UTILIZATION

Government Facility Service Volumes Rise with Admissions Counts

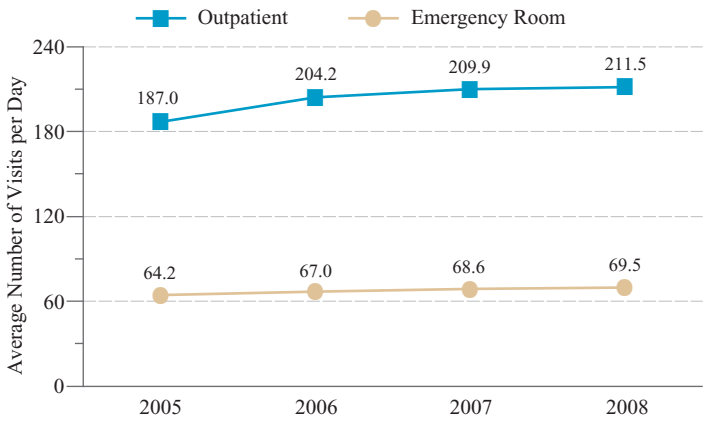
Of the three hospital ownership types listed, only government facilities reported increased annual utilization rates between 2007 and 2008, for total facility admissions and total facility patient-days alike. By comparison, these utilization measures fell substantially at for-profit hospitals during this time. Yet not-for-profit facilities still recorded the highest service volumes by ownership type.

HOSPITAL SERVICE VOLUME, BY OWNERSHIP TYPE

	Not-for-Profit		For-Profit		Government		ALL HOSPITALS	
SERVICE VOLUME	2007	2008	2007	2008	2007	2008	2007	2008
Total Facility Admissions	9,028	8,969	6,136	5,576	4,189	4,247	**7,416**	**7,291**
Total Facility Patient-days	45,048	44,779	28,754	26,055	23,158	23,265	**37,295**	**36,609**
Inpatient Surgeries/Staffed Bed	12.6	12.6	12.5	14.0	8.0	8.1	**11.5**	**11.8**
Outpatient Surgeries/Day	12.6	12.5	8.7	8.3	5.6	5.5	**10.4**	**10.3**
Outpatient Surgeries as a Percentage of Total Surgeries	69.1%	69.0%	65.1%	65.4%	75.0%	74.9%	**69.9%**	**69.8%**
Outpatient Visits/Day	258.3	262.7	113.8	109.0	147.3	152.3	**209.9**	**211.5**
Emergency Room Visits/Day	80.1	81.8	58.9	56.7	46.0	47.0	**68.6**	**69.5**

Outpatient Utilization Growth May Affect the Frequency of ER Visits

AVERAGE NUMBER OF VISITS PER DAY, 2005–2008



Increased outpatient utilization, including sharp growth in the number of outpatient surgeries, has coincided with more manageable emergency room (ER) visit rates.

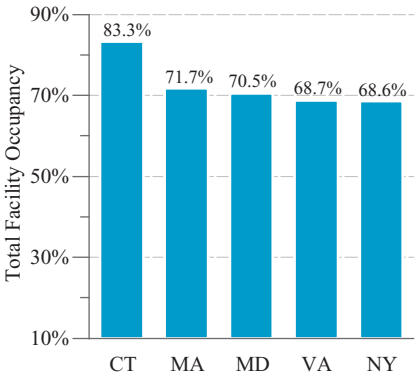
- Hospital outpatient visits per day rose a substantial 13.1% between 2005 (187.0) and 2008 (211.5). During this period, the number of ER visits increased a comparatively minor 8.3%, to 69.5 from 64.2 in 2005.
- The increase in numbers of preventive care visits and scheduled outpatient procedures in recent years has coincided with better management of unplanned ER visits. Pay-for-performance measures may further impact the role of outpatient visits as a means of managing ER visit rates.

Population Density Is Linked to Hospital Occupancy Rates

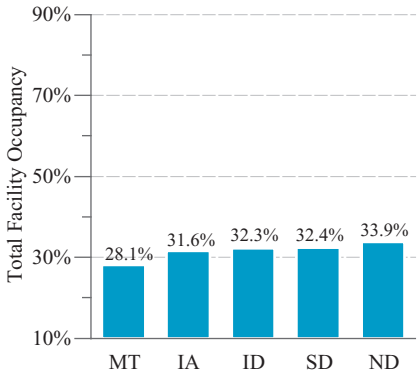
In 2008, total facility occupancy rates largely coincided with state population density rank.

- According to the U.S. Census Bureau, Connecticut, Massachusetts and Maryland, each among the five most densely populated states in the U.S., were likewise among the top five ranked states in total facility occupancy rates.
- By comparison, four of the five states with the lowest total facility occupancy rates averaged fewer than 20 people per square mile (Iowa, at 53.8, was the lone exception).[1]

TOP 5 STATES, 2008
TOTAL FACILITY OCCUPANCY



BOTTOM 5 STATES, 2008
TOTAL FACILITY OCCUPANCY



Data source: SDI © 2010

[1] U.S. Census Bureau, Population Division. (2009, July). *Population Density for States and Puerto Rico*. Retrieved from http://www.census.gov/popest/gallery/maps/popdens-2009.html

Patient-Days Counts Climb as Hospitals Seek to Lower Readmissions

Even as cardiac care unit (CCU) and intensive care unit (ICU) occupancy rates dropped at MHS and non-MHS facilities alike, patient-days counts increased, regardless of ownership type.

- For example, the number of CCU patient-days rose nearly 5% at MHS hospitals, to 3,886 in 2008 from 3,706 in 2007. Such growth can be indicative of a strategy in which hospital readmissions are managed by monitoring patients for longer periods of time post-surgery.

CCU UTILIZATION, BY MHS OWNERSHIP

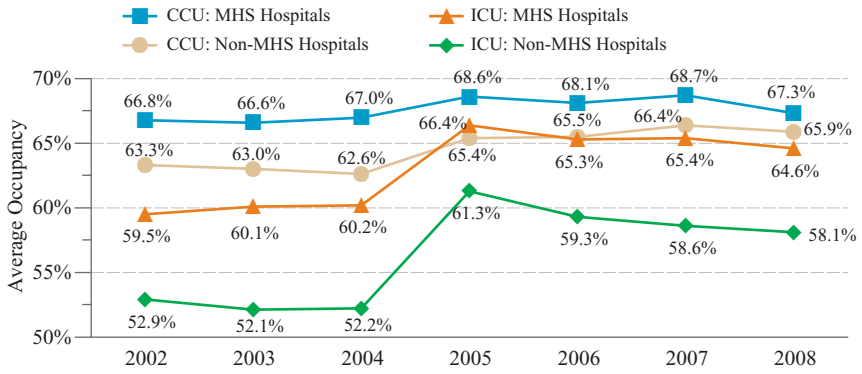
SERVICE VOLUME	All Hospitals in MHSs		All Non-MHS Hospitals		ALL HOSPITALS	
	2007	2008	2007	2008	**2007**	**2008**
Average CCU Occupancy	68.7%	67.3%	66.4%	65.9%	**68.1%**	**66.9%**
Average CCU Patient-days per Hospital	3,706	3,886	2,726	2,756	**3,442**	**3,600**

ICU UTILIZATION, BY MHS OWNERSHIP

SERVICE VOLUME	All Hospitals in MHSs		All Non-MHS Hospitals		ALL HOSPITALS	
	2007	2008	2007	2008	**2007**	**2008**
Average ICU Occupancy	65.4%	64.6%	58.6%	58.1%	**62.7%**	**62.1%**
Average ICU Patient-days per Hospital	4,010	4,015	2,674	2,675	**3,465**	**3,484**

Occupancy Rates Remain Substantially Higher at MHS-Owned Facilities

AVERAGE OCCUPANCY RATES, 2002–2008



MHS-owned facilities, which tend to be larger hospitals that often treat more complicated cases, had higher utilization rates (patient-days and occupancy rates alike) than non-MHS facilities in both CCU and ICU settings.

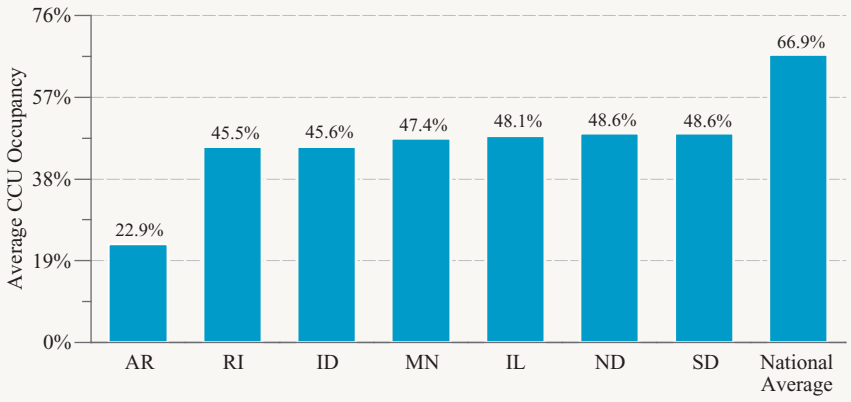
- For instance, in spite of a sharp increase in ICU occupancy rates at non-MHS facilities between 2004 (52.2%) and 2005 (61.3%), these hospitals still had significantly lower ICU occupancy rates than their MHS-owned counterparts, a trend that persisted in 2008.

LOCAL SPOTLIGHT

Lower Insurance Rates Severely Impact Arkansas CCU Occupancy

In 2008, Arkansas reported the lowest CCU occupancy rate in the nation, at just 22.9%. Although the need certainly existed—Arkansas ranked 48th in cardiovascular disease mortality in the latest American Heart Association statistics[1]—the ability to access cardiac care did not. According to a recent Families USA study, over 34.6% of Arkansans under age 65 went without insurance for all or part of 2007 and 2008,[2] more than double the national average uninsured rate of 15.4% in 2008.[3]

STATES WITH BELOW 50% CCU OCCUPANCY, 2008



Data source: SDI © 2010

[1] American Heart Association. (2010). Heart Disease and Stroke Statistics 2010 Update. doi:10.1161/CIRCULATIONAHA.109.192667

[2] Arkansans without Health Insurance. (2009). Families USA. *The Uninsured*. Retrieved from www.familiesusa.org/assets/pdfs/americans-at-risk/arkansas.pdf

[3] U.S. Census Bureau News. (2008). *Income, Poverty and Health Insurance Coverage in the United States*. Retrieved from http://www.census.gov/PressRelease/www/releases/archives/income_wealth/014227.html

Hospital Operating Expenses Grow at MHS and Non-MHS Hospitals Alike

Between 2007 and 2008, hospital operating expenses per hospital rose for each of six cost measures, regardless of MHS affiliation.

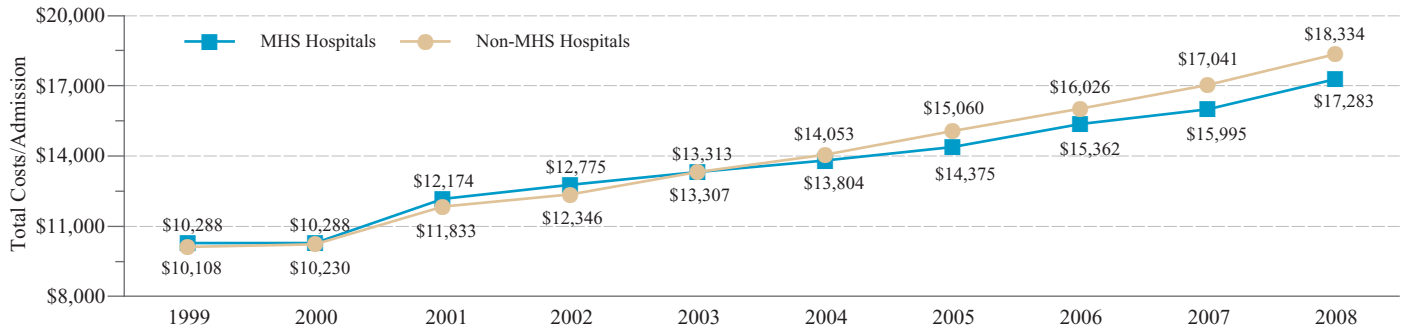
HOSPITAL OPERATING EXPENSES PER HOSPITAL, BY MHS OWNERSHIP

	All Hospitals in MHSs		All Non-MHS Hospitals		ALL HOSPITALS	
COST MEASURE	2007	2008	2007	2008	2007	2008
Total Costs/Occupied Bed	$1,034,062	$1,059,084	$938,641	$958,438	**$991,238**	**$1,016,256**
Total Costs/Admission	15,995	17,283	17,041	18,334	**16,507**	**17,780**
Total Costs/Patient-day	3,641	3,921	3,904	4,216	**3,769**	**4,058**
Labor Costs/Patient-day	1,465	1,545	1,491	1,525	**1,476**	**1,538**
Salary Costs/FTE	51,062	53,185	46,666	48,990	**49,060**	**51,349**
Total Costs/FTE	135,095	140,310	112,550	118,462	**123,283**	**128,759**

- In 2008, MHS-affiliated hospitals reported lower costs per admission than their non-MHS counterparts, a reflection of the cost efficiencies these hospitals have perhaps gained through economies of scale.
- However, MHS-affiliated hospitals recorded total costs per FTE that were 18.4% higher than such costs at non-MHS facilities ($140,310 vs. $118,462 in 2008). The notable gap in total costs per FTE may in part be attributable to the greater percentage of specialists providing care at larger MHS-affiliated hospitals.

More MHS Facility Admissions May Equate to Greater Cost Efficiencies

TOTAL COSTS PER ADMISSION, 1999–2008



Since 2004, MHS hospitals have averaged lower total costs per admission than non-MHS facilities, a gap that has widened in recent years. In 2008, MHS hospitals reported total costs per admission of $17,283, well below the non-MHS average of $18,334.

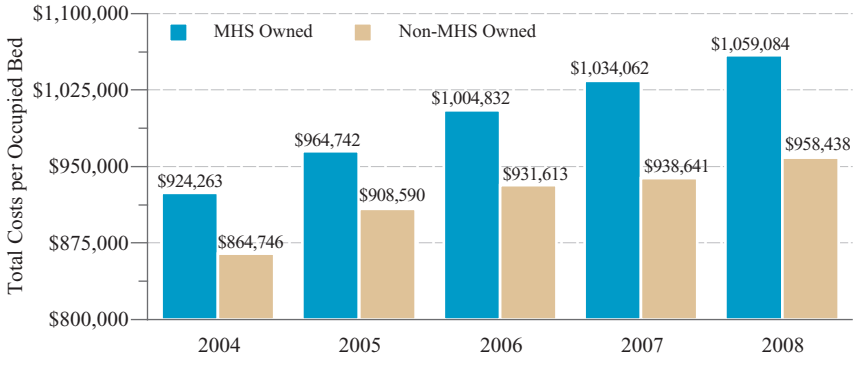
- A 1.8% differential in 2004 has now approached a 6.0% gap, as more hospitals affiliate with systems each year.
- For example, between 2005 (2,410) and 2008 (2,798), the number of hospitals tied to MHSs climbed more than 16%.
- Accordingly, the number of MHS hospital admissions likewise increased notably over this period. Increased volumes may have granted these facilities greater flexibility in managing operating costs.

Total Costs per Occupied Bed Reflect the Growing Influence of MHSs

Total costs per occupied bed climbed 10.8% between 2004 and 2008 at non-MHS hospitals. By comparison, such costs increased a more significant 14.6% at MHS-owned facilities.

