

## SECTION 1 OVERVIEW STATISTICS FOR INPATIENT HOSPITAL STAYS

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## HIGHLIGHTS

- The number of hospital discharges increased from 34.7 million in 1997 to 39.9 million in 2008, a 15-percent increase overall, or an average annual increase of 1.3 percent.
- Between 1997 and 2008, the aggregate inflation-adjusted costs for hospitalizations—the actual costs of producing hospital services—increased 61 percent. Costs rose from \$227.2 billion to \$364.7 billion—an average annual increase of 4.4 percent.
- The average length of stay (ALOS) in 2008 (4.6 days) was almost 20 percent shorter than in 1993 (5.7 days). The ALOS declined throughout most of the 1990s and has remained unchanged since 2000.
- Circulatory conditions were the most frequent major cause of hospital stays in 2008, accounting for 5.9 million stays or 15 percent of all discharges.
- Even when pregnancy and childbirth stays are excluded, females accounted for more stays than males—18.6 million stays for females compared to 16.5 million stays for males.
- Pregnancy and childbirth was the reason for 1 out of every 5 female hospitalizations (4.7 million stays).
- Medicare and Medicaid were the expected primary payers for more than half (55 percent) of all inpatient hospital discharges.
- Between 1997 and 2008, Medicaid discharges (up 30 percent) grew at double the rate of all discharges, followed closely by uninsured discharges (up 27 percent).
- The number of discharges billed to Medicare grew by 18 percent.
- Growth in the number of discharges billed to private insurance remained relatively stable (5 percent).
- The number of discharges to home health care grew by 69 percent (1.6 million discharges) between 1997 and 2008.
- Uninsured and Medicaid stays accounted for nearly half (48 percent) of all stays discharged against medical advice, but only about one-quarter (23 percent) of all stays in 2008.
- Persons residing in the poorest communities had a 21-percent higher rate of hospitalization in 2008 (148 discharges per 1,000 population) than those residing in all other communities (122 discharges per 1,000 population).

## EXHIBIT 1.1 Characteristics of U.S. Community Hospitals

### Characteristics of U.S. Community Hospitals, 1997 and 2008

UTILIZATION, CHARGES, AND COSTS	1997	2008
<b>Discharges</b>		
Total discharges in millions	34.7	39.9
Number of discharges per 1,000 population*	127.8	131.0‡
Total days of care in millions	168.1	183.6
Average length of stay in days	4.8	4.6
<b>Percent of discharges from:</b>		
Metropolitan hospitals	84%	87%
Teaching hospitals	47%	47%
<b>Hospital ownership</b>		
Non-Federal government hospitals	14%	14%
Private not-for-profit hospitals	73%	73%
Private for-profit hospitals	13%	13%
<b>Charges and costs†</b>		
<b>Charges</b>		
Average charges per stay	\$11,300	\$29,000
Average inflation-adjusted charges per stay in 2008 dollars**	\$14,500	\$29,000
<b>Costs</b>		
Total aggregate costs in billions	\$177.1	\$364.7
Average costs per stay	\$5,100	\$9,100
Inflation-adjusted costs in 2008 dollars**		
Total aggregate costs in billions	\$227.2	\$364.7
Average costs per stay	\$6,500	\$9,100

\* Calculated using resident population for July 2008 from the U.S. Bureau of the Census, retrieved on June 22, 2010 (<http://www.census.gov/popest/national/asrh/2009-nat-res.html>).

‡ 2008 discharges are not statistically different from 1997 discharges at p<0.05.

† Charges represent amounts billed by hospitals. These amounts are seldom paid in full by insurers or patients. Costs are calculated from charges using reported cost-to-charge ratios calculated from information on Medicare Cost Reports, submitted by hospitals to the Centers for Medicare and Medicaid Services (CMS).

\*\* Adjusted for inflation using the GDP deflator (<http://www.bea.gov/national/nipaweb>SelectTable.asp>, Table 1.1.4. Price Indexes for Gross Domestic Product).

