

The Medicare Home Health Benefit / Program Costs and Beneficiary Characteristics

Prepared for The Alliance for Home Health
Quality and Innovation

July 15, 2009



Medicare Home Health Benefit

Medicare covers home health services for beneficiaries who require part-time or intermittent skilled care and are homebound, that is, unable to leave their home without considerable effort. In 2007, 3.1 million beneficiaries used home care.¹

The Medicare beneficiary data studied suggests beneficiaries using the home health benefit are poorer, older, less educated, less likely to be married, have poorer health status, greater functional limitations, and are more likely to be cognitively impaired than the general Medicare population.

1. MedPAC. "Report to the Congress: Medicare Payment Policy." March 2009, p. 190.

Data Sources

All publicly available data sources are cited on each slide.

Avalere analyzed data from the following sources as noted:

The Medicare Current Beneficiary Survey (MCBS). The Centers for Medicare & Medicaid Services sponsors the MCBS, which is a nationally representative sample of aged, disabled, and institutionalized Medicare beneficiaries.¹ Using the 2005 MCBS Access to Care file, Avalere performed descriptive statistics comparing the demographic and functional/clinical characteristics of home health users to all Medicare beneficiaries.

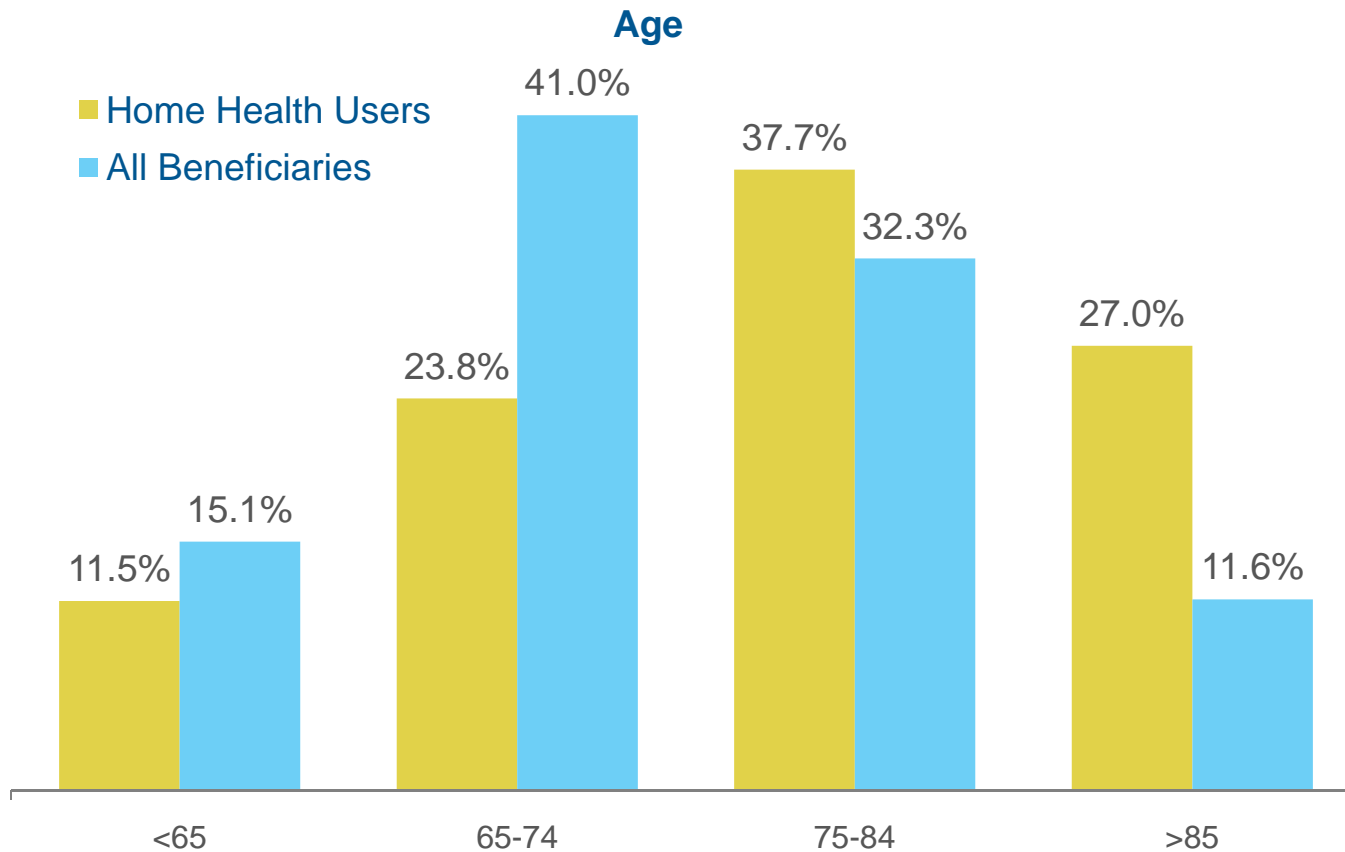
The Medicare Standard Analytical Files. The standard analytical files include beneficiary-level Medicare claims data. Avalere relied on these data to identify the most common home health and hospital diagnoses and for the study on early home health users.

