

**Does Media Attention Highlighting Hospitals with High Charges
Lead to Charge Reductions?**

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Abstract

Background: The identification of the 50 hospitals in the US, including 20 located in Florida, with the highest charge-to-cost ratios in 2015 was met with significant public outcry.

Objective: To compare the total charges in the 20 high charge-to-cost ratio hospitals in Florida before and after media attention and public scrutiny to trends in total charges in the other hospitals in the state.

Research Design: We use difference-in-differences analysis to analyze 1,027,091 discharges from acute care hospitals in the state of Florida (n=206) between quarter 3 of 2010 and quarter 3 of 2015. Models account for discharge characteristics, and hospital and quarter fixed effects.

Measures: Total charges, adjusted by the 2015 Consumer Price Index for Medical Care, by hospital for commercial and self pay patients is the main outcome variable. Trends in total charges were assessed before and after publication of the 20 top charge-to-cost ratio hospitals in Florida.

Results: Our analysis finds no evidence that hospitals responded to the publicity with any meaningful reductions in charges. Charges in the third quarter of 2015 were significantly higher than charges in previous quarters.

Conclusions and Relevance: As hospital charges continue to rise and the best path forward to address price transparency continues to elude policy makers and stakeholders, it is important to recognize that hospitals may not respond quickly to public exposure and these initiatives.

The prices hospitals charge for their services have received significant political and media attention in recent years, particularly in Florida. A widely-read article published in 2015 revealed that of the 50 hospitals with the highest charge-to-cost markups, 20 of them (40%) were located in Florida.¹ The next highest state, Pennsylvania, had only 7 of the hospitals. These 50 hospitals were charging markups averaging 10.1 times their cost, translating into markups of more than 1,000%.¹ Compared to the national average markup of 3.4 times the Medicare-allowable cost of providing services, the difference is substantial.¹ The authors conclude that lack of price transparency and negotiating power of uninsured patients are the primary causes of these high markups.

In April of 2016, Florida Governor Rick Scott signed into law what will likely become one of the nation's most robust health care price and quality transparency systems. It will publish bundled price and quality data for services provided in hospitals in the state.² One impetus for this legislation is hospitals in Florida that have been under scrutiny for charging exorbitant fees for trauma services. The for-profit Hospital Corporation of America (HCA) system (Governor Scott is the former President and CEO) was found to be charging \$40,000 more on average than other trauma centers in the state.³ Some hospitals in the system reduced their trauma fees in the face of the negative publicity.³ Governor Scott recently stated that the legislation in Florida doesn't go far enough, and he will press for stiff penalties for hospitals that price gouge.⁴ The issue of continued growth in health care prices and spending affects consumers' wallets, with predicted average premium increases of 19% in 2017 for health insurance offered by the major medial plans in Florida.⁵

Policymakers, employers, consumers, and the media are increasing pressure for public reporting of the prices charged by health care providers and reimbursed by payers.⁶ Price transparency is a suggested approach to allow patients and their agents to consider costs as they comparison shop for hospital services.⁷ More than half of U.S. states have passed legislation mandating that hospitals,

¹ Bai G, Anderson GF. Extreme markup: the fifty US hospitals with the highest charge-to-cost ratios. *Health Aff (Millwood)*. 2015;34(6):922-928.

² Meyer H. Blog: New price-transparency law puts Florida in the consumer vanguard. *Mod Healthc*. http://www.modernhealthcare.com/article/20160419/BLOG/160419918?utm_source=modernhealthcare&utm_medium=email&utm_content=20160419-BLOG160419918&utm_campaign=financedaily. Published 2016.

³ Herman B. Report: HCA leads Florida hospitals in trauma fees. *Becker's Hospital Review*. <http://www.beckershospitalreview.com/finance/report-hca-leads-florida-hospitals-in-outrageous-trauma-fees.html>. Published March 13, 2014.

⁴ Williams R. Gov. Scott: Penalties needed for hospitals that price gouge, drive up health care costs. *Orlando Business Journal*. <http://www.bizjournals.com/orlando/blog/2016/01/gov-scott-penalties-needed-for-hospitals-that-price.html>. Published January 9, 2016.

⁵ Lincoff, N. Health insurance premiums to increase by 19% in Florida. *South Florida Business Journal* <http://www.bizjournals.com/southflorida/news/2016/09/02/health-insurance-premiums-to-increase-by-19-in.html>. Published September 2, 2016.

⁶ Carlson J. Hospitals, physicians face increasing policy and market pressure to reveal prices. *Mod Healthc*. January 2014. <http://www.modernhealthcare.com/article/20140118/MAGAZINE/301189936>.