- As a greater percentage of market share shifts to MHS facilities, the difference in total costs per occupied bed becomes more apparent.
- With further growth expected among MHSs and their facilities, differences between MHS-owned and non-MHS-owned hospitals should continue growing in the future.

TOTAL COSTS PER OCCUPIED BED, 2004–2008



Data source: SDI © 2010

Hospitals in MHSs with HMOs Rely Heavily on Outpatient Revenue

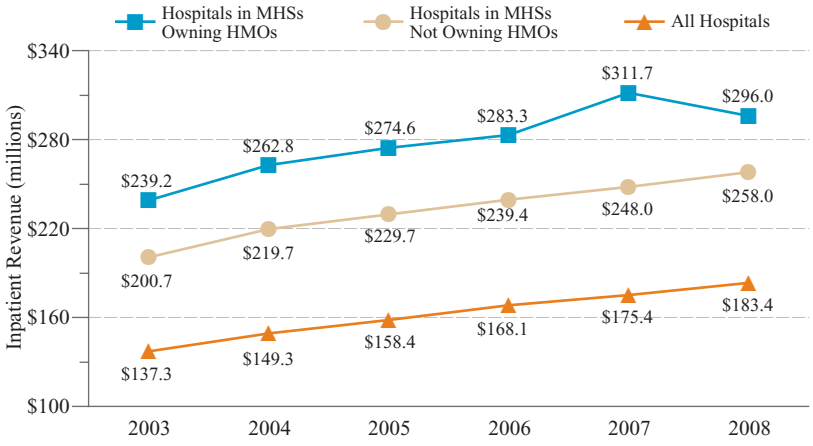
- Hospitals in MHSs that own HMOs relied more heavily on outpatient sources of revenue to drive business. For example, outpatient revenue climbed 8.0% at hospitals in MHSs owning HMOs in 2008, to $193.9 million from $179.5 million in 2007, accounting for nearly 40% of total revenue. Conversely, more traditional inpatient revenue streams generated $296.0 million for these hospitals in 2008, down 5.0% from $311.7 million in 2007.
- Outpatient revenue grew more than 10% for hospitals nationwide, between 2007 ($111.0 million) and 2008 ($122.9 million), a trend that may continue as more procedures move to less resource-intensive settings.

HOSPITAL UTILIZATION AND FINANCIAL STATISTICS, BY BED SIZE*

	Average # of Discharges per Year		Total Revenue (millions)		Inpatient Revenue (millions)		Inpatient Revenue as a % of Total Revenue		Outpatient Revenue (millions)		Outpatient Revenue as a % of Total Revenue	
HOSPITAL TYPE	2007	2008	2007	2008	2007	2008	2007	2008	2007	2008	2007	2008
Hospitals in MHSs Owning HMOs	11,552	11,520	$491.2	$489.9	$311.7	$296.0	63.5%	60.4%	$179.5	$193.9	36.5%	39.6%
Hospitals in MHSs Not Owning HMOs	10,509	10,320	394.9	417.0	248.0	258.0	62.8	61.9	146.9	159.0	37.2	38.1
ALL HOSPITALS	**7,605**	**7,570**	**$286.4**	**$306.3**	**$175.4**	**$183.4**	**61.2%**	**59.9%**	**$111.0**	**$122.9**	**38.8%**	**40.1%**

Inpatient Revenue Falls, Remains Highest at Hospitals in HMO-Owning MHSs

INPATIENT REVENUE, 2003–2008



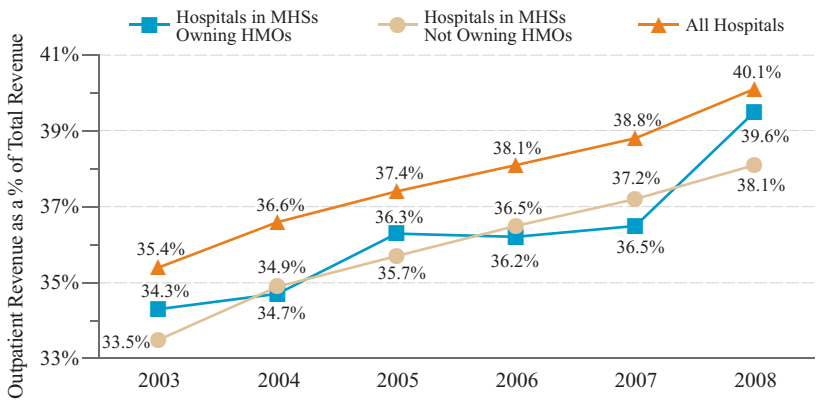
Hospitals in MHSs that owned HMOs saw average inpatient revenues drop in 2008 for the first time this decade (to $296.0 million from $311.7 million in 2007), in part the result of stagnant HMO enrollment and expanding outpatient care delivery options.[1]

- In spite of this decline, inpatient revenue remained higher, by a substantial margin, at hospitals in MHS-owning HMOs.
- Although hospitals in MHSs that own HMOs accounted for the larger inpatient revenue total, this gap may close if managed care continues to evolve away from traditional HMO models.

Outpatient Portion of Total Revenue Continues to Climb at U.S. Hospitals

- Between 2003 and 2008, the outpatient revenue percentage of total revenue for all U.S. hospitals climbed steadily, to 40.1% from 35.4% five years earlier.
- The outpatient share of total revenue for all U.S. hospitals was impacted by non-MHS-owned hospitals. These facilities, which generally have lower inpatient populations than their MHS-owned counterparts, relied on outpatient streams for a notably higher percentage of total revenue (44.6%) in 2008 (data not shown).

OUTPATIENT REVENUE AS A PERCENTAGE OF TOTAL REVENUE, 2003–2008



Data source: SDI © 2010

* Hospital data are based on all short-term, acute-care, nonfederal hospitals.

[1] See page 8 of the *HMO-PPO Digest* for 2009.

Staffing Levels Are on the Rise for Hospitals Nationwide

Between 2007 and 2008, total full-time-equivalent (FTE) staffing ratios rose for all U.S. hospitals, regardless of MHS affiliation.

- The number of registered nurses (RNs) per occupied bed grew at hospitals in HMO-owning MHSs (to 2.21 from 2.09 in 2007) and at hospitals in MHSs not owning HMOs (to 2.21 from 2.10).
- Studies linking high hospital staff ratios to better patient outcomes has helped to boost staffing ratios in recent years.[2]

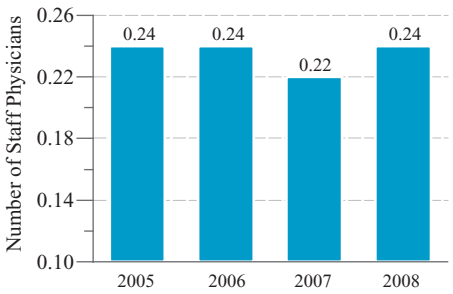
HOSPITAL STAFFING[1]

	Hospitals in MHSs Owning HMOs		Hospitals in MHSs Not Owning HMOs		ALL HOSPITALS	
FTEs PER OCCUPIED BED	2007	2008	2007	2008	**2007**	**2008**
Staff Physicians	0.22	0.24	0.23	0.23	**0.31**	**0.33**
Resident Physicians	0.31	0.28	0.34	0.34	**0.32**	**0.33**
Registered Nurses	2.09	2.21	2.10	2.21	**2.26**	**2.42**
Licensed Practical Nurses	0.39	0.41	0.45	0.45	**0.62**	**0.63**
Physician Assistants	0.13	0.14	0.13	0.13	**0.18**	**0.19**
Registered Pharmacists	0.09	0.10	0.09	0.10	**0.11**	**0.12**
Dietitians	0.04	0.06	0.05	0.05	**0.07**	**0.08**
Occupational Therapists	0.04	0.05	0.05	0.06	**0.07**	**0.08**
Inhalation Therapists	0.15	0.17	0.17	0.18	**0.20**	**0.21**
Physical Therapists	0.09	0.11	0.10	0.11	**0.14**	**0.15**
All Other Employees	5.45	5.68	5.44	5.44	**6.38**	**6.52**
TOTAL FTE STAFF[3]	**7.91**	**8.22**	**8.13**	**8.22**	**9.55**	**9.84**

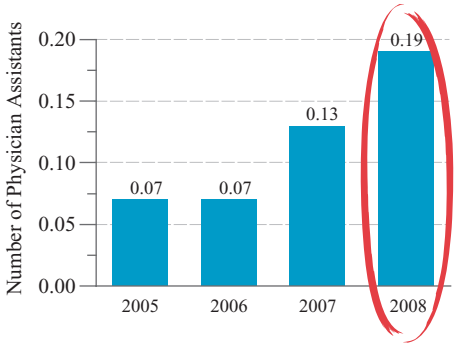
Hospitals in HMO-Owning MHSs Increase MD Assistant, RN Staffing Ratios

NUMBER OF FTEs PER OCCUPIED BED IN HOSPITALS IN MHSs OWNING HMOs[1,3]

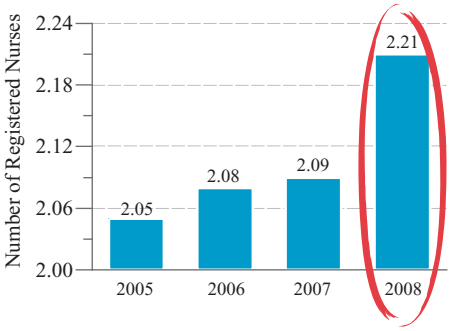
NO. OF FTE STAFF PHYSICIANS



NO. OF FTE PHYSICIAN ASSISTANTS



NO. OF FTE REGISTERED NURSES

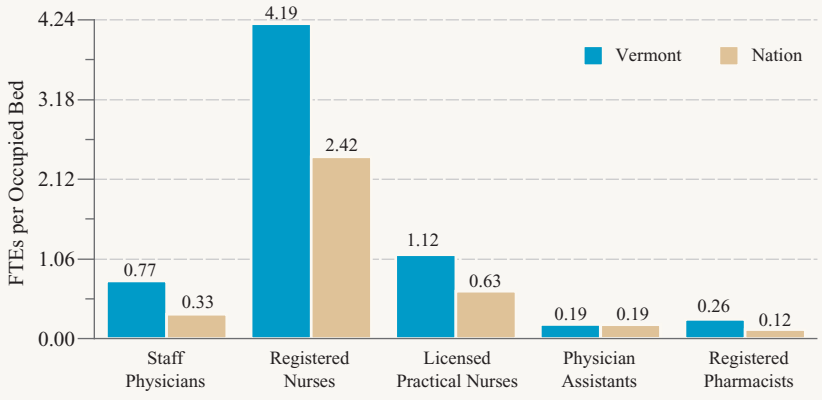


LOCAL SPOTLIGHT

Vermont Legislation Prompts Much Higher Staffing Ratios

A number of recent studies have suggested correlations between low hospital staffing ratios and adverse outcomes for patients. As of June 2009, 14 states (including Vermont) have enacted legislation to address or mandate staffing levels. Vermont, which enacted its legislation in 2006, demands public disclosure of nurse staffing ratios.[4] This public accountability may have encouraged Vermont hospitals to employ staff at nearly twice the national averages, most notably for registered nurses and licensed practical nurses.

FTEs PER OCCUPIED BED, VERMONT VS. NATION, 2008[1,3]



Data source: SDI © 2010

[1] Data are for all beds in nonfederal, short-term, acute-care hospitals only. Psychiatric, rehabilitation and children's hospitals are excluded.

[2] Stanton, M. W. (2004). Hospital Nurse Staffing and Quality of Care. Research in Action, 14. Retrieved from http://www.ahrq.gov/research/nursestaffing/nursestaff.htm

[3] Column totals represent the average of each facility's total full-time-equivalent employees. Therefore, the totals cannot be derived by adding the numbers in the columns.

[4] American Nurses Association. (2009). Nurse Staffing Plans and Ratios. Retrieved from http://www.safestaffingsaveslives.org/WhatisANADoing/StateLegislation/StaffingPlansandRatios.aspx

INPATIENT CASES

Number of Cardiovascular Inpatient Cases per Hospital Drops

Between 2006 and 2008, the numbers of cardiovascular disease-related (ACS, angina and atrial fibrillation) hospital inpatient cases fell, while the number of inpatient diabetes cases rose slightly.

- In 2008, hospitals admitted, on average, 599.0 atrial fibrillation cases, down 12.3% from 682.9 in 2007. Similar declines occurred for ACS (to 111.4 from 128.9 in 2006) and angina inpatient cases (to 65.7 from 93.3). Improved treatment strategies aimed at preventing readmissions, along with decreased smoking rates (a known risk factor for cardiovascular disease), have been documented as primary reasons for these declines.
- In spite of increasing obesity rates, the number of diabetes inpatient cases per hospital per year held fairly steady, rising only fractionally between 2006 (1,263.4) and 2008 (1,267.2). Provider adherence to American Diabetes Association (ADA) recommendations has played a role in improved diabetes management in recent years.

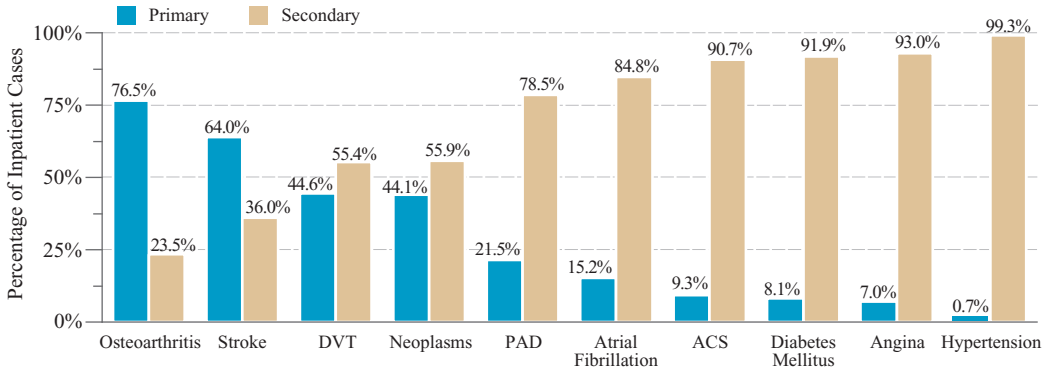
NUMBER OF INPATIENT CASES PER HOSPITAL PER YEAR, BY OWNERSHIP TYPE

	2006	2007	2008
ACUTE CORONARY SYNDROMES (ACS)			
Not-For-Profit	157.0	140.9	133.4
For-Profit	111.3	100.4	100.4
Government	65.3	59.2	56.7
ALL HOSPITALS	**128.9**	**116.3**	**111.4**
ANGINA			
Not-For-Profit	115.7	103.9	80.9
For-Profit	78.8	69.4	57.6
Government	44.2	40.9	31.0
ALL HOSPITALS	**93.3**	**84.1**	**65.7**
ATRIAL FIBRILLATION			
Not-For-Profit	877.5	856.6	780.1
For-Profit	515.2	487.9	412.2
Government	308.1	300.2	276.9
ALL HOSPITALS	**682.9**	**664.0**	**599.0**
DEEP VEIN THROMBOSIS (DVT)			
Not-For-Profit	173.3	176.4	185.6
For-Profit	108.9	106.5	107.5
Government	74.4	76.2	81.6
ALL HOSPITALS	**139.7**	**141.7**	**148.8**
DIABETES MELLITUS			
Not-For-Profit	1,526.3	1,533.2	1,557.9
For-Profit	1,099.6	1,069.5	1,011.4
Government	715.8	705.3	722.7
ALL HOSPITALS	**1,263.4**	**1,259.4**	**1,267.2**

The number of diabetes-related discharges grew an average of just 0.8% per year between 2004 and 2006, versus a 5.4% average growth rate between 2000 and 2003.[1]

Most Osteoarthritis and Stroke Cases Are Primary Diagnoses

PERCENTAGE OF HOSPITAL INPATIENT CASES, BY PRIMARY AND SECONDARY DIAGNOSES, 2008



Data source: SDI © 2010

Of all hospital inpatient cases for osteoarthritis in 2008, more than three-quarters (76.5%) were for treatment of a primary diagnosis. A notable share (64.0%) of all hospital inpatient cases for stroke were likewise the result of treating a primary diagnosis. By comparison, less than 1% of all hospital inpatient hypertension cases treated a primary diagnosis of the disease.