1. The Centers for Medicare & Medicaid Services, <http://www.cms.hhs.gov/MCBS/>



Demographic Characteristics

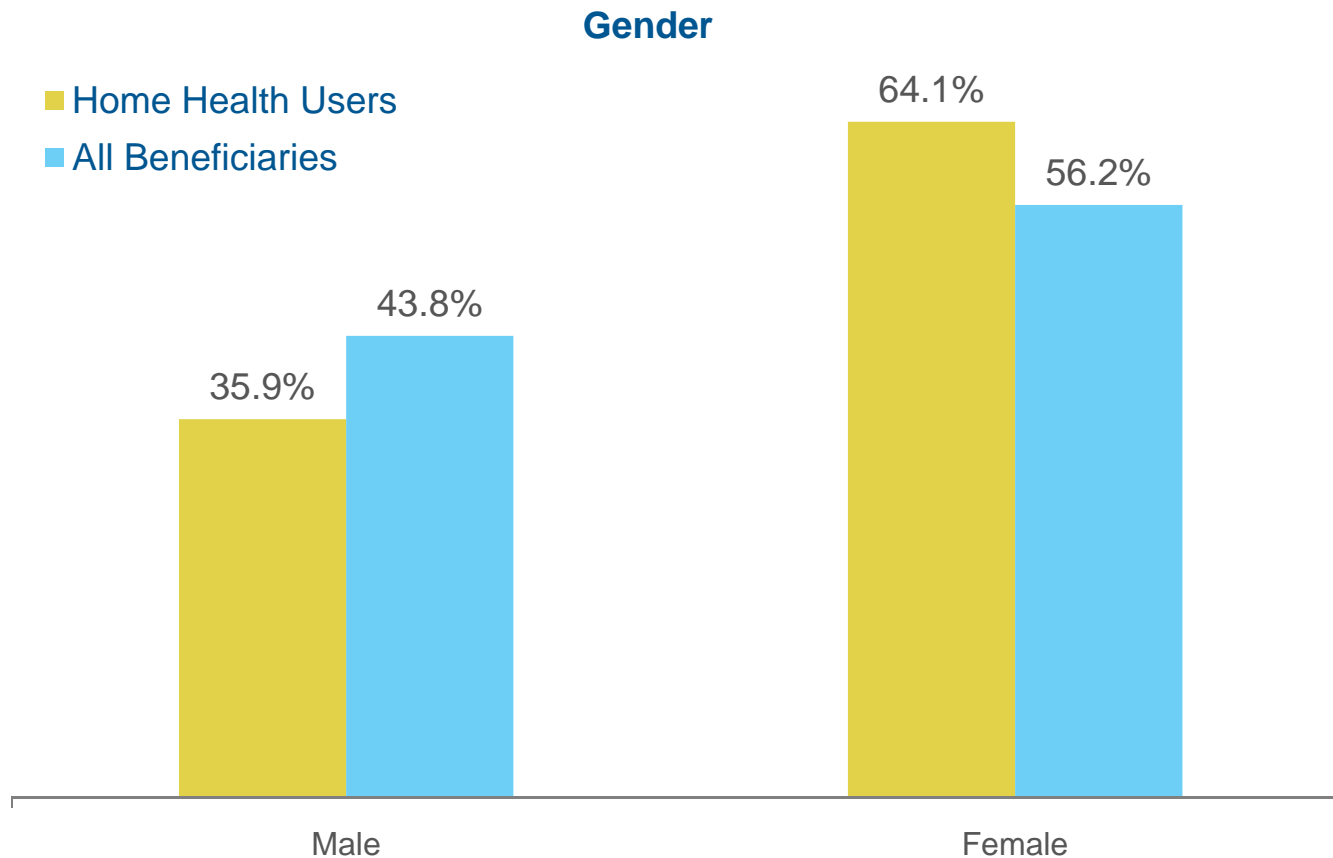
Beneficiaries Using Home Health Are Older than the General Medicare Population



Over half of the home health users are 75 or older compared to the Medicare population, the majority of whom are 74 or younger

Source: Avalere analysis of the Medicare Current Beneficiary Survey, Access to Care, 2005.

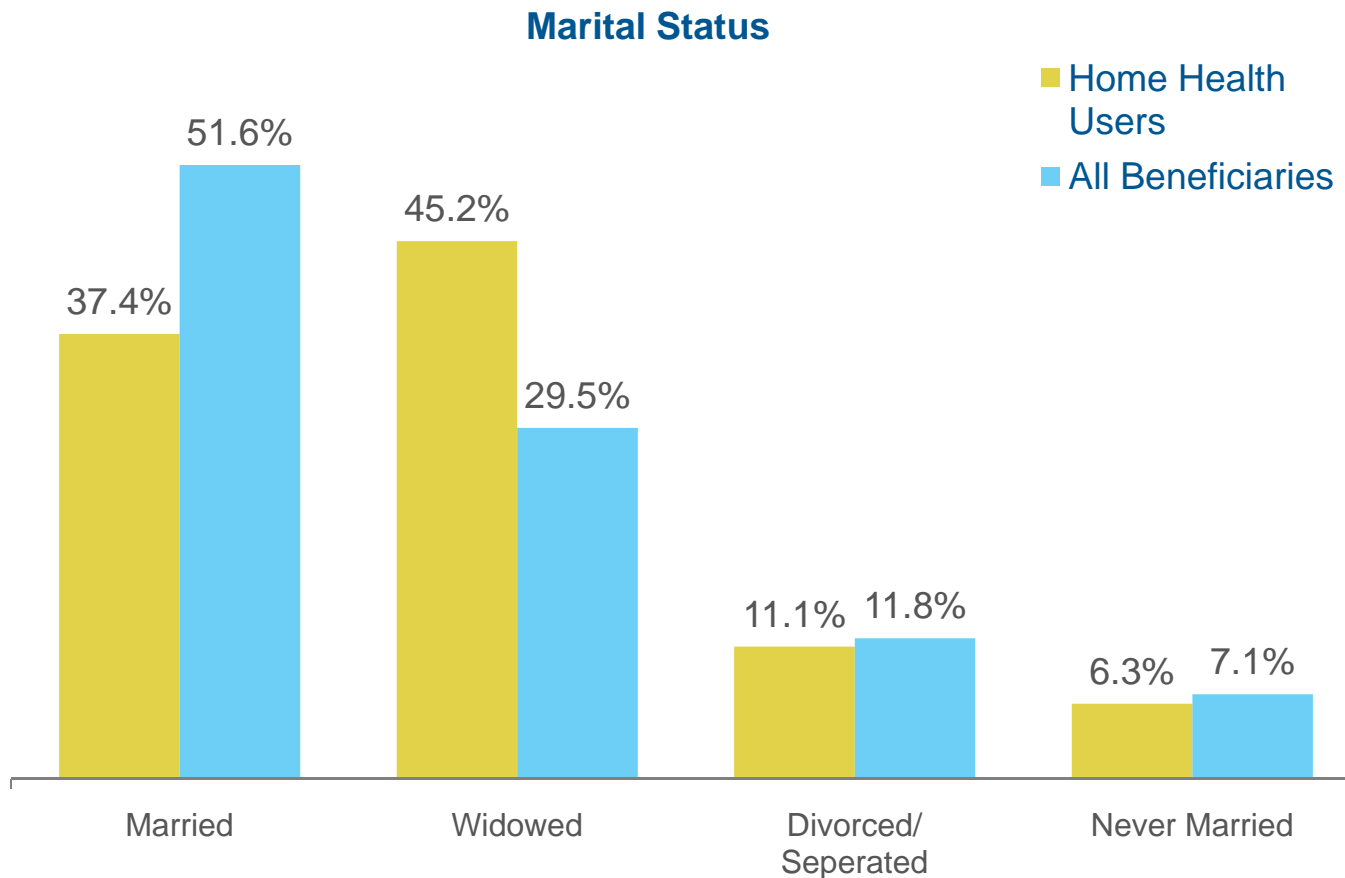
Compared to the Overall Medicare Population, Home Health Users Are More Likely to Be Female