⁷ Anderson GF. MarketWatch: From "soak the rich" to "soak the poor": Recent trends in hospital pricing.

health plans, or physicians engage in some form of price transparency.⁸ Providers and payers have long resisted price transparency, arguing such disclosure would jeopardize their finances and competitive advantages, and very few hospitals currently publish their prices.⁶ Concerns abound that consumers may incorrectly use prices as a proxy for quality, assuming that higher priced providers are also higher quality providers, a function of asymmetric information.^{8,9,10} Thus, price transparency initiatives may have the unintended consequence of prompting consumers to select higher priced providers.¹¹ Although a nationally representative survey of U.S. adults found that most do not believe that health care prices and quality are associated,¹² many still make this association. Research suggests price transparency alone may not reduce health care spending, as price information is often not paired with corresponding information on quality, and consumers need to employ transparency tools for them to be effective.^{8,13}

Hospital services are typically billed via “list charges,” and hospitals record their charges in a tightly-controlled document referred to as the “chargemaster.” Insurance companies aggressively negotiate these rates down, and hospitals generally provide discounts on these established charges to certain group purchasers of health care including private insurance companies, managed care plans, and plans purchased on the Exchanges.¹⁴ There is significant regional variation in commercial charges and reimbursement amounts by insurer, even for routine procedures.¹⁵ The rates charged to many uninsured and other self pay patients are often 2.5 times higher than most health insurers actually pay, and more than three times the Medicare allowable costs.⁷ Charge data in isolation do not provide a full account of the complex reimbursement environment faced by hospitals, and hospitals often only collect a small percentage of total charges.⁶ The following patient categories will often pay chargemaster prices: international visitors, individuals covered in health plans (such as health savings accounts and health reimbursement arrangements) that do not have contracts with hospitals, individuals with injuries covered by automobile insurance, individuals covered by workers’ compensation plans, patients using out-of-network providers, and the uninsured (self pay).⁷ The uninsured have little negotiating power with hospitals, leaving these patients with some of the highest

Health Aff. 2007;26(3):780-789.

- ⁸ Volpp KG. Price transparency: not a panacea for high health care costs. *J Am Med Assoc.* 2016;315(17):1842-1843.
- ⁹ Sinaiko AD, Rosenthal MB. Increased price transparency in health care -- challenges and potential effects. *N Engl J Med.* 2011;364(10):891-894.
- ¹⁰ Akerlof G. The market for lemons. *Q J Econ.* 1970;84(3):488-500.
- ¹¹ Mehrotra A, Hussey PS, Milstein A, Hibbard JH. Consumers’ and providers’ responses to public cost reports, and how to raise the likelihood of achieving desired results. *Health Aff.* 2012;31(4):843-851.
- ¹² Phillips KA, Schleifer D, Hagelskamp C. Most Americans do not believe that there is an association between health care prices and quality of care. *Health Aff.* 2016;35(4):647-653.
- ¹³ Desai S, Hatfield LA, Hicks AL, Chernew ME, Mehrotra A. Association between availability of a price transparency tool and outpatient spending. *J Am Med Assoc.* 2016;315(17):1874-1881.
- ¹⁴ Hospital Corporation of America. *Advancing the Patient Experience: 2015 Annual Report to Shareholders.*; 2015. HCA_2015_Annual_Report_Web_Version.pdf.
- ¹⁵ Revere FL, Delgado RI, Donderici EY, Krause TM, Swartz MD. Price transparency and healthcare cost: an evaluation of commercial price variation for obstetrical services. *J Health Care Finance.* 2016;in press:1-16.

hospital bills despite having little ability to pay.¹⁶ Financial hardship for low-income patients has become a significant issue in states like Florida that have not expanded their Medicaid program but have seen their disproportionate share payments drop. Hospitals have been able to squeeze additional revenues from remaining charge-based payers and services by sharply increasing charges.¹⁶

Every item and procedure rendered in a hospital must be included in the hospital's chargemaster, resulting in an extensive list containing 45,000 or more separate line items for patient services across the hospital's departments.¹⁷ Hospital chargemaster files are generally not accessible to the public.⁷ Actual payments or reimbursements for services are negotiated between each hospital and insurer.¹⁸ A study of price setting strategies found that a hospital's board of directors is often involved in the charge setting process.¹⁷