[1] Centers for Disease Control and Prevention. (2009). *Diabetes Data & Trends*. Retrieved from http://www.cdc.gov/diabetes/statistics/dmany/fig1.htm

NOTE: For detailed ICD-9 code listings that comprise the 10 disease states profiled on pages 18–31 of the *Hospitals/Systems Digest*, please refer to page 2.

Osteoarthritis Inpatient Case Counts Increase as U.S. Population Ages

Of the 10 disease states profiled in this section of the Digest, osteoarthritis had the most significant growth in the number of inpatient cases per hospital per year.

- Osteoarthritis inpatient case counts per hospital per year grew a notable 7.4% in 2008, to 160.6 from 149.6 in 2006, driven in part by an influx of these cases at not-for-profit facilities.
- National demographics have also played a large part in this growth. Osteoarthritis incidence, which has a high correlation with age (see page 20), has grown in accordance with the number of U.S. residents over age 64.
- The number of osteoarthritis inpatient cases per year will likely increase in years to come, as this segment of the U.S. population continues to expand.

U.S. Population Age 65+[1]

2005 — 36.8 million

2006 — 37.3 million

2007 — 37.9 million

2008 — 38.9 million

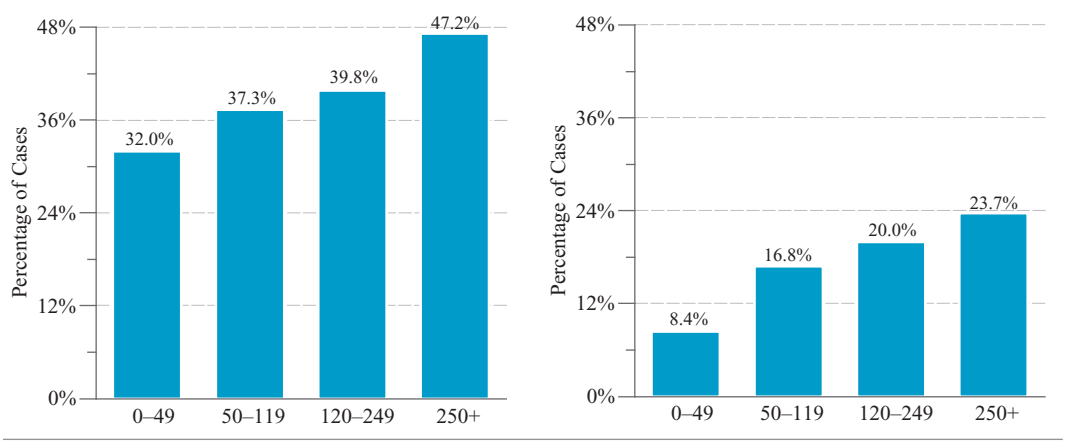
NUMBER OF INPATIENT CASES PER HOSPITAL PER YEAR, BY OWNERSHIP TYPE

	2006	2007	2008
HYPERTENSION			
Not-For-Profit	2,635.2	2,591.7	2,639.1
For-Profit	1,832.5	1,741.8	1,680.5
Government	1,146.9	1,114.9	1,138.5
ALL HOSPITALS	**2,150.7**	**2,100.0**	**2,120.7**
NEOPLASMS			
Not-For-Profit	689.2	684.4	724.2
For-Profit	355.0	350.2	324.7
Government	287.8	284.5	323.2
ALL HOSPITALS	**541.3**	**536.0**	**562.6**
OSTEOARTHRITIS			
Not-For-Profit	188.9	192.7	203.9
For-Profit	113.7	111.6	121.7
Government	65.3	63.4	69.3
ALL HOSPITALS	**149.6**	**151.3**	**160.6**
PERIPHERAL ARTERY DISEASE (PAD)			
Not-For-Profit	286.3	274.9	279.6
For-Profit	201.4	187.7	188.4
Government	111.4	105.9	107.6
ALL HOSPITALS	**231.1**	**220.5**	**224.0**
STROKE			
Not-For-Profit	221.1	216.6	222.2
For-Profit	143.2	136.5	138.9
Government	91.6	88.4	90.0
ALL HOSPITALS	**178.5**	**173.7**	**177.8**

- For all 10 diseases profiled in this portion of the Digest, patients 65 years of age and older accounted for at least 50% of all 2008 hospital inpatient cases. Unless treatment enhancements keep pace with the growing number of seniors in the U.S., hospital inpatient case counts for these diseases may spike in coming years.[2]

Primary Case Shares Increase with Bed Size for Neoplasms, PAD Inpatients

PRIMARY CASE SHARE OF HOSPITAL INPATIENT CASES, BY BED SIZE, 2008



Data source: SDI © 2010

For both neoplasms and peripheral artery disease (PAD), the shares of all hospital inpatient cases treated for a primary diagnosis increased in correlation with the size of the hospital. For example, in 2008, 8.4% of PAD inpatient cases at hospitals with fewer than 50 beds treated patients with a primary diagnosis, while a more notable 23.7% of such cases at hospitals with 250 or more beds were primary cases.

[1] U.S. Census Bureau. (2009). American FactFinder Data Sets, Annual Population Estimates. Retrieved from http://factfinder.census.gov/servlet/DatasetMainPageServlet?_program=PEP&_submenuId=datasets_3&_lang=en

[2] See page 57 of the *Public Payer Digest* for 2009.

AVERAGE LENGTH OF STAY

ALOS Is Higher at Hospitals Affiliated with Multihospital Systems (MHSs)

In six of the 10 disease states tracked, average length of stay (ALOS) per hospital inpatient case was higher at MHS hospitals than at their non-MHS counterparts.

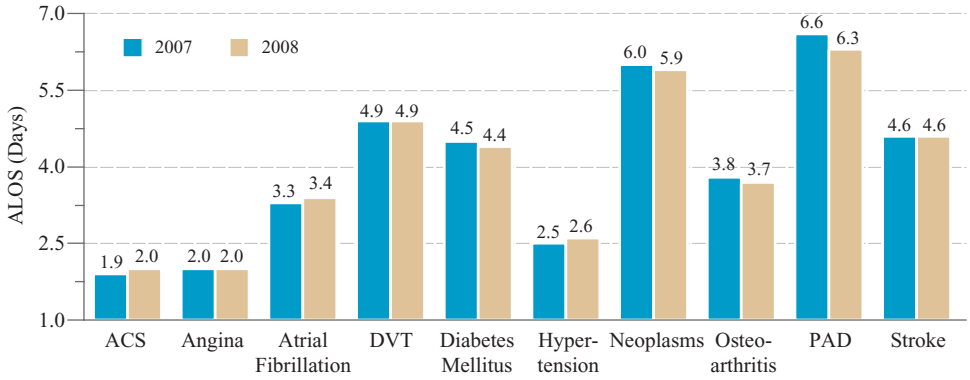
- Hospitals affiliated with MHSs traditionally have higher utilization rates than non-MHS hospitals because, on average, they perform more surgical procedures (inpatient and outpatient) and treat more cases in cardiac care unit (CCU) and intensive care unit (ICU) settings.
- The ALOS gap between MHS and non-MHS hospitals was exceptionally wide for the most complicated diseases. For example, ALOS per hospital inpatient neoplasms case was 6.1 days at MHS hospitals in 2008, well above the non-MHS hospital average (5.6).
- In recent years, however, MHS hospitals have implemented measures to improve efficiency and shorten ALOS, including review of physician practices and better resource management.
- In the future, better coordination of care efforts between hospitals and physicians may lead to further reductions in ALOS, especially at MHSs with superior resources.

AVERAGE LENGTH OF STAY PER HOSPITAL INPATIENT CASE

DISEASE STATE	MHS Hospitals		Non-MHS Hospitals		All Hospitals	
	2007	2008	2007	2008	2007	2008
ACS	2.0	2.0	1.9	1.9	1.9	2.0
Angina	2.0	2.0	1.9	2.0	2.0	2.0
Atrial Fibrillation	3.4	3.4	3.1	3.3	3.3	3.4
DVT	5.2	5.2	4.7	4.7	4.9	4.9
Diabetes Mellitus	4.8	4.6	4.3	4.2	4.5	4.4
Hypertension	2.5	2.5	2.5	2.6	2.5	2.6
Neoplasms	6.2	6.1	5.7	5.6	6.0	5.9
Osteoarthritis	3.8	3.7	3.9	3.8	3.8	3.7
PAD	6.7	6.5	6.6	6.2	6.6	6.3
Stroke	4.6	4.5	4.5	4.7	4.6	4.6

Average Length of Stay Is Longest for Peripheral Artery Disease Cases

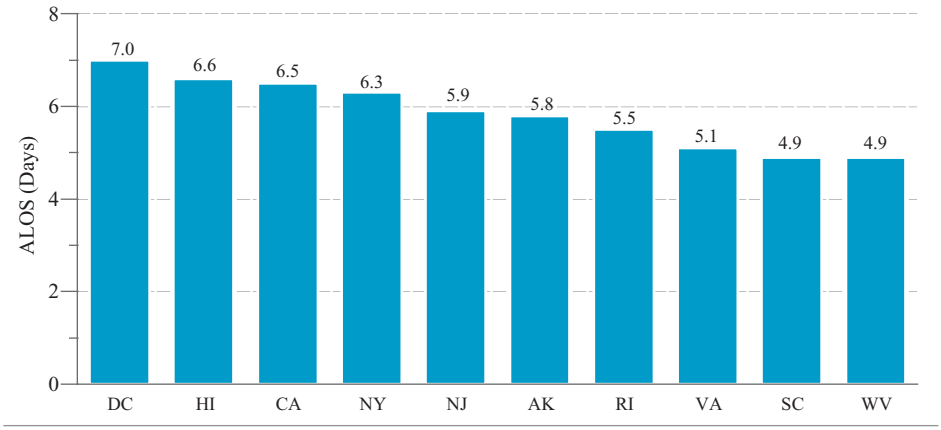
AVERAGE LENGTH OF STAY PER HOSPITAL INPATIENT CASE



Although average length of stay (ALOS) per hospital inpatient case was longest in 2008, by disease state, for peripheral artery disease (PAD), at 6.3 days, it was down moderately from 6.6 days the previous year. Between 2007 and 2008, average lengths of stay per hospital inpatient case fell slightly for three other disease states: neoplasms, diabetes mellitus and osteoarthritis.

Medicaid Population Served by Washington D.C. Hospitals Boosts ALOS

AVERAGE LENGTH OF STAY PER HOSPITAL INPATIENT STROKE CASE, 2008



Data source: SDI © 2010

The Washington, D.C., area is home to many government-operated hospitals that treat a large population of Medicaid recipients. In fact, Medicaid recipients account for an enormous 28% of the total District of Columbia population,[1] the largest such share in the U.S. The area's substantial Medicaid population contributes greatly to the high average length of stay (7.0 days) per hospital inpatient stroke case, well above the national mark of 4.6 days.

[1] Kaiser Family Foundation. (2010). State Health Facts. *Medicaid Enrollment as a Percent of Total Population*. Retrieved from http://www.statehealthfacts.kff.org/comparemaptable.jsp?ind=199&cat=4

Number of Inpatient Surgeries Performed by For-Profits Drives Up ALOS

Average length of stay (ALOS) per hospital inpatient case was highest, by ownership type, at for-profit hospitals for seven of the 10 disease states profiled in this Digest, most notably DVT (5.4 days).

- For-profit hospitals averaged 14.0 inpatient surgeries per staffed bed in 2008, higher than both their not-for-profit (12.6) and government (8.1) counterparts (see page 6 for data).
- For-profit hospital ALOS rates are influenced by the higher number of surgical procedures performed in the inpatient setting. Patients who undergo surgery often require long recovery times and experience complications that keep them in the hospital.

AVERAGE LENGTH OF STAY PER HOSPITAL INPATIENT CASE, BY OWNERSHIP

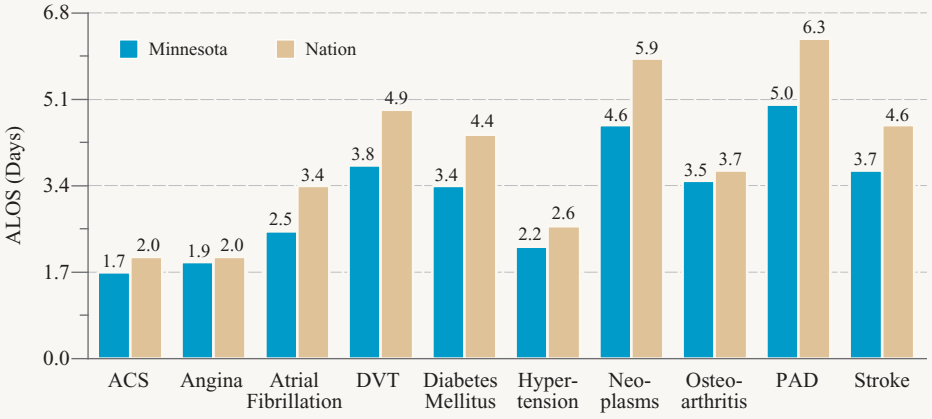
DISEASE STATE	For-Profit		Not-For-Profit		Government	
	2007	2008	2007	2008	2007	2008
ACS	2.1	2.0	1.9	1.9	1.9	2.0
Angina	2.1	2.1	2.0	2.0	2.0	1.9
Atrial Fibrillation	3.6	3.5	3.3	3.4	3.1	3.2
DVT	5.4	5.4	4.9	4.9	4.6	4.6
Diabetes Mellitus	4.9	4.7	4.6	4.5	4.3	4.1
Hypertension	2.7	2.6	2.5	2.5	2.5	2.6
Neoplasms	6.0	5.7	6.0	6.0	5.7	5.6
Osteoarthritis	3.9	3.8	3.8	3.6	4.0	3.9
PAD	6.6	6.4	6.5	6.4	7.0	6.3
Stroke	4.7	4.7	4.6	4.5	4.5	4.8

LOCAL SPOTLIGHT

Health-Conscious Culture Contributes to Low ALOS at Minnesota Hospitals

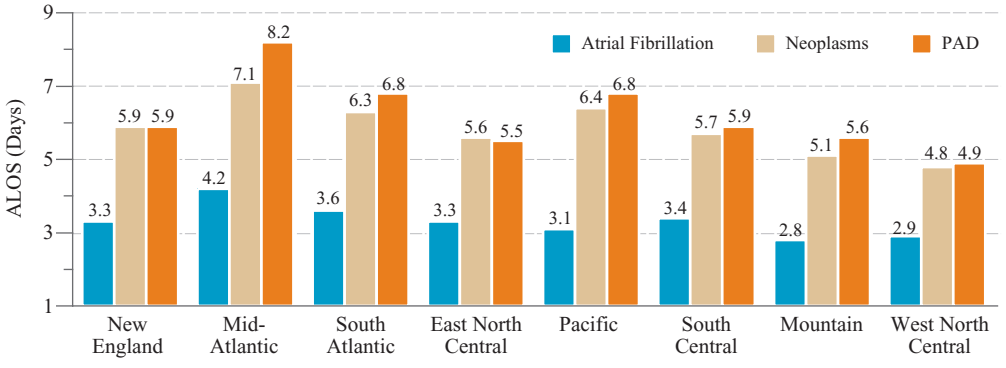
Average lengths of stay per hospital inpatient case in the state of Minnesota were lower than the corresponding national averages for each of 10 disease states profiled in this Digest. Minnesota, which consistently ranks among the healthiest states in the U.S., has relatively low obesity and smoking rates. In addition, just 8.8% of Minnesotans were without health insurance coverage in 2008, the fourth lowest percentage by state.[1]

AVERAGE LENGTH OF STAY PER HOSPITAL INPATIENT CASE, 2008



ALOS is Lowest in Mountain and West North Central Regions

AVERAGE LENGTH OF STAY PER HOSPITAL INPATIENT CASE, BY REGION, 2008



Data source: SDI © 2010

For three specific diseases (atrial fibrillation, neoplasms and PAD) profiled in this Digest, average lengths of stay per inpatient case were shortest in the Mountain and West North Central regions in 2008. The apparent correlation between low population density and shorter ALOS for these diseases suggests that facilities in these regions may be treating lower percentages of complex cases than facilities that service large urban populations.