About 64 percent of home health users are women compared to the overall Medicare population, of which about 56 percent are women

Source: Avalere analysis of the Medicare Current Beneficiary Survey, Access to Care, 2005.

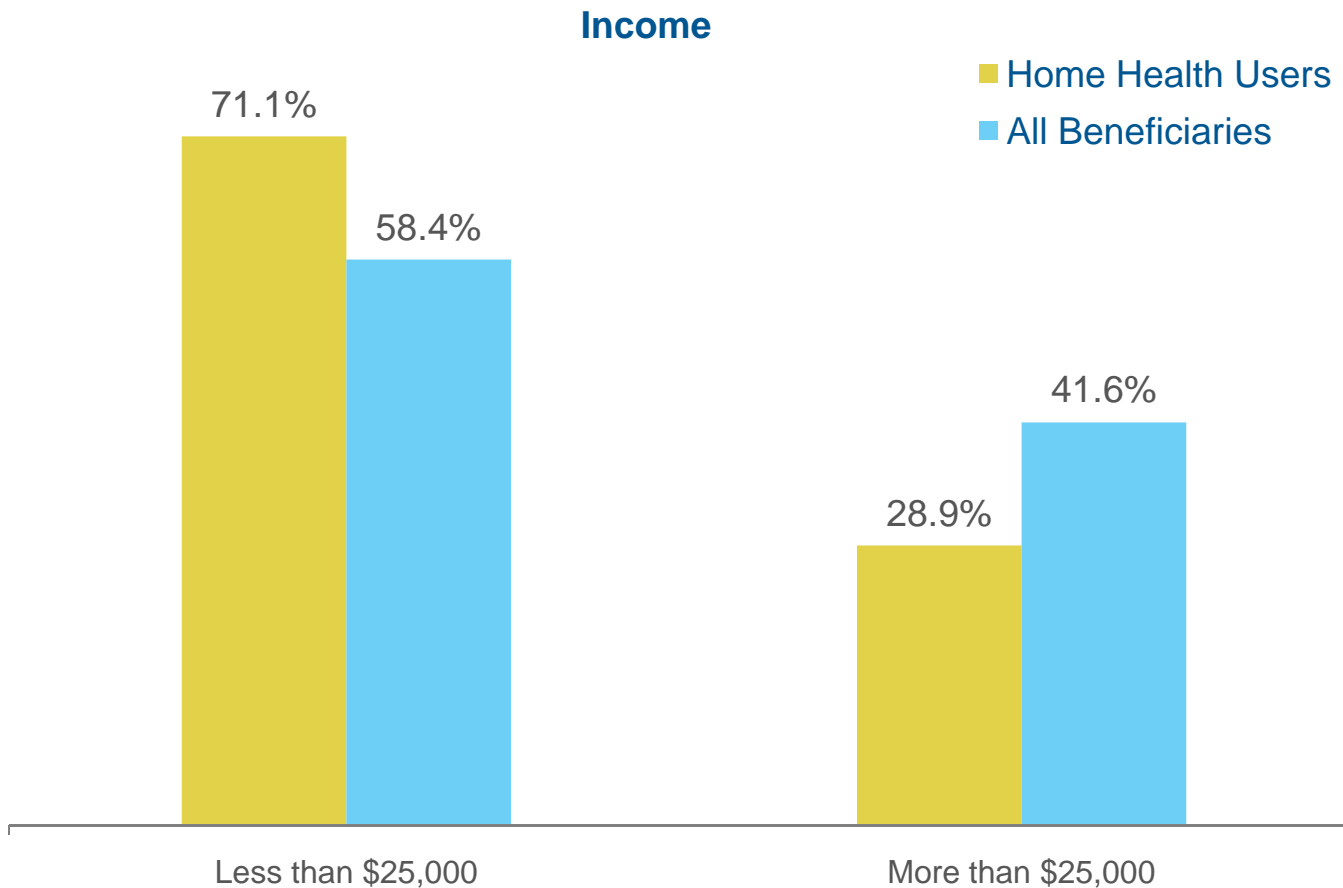
Home Health Users Are More Frequently Widowed than the Overall Medicare Population



Almost half (45.2%) of home health users are widowed, compared to less than one-third (29.5%) of the overall Medicare population

Source: Avalere analysis of the Medicare Current Beneficiary Survey, Access to Care, 2005.