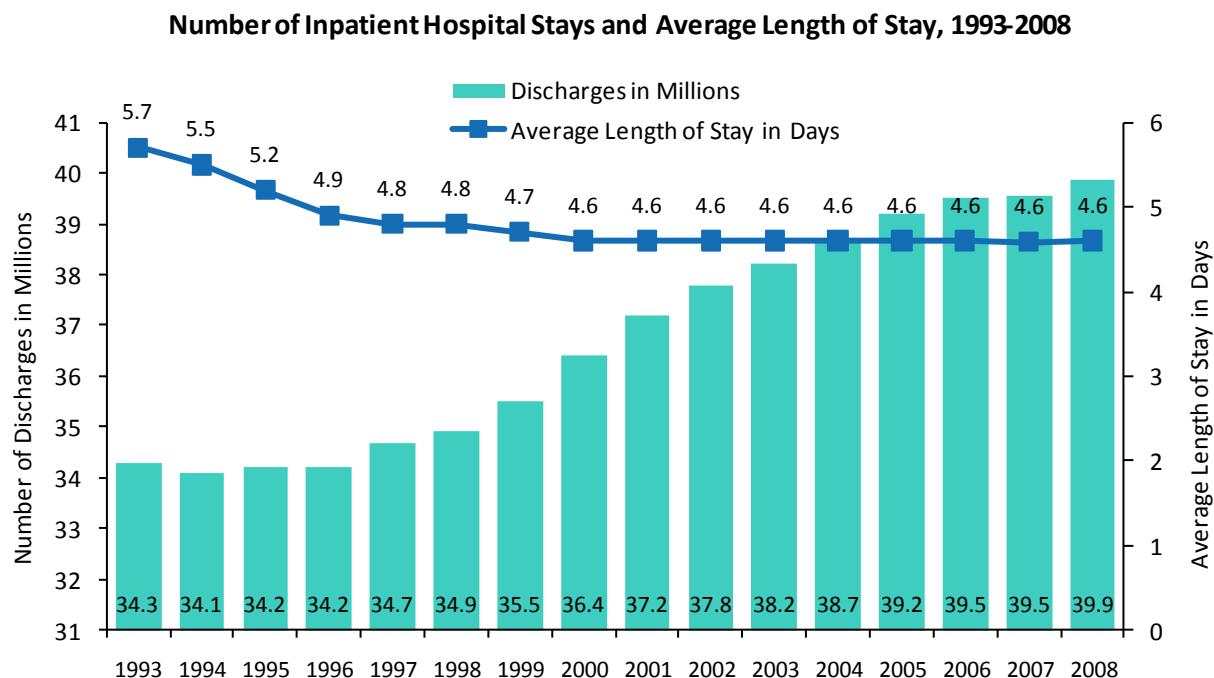
Source: AHRQ, Center for Delivery, Organization, and Markets, Healthcare Cost and Utilization Project, Nationwide Inpatient Sample, 1997 and 2008.

Hospital costs rose rapidly and hospital characteristics changed slowly over time.

- The number of hospital discharges increased from 34.7 million in 1997 to 39.9 million in 2008, a 15-percent increase overall, or an average annual increase of 1.3 percent.
- There were 128 hospital stays for every 1,000 persons in the United States in 1997 and 131 stays per 1,000 persons in 2008.
- The percent of community hospital discharges has changed little in terms of metropolitan location, teaching status, and type of ownership between 1997 and 2008. Most hospital discharges (87 percent) are from facilities located in metropolitan areas, nearly half are from teaching hospitals, and almost three-quarters are from private not-for-profit facilities.

- Average inflation-adjusted charges per stay—what patients are billed for their rooms, nursing care, diagnostic tests, procedures, and other services—rose from \$14,500 in 1997 to \$29,000 in 2008. Few patients or insurers paid those amounts because of discounts negotiated with hospitals.
- Between 1997 and 2008, the aggregate inflation-adjusted costs for hospitalizations—the actual costs of producing hospital services—increased 61 percent. Costs rose from \$227.2 billion to \$364.7 billion—an average annual increase of 4.4 percent.