[1] United Health Foundation. (2009). America's Health Rankings. Retrieved from http://www.americashealthrankings.org

INPATIENT CHARGES PER CASE

Average Inpatient Charges Top $30,000 for Five Common Chronic Diseases

Of the 10 disease states profiled in this Digest, five generated average hospital inpatient charges of more than $30,000 per case in 2008. In most cases, hospital inpatient charges rise in direct proportion to average length of stay (ALOS). Therefore, conditions that require prolonged treatment or recovery are typically among the most costly.

- In 2008, ALOS per inpatient hospitalization for peripheral artery disease (PAD) was longest of the 10 disease states listed, at 6.3 days (data shown on page 24). As a result, PAD generated average inpatient charges of $51,170 per case, highest among the 10 disease states profiled by a noticeable margin.
- Neoplasms cases likewise generated high average inpatient charges per case in 2008, at $48,954. In accordance, ALOS per neoplasm case in 2008 was 5.9 days, second longest among the 10 disease states profiled. Additionally, inpatient treatment of neoplasms cases, especially those that are advanced, may require expensive pharmacotherapy measures, such as chemotherapy and specialty drugs.

AVERAGE HOSPITAL INPATIENT CHARGES PER CASE, BY OWNERSHIP

	2007	2008
ACUTE CORONARY SYNDROMES		
Not-For-Profit	$17,439	$19,255
For-Profit	19,412	22,606
Government	14,410	15,545
ALL HOSPITALS	**$17,335**	**$19,327**
ANGINA		
Not-For-Profit	$15,869	$17,518
For-Profit	18,855	20,221
Government	12,313	14,490
ALL HOSPITALS	**$15,837**	**$17,576**
ATRIAL FIBRILLATION		
Not-For-Profit	$23,545	$25,517
For-Profit	27,387	30,583
Government	18,052	20,074
ALL HOSPITALS	**$23,338**	**$25,479**
DEEP VEIN THROMBOSIS		
Not-For-Profit	$27,602	$30,132
For-Profit	32,784	37,843
Government	22,178	26,136
ALL HOSPITALS	**$27,468**	**$30,508**
DIABETES MELLITUS		
Not-For-Profit	$25,034	$26,533
For-Profit	27,870	31,892
Government	20,091	21,575
ALL HOSPITALS	**$24,703**	**$26,556**

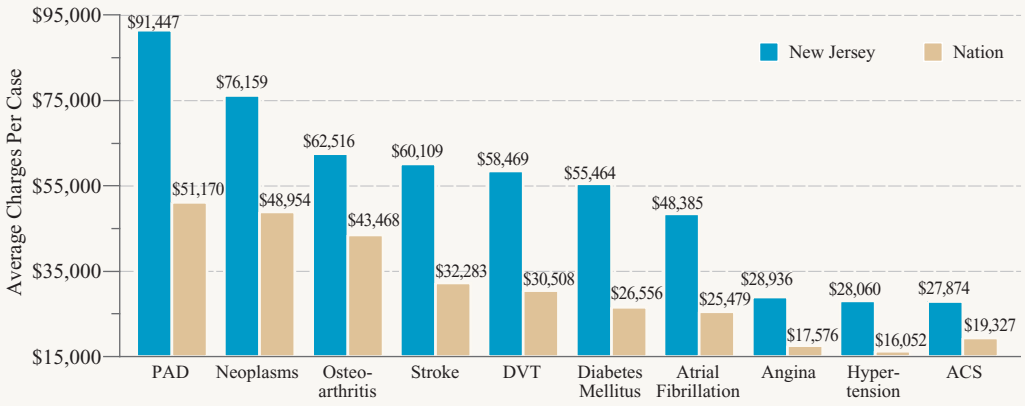
- The disease states with the lowest average inpatient charges per case—hypertension ($16,052) and angina ($17,576)—each had a corresponding ALOS shorter than three days in 2008. These conditions are less likely to require surgical procedures and lead to complications that extend ALOS.

LOCAL SPOTLIGHT

Inpatient Charges Are Relatively High at New Jersey Hospitals

Average inpatient charges generated by patients treated in New Jersey hospitals were substantially higher than the corresponding national averages for all 10 disease states listed in 2008. Despite these high charges, the average operating margin at New Jersey hospitals was just 0.2% in 2008, down from 1.3% in 2007, and the lowest margin in nearly a decade.[1]

AVERAGE HOSPITAL INPATIENT CHARGES PER CASE, 2008



Data source: SDI © 2010

[1] New Jersey Hospital Association. (2009, December 2). Report: N.J. Hospital Margins Reach Lowest Point This Decade. Retrieved from http://www.njha.com/press/PressRelease.aspx?id=7915

NOTE: Charge data on pages 26 and 27 are per case averages for inpatients with a particular diagnosis of interest. Charges may be for treatment related to other diagnoses.

Government Hospitals Generate the Lowest Average Inpatient Charges

AVERAGE HOSPITAL INPATIENT CHARGES PER CASE, BY OWNERSHIP

	2007	2008
HYPERTENSION		
Not-For-Profit	$14,454	$15,754
For-Profit	17,427	19,624
Government	11,420	14,138
ALL HOSPITALS	**$14,430**	**$16,052**
NEOPLASMS		
Not-For-Profit	$43,429	$48,390
For-Profit	49,475	57,070
Government	39,170	46,514
ALL HOSPITALS	**$43,448**	**$48,954**
OSTEOARTHRITIS		
Not-For-Profit	$39,551	$41,595
For-Profit	53,833	56,245
Government	40,040	41,934
ALL HOSPITALS	**$41,202**	**$43,468**
PERIPHERAL ARTERY DISEASE		
Not-For-Profit	$45,681	$49,853
For-Profit	54,482	63,087
Government	40,310	45,467
ALL HOSPITALS	**$46,163**	**$51,170**
STROKE		
Not-For-Profit	$28,497	$31,547
For-Profit	35,137	39,718
Government	25,589	29,427
ALL HOSPITALS	**$28,886**	**$32,283**

Regardless of disease state, average hospital inpatient charges per case were highest, by ownership type, at for-profit facilities.

Hospitals owned and operated by local, state or federal governments typically treat a disproportionately large share of low-income and uninsured patients. Those patients with insurance are usually covered by Medicaid or Medicare. Because these programs reimburse for hospital treatments at significantly discounted rates, charges at these hospitals are usually much lower than charges paid for by private payers.[1]

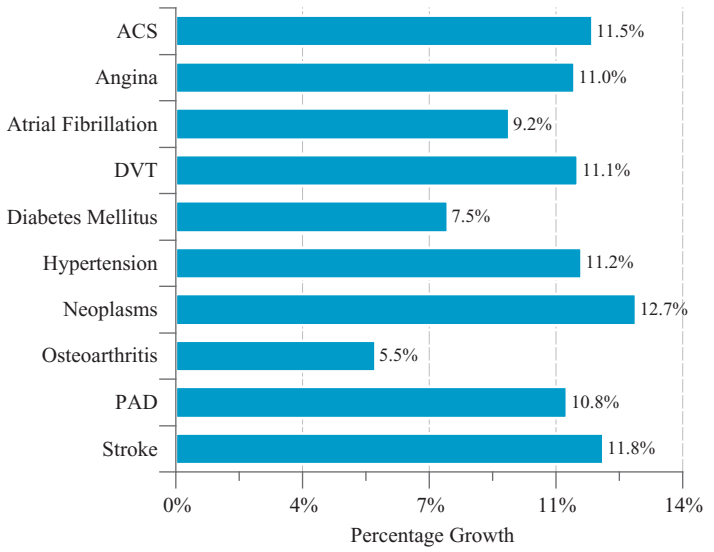
- For all but one of the 10 disease states profiled, average inpatient charges per case were lowest at government-owned hospitals in 2008. The sole exception was osteoarthritis, which generated inpatient charges of $41,934 at government-owned hospitals in 2008, fractionally higher than the $41,595 generated by osteoarthritis cases treated at not-for-profit hospitals.
- Average inpatient charges at government hospitals were at least 18%, and sometimes as much as 34% lower than comparable charges at for-profit facilities in 2008. For example, inpatient charges per diabetes mellitus case were $21,575 at government hospitals in 2008, 32.3% lower than such charges at for-profit hospitals ($31,892).

Average Inpatient Charges Rise by Double Digits for Most Chronic Diseases

Treatment of patients with chronic conditions in the inpatient setting often requires the involvement of numerous providers, advanced diagnostics and even invasive procedures, each of which can drive up charges.

- The largest percentage changes in average inpatient charges between 2007 and 2008 were reported for neoplasms (12.7%), stroke (11.8%) and ACS (11.5%). Inpatient charges for osteoarthritis rose by just 5.5% during this time, lowest among the 10 disease states.
- While average inpatient charges grew notably between 2007 and 2008, regardless of disease state, such charges grew more manageably for cases treated at not-for-profit hospitals. For example, average inpatient charges for atrial fibrillation rose 11.7% at for-profit hospitals, compared to 8.4% at not-for-profit hospitals.

PERCENTAGE INCREASE IN AVERAGE HOSPITAL INPATIENT CHARGES PER CASE, 2007–2008



Data source: SDI © 2010

[1] *Nonprofit, For-Profit, and Government Hospitals: Uncompensated Care and Other Community Benefits: Hearing before the Committee on Ways and Means, House of Representatives,* 109th Cong. 1 (2005) (testimony of David Walker).

Hyperlipidemia Is Common Among Patients with Chronic Diseases

MOST COMMON CONCOMITANT DIAGNOSES FOR PATIENTS WITH 10 PRIMARY DIAGNOSES, BY ICD-9 CODE

ICD-9 Code		2007	2008
	HYPERTENSION		
272.4	Other and unspecified hyperlipidemia	16.6%	8.1%
250.00	Type II (non-insulin dependent type) or unspecified type diabetes mellitus without mention of complication, not stated as uncontrolled	14.4	6.2
414.01	Coronary atherosclerosis of native coronary artery	9.0	4.1
305.1	Nondependent tobacco use disorder	8.4	4.0
786.59	Other chest pain	7.6	3.7
	NEOPLASMS		
401.9	Unspecified essential hypertension	28.7%	28.3%
250.00	Type II (non-insulin dependent type) or unspecified type diabetes mellitus without mention of complication, not stated as uncontrolled	10.5	10.6
197.7	Secondary malignant neoplasm of liver	8.6	10.5
496	Chronic airway obstruction, not elsewhere classified	8.3	8.6
272.4	Other and unspecified hyperlipidemia	7.7	8.2
	OSTEOARTHRITIS		
401.9	Unspecified essential hypertension	31.2%	33.3%
272.4	Other and unspecified hyperlipidemia	10.5	12.5
530.81	Esophageal reflux	10.6	12.0
250.00	Type II (non-insulin dependent type) or unspecified type diabetes mellitus without mention of complication, not stated as uncontrolled	9.2	10.3
272.0	Pure hypercholesterolemia	6.2	6.8
	PERIPHERAL ARTERY DISEASE		
401.9	Unspecified essential hypertension	22.5%	17.9%
272.4	Other and unspecified hyperlipidemia	10.7	10.6
414.01	Coronary atherosclerosis of native coronary artery	10.0	8.9
250.00	Type II (non-insulin dependent type) or unspecified type diabetes mellitus without mention of complication, not stated as uncontrolled	10.1	8.6
707.15	Ulcer of other part of foot	8.7	7.3
	STROKE		
401.9	Unspecified essential hypertension	29.6%	28.9%
272.4	Other and unspecified hyperlipidemia	13.5	14.4
250.00	Type II (non-insulin dependent type) or unspecified type diabetes mellitus without mention of complication, not stated as uncontrolled	11.1	11.0
427.31	Atrial fibrillation	9.0	8.2
342.90	Unspecified hemiplegia affecting unspecified side	6.9	8.2

Hyperlipidemia, wherein elevated levels of lipids (fatty cells such as cholesterol or triglycerides) occur in the blood,[1] was the second most common concomitant diagnosis in 2008 for seven of 10 primary diagnoses profiled in this Digest.

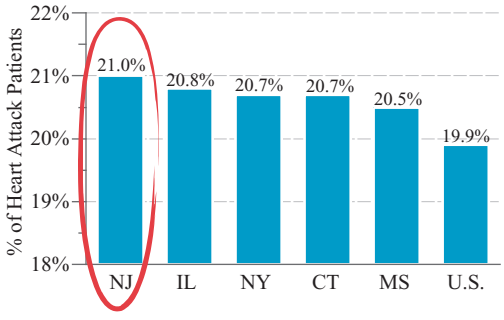
- For each of the 10 primary diagnoses listed, at least 6.0% of such patients also had a concomitant diagnosis of hyperlipidemia. This percentage was highest for patients with a primary diagnosis of ACS, at 17.2%.
- For seven of these 10 primary diagnoses, the percentages with a concomitant diagnosis of hyperlipidemia increased, most notably for patients with deep vein thrombosis (to 11.6% from 9.6% in 2007) and osteoarthritis (to 12.5% from 10.5%).

High New Jersey Occupancy Rates Correlate with High Charges per Case

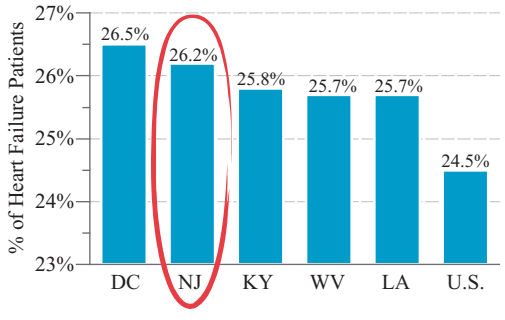
According to a 2008 MedPAC report, 30-day readmissions cost Medicare $15 billion per year, thereby driving up the cost of care for such patients.[2] In New Jersey, readmission rates went hand-in-hand with elevated occupancy and higher charges per case.