Although a complete overhaul of the chargemaster is rare, charges may be changed throughout the year and often take into account a hospital's current financial and competitive position within its market.¹⁷ Community perception is a key influence in adjusting the chargemaster, as well as other factors such as the market power of certain payers, overall cost inflation, competitive forces, managed care contract terms, hospital missions, and changes in costs of services or procedures.¹⁷ Hospitals are growing more sensitive to community perceptions in the face of negative press reports and resulting public pressure about hospital charges not being in line with costs.¹⁷ Change requests can be submitted to the chargemaster team if a department within the hospital wants to decrease certain charges if they are no longer in line with their competitors, or to increase charges if supply costs have increased.¹⁷ Charges that have the greatest impact on public perception tend to receive the most attention in the process of adjusting the chargemaster.¹⁷ Hospitals are allowed to change their prices at any time, with most hospitals adjusting their charges quarterly or annually.^{7,18} Some hospitals have committees focusing on pricing policies that meet as frequently as once a week.¹⁷ Hospitals may be loosely or closely affiliated within a system, but the markets each hospital within a system face may differ, so system status does not necessarily imply that hospitals within a system will have common rates or charge setting practices.¹⁷

Evidence from the literature on characteristics of high price hospitals shows that they tend to be larger, be major teaching hospitals, belong to systems with large market shares, and provide more specialized services than hospitals with lower charges for private insurers.¹⁹ Charges are often higher in urban areas, and payers with weak market power are more vulnerable to these higher prices in

¹⁶ Tompkins CP, Altman SH, Eilat E. The precarious pricing system for hospital services. *Health Aff.* 2006;25(1):45-56. doi:10.1377/hlthaff.25.1.45.

¹⁷ Dobson A, DaVanzo J, Doherty J, Tanamor M. *A study of hospital charge setting practices*. Washington, DC; 2005. http://67.59.137.244/documents/Dec05_Charge_setting.pdf.

¹⁸ Reinhardt UE. The pricing of U.S. hospital services: Chaos behind a veil of secrecy. *Health Aff.* 2006;25(1):57-59.

¹⁹ White C, Reschovsky JD, Bond AM. Understanding differences between high- and low-price hospitals: Implications for efforts to rein in costs. *Health Aff.* 2014;33(2):324-331.

more competitive areas.¹⁶ Although 20 of the 50 highest charge-to-cost ratio hospitals are located in Florida, this state was not among the top five in 2004.⁷

In this study, we longitudinally examine total charges for the top 20 charge-to-cost ratio hospitals in Florida identified by Bai and Anderson (2015) and compare these trends to those for the other acute care hospitals in the state. The article was published toward the end of quarter 2 of 2015, so we analyze trends in charge data prior to this quarter as well as quarter 3 of 2015 to determine whether these top 20 charge-to-cost ratio hospitals responded immediately to the substantial negative publicity regarding their charges. Shares of Community Health Services, one of the health care systems identified as having high charge-to-cost ratio hospitals, traded on the Monday the article was published with almost triple the volume of the preceding Friday, suggesting shareholder concerns about the health system's pricing practices.²⁰ Share price fell \$1.39 that week (over 2.5%), but recovered by the end of that week. The significant local and national media attention^{20,21,22,23,24} garnered by the article can be thought of as a rudimentary and highly undesirable form of price transparency.

Data and Methods

Data We use data obtained from the Florida Agency for Health Care Administration (AHCA) spanning quarter 1 of 2010 through quarter 3 of 2015. The data set contain discharges for all of the acute care hospitals in Florida (N=206). Hospitals that are classified as rehabilitation, extended stay for medically complex patients, behavioral health only, children's hospitals, Veterans Administration, and eye hospitals are excluded from the analysis. We include discharges with a primary payer of commercial health insurance company (patients covered by any type of private coverage, including Health Maintenance Organization, Preferred Provider Organization, and employer-based self-insured plans), and self pay (patients with no insurance coverage). Discharges with public insurance, other government, VA, and non-payment (charity, professional courtesy, research, refusal to pay, and bad debt) are excluded.

²⁰ Potter W. For-profit hospitals mark up prices by more than 1,000 percent because there's nothing to stop them. *Cent Public Integr Blog*. June 2015. <https://www.publicintegrity.org/2015/06/15/17474/profit-hospitals-mark-prices-more-1000-percent-because-theres-nothing-stop-them>.

²¹ Bocek K. According to study, 20 Florida hospitals charge uninsured patients 10 times the cost of care. *Orlando Weekly*. <http://www.orlandoweekly.com/Blogs/archives/2015/06/12/according-to-study-20-florida-hospitals-charge-uninsured-patients-10-times-the-cost-of-care>. Published June 12, 2015.

²² Gurnon E. The 50 hospitals with the highest cost markups. *Forbes*. July 2015. <http://www.forbes.com/sites/nextavenue/2015/07/19/the-50-hospitals-with-the-highest-cost-markups/#551414297aa0>.