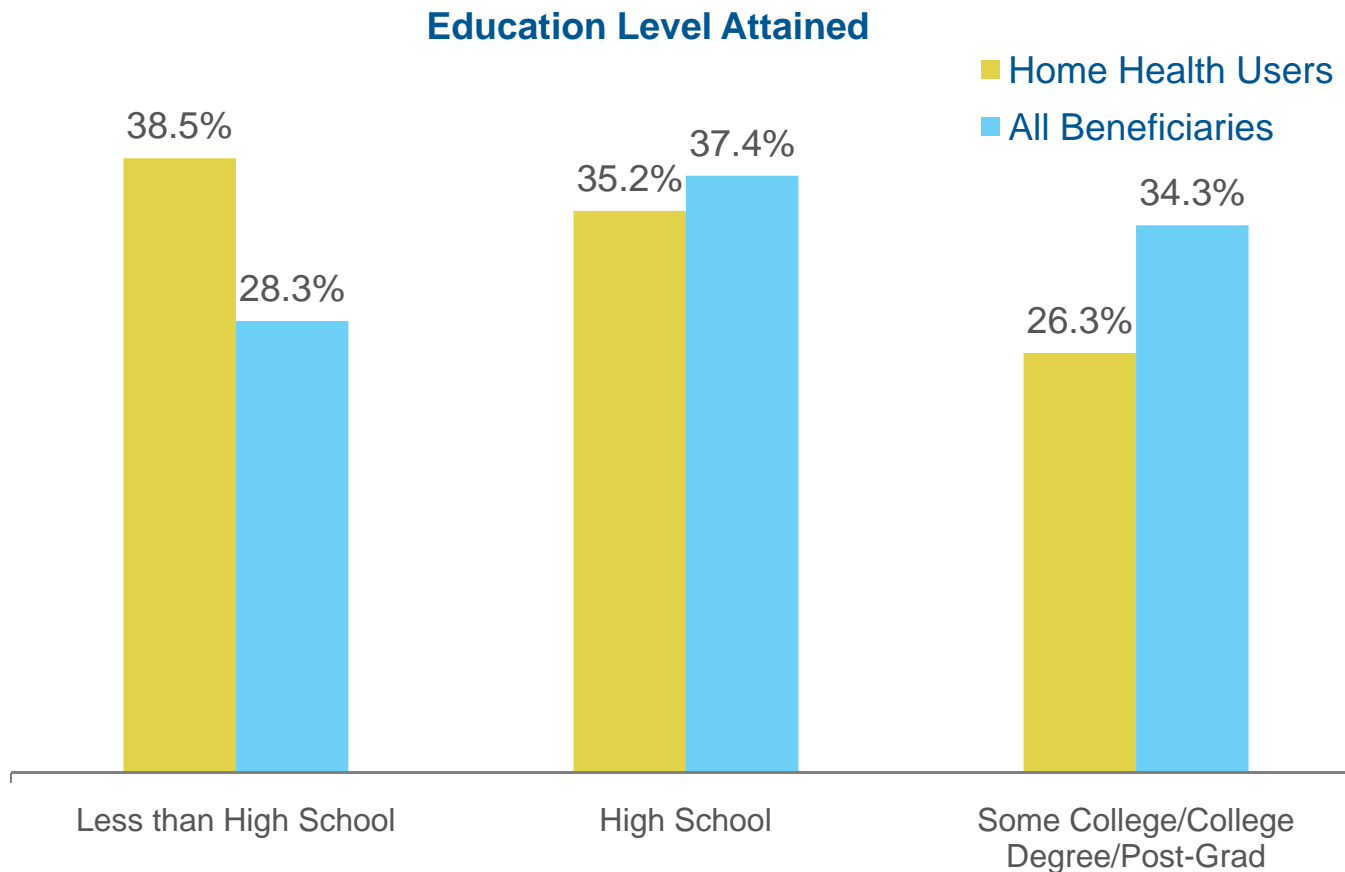
Home Health Users More Frequently Report Annual Income Below \$25,000 than the Overall Medicare Population



Nearly three-quarters of Medicare beneficiaries using home health have incomes less than \$25,000, compared to about 58 percent of the overall Medicare population

Source: Avalere analysis of the Medicare Current Beneficiary Survey, Access to Care, 2005.

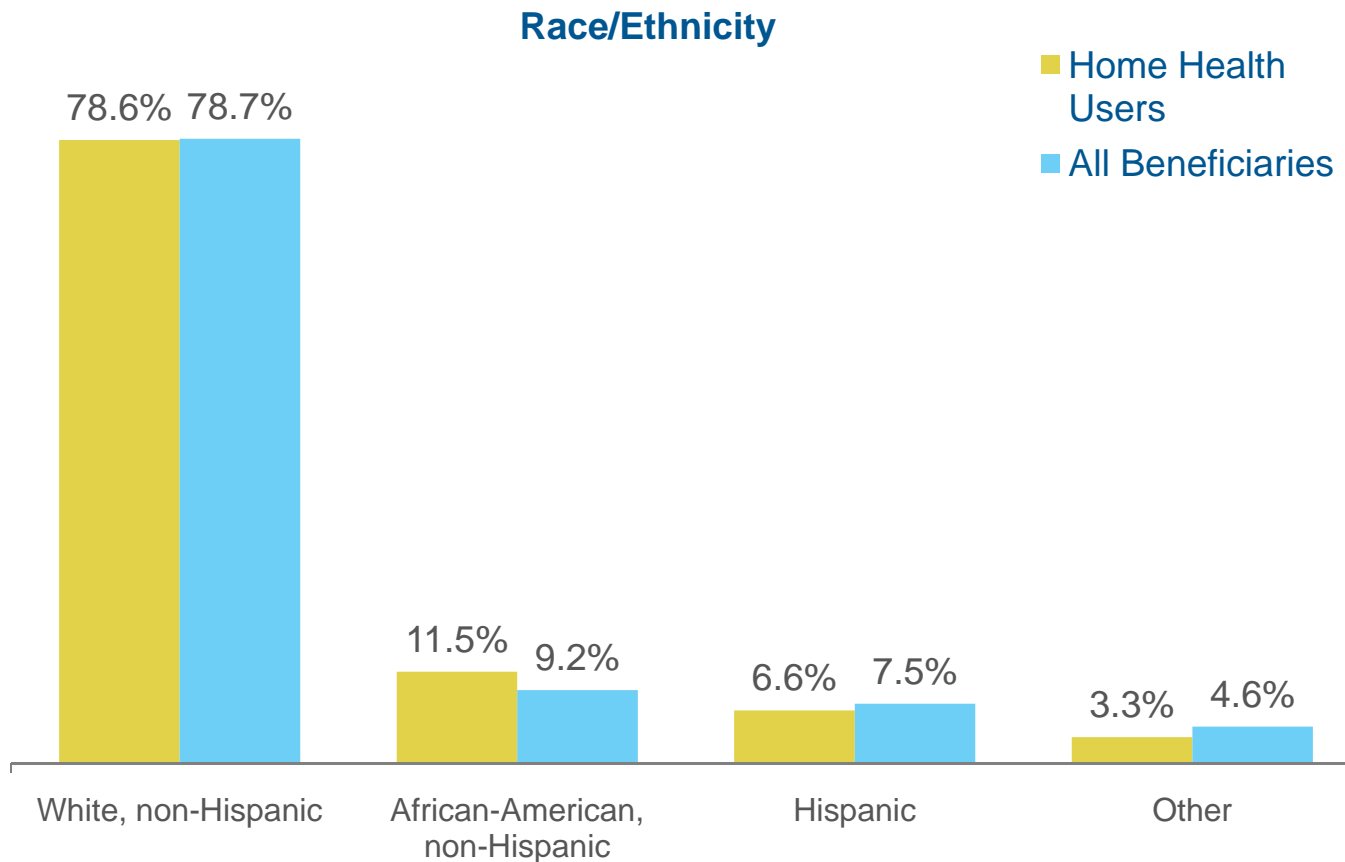
Medicare Beneficiaries Using Home Health Are Less Likely to Have Attended College than the Overall Medicare Population



