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1 National Patterns of Heart Disease Hospitalizations

National Patterns of Heart Disease Hospitalizations

This section presents demographic information—including gender, race/ethnicity, and age group—for the Medicare population ages 65 and older during 2000–2006. It also presents information about national trends in heart disease hospitalizations by race/ethnicity and heart disease subtype during this period.

Table 1.1 shows the distribution of the Medicare beneficiaries who were part of the study population used for this *Atlas*. During 2000–2006, there were an average 28,313,585 beneficiaries each year. Data are presented for the total U.S. population and for subgroups according to gender, race/ethnicity, and age group. Among the beneficiaries, 58.1% were women, 8.0% were black, 1.8% were Hispanic, and 87.7% were white. About half (51.0%) of all beneficiaries were ages 65–74 years, 35.3% were ages 75–84 years, and 13.7% were ages 85 and older.

Table 1.1. Average annual number and percentage distribution of Medicare beneficiaries ages 65 and older, by gender, race/ethnicity, and age group, 2000–2006*

	Number [†]	Percentage
Gender		
Total	28,313,585	100.0
Women	16,457,504	58.1
Men	11,856,081	41.9
Race/Ethnicity		
Blacks	2,259,510	8.0
Women	1,381,160	4.9
Men	878,349	3.1
Hispanics [‡]	513,952	1.8
Women	287,786	1.0
Men	226,166	0.8
Whites	24,723,281	87.7
Women	14,331,522	51.7
Men	10,391,760	36.0
Age Group (years)		
65–74	14,434,911	51.0
75–84	10,007,664	35.3
≥85	3,871,010	13.7

* Data exclude managed care enrollees; residents outside the United States, Puerto Rico, or the U.S. Virgin Islands; and those younger than 65 in each year (2000–2006).

[†] Average number of beneficiaries per year, 2000–2006.

[‡] Hispanics may be underrepresented in this *Atlas*. See Appendix B for more details.

Table 1.2. Number and percentage of heart disease hospitalizations, by race/ethnicity, gender, age group, year, and heart disease subtype—Medicare beneficiaries ages 65 and older, 2000–2006

	Number	Percentage*
Race/Ethnicity/Gender		
Total	15,081,056	100.0
Women	7,929,174	52.6
Men	7,151,882	47.4
Blacks	1,336,207	8.9
Women	822,185	5.5
Men	514,022	3.4
Hispanics [†]	271,257	1.8
Women	148,294	1.0
Men	122,963	0.8
Whites	13,086,553	86.8
Women	6,753,549	44.8
Men	6,333,004	42.0
Age Group (years)		
65–74	5,482,676	36.4
75–84	6,316,302	41.9
≥85	3,282,078	21.8
Year		
2000	2,159,265	14.3
2001	2,214,002	14.7
2002	2,215,013	14.7
2003	2,212,253	14.7
2004	2,179,684	14.5
2005	2,071,303	13.7
2006	2,029,536	13.5
Heart Disease Subtype[‡]		
Coronary Heart Disease	6,339,096	42.0
Acute Myocardial Infarction [§]	2,373,368	15.7
Cardiac Dysrhythmia	2,687,168	17.8
Heart Failure	4,350,945	28.9
Other Diseases of the Heart	1,703,847	11.3

* Percentage may not be equal to 100 because of rounding.

[†] Hispanics may be underrepresented in this *Atlas*. See Appendix B for more details.

[‡] See Appendix B for *International Classification of Diseases, 9th Revision, Clinical Modification* codes.

[§] Acute myocardial infarction is a subgroup of coronary heart disease.

Among Medicare beneficiaries, a total of 15,081,056 hospitalizations for heart disease occurred during 2000–2006, with an average of 2,154,436 hospitalizations per year. The highest percentage of hospitalizations occurred among people with coronary heart disease (42.0%), followed by those with heart failure (28.9%), cardiac dysrhythmia (17.8%), and other diseases of the heart (11.3%).

Figure 1.1. Percentage of heart disease hospitalizations, by subtype—Medicare beneficiaries ages 65 and older, 2000–2006

Coronary heart disease, which includes acute myocardial infarction, accounted for 42.0% of all heart disease hospitalizations for Medicare beneficiaries ages 65 and older during 2000–2006. Heart failure accounted for 28.9% of hospitalizations, while cardiac dysrhythmia accounted for 17.8%.

