



Off the Charts:

Unsustainable Hospital Cost Growth in Maine



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Consumers for Affordable Health Care Foundation

*“Advocating the right to affordable, quality health care
for every man, woman and child.”*

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Executive Summary

Hospital care continues to represent the largest proportion of health care spending in the nation and in Maine. Additionally, hospital costs have been growing steadily across the nation as well as in the state of Maine. **However, hospital costs in Maine have increased at much higher rates than the trend in both the U.S. and the Northeast over the last ten years.** In fact, in 2002, the most recent year for which data is available, **Maine hospital cost growth was almost three times higher than the national average.** Moreover, hospital cost growth in Maine has been outpacing growth in personal income, a comparison that makes the growth rate even more alarming and increasingly unsustainable.

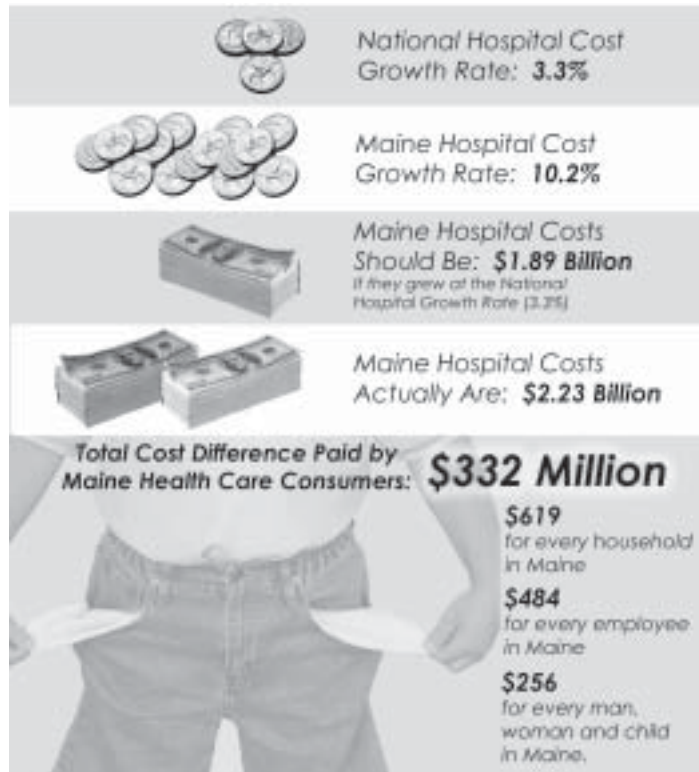
In large part, these increasing costs get passed on to the consumer in the form of higher hospital bills and health insurance premiums and deductibles. Maine businesses and individual health care consumers are not able to continue to absorb these growing costs. Due to the extraordinary rate at which hospital costs have been growing in the state, **Maine consumers and businesses paid \$332 million more in 2002 for hospital services than what they would have paid if costs had been growing at a rate equivalent to the national average since 1999.** These additional costs are equivalent to \$256 for every man, woman, and child living in Maine, \$619 for every household in Maine, or \$484 for every Maine employee.

Without corresponding increases in individual income and business revenue and profits, growing hospital costs are driving up health insurance

premiums, resulting in an **escalating health care burden on employers and individuals and ultimately triggering a rise in the number of uninsured people in Maine.**

Despite increasing costs, Maine hospitals have been generating positive profits. Between 1997 and 2001, Maine hospitals had a higher median profit margin than hospitals in the Northeast and in the U.S. During this five-year period, the median total margin for Maine hospitals ranged from a high of 7.4 percent in 1997 and a low of 4.2 percent in 2001.

2002 Hospital Cost Growth (Maine v. National Hospitals)



For the first time in five years, in 2002 (the most recent year for which data is available), the median total margin for Maine hospitals was lower than hospitals in the Northeast and in the nation, even though the measure remained positive. **The fact that, overall, hospitals in Maine have remained profitable suggests that they have been able to cover their increasing costs by passing them on to health care consumers.**

This report compares the costs and profits of hospitals in Maine to hospitals in New England, the Northeast, and the U.S. It also compares Maine hospitals to a peer group of hospitals from outside the state, including hospitals from Washington, Virginia, and Iowa, chosen for their similarities to Maine with regard to the distribution of the size of the hospitals, and their rural/urban mix of facilities.

