Hospital Prices in Indiana

Findings from an Employer-Led Transparency Initiative

Chapin White



For more information on this publication, visit www.rand.org/t/rr2106

Library of Congress Cataloging-in-Publication Data is available for this publication.

ISBN: 978-0-8330-9922-8

Published by the RAND Corporation, Santa Monica, Calif. © Copyright 2017 RAND Corporation **RAND*** is a registered trademark.

Limited Print and Electronic Distribution Rights

This document and trademark(s) contained herein are protected by law. This representation of RAND intellectual property is provided for noncommercial use only. Unauthorized posting of this publication online is prohibited. Permission is given to duplicate this document for personal use only, as long as it is unaltered and complete. Permission is required from RAND to reproduce, or reuse in another form, any of its research documents for commercial use. For information on reprint and linking permissions, please visit www.rand.org/pubs/permissions.html.

The RAND Corporation is a research organization that develops solutions to public policy challenges to help make communities throughout the world safer and more secure, healthier and more prosperous. RAND is nonprofit, nonpartisan, and committed to the public interest.

RAND's publications do not necessarily reflect the opinions of its research clients and sponsors.

Support RAND Make a tax-deductible charitable contribution at www.rand.org/giving/contribute

www.rand.org

Preface

Large employers sponsor health plans that enroll roughly half of the U.S. population, and they are in a strong position to demand increased value from the health care system. But large employers generally lack useful information about the prices they are paying for health care services. This report reveals the prices paid to hospitals in Indiana from 2013 through 2016 by large, self-funded employer-sponsored health plans. Prices reflect the amounts paid per service, including amounts from both the health plan and the patient.

Prices are reported as *relative prices* using Medicare prices as a benchmark, defined as

amount paid by self-funded plans in Indiana simulated amount paid applying Medicare's price-setting formulas

The work was sponsored by the Robert Wood Johnson Foundation and was conducted by researchers from RAND Health in collaboration with the Employers' Forum of Indiana (EFI). A profile of RAND Health, abstracts of its publications, and ordering information can be found at www.rand.org/health. The study was led by Chapin White.

Contents

Preface	iii
Figures and Tables	. v
Acknowledgments	vi
Abbreviations	vii
	1
1. Background	
Employers Stymied by a Lack of Price Transparency	
Motivation	
The Employers' Forum of Indiana	
The Hospital Market in Indiana	
2. Data and Concepts	. 4
Data Source	. 4
How Does Medicare Calculate Prices Paid for Hospital Services?	6
A Numerical Example	6
Calculating Relative Prices for Hospitals, Hospital Systems, and Types of Services	. 7
Limitations	. 7
3. Findings	. 9
Large Hospital Systems Generally Are Paid Higher Prices	. 9
Hospital Prices Vary Widely, Particularly for Outpatient Services	10
Relative Prices Have Been Increasing	13
Relative Prices by Type of Service	14
4. Discussion	15
What Strategies Can Employers Use to Rationalize Hospital Prices?	
Appendix	19
References	44

Figures and Tables

Figures

3.1. Relative Prices of Groups of Hospitals	10
3.2. Hospital-Level Relative Prices for <i>Outpatient</i> Care	12
3.3. Hospital-Level Relative Prices for Inpatient Care	13
3.4. Trends in Relative Prices for Hospital Care, Overall and by Hospital System	14

Tables

2.1. Calculating Relative Prices: A Simplified Example	7
A.1. Community Hospitals in Indiana, Number of Services, and Allowed Amounts	
A.2. Private Prices for Outpatient Hospital Care in Indiana, Relative to Medicare	
(Medicare = 1.00)	
A.3. Private Prices for Inpatient Hospital Care in Indiana, Relative to Medicare	
(Medicare = 1.00)	
(Medicare = 1.00)	

The study team thanks the members and leaders of the Employers' Forum of Indiana (EFI) for initiating this project and providing guidance and input throughout the course of the project. This project could not have been successful without the help of Gloria Sachdev and David Kelleher, both from EFI. Lesley Baseman, of RAND, provided excellent programming and analysis. Support for this research was provided by the Robert Wood Johnson Foundation (RWJF). The views expressed here do not necessarily reflect the views of the foundation. We thank Katherine Hempstead, of RWJF, for perceiving the value of employer-facing price transparency. We also thank our two peer reviewers, Christopher Whaley of RAND and Amanda Frost of the Health Care Cost Institute, for their rigorous technical review of a draft of the report.

Abbreviations

APC	Ambulatory Payment Classification
APR-DRG	All Patient Refined Diagnosis Related Group
САН	critical access hospital
CMS	Centers for Medicare and Medicaid Services
DRG	Diagnosis Related Groups
EFI	Employers' Forum of Indiana
IOCE	Integrated Outpatient Code Editor
IPPS	inpatient prospective payment system
IU Health	Indiana University Health
MedPAC	Medicare Payment Advisory Commission
MPN	Medicare Provider Number
MS-DRG	Medicare Severity-Diagnosis Related Group
OPPS	outpatient prospective payment system
POS	Provider of Services

1. Background

Employers Stymied by a Lack of Price Transparency

Large employers sponsor health plans that enroll roughly half of the U.S. population (Barnett and Vornovitsky, 2016; Kaiser Family Foundation and Health Research and Educational Trust, 2016), and they play a key role in the U.S. health care system. Their role includes financing care through employer and employee contributions; designing health benefit plans; and negotiating terms with insurers, third-party administrators, and providers. Large employers typically offer health benefits to their employees through a *self-funded* plan, meaning that the employer pays its employees' claims and bears financial risk.

Many self-funded employers are struggling constantly with high health care costs—with only limited information about the prices that have been negotiated on their behalf. Those employers are repeat buyers of health care services, which could put them in a strong position to demand increased value from the health care system.

The prices that private health plans pay for hospital care vary widely, from one hospital market to another (Cooper et al., 2015) and among hospitals within a market (White, Bond, and Reschovsky, 2013; White, Reschovsky, and Bond, 2014b). Employers can, in principle, use health plan network and benefit design to steer their enrollees away from providers with prices that are unjustifiably high (White et al., 2014). But doing so requires a detailed awareness of the prices paid to each provider and, ideally, some information about services and the quality of care provided. Employers rely on health plans and other intermediaries to negotiate contracts with providers and to process claims, and employers generally lack useful information about the prices they are paying. Employers can ask their health plan administrators, or outside consultants, to calculate and report discount rates, meaning the percentage difference between billed charges and amounts paid. But discount rates, by themselves, are not meaningful because they do not reflect any case-mix adjustment or external benchmarks. The lack of transparency in contracting and negotiated prices undermines the ability of self-insured employers to demand value from providers and from health plans.

Motivation

The immediate goal of this study is to provide a detailed hospital price report to one set of large employers in Indiana, so that these employers can become better-informed purchasers and stronger advocates on behalf of their employees. Despite spending more than half a billion dollars on hospital care over a three-year period, the employers participating in this study have limited or no information about the prices they are paying for that care. The broader goal is to illustrate—for policymakers, other employers, and employer groups nationwide—that it is

feasible and worthwhile to use claims data from self-funded plans to measure and compare hospital prices at a high level of detail: facility by facility and service by service. That level of detail allows employers to contemplate and undertake specific changes in their health benefits and provider contracting. Ultimately, employers, health care providers, and health plans are all seeking to improve the value of the health care system, and price data can inform discussions among those stakeholders.

The intended audiences for this report include (1) the employers that participated in the study and provided their claims data; (2) other employer groups, such as the Pacific Business Group on Health; (3) health benefit managers at large, self-insured firms; and (4) policymakers and researchers who are interested in price transparency.