## EXHIBIT 1.2 Inpatient Hospital Stays and Average Length of Stay

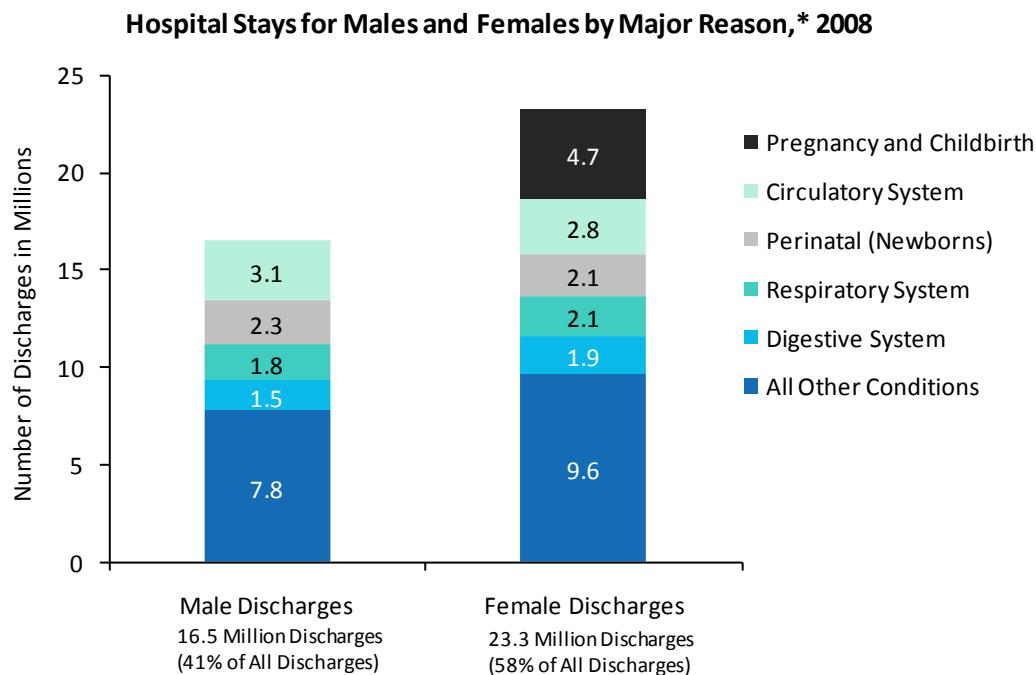


Source: AHRQ, Center for Delivery, Organization, and Markets, Healthcare Cost and Utilization Project, Nationwide Inpatient Sample, 1993-2008.

The average length of stay in U.S. community hospitals stabilized beginning in 2000, while the number of hospital stays continued to slowly rise.

- The average length of stay (ALOS) in 2008 (4.6 days) was almost 20 percent shorter than in 1993 (5.7 days). The ALOS declined throughout most of the 1990s and has remained unchanged since 2000.
- From 1993 to 2008, the number of discharges grew by 5.6 million (an average of 1.0 percent annually).
- Growth in the number of discharges changed over the course of the 15-year period.
  - From 1993 to 1998, the number of discharges remained stable, increasing by only 0.6 million (an average of 0.3 percent annually).
  - Between 1998 and 2003, the number of discharges grew quickly, increasing by 3.3 million (an average of 1.9 percent annually).
  - In the last period, 2003 to 2008, growth again stabilized and the number of discharges increased by 1.7 million (an average of 0.9 percent annually).

## EXHIBIT 1.3 Reasons for Hospital Stays



\* Based on principal diagnosis defined by Major Diagnostic Category (MDC).

Note: Excludes a small number of discharges (111,000 or 0.3 percent) with missing gender.

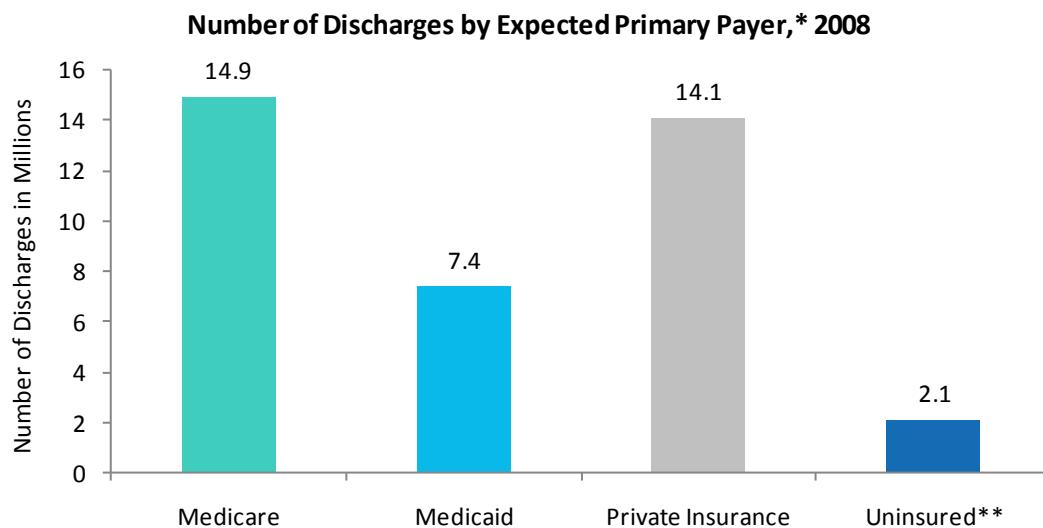
Source: AHRQ, Center for Delivery, Organization, and Markets, Healthcare Cost and Utilization Project, Nationwide Inpatient Sample, 2008.

In 2008, males accounted for 16.5 million hospitalizations, while females experienced 23.3 million stays.

- Circulatory conditions were the most frequent major cause of hospital stays in 2008, accounting for 5.9 million stays or 15 percent of all discharges. These stays were for diagnoses such as coronary atherosclerosis, congestive heart failure, acute myocardial infarction, and cardiac dysrhythmias.
  - Circulatory conditions accounted for 19 percent of male discharges and 12 percent of female discharges.
- Excluding pregnancy and childbirth, the largest gender differences in reasons for hospitalization were for diseases of the digestive system (1.9 million female versus 1.5 million male stays) and diseases of the respiratory system (2.1 million female versus 1.8 million male stays).
- Even when pregnancy and childbirth stays are excluded, females accounted for more stays than males—18.6 million stays for females compared to 16.5 million stays for males.
- Males accounted for 41 percent of all hospitalizations in 2008.
  - Of these stays, 19 percent (3.1 million discharges) were for circulatory conditions, 14 percent (2.3 million discharges) were for stays during the perinatal period, 11 percent (1.8 million discharges) were for respiratory conditions, and 9 percent (1.5 million discharges) were for digestive system conditions.
  - These four major conditions amounted to 53 percent of all hospitalizations for males.
- Females accounted for 58 percent of all hospitalizations in 2008.
  - Pregnancy and childbirth was the reason for 1 out of every 5 female hospitalizations (4.7 million stays).
  - Other major reasons for female hospitalizations included conditions related to the circulatory system (12 percent or 2.8 million stays), respiratory system conditions and stays related to the perinatal

period (each 9 percent of stays or 2.1 million stays), and conditions related to the digestive system (8 percent or 1.9 million stays).

