Coexisting Illness and Heart Disease Among Elderly Medicare Managed Care Enrollees

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INTRODUCTION

High rates of comorbidity present a challenge in providing care to elderly Medicare managed care enrollees. Comorbidity or the presence of coexisting illness strongly influences utilization, costs, and outcomes of health care. Ischemic heart disease (IHD) and congestive heart failure (CHF) are leading causes of morbidity and mortality among Medicare beneficiaries. Both have been the targets of successful quality improvement initiatives by CMS (Jencks, Huff, and Cuerdon, 2003). Medicare HEDIS® has targeted improved management of hypertension and diabetes, as well as smoking cessation, all important risk factors for IHD and CHF. The impact of disease management programs on outcomes for these conditions is being evaluated in CMS demonstration projects (Haffer et al., 2003). Additional improvements in quality and outcomes of care for beneficiaries with these conditions may be achieved by improving management of common coexisting illnesses.

The large sample size of the Medicare Health Outcomes Survey (HOS) affords an unprecedented opportunity to look at the prevalence and patterns of coexisting illness among enrollees with IHD and CHF. The HOS instrument contains items for assessing physical and mental health status, chronic conditions, clinical symptoms, and demographic information (National Committee for Quality Assurance, 2000). The following figures are based on the responses of 167,854 community-dwelling individuals age 65 or over enrolled in Medicare managed care who participated in the HOS Cohort I Baseline Survey. The sample is 58 percent female and includes 31,315 respondents who report having IHD, and 11,239 respondents who report having CHF.

Enrollees with IHD or CHF have lower incomes and lower levels of educational attainment than the overall M+C enrollee population, placing them at increased risk of encountering both financial and nonfinancial barriers to care. They also report higher levels of comorbidity, and a higher prevalence of common chronic conditions. Nine out of ten enrollees with these conditions report having three or more chronic conditions, and they report having a mean of five chronic conditions. In addition to hypertension and diabetes, risk factors for heart disease, there is a high prevalence of chronic non-fatal disabling conditions that can affect outcomes and compliance with treatments including arthritis, severe low-back pain, urinary incontinence, and sensory impairments. The high prevalence of depressed mood underscores the need to also address mental health issues in these

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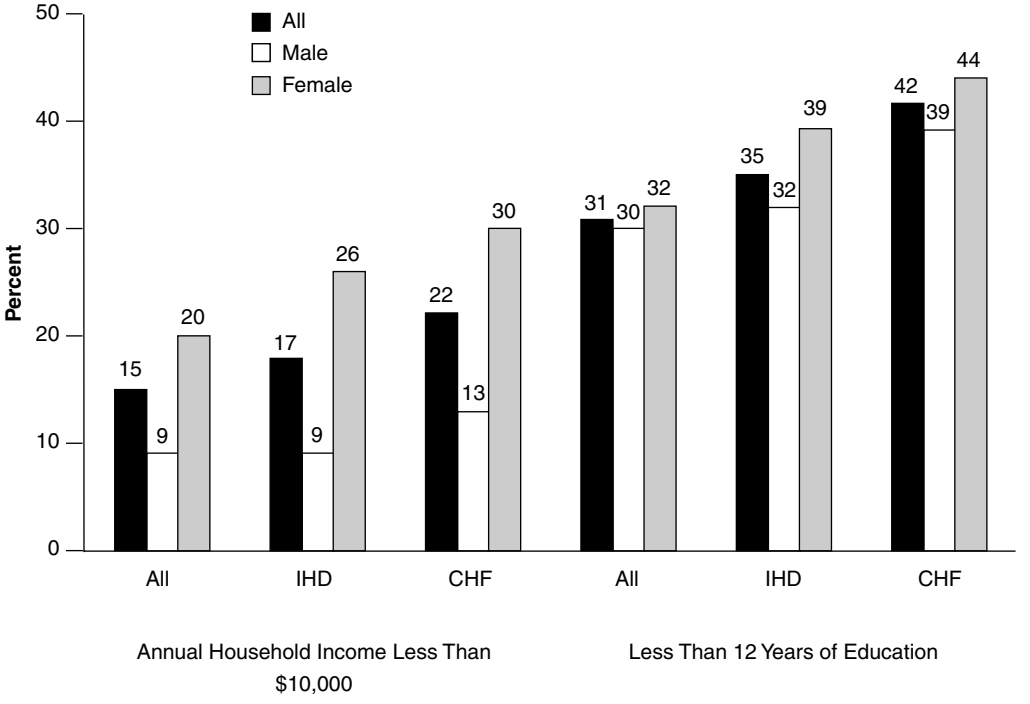
beneficiaries. In addition, the burden of coexisting illness varies by sex, race/ethnicity, and socioeconomic status. Females, African-American, Latino, and socioeconomically disadvantaged enrollees report a higher burden of coexisting illness.