²³ Gold J. Highest-charging U.S. hospitals are for-profit and concentrated in Florida. *National Public Radio*. <http://www.npr.org/sections/health-shots/2015/06/09/412964072/highest-charging-u-s-hospitals-are-for-profit-and-concentrated-in-florida>. Published June 9, 2015.

²⁴ Sun L. 50 Hospitals charge the uninsured more than 10 times the cost of care, study. https://www.washingtonpost.com/pb/national/health-science/why-some-hospitals-can-get-away-with-price-gouging-patients-study-finds/2015/06/08/b7f5118c-0aeb-11e5-9e39-0db921c47b93_story.html. Published June 8, 2015.

Methods We use descriptive statistics to examine total charges for hospitals before and after the high charge-to-cost hospitals paper was published. The focus of our analysis is the total charges associated with discharges reimbursed by commercial insurers or self pay by the uninsured. We examine quarter-specific charges for the top 20 charge-to-cost ratio hospitals and compare these figures to those corresponding to the remaining hospitals in the state. Tabulation of the data for each quarter shows significant variation in the trends, which may be due to seasonality and other external influences. To ensure a more accurate comparison that includes similar seasonal inpatient utilization, we tabulate the data for quarter 3 (the months of July, August, and September) of each year, which mitigates the influence of exogenous factors. All charges are indexed to the 2015 Consumer Price Index for Medical Care.²⁵ Restricting the data to third quarter discharges results in a sample size of 1,027,091 compared to 3,860,708 discharges in the full data set.

We use ordinary least squares regression analysis to estimate the relationship between the media attention that occurred in June 2015 and the total charges for self pay and commercially insured patients in the following quarter. This difference-in-differences approach uses the remaining hospitals in the state as a quasi-control group to adjust for any changes in charges that may have occurred due to exogenous factors affecting the state (e.g. patient case flow, input costs, illness and disease patterns). An indicator for the 20 high charge-to-cost hospitals is interacted with the post period (quarter 3 of 2015) and is the key explanatory variable in the analysis. All models control for age, sex, race, ethnicity, the Elixhauser Comorbidity Index, Major Diagnosis Category (Clinical Classifications Software category grouping based on ICD-9 codes for principal diagnosis), and includes hospital and quarter fixed effects. The self pay patients are modeled separately from the commercially insured patients. The data are analyzed using Stata version 14.1.²⁶

Results

The 20 highest charge-to-cost ratio hospitals in Florida are geographically dispersed across the state (Figure 1). Seven of the hospitals are concentrated in the area in the middle of the west coast of the state. What is perhaps more noteworthy is where the hospitals aren't located; only one is situated in Miami (the only South Florida hospital to make the list).

²⁵ U.S. Bureau of Labor Statistics. Consumer Price Index. Consumer Price Index. <http://www.bls.gov/cpi/>. Published 2015.

²⁶ StataCorp. Stata. 2015. <http://www.stata.com/>.

Map	Health Affairs Rank	Hospital and System
1	1	North Okaloosa Medical Center (CHS)
2	3	Bayfront Health Brooksville (CHS)
3	7	Heart of Florida Regional Medical Center (CHS)
4	8	Orange Park Medical Center (HCA)
5	10	Oak Hill Hospital (HCA)
6	12	Fort Walton Beach Medical Center (HCA)
7	16	St. Petersburg General Hospital (HCA)
8	20	Sebastian River Medical Center (CHS)
9	22	Osceola Regional Medical Center (HCA)
10	25	Gulf Coast Regional Medical Center (HCA)
11	26	South Bay Hospital (HCA)
12	27	Fawcett Memorial Hospital (HCA)
13	28	North Florida Regional Medical Center (HCA)
14	31	Lawnwood Regional Medical Center (HCA)
15	33	Brandon Regional Hospital (HCA)
16	37	Lehigh Regional Medical Center (CHS)
17	39	Twin Cities Hospital (HCA)
18	42	Regional Medical Center Bayonet Point (HCA)
19	45	Bayfront Health Dade City (CHS)
20	49	Kendall Regional Medical Center (HCA)

Figure 1 Geographic Location of the Top 20 Charge-to-Cost Ratio Hospitals in Florida