- In 2008, New Jersey hospitals had occupancy rates well above the national average. In some instances, these high rates may complicate post-discharge planning. This, in turn, could cause higher readmission rates for heart attack (21.0%) and heart failure patients (26.2%) in New Jersey.
- Patients being readmitted often need to be treated for complications related to their previous stay, thus driving up average charges per case. Heart failure charges per case in New Jersey were unusually high ($68,178 per case vs. $32,812 nationwide in 2008). (Some data not shown.)

FIVE STATES WITH THE HIGHEST 30-DAY HEART ATTACK READMISSION RATES



FIVE STATES WITH THE HIGHEST 30-DAY HEART FAILURE READMISSION RATES



Data source: SDI © 2010

[1] MedlinePlus. (2009). High blood cholesterol and triglycerides. *Encyclopedia*. Retrieved from http://www.nlm.nih.gov/medlineplus/ency/article/000403.htm

[2] MedPAC. (2008). *June 2008 Report to the Congress: Chapter 4: A path to bundled payment around a hospitalization*. Retrieved from www.medpac.gov/chapters/Jun08_Ch04.pdf

CONCOMITANT PROCEDURES

Ultrasounds Are Common Procedures for Patients with Cardiovascular Disease

Diagnostic imaging procedures (such as ultrasounds) were commonly performed on patients with eight of 10 primary diagnoses (osteoarthritis and neoplasms excluded).

- Ultrasounds were used to help fully diagnose patients with six of the 10 primary diagnoses listed. However, such procedures were less common in 2008 than in 2007 for patients with angina, DVT and hypertension.
- Arteriography and angiocardiography, procedures involving the injection of dye into the bloodstream to observe blood flow via X-ray, became more common in 2008, especially among patients with ACS, angina, DVT and stroke.

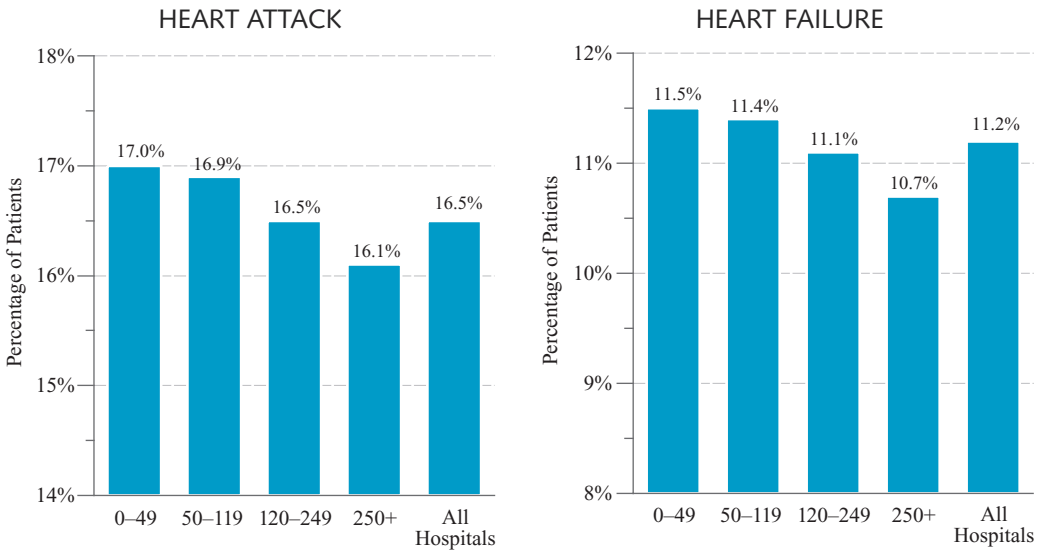
MOST COMMON CONCOMITANT PROCEDURES FOR PATIENTS WITH 10 PRIMARY DIAGNOSES, BY ICD-9 CODE

ICD-9 Code		2007	2008
	ACUTE CORONARY SYNDROMES		
37.22	Left heart cardiac catheterization	12.7%	12.0%
88.56	Coronary arteriography using two catheters	11.2	11.4
88.53	Angiocardiography of left heart structures	9.7	10.7
88.72	Diagnostic ultrasound of heart	4.2	4.6
00.40	Procedure on single vessel	—	1.3
	ANGINA		
88.56	Coronary arteriography using two catheters	—	17.0%
88.53	Angiocardiography of left heart structures	—	15.3
92.05	Cardiovascular and hematopoietic scan and radioisotope function study	—	7.9
88.72	Diagnostic ultrasound of heart	—	7.2
89.44	Other cardiovascular stress test	—	7.1
	ATRIAL FIBRILLATION		
88.72	Diagnostic ultrasound of heart	11.4%	13.3%
99.62	Other electric countershock of heart	7.9	7.4
37.27	Cardiac mapping	4.5	6.2
37.26	Cardiac electrophysiologic stimulation and recording studies	5.0	6.2
88.56	Coronary arteriography using two catheters	7.5	5.2
	DEEP VEIN THROMBOSIS		
99.04	Transfusion of packed cells	4.5%	6.5%
38.93	Venous catheterization, not elsewhere classified	4.3	6.2
88.51	Angiocardiography of venae cavae	3.0	5.2
88.77	Diagnostic ultrasound of peripheral vascular system	9.2	4.3
87.41	Computerized axial tomography of thorax	5.6	3.9
	DIABETES MELLITUS		
38.93	Venous catheterization, not elsewhere classified	9.4%	10.7%
39.95	Hemodialysis	7.5	7.7
99.04	Transfusion of packed cells	5.5	6.0
86.22	Excisional debridement of wound, infection, or burn	4.9	4.6
88.48	Arteriography of femoral and other lower extremity arteries	2.4	2.5

Large Hospitals Operate the Most CCU Beds

Compared with the national average (14.4), hospitals with 250 or more beds (17.1) recorded higher average numbers of cardiac care unit (CCU) beds (data not shown) than smaller facilities. As a result, such facilities were more prepared to successfully treat heart attack and heart failure patients in these specialized settings. By size, hospitals with 250 or more beds recorded the lowest 30-day mortality rates for heart attack (16.1%) and heart failure (10.7%) in 2008.

HOSPITAL 30-DAY MORTALITY RATES, BY BED SIZE, 2008



Data source: SDI © 2010

Nearly 70% of Osteoarthritis Patients Undergo Knee Replacement Surgery

MOST COMMON CONCOMITANT PROCEDURES FOR PATIENTS WITH 10 PRIMARY DIAGNOSES, BY ICD-9 CODE

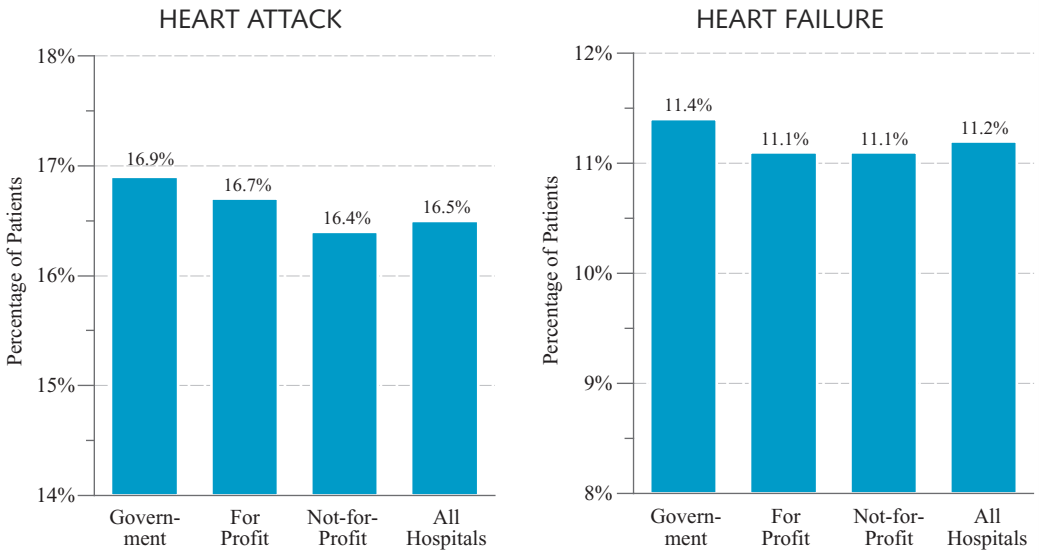
ICD-9 Code		2007	2008
	HYPERTENSION		
88.72	Diagnostic ultrasound of heart	3.6%	1.6%
88.56	Coronary arteriography using two catheters	2.4	1.1
87.03	Computerized axial tomography of head	2.8	1.1
88.53	Angiocardiography of left heart structures	2.1	1.0
99.29	Injection/infusion other therapeutic/prophylactic substance	—	0.5
	NEOPLASMS		
99.04	Transfusion of packed cells	12.8%	15.0%
99.25	Injection or infusion of cancer chemotherapeutic substance	7.8	9.4
38.93	Venous catheterization, not elsewhere classified	7.8	9.1
40.3	Regional lymph node excision	6.6	8.0
65.61	Other removal of both ovaries and tubes at same operative episode	6.7	7.5
	OSTEOARTHRITIS		
81.54	Total knee replacement	75.3%	69.2%
99.04	Transfusion of packed cells	9.4	9.6
04.81	Injection of anesthetic into peripheral nerve for analgesia	5.2	5.0
99.02	Transfusion of previously collected autologous blood	3.3	2.8
99.00	Transfusion of blood and blood components	2.5	1.9
	PERIPHERAL ARTERY DISEASE		
88.48	Arteriography of femoral and other lower extremity arteries	22.7%	16.3%
00.40	Procedure on single vessel	16.9	12.1
88.42	Aortography	16.3	10.0
39.90	Insertion of non-drug-eluting peripheral vessel stents	13.6	10.0
99.04	Transfusion of packed cells	9.9	6.9
	STROKE		
00.40	Procedure on single vessel	18.3%	18.2%
88.41	Arteriography of cerebral arteries	8.6	9.7
88.72	Diagnostic ultrasound of heart	7.1	8.4
88.91	Magnetic resonance imaging of brain and brain stem	7.9	5.3
87.03	Computerized axial tomography of head	4.0	3.3

Compared to patients with other primary diagnoses, those with an osteoarthritis diagnosis were more likely to undergo interventional rather than diagnostic procedures.

- Each of the five most common concomitant procedures for patients with a primary diagnosis of osteoarthritis were therapeutic in nature, designed to replace damaged joints, reduce pain or restore blood lost during surgical operations.
- In 2008, 69.2% of osteoarthritis patients received a total knee replacement, by far the most common procedure for this primary diagnosis, although down more than six percentage points from 75.3% the previous year.

Heart Disease Mortality Rates Fall Among Elderly

HOSPITAL 30-DAY MORTALITY RATES, BY OWNERSHIP TYPE, 2008



Data source: SDI © 2010

The death rate for heart disease among adults 65 years of age and older fell 41.6% between 1980 and 2004, while mortality rates for stroke dropped 48.2% during this time.

However, deaths from chronic conditions among the elderly such as kidney disease, diabetes, Alzheimer's disease, atherosclerosis and chronic liver disease jumped to 20.1% in 2004 from 5.0% back in 1980.[1]

[1] Sommers, A. R. (2007). Mortality of Americans Age 65 and Older: 1980 to 2004. Congressional Research Service. Retrieved from http://aging.senate.gov/crs/aging2.pdf

Jefferson Health System Hospitals Staff More Rehab, Long-Term Beds

The Jefferson Health System (JHS), comprising Magee Rehab Center, Main Line Health facilities and Thomas Jefferson University Hospital System, primarily serves the Philadelphia area. Providing care to the sixth largest city in the nation, JHS staffs far more beds per hospital than the national average. On average, JHS facilities also operate more rehabilitation and long-term beds.

- In 2008, JHS hospitals averaged 72.0 rehabilitation staffed beds, more than three times the Pennsylvania hospital average (22.4.) Similarly, JHS facilities averaged 170.0 skilled nursing beds in 2008, well above the statewide hospital average of 40.8.

AVERAGE NUMBER OF STAFFED BEDS PER HOSPITAL

BED TYPE	Jefferson Health System 2007	Jefferson Health System 2008	Pennsylvania Hospitals 2007	Pennsylvania Hospitals 2008	All U.S. Hospitals 2007	All U.S. Hospitals 2008
Total Facility Staffed Beds	**398.8**	**427.8**	201.2	202.4	155.7	152.3
Hospital Unit Staffed Beds	**396.0**	**385.3**	191.1	191.0	147.9	145.0
Skilled Nursing Staffed Beds	—	**170.0**	35.2	40.8	49.3	50.0
Short-term Staffed Beds	**358.1**	**349.6**	163.5	165.2	131.5	129.4
Long-term Staffed Beds	**65.0**	**125.0**	52.0	53.8	51.5	51.0
Med./Surg. Staffed Beds	**284.8**	**283.3**	122.1	123.0	93.5	91.9
Rehabilitation Staffed Beds	**76.0**	**72.0**	22.7	22.4	22.8	22.4

- Between 2007 and 2008, JHS hospitals increased their average long-term care staffed bed count to 125.0 from 65.0. By comparison, U.S. hospitals averaged a comparatively slight 51.0 long-term beds.

Jefferson Health Maintains ALOS While Stroke, Neoplasms Case Counts Rise

HOSPITAL UTILIZATION

UTILIZATION MEASURE	Jefferson Health System 2007	Jefferson Health System 2008	Pennsylvania Hospitals 2007	Pennsylvania Hospitals 2008	All U.S. Hospitals 2007	All U.S. Hospitals 2008
Total Facility Admissions	**25,304.5**	**25,683.5**	10,114.8	10,228.0	7,416.0	7,290.9
Total Facility Occupancy	**78.9%**	**76.0%**	62.4%	62.4%	52.0%	51.3%
Total Facility Patient Days	**137,986.3**	**139,553.5**	52,893.6	53,685.2	37,295.0	36,608.8
Total Facility ALOS	**5.1**	**5.1**	5.4	5.7	4.5	4.9
Hospital Unit ALOS	**5.1**	**5.1**	4.9	5.0	4.5	4.4
Outpatient Visits per Day	**734.0**	**632.3**	378.6	382.5	209.9	211.5
ER Visits per Day	**174.0**	**203.0**	86.9	92.8	68.6	69.5

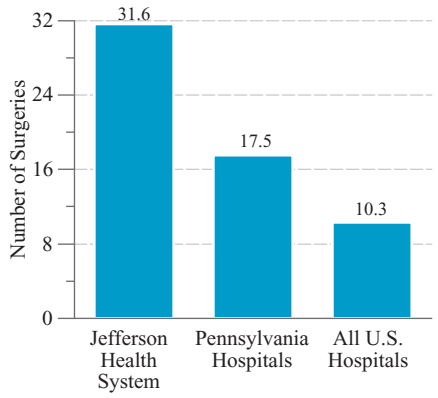
FTEs per Occupied Bed, 2008

Jefferson Health System	**6.6**
Pennsylvania Hospitals	8.1
All U.S. Hospitals	11.0

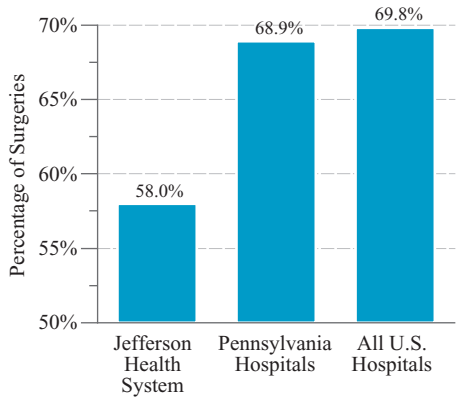
- Although total facility average length of stay (ALOS) rose for Pennsylvania (to 5.7 from 5.4 in 2007) and U.S. (to 4.9 from 4.5) hospitals alike, total facility ALOS for JHS hospitals remained at 5.1 days during this period.
- Between 2007 (78.9%) and 2008 (76.0%), total facility occupancy fell slightly at JHS facilities. In spite of this decline, total facility occupancy was notably higher at JHS hospitals than at facilities across Pennsylvania (62.4%).