Future efforts should focus on implementing and evaluating models of care for beneficiaries with heart disease that address the coexisting illnesses present in these patients. Opportunities also exist for prevention. Insights from the HOS survey can inform the development of comprehensive models of care.

Figure 1

Differences in Income and Education Among Elderly Medicare+Choice (M+C) Enrollees with IHD or CHF Compared to All M+C Enrollees: 1998



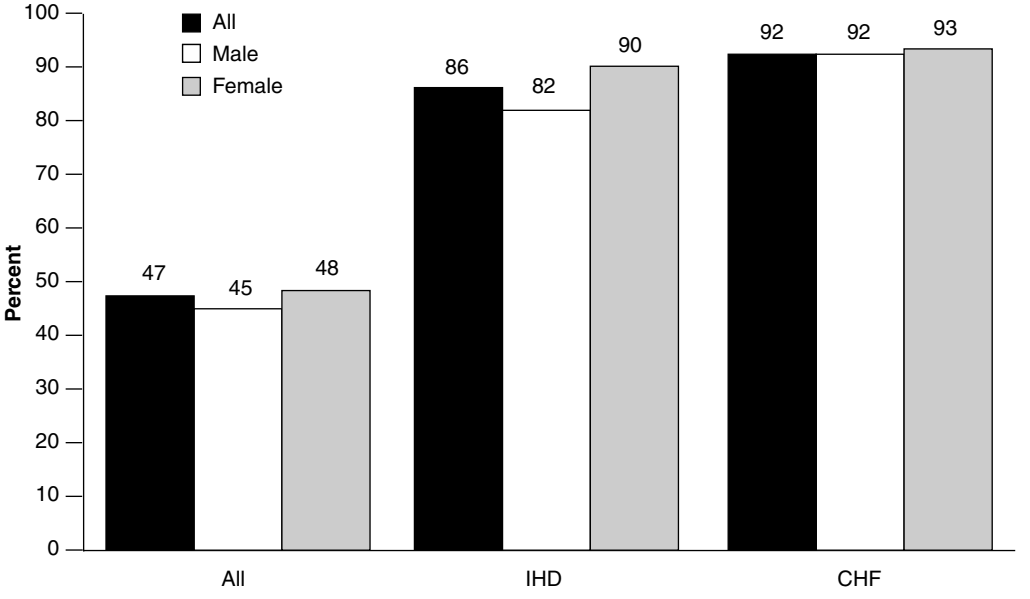
NOTE: IHD is ischemic heart disease; CHF is congestive heart failure.

SOURCE: Centers for Medicare & Medicaid Services: 1998 Medicare Health Outcome Survey, Cohort I Baseline Measurement Data Set.

- Females are much more likely than males to report annual household incomes less than $10,000. Twenty percent of all females compared to nine percent of males are in this income category.
- Enrollees with CHF are more likely to report annual household incomes less than $10,000 then the overall M+C enrollee population. Nearly one in three females with CHF are in this income category.
- Enrollees with IHD and CHF are more likely not to have completed high school than the overall M+C enrollee population. Thirty-five percent of enrollees with IHD, and 42 percent with CHF have not completed high school.
- Females with IHD and CHF are more likely not to have completed high school than males reporting these conditions.

