

Prevention Data Website--User's Guide

Introduction

The Prevention Data Website provides information on the use of preventive services by Medicare beneficiaries from two main sources—billing data collected through Medicare claims, and self-reported data collected by questionnaires and surveys. Each of these sources has advantages and disadvantages. For example, Medicare claims data are subject to underestimates of actual use because some care is provided outside of the Medicare fee-for-service system (for example, managed care or free care provided by health departments or at health fairs) and these providers don't submit bills for services. In contrast, for a variety of reasons, self-reported data tend to overestimate use. Despite these limitations, claims and self-reported data can provide information regarding the use of services in a given year or over time to determine whether certain areas or groups are not availing themselves of these services and whether outreach may be helpful.

While on the surface the notion that all Medicare beneficiaries should take advantage of all preventive benefits might seem appropriate, the reality is that some services may not be clinically appropriate for some beneficiaries. As a result, it may be difficult to interpret rates for some preventive services. For example, guidelines from the American Cancer Society suggest that women over 70 who have had 3 or more normal Pap tests in a row and no abnormal Pap test results in the last 10 years may choose to stop having cervical cancer testing. Like other medical decisions, deciding whether to receive a cancer screening requires weighing the potential benefits and harms, especially among chronically ill individuals. These individuals may have a life expectancy that is shorter than any survival benefit from cancer screening.

Promoting the appropriate use of preventive services is important. The Prevention Data Website may help identify opportunities for improving the use of services and for tracking utilization over time.

Medicare Claims Data

The Medicare Claims Data section of the Prevention Data Website features an Interactive Database providing information on the use of preventive services by calendar year, as well as analyses of Medicare claims data for specific preventive services, such as biennial mammography screening and pneumococcal vaccination rates.

The Interactive Database on this website uses data from Medicare claims to provide information on the use of and expenditures for preventive services. This information is available by calendar year at the national, state, and county level, and by specific demographic groups at the national and state level. These data reflect use of preventive services by fee-for-service Medicare beneficiaries only; data on the use of these services by beneficiaries enrolled in Medicare Advantage plans, or other types of capitated plans, such as special needs plans, are not available.

For some preventive services, relying on Medicare claims data alone for information on use is not recommended. For example, some preventive services are available at non-traditional providers, such as churches and health fairs, and may not be billed to Medicare. These include annual influenza immunizations, pneumococcal vaccinations, and cholesterol tests (the Medicare cardiovascular screening benefit). For these services, examining self-reported data is recommended.

While calendar year data can be useful for examining trends, in some cases, looking at claims over a period of time may provide a better depiction of service utilization. For example, Medicare covers various tests for colorectal cancer screening. Fecal occult blood tests are recommended annually, but other colorectal cancer screening tests are recommended at a different frequency, depending on the test and the individual's risk. Thus, examining the use of colorectal cancer screening over a period of time, in addition to annually, is recommended. The Carolinas Centers for Medical Excellence analyzes Medicare claims for colorectal cancer screening and maintains a website with this information. A link to this site is available on the Prevention Data Website.

In addition to information from claims, Medicare enrollment data are used to develop the crude unadjusted (that is, for age, race, gender and any limiting factors—see below) utilization rates on the Interactive Database. To be eligible for preventive services, Medicare beneficiaries must have Part B coverage. Enrollment data provides information on the number of beneficiaries with Medicare Part B coverage and is used to create the denominators that are used to calculate utilization rates. Enrollment data have limitations in accurately identifying beneficiary race and ethnicity. These limitations result in an under-reporting of Hispanics, Asian/Pacific Islanders, and American Indian/Alaskan Natives. Caution should be used in interpreting utilization results for these groups.

It is important to note that some preventive services have limited eligibility. Some preventive benefits are limited to specific high risk persons, and not for the Medicare population as a whole. For example, Medicare only covers diabetes screening tests for people at risk for diabetes. Similarly, Medicare only covers bone mass measurements for beneficiaries who meet specific eligibility criteria. Other services may not be recommended or needed because of a person's medical history (for example, Pap tests for women who have had hysterectomies). Because we do not have readily-available information on the number of people considered to be at high risk and thus eligible for these benefits, or those not likely to use a service because of past medical history, the utilization rates we calculated are based on all people (except for gender-specific services) with Medicare FFS Part B for the specified area or demographic group. For these services, the crude unadjusted utilization rate that appears on the Interactive Database will be lower than the actual rate. This occurs because the denominator used in calculating the rate includes all Medicare beneficiaries that have fee-for-service Part B coverage, and not just the subgroups of these beneficiaries who are eligible for these benefits. Over time, we hope to be able to refine these denominators.