Only a quarter of home health users attended college compared to one-third of the overall Medicare population

Source: Avalere analysis of the Medicare Current Beneficiary Survey, Access to Care, 2005.

Home Health Users Race/Ethnicity Does not Differ Substantially from the Overall Medicare Population



Home health users race/ethnicity does not differ substantially from the overall Medicare population

Source: Avalere analysis of the Medicare Current Beneficiary Survey, Access to Care, 2005.



Functional and
Clinical Characteristics

Hospital Diagnoses Range Widely for Inpatients Discharged to Home Health

Top 20 Hospital Diagnoses Discharging to Home Health	Percent
Osteoarthritis and allied disorders	7.59%
Heart failure	7.13%
Pneumonia, organism unspecified	4.05%
Complications peculiar to certain specified procedures	3.28%
Chronic bronchitis	3.01%
Other forms of chronic ischemic heart disease	2.82%
Cardiac dysrhythmias	2.71%
Septicemia	2.65%
Other disorders of urethra and urinary tract	2.35%
Acute myocardial infarction	2.28%
Diabetes mellitus	2.26%
Acute renal failure	2.23%
Other cellulitis and abscess	2.20%
Disorders of fluid, electrolyte, and acid-base balance	2.14%
General symptoms	1.98%
Other diseases of lung	1.87%
Occlusion of cerebral arteries	1.61%
Other complications of procedures, not elsewhere classified	1.54%
Intestinal obstruction without mention of hernia	1.08%
Symptoms involving respiratory system and other chest symptoms	1.01%

Hospital inpatients discharged to home health exhibit a wide range of hospital diagnoses upon discharge

Source: Avalere analysis of the Hospital and Home Health Standard Analytic Files, 2007, based on principal diagnosis of hospital stay.



In Home Health Setting, Users Most Often Assigned Diagnosis of Care Involving Rehabilitation

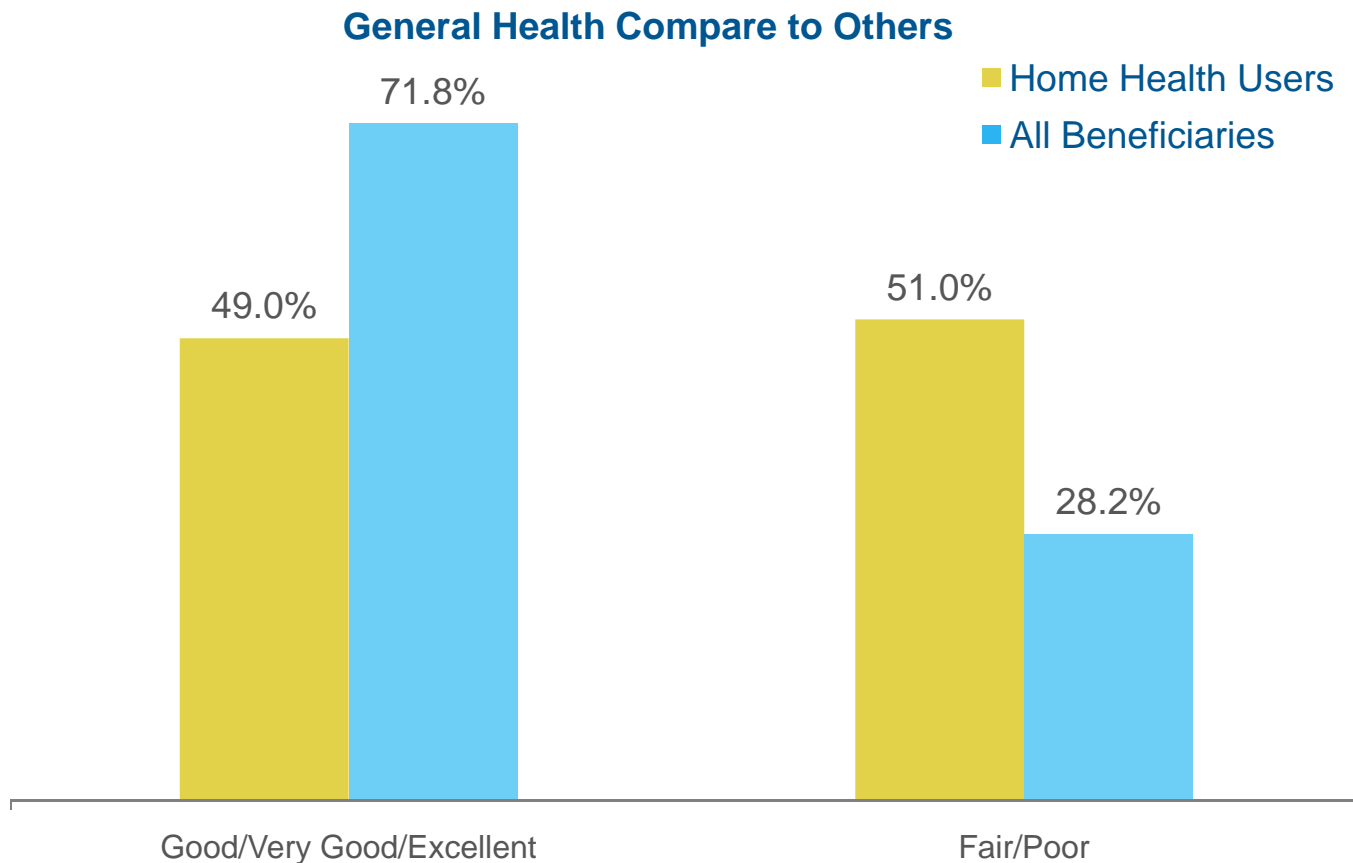
Top 20 Diagnoses for Home Health Episodes	Percent
Care involving use of rehabilitation procedures	12.51%
Other and unspecified aftercare	9.00%
Diabetes mellitus	8.61%
Other orthopedic aftercare	7.66%
Symptoms involving nervous and musculoskeletal systems	4.41%
Heart failure	4.34%
Disorders of muscle, ligament, and fascia	3.80%
Essential hypertension	3.13%
Chronic ulcer of skin	2.97%
Chronic airways obstruction, not elsewhere classified	1.68%
Occlusion of cerebral arteries	1.58%
Other and unspecified arthropathies	1.43%
Cardiac dysrhythmias	1.39%
Pneumonia, organism unspecified	1.29%
General symptoms	1.29%
Chronic bronchitis	1.16%
Osteoarthritis and allied disorders	1.13%
Other cellulitis and abscess	1.12%
Other complications of procedures, not elsewhere classified	1.09%
Other and unspecified disorders of back	1.06%