Figure 2

Differences in the Percent of Elderly Medicare+Choice (M+C) with IHD and CHF Who Report Three or More Chronic Conditions Compared to All M+C Enrollees: 1998



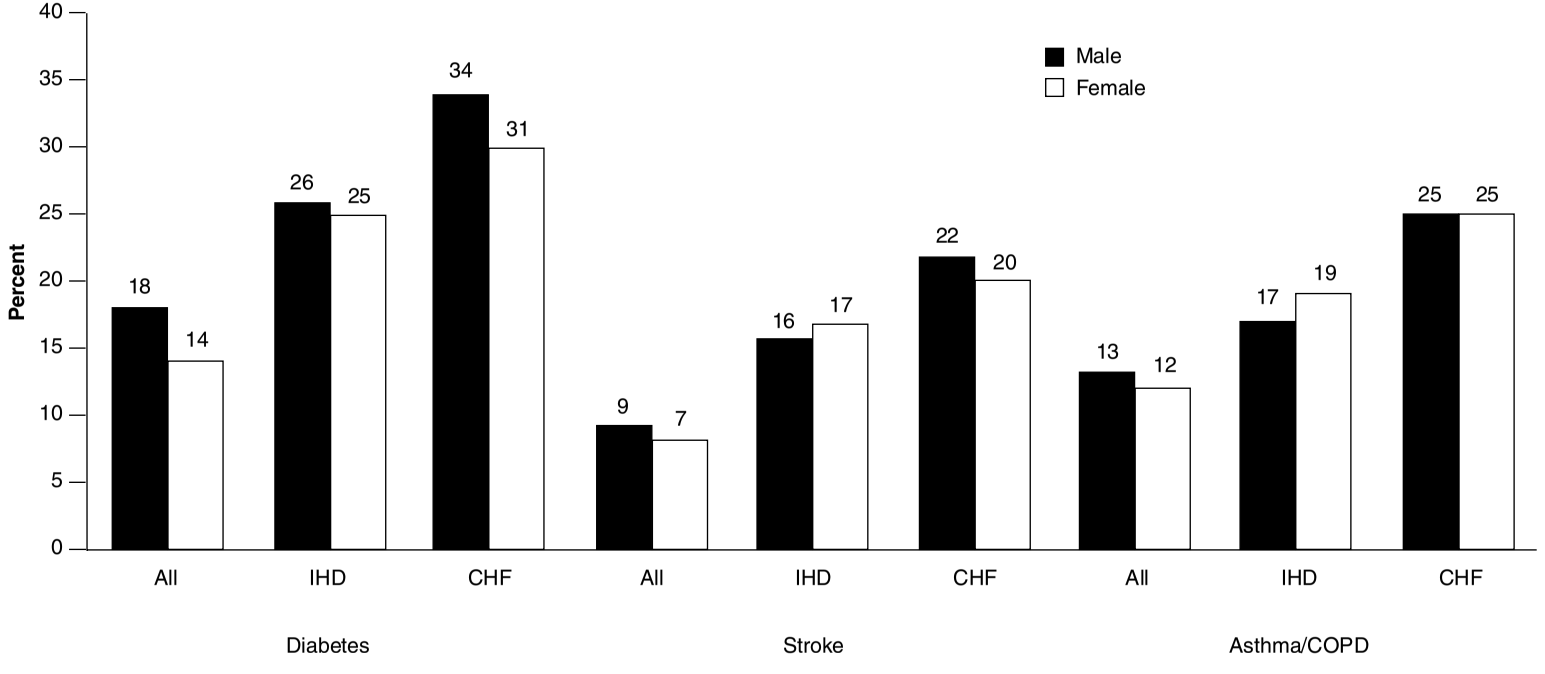
NOTE: IHD is ischemic heart disease; CHF is congestive heart failure.

SOURCE: Centers for Medicare & Medicaid Services: 1998 Medicare Health Outcome Survey, Cohort I Baseline Measurement Data Set.

- Comorbidity among Medicare managed care enrollees is common, with 47 percent of respondents reporting three or more chronic conditions.
- Enrollees with IHD and CHF are much more likely to report having three or more chronic conditions than the overall M+C enrollee population.
- Eighty-six percent of enrollees with IHD, and 92 percent of enrollees with CHF report having three or more chronic conditions.