The findings can be summarized into the following three points:

- Hospital costs in Maine are much higher than the norm for the nation, the Northeast, and among a peer group of hospitals. In addition, Maine hospital costs have continued to grow each year.
- Despite the increasing costs, Maine hospitals continue to generate positive profits, suggesting that increasing costs are being passed on to health care consumers.
- Moreover, higher costs and positive profits do not appear to be resulting in a higher standard of

inpatient care. Looking across a variety of measures of the quality of care, Maine hospitals perform similarly to a group of comparable hospitals located outside the state.

These findings bring about two important questions that remain unanswered:

1. Why are Maine hospital costs so much higher than national and regional norms without a corresponding relationship to higher quality inpatient care?
2. How can hospital cost growth be reduced over time without harming Maine's hospitals and without compromising the quality of care that they provide?

Hospital costs are growing at an unsustainable rate in Maine

Determining the exact level and growth of hospital costs is not easy. Hospital accounting systems are extremely complicated, involving multiple parties paying for services, hidden costs, and cost shifting. Additionally, the breakdown of the individual costs incurred by a hospital to provide care is not public data; only hospital administrators know these exact costs. As a result, the federal government and other interested parties have come up with indirect ways to estimate actual hospital costs.

One such estimate is the hospital input price index, which was developed by the Centers for Medicare

S e r v i c e s

(CMS). The

hospital input

price index is a

measure of the

annual change

in the prices of

goods and

services that

hospitals use to

provide care to

inpatients. The

hospital input price index is also called the hospital

market basket index. Many experts view the hospital

market basket as a measure of hospital inflation in

the United States since it measures the inflation rate

of inputs (i.e. goods and services) purchased by

hospitals. The hospital market basket is calculated

by using an econometric model that projects the rate

of increase in hospital production costs.¹

As shown in Table 1, Maine hospital cost growth in 2002 was 10.2% while the annual growth rate of the national hospital market basket was 3.3%. Using that measure, Maine hospital cost growth was roughly three times higher than the growth in hospital inflation in the United States. Moreover, hospital cost growth in Maine has been outpacing growth in personal income,² a comparison that makes the growth rate even more alarming.

This level of cost growth for Maine hospitals is clearly not sustainable. Consumers and businesses believe that they cannot afford the current 9 - 10% cost growth for hospital services. In 2002, Maine

Table 1. Maine v. National Hospital Cost Growth

	<u>Calendar Year</u>					
	<u>2000</u>	<u>2001</u>	<u>2002</u>	<u>2003</u>	<u>2004</u>	<u>2005</u>
Maine Hospital Cost Growth Rate*	9.0%	9.0%	10.2%	7.0%	7.0%	7.0%
National Hospital Cost Growth Rate**	3.8%	3.9%	3.3%	3.5%	3.5%	3.7%
Maine Hospital Costs (\$ billions)*	\$1.85	\$2.02	\$2.23	\$2.38	\$2.55	\$2.73
Maine Hospital Costs if they grew at National Hospital Cost Growth Rate (since 1999; \$ billions)	\$1.76	\$1.83	\$1.89	\$1.96	\$2.03	\$2.10
Cost Difference (\$ Billions): Maine Hospital Costs – Maine Hospital Costs growing at National Rate	\$0.09	\$0.19	\$0.33	\$0.42	\$0.52	\$0.62

Notes *According to the Maine Hospital Association. 2000-2002 costs and growth rates are based upon actual total hospital expenditures; 2003-2005 costs and growth rates are projected, based upon costs growing at a rate equivalent to the American Hospital Association's Hospital Market Basket Index.

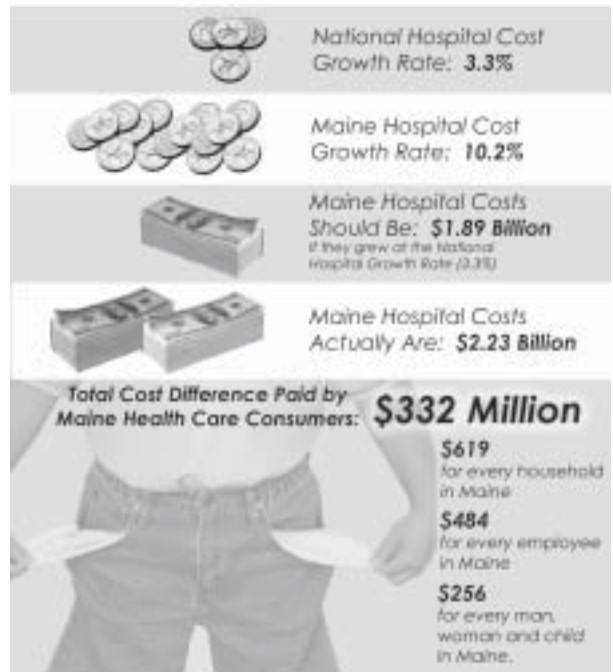
**Based on the annual percent increase of the CMS Hospital Input Price Index. Growth rates for 2003 – 2005 are projections. Source: Central Maine Medical Family, "Special Edition: Dirigo Health," *The Bulletin*, May 22, 2003, Vol. 23, No. 5, p. 4; CMS Actuaries, 2003 Annual Report of the Board of Trustees of the Federal Hospital Insurance and Federal Supplementary Medical Insurance Trust Funds, March 17, 2003, Table III. A1, p. 92.