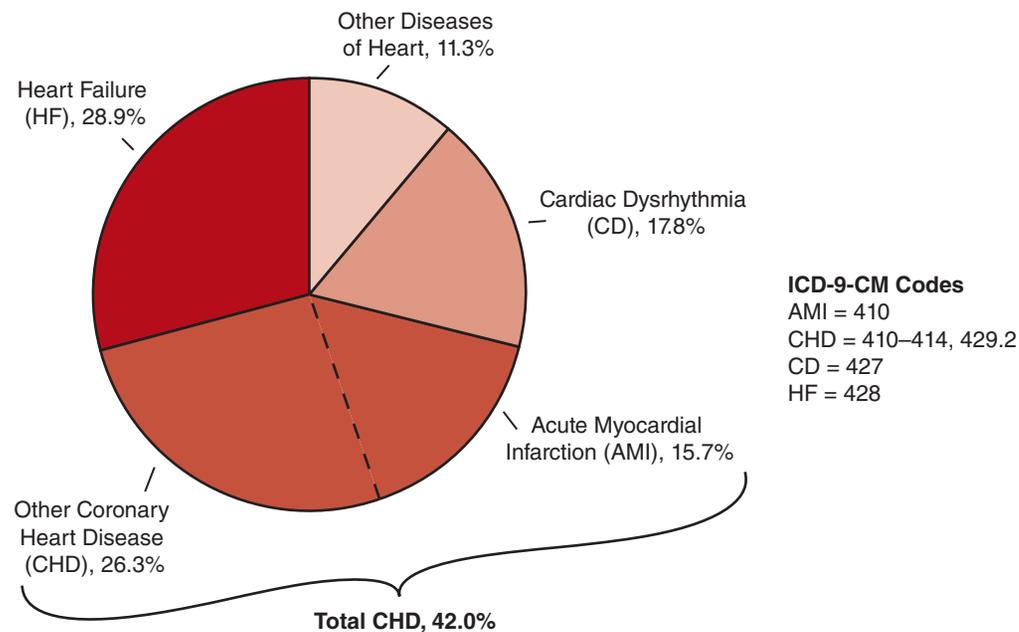


Figure 1.2. Percentage distribution of heart disease hospitalizations, by race/ethnicity and age group—Medicare beneficiaries ages 65 and older, 2000–2006

The age distribution of heart disease hospitalizations differed across racial/ethnic groups. Among blacks, the youngest age group (65–74 years) had the highest proportion of hospitalizations. For Hispanics and whites, the highest proportion of hospitalizations was among those ages 75–84 years.

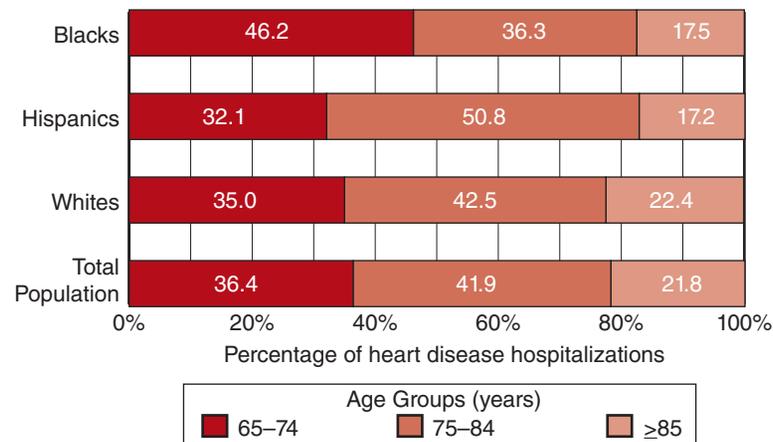
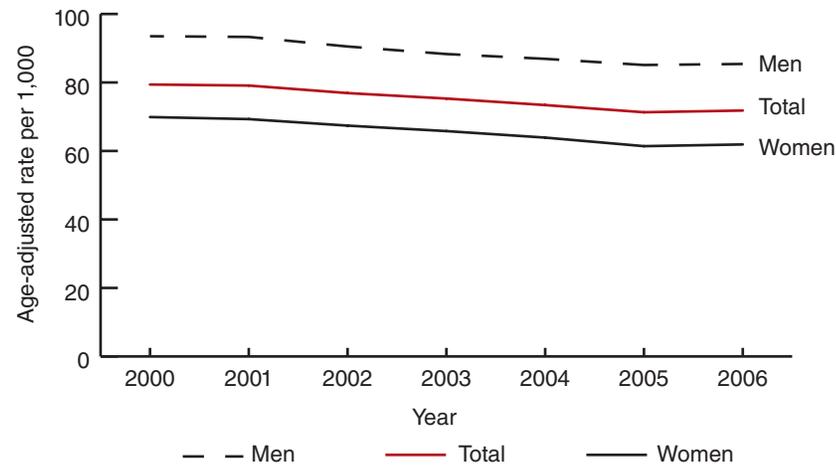
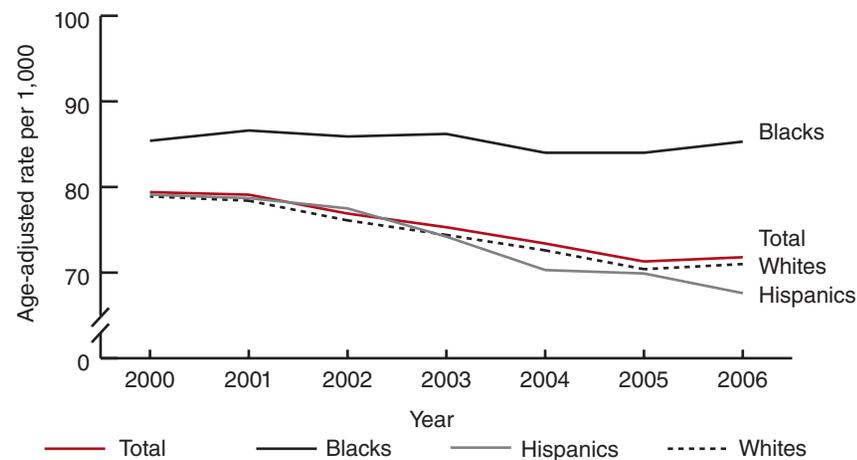