Figure 3

Differences in the Percent of Elderly Medicare+Choice Enrollees with IHD and CHF Reporting Diabetes, Stroke, or COPD/Asthma Compared to All M+C Enrollees: 1998



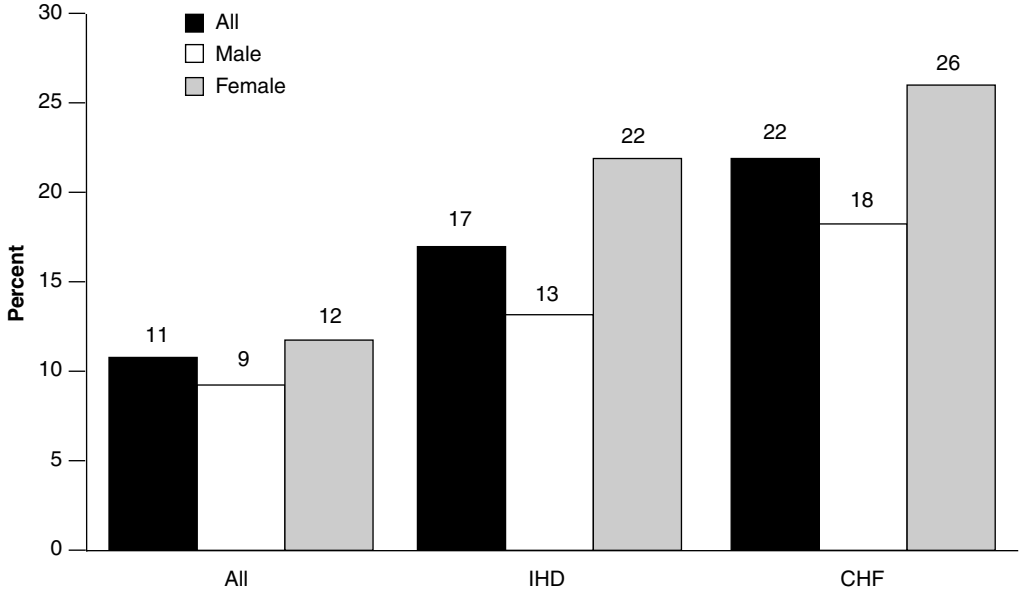
NOTE: IHD is ischemic heart disease; CHF is congestive heart failure; and COPD is chronic obstructive pulmonary disease.

SOURCE: Centers for Medicare & Medicaid Services: 1998 Medicare Health Outcome Survey, Cohort I Baseline Measurement Data Set.

- Diabetes, a risk factors for IHD and CHF, is much more prevalent among enrollees reporting these conditions.
- One-quarter of males and one-third of females reporting IHD or CHF also report a history of diabetes.
- In addition, about two-thirds of males and three-quarters of females reporting IHD or CHF also report a history of hypertension, another risk factor for these conditions (data not shown).
- Stroke and COPD/asthma are more prevalent among enrollees with IHD or CHF than in the overall M+C enrollee populations.

Figure 4

Differences in the Percent of Elderly Medicare+Choice (M+C) with IHD and CHF Reporting Low Back Pain Compared to All M+C Enrollees: 1998



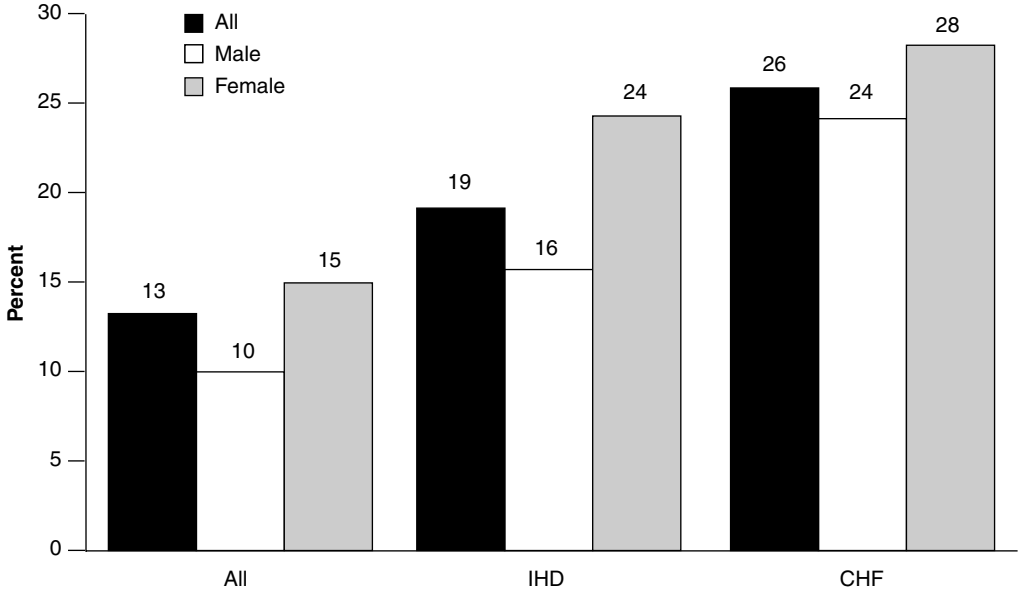
NOTE: IHD is ischemic heart disease; CHF is congestive heart failure.