The most frequent diagnoses in the home health setting relate to rehabilitation services

Source: Avalere analysis of the Hospital and Home Health Standard Analytic Files, 2007.



Home Health Users' Reported Health Status Is Poorer than the Overall Medicare Population



About half of home health users report fair to poor health compared to just over one-quarter of the overall Medicare population

Source: Avalere analysis of the Medicare Current Beneficiary Survey, Access to Care, 2005.

Home Health Users More Frequently Report Five or More Chronic Conditions than the Overall Medicare Population

	Home Health Users	All Beneficiaries
Number of Chronic Conditions		
No chronic conditions	1.6%	7.1%
1-2 chronic conditions	24.0%	39.5%
3-4 chronic conditions	43.1%	38.7%
5 or more chronic conditions	31.3%	14.7%

Nearly one-third of home health users have 5 or more chronic conditions compared to only about 15 percent of the overall Medicare population

The following chronic conditions are included: Hypertension, Coronary Heart Disease, Stroke, Cancer, Diabetes, Arthritis, Mental Retardation, Alzheimer's, Depression/Other Mental Disorder, Osteoporosis, Parkinson's, Pulmonary Disease, Paralysis, Broken Hip

Source: Avalere analysis of the Medicare Current Beneficiary Survey, Access to Care, 2005.



Home Health Users More Frequently Report Limitations in Two or More Activities of Daily Living (ADLs) than the Overall Medicare Population

	Home Health Users	All Beneficiaries
Limitations in		
2 activities of daily living	7.5%	2.6%
3+ activities of daily living	22.7%	7.5%
Total	30.3%	10.1%

Limitations in ADLs are a measure of functional impairment. ADLs include bathing, dressing, eating, getting in/out of bed/chair, walking, and toileting.

The home health benefit disproportionately serves functionally impaired beneficiaries over 30% of whom have limitations in two or more ADLs

ADLs defined as follows:

Community survey. Person has a given ADL if either: The person receives help with the activity (HELPBATH, HELPDRES, HELPEAT, HELPCHAR, HELPWALK, HELPTOIL equal "Yes"); or Someone is nearby while performing the activity (PCHKBATH, PCHKDRES, PCHKEAT, PCHKCHAR, PCHKWALK, PCHKTOIL equal "Yes")
 Facility survey. Person has a given ADL if their level of self-perform for the activity (PFBATHNG, PFDRSSNG, PFEATING, PFTRNSFR, PFLOCOMO, PFTOILET) is among the following: Supervision, Limited assistance, extensive assistance, total dependence

Source: Avalere analysis of the Medicare Current Beneficiary Survey, Access to Care, 2005.



Home Health Users Report More Cognitive Impairment than the Overall Medicare Population

	Home Health Users	All Beneficiaries
Reported memory loss	27.0%	15.6%
Reported problems making decisions	18.1%	10.9%

About 45 percent of home health users report either memory loss or problems making decisions compared to 26.5 percent of overall Medicare beneficiaries

3



Spending

Medicare Home Health Spending

Medicare Home Health Spending Was Higher in the mid-1990s than in 2007

- In 2007, Medicare spent \$15.4 billion per year on home health services, versus \$17.8 billion in 1996
- Medicare spending per fee-for-service (FFS) beneficiary was \$427 in 2007 versus \$523 in 1996
- The Balanced Budget Act of 1997 included several home health policy changes including an interim payment system, which reduced payments for home health, and a prospective payment system, which was implemented in 2000
- Payments to home health agencies decreased from 1997-2000 but have increased since 2000 under the prospective payment system (PPS)

Medicare Home Health Spending Has Increased Since 2000 but is Lower than Mid-1990 Levels