Figure 1.3. Trends in age-adjusted heart disease hospitalization rates, by gender—Medicare beneficiaries ages 65 and older, 2000–2006



This figure shows trends in age-adjusted heart disease hospitalization rates during 2000–2006. Overall, rates declined slightly and leveled off during 2005–2006.

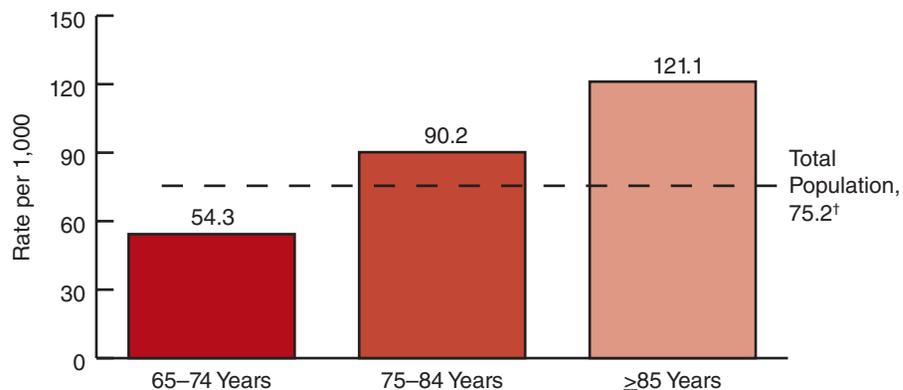
Figure 1.4. Trends in age-adjusted heart disease hospitalization rates, by race/ethnicity—Medicare beneficiaries ages 65 and older, 2000–2006



Heart disease hospitalization rates declined slowly during 2000–2006 for Hispanics and whites but remained fairly level for blacks during this period.

Data collected for this *Atlas* showed that heart disease hospitalization rates per 1,000 increase as people age—from 54.3 for those ages 65–74 years to 121.1 for those ages 85 years and older.

Figure 1.5. Heart disease hospitalization rates,* by age group—Medicare beneficiaries ages 65 and older, 2000–2006

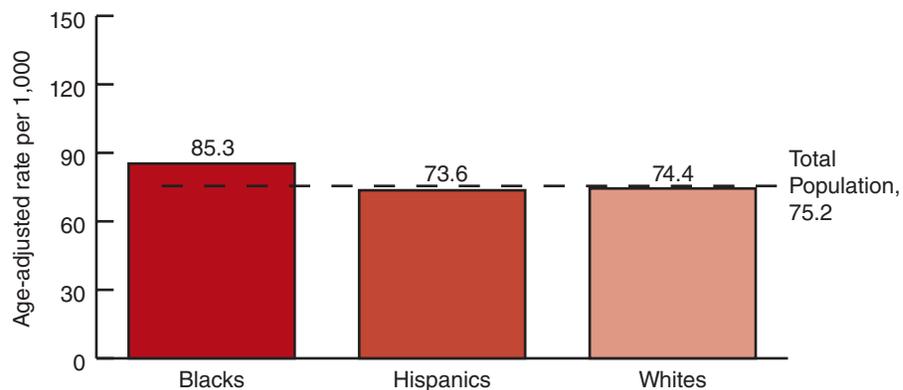


* Heart disease hospitalization rates are the average annual rates for 2000–2006.