SOURCE: Centers for Medicare & Medicaid Services: 1998 Medicare Health Outcome Survey, Cohort I Baseline Measurement Data Set.

- Arthritis and severe low back pain may place a barrier to complying with recommendations to exercise and are commonly reported by all M+C enrollees. However, they are more often reported by enrollees with CHF and IHD, and more prevalent in females.
- Roughly one-half of males and two-thirds of females reporting IHD or CHF also report having arthritis (data not shown).
- One in five enrollees with CHF report having low back pain that interferes with their activities all or most of the time.

Figure 5

Differences in the Percent of Elderly Medicare+Choice (M+C) Enrollees with IHD and CHF Reporting Depressed Mood Compared to All M+C Enrollees: 1998



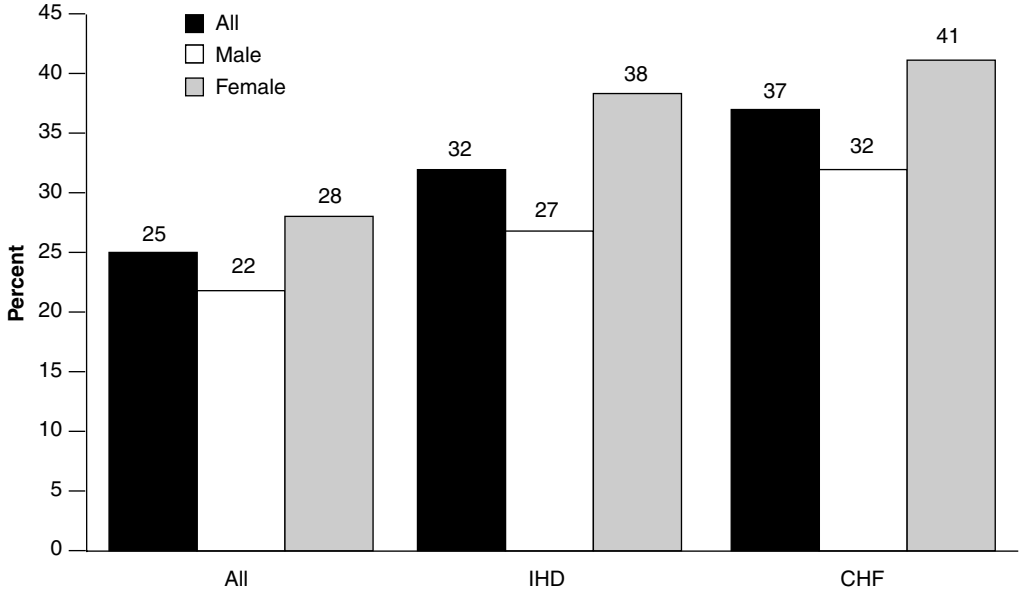
NOTE: IHD is ischemic heart disease; CHF is congestive heart failure.

SOURCE: Centers for Medicare & Medicaid Services: 1998 Medicare Health Outcome Survey, Cohort I Baseline Measurement Data Set.

- Depressed mood is prevalent in Medicare managed care enrollees. One of every eight enrollees responded yes when asked if…In the past year, have you felt depressed or sad much of the time?
- Enrollees reporting IHD and CHF are much more likely to report having a depressed mood than the overall M+C enrollee population. Nineteen percent of enrollees with IHD and 26 percent of enrollees with CHF report depressed mood.
- Females are more likely than males to report having a depressed mood.