This analysis focuses on prices for inpatient and outpatient hospital services provided in general, short-stay hospitals. These services represent just one sector of the health care system, albeit an important one. Hospital prices have been identified in previous research as a key contributor to recent growth in spending per capita among the privately insured (Health Care Cost Institute, 2016) and a key driver of geographic variation in spending among the privately insured (Franzini et al., 2014; White, Reschovsky, and Bond, 2014a; Cooper et al., 2015). Hospital prices paid by private health plans have been growing well in excess of price growth in public plans (Selden et al., 2015), and that divergence has been linked to provider consolidation and the exercise of monopoly power by hospitals and hospital systems (Ginsburg, 2010; Berenson, Ginsburg, et al., 2012; Gaynor and Town, 2013).

The Employers' Forum of Indiana

The Employers' Forum of Indiana (EFI) is a multistakeholder, employer-led coalition whose mission is "to improve the value payers and patients receive for their health care expenditures" (EFI, undated). The employer members of EFI represent a wide range of industries, and other members include health plans and providers. EFI serves mainly in a convening role and has a history of advancing a wide range of efforts to improve the health care system in Indiana. A recent major initiative by EFI involved expanding access to the patient-facing price transparency tool offered by Castlight (Wall, 2013). The rollout of Castlight has generally been viewed as a success in Indiana, and it has helped enrollees anticipate their out-of-pocket costs, but it has not met the needs of employers seeking to rein in their overall benefit costs (Whaley et al., 2014).

EFI was established in 2001, but it built on a history of employer leadership in Indiana. In the mid-1990s, the Indiana Employers Health Care Coalition led efforts to measure and assess the reasonableness of the costs of the various hospital systems in the state (Christianson et al., 1997).

The Hospital Market in Indiana

There are currently six major hospital systems operating in Indiana (Indiana Hospital Association, undated). The largest system is Indiana University Health (IU Health), which has a

commanding presence in Indianapolis and statewide (Katz et al., 2011), including 13 community hospitals statewide and the largest teaching hospital in the state. The second-largest system is Ascension, which includes 17 community hospitals in the state. The hospital industry in Indiana, similar to the rest of the country, is dominated by not-for-profit hospitals, with small market shares for for-profit hospitals and government hospitals. Among community hospitals nationwide, the average operating margin has hovered between 0 and 5 percent in recent years. Hospitals in Indiana stand out for having unusually large positive margins, rising above 10 percent in recent years.¹

Indianapolis, the largest city in Indiana, was one of the core sites tracked by the Center for Studying Health System Change, and its hospital market and health care system have been described in a series of community reports (Christianson et al., 1997; Katz et al., 2003; Mays et al., 2005; Katz et al., 2011). Indianapolis was historically characterized by geographically distinct hospital submarkets, with a dominant system controlling each area. Those geographic divisions have broken down in the last two decades, with systems building new facilities and encroaching on each other's territory, particularly in suburban areas with concentrations of privately insured patients. As in the rest of the country, hospitals in Indianapolis have established and tightened their relationships with physician practices and used those relationships to drive referrals within their systems.

Recently, observers have speculated that the breakdown of hospitals' geographic territories, as well as the expansion in the number of facilities, might lead to greater competition and lower hospital prices in Indianapolis (Wall, 2013). But that speculation has not been tested empirically.

¹ Operating margins are from the RAND Hospital Research Files, which were created by the author using Medicare hospital cost reports (Healthcare Cost Report Information System [HCRIS] forms 2552-96 and 2552-10). RAND is developing a website to make the Hospital Research Files available on a subscription basis. The specific files used to compare margins in Indiana versus the nationwide average were "rand_hcris_cy_natl_a_2017_06_30.csv."

2. Data and Concepts

Data Source

The leaders of EFI invited their employer members to participate in the study, and more than a dozen employers chose to participate. These employers vary in size and industry, but all sponsor self-funded health plans, with most of their enrollees in Indiana. Together, the participating employers represent around 225,000 covered lives, including employees and their dependents. (For a detailed description of the processing of these claims data, see the "Detailed Methodology" section in the appendix.)

Before describing how we measured relative prices, it is important to define exactly what we mean by *price*. In this report, *price* refers to the amount paid to a health care provider per service. The amount paid is often referred to as the *allowed amount*, and it includes amounts paid by the health plan and any amounts due from the patient, including deductibles, copayments, and coinsurance.

The price of a basket of services equals the total allowed amount for those services divided by the number of *standardized units of service*. A standardized unit is a service of average intensity, with a relative weight equal to one, where the relative weight reflects the intensity of the service. For example, a heart transplant is far more complicated and requires far more clinical resources than an uncomplicated childbirth, and so a single heart transplant has a much higher relative weight—and accounts for many more standardized units—than an uncomplicated childbirth.

Standardized units are defined and applied differently depending on the clinical setting:

- In the *hospital inpatient* setting, a standardized unit is one inpatient stay with relative weight equal to one. There are several different algorithms available for assigning relative weights for inpatient stays—Medicare Severity-Diagnosis Related Groups (MS-DRGs), All Patient Refined-Diagnosis Related Groups (APR-DRGs), Pediatric Modified Diagnosis Related Groups (PM-DRGs)—but they are all designed to assign relative weights based on the clinical characteristics of the stay and the expected resource requirements.
- In the *hospital outpatient* setting, a standardized unit is one service, with a relative weight equal to one. In the outpatient setting, Medicare uses the Ambulatory Payment Classification (APC) system to assign relative weights to services. Similar to DRGs, APCs are designed to assign relative weights to services based on the clinical characteristics of the patient and service and the expected relative resource requirements.

Without context, hospital prices can be difficult to interpret. Is an inpatient price of \$15,000 high or low? To summarize hospital prices and make them easier to interpret, we calculate and report *relative prices*, using Medicare as a benchmark. The relative price equals the ratio of the

price actually paid divided by the price that would have been paid—for the same services provided by the same hospital—using Medicare's price-setting formulas.

Medicare provides a useful price benchmark for six reasons:

- 1. Medicare is the largest purchaser of health care services in the world and, in many ways, the reference point and standard-setter in the U.S. health care system.
- 2. Private health plans negotiate prices with providers, and those negotiated prices will reflect the negotiating leverage of both the plan and the provider (Berenson et al., 2012; Trish and Herring, 2015). Medicare prices, in contrast, are not affected by bargaining leverage and are, instead, set with the overarching goal of compensating providers fairly based on their costs of doing business and the services they provide (Medicare Payment Advisory Commission [MedPAC], 2016a). Medicare's price-setting formulas are not perfect (Hayes, Pettengill, and Stensland, 2007), but they have been refined over time based on ongoing analysis of legitimate sources of cost variation (Institute of Medicine, 2012), and with the goal of balancing the competing interests of providers, taxpayers, and beneficiaries.
- 3. Medicare hospital prices are adjusted for a number of key sources of legitimate variation in costs (MedPAC, 2014; MedPAC, 2016b), including:
 - a. annual updates for overall inflation
 - b. geographic adjustments based on local variation in wages and the cost of doing business
 - c. hospital-specific adjustments for medical education and treating low-income patients
 - d. case-mix adjustment based on the diagnoses and treatments provided to an individual patient
 - e. additional outlier payments for cases that are exceptionally costly relative to Medicare's standard price.
- 4. The federal government publishes publicly available, detailed data on the prices paid (see, for example, Centers for Medicare and Medicaid Services [CMS], 2016c; CMS, 2016a); minutely detailed descriptions of the formulas that determine those prices (see, for example, Department of Health and Human Services, 2015); and the methods used to measure and summarize those prices (CMS, Office of Enterprise Data and Analytics, 2017).
- 5. The prices paid by private health plans can be affected in various ways by Medicare's price-setting formulas. The most obvious and common examples are physician contracts that specify private prices as a multiple of the Medicare prices (Clemens and Gottlieb, 2017). Other examples include Medicare Advantage contracts in which hospital prices are determined, albeit indirectly, by Medicare fee-for-service prices (Berenson et al., 2015; Trish et al., 2017). Some private plans also use Medicare prices as the basis for setting payments for out-of-network care (FAIR Health, 2013). Also, some states have implemented, or are considering, capping payments for out-of-network care based, in part, on multiples of Medicare prices (Massachusetts Health Policy Commission, 2015; Mattke et al., 2016; Newman and Barrette, 2016).
- 6. A growing body of research reports private prices relative to Medicare prices, allowing benchmarking and comparisons with the findings from the current study (Ginsburg, 2010; White, 2012; Nguyen, Kronick, and Sheingold, 2013; Selden et al., 2015; Clemens and Gottlieb, 2017; Trish et al., 2017; Pelech, 2017).