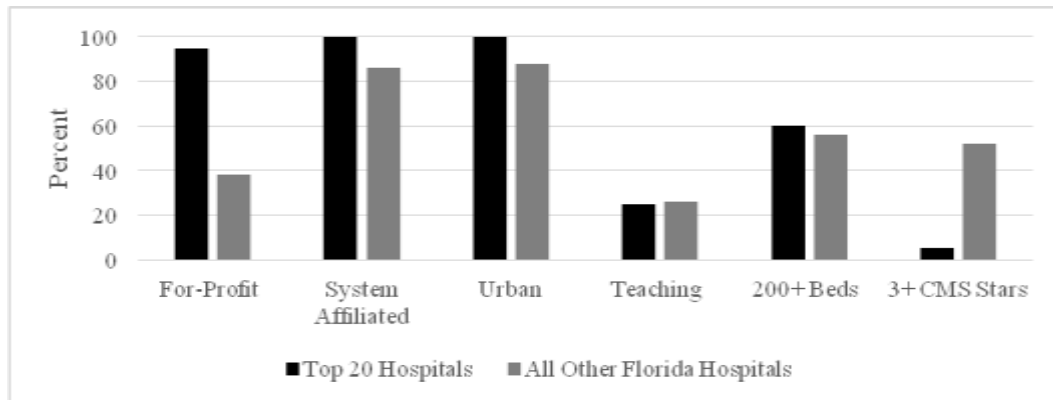


Data source Bai and Anderson (2015).

The 20 hospitals with the highest charge-to-cost ratios differ along some, but not all, dimensions (Figure 2). Only 1 of the 20 is a non-profit hospital; 95% of these hospitals have for-profit status, compared to 38% of all the remaining hospitals in the state. All 20 of the high charge-to-cost ratio hospitals are affiliated with a health system and are located in urban areas, as are 86% and 88%, respectively, of the other hospitals in the state. The 20 hospitals are as likely as the other hospitals to be teaching institutions (25% compared to 26%) and to have 200 or more beds (60% versus 56%). Stark differences arise when considering the percent of hospitals with 3 or more stars for overall hospital ratings of patient satisfaction, as measured by the Centers for Medicare & Medicaid Services hospital rating data.²⁷ It is important to note that only 5% (1 hospital) of the highest charge-to-cost ratio hospitals received three or more quality stars, compared to 52% of the other hospitals in the state.

²⁷ Centers for Medicare & Medicaid Services. Five-Star Quality Reporting System. <https://www.cms.gov/medicare/provider-enrollment-and-certification/certificationandcompliance/fsqrs.html>. Published 2016.

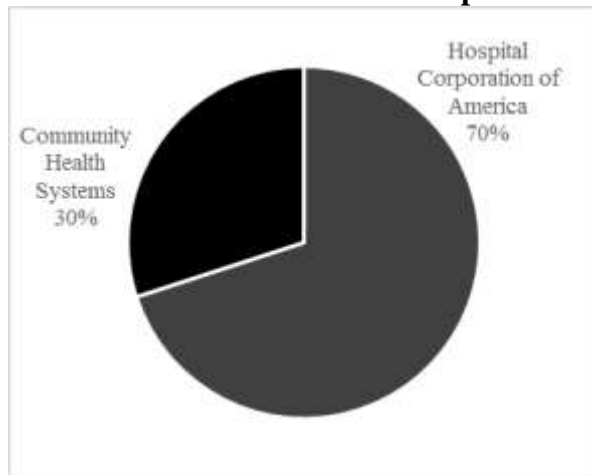
Figure 2 Characteristics of the Top 20 Hospitals in Florida with the Highest Charge-to-Cost Ratios and All Other Florida Hospitals



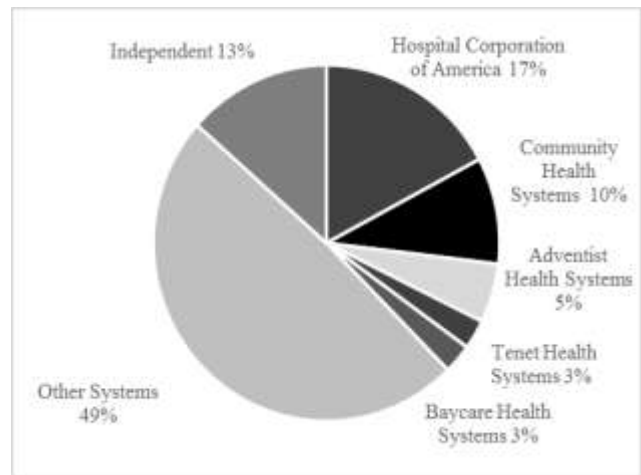
Authors’ analysis of data from the Florida Agency for Health Care Administration and Florida Hospital Association for 206 hospitals in the state. Hospitals with three or more stars for Overall Hospital rating for patient satisfaction the period between April 2014 and March 2015 are from the Centers for Medicare & Medicaid Services. Thirteen hospitals did not have Centers for Medicare & Medicaid Services Star rating data and are excluded from the All Other Florida Hospitals.