Figure 6

Differences in the Percent of Elderly Medicare+Choice (M+C) Enrollees with IHD and CHF Reporting Urinary Incontinence Compared to All M+C Enrollees: 1998



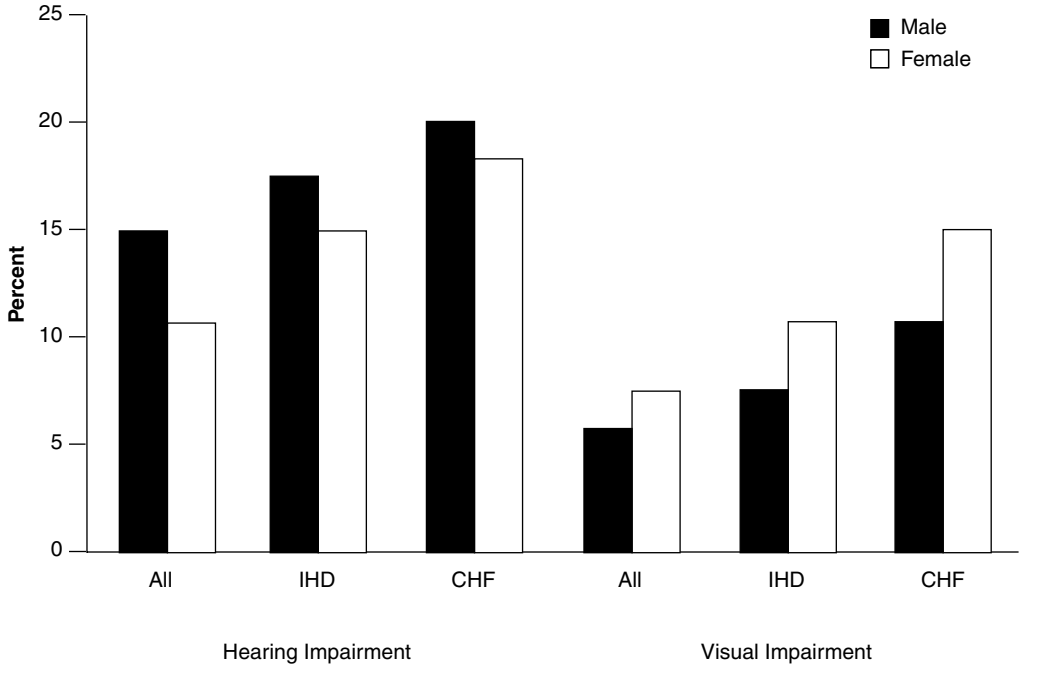
NOTE: IHD is ischemic heart disease; CHF is congestive heart failure.

SOURCE: Centers for Medicare & Medicaid Services: 1998 Medicare Health Outcome Survey, Cohort I Baseline Measurement Data Set.

- Urinary incontinence, can place a barrier to both compliance with diuretic therapy and recommendations to exercise, is commonly reported by all M+C enrollees. Urinary incontinence is more often reported by enrollees with CHF and IHD, and more prevalent in females.
- Twenty-seven percent of males with IHD and 32 percent of males with CHF report urinary incontinence.
- Thirty-eight percent of females with IHD and 41 percent of females with CHF report urinary incontinence.

Figure 7

Differences in the Percent of Elderly Medicare+Choice (M+C) Enrollees with IHD and CHF Reporting Sensory Impairment Compared to All M+C Enrollees: 1998



