



JOHNS HOPKINS

BLOOMBERG SCHOOL
of PUBLIC HEALTH

Inpatient Hospital Prices and Margins in Delaware

Primary Care Reform Collaborative

Aditi P. Sen

Johns Hopkins Bloomberg School of Public Health

February 10, 2020

JHU Project Background

- ▶ Background: Arnold Ventures project to support and inform state-level efforts to lower private sector prices
- ▶ Could encompass a range of policy approaches, including reference pricing, global budgets, public option pricing, out-of-network price regulation, etc.
- ▶ Analytic component:
 - ▶ Demonstrate the extent of price variation across services, geographies, settings, and consumers (e.g., by plan type)
 - ▶ Compare private sector prices to Medicare prices
 - ▶ Demonstrate extent of practices such as out-of-network billing
 - ▶ Analysis of hospital costs, margins, community benefit provision

Today

- ▶ We compared Delaware hospitals to hospitals in other states. We examined three factors:
- ▶ How much more do private insurers in Delaware pay compared to Medicare?
 - ▶ Private insurers pay more than double what Medicare pays for hospital services in most states
- ▶ Are hospital profit margins higher in Delaware than other states?
- ▶ Do Delaware hospitals provide more charity care and community benefit services than hospitals in other states?

Summary of Initial Findings

- ▶ In 2017, the private sector price for an inpatient “basket” of common services was 2.41 times the Medicare price in Delaware. This is above the national average price differential of 2.13.
- ▶ The differential between the private and Medicare price for the inpatient basket in DE (2.41) was higher than in neighboring states, e.g., PA (1.91) and MD (1.35).
- ▶ Median overall hospital margin in Delaware was 11% in 2017, compared to a national median of 3.6%. Hospital profit margins are high in Delaware compared to other states.
- ▶ As a percent of total expenses, hospital-level spending on community benefits as defined by the IRS was lower in DE (6.96%) than the national average (9.28%). A smaller percent of total expenses was spent on charity care and on unreimbursed Medicaid costs among DE hospitals compared to hospitals nationally.

Summary of Conclusions

- ▶ Delaware hospitals have profit margins significantly above the national average.
- ▶ The differential between what private insurers are paying and what Medicare pays is higher in DE than in many other states, and higher than in neighboring states.
- ▶ Delaware hospitals provide a smaller percentage of charity care than hospitals in other states (1.1% total expenses compared to 2.0% nationally).
- ▶ Across hospitals, Delaware hospitals spend a smaller proportion of total expenses on uncompensated Medicaid (1.9% compared to 4.1% nationally), which we do not consider to be a community benefit because the state determines the amount of Medicaid payment. However, the average is low because 2 of the 5 hospitals spend 0%; 1 hospital spends 6.7% total expenses on unreimbursed Medicaid.



JOHNS HOPKINS

BLOOMBERG SCHOOL
of PUBLIC HEALTH

Detailed Data



Private prices in Delaware vs surrounding states, 2017

	DE		PA		MD	
	Mean \$	Private: Medicare ratio	Mean \$	Private: Medicare ratio	Mean \$	Private: Medicare ratio
Inpatient Basket	9,068	2.41	7,778	1.91	7,125	1.35
Joint Replacement	35,616	2.47	27,794	1.98	25,689	1.32
Cesarean Section	16,719	2.59	15,186	1.78	13,853	1.29
Vaginal Delivery	12,883	2.33	11,420	1.94	11,684	1.38

Private price variation within Delaware, 2017

	State Mean	Dover	Wilmington	Salisbury	Ratio Max to Min MSA
Inpatient Basket	9,068	9,154	9,062	7,788	1.18
Hip Replacement	35,721	35,920	35,584	30,672	1.17
Knee Replacement	35,619	39,350	35,672	40,517	1.14
Cesarean Section	16,719	16,974	17,243	16,075	1.07
Vaginal Delivery	12,883	12,961	12,961	11,261	1.15