## EXHIBIT 1.4 Expected Primary Payer



\*There are an additional 1.3 million discharges (3 percent of discharges) with "other" as the expected primary payer.

"Other" payer includes Workers' Compensation, TRICARE, CHAMPUS, CHAMPVA, Title V, and other government programs.

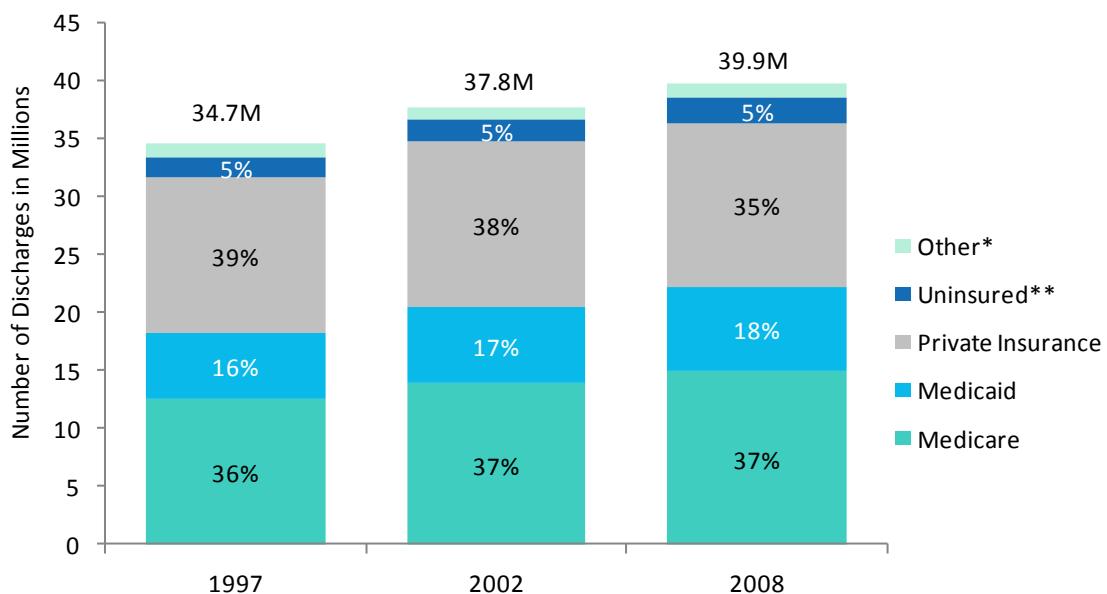
\*\*Includes discharges classified as self-pay or no charge.

Source: AHRQ, Center for Delivery, Organization, and Markets, Healthcare Cost and Utilization Project, Nationwide Inpatient Sample, 2008.

The primary payer bears the major financial responsibility for the hospital stay. Although other payers, including the patients themselves, may also pay part of the cost of hospitalization, only the expected primary payers are depicted in this section.

- In 2008, Medicare, which covers patients who are 65 and older or disabled, was the expected primary payer for the largest number of discharges (14.9 million), followed by private insurance (14.1 million).
- Medicaid, the primary source of insurance for low income families and individuals, was the expected primary payer for 7.4 million discharges.
- There were 2.1 million uninsured discharges in 2008.

## Number and Distribution of Discharges by Expected Primary Payer, 1997-2008



\* Includes other payers such as Workers' Compensation, TRICARE, CHAMPUS, CHAMPVA, Title V, and other government programs.

\*\* Includes discharges classified as self-pay or no charge.

Note: Excludes a small number of discharges (68,000 or 0.2 percent) with missing payer.

Note: Bar segments representing 4 percent or less have not been labeled.