hospital expenditures exceeded \$2.2 billion. Even if the growth rate in 2003 were reduced to 7.0%, the rate projected by the Maine Hospital Association, Mainers would have spent an additional \$150 million for hospital services in that year alone. That is an unacceptable burden on our consumers and businesses.

Instead, if Maine hospital costs had been growing at a rate equivalent to the national average growth rate since 1999, Mainers would have spent an additional \$80 million for hospital services in 2003 compared to the previous year. While this amount may still seem unacceptable, it is almost half of the additional burden incurred by consumers and businesses in that year under the cost growth projected by the Maine Hospital Association.

Nonetheless, this growth in costs adds up. Even if Maine hospitals reduced the growth rate to 7% between 2003 and 2005, hospital costs in Maine would be growing at a rate that exceeds the national average. Assuming that these increases in costs are passed on to consumers and businesses, this above average growth is roughly equivalent to an increased burden of \$2.2 billion over a six-year period (2000 through 2005), or an average of approximately \$362 million each year. As shown in Figure 1, looking only at 2002, consumers and businesses paid an additional \$332 million in hospital costs, which is equivalent to an additional \$256 for each man, woman, and child residing in Maine or \$619 for every household in Maine.³ Correspondingly, these additional hospital costs are equivalent to an additional \$484 for every employee in Maine.⁴

Figure 1. 2002 Hospital Cost Growth (Maine v. National Hospitals)



Source: Consumers for Affordable Health Care based on Table 1; Population Division, U.S. Census Bureau, “Annual Estimates of the Population for the United States and States, and for Puerto Rico, April 1, 2000 to July 1, 2003;” U.S. Census Bureau, 2002 American Community Survey Profile, <http://www.census.gov/acs/www/Products/Profiles/Single/2002/ACS/Narrative/040/NP04000US23.htm>; and Maine Department of Labor, Division of Labor Market Information Services, “Civilian Labor Force Estimates for Maine and Maine Counties, by Month and Annual Average, 2002,” <http://www.state.me.us/labor/lmis/data/laus/mecty02.html>.

Inpatient Costs

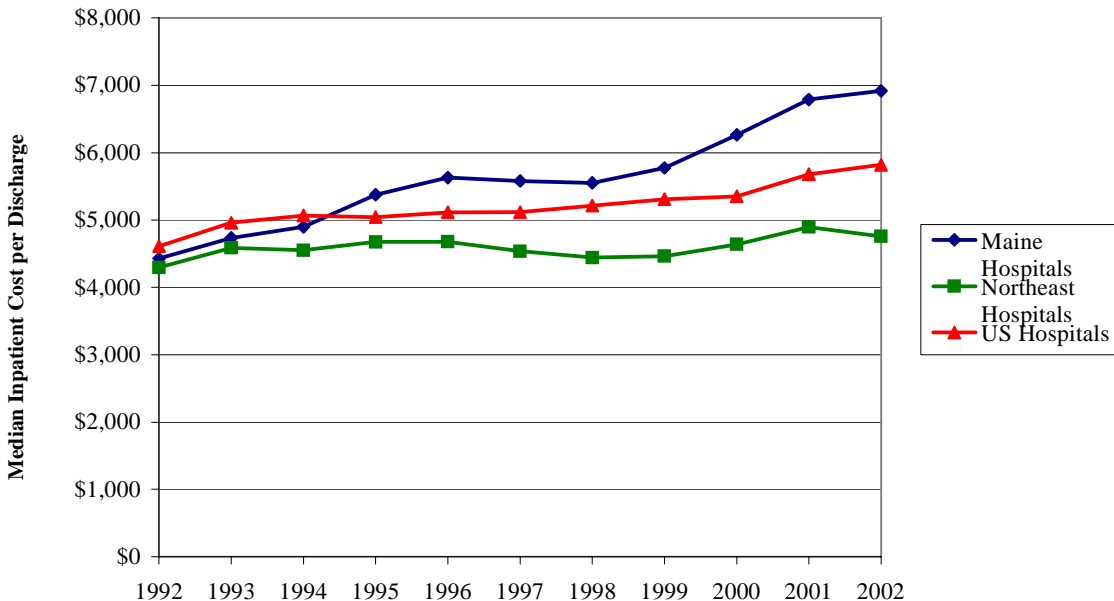
Another measure used to evaluate hospital costs is the inpatient cost per discharge. This measure is used to show the costs incurred by hospitals from providing one unit of inpatient healthcare service.