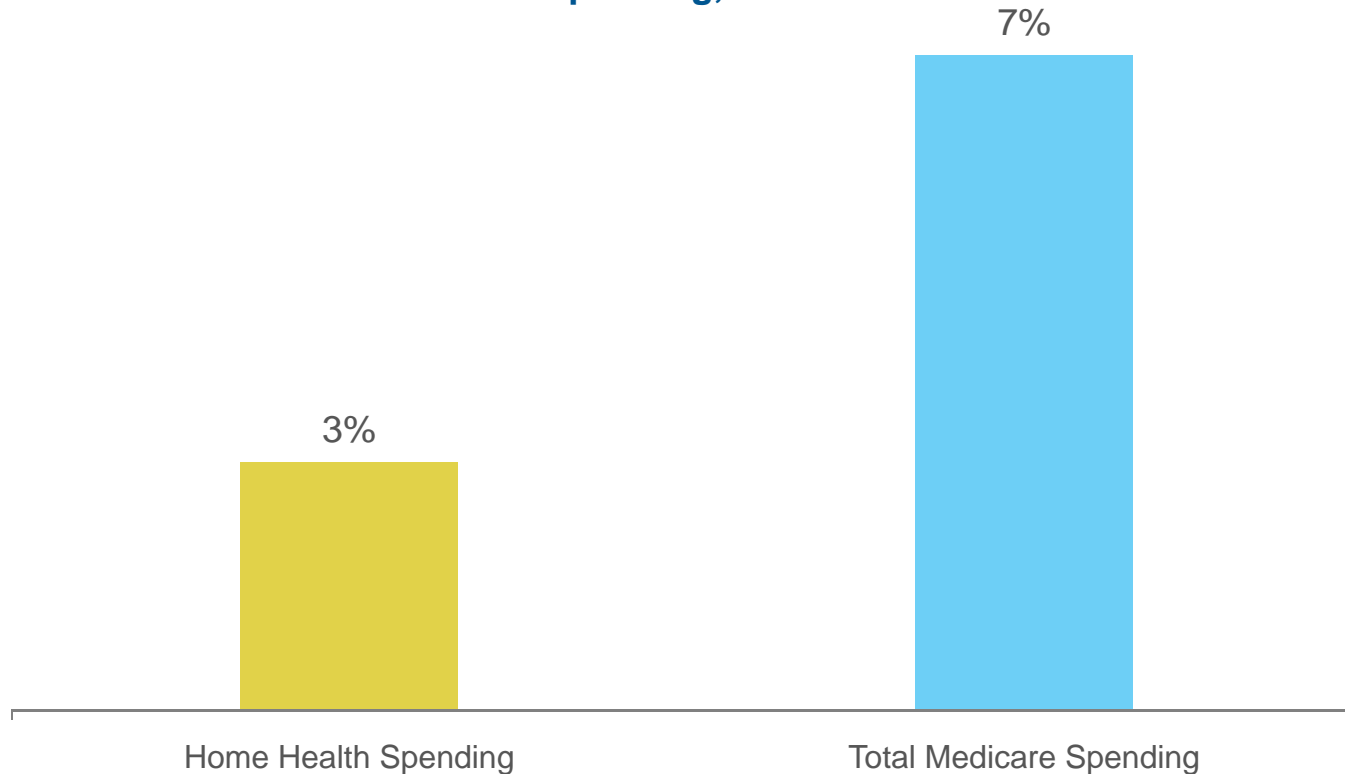
Medicare Home Health Spending 1996-2007

	1996	2007
Total Medicare Home Health Spending	17.8 billion	15.4 billion
Medicare Home Health Spending per FFS Beneficiary	\$523	\$427

Medicare spent \$15.4 billion per year on home health services in 2007 versus \$17.8 billion in 1996

Over the 1994-2008 Period, Average Annual Growth in Medicare Home Health Spending Was Lower than Average Annual Growth in Aggregate Medicare Spending

Average annual growth rate in total Medicare versus home health spending, 1994-2008



Medicare home health spending grew at an average rate of 3% versus 7% for the Medicare program¹ over the 1994-2008 period

Source: The Centers for Medicare & Medicaid Services, Office of the Actuary, Calendar Year Data.
1. Analysis does not include program costs associated with Medicare Part D.