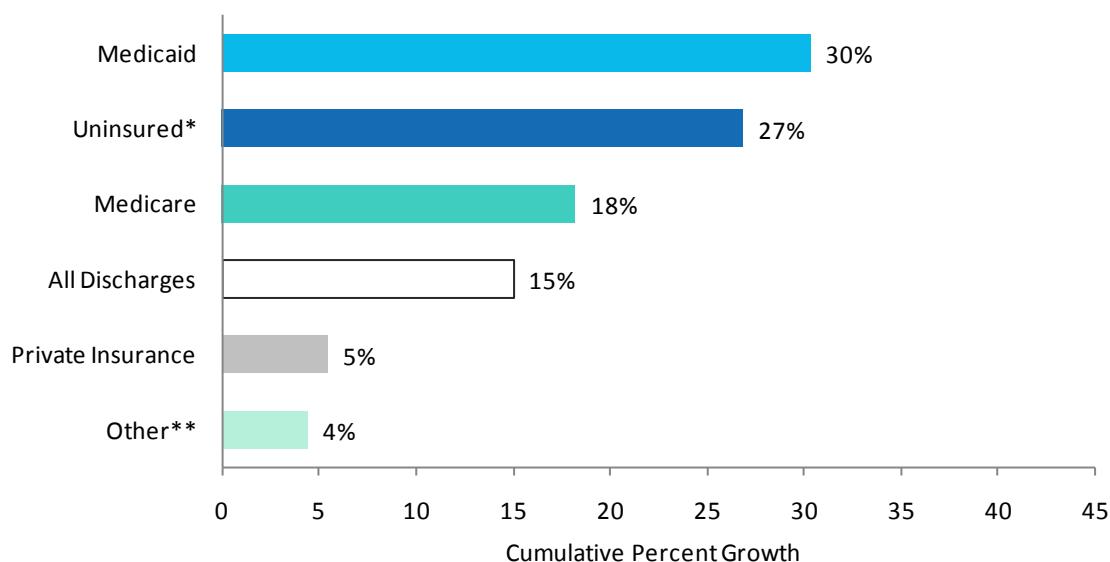
Source: AHRQ, Center for Delivery, Organization, and Markets, Healthcare Cost and Utilization Project, Nationwide Inpatient Sample, 1997-2008.

The number of discharges increased steadily in the 11-year period, growing from 34.7 million in 1997 to 39.9 million in 2008.

- In 2008, Medicare and Medicaid were the expected primary payers for more than half (55 percent) of all inpatient hospital discharges (accounting for 14.9 and 7.4 million hospital stays, respectively).
  - The percentage of discharges billed to Medicare remained relatively stable from 1997 to 2008 at 36-37 percent.
  - Unlike Medicare, the share of discharges with Medicaid as an expected payer increased throughout most of the period, from 16 percent in 1997 to 18 percent in 2008.
- Between 1997 and 2008, the percentage of discharges billed to private insurance fell from 39 percent to 35 percent. This reflects the steady decline in the share of the population with private insurance coverage.<sup>1</sup>
- In both 1997 and 2008, about 5 percent of discharges were listed as uninsured, amounting to 1.7 million hospital stays in 1997 and 2.1 million in 2008.

<sup>1</sup> Cohen, J. W. and Rhoades, J.A. *Group and Non-Group Private Health Insurance Coverage, 1996 to 2007: Estimates for the U.S. Civilian Noninstitutionalized Population under Age 65*. Statistical Brief #267. October 2009. Agency for Healthcare Research and Quality, Rockville, MD. [http://www.meps.ahrq.gov/mepsweb/data\\_files/publications/st267/stat267.pdf](http://www.meps.ahrq.gov/mepsweb/data_files/publications/st267/stat267.pdf).

### Growth in Number of Discharges by Expected Primary Payer, 1997-2008



\* Includes discharges classified as self-pay or no charge.

\*\* Includes other payers such as Workers' Compensation, TRICARE, CHAMPUS, CHAMPVA, Title V, and other government programs.

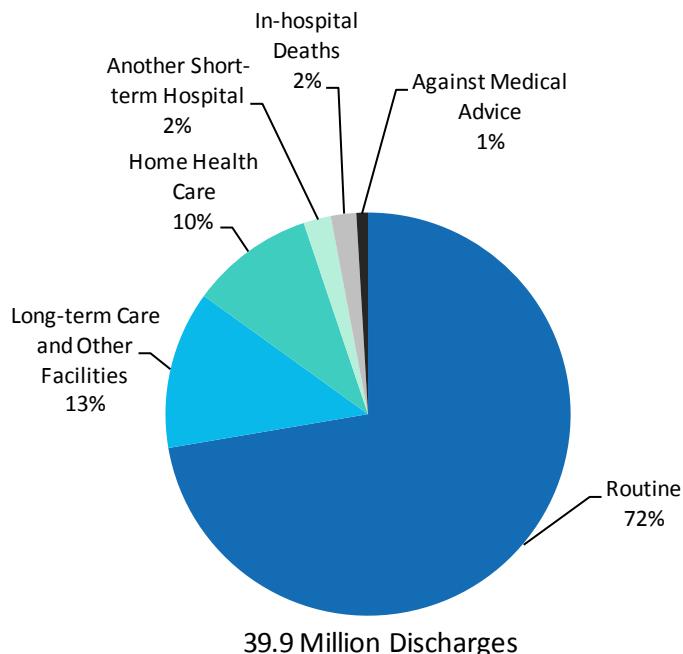
Source: AHRQ, Center for Delivery, Organization, and Markets, Healthcare Cost and Utilization Project, Nationwide Inpatient Sample, 1997 and 2008.