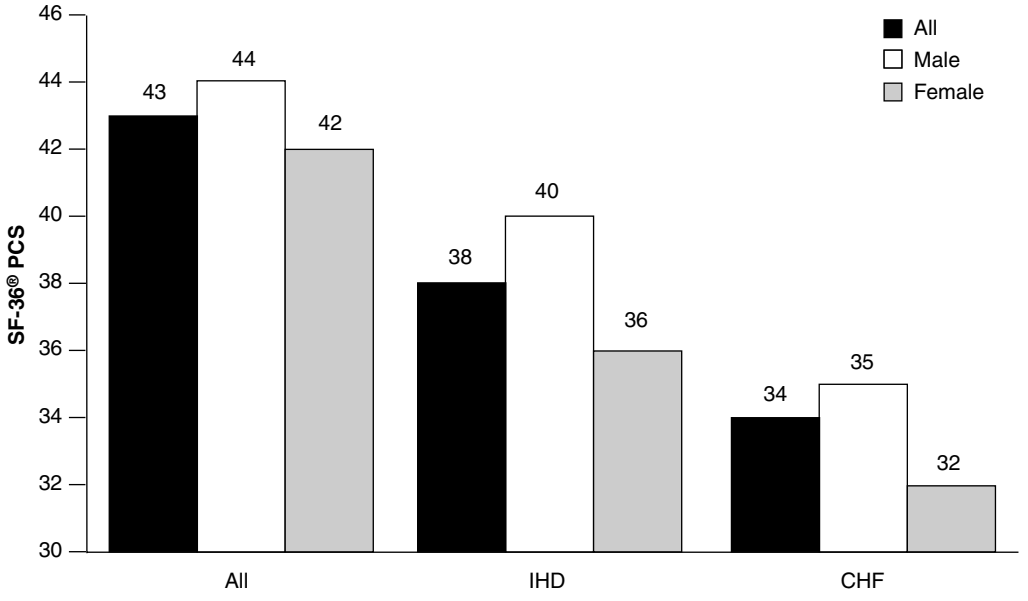
NOTE: IHD is ischemic heart disease; CHF is congestive heart failure.

SOURCE: Centers for Medicare & Medicaid Services: 1998 Medicare Health Outcome Survey, Cohort I Baseline Measurement Data Set.

- Difficulty hearing or hearing impairment, and difficulty seeing or visual impairment are more prevalent among enrollees with IHD and CHF and report these conditions more than the overall M+C enrollee population.
- Hearing impairment is more prevalent in males than females, and visual impairment is more prevalent in females than males.
- One in five males with CHF also report hearing impairment, and one in seven females with CHF also report visual impairment.

Figure 8

Differences in Physical Functioning as Measured by the SF-36® PCS Among Elderly Medicare+Choice (M+C) Enrollees with IHD and CHF Reporting Compared to All M+C Enrollees: 1998



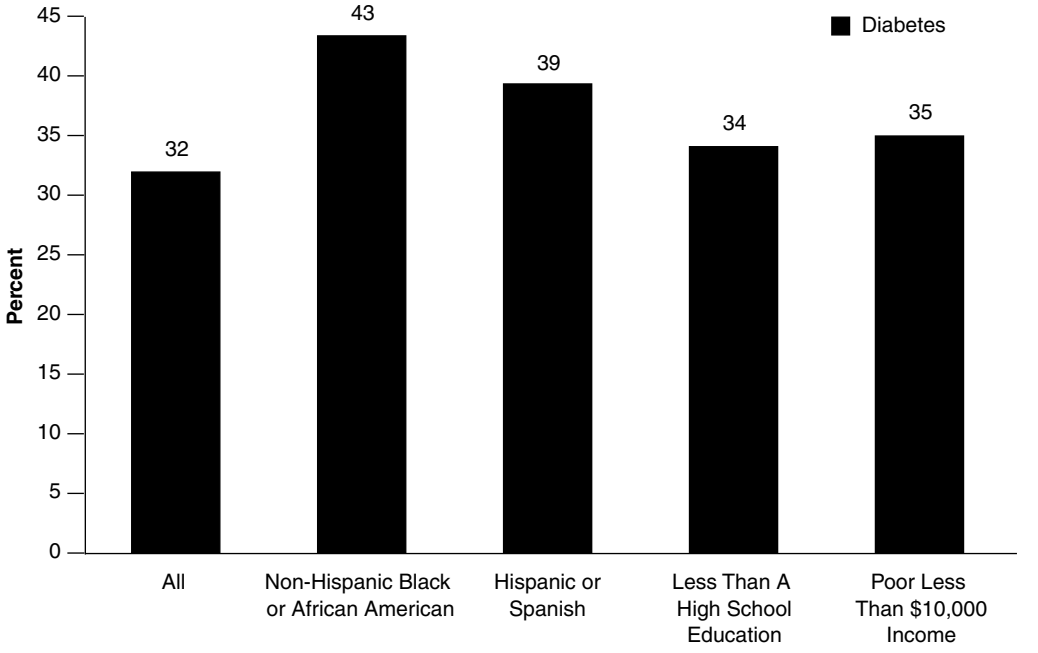
NOTE: IHD is ischemic heart disease; CHF is congestive heart failure; and PCS is physical component summary.