This statistic is often case-mix and wage index adjusted. Case-mix adjustments are made to remove differences in the nature of hospital services utilized between states (or between hospitals).⁵ Wage index adjustments are made to remove differences in the hourly wage rates of health care workers in local markets (thereby adjusting for geographic differences in input prices – the input price being the price of labor).

As shown in Figure 2, overall, the median cost incurred by Maine hospitals from providing one unit of inpatient health care has been growing steadily since 1992. Moreover, this cost measure has been higher for Maine hospitals than US and northeastern hospitals since 1995.

While hospital costs in Maine have been following the same general upward trend, they have increased at rates higher than the national trend in six of the last ten years and at rates higher than the northeast trend in all of the last ten years. **Over the last ten years, the median cost incurred by hospitals from providing one unit of inpatient care has increased 49.3% in Maine, while only increasing 4.0% in the northeast and 18.6% in the US.** The differences between Maine and these other regions are slightly less dramatic in the last five years with increases of 24.6% in Maine, 7.2% in the northeast, and 11.6% in the US. Looking only at 2002, the most recent year for which data is available, the median cost incurred

Figure 2. Median Hospital Inpatient Cost Per Discharge, 1992-2000



Source: Almanac of Hospital Financial & Operating Indicators CHIPS, 2004, 2002, 1997; Dr. Nancy Kane, Harvard School of Public Health

by hospitals from providing one unit of inpatient healthcare was \$6,917 in Maine, while it was \$5,819 in the U.S. and \$4,759 in the Northeast.

Moreover, as shown in Table 2, the cost incurred by hospitals from providing one unit of inpatient healthcare in 2001 was higher in Maine than among a peer group of hospitals located outside the state, adjusting for wage and case mix differences.

**Table 2. Maine Hospitals v. Peer Group Hospitals⁶
Inpatient Cost per Discharge, 2001***

Inpatient Cost per Discharge (Case Mix and Wage Adjusted)	
Maine	\$4,805
Peer Group	\$3,887
<hr/>	
Difference Between Maine & Peer Group	\$918**
% Difference Between Maine & Peer Group (% Larger)	23.6%

Note: *Beds under 203 only

** Difference between Maine and Peer Group is statistically different from zero, i.e., $p < 0.05$.

Source: Dr. Nancy Kane, Harvard School of Public Health, to the Commission to Study Maine's Community Hospitals, December 4, 2003

Although hospital costs in Maine have been rising, Maine hospitals have remained profitable

As shown in Table 3, compared to hospitals in the other New England states, the profit per unit of healthcare provided⁷ in Maine hospitals has been the highest by a significant amount since 1998. Since 1999, Maine is the only state that has had positive unit profits.

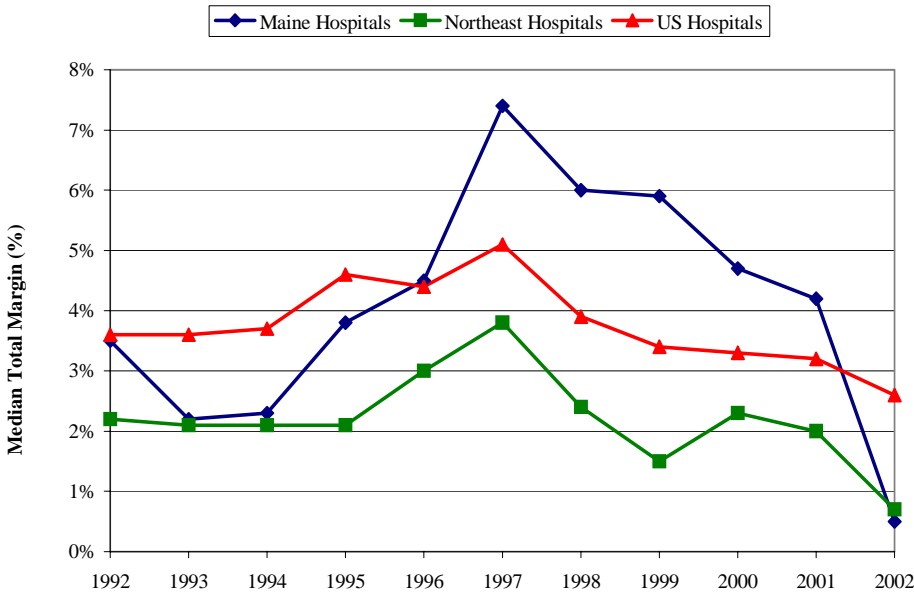
Figure 3 depicts the profit margin of Maine hospitals compared to that of hospitals in the Northeast and in the US. Until 2002, Maine hospitals had a higher profit margin than hospitals in the Northeast since 1992 as well as a higher profit margin than hospitals in the US since 1997. However, in 2002, the profitability of Maine's hospitals dropped dramatically.