How Does Medicare Calculate Prices Paid for Hospital Services?

For an overview of Medicare's payment formulas, see CMS (2015). For hospital services, Medicare uses different price-setting formulas, depending on the type of hospital and the type of service. The two most common types of hospitals are those paid under Medicare's inpatient prospective payment system (IPPS) hospitals and critical access hospitals (CAHs). To qualify as a CAH, a hospital must be very small and located in a rural area. Together, IPPS hospitals and CAHs compose *community hospitals*, which is the population of interest for this study.

At IPPS hospitals, Medicare prices for inpatient and outpatient services are set using this general formula:

*Medicare price = base rate * case-mix adjustment * hospital adjustment + outlier*

The base rate is a dollar amount specified in regulations—for example, the base rate for hospital outpatient services in 2016 was \$73.725. Case-mix adjustment is designed to account for the fact that services vary in the resource requirements—in the inpatient setting, Medicare uses the MS-DRGs, and in the outpatient setting, Medicare uses APCs. Hospital-specific adjustments account for local wages, the cost of doing business, and other hospital characteristics. Outlier payments are added in a small number of cases to lessen hospitals' financial losses from treating cases that are exceptionally costly.

CAHs are paid by Medicare for inpatient and outpatient services using cost-plus reimbursement:

Medicare price = *allowable costs* * 101%

A Numerical Example

Suppose Hospital A provided 50 inpatient hospital stays to enrollees in plans sponsored by employers that participated in the study. To calculate the relative price of those services, we follow these steps (see Table 2.1):

- 1. We sum the total allowed amount in the private claims data for those 50 stays (\$1.5 million).
- 2. We simulate the amount that Medicare would have paid for those 50 stays by applying, as precisely as possible, the payment formulas used in the Medicare fee-for-service program (\$750,000).
- 3. We calculate the ratio of the total actual allowed amount over the simulated amount calculated in step 2 (2.00).

		Note
Number of services (A)	50	
Total actual allowed amount (B)	\$1,500,000	
Case-mix (average MS-DRG weight) (C)	1.5	
Standardized units of service (D)	75	= A * C
Actual price (E)	\$20,000	= B / D
Simulated Medicare payment amount (F)	\$750,000	
Medicare price (G)	\$10,000	= F / D
Relative price (H)	2.00	= E / G

Table 2.1. Calculating Relative Prices: A Simplified Example

Calculating Relative Prices for Hospitals, Hospital Systems, and Types of Services

Table 2.1 illustrates the calculation of the relative price of inpatient care for a single hospital. Extending that concept, the overall relative price for a single hospital equals the total allowed amount (including inpatient and outpatient services) divided by the simulated Medicare payments for services provided by the hospital (including inpatient and outpatient services). The relative price of a hospital system or group of hospitals equals the sum of the allowed amounts for services provided by the group of hospitals divided by the simulated Medicare payments for those services. The same general approach is used to calculate relative prices for specific types of services (e.g., hospital outpatient emergency department visits and hospital inpatient stays for orthopedic procedures).

Limitations

This study has several limitations worth pointing out. The key limitation is that claims data were only available for enrollees in plans sponsored by the employers who chose to participate in the study. Although those employers are large and account for around 225,000 enrollees, the population included in the study only represents around 7 percent of the population in Indiana with employer-sponsored coverage, and the employee populations might not be representative of the overall market. Because claims data were only available for that population, prices could not be calculated or reported for smaller facilities. Nor could prices be compared among health plans or between self-funded plans and fully insured plans. The study design also excluded Medicaid plans and nongroup plans, which would be potentially of interest.

Another limitation arises from the fact that identifiers for the billing provider do not necessarily represent the facility that provided the service, and the claims data do not include

Medicare Provider Numbers (MPNs). It is possible that there are inaccuracies in the crosswalk from provider identifiers in the claims data to MPNs, as well as in the assignment of hospitals to systems. Although significant effort went into creating those crosswalks and ensuring their accuracy, some discrepancies may remain.

In some cases, providers submitted a claim that was subsequently reversed and then resubmitted and paid. We removed reversals from the analytic data set, which was straightforward because those claims are clearly designated as reversals, and they have negative charge amounts and allowed amounts. We also attempted to remove all claims that were subsequently reversed, by matching reversals with the original claim. Claims that were subsequently reversed might not have been removed in some cases, either because our matching algorithm failed to detect the subsequent reversal or because the reversal occurred after the claims data were extracted for this study.

The simulation of Medicare inpatient prices used Medicare's PC grouping software and the PC Pricer packages released by CMS. Those software packages are widely used and have, presumably, been thoroughly tested by CMS, although some errors may remain in those software packages. The simulation of Medicare outpatient prices used Medicare's PC grouping software, which may have also errors. Because no PC Pricers are available for outpatient services, we assigned Medicare prices using our own pricing algorithm. That pricing algorithm reflected, to the extent possible, the details of Medicare's payment formula, although it may exclude some minor adjustments.

Overall, Medicare prices provide a very useful benchmark, but they do have some drawbacks. For example, Medicare's case-mix adjustment weights are based on relative costs measured among Medicare beneficiaries, and those relative weights might not be appropriate for enrollees in employer-sponsored plans. Also, Medicare implements provider-level adjustments to payment rates that produce inappropriate comparisons. For example, MPN 150149 specializes in childbirths and, therefore, provides very few Medicare-covered services. That hospital, as a result of legislated adjustments, receives very large uncompensated care add-on payments from Medicare (\$40,000 to \$60,000 per stay), which, in turn, results in very low relative prices.

3. Findings

From July 2013 through June 2016, the employers participating in the study and their employees paid \$695 million in claims to community hospitals in Indiana. Of that, payments totaled \$336 million for more than 14,000 inpatient hospital stays (the mean allowed amount was \$23,400 per stay) and \$359 million for more than 275,000 hospital outpatient services (the mean allowed amount was \$1,300 per service). The simulated Medicare payments, for the same services provided by the same facilities, totaled \$255 million—\$155 million for inpatient hospital stays and \$100 million for hospital outpatient services. Therefore, the overall relative price was \$2.72 (\$695 million divided by \$255 million). Put another way, if the employers participating in the study had paid hospitals using Medicare's payment formulas, the total allowed amount over the 2013–2016 period would have been reduced by \$440 million.

Among the 120 hospitals that submitted at least one claim, fewer than half (56) were either independent or a member of a small (two- or three-hospital) system, and the rest (64) were members of the six large hospital systems. Although the large systems only account for half of the hospitals in the analysis, 78 percent of total paid claims went to those hospitals.