Seventy percent of the 20 high charge-to-cost ratio hospitals in Florida are part of the HCA health system, compared to only 17% of the other hospitals in the state (Figure 3). HCA is the largest health system in the state, with 43 of its 164 acute care hospitals located in Florida.¹⁴ Six of the hospitals are affiliated with Community Health Systems (30%) whereas only 10% of the other hospitals are affiliated with this system. A variety of smaller systems comprise the affiliation of 49% of the other hospitals in the state, and 13% of these hospitals are independent.

Figure 3 System Affiliation of the Top 20 Hospitals in Florida with the Highest Charge-to-Cost Ratios and All Other Florida Hospitals



Top 20 Charge-to-Cost Hospitals

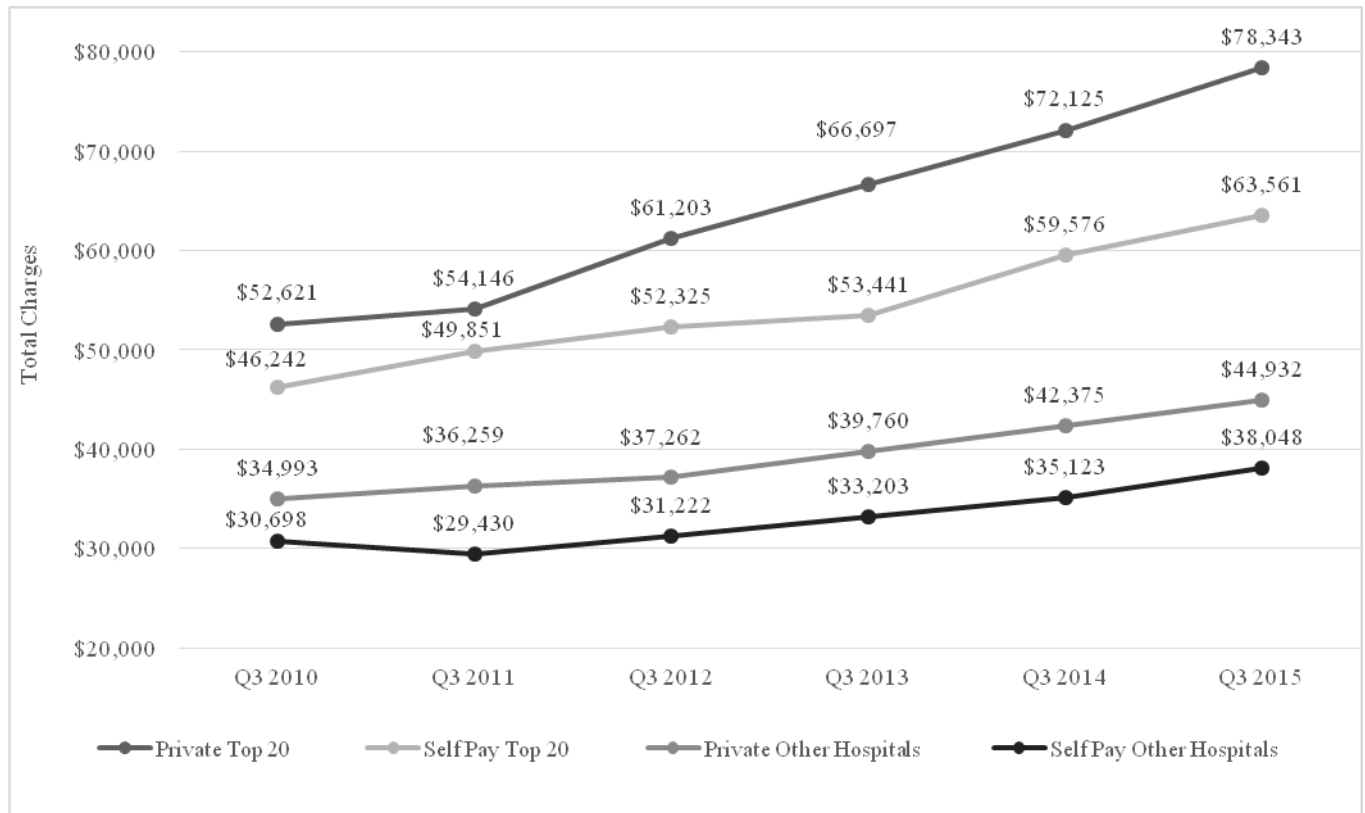


All Other Florida Hospitals

Authors' analysis of data from the Florida Hospital Association 2016 Directory. Government-owned hospitals are included in other systems and independent.