JHS Outpatient Surgery Share Is Well Below the National Average

OUTPATIENT SURGERIES PER DAY, 2008



OUTPATIENT SURGERIES AS A PORTION OF TOTAL SURGERIES, 2008



Data source: SDI © 2010

In 2008, Jefferson Health System facilities performed an average of 31.6 outpatient surgeries per day, more than three times the national average (10.3). Yet in spite of these high volumes, outpatient surgeries accounted for just 58.0% of all JHS surgeries, nearly 12 percentage points below the national average of 69.8%. This relatively low outpatient surgery share may in part be the result of a more complicated case mix that requires care in the inpatient setting.

JHS Hospitals Treat Large Numbers of Osteoarthritis/Neoplasms Cases

- With an average count of 646.3 inpatient osteoarthritis cases per facility in 2008, Jefferson Health System hospitals treated more than twice the Commonwealth average (288.1) and more than four times the national average per facility (160.6).
- In 2008, Jefferson Health System facilities reported an average of 2,512.7 inpatient neoplasms cases per hospital, up slightly from 2,473.7 in 2007. Meanwhile, hospitals nationwide averaged a comparatively meager 562.6 inpatient neoplasms cases per hospital, up from 536.0 the previous year.

NUMBER OF INPATIENT CASES PER HOSPITAL PER YEAR

DISEASE STATE	Jefferson Health System		Pennsylvania Hospitals		All U.S. Hospitals	
	2007	2008	2007	2008	2007	2008
ACS	**226.2**	**197.5**	143.9	138.0	116.3	111.4
Angina	**164.0**	**122.2**	104.6	88.9	84.1	65.7
Atrial Fibrillation	**2,844.8**	**2,641.5**	1,214.7	1,159.8	664.0	599.0
Diabetes Mellitus	**4,950.0**	**5,176.0**	1,935.7	2,023.4	1,259.4	1,267.2
DVT	**624.7**	**652.2**	231.4	253.8	141.7	148.8
Hypertension	**9,218.5**	**9,603.0**	3,233.3	3,744.5	2,100.0	2,120.7
Neoplasms	**2,473.7**	**2,512.7**	861.5	925.6	536.0	562.6
Osteoarthritis	**576.5**	**646.3**	253.6	288.1	151.3	160.6
PAD	**800.3**	**832.2**	351.4	387.1	220.5	224.0
Stroke	**560.0**	**572.0**	264.2	280.9	173.7	177.8

Medicaid Payer Share Is High Among Jefferson Health System Inpatients

Average Length of Stay per Hospital Inpatient Case, 2008

	Jefferson Health System	Penn-sylvania Hospitals
ACS	1.8	1.9
Angina	2.4	2.2
Atrial Fibrillation	4.2	3.9
Diabetes Mellitus	5.3	4.9
DVT	5.5	5.1
Hypertension	2.5	2.7
Neoplasms	5.9	6.2
Osteoarthritis	3.6	3.7
PAD	6.9	6.5
Stroke	5.4	4.6

PERCENTAGE OF HOSPITAL INPATIENT CASES, BY PAYER TYPE, 2008

DISEASE STATE	Medicare			Medicaid			Private Fee-for-Service			Other*		
	Jefferson	Penn. Hosp.	All U.S. Hosp.	Jefferson	Penn. Hosp.	All U.S. Hosp.	Jefferson	Penn. Hosp.	All U.S. Hosp.	Jefferson	Penn. Hosp.	All U.S. Hosp.
ACS	**56.1%**	60.1%	57.6%	**11.6%**	7.5%	7.5%	**35.0%**	29.7%	27.4%	**1.3%**	2.6%	7.5%
Angina	**61.8**	64.4	63.1	**12.6**	6.8	6.5	**27.8**	26.2	24.0	**1.4**	2.6	6.4
Atrial Fibrillation	**79.9**	81.7	78.6	**4.9**	3.0	3.4	**15.4**	13.9	14.1	**0.5**	1.4	3.9
Diabetes Mellitus	**58.0**	63.8	59.3	**16.9**	11.0	11.5	**28.8**	22.6	21.5	**1.2**	2.6	7.7
DVT	**56.1**	58.9	57.0	**13.5**	10.0	9.5	**33.5**	28.4	26.0	**1.4**	2.8	7.5
Hypertension	**57.5**	62.6	59.1	**13.0**	8.4	8.6	**32.3**	26.4	24.6	**1.3**	2.6	7.7
Neoplasms	**52.4**	56.1	51.7	**9.9**	7.8	9.4	**41.1**	33.9	32.3	**0.7**	2.2	6.5
Osteoarthritis	**54.3**	59.1	58.9	**4.3**	3.6	3.4	**41.5**	35.2	31.9	**1.7**	2.2	5.7
PAD	**75.3**	76.9	74.1	**8.5**	5.6	6.1	**17.0**	15.9	15.3	**0.7**	1.6	4.5
Stroke	**69.2**	74.0	69.7	**9.4**	5.6	6.0	**22.6**	18.4	18.2	**1.0**	2.1	6.1

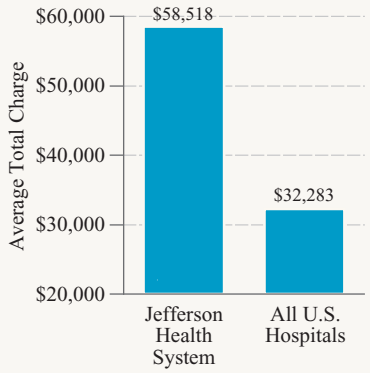
The U.S. Census Bureau's 2006–2008 community survey estimated that 24.3% of Philadelphia residents subsisted below the federal poverty line.[1] This statistic was likely a factor in high Medicaid payer shares across all 10 disease states shown.

LOCAL SPOTLIGHT

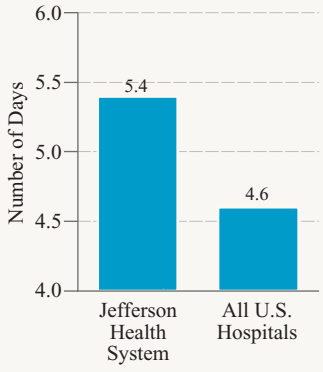
Stroke Center Treatments Generate Longer ALOS and Higher Charges

Located within the Jefferson University Hospital, the Jefferson Acute Stroke Center has received advanced certification for stroke prevention and treatment. Specialized levels of care at the Jefferson Acute Stroke Center perhaps influenced average length of stay (5.4 days versus 4.6 nationally in 2008). Longer average length of stay per inpatient stroke case likewise contributed to higher average inpatient charges at Jefferson Health System hospitals ($58,518 versus $32,283 nationally).

AVERAGE CHARGES PER INPATIENT STROKE CASE, 2008



ALOS PER INPATIENT STROKE CASE, 2008



Data source: SDI © 2010

* "Other" includes government, Department of Veterans Affairs and others.

[1] U.S. Census Bureau. (2008). *2006–2008 American Community Survey*. Retrieved from http://factfinder.census.gov/home/saff/main.html?_lang=en

Methodist Hospital System Staffed Beds Are Largely Short-Term, Acute Care

In 2008, Methodist Hospital System staffed 1,318 beds across four hospitals, the vast majority of which were in the 950-bed Methodist Hospital, located in downtown Houston. The massive capacities of Methodist Hospital System facilities are essential considering the system serves as a primary health care provider to the nation's fourth largest city.

- On average, Methodist Hospital System staffed 329.5 beds per facility, well above the Texas (140.2) and U.S. (152.3) averages. Short-term staffed beds (283.5) accounted for a notable 86.0% of total facility staffed beds at Methodist Hospital System facilities in 2008, although this share was down fractionally from 86.5%.

AVERAGE NUMBER OF STAFFED BEDS PER HOSPITAL

BED TYPE	Methodist Hospital System 2007	Methodist Hospital System 2008	Texas Hospitals 2007	Texas Hospitals 2008	All U.S. Hospitals 2007	All U.S. Hospitals 2008
Total Facility Staffed Beds	**341.5**	**329.5**	147.4	140.2	155.7	152.3
Hospital Unit Staffed Beds	**327.8**	**315.8**	144.8	138.4	147.9	145.0
Skilled Nursing Staffed Beds	**27.5**	**27.5**	23.8	20.7	49.3	50.0
Short-term Staffed Beds	**295.5**	**283.5**	129.0	122.7	131.5	129.4
Long-term Staffed Beds	**61.3**	**61.3**	45.9	47.5	51.5	51.0
Med./Surg. Staffed Beds	**223.5**	**204.0**	84.6	80.3	93.5	91.9
Rehab Staffed Beds	**31.0**	**31.0**	20.4	19.9	22.8	22.4

- In contrast, Methodist Hospital System facilities averaged just 27.5 skilled nursing staffed beds in 2008, moderately higher than the Texas average of 20.7 but well below the national mark of 50.0. Skilled nursing staffed beds were the only bed type in which Methodist System facilities averaged fewer beds than the national average.

Utilization Measures Grow at Methodist Hospital System

As a large multihospital system serving one of the nation's most populous urban markets, Methodist Hospital System reported increased utilization measures and higher-than-average inpatient surgery counts per staffed bed, even as such measures fell across Texas and nationally.

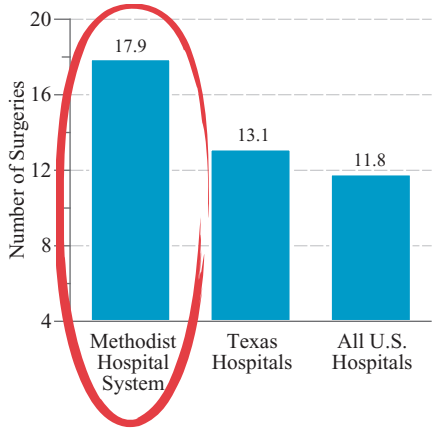
HOSPITAL UTILIZATION

UTILIZATION MEASURE	Methodist Hospital System 2007	Methodist Hospital System 2008	Texas Hospitals 2007	Texas Hospitals 2008	All U.S. Hospitals 2007	All U.S. Hospitals 2008
Total Facility Admissions	**16,748.3**	**17,072.0**	6,682.6	6,433.3	7,416.0	7,290.9
Total Facility Occupancy	**81.2%**	**84.8%**	46.3%	44.0%	52.0%	51.3%
Total Facility Patient Days	**96,471.5**	**99,883.0**	32,640.0	30,744.5	37,295.0	36,608.8
Total Facility ALOS	**4.8**	**4.9**	4.3	4.3	4.5	4.9
Hospital Unit ALOS	**4.7**	**4.8**	4.2	4.3	4.5	4.4
Outpatient Visits per Day	**332.7**	**326.8**	125.0	121.2	209.9	211.5
ER Visits per Day	**119.4**	**124.9**	61.0	59.4	68.6	69.5

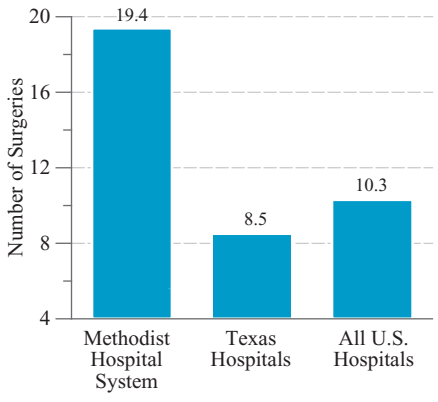
- In 2008, total facility admissions climbed to 17,072.0 from 16,748.3 at Methodist Hospital System facilities. During the same period, total facility occupancy increased to 84.8% from 81.2% the previous year.
- Although Methodist Hospital System facilities averaged a significant 19.4 outpatient surgeries per day in 2008, such procedures accounted for only 58.9% of total surgeries, well below the U.S. hospital average of 69.8%.

Inpatient Surgery Counts Indicate More High-Need Patients at Methodist

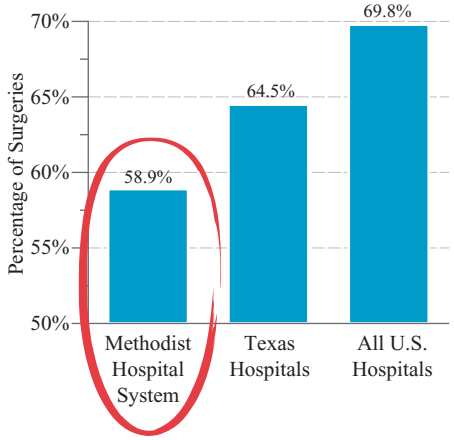
INPATIENT SURGERIES PER STAFFED BED, 2008



OUTPATIENT SURGERIES PER DAY, 2008



OUTPATIENT SURGERIES AS A PORTION OF TOTAL SURGERIES, 2008



Data source: SDI © 2010

Methodist Cancer Center Attracts Patients Seeking Specialized Treatment

In 2008, Methodist Hospital System treated 1,468.8 inpatient neoplasms cases per facility, nearly three times the Texas (526.1) and national (562.6) per-facility averages.

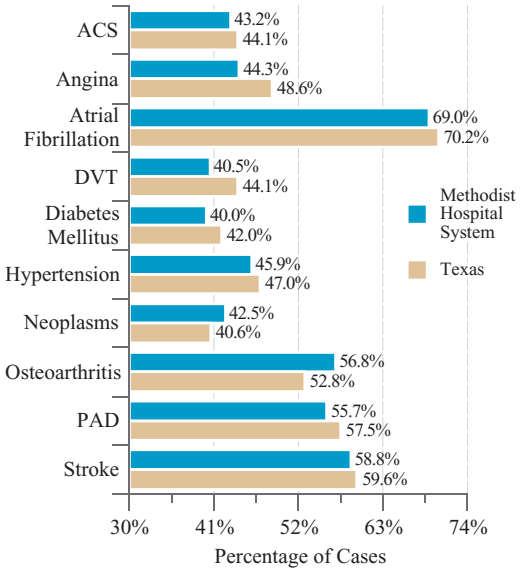
- These high volumes likely stem from neoplasms cases admitted to the Methodist Cancer Center. The Center, which offers specialized treatment and intensive care, may have attracted neoplasms patients seeking specific modes of therapy. In part influenced by the needs of patients treated at the Methodist Cancer Center, average length of stay per inpatient neoplasms case was notably higher at Methodist Hospital System hospitals (6.9) than at hospitals nationwide (5.9).