Between 1997 and 2008, the number of hospital discharges grew by 15 percent; however, growth varied widely by expected primary payer.

- Medicaid discharges (up 30 percent) grew at double the rate of all discharges, followed closely by uninsured discharges (up 27 percent).
- The number of discharges billed to Medicare grew by 18 percent.
- While discharges billed to Medicaid, the uninsured, and Medicare experienced substantial growth between 1997 and 2008, growth in the number of discharges billed to private insurance and other payers remained relatively stable (5 percent and 4 percent, respectively).

## EXHIBIT 1.5 Discharge Status

Distribution of Inpatient Hospital Stays by Discharge Status, 2008



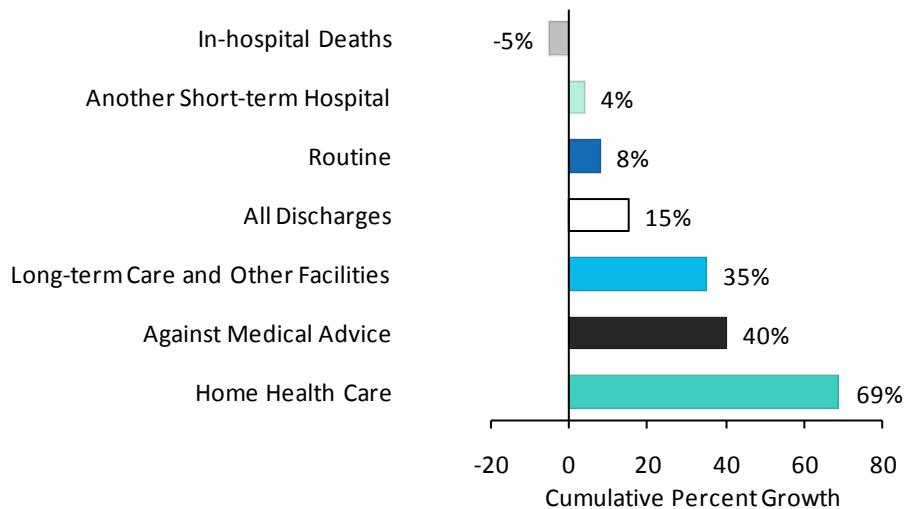
Note: Excludes a small number of discharges (42,000 or 0.1 percent) with missing discharge status.

Source: AHRQ, Center for Delivery, Organization, and Markets, Healthcare Cost and Utilization Project, Nationwide Inpatient Sample, 2008.

Discharge status indicates the circumstance surrounding the discharge or where the patient went after discharge from the hospital. Most discharges were routine in nature, but discharges to follow-on care were also frequent.

- The most common patient discharge status was routine (72 percent, or 28.8 million discharges), with the patient being sent home without closely supervised health care.
- Discharge to a long-term care facility (5.0 million discharges) was the second most common type of discharge, accounting for 13 percent of discharges.
- Discharge to the home with home health care supervision accounted for 10 percent of discharges (3.9 million discharges).
- Remaining discharge circumstances each accounted for 2 percent or less of discharges. These included discharge to another short-term hospital (877,700 discharges), in-hospital deaths (811,200 discharges), or discharge against medical advice (370,000 discharges).