Evaluating the use of Medicare preventive benefits is complicated. It is not always possible to easily distinguish between screening and diagnostic services. For example,

Medicare previously covered glucose tests for people who had symptoms related to diabetes, but who had not yet been formally diagnosed with the disease. The diabetes screening benefit allowed Medicare to cover glucose tests for people at risk for diabetes, but who had not been formally diagnosed. The procedure codes for these glucose tests are the same, regardless of whether a physician ordered the glucose test because an individual had symptoms or was at risk for diabetes. Therefore, we include claims for both diagnostic and screening services in our analyses. We believe this approach is reasonable given that the goal of a specific procedure—whether it is done for screening or diagnostic purposes—is to identify disease among people who have not been formally diagnosed with a disease.

Self-Reported Data

Self-reported data can be collected through in-person, phone, or mail surveys and questionnaires. CMS administers several surveys which collect information on preventive services use. These include the Medicare Current Beneficiary Survey (MCBS), the Consumer Assessment of Healthcare Providers and Systems (CAHPS) survey, and the Medicare Health Outcomes Survey (HOS). Information on the features of these data sources is available elsewhere. This section will describe the information that is available about preventive services in each of these surveys, as well as highlight other data resources that are available.

Medicare Current Beneficiary Survey (MCBS)

The MCBS is a continuous, multipurpose survey of a nationally representative sample of aged, disabled, and institutionalized Medicare beneficiaries. MCBS is the only comprehensive source of information on the health status, health care use and expenditures, health insurance coverage, and socioeconomic and demographic characteristics of the entire spectrum of Medicare beneficiaries. Data can be analyzed many different ways, such as by insurance type (e.g., fee-for-services versus managed care; Medicare only versus Medicare-Medicaid eligible), race/ethnicity, age group, and disease type (e.g., preventive services use by people with diabetes). The Self-Reported Data Analyses section of the website includes a table with self-reported rates for several preventive services and features a special analysis on people with diabetes.

Consumer Assessment of Healthcare Providers and Systems (CAHPS)

The CAHPS program is funded and administered by the Agency for Healthcare Research and Quality and refers to a comprehensive and evolving family of surveys that ask consumers and patients to evaluate the interpersonal aspects of health care. CMS sponsors several CAHPS surveys, including fee-for-service and Medicare Advantage surveys. CAHPS surveys are mail-administered with phone follow-up for non-respondents. Completion by phone is also offered. The Self-Reported Data Analyses section of this website includes information on the use of influenza and pneumococcal vaccinations by Medicare beneficiaries in fee-for-service and managed care for selected years using CAHPS data. Data are available at the national and state level, and by geographic unit.

Medicare Health Outcomes Survey (HOS)

The goal of the Medicare HOS program is to gather valid, reliable, and clinically meaningful health status data in Medicare managed care for use in quality improvement activities, plan accountability, public reporting, and improving health. In addition to health outcomes measures, the HOS is used to collect the Urinary Incontinence in Older Adults, Physical Activity in Older Adults, Fall Risk Management, and Osteoporosis Testing in Older Women HEDIS® measures. All managed care plans with Medicare Advantage (MA) (formerly Medicare +Choice) contracts must participate. In the future, we hope to include information on preventive services use and health behaviors from this survey.

National Center for Health Statistics Trends in Health and Aging Warehouse

The National Center for Health Statistics Trends in Health and Aging Warehouse is another resource for self-reported information on the use of preventive services and health behaviors gathered from various surveys administered by the Centers for Disease Control and Prevention (CDC), as well as other information on the health of older adults. While the data in this warehouse is not specific to people with Medicare, it is specific to people 65 and older. A link to this resource is available on this website.