NUMBER OF INPATIENT CASES PER HOSPITAL PER YEAR

DISEASE STATE	Methodist Hospital System		Texas Hospitals		All U.S. Hospitals	
	2007	2008	2007	2008	2007	2008
ACS	**238.5**	**226.8**	98.9	116.6	116.3	111.4
Angina	**206.0**	**167.5**	81.3	87.9	84.1	65.7
Atrial Fibrillation	**1,597.5**	**1,428.3**	506.6	502.9	664.0	599.0
DVT	**469.8**	**467.8**	120.5	137.7	141.7	148.8
Diabetes Mellitus	**3,124.8**	**3,079.0**	1,159.0	1,258.2	1,259.4	1,267.2
Hypertension	**5,247.0**	**5,299.5**	1,788.5	2,164.7	2,100.0	2,120.7
Neoplasms	**1,445.0**	**1,468.8**	426.6	526.1	536.0	562.6
Osteoarthritis	**349.0**	**327.5**	121.3	171.8	151.3	160.6
PAD	**567.0**	**619.8**	221.2	284.6	220.5	224.0
Stroke	**487.5**	**511.3**	156.6	173.9	173.7	177.8

Methodist Hospitals Treat Higher Shares of Medicaid and PFFS Patients

PERCENTAGE OF HOSPITAL INPATIENT CASES AGE 65+, 2008



PERCENTAGE OF HOSPITAL INPATIENT CASES, BY PAYER TYPE, 2008

DISEASE STATE	Medicare			Medicaid			Private Fee-for-Service			Other*		
	Methodist	Texas Hosp.	All U.S. Hospitals	Methodist	Texas Hosp.	All U.S. Hosp.	Methodist	Texas Hosp.	All U.S. Hosp.	Methodist	Texas Hosp.	All U.S. Hosp.
ACS	**51.8%**	53.3%	57.6%	**8.6%**	7.8%	7.5%	**34.6%**	29.0%	27.4%	**7.9%**	10.0%	7.5%
Angina	**54.6**	56.9	63.1	**8.1**	7.2	6.5	**33.0**	26.9	24.0	**7.0**	9.0	6.4
Atrial Fibrillation	**74.6**	74.0	78.6	**4.2**	3.7	3.4	**18.2**	15.6	14.1	**3.8**	6.6	3.9
DVT	**53.2**	52.7	57.0	**10.7**	10.0	9.5	**32.3**	27.8	26.0	**7.2**	9.5	7.5
Diabetes Mellitus	**55.9**	54.6	59.3	**12.8**	12.1	11.5	**27.4**	23.2	21.5	**7.4**	10.0	7.7
Hypertension	**53.5**	54.3	59.1	**9.8**	9.0	8.6	**31.8**	26.6	24.6	**8.1**	10.2	7.7
Neoplasms	**48.7**	45.8	51.7	**10.1**	9.4	9.4	**39.1**	35.1	32.3	**6.1**	9.8	6.5
Osteoarthritis	**61.7**	57.9	58.9	**3.4**	3.5	3.4	**31.7**	31.5	31.9	**4.4**	7.1	5.7
PAD	**70.1**	69.1	74.1	**7.3**	6.7	6.1	**19.8**	17.1	15.3	**4.2**	7.1	4.5
Stroke	**66.3**	65.2	69.7	**6.8**	6.4	6.0	**22.4**	19.8	18.2	**6.0**	8.6	6.1

Compared to hospitals across Texas and nationwide, Methodist Hospital Systems reported higher shares of patients covered by Medicaid and private fee-for-service for virtually every disease state listed in 2008. These results mirror demographic features of the Houston area, which, according to the U.S. Census Bureau, had lower percentages of adults age 65 and over (8.4% vs. 9.9%) and higher shares of individuals living below the poverty line (19.2% vs. 15.4%) than Texas as a whole.

LOCAL SPOTLIGHT

Complex Case Mix May Translate to Higher ALOS for Methodist Hospitals

As a response to the specialized needs of a massive population, Methodist Hospital System operates a variety of disease-specific service lines, including a diabetes program, bone and joint, cancer, heart and vascular, and neurology centers. Consequently, these programs likely attract a higher percentage of patients with extensive treatment needs. Perhaps owing to these disease-specific service lines, Methodist Hospital System reported higher average lengths of stay for patients with those chronic conditions.

ALOS PER HOSPITAL INPATIENT CASE, 2008

DISEASE STATE	Methodist Hospital System	Texas Hospitals	All U.S. Hospitals
DVT	**6.0**	5.2	4.9
Diabetes Mellitus	**4.9**	4.4	4.4
Neoplasms	**6.9**	5.6	5.9
Osteoarthritis	**4.0**	3.8	3.7
Stroke	**5.0**	4.5	4.6

Data source: SDI © 2010

* "Other" includes government, Department of Veterans Affairs and others.

System and Nonsystem Hospitals Aim to Lower Utilization Rates

HOSPITAL UTILIZATION AND SIZE*

UTILIZATION/BED MEASURE	Hospitals in Systems	% of Total	Hospitals Not in Systems**	% of Total	ALL HOSPITALS
Total Facility Admissions	18,954,678	53.4%	16,515,457	46.6%	**35,470,135**
Total Facility Patient-days	94,869,228	53.4	82,939,819	46.6	**177,809,047**
Total Outpatient Visits	213,877,858	51.9	198,120,491	48.1	**411,998,349**
Total Inpatient Surgeries	5,399,862	54.8	4,456,970	45.2	**9,856,832**
Total Outpatient Surgeries	8,901,062	52.1	8,194,720	47.9	**17,095,782**
Total Surgical Operations	14,300,924	53.1	12,651,690	46.9	**26,952,614**
Total Short-term Staffed Beds	342,837	51.8	319,090	48.2	**661,927**
Average Number of Short-term Staffed Beds per Facility	167.6	—	102.8	—	**128.6**

HOSPITAL UTILIZATION PER SHORT-TERM STAFFED BED*

UTILIZATION MEASURE	Hospitals in Systems		Hospitals Not in Systems**		ALL HOSPITALS	
	2007	2008	2007	2008	2007	2008
Hospital Admissions/Short-term Bed	54.4	54.1	47.1	47.0	**49.8**	**49.8**
Outpatient Visits/Short-term Bed	955.6	979.3	912.5	943.4	**928.8**	**957.7**
Inpatient Surgeries/Short-term Bed	14.9	15.2	12.7	13.2	**13.6**	**14.0**
Outpatient Surgeries/Short-term Bed	36.9	38.0	31.9	36.2	**33.9**	**37.0**
Total Surgeries/Short-term Bed	51.1	52.5	43.6	48.2	**46.6**	**50.0**
Emergency Dept. Visits/Short-term Bed	248.5	253.2	230.4	239.4	**237.3**	**245.0**

Hospital price increases remain one of the major cost drivers of health care in the U.S. In recent years, however, system and nonsystem hospitals alike have sought to lower hospital utilization by implementing disease management programs and better coordination of care efforts. Between 2007 and 2008, the number of hospital admissions per short-term staffed bed fell at both system and nonsystem hospitals, even as other utilization measures saw only minimal growth.

Average Lengths of Stay Decline at System and Nonsystem Hospitals Alike

ALOS: Hospitals in Systems

1998 . . . . . 4.9
1999 . . . . . 4.8
2000 . . . . . 4.8
2001 . . . . . 4.8
2002 . . . . . 4.8
2003 . . . . . 4.7
2004 . . . . . 4.7
2005 . . . . . 4.5
2006 . . . . . 4.6
2007 . . . . . 4.5
2008 . . . . . 4.5

ALOS: Hospitals Not in Systems

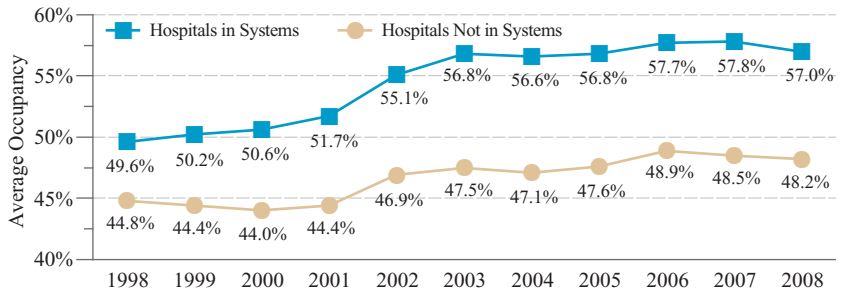
1998 . . . . . 5.2
1999 . . . . . 5.2
2000 . . . . . 5.1
2001 . . . . . 5.0
2002 . . . . . 5.0
2003 . . . . . 5.2
2004 . . . . . 4.5
2005 . . . . . 4.4
2006 . . . . . 4.5
2007 . . . . . 4.5
2008 . . . . . 4.4

ALOS: All Hospitals

1998 . . . . . 5.1
1999 . . . . . 5.1
2000 . . . . . 5.0
2001 . . . . . 4.9
2002 . . . . . 4.9
2003 . . . . . 5.0
2004 . . . . . 4.6
2005 . . . . . 4.5
2006 . . . . . 4.5
2007 . . . . . 4.5
2008 . . . . . 4.4

Average Occupancy Rates Trend Higher at System-Affiliated Hospitals

AVERAGE HOSPITAL OCCUPANCY, 1998–2008



Data source: SDI © 2010

Average occupancy at system-affiliated facilities increased 7.4 percentage points in the 10-year period from 1998 (49.6%) to 2008 (57.0%). Meanwhile, average occupancy rates rose a comparatively slight 3.4 percentage points at nonsystem hospitals during this time, to 48.2% from 44.8%. Better coordination of care efforts among physician groups and system facilities may have contributed to higher occupancy rates at system-affiliated hospitals over this time.

* Hospital data are based on all short-term, acute-care, nonfederal hospitals. Average occupancy and average length of stay represent only the acute-care portion of the hospitals' occupancy. All data are as of December 31, 2008.

** Includes system hospitals that were not part of highly integrated systems and hospitals that were not part of any system.

Hospitals Treat Large Numbers of Medicare Inpatient AFib/Diabetes Cases

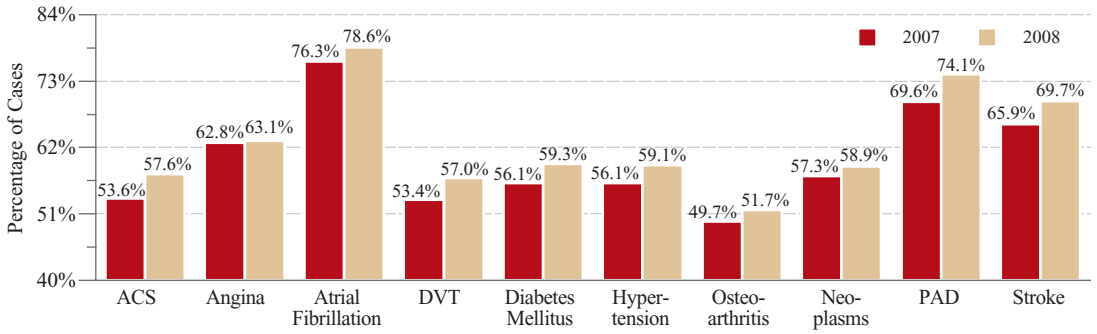
- On average, hospitals treated a notable 492.9 Medicare inpatient atrial fibrillation cases in 2008, the third-highest average of the 10 disease states profiled in this Digest. The most common cardiac arrhythmia, atrial fibrillation, affects nearly 2.5 million Americans and increases risks for death, congestive heart failure and stroke.[1]
- In 2008, hospitals treated an average of 786.9 Medicare inpatient diabetes cases, up more than 5% from 746.8 in 2007, and the second-highest average of the 10 disease states profiled. As a consequence, the percentage of all inpatient diabetes cases covered by Medicare increased during this time, to 59.3% from 56.1% the year before.

NUMBER AND PERCENTAGE OF INPATIENT CASES PER HOSPITAL PER YEAR, BY PAYER TYPE

	Medicare				Medicaid				Private Fee-for-Service				Other**			
	# of Cases		% of Cases		# of Cases		% of Cases		# of Cases		% of Cases		# of Cases		% of Cases	
DISEASE STATE	2007	2008	2007	2008	2007	2008	2007	2008	2007	2008	2007	2008	2007	2008	2007	2008
ACS	66.1	67.0	53.6%	57.6%	11.9	11.5	7.8%	7.5%	34.5	35.0	27.1%	27.4%	17.2	11.7	11.6%	7.5%
Angina	55.9	43.3	62.8	63.1	7.3	6.5	6.0	6.5	20.7	19.0	21.2	24.0	12.0	6.7	10.0	6.4
Atrial Fibrillation*	534.1	492.9	76.3	78.6	23.7	22.8	3.2	3.4	82.5	88.4	11.9	14.1	62.7	26.6	8.6	3.9
DVT	80.2	89.3	53.4	57.0	15.8	16.4	9.9	9.5	36.4	40.5	24.6	26.0	20.4	13.3	12.1	7.5
Diabetes Mellitus	746.8	786.9	56.1	59.3	152.3	149.6	11.9	11.5	261.0	276.5	20.4	21.5	148.0	100.8	11.5	7.7
Hypertension	1,241.5	1,307.7	56.1	59.1	186.4	186.9	8.7	8.6	503.1	531.2	23.7	24.6	247.1	168.0	11.6	7.7
Neoplasms	281.1	305.3	49.7	51.7	55.7	57.3	9.8	9.4	166.5	187.4	30.3	32.3	60.5	41.9	10.2	6.5
Osteoarthritis	92.5	99.2	57.3	58.9	7.4	7.7	3.5	3.4	50.3	57.0	30.2	31.9	17.5	12.4	9.0	5.7
PAD	162.2	173.7	69.6	74.1	16.3	16.4	6.2	6.1	35.8	38.0	14.8	15.3	26.3	13.6	9.4	4.5
Stroke	121.3	130.2	65.9	69.7	12.8	13.1	6.0	6.0	33.1	35.4	17.6	18.2	21.8	13.9	10.4	6.1

Medicare Payer Shares Climb Across the Board

MEDICARE PAYER SHARE OF INPATIENT CASES



Between 2007 and 2008, the Medicare payer shares of inpatient cases grew for all 10 disease states profiled in this Digest, most notably peripheral artery disease (PAD), which increased a substantial 4.5 percentage points during this period.

LOCAL SPOTLIGHT

Advocate Health Care Hospitals Average More Medicare Inpatient Cases

In each of four disease-state categories listed, Advocate Health Care System hospitals averaged more Medicare inpatient cases than their counterparts across the state of Illinois and nationally. Advocate Health Care System, the largest health care provider in Illinois, operates more than 250 sites and 11 acute care facilities.

NUMBER OF MEDICARE INPATIENT CASES PER HOSPITAL PER YEAR, 2008

DISEASE STATE	Advocate Health Care System	Illinois Hospitals	U.S. Hospitals
ACS	200.9	104.8	89.3
Atrial Fibrillation	76.5	44.0	67.0
DVT	1,211.7	548.3	492.9
Diabetes Mellitus	1,737.1	884.7	786.9

Data source: SDI © 2010

* Includes Atrial Fibrillation/Atrial Flutter.

** "Other" includes self-pay, charity, workers' compensation and unknown payer sources.

[1] Go, A. S., Hylek, E. M., Phillips, K. A., et al. (2001). Prevalence of Diagnosed Atrial Fibrillation in Adults: National Implications for Rhythm Management and Stroke Prevention: The Anticoagulation and Risk Factors in Atrial Fibrillation (ATRIA) Study. *JAMA, 285*, 2370–2375.