Delaware Hospital Margins Analysis, 2017

Operating margin is for just patient care

Overall margin is for all services the hospital provides

	Overall Margin	Operating Margin
BEEBE MEDICAL CENTER	9.8%	8.7%
CHRISTIANA CARE HEALTH SYSTEM	14.5%	-5.1%
KENT GENERAL HOSPITAL	15.2%	5.0%
MILFORD MEMORIAL HOSPITAL	13.0%	3.6%
NANTICOKE MEMORIAL HOSPITAL	8.3%	2.7%
ST. FRANCIS HOSPITAL WILMINGTON	3.1%	-0.3%
U.S median (1Q,3Q)	3.6% (-2.7%, 10.6%)	-2.6% (-11.6%, 5.6%)

Centers for Medicare and Medicaid Services (CMS) Medicare cost reports 2017

<https://www.cms.gov/Research-Statistics-Data-and-Systems/Downloadable-Public-Use-Files/Cost-Reports/>

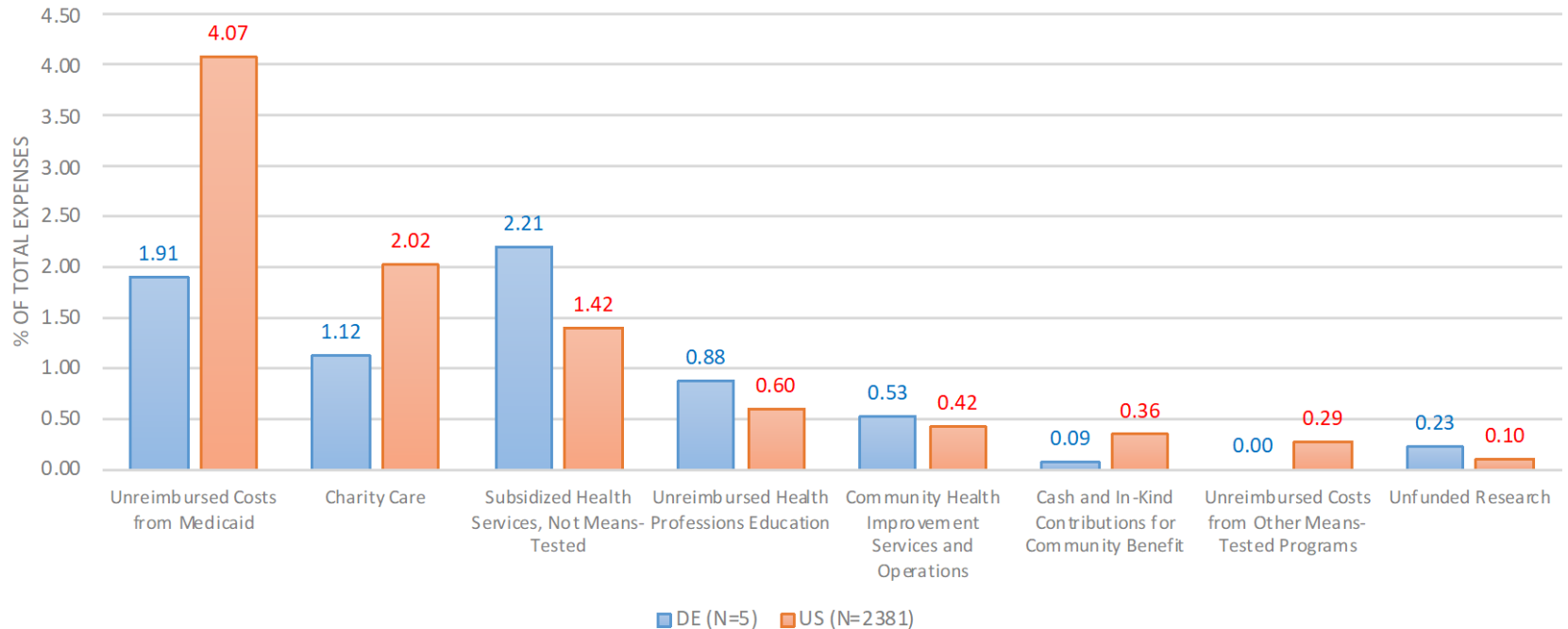
https://atlasdata.dartmouth.edu/static/supp_research_data/