Large Hospital Systems Generally Are Paid Higher Prices

The relative prices of hospital care vary widely among groups of hospitals and hospital systems, from less than two times Medicare at the low end to more than three and a half times Medicare at the high end (see Figure 3.1). At the bottom of the price distribution are the independent CAHs and three small systems—Deaconess Health System (three hospitals), LifePoint (two hospitals), and Beacon (two hospitals). Although CAHs are, by definition, geographically isolated and have no nearby competitors, that lack of competition does not correspond to higher negotiated prices. The upper end of the price distribution is dominated by five large hospital systems, with Parkview Health standing out for having exceptionally high prices. Hospital systems and consolidation among hospitals have been cited as drivers of high and increasing prices (Gaynor and Town, 2013), and these findings are consistent with that argument.

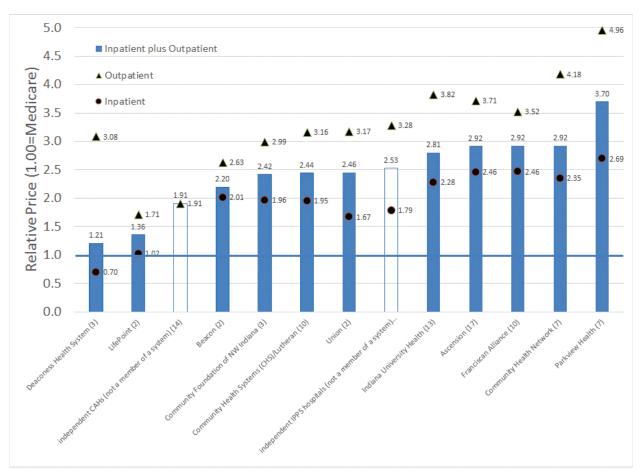


Figure 3.1. Relative Prices of Groups of Hospitals

NOTES: Hospital systems are shown as solid bars, independent hospitals are shown as hollow bars, and the number of hospitals in each group is shown in parentheses. This analysis is based on claims for services provided to enrollees in self-funded employer-sponsored plans by community hospitals in Indiana from July 2013 through June 2016. Relative prices equal the ratio of the amounts actually paid divided by the amounts that would have been paid—for the same services provided by the same hospitals—using Medicare's price-setting formulas.

Hospital Prices Vary Widely, Particularly for Outpatient Services

To illustrate the distribution of hospital prices in more detail, Figure 3.2 presents each hospital's prices for outpatient care, and Figure 3.3 presents each hospital's prices for inpatient care. In those figures, hospitals are organized on the horizontal axis using the same groupings as Figure 3.1, and each hospital's volume is represented by the size of its bubble. (Hospitals providing fewer than 11 outpatient services are not shown in Figure 3.2, and those providing fewer than 11 inpatient services are not shown in Figure 3.3.)

The overall relative price for hospital outpatient care is 3.58, meaning that employers participating in this study paid, on average, 358 percent of the Medicare rate for hospital outpatient services (see Figure 3.2). That price level is, on its face, shockingly high, which raises

two questions: (1) Is Indiana unusual in having very high relative prices for hospital outpatient care? (2) Are these findings believable? Unfortunately, there is no national benchmark against which to compare Indiana's hospital outpatient prices. However, the results of this study can be benchmarked against an earlier study that used similar methods and concepts but applied to claims data from an entirely different group of privately insured individuals (White, Bond, and Reschovsky, 2013). That earlier study measured metropolitan-level average hospital prices in areas with large concentrations of autoworkers and found that Kokomo and Indianapolis were the two highest-priced metropolitan areas, both having average relative prices for hospital outpatient care above 3.00. This suggests that these results of this study are correct, and that Indiana has unusually high outpatient hospital prices.

As expected, the outpatient prices paid to independent IPPS hospitals vary widely from hospital to hospital. But there is also significant variation in hospital outpatient prices within systems. Within three large systems—IU Health, Franciscan Alliance, and Ascension—the flagship facility (i.e., the largest bubble) is at or near the top of the price range within that system, while other, smaller hospitals within those systems are paid substantially lower outpatient prices.

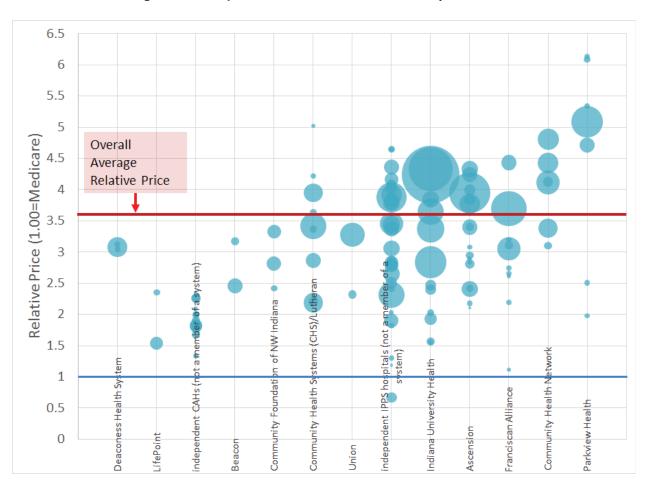


Figure 3.2. Hospital-Level Relative Prices for Outpatient Care

NOTES: Each bubble represents a hospital, and bubble size represents the volume of outpatient services provided by each hospital. This analysis is based on claims for services provided to enrollees in self-funded employersponsored plans by community hospitals in Indiana from July 2013 through June 2016. Relative prices equal the ratio of the amounts actually paid divided by the amounts that would have been paid—for the same services provided by the same hospital—using Medicare's price-setting formulas. Bubble size is proportional to simulated Medicare payments for each hospital for outpatient services, which reflects both the number of services and the intensity of those services. Hospitals are grouped on the horizontal axis based on their membership in a system, with groups ranked left to right in ascending order of overall average relative price.

The overall average relative price for inpatient hospital care was 2.17 (see Figure 3.3), which is substantially lower than the relative price for outpatient care but still remarkably high. To give some context for this finding, a recent study used national data on payments for inpatient hospital care and found that the overall average relative price was 1.75 in 2012 (Selden et al., 2015).

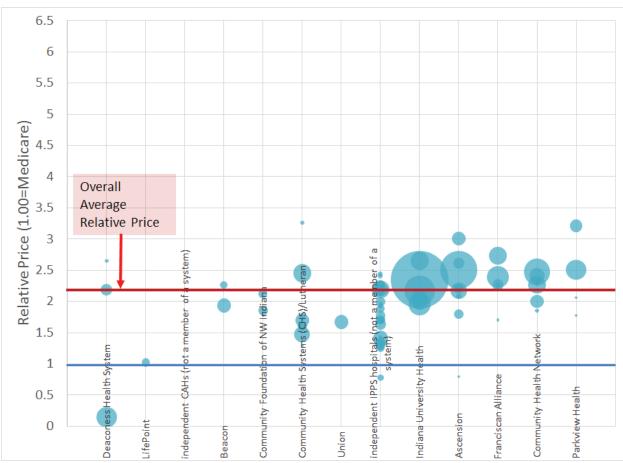


Figure 3.3. Hospital-Level Relative Prices for Inpatient Care

NOTES: Each bubble represents a hospital, and bubble size represents the volume of inpatient services provided by each hospital. This analysis is based on claims for services provided to enrollees in self-funded employer-sponsored plans by community hospitals in Indiana from July 2013 through June 2016. Relative prices equal the ratio of the amounts actually paid divided by the amounts that would have been paid—for the same services provided by the same hospital—using Medicare's price-setting formulas. Bubble size is proportional to simulated Medicare payments for each hospital for inpatient stays, which reflects both the number of stays and the intensity of those stays. Hospitals are grouped on the horizontal axis based on their membership in a system, with groups ranked left to right in ascending order of overall average relative price.