ALOS Is High for Medicare Inpatient Cases in the Mid-Atlantic Region

ALOS per Medicare Hospital Inpatient Case

Peripheral Artery Disease—6.3

Neoplasms—6.0

Deep Vein Thrombosis—5.2

Diabetes Mellitus—4.8

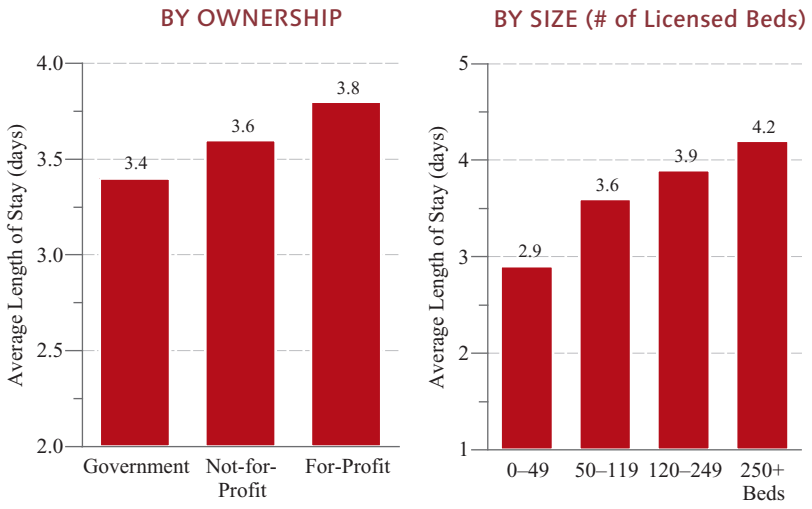
Stroke—4.4

AVERAGE LENGTH OF STAY PER MEDICARE HOSPITAL INPATIENT CASE, BY REGION, 2008

	ACS	Angina	Atrial Fibrillation	DVT	Diabetes Mellitus	Hyper-tension	Neoplasms	Osteo-arthritis	PAD	Stroke
Pacific	2.3	2.1	3.3	5.2	5.2	2.7	6.2	3.9	6.7	4.5
Mountain	1.8	1.9	2.9	4.4	4.2	2.4	5.1	3.7	5.4	3.7
W. North Central	1.9	2.1	3.0	4.4	3.9	2.4	4.8	3.7	4.9	3.8
E. North Central	2.2	2.2	3.5	4.9	4.4	2.7	5.9	3.6	5.5	4.2
South Central	2.2	2.2	3.6	5.2	4.6	2.7	5.6	4.0	5.8	4.4
New England	2.0	2.0	3.6	5.0	5.0	2.8	6.2	3.7	6.0	4.3
Mid-Atlantic	2.5	2.3	4.7	6.2	6.3	3.3	7.8	4.0	8.5	5.7
South Atlantic	2.2	2.2	3.7	5.5	5.1	2.9	6.6	3.9	6.7	4.8
OVERALL AVG.	**2.2**	**2.2**	**3.6**	**5.2**	**4.8**	**2.7**	**6.0**	**3.8**	**6.3**	**4.4**

ALOS per Atrial Fibrillation Case Increases in Accordance with Hospital Size

AVERAGE LENGTH OF STAY PER MEDICARE INPATIENT ATRIAL FIBRILLATION CASE, 2008



- In 2008, Medicare beneficiaries treated for atrial fibrillation in large hospitals—those with 250 or more licensed beds—recorded an average length of stay (ALOS) per inpatient case of 4.2 days. By comparison, such cases treated in small hospitals—those with fewer than 50 licensed beds—reported ALOS of just 2.9 days in 2008. ALOS for nearly all Medicare inpatient cases rose in proportion to the size of the facility.
- Ordinarily, large hospitals have more financial resources to provide the most advanced medical equipment. As a consequence, the more severe cases—those likely in need of specialized care and surgical procedures—are more apt to seek treatment at large, well-outfitted hospitals.

ALOS per Medicare Inpatient Diabetes Case Far Exceeds Overall Case Ratio

- Medicare beneficiaries tend to be more susceptible than their younger counterparts to a variety of diabetes complications commonly associated with increasing age, including cardiovascular disease, neuropathy, nephropathy, retinopathy and hypoglycemia. In accordance, Medicare beneficiaries treated for diabetes in an inpatient setting recorded ALOS of 4.8 days in 2008, more than 9% higher than ALOS for diabetes inpatient cases overall (4.4).
- ALOS per Medicare inpatient deep vein thrombosis case was likewise notably higher than such cases overall (5.2 days vs. 4.9).
- In fact, ALOS per hospital inpatient case was higher for Medicare beneficiaries than for patients overall in eight of 10 diseases listed.

AVERAGE LENGTH OF STAY (DAYS) PER INPATIENT CASE, BY DISEASE STATE, 2008

	Medicare Cases	Cases Overall
ACS	2.2	2.0
Angina	2.2	2.0
Atrial Fibrillation	3.6	3.4
DVT	5.2	4.9
Diabetes Mellitus	4.8	4.4
Hypertension	2.7	2.6
Neoplasms	6.0	5.9
Osteoarthritis	3.8	3.7
PAD	6.3	6.3
Stroke	4.4	4.6

Data source: SDI © 2010

HOSPITAL-BASED MEDICAID: UTILIZATION

Medicaid Payer Share Is Highest for Diabetes Mellitus Inpatient Cases

- In 2008, Medicaid covered a significant 11.5% of diabetes mellitus inpatient cases, a slight drop from 11.9% in 2007, but still the disease state with the highest Medicaid payer share.
- The comparatively high Medicaid payer share of hospital inpatient diabetes mellitus cases is at least partly influenced by the prevalence of juvenile diabetes among Medicaid recipients covered by the State Children's Health Insurance Program (CHIP).

PERCENTAGE OF HOSPITAL INPATIENT CASES, BY PAYER TYPE

	Medicaid		Medicare		Private Fee-for-Service		Other**	
DISEASE STATE	2007	2008	2007	2008	2007	2008	2007	2008
ACS	7.8%	7.5%	53.6%	57.6%	27.1%	27.4%	11.6%	7.5%
Angina	6.0	6.5	62.8	63.1	21.2	24.0	10.0	6.4
Atrial Fibrillation*	3.2	3.4	76.3	78.6	11.9	14.1	8.6	3.9
DVT	9.9	9.5	53.4	57.0	24.6	26.0	12.1	7.5
Diabetes Mellitus	11.9	11.5	56.1	59.3	20.4	21.5	11.5	7.7
Hypertension	8.7	8.6	56.1	59.1	23.7	24.6	11.6	7.7
Neoplasms	9.8	9.4	49.7	51.7	30.3	32.3	10.2	6.5
Osteoarthritis	3.5	3.4	57.3	58.9	30.2	31.9	9.0	5.7
PAD	6.2	6.1	69.6	74.1	14.8	15.3	9.4	4.5
Stroke	6.0	6.0	65.9	69.7	17.6	18.2	10.4	6.1

Medicaid Inpatient ALOS Is Highest for Hospitals with 250 or More Beds

MEDICAID HOSPITAL UTILIZATION

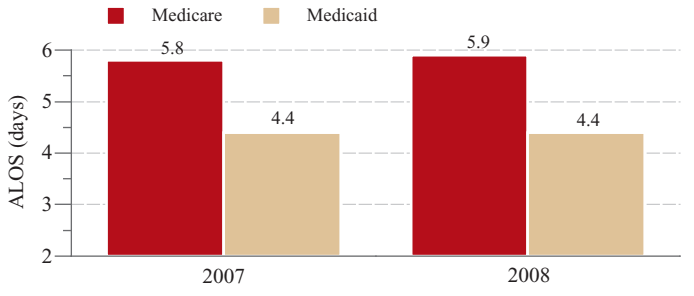
	Discharges		Patient Days		ALOS	
SIZE	2007	2008	2007	2008	2007	2008
0–49 Beds	127	115	376	353	3.5	3.7
50–119 Beds	634	604	1,969	1,900	3.8	4.0
120–249 Beds	1,283	1,287	5,248	5,133	4.7	4.6
250+ Beds	2,907	2,852	15,948	15,743	5.8	5.8
OWNERSHIP TYPE						
Government	810	786	4,317	4,324	3.9	4.0
Not-For-Profit	1,219	1,194	5,806	5,643	4.5	4.7
For-Profit	1,025	908	4,075	3,616	4.5	4.2
URBAN VS. RURAL						
Urban	1,697	1,628	8,589	8,200	5.1	5.1
Rural	393	369	1,254	1,194	3.4	3.6
REGIONS						
Pacific	1,449	1,451	6,986	7,127	5.3	4.9
Mountain	955	1,006	4,064	4,226	4.0	4.4
W. North Central	484	472	2,177	2,190	3.5	3.9
E. North Central	1,056	1,001	4,515	4,044	3.8	3.8
South Central	961	923	4,195	4,093	3.8	3.8
New England	1,175	1,168	5,519	5,541	4.5	4.7
Mid-Atlantic	1,132	1,079	8,555	8,096	7.3	7.4
South Atlantic	1,565	1,454	6,870	6,530	4.2	4.3
NATION	**1,089**	**1,050**	**5,187**	**5,004**	**4.4**	**4.4**

- In 2008, average length of stay (ALOS) per Medicaid admission increased in relation to the size of the hospital. For example, hospitals with 250 or more beds reported ALOS per Medicaid admission of 5.8 days, highest by hospital size.
- Overall ALOS per Medicaid admission was significantly lower in 2008, at 4.4 days. This suggests that larger facilities treated higher concentrations of complex cases and were more apt to perform intensive surgical procedures.
- Larger facilities often include specialized treatment centers that provide care for chronic diseases such as stroke, bone and joint conditions, or cancer. Often outfitted with the most technologically advanced equipment and expertly trained staff, these specialized treatment facilities attract patients in need of higher levels of care who often need longer courses of treatment.[1]

Performance-based Initiatives Seek to Improve Medicaid Quality of Care

In recent years, several states have implemented performance-based programs that compensate hospitals for improving Medicaid quality of care. These programs provide additional incentives for hospitals to treat Medicaid recipients and place importance on controlling key utilization measures. Among the first states to institute a Medicaid pay-for-performance program, California reduced Medicaid ALOS per admission to 5.3 days in 2008 from 5.6 days in 2007. Overall Medicaid ALOS was stagnant between 2007 and 2008, perhaps a reflection of newly legislated state Medicaid initiatives.

AVERAGE LENGTH OF STAY PER ADMISSION



Data source: SDI © 2010

* Includes Atrial Fibrillation/Atrial Flutter.

** "Other" includes self-pay, charity, workers' compensation and unknown payer sources.

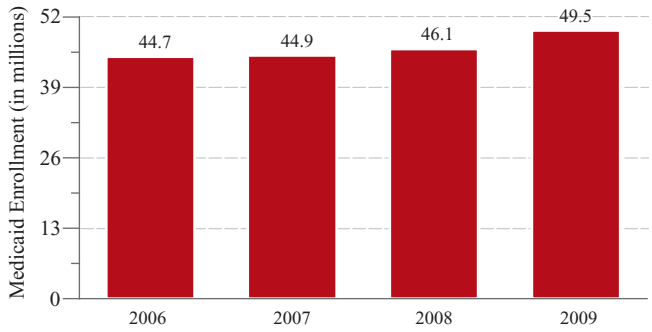
[1] See page 33 of the *Hospitals/Systems Digest* for 2010.

Medicaid Growth and Physician Shortages May Change Staffing Ratios

Medicaid Enrollment Grows as Recession Lingers

A public program that provides health care benefits to low-income individuals, Medicaid has seen its enrollment number swell recently as a result of the recession. Between 2006 and 2009, Medicaid membership counts expanded 10.6%, to 49.5 million from 44.7 million in 2006, with over 70% of that growth occurring during the most recent two years. Unfortunately, as unemployment drives up demand for Medicaid coverage, it also reduces the supply of funds, as states cut budgets to cope with declining income tax revenues.

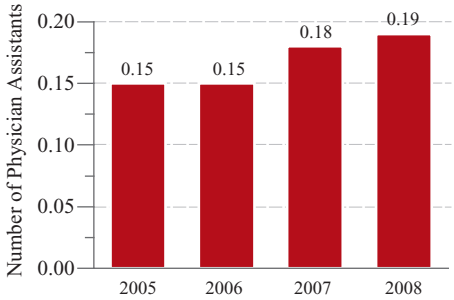
MEDICAID ENROLLMENT (IN MILLIONS)



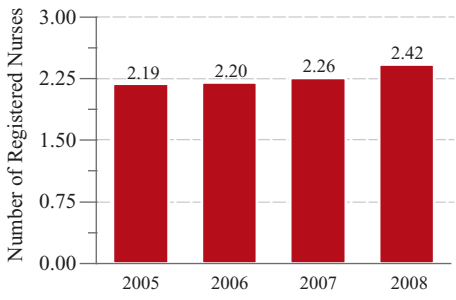
Lower-Cost Providers May Be More Important as Medicaid Numbers Grow

NUMBER OF FTEs PER OCCUPIED BED IN ALL HOSPITALS

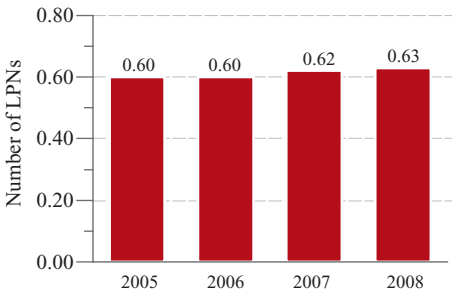
NO. OF FTE PHYSICIAN ASSISTANTS*,**



NO. OF FTE REGISTERED NURSES*,**



NO. OF FTE LICENSED PRACTICAL NURSES*,**



Data source: SDI © 2010

Hospitals and clinics that serve areas with high Medicaid populations are experiencing heightened utilization, and many such areas are already reporting physician shortages. Such circumstances may require the adoption of care models, in which physicians are used more judiciously, overseeing patient care but delegating some tasks to registered nurses, licensed practical nurses or physician assistants. Staffing ratios nationally—which already show notable growth in FTE-to-staffed-bed ratios for registered nurses, licensed practical nurses and physician assistants—may begin to reflect a more widespread adoption of such models, especially after health care reform legislation expands Medicaid eligibility.

Health Care Reform Expands Medicaid Eligibility and Spending

The Patient Protection and Affordable Care Act (PPACA) of 2010 expands Medicaid eligibility substantially. Beginning in 2014, individuals under age 65 who are not eligible for or not already covered by Medicare can qualify for Medicaid if their incomes are at or below 133% of the federal poverty level. This assessment will also be based on modified gross income, rather than on assets. According to Kaiser Family Foundation estimates, these lower eligibility requirements are expected to grow Medicaid enrollment counts nationally by 27.4%.[1] The Congressional Budget Office has indicated that expanded Medicaid/CHIP coverage will add $386 billion to the federal deficit by 2019.[2]

* Data are for all beds in nonfederal, short-term, acute-care hospitals only. Psychiatric, rehabilitation and children's hospitals are excluded.

** Column totals represent the average of each facility's total full-time-equivalent employees. Therefore, the totals cannot be derived by adding the numbers in the columns.

1 Kaiser Family Foundation. (2010). Medicaid Expansion to 133% of Federal Poverty Level (FPL): Estimated Increase in Enrollment and Spending Relative to Baseline by 2019. Retrieved from http://www.statehealthfacts.org/comparereport.jsp?rep=68&cat=4

2 Congressional Budget Office. (March 2010). H.R. 3590, Patient Protection and Affordable Care Act. Cost estimate for the bill as passed by the Senate on December 24, 2009. Retrieved from http://www.cbo.gov/doc.cfm?index=11307&zzz=40511