Table 3. Profit per Discharge New England Hospitals
Adjusted for case mix and wage index

State	Profit per Discharge (Dollars)				
	1997	1998	1999	2000	2001
ME	95.09	165.29	44.53	118.89	24.62
MA	-102.14	-58.02	-214.39	-181.08	-89.45
RI	-127.06	-285.48	-651.44	-283.76	-333.74
CT	-11.00	-230.40	N/A	N/A	N/A
NH	150.88	1.15	-358.61	-140.76	N/A

Source: The 2003 Almanac of Hospital Financial and Operating Indicators; Joseph Ditre, Ex. Dir., CAHC

Figure 3. Profitability of Maine Hospitals Median Total Margin⁸



Source: Almanac of Hospital Financial & Operating Indicators CHIPS, 2004, 2002, 1997; Dr. Nancy Kane, Harvard School of Public Health

While in 2000, for every \$1.00 collected as revenue by Maine hospitals, a median of almost \$0.05, or 5 percent, was kept as profit, in 2002 a median of less than \$0.01, or 1 percent, was kept as profit. The fact that hospitals have remained profitable despite rising costs suggests that Maine hospitals are covering the growth in costs by passing the increasing costs on to consumers. Consumers and businesses cannot be expected to continue to cover hospital costs that are higher than other states in New England, as well as across the nation. Without further investigation, it is unclear why Maine hospitals experienced such a dramatic decrease in profitability in 2002. Even so, other states experienced similar trends. The median total profit margin also decreased significantly for Connecticut hospitals in 2002. Connecticut’s Office of Health Care Access explained this large drop in statewide median total margin by stating: “Hospitals fully recognized extraordinary losses on investments [from the stock market downturn in 2001].”⁹

The quality of care in Maine hospitals is similar to that in a comparable group of hospitals outside of Maine

Costs and profit margins that are higher than national and regional norms do not seem to be resulting in a higher quality of inpatient care. Comparing hospitals in Maine to a group of peer hospitals across nine

different measures of the quality of inpatient care does not demonstrate differences that are statistically significant. As shown in Table 4, most of the quality outcomes at Maine hospitals are similar to those at peer hospitals.

Table 4. Maine Hospitals v. Peer Group Hospitals Case Mix Adjusted Inpatient Quality Measures*

Case-Mix Adjusted Inpatient Quality Measure	Maine v. Peer Group
Mortality Rate	Same**
Obstetric complications	Same**
Post-surgical pulmonary compromise	Maine higher***
Adverse events	Same**
Post-surgical pneumonia	Maine lower***
Post-surgical wound infections	Same**
Post-surgical urinary tract infections	Same**
Mechanical complications	Same**
Ambulatory Care Sensitive Admissions	Same**

Source: Dr. Nancy Kane, Harvard School of Public Health to the Commission to Study Maine’s Community Hospitals, December 4, 2003

Notes: *Beds under 203 only

** Difference between Maine percent and Peer Group percent is *not* statistically different from zero, i.e., $p > 0.05$

***Difference between Maine percent and Peer Group is statistically different from zero, i.e., $p < 0.05$.

Conclusion

This report raises two important questions:

1. Why are Maine hospital costs so much higher than national and regional norms without a corresponding relationship to higher quality inpatient care?
2. How can hospital cost growth be reduced over time without harming Maine's hospitals and without compromising the quality of care that they provide?