† The heart disease hospitalization rate for the total Medicare population is age-adjusted by using the 2000 U.S. standard population aged greater than or equal to 65 years. See Appendix B for details.

Among U.S. racial and ethnic groups, age-adjusted heart disease hospitalization rates per 1,000 were higher among blacks than among whites or Hispanics.

Figure 1.6. Age-adjusted heart disease hospitalization rates,* by race/ethnicity—Medicare beneficiaries ages 65 and older, 2000–2006



* Average, annual heart disease hospitalization rates per 1,000 Medicare beneficiaries are directly age-adjusted by using the 2000 U.S. standard population aged greater than or equal to 65 years.

Table 1.3. Age-adjusted heart disease hospitalization rates, by race/ethnicity, gender, age group, year, and heart disease subtype—Medicare beneficiaries ages 65 and older, 2000–2006

	Hospitalization Rate
Race/Ethnicity/Gender	
Total	75.2
Women	65.6
Men	88.8
Blacks	85.3
Women	84.3
Men	86.9
Hispanics	73.6
Women	70.2
Men	77.9
Whites	74.4
Women	63.6
Men	89.6
Age Group (years)*	
65–74	54.3
75–84	90.2
≥85	121.1
Year	
2000	79.4
2001	79.1
2002	76.9
2003	75.3
2004	73.4
2005	71.3
2006	71.8
Heart Disease Subtype†	
Coronary Heart Disease	31.9
Acute Myocardial Infarction‡	11.8
Cardiac Dysrhythmia	13.4
Heart Failure	21.5
Other Diseases of the Heart	8.5

During 2000–2006, the overall age-adjusted heart disease hospitalization rate per 1,000 decreased from 79.4 to 71.8. Rates were higher among men (88.8 per 1,000) compared with women (65.6 per 1,000). They were highest among blacks (85.3 per 1,000) compared with Hispanics (73.6 per 1,000) and whites (74.4 per 1,000).

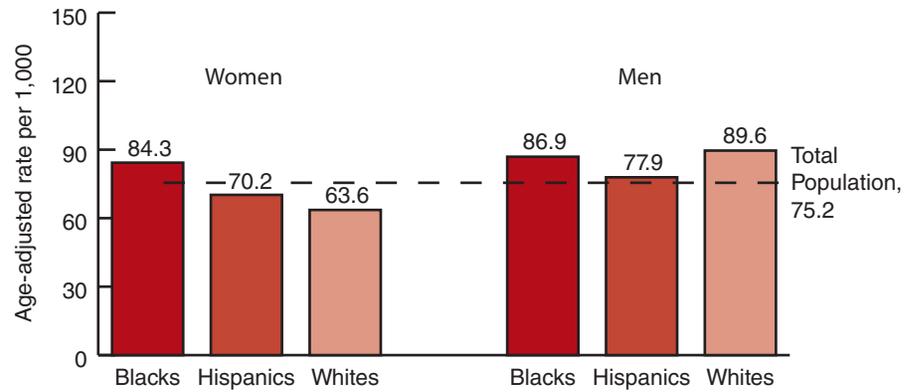
* Not age-adjusted.

† See Appendix B for *International Classification of Diseases, 9th Revision, Clinical Modification* codes.

‡ Acute myocardial infarction is a subgroup of coronary heart disease.

Figure 1.7. Age-adjusted heart disease hospitalization rates,* by race/ethnicity and gender—Medicare beneficiaries ages 65 and older, 2000–2006

Age-adjusted heart disease hospitalization rates were similar among black men and black women. Among Hispanics and whites, men had higher hospitalization rates than women.



* Average, annual heart disease hospitalization rates per 1,000 Medicare beneficiaries are directly age-adjusted by using the 2000 U.S. standard population aged greater than or equal to 65 years.