Relative Prices Have Been Increasing

The Selden et al. (2015) study, using national data, found that relative prices for inpatient care have risen steadily since 2000. One important question for employers in Indiana is whether the relative prices for hospital care have been rising or falling in recent years. To address this question, we measured relative prices (including inpatient and outpatient care) by calendar year, both overall (all hospitals) and separately for the six large systems. As shown in Figure 3.4, overall relative prices have been rising over the period of the study, with particularly steep increases for Parkview Health and Community Health Network. Only one system—Community Health Systems/Lutheran—had flat or declining relative prices.

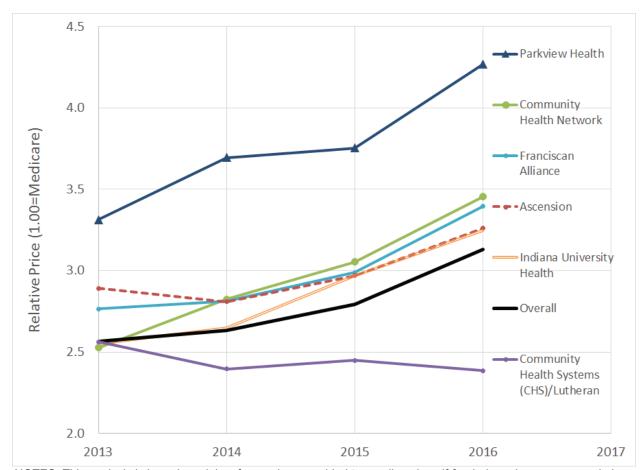


Figure 3.4. Trends in Relative Prices for Hospital Care, Overall and by Hospital System

NOTES: This analysis is based on claims for services provided to enrollees in self-funded employer-sponsored plans by community hospitals in Indiana from July 2013 through June 2016. Relative prices equal the ratio of the amounts actually paid divided by the amounts that would have been paid—for the same services provided by the same hospital—using Medicare's price-setting formulas.

Relative Prices by Type of Service

The appendix (Tables A.2 and A.3) provides detailed data on relative prices for selected types of services, overall (including all hospitals) and hospital by hospital. Although relative prices for outpatient services vary widely from hospital to hospital, within a given hospital, they are generally similar across different types of services (see Table A.2). For inpatient services, overall relative prices tend to be higher for circulatory conditions and lower for childbirth and substance abuse and mental health conditions (see Table A.3).

4. Discussion

Nationwide, private health plans typically pay hospitals prices that are higher than what Medicare pays. Recent estimates suggest that private prices are typically around twice those of Medicare (Cooper et al., 2015; Selden et al., 2015), with a larger price gap for outpatient services and a smaller gap for inpatient services. In Indiana, the gap between private hospital prices and Medicare prices is unusually large—closer to three to one than two to one—which underscores the need to understand and address that gap.

When analysts discuss the large gaps between private prices and Medicare prices, two starkly divergent interpretations emerge.

- One interpretation (the *cost shifting* story) is that Medicare severely underpays hospitals. Because of those underpayments, hospitals are compelled to charge high prices to their privately insured patients merely to stay afloat (Dobson, DaVanzo, and Sen, 2006).
- The other interpretation (the *leverage* story) is that hospitals, especially "must-have" hospitals, have used their negotiating leverage to extract unreasonable price concessions from health plans. Those increasing prices, in turn, allow hospitals' costs to increase, which makes Medicare prices look woefully inadequate by comparison (Stensland, Gaumer, and Miller, 2010). Supporting this view, recent evidence suggests that Medicare price cuts do not lead to higher private prices and, instead, actually lower private prices (White, 2013).

From an employer's perspective, the competing cost-shifting and leverage stories are abstract—the more concrete question is whether it is reasonable and necessary to be paying three times what Medicare does. In the case of the Parkview Health system, there may be justifications for the unusually high prices, such as offering specialized services or a reputation for higher-quality care. But high prices do not appear necessary for the system merely to stay afloat financially—the flagship hospital in the Parkview system (MPN 150021) had an operating margin of 16.4 percent in 2015, which is remarkably high among community hospitals.²

What Strategies Can Employers Use to Rationalize Hospital Prices?

The prices that large employers are paying for hospital care in Indiana are high relative to national norms, highly variable across hospitals and systems, and increasing over time relative to Medicare prices. Together, these findings suggest that employers have opportunities to redesign their health plans to bring hospital prices more in line with national norms and to better align prices with the quality and value of the care provided.

² Hospital operating margins are from the RAND Hospital Research Files—specifically,

[&]quot;rand_hcris_cy_hosp_a_2017_06_30.csv."

Over the very near term, large employers have few, if any, options to bring down unreasonably high hospital prices that have been negotiated on their behalf. Employers' contracts with health plans have been set in place, and those health plans have entered into multiyear contracts with their in-network hospitals.

Over the medium term—two to five years—large employers can use price data to gradually rein in unreasonably high prices. The results in this report show that hospital outpatient services account for the majority of plan spending on hospital care, and the prices for outpatient services are very high relative to Medicare and highly variable. Therefore, hospital outpatient services should be the main focus of efforts over the medium term to rein in prices.

There are two general approaches that employers can take over the medium term to address unreasonably high hospital prices.

- The first medium-term approach is to *change the terms of the contracts* between the health plan and hospitals.
 - One common way to contract with hospitals is to use *discounted charges*, in which allowed amounts are set as a percentage of billed charges. Discounted-charge contracts are relatively simple and have historically been common in the hospital industry, especially for outpatient services (Small, 2002). But discounted-charge contracts have severe downsides—they leave employers and their plans vulnerable to aggressive inflation of charges by hospitals, they lack any mechanism for measuring the quantities and intensity of services provided, and they make it difficult for health plans and employers to track price increases over time and compare prices across hospitals.
 - An alternative, and better, way to contract with hospitals is to specify allowed amounts based on a case-mix adjustment system with a hospital-specific negotiated base rate. Specifying contracts as a multiple of Medicare would be a straightforward and transparent way to achieve this type of price-setting and would surmount the problems with discounted-charge contracts without requiring any proprietary casemix adjustors. Other case-mix adjustors are also available, such as 3M's APR-DRGs for inpatient services and Enhanced Ambulatory Patient Grouping (EAPG) for outpatient services, but those adjustors are proprietary and would require licensing fees.
- The second medium-term approach is to *move patient volume* away from high-priced hospitals and hospital systems. The results in this report identify those high-priced hospitals and systems and set the stage for employers to steer their enrollees toward lower-priced providers. Moving patient volume can be accomplished through the relatively blunt approach of narrowing hospital networks or by applying differential cost-sharing based on hospital tiers (Ginsburg and Pawlson, 2014). One form of differential cost-sharing is reference-pricing, in which patients who receive services from high-priced hospitals may be liable for allowed amounts above a preestablished limit (Robinson, Brown, and Whaley, 2017). Employers and plans can also use a credible threat to move patient volume to support renegotiations of contract terms.

These medium-term approaches rely on employers and health plans having some negotiating leverage. But employers must be willing to use what leverage they have, and leverage may be lacking in negotiations with geographically dominant "must-have" systems, such as Parkview Health. In addition, using leverage can come at a cost—enrollees inevitably chafe at restrictions on their choice of providers, and those restrictions may be inappropriate or impossible for patients needing emergency care or highly specialized services. Employers can increase employees' acceptance of steering strategies by communicating clearly both the rationale and the mechanism, as well as reinforcing the fact that savings on health benefits can benefit workers by leading to higher wages (Lechner, Gourevitch, and Ginsburg, 2013).