It is time for these questions to be answered. In order to be competitive with hospitals across New England and across the nation, Maine hospitals need to deliver care less expensively with the same or better quality. As a state, we need to reign in hospital spending, putting Maine hospitals back on the charts and moving them off their current path of unsustainable growth.

Endnotes

¹ For more information on the hospital market basket, including its history and methodology, see the following website: <http://www.cms.hhs.gov/statistics/market-basket/>.

² In 2002, per capita personal income in Maine grew 3.5 percent from 2001, faster than the national per capita personal income growth rate of 1.4 percent (U.S. Department of Commerce, Bureau of Economic Analysis, Regional Economic Accounts).

³ This is calculated by dividing the additional \$332 million in hospital costs by the US Census Bureau's 2002 population estimate of 1,294,894 for the state of Maine or by the U.S. Census Bureau's 2002 estimate of 536,000 households in Maine in 2002.

⁴ This is calculated by dividing the additional \$332 million in hospital costs by the Maine Department of Labor's 2002 civilian labor force estimate of 686,200 for Maine.

⁵ This adjustment is based on the The Centers for Medicare and Medicaid Services' (CMS) Diagnostic Related Group (DRG) cost-weights for 2001. The idea behind the case-mix adjustment is that higher weights are associated with higher severity of illness.

⁶ The peer group was constructed by Dr. Nancy Kane, Harvard School of Public Health, to provide an external benchmark for Maine facilities. The peer group consists of hospitals from outside the state, including hospitals from Washington, Virginia, and Iowa, chosen for their similarities to Maine with regard to distribution of size of hospitals, and their rural/urban mix of facilities.

⁷ "Profit per Discharge" is calculated using the following formula: (Net Inpatient Revenue - Inpatient Cost) / Total Discharges

⁸ "Total Margin" is calculated using the following formula: (Total revenue from all sources - Total expenses) / Total revenue from all sources, or in other words, total net income divided by total revenue. It reflects the margin achieved from providing direct care to patients, items such as cafeteria and gift shop sales, rental of space, miscellaneous revenues, *and* investment income.

⁹ Connecticut Office of Health Care Access, *Connecticut Acute Care Hospital Statewide Financial Analysis*, October 2003, <http://www.ohca.state.ct.us/Publications/Statewide%20Financial%20Analysis%20202002.pdf>.

Glossary

Case mix adjustment

An adjustment made to remove differences in the nature of hospital services utilized between states (or between hospitals). CMS' Diagnostic Related Group (DRG) cost-weights are used to make the adjustment. The adjustment is usually made to control for differences in age and severity of illness between hospitals (or states). The idea behind the adjustment is that higher weights are associated with higher severity of illness.

Centers for Medicare and Medicaid Services (CMS)

A Federal agency within the U.S. Department of Health and Human Services responsible for the following programs: Medicare, Medicaid, State Children's Health Insurance Program (SCHIP), The Health Insurance Portability and Accountability Act of 1996 (HIPAA), and Clinical Laboratory Improvement Amendments (CLIA).

Diagnostic-Related Group (DRG) A system of determining case mix, used for payment under Medicare's Prospective Payment System (PPS) and by some other payers. The DRG system classifies patients into groups based on the principal diagnosis, type of surgical procedure, presence or absence of significant comorbidities or complications, and other relevant criteria.

Hospital Input Price Index

Also called Hospital Market Basket Index. An inflationary measure of the cost of goods and services purchased by hospitals. The measure is calculated through an econometric model that forecasts the changes in prices for the goods and services that hospitals use to provide care to patients. The measure was developed by the Centers for Medicare and Medicaid Services for use in updating payments and cost limits in their various payment systems.

Hospital Market Basket Index

See Hospital Input Price Index.

Inpatient cost per discharge

A hospital unit cost measure. More specifically, a measure of the costs incurred by hospitals from providing one unit of inpatient health care service. Measure is calculated using the following formula: Total Inpatient Costs / Total Discharges.

Maine Hospital Association (MHA)

A non-profit association that represents the interests of 38 of the 39 hospitals in Maine.

Profit per discharge

A measure of the profit per unit of health care provided. Measure is calculated using the following formula: (Net Inpatient Revenue – Inpatient Cost) / Total Discharges.

Total margin

A measure that reflects the margin achieved from providing direct care to patients, and other activities such as cafeteria and gift shop sales, rental of space, miscellaneous revenues, *and* investment income. Measure is calculated through the following formula: Total net income (Total Revenues – Total Expenses) / Total Revenues.

Wage index adjustment

An adjustment made to remove differences in the hourly wage rates of health care workers in local markets.