Figure 1.8. Percentage of heart disease hospitalizations, by discharge status—Medicare beneficiaries ages 65 and older, 2000–2006

Overall, 73.1% of Medicare beneficiaries ages 65 and older who were hospitalized for heart disease were discharged home. Of the remaining population, 10.8% were discharged to a skilled nursing facility, 8.9% were discharged to other care facilities, 4.3% died before discharge, and 2.9% were discharged for other reasons.

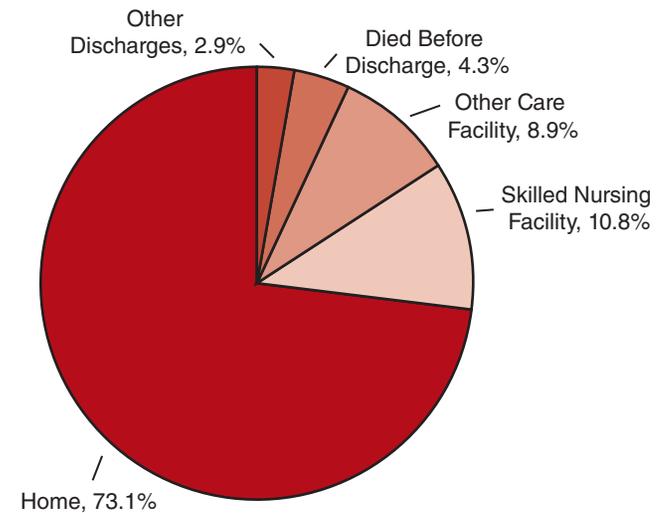
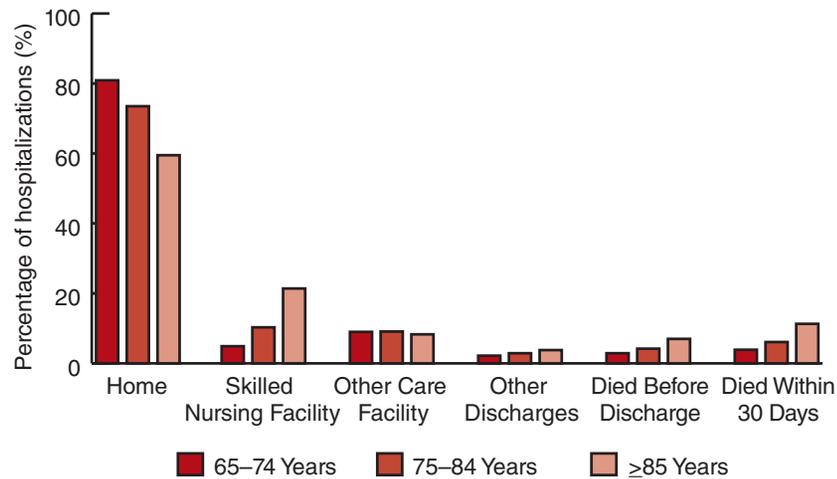
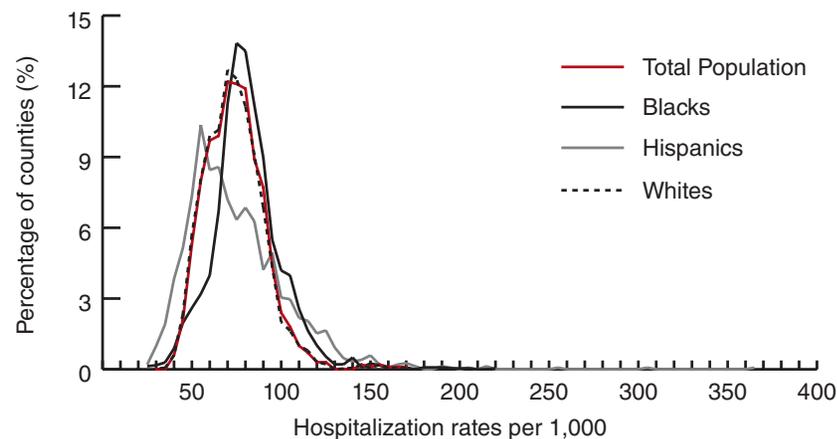


Figure 1.9. Percentage of heart disease hospitalizations, by discharge status, 30-day mortality, and age group—Medicare beneficiaries ages 65 and older, 2000–2006



For all three age groups presented in this *Atlas*, most Medicare beneficiaries were discharged home. A larger proportion of those ages 65–75 years were discharged home compared with those ages 75–84 years and 85 years and older.