SOURCE: Centers for Medicare & Medicaid Services: 1998 Medicare Health Outcome Survey, Cohort I Baseline Measurement Data Set.

- Enrollees reporting IHD have lower scores on the SF-36® PCS score or worse functional status than the overall M+C enrollee population.
- Enrollees with CHF have lower scores on the SF-36® PCS score than individuals reporting IHD.
- Females with IHD and CHF have lower scores on the SF-36® PCS score than the males.
- Females reporting CHF have a mean SF-36® PCS score of 32, one standard deviation below that of the overall M+C enrollee population.

Figure 9

Differences in Percent of Enrollees Age 65 Reporting Both CHF and Diabetes by Race/Ethnicity, Income, and Education: 1998



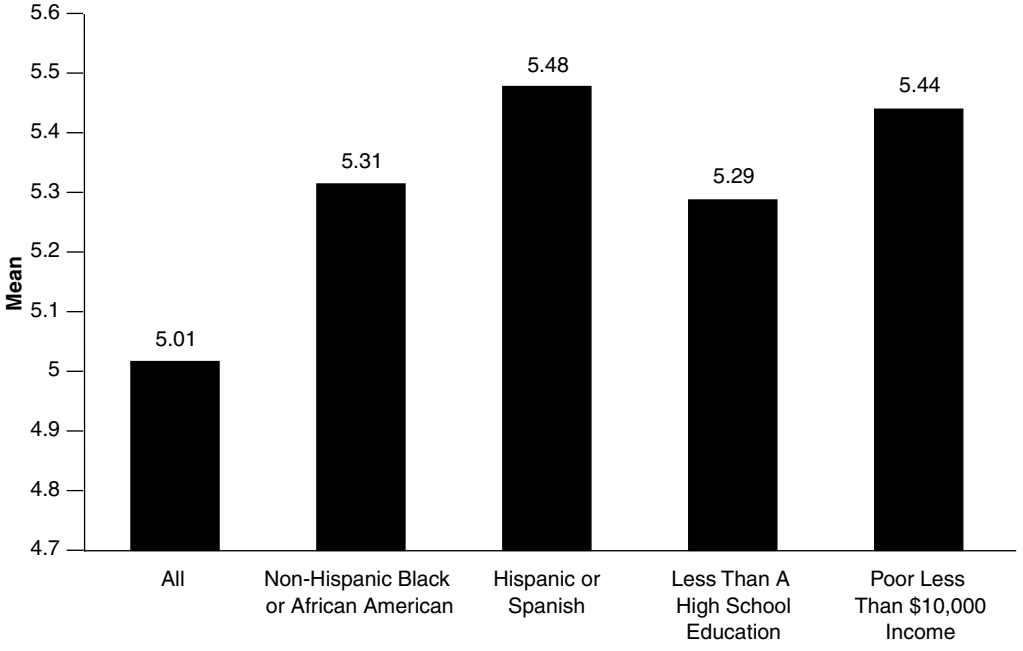
NOTE: CHF is congestive heart failure.

SOURCE: Centers for Medicare & Medicaid Services: 1998 Medicare Health Outcome Survey, Cohort I Baseline Measurement Data Set.

- Diabetes is a common comorbidity among enrollees reporting CHF. There are variations in the prevalence of diabetes by race/ethnicity and socioeconomic status.
- Forty-three percent of non-hispanic black or African-American enrollees and 39 percent of Hispanic enrollees reporting CHF also report having diabetes.
- Thirty-five percent of enrollees with annual household incomes below $10,000 reporting CHF also report having diabetes.

Figure 10

Differences in Mean Number of Chronic Conditions Among Enrollees Age 65 Reporting CHF, by Race/Ethnicity, Income, and Education: 1998



NOTE: CHF is congestive heart failure.

SOURCE: Centers for Medicare & Medicaid Services: 1998 Medicare Health Outcome Survey, Cohort I Baseline Measurement Data Set.

- Enrollees reporting CHF report a mean of five comorbid conditions. There are variations in the mean number of comorbid conditions by race/ethnicity and socioeconomic status.
- Non-hispanic black or African-American enrollees and Hispanics enrollees reporting CHF report more coexisting illness.
- Enrollees with annual household incomes less than $10,000 and those who have not completed high school also report more coexisting illnesses.

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