## Growth in Number of Hospital Stays by Discharge Status, 1997-2008

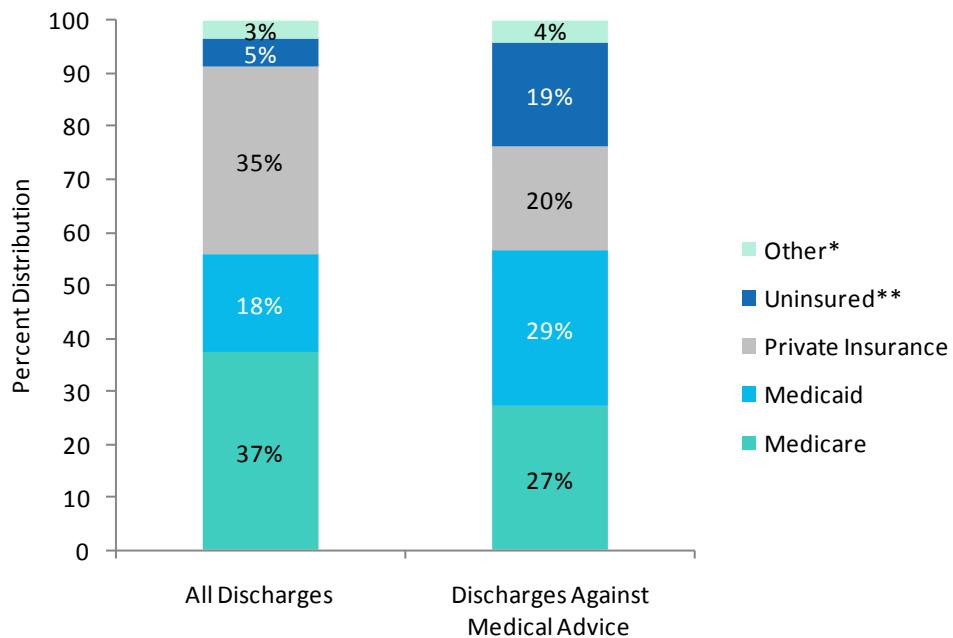


Source: AHRQ, Center for Delivery, Organization, and Markets, Healthcare Cost and Utilization Project, Nationwide Inpatient Sample, 1997 and 2008.

The total number of discharges increased 15 percent (5.2 million discharges) from 1997 to 2008, but the rate of growth varied by discharge status.

- The number of discharges to follow-on care has increased as the average length of stay has fallen.
  - The number of discharges to home health care grew by 69 percent (1.6 million discharges).
  - Discharges to nursing homes and long-term care increased by 35 percent (1.3 million discharges).
- The number of patients who left the hospital against medical advice, although small, rose by 40 percent (105,600 discharges)—the second fastest increase of any discharge type.
- The number of discharges for in-hospital deaths (down 5 percent) and discharges to another short-term hospital (up 4 percent) remained stable between 1997 and 2008.

## All Discharges and Discharges Against Medical Advice by Payer, 2008



\*Includes other payers such as Workers' Compensation, TRICARE, CHAMPUS, CHAMPVA, Title V, and other government programs.

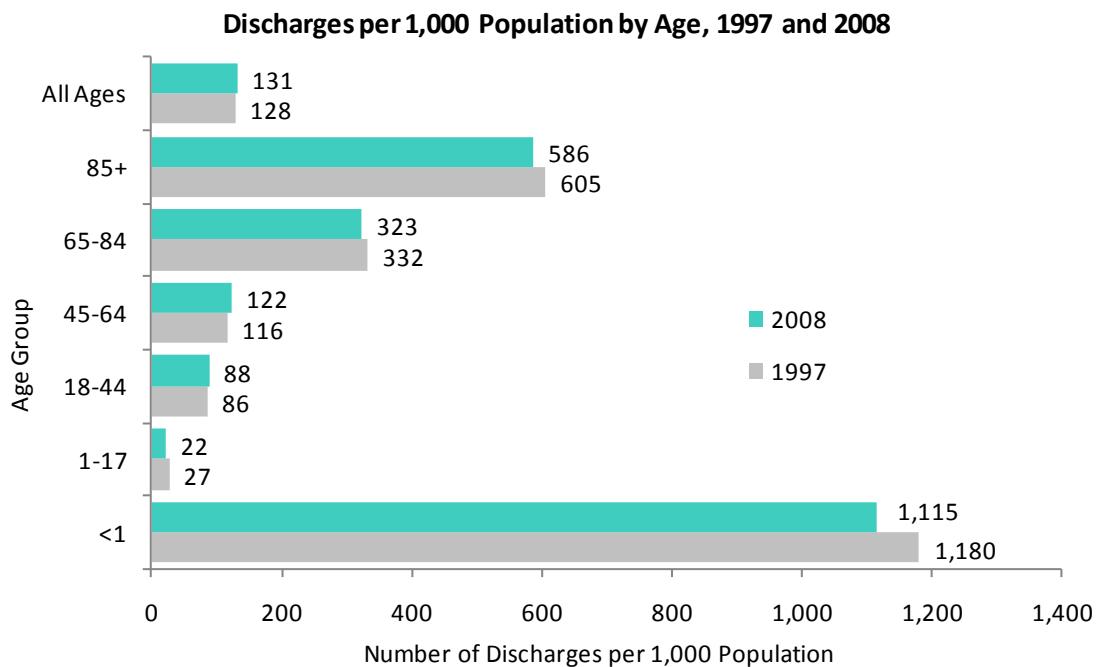
\*\*Includes discharges classified as self-pay or no charge.

Note: Excludes a small number of discharges (68,000 or 0.2 percent) with missing payer.

Source: AHRQ, Center for Delivery, Organization, and Markets, Healthcare Cost and Utilization Project, Nationwide Inpatient Sample, 2008.

- Uninsured and Medicaid stays accounted for nearly half (48 percent) of all stays discharged against medical advice, but only about one-quarter (23 percent) of all stays.
  - Nineteen percent of all discharges against medical advice were uninsured, while only 5 percent of all stays were uninsured.
  - Similarly, Medicaid covered 29 percent of discharges against medical advice, but only 18 percent of all stays.
- Private insurance was the primary payer for 35 percent of all stays, but only 20 percent of discharges against medical advice.
- Medicare-covered discharges accounted for 37 percent of all stays, and 27 percent of stays discharged against medical advice.