4



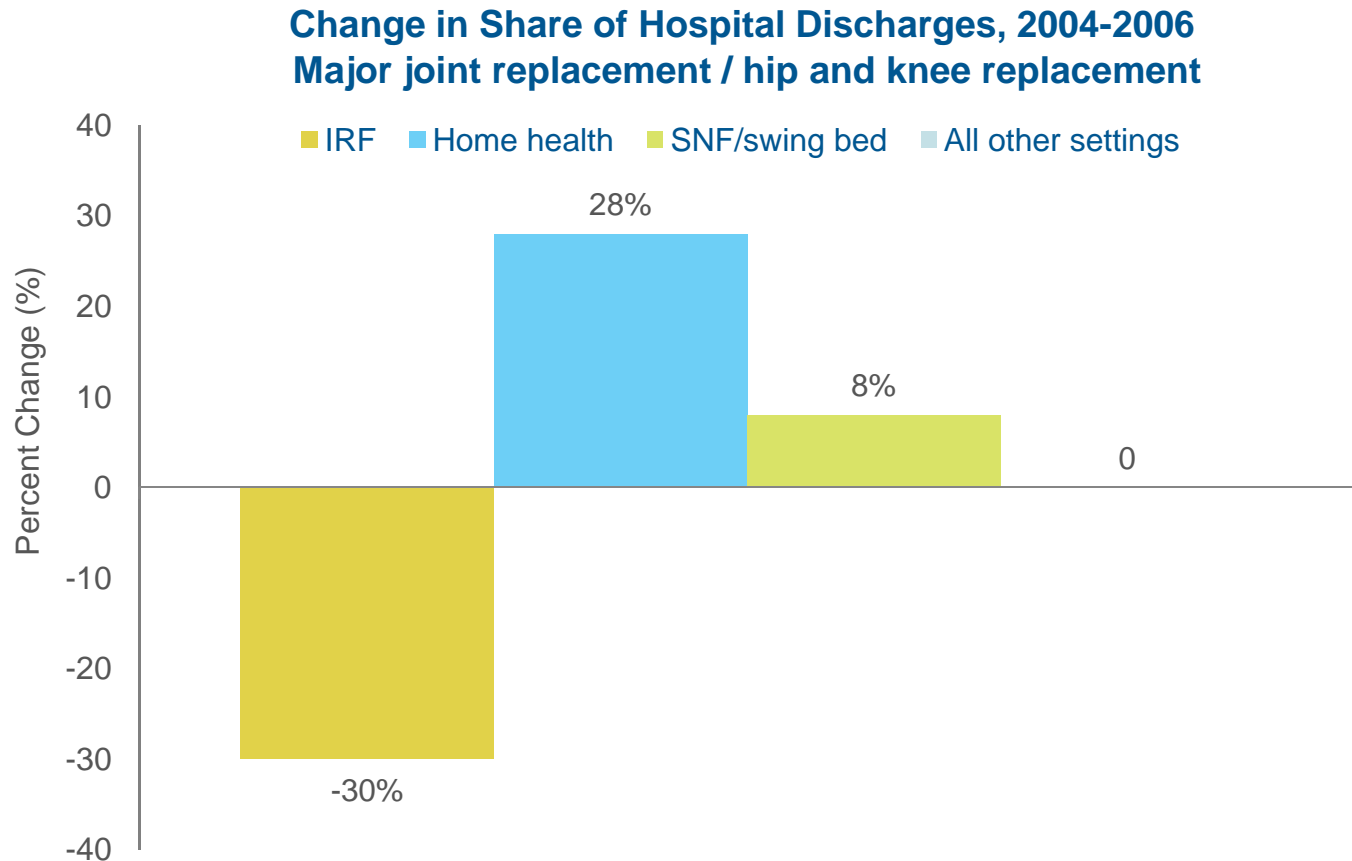
Utilization

Home Health Agencies Experienced Increased Volume when CMS Tightened Inpatient Rehabilitation Facility (IRF) Patient Criteria

- In 2004, CMS tightened criteria around the 75% rule, which required 75% of IRF patients to fall within 13 clinical conditions¹
- MedPAC analyzed hospital discharge patterns to post-acute care for patients with major joint replacement/hip and knee replacement, which was excluded from the 13 conditions, and stroke, which was included, from 2004 to 2006
- IRF's share of stroke patients increased, but IRF's share of hospital discharges for major joint replacement decreased by 30%
- Over this same 2004-2006 period, skilled nursing facilities (SNFs) share of hospital discharges for major joint replacement increased by 8% and home health's share by 28%
- MedPAC noted that, in addition to its increased share of hospital discharges, home health experienced growth in therapy-intensive patients over this same period

1. The Medicare, Medicaid, and SCHIP Extension Act of 2007 permanently set the threshold at 60%. MedPAC. "Report to the Congress: Medicare Payment Policy." March 2008, p. 201, 177.

MedPAC's Analysis of the Change in Admission Patterns After CMS Tightened Criteria Around the IRF 75% Rule



Between 2004 and 2006, home health's share of total hospital major joint replacement discharges increased by 28%

Early Home Health Use Was Associated with Lower Medicare Spending and Fewer Hospital Readmissions for Three Chronic Conditions

- A study by Avalere Health compared beneficiaries with early post-acute care (PAC) home health use to beneficiaries using other non-home health PAC for the following conditions – diabetes, chronic obstructive pulmonary disease (COPD), and congestive heart failure (CHF)^{1,2}
- The study examined post-hospital period-of-care costs and odds of readmission for two years – 2005 and 2006 – using Medicare claims data³
- The study found that over the 2005-2006 period, post-hospital period-of-care costs and odds of hospital readmission were significantly lower for beneficiaries with early post-acute home health utilization versus beneficiaries with non-home health PAC use. This finding held true for all three conditions and across severity of illness scores

1. Early home health is defined as home health utilization in the same quarter as the first hospitalization stay that initiated the period of care.

2. Beneficiaries identified based on primary or secondary diagnosis of diabetes, COPD, or CHF in the hospital claim.

3. Post-hospital period of care begins with an initial hospitalization and ends after a one-quarter break in post-acute care or hospital utilization. All post-hospital Medicare claims payments were included in the period-of-care cost calculation.

Differences in Period-of-Care Costs by Condition and Severity of Illness (SOI)

Differences in Medicare Spending Between Early Home Health Users and other PAC Users, by Condition Across SOI Levels

	Differences in Medicare Spending
Diabetes	\$6,120 – \$9,441
CHF	\$5,453 – \$10,725
COPD	\$4,588 – \$8,010

Over the 2005-2006 period, post-hospital period-of-care costs were significantly lower for beneficiaries with early post-acute home health utilization versus beneficiaries with non-home health PAC use

* Early home health is defined as home health utilization in the same quarter as the first hospitalization stay that initiated the period of care.

** Beneficiaries identified based on primary or secondary diagnosis of diabetes, COPD, or CHF in the hospital claim.

*** Post-hospital period of care begins with an initial hospitalization and ends after a one-quarter break in post-acute care or hospital utilization. All post-hospital Medicare claims payments were included in the period-of-care cost calculation.



Early Home Health Use Was Associated with Lower Medicare Spending

- Avalere estimated the Medicare spending reduction associated with early home health use by multiplying the spending reduction for each condition by the number of periods of care in the early home health group
- The estimate controlled for differences in beneficiaries' age, sex, race, urban/rural residence, SOI, dual-eligibility status, and hospice utilization
- For example, the \$6,120 differential in Medicare spending for beneficiaries with diabetes in SOI category 1 was multiplied by the number of early home health users' periods of care, that is, beneficiaries with a primary or secondary hospital diagnosis of diabetes included in SOI category

By multiplying the spending reductions for each condition by the number of periods of care in the early home health group, Avalere estimated that early home health use was associated with a \$1.71 billion reduction in Medicare post-hospitalization spending over the 2005-2006 period.

- An update of the study with the 2007 Medicare claims data, indicates that over the 2005-2007 three-year period, early home health use was associated with a \$2.65 billion reduction in Medicare post-hospitalization spending

* Early home health is defined as home health utilization in the same quarter as the first hospitalization stay that initiated the period of care.

** Beneficiaries identified based on primary or secondary diagnosis of diabetes, COPD, or CHF in the hospital claim.

*** Post-hospital period of care begins with an initial hospitalization and ends after a one-quarter break in post-acute care or hospital utilization. All post-hospital Medicare claims payments were included in the period-of-care cost calculation.