Over the longer term, employers can pursue strategies that would change the balance of negotiating leverage in their favor without necessarily restricting networks. Employers can support efforts to promote competition in health care markets by opposing consolidation among existing providers and promoting entry of new, lower-priced providers.

One fruitful avenue is establishing limits on total payments for out-of-network care (Murray, 2013). For such limits to be effective, they have to apply to total payments, including from the plan and the patient—if the limits are applied just to the patient cost-sharing for out-of-network care, the effect can be to inadvertently strengthen hospitals' negotiating leverage and drive up prices. Total payments for out-of-network care are limited in private Medicare Advantage plans, and those limits have been shown to subtly, but dramatically, reshape negotiations between plans and hospitals and drive down negotiated prices (Berenson et al., 2015; Trish et al., 2017).

Another longer-term approach is to advocate for, or directly initiate, the creation and maintenance of a multipayer claims database (MPCD). Self-funded employers can create their own MPCD, although that approach is limited by its reliance on voluntary participation. Some states, such as Massachusetts and New Hampshire, have established all-payer claims databases (APCDs) that can be used to generate price reports, including all private claims rather than just a subset of claims from unusually engaged employers. By itself, increased price transparency will not bring down prices, but it can enable employers and other purchasers to change their health benefit designs in a way that reduces costs. Compulsory state-based APCDs have encountered opposition from health plans and providers, and the U.S. Supreme Court's 2016 decision in the Gobeille case undermines states' ability to compel self-funded plans to provide claims data (Gobeille v. Liberty Mutual Insurance Company, 577 U.S. ___ [2016]).

The excise tax on high-cost employer-sponsored health coverage (the "Cadillac tax") was enacted as part of the Affordable Care Act and was initially scheduled to go into effect in 2018. But its implementation has been delayed to 2020, and current proposals in Congress would delay it even further. The Cadillac tax is deeply unpopular with employers, who generally view it as adding insult to the injury of high benefit costs. But the Cadillac tax offers an opportunity for employers to demand price concessions from providers in their health plans and conveys to employees the urgent necessity to reduce health benefit costs. The Cadillac tax sets an effective ceiling on the cost of employer health benefits—employers could legitimately demand that their provider contracts be renegotiated to remain under that ceiling. The Cadillac tax could also be reformulated so that, instead of being triggered by benefit costs per enrollee, it could be triggered based on prices paid to providers. For example, the Cadillac tax could apply to any benefits paid at prices exceeding 300 percent of Medicare—that type of limit would avoid unduly disadvantaging older and sicker workforces and would set an effective ceiling on the negotiated prices that employers could accept.

In Indiana, as in the rest of the country, the health care market proceeds based on long-term, deeply entwined relationships among employers, employees, health plans, and providers. In that context, we cannot reasonably expect an invisible hand to drive atomistic competitors to maximum productive efficiency and the lowest-possible prices. The price-setting process, instead, involves ongoing discussions among the key players. This price report cannot magically solve the price problem in Indiana, but it can foster a more open process that focuses on fairness, sustainability, and collaboration.

Detailed Methodology

Obtaining and Preprocessing the Claims Data

RAND first entered into a memorandum of understanding with EFI, describing the goals of the project and the roles played by each organization. RAND then entered into a business associate agreement and a data use agreement with the health plan administrator, describing the data security protocols and restricting the data to be used only for this project. The data security protocols and analytic plan were approved by RAND's Human Subjects Protection Committee.

Each participating employer instructed its health plan administrator to transmit paid claims data to RAND, based on these criteria:

- only enrollees in a plan sponsored by one of the participating employers
- facility claims only (no claims for professional services and no pharmacy claims)
- services provided from July 2013 through June 2016
- only claims from commercial plans (this excludes enrollees in Medicare Advantage plans and Medicaid managed care organizations)
- the employer-sponsored plan includes medical coverage (this excludes enrollees in dental-only plans or vision-only plans)
- the employer-sponsored plan is the enrollee's primary payer (this excludes claims paid as secondary payer—e.g., through a Medicare supplemental plan or through coordination of benefits with another commercial plan).

The claims data that were transmitted to RAND excluded any direct patient identifiers (e.g., name or member number), and they were transmitted by secure file transfer protocol (SFTP). Before analyzing the data, RAND preprocessed the data in a "cold room," using an air-gapped computer to create a fully deidentified data set. Deidentification required stripping out any data elements that could be used indirectly to identify patients while retaining the minimum data necessary for the pricing analysis. For example, before leaving the cold room, date of birth was used to calculate age (in years) at the time of service, and age was kept while date of birth was stripped out. Similarly, the "from" and "to" dates on the claim were used to identify the month in which a service was provided and the length of the service in days. The month of the service and length of service were kept while the specific dates of service were stripped out. After preprocessing, the claims data were transferred to a secure, limited-access server where the main analysis was performed.

Measuring Relative Prices for Hospital Inpatient and Outpatient Services

Subsetting to Hospital Inpatient and Outpatient Services

To measure hospital prices, we had to identify claims for hospital services, as opposed to services provided by other types of facilities (e.g., skilled nursing facilities). To select hospital inpatient and outpatient services, we subsetted our data to include only claims with the place of service reported as hospital inpatient (type-of-bill code equal to 11X, where *X* is any value) or hospital outpatient (type-of-bill code equal to 13X). We further subsetted our claims data to include only claims submitted by a provider located in Indiana.

Subsetting to Community Hospitals and Assigning MPNs

We excluded from the analysis hospitals that are not Medicare-certified, and we excluded hospitals other than IPPS or CAHs and subunits within community hospitals. Excluded facilities include cancer hospitals, children's hospitals, long-term care hospitals, and inpatient rehabilitation facilities. We also excluded from the analysis federal hospitals operated by the Veterans Health Administration.

To identify the universe of community hospitals in Indiana, we used the December 2016 Medicare Provider of Services (POS) file, which includes MPNs and information about provider name, location, and type (CMS, 2017). We selected all providers in the POS that were hospitals (provider category code equals 01), that were located in Indiana (state abbreviation equals IN), and that were either an IPPS hospital (provider category subtype code equals 01) or a CAH (provider category subtype code equals 11).

The private claims data do not include MPNs, so we assigned them. Using all hospital inpatient and outpatient claims, we created a frequency table containing every combination of provider name, city and street address, tax identification number, and place of service (i.e., the middle two digits of the type-of-bill code). We then sorted our frequency table by provider name and sorted our list of community hospitals from the Medicare POS by name. Then we manually assigned MPNs based on clear matches on name, address, and place of service. In some cases, the same hospital appears twice in the POS, once as an IPPS hospital and a second time after transitioning to CAH status. In all of those cases, the hospital transitioned before the study period, so we assigned the CAH MPN. We were able to assign MPNs to 160 hospitals in the private claims data, together accounting for 98 percent of the total allowed amounts for inpatient and outpatient services provided by hospitals in Indiana. We then subsetted those claims data to include only MPNs of community hospitals in Indiana (n = 120).

We assigned MPNs to hospital systems based on the Indiana Hospital Association's publicfacing website (Indiana Hospital Association, undated), with some updates and corrections based on personal communications. A small number of hospitals are independently owned but are managed by a hospital system (MPNs 150061 and 151320)—we treated those hospitals as part of the system. Two hospitals are members of systems (MPN 150046 is a member of the Hospital Corporation of America, and MPN 151327 is a member of Quorum) but are the only hospitals in our claims data that are members of those systems; therefore, those hospitals were grouped with the independent hospitals. MPN 153028 is a joint venture between Ascension and IU Health—in this analysis, it is grouped with Ascension.