These 20 Florida hospitals are not only high charge-to-cost hospitals, but high charge hospitals overall. Figure 4 shows that the average of all charges in quarter 3 of 2010 for high charge-to-cost-ratio hospitals was \$52,621 for commercially-insured private pay patients, and \$46,242 for self pay patients. These values are considerably higher ($P < .001$) than those in quarter 3 of 2010 for the other hospitals (\$34,993 for private pay patients and \$30,698 for self pay patients). Average quarterly charges steadily increase for both hospital groups between quarter 3 of 2010 and quarter 3 of 2015. Total charges in quarter 3 of 2015 for private-pay patients are over \$30,000 higher at the high charge-to-cost ratio hospitals (\$78,343 compared to \$44,932; $P < .001$).

Figure 4 Total Charges in Quarter 3 for the Top 20 Charge-to-Cost Ratio Hospitals and All Other Hospitals in Florida, Quarter 3 2010 through Quarter 3 2015



Authors' tabulations of Quarter 3 hospital discharge data for total charges Quarter 3 2010 through Quarter 3 of 2015, obtained from the Florida Agency for Health Care Administration. Private includes all total charges for patients covered by commercial private coverage, and self pay includes patients with no insurance coverage, not including bad debt and charity care. Top 20 indicates the 20 hospitals in Florida that were identified among the top 50 charge-to-cost ratio hospitals in the United States in Bai and Anderson (2015). All charges are adjusted to 2015 dollars using the Consumer Price Index for Medical Care. Increases in charges by quarter for consecutive year are statistically significant ($P < .001$) using paired t -tests.

The total charges for the 20 high charge-to-cost ratio hospitals during quarter 3 of 2015, after publication of the paper and the ensuing negative publicity, are higher than those of quarter 3 of 2014 for both private pay and self pay patients ($P < .001$). These results suggest that, at least initially, these 20 hospitals in Florida did not reduce their charges after publication of the article.

We estimated ordinary least squares regression models separately for total charges for self pay patients and for patients with a primary payer of commercial private insurance (Table 1). The regression analysis confirms the findings from the descriptive statistics. We first present the results

with the two health care systems combined (HCA and CHS), and then run the model with the systems separated. In all the models, the coefficients for the quarter following the publicity are positive and statistically significant. The total charges in the 20 hospitals with the highest charge-to-cost ratio are higher in the post period relative to the total charges in the remaining hospitals in the state.

Table 1 Difference-in-Differences Analysis Results of Total Charges for Self Pay and Private Pay Patients after Negative Publicity Surrounding High Charge-to-Cost Ratio Hospitals in Florida

	Self Pay Patients	Commercial/Private Patients
HCA and CHS Combined		
Post	0.216***	0.103***
High Charge-to-Cost*Post	0.011	0.062***
Sample size	242,420	784,771
HCA and CHS Separated		
Post	0.216***	0.103***
HCA System*Post	0.002	0.051***
CHS System*Post	0.105**	0.162***
Sample size	242,420	784,771

All 20 of the high charge-to-cost ratio hospitals in Florida belong to one of two systems, Hospital Corporation of America (HCA) and Community Health Systems (CHS).

*** $P < 0.01$

Discussion

The 20 highest charge-to-cost ratio hospitals in Florida are geographically dispersed but belong to one of two for-profit health systems. Not only are their charge-to-cost ratios high, but total charges for these hospitals are significantly higher than those for other hospitals in the state. These charges have consistently trended higher from quarter 3 of 2010 through quarter 3 of 2015 for the 20 hospitals as well as the other hospitals in the state. The significant media attention identifying these hospitals and health systems by name, and consumer and policymaker outrage in June of 2015, did not appear to lead these hospitals to reduce or moderate substantially their charges in the quarter immediately following the release of the information.

