	501

* For specific indicators, see page 5.

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Appendix C
Resources

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Centers for Disease Control and Prevention (CDC)
Collaborating to create the expertise, information, and tools that people and communities need to protect their health – through health promotion, prevention of disease, injury and disability, and preparedness for new health threats.

1600 Clifton Road
Atlanta, GA 30333
www.cdc.gov

Administration on Aging (AoA)
To develop a comprehensive, coordinated and cost-effective system of home and community-based services that helps elderly individuals maintain their health and independence in their homes and communities.

One Massachusetts Avenue NW
Washington, DC 20001
www. aoa.gov

Agency for Healthcare Research and Quality (AHRQ)
To improve the quality, safety, efficiency, and effectiveness of health care for all Americans.

540 Gaither Road
Rockville, MD 20850
www.ahrq.gov

Centers for Medicare and Medicaid Services (CMS)
To ensure effective, up-to-date health care coverage and to promote quality care for beneficiaries.

7500 Security Boulevard
Baltimore, MD 21244
www.cms.gov