Delaware Hospital Overall Margin 2011-16

	2011	2012	2013	2014	2015	2016
BEEBE MEDICAL CENTER	2.7	5.3	9.1	9.2	11.5	7
CHRISTIANA CARE HEALTH SYSTEM	8.1	13.1	15.4	10.3	8.3	17
KENT GENERAL HOSPITAL	5.9	18.4	18.5	8.7	5.9	17
MILFORD MEMORIAL HOSPITAL				3.6	-3.3	10
NANTICOKE MEMORIAL HOSPITAL	8.7	9.3	15.3	11.6	2.3	9
ST. FRANCIS HOSPITAL WILMINGTON	1.3	1.4	15.9	-2	-4.2	-5
NATIONAL	4.4	5.5	5.1	5.2	4.7	4.3

Delaware hospital community benefit as a % of total expenses

Hospitals' Net Community Benefit as a % of Total Expenses, Delaware vs. U.S. 2017



Hospital Costs: How Do Hospitals Respond to Lower Prices?

- ▶ We examined what the Medicare Payment Advisory Commission (MedPAC) has said about the ability of hospitals to accept lower prices
- ▶ Hospital costs are **flexible and hospitals respond by lowering their costs**
 - ▶ “Hospitals under financial pressure tend to have lower costs. High pressure equals low cost. Low pressure equals high cost.”
 - ▶ “Costs do vary in response to financial pressure and low margins on Medicare patients can result from a high cost structure that has developed in reaction to high private payers rates.”
 - ▶ “Lack of pressure is more common in markets where a few providers dominate and have negotiating leverage over payers.”

Appendix

Data, Methods and Background Information



Data: MarketScan Commercial Claims Was Used To Compare Medicare and Private Sector Prices

- ▶ Private-sector health data from approximately 350 insurers
- ▶ Captures person-specific clinical utilization, expenditures, and enrollment across settings
- ▶ Includes active employees, early retirees, COBRA continuees and dependents insured by employer-sponsored plans
- ▶ Large nationally representative sample
- ▶ High-quality and reliable coding

MarketScan analysis sample

- ▶ **MarketScan sample:** Individuals age 18-64 with an inpatient admission that occurred within the state of DE from 2012-2017
- ▶ **Main outcome:** Spending on market basket of 15 services, spending for select services

Year	Total Mkt Sample	Inpatient Mkt Sample
2012	135,020	7,247
2013	128,983	6,834
2014	136,957	6,845
2015	132,887	6,085
2016	124,048	6,424
2017	68,725	3,809

Hospitals' Financial Performance

- ▶ We used 2017 Medicare cost reports to examine the operational profitability and financial viability of hospitals
 - ▶ Operational profitability = Operating Margin
= Operating net income / Net patient revenue
How much money do hospitals make from patient services?
 - ▶ Financial viability = Overall Margin
= Overall net income / Net patient revenue
How much money do hospitals make from ALL activities?

Creating the inpatient “basket”

- ▶ The basket includes the 15 most frequent hospital services, ranked by Diagnosis Related Group (DRG)
- ▶ Removes variation due to volume
- ▶ These 15 DRGs represent a significant amount of health care – 46% of total admissions and 37% of total spending.
- ▶ Example DRGs include: Vaginal delivery w/o complicating condition (CC), Major joint replacement or reattachment of lower extremity w/o major complicating condition (MCC), Cesarean section w/o CC/MCC, Cesarean section w CC/MCC, Spinal fusion except cervical w/o MCC, PTCA.

Creating the inpatient “basket”

<u>15 Most Frequent DRGs</u>	<u>Average DRG Price</u>	<u>X</u>	<u>Proportion Adm</u>	<u>Summation</u>
Vaginal Delivery w/o CC	\$11,082		.1393	} 15 DRG Market Basket
Major joint replacement or reattachment of lower extremity w/o MCC	\$32,850		.0451	
Cesarean section w/o CC/MCC	\$15,180		.0451	
⋮				
PTCA	\$36,871		.0090	

Identifying inpatient procedures

Procedure	Age	DRG
Joint Replacement	45-64	470
Cesarean Section	25-34	766
Vaginal Delivery	25-34	775