Despite large price differentials, the high-charging hospitals do not appear to provide higher quality care based on patient satisfaction measures than their lower-charging peers. The 20 high charge-to-cost ratio hospitals were less likely than other hospitals in the state to achieve 3 or more stars in the Centers for Medicare & Medicaid Service's quality metrics. Only 1 of the top 20 high charge-to-cost ratio hospitals was identified by Modern Healthcare as one of the top 100 hospitals in the nation in health care quality.²⁸

The issue of price transparency will remain policy-relevant for the foreseeable future. Increases in unit prices for inpatient services, rather than intensity of care, have played a major role in the growth of costs of private health insurance plans and premiums.²⁹ Hospital spending comprises almost one third of national health care expenditures,³⁰ so efforts to address price gouging by hospitals has garnered significant public attention. A little-noticed 56 word provision in the Affordable Care Act requires all hospitals to publish a list of their standard charges for items and services, yet the U.S. Department of Health and Human Services has yet to issue a rule implementing the provision.⁶ Implementation of this rule will have important implications for price transparency. Charge data provide valuable insights and provide opportunity for a national dialogue about variation in prices among hospitals. The price data required under the new Florida legislation, and supported by the Florida Hospital Association, will include the amounts providers actually receive from payers and not just the chargemaster prices.²

Individuals needing inpatient care in Florida are particularly vulnerable to high prices. Florida does not have legislation requiring for-profit hospitals to offer price discounts to eligible uninsured patients.³¹ Many of these patients bear most of the burden of full charges for their care, and have little information to seek out lower-priced alternatives. Since Florida is not an expansion state, many individuals remain uninsured rather than covered by Medicaid.

There has been a significant increase in the number of websites providing publicly available price and quality information.³² To fill the transparency gap in Florida, National Public Radio affiliates in Florida have created their own website for consumer-reported prices,³³ the state has a website that lists a range of average charges for certain hospital services,³⁴ and the Florida Hospital Association launched a website in 2016 that lists average charges, average amount paid, and quality measures for

²⁸ The 100 top hospitals : national benchmarks for success-2016. *Mod Healthc.* 2016. <http://www.modernhealthcare.com/article/20160227/DATA/500035519>.

²⁹ Health Care Cost Institute. *Health care cost and utilization report: 2011*. Washington, DC; 2012.

³⁰ Martin AB, Hartman M, Benson J, Catlin A. National health spending in 2014: faster growth driven by coverage expansion and prescription drug spending. *Health Aff.* 2016;35(1):1-11.

³¹ Community Catalyst. Hospital Accountability Project. <http://www.communitycatalyst.org/initiatives-and-issues/initiatives/hospital-accountability-project/free-care/states>.

³² Revere FL, Ratanatawan A, Donderici EY, Miller JD, Morgan R. A consumer-based evaluation of healthcare price and quality transparency. *J Health Care Finance.* 2016;in press:1-22.

³³ Health News Florida. Florida price check. <http://health.wusf.usf.edu/health-news-florida-pricecheck#stream/0>.

³⁴ Florida Agency for Health Care Administration. Connecting Florida with health care information. <http://www.floridahealthfinder.gov/index.html>.

the 50 most common medical procedures.³⁵ In May of 2015, Governor Rick Scott issued an executive order appointing a commission to investigate and advise on the role of taxpayer funding for hospitals and other providers and the affordability, access, and quality of health care services they deliver.³⁶

Several data limitations to this analysis are present. First, the discharge data are aggregated by quarter, so we are unable to isolate the exact dates coinciding with the publication of the paper. However, the paper's publication and subsequent publicity occurred during the second week of June and quarter 2 is complete at the end of June, so this eases concerns about accurately capturing the timing of the publication of the paper. Second, the discharge data include charges, but not actual reimbursements by commercial insurers and patients, which may be considerably lower than full charges. Quarter-specific total charges do not reflect final payments to hospitals, which could decrease following the negative publicity if steeper discounts are applied. We focus on charges rather than charge-to-cost ratios, as the data are more timely than Medicare cost reports, there is little reason the publication would affect costs, and these hospitals have already been identified as high charge-to-cost ratio hospitals.¹

The primary causes of extremely high markups in hospital markets are lack of price transparency and negotiating power of uninsured patients, out-of-network patients, and other disadvantaged payers.¹ Our analysis finds that a rudimentary form of price transparency, the publication of and media attention on high charge-to-cost ratio hospitals, did not result in an immediate adjustment to their aggregate pricing practices. Although the political and public pressure from the substantial negative publicity could have generated a swift response, one quarter post publication of the article may be too soon for operational adjustments in charges to take shape. Consequently, it is important to follow these trends into future quarters. Policymakers and state officials should take into consideration the potential policy solutions to this issue of price transparency and high charges, and account for potential unintended consequences in hospital and consumer response to price transparency.

³⁵ Florida Hospital Association. Florida hospitals: quality care at best value. <http://www.missiontocare.org/>.

³⁶ Florida Center for Health Information and Policy Analysis. *Draft summary of observations from the Governor's commission on healthcare and hospital funding*. Tallahassee; 2016. <http://www.healthandhospitalcommission.com/docs/Jan19Meeting/ObservationSummary011816.pdf>.

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