## EXHIBIT 1.6 Patient Age



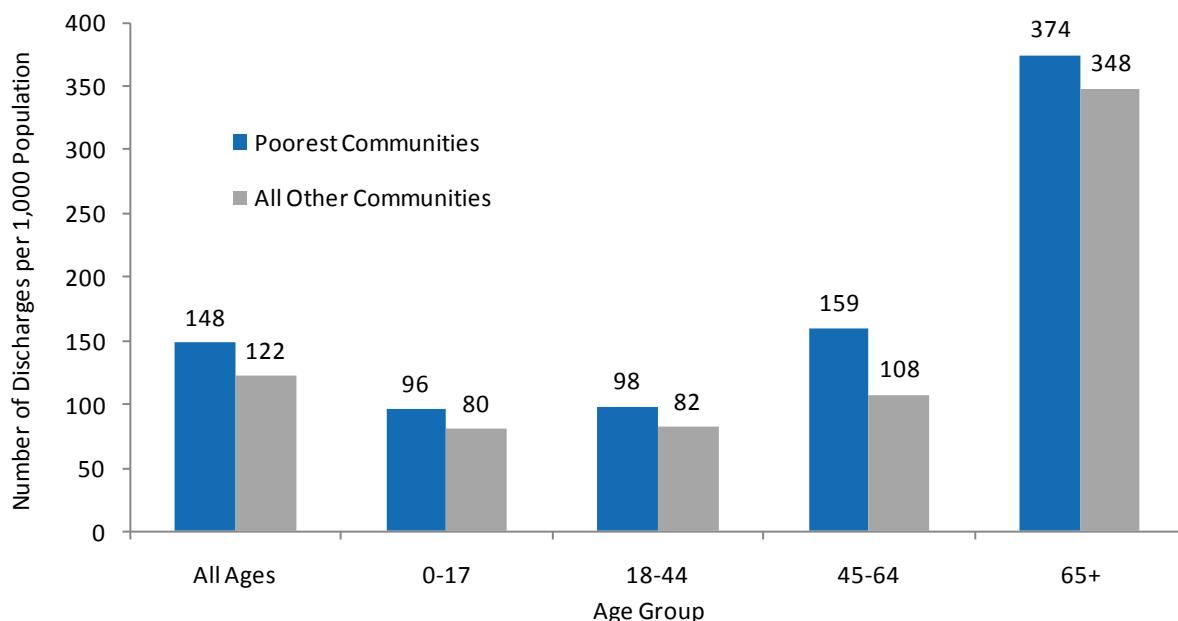
Note: Excludes a small number of discharges (50,000 or 0.1 percent) with missing age.

Source: AHRQ, Center for Delivery, Organization, and Markets, Healthcare Cost and Utilization Project, Nationwide Inpatient Sample, 1997 and 2008.

Discharges per 1,000 population by age group show that persons of older age had a greater chance of hospitalization in both 1997 and 2008.

- Across all age groups, there were 131 discharges for every 1,000 persons in the United States in 2008, little changed from the rate of 128 discharges in 1997.
- There were fewer than 30 hospital stays for every 1,000 children 1-17 years old in 1997 and 2008.
- For adults 85 and older, there were 605 and 586 stays per 1,000 persons in 1997 and 2008, respectively.
- While older age was generally associated with higher hospitalization rates, infants younger than 1 year of age experienced the highest rates of hospitalization: 1,180 hospitalizations per 1,000 infants in 1997 and 1,115 hospitalizations per 1,000 infants in 2008. These high rates of hospital stays occur because nearly all births happen in the hospital and some infants require additional hospitalization in the first year of life.

### Discharges per 1,000 Population by Age in the Poorest\* and All Other Communities, 2008



\* The poorest communities are defined by ZIP code and have median household income of less than \$39,000.

Note: Excludes a small number of discharges (868,000 or 2.2 percent) with missing age or income.

Source: AHRQ, Center for Delivery, Organization, and Markets, Healthcare Cost and Utilization Project, Nationwide Inpatient Sample, 2008.

- Persons residing in the poorest communities had a 21-percent higher rate of hospitalization in 2008 (148 discharges per 1,000 population) than those residing in all other communities (122 discharges per 1,000 population).
  - The rate of hospitalization for children 0-17 and adults 18-44 in the lowest income communities (96 and 98 discharges per 1,000 population) compared to all other communities (80 and 82 discharges per 1,000 population) was about 19 percent higher.
  - The discharge rate for adults 45-64 was 48 percent higher in the poorest than in all other communities (159 discharges per 1,000 population in the poorest communities compared to 108 discharges per 1,000 population in all other communities).
  - Community income level had the least impact on the hospitalization rate of patients 65 years and older, with the poorest communities experiencing similar hospitalization rates to all other communities (374 discharges per 1,000 population in the poorest communities compared to 348 discharges per 1,000 population in wealthier communities).