Figure 1.10. Frequency distributions of county heart disease hospitalization rates,* by race/ethnicity—Medicare beneficiaries ages 65 and older, 2000–2006



This figure shows the distribution of age-adjusted heart disease hospitalization rates across all counties by racial/ethnic group. The peaks of the distributions for whites and blacks are similar, with the peak for blacks slightly higher because a greater proportion of counties have higher rates among blacks. The distribution of hospitalizations among Hispanics shows a wider range of county-level rates. For more information on how Hispanic ethnicity is classified in the Medicare population, see Appendix B.

* Heart disease hospitalization rates are spatially smoothed to enhance the stability of rates in counties with small populations.

For all three age groups presented in this *Atlas*, most Medicare beneficiaries were discharged home. A larger proportion of those ages 65–75 years were discharged home compared with those ages 75–84 years and 85 years and older. A larger percentage of women than men were discharged home, and a larger percentage of men were discharged to a skilled nursing facility. Blacks and whites had higher percentages of hospitalizations discharged to a skilled nursing facility than did Hispanics.

Table 1.4. Percentage of heart disease hospitalizations, by discharge status and 30-day mortality for selected characteristics—Medicare beneficiaries ages 65 and older, 2000–2006

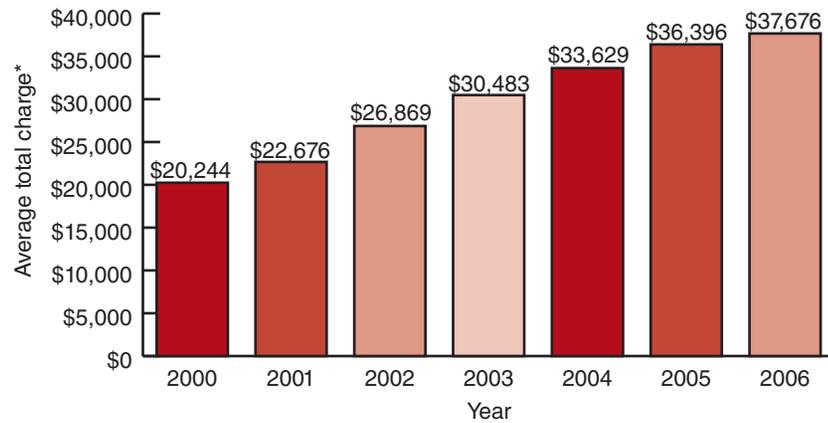
Characteristic	Discharge Status (%)					Mortality (%)
	Home	Skilled Nursing Facility	Other Care Facility	Other Discharge Outcomes	Died Before Discharge	Died Within 30 Days*
Age Group (years)						
65–74	80.9	4.9	9.0	2.2	2.9	3.9
75–84	73.5	10.3	9.1	2.9	4.2	6.1
≥85	59.5	21.4	8.3	3.8	7.0	11.3
Gender						
Women	76.5	7.7	8.8	2.8	4.3	6.3
Men	70.1	13.5	9.0	3.0	4.4	6.6
Race/Ethnicity						
Blacks	74.3	10.8	7.6	3.1	4.2	5.8
Hispanics	78.1	6.9	7.5	2.9	4.6	6.2
Whites	72.8	10.9	9.1	2.8	4.4	6.5
Heart Disease Subtype†						
Coronary Heart Disease	73.3	7.4	12.2	2.5	4.7	5.5
Acute Myocardial Infarction‡	55.7	12.9	17.0	3.6	10.8	12.0
Cardiac Dysrhythmia	81.3	8.2	5.9	2.0	2.6	3.5
Heart Failure	69.0	15.9	6.8	3.5	4.8	9.2
Other Diseases of the Heart	70.2	14.3	6.6	4.0	4.9	7.3
Total	73.1	10.8	8.9	2.9	4.3	6.4

* Died within 30 days of admission to the hospital for a heart disease condition.

† See Appendix B for *International Classification of Diseases, 9th Revision, Clinical Modification* codes.

‡ Acute myocardial infarction is a subgroup of coronary heart disease.

Figure 1.11. Average total charge per hospitalization for heart disease, by year—Medicare beneficiaries ages 65 and older, 2000–2006



The average total charge per heart disease hospitalization that was billed to Medicare increased steadily during 2000–2006.

* Billed to Medicare.



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Older couple sitting on the front porch using their laptop.