Simulating Medicare Payment Amounts for Inpatient Services

The private claims data were reported at the line-item level, whereas Medicare inpatient payments are determined based on services provided over the course of an inpatient stay. Therefore, we first collapsed our private claims data to the stay level, summing charges and allowed amounts across line items and maintaining a list of all diagnoses and treatment codes over the course of the stay.

For stays occurring at IPPS hospitals, we fed our stay-level claims data through the MS-DRG grouper software in batch mode (CMS, 2016d). The grouper software assigns an MS-DRG based on diagnoses and procedures reported on the claims data, automatically applying the appropriate grouper version based on the federal fiscal year of the date of discharge (v30.0 for discharges from October 2012 through September 2013, v31.0 for discharges from October 2013 through September 2014, and so on). The grouper software is compatible with both ICD-9 and ICD-10 (International Classification of Diseases) codes, and it successfully assigned MS-DRGs to almost all inpatient stays at IPPS hospitals. Stays that could not be assigned a valid MS-DRG were dropped from the analysis.

We then used the PC Pricer software packages distributed by CMS to calculate the Medicare payment amount for each inpatient stay at an IPPS hospital. The PC Pricers take as their inputs the MPN, MS-DRG, date of discharge, length of stay, discharge destination, and billed charges. Based on those data elements, the PC Pricer reports the Medicare payment amount, including adjustments based on the MS-DRG relative weights, hospital-specific adjustments, and any outlier payments. Because we had a very large number of inpatient claims, we used a macro recorder (Macro Scheduler) to automate the entry of data into the PC Pricers. The PC Pricers produce a text file reporting results for each inpatient stay, and we used SAS to extract payment data from those text files.

CAHs are paid by Medicare for inpatient and outpatient services based on their reasonable costs plus 1 percent (CMS, 2016e). Therefore, for inpatient stays occurring at CAHs, we simulated Medicare payment amounts as billed charges multiplied by the hospital's Medicare inpatient cost-to-charge ratio multiplied by 1.01. The Medicare inpatient cost-to-charge ratio for each CAH and federal fiscal year was calculated using RAND Hospital Research Files, which are based on data reported in the Healthcare Cost Report Information System (HCRIS), form 2552-10.

Simulating Medicare Payment Amounts for Outpatient Services

To simulate Medicare payments for outpatient services provided at IPPS hospitals, we first fed our line-item-level claims data through the Integrated Outpatient Code Editor (IOCE) software in batch mode (3M Health Information Systems, 2015). The IOCE determines, for each line item, whether the service is eligible for payment under the Medicare outpatient prospective payment system (OPPS) and, if so, the appropriate APC. Under Medicare's OPPS, line items may fall into one of three categories:

- 1. assigned an APC and eligible for payment by Medicare
- 2. eligible for payment by Medicare but packaged, meaning that the line item is not paid separately and is instead subsumed within a larger service with its own APC (CMS, 2016b)
- 3. ineligible for payment under the Medicare OPPS.

We define an outpatient service as a line item that is assigned an APC. In some cases, a single patient visit can generate payment for several separate services.

We excluded from the analysis any line items that were flagged by the IOCE as ineligible for payment under the Medicare OPPS (such as outpatient therapy services, which are paid by Medicare under a fee schedule), nonallowed, or paid under special pass-through provisions. After excluding those line items, we identified all line items with valid APCs and assigned Medicare payment amounts to those line items, taking into account the relative weight of the APC, geographic wage adjustments, discounting for multiple procedures, and outlier payments. Payments for services provided by sole community hospitals (a type of IPPS hospital) were increased by 7.1 percent. Outpatient claims without any valid APCs were dropped from the analysis.

Some outpatient claims have two or more APCs, in which case we calculated the share of Medicare payments generated by each APC within a claim. We then summed the allowed amounts in the private claims data for each claim and allocated those allowed amounts to line items with APCs—that approach allowed us to calculate relative prices for different types of outpatient services.

To simulate Medicare payments for outpatient services provided by CAHs, we multiplied the billed charges for each line item by the Medicare outpatient cost-to-charge ratio and then multiplied the result by 1.01.

Appendix Tables

Table A.1. Community Hospitals in Indiana, Number of Services, and Allowed Amounts

Medicare Provider Number	Hospital Name	Critical Access Hospital? (Yes/No)	System (Blank = Independent)	Number of Inpatient Stays	Number of Outpatient Services	Allowed Amount, Inpatient Services (\$ Millions)	Allowed Amount, Outpatient Services (\$ Millions)	Allowed Amount, Inpatient and Outpatient Services (\$ Millions)
150001	Johnson Memorial Hospital	Ν		33	1,561	0.4	1.9	2.3
150002	Methodist Hospitals Inc.	N		113	1,931	1.7	1.4	3.1
150004	Franciscan Health Hammond	N	Franciscan Alliance		230		0.2	0.2
150005	Hendricks Regional Health	N		186	6,142	2.2	6.3	8.5
150006	La Porte Hospital	N	Community Health Systems/Lutheran		133		0.2	0.2
150007	Community Howard Regional Health Inc.	N	Community Health Network	56	1,436	0.8	1.5	2.3
150008	St. Catherine Hospital Inc.	Ν	Community Foundation of NW Indiana	13	315	0.1	0.3	0.4
150009	Clark Memorial Hospital	N	LifePoint	98	1,400	0.8	0.9	1.7
150010	St. Vincent Kokomo	N	Ascension	130	2,176	2.2	2.9	5.1
150011	Marion General Hospital	N		97	3,077	0.8	3.7	4.5
150015	Franciscan Health Michigan City	N	Franciscan Alliance		292		0.3	0.3
150017	Lutheran Hospital of Indiana	N	Community Health Systems/Lutheran	339	5,920	8.3	7.9	16.2
150018	Elkhart General Hospital	N	Beacon	49	814	1.3	0.8	2.1
150021	Parkview Regional Medical Center	N	Parkview Health	493	10,597	10.3	17.4	27.7
150022	Franciscan Health Crawfordsville	N	Franciscan Alliance	12	929	0.3	0.7	1.0

Medicare Provider Number	Hospital Name	Critical Access Hospital? (Yes/No)	System (Blank = Independent)	Number of Inpatient Stays	Number of Outpatient Services	Allowed Amount, Inpatient Services (\$ Millions)	Allowed Amount, Outpatient Services (\$ Millions)	Allowed Amount, Inpatient and Outpatient Services (\$ Millions)
150023	Union Hospital Inc.	Ν	Union	272	5,383	3.5	6.7	10.2
150024	Eskenazi Health	Ν		55	1,389	1.6	1.0	2.6
150026	Goshen General Hospital	Ν		22	600	0.6	0.8	1.4
150030	Henry County Memorial Hospital	Ν		78	2,893	1.1	2.7	3.8
150034	St. Mary Medical Center Inc.	N	Community Foundation of NW Indiana	110	2,263	1.9	2.1	4.0
150035	Porter Regional Hospital	N	Community Health Systems/Lutheran	210	3,636	3.3	2.9	6.2
150037	Hancock Regional Hospital	N		99	3,663	1.3	3.2	4.5
150038	Indiana University Health Morgan Hospital Inc.	Ν	Indiana University Health		709		0.5	0.5
150042	Good Samaritan Hospital	N		64	1,963	0.8	2.4	3.2
150044	Baptist Health Floyd	N		109	2,102	0.9	1.4	2.3
150045	Dekalb Health	N		21	484	0.2	0.3	0.5
150046	Terre Haute Regional Hospital	N		108	1,479	1.8	2.7	4.5
150047	St. Joseph Hospital	N	Community Health Systems/Lutheran	35	614	0.5	0.5	1.0
150048	Reid Health	N		188	3,835	4.3	6.0	10.3
150051	Indiana University Health Bloomington Hospital	N	Indiana University Health	1,321	18,877	20.6	28.7	49.3
150056	Indiana University Health	N	Indiana University Health	1,811	36,359	81.2	49.4	130.6
150057	Franciscan Health Mooresville	N	Franciscan Alliance	107	3,207	3.2	3.8	7.0
150058	Memorial Hospital of South Bend	N	Beacon	211	1,964	3.8	2.0	5.8
150059	Riverview Health	N		80	1,623	1.1	1.7	2.8
150061	Daviess Community Hospital	N	Ascension	14	386	0.1	0.2	0.3