Other Information

Data on the use of preventive services may be available annually, or less frequently. It may be available at a state or county level, or only at the national level. The following table describes the different data sources on the Prevention Website, and at what level data are available:

Source	Frequency	National	State, County or Geographic Unit
Medicare claims (interactive database)	Annual	✓	✓
Medicare claims (specific services)	As it becomes available	✓	✓
MCBS	Annual	✓	
CAHPS	As it becomes available—currently have annual for FFS & MA through 2004	✓	✓
HOS	As it becomes available	✓	✓ (plan-level)
NCHS Trends in Health and Aging Warehouse site--includes data from the National Health Interview Survey (NHIS), the Behavioral Risk Factor Surveillance System (BRFSS), and other sources	Depends on data source	✓ (NHIS)	✓ (BRFSS)

The next section of this paper presents a table listing Medicare’s preventive services, what type of data is available in the website (e.g., claims or self-reported), and the pros and cons of each data source.

Table of Preventive Services and Available Data Sources

Preventive Service	Recommended source
Influenza immunization	Self-report <ul style="list-style-type: none"> National level—Either MCBS or NHIS State level—BRFSS or CAHPS (through 2004 for both fee-for-service and Medicare Advantage; Medicare Advantage only after 2004) CAHPS also has data for geographic units (through 2004 for both fee-for-service and Medicare Advantage; Medicare Advantage only after 2004) Medicare claims are also available at county level, but are likely to underreport use, as this service may not be billed to Medicare
Pneumococcal vaccination	Self-report <ul style="list-style-type: none"> National level—Either MCBS or NHIS State level—BRFSS or CAHPS (through 2004 for both fee-for-service and Medicare Advantage; Medicare Advantage only after 2004) CAHPS also has data for geographic units (through 2004 for both fee-for-service and Medicare Advantage; Medicare Advantage only after 2004) Medicare claims are also available at county level, but are likely to underreport use, as this service may not be billed to Medicare
Hepatitis B vaccination	NA
Pap Smear (cervical cancer screening)	Self-report <ul style="list-style-type: none"> National level--NHIS State level--BRFSS Both of these surveys ask women if they have had this test in the past three years
Prostate cancer screening	Claims and self-report <ul style="list-style-type: none"> Claims data (on interactive web tool) provides rate for FFS beneficiaries who had either PSA or DRE MCBS provides rate for PSA and DRE separately at the national level BRFSS provides rate for PSA and DRE separately at the state level
Mammography	Claims <ul style="list-style-type: none"> Claims data (on interactive web tool) provide annual rates for FFS beneficiaries at national, state, and county level Separate claims analyses are available for biennial rates (some women have this test biennially) at national and state level Self-report may over-report use
Colorectal cancer screening	Claims <ul style="list-style-type: none"> Claims data from Carolinas Center for Medical Excellence site located on “Medicare Claims Data” page Self reported data might not distinguish between types of screening tests and may over-report use
Cardiovascular blood test	Self-report <ul style="list-style-type: none"> National level-- MCBS for cholesterol testing in past year; State level-- BRFSS cholesterol testing Claims may underreport since this test may be provided and not billed to Medicare (e.g., health fair)
Welcome to Medicare visit	Claims <ul style="list-style-type: none"> Claims data (on interactive web tool) for annual rate for FFS beneficiaries at national, state, and county level Because of the 6-month window for having this service and claims lag, data won’t be final until 12 months after the calendar year of interest (e.g., calendar year 2005 data is complete in December 2006); therefore, we will

	<p>provide initial data around June following the calendar year of interest, and final data around December following the calendar year of interest.</p> <ul style="list-style-type: none"> • Claims may underreport use because physicians might bill service using evaluation and management visit code instead of “G” code for this service
Bone mass measurement	<p>Self-report</p> <ul style="list-style-type: none"> • MCBS for national rate for “ever receiving” • Claims are likely to underreport use of this benefit as some women may receive this service at health fairs; also denominator includes people who are not eligible for this service, and might dilute actual rate
Diabetes screening	<p>We don’t have a recommended source of data at this time. Not all beneficiaries are eligible for this service and the utilization rate on the Interactive Database is based on all Medicare Part B beneficiaries, not just those who are eligible for this service.</p>
Diabetes self management training	NA
Medical nutrition therapy	NA
Glaucoma screening	NA
Ultrasound screening for abdominal aortic aneurysm	NA
Smoking cessation counseling	NA

NA=Not available at this time