Medicare Provider Number	Hospital Name	Critical Access Hospital? (Yes/No)	System (Blank = Independent)	Number of Inpatient Stays	Number of Outpatient Services	Allowed Amount, Inpatient Services (\$ Millions)	Allowed Amount, Outpatient Services (\$ Millions)	Allowed Amount, Inpatient and Outpatient Services (\$ Millions)
150064	Fayette Regional Health System	Ν		12	304	0.1	0.4	0.5
150065	Schneck Medical Center	N		118	4,259	1.9	3.5	5.4
150069	King's Daughters' Health	N		97	2,581	1.5	2.8	4.3
150072	Memorial Hospital	N		60	2,277	0.3	1.9	2.2
150074	Community Hospital East	N	Community Health Network	294	5,578	6.9	7.5	14.4
150075	Bluffton Regional Medical Center	N	Community Health Systems/Lutheran	13	496	0.1	0.6	0.7
150082	Deaconess Hospital Inc.	N	Deaconess Health System	158	3,281	3.1	4.1	7.2
150084	St. Vincent Hospital and Health Services	N	Ascension	1115	10,523	35.9	22.9	58.8
150086	Dearborn County Hospital	N		25	416	0.2	0.2	0.4
150088	St. Vincent Anderson Regional Hospital Inc.	N	Ascension	120	3,547	1.7	5.4	7.1
150089	Indiana University Health Ball Memorial Hospital	N	Indiana University Health	209	3,784	4	3.8	7.8
150090	Franciscan Health Dyer	N	Franciscan Alliance	15	315	0.2	0.3	0.5
150091	Parkview Huntington Hospital	N	Parkview Health		401		0.5	0.5
150097	Major Hospital	N		39	1,771	0.6	1.6	2.2
150100	St. Mary's Medical Center	N	Ascension	117	1,496	3.1	3.5	6.6
150101	Parkview Whitley Hospital	N	Parkview Health	12	796	0.1	1.0	1.1
150102	Starke Hospital	N	Community Health Systems/Lutheran					
150104	Witham Health Services	N		32	1,373	0.4	1.3	1.7

Medicare Provider Number	Hospital Name	Critical Access Hospital? (Yes/No)	System (Blank = Independent)	Number of Inpatient Stays	Number of Outpatient Services	Allowed Amount, Inpatient Services (\$ Millions)	Allowed Amount, Outpatient Services (\$ Millions)	Allowed Amount, Inpatient and Outpatient Services (\$ Millions)
150109	Franciscan Health Lafayette	Ν	Franciscan Alliance	270	4,888	8.6	5.7	14.3
150112	Columbus Regional Hospital	N		330	9,680	6.9	12.1	19.0
150113	Community Hospital of Anderson and Madison County	N	Community Health Network	211	4,096	3.6	4.3	7.9
150115	Memorial Hospital and Health Care Center	N		35	1,267	0.4	1.2	1.6
150125	Community Hospital	N	Community Foundation of NW Indiana	95	1,676	1.7	2.1	3.8
150128	Community Hospital South	N	Community Health Network	297	4,287	5.6	6.8	12.4
150129	Community Westview Hospital	N	Community Health Network	15	653	0.4	0.7	1.1
150133	Kosciusko Community Hospital	N	Community Health Systems/Lutheran	21	491	0.6	0.5	1.1
150146	Parkview Noble Hospital	N	Parkview Health	12	564	0.2	0.7	0.9
150149	Women's Hospital	N	Deaconess Health System	87	356	0.6	0.4	1.0
150150	Dupont Hospital LLC	N	Community Health Systems/Lutheran	329	3,140	3.8	4.8	8.6
150153	St. Vincent Heart Center of Indiana LLC	N	Ascension	111	437	6	1.5	7.5
150154	Indiana Heart Hospital	N	Community Health Network					
150157	St. Vincent Carmel Hospital Inc.	N	Ascension	331	1,887	5.8	3.8	9.6
150158	IU Health West Hospital	N	Indiana University Health	351	7,463	5	8.6	13.6
150160	Orthoindy Hospital	N		125	2,004	3.4	5.5	8.9

Medicare Provider Number	Hospital Name	Critical Access Hospital? (Yes/No)	System (Blank = Independent)	Number of Inpatient Stays	Number of Outpatient Services	Allowed Amount, Inpatient Services (\$ Millions)	Allowed Amount, Outpatient Services (\$ Millions)	Allowed Amount, Inpatient and Outpatient Services (\$ Millions)
150161	Indiana University Health North Hospital	Ν	Indiana University Health	819	6,546	10.3	8.9	19.2
150162	Franciscan Health Indianapolis	N	Franciscan Alliance	532	11,342	12.1	16.1	28.2
150164	Monroe Hospital	N		74	2,619	1.5	2.6	4.1
150165	Franciscan Health Munster	N	Franciscan Alliance		172		0.3	0.3
150166	Pinnacle Hospital	N		13	119	1.1	0.2	1.3
150167	Orthopaedic Hospital at Parkview North LLC	N	Parkview Health	88	582	5.4	3.7	9.1
150168	The Orthopaedic Hospital of Lutheran Health Network	N	Community Health Systems/Lutheran	51	505	1.4	2.3	3.7
150169	Community Hospital North	N	Community Health Network	701	6,091	18.2	8.0	26.2
150172	Physicians' Medical Center LLC	N			380		0.3	0.3
150173	Indiana University Health Arnett Hospital	N	Indiana University Health	248	7,213	8.8	10.2	19.0
150175	The Heart Hospital at Deaconess Gateway LLC	N	Deaconess Health System	14	164	0.4	0.3	0.7
150176	Kentuckiana Medical Center LLC	N			66		0.0	0.0
150177	Unity Medical and Surgical Hospital	N			72		0.1	0.1
150179	Fairbanks	N		104	113	0.5	0.3	0.8
150181	St. Vincent Fishers Hospital Inc.	N	Ascension	56	1,218	0.7	1.8	2.5
150182	Franciscan Health Carmel	N	Franciscan Alliance	15	116	0.7	0.3	1.0
151300	Community Hospital of Bremen Inc.	Y			137		0.1	0.1
151301	St. Vincent Randolph Hospital Inc.	Y	Ascension		569		0.6	0.6

Medicare Provider Number	Hospital Name	Critical Access Hospital? (Yes/No)	System (Blank = Independent)	Number of Inpatient Stays	Number of Outpatient Services	Allowed Amount, Inpatient Services (\$ Millions)	Allowed Amount, Outpatient Services (\$ Millions)	Allowed Amount, Inpatient and Outpatient Services (\$ Millions)
151302	Indiana University Health Blackford Hospital	Y	Indiana University Health		326		0.2	0.2
151303	St. Vincent Jennings Hospital Inc.	Y	Ascension		566		0.8	0.8
151304	Rush Memorial Hospital	Y			309		0.3	0.3
151305	Pulaski Memorial Hospital	Y			226		0.2	0.2
151306	Indiana University Health Paoli Hospital	Y	Indiana University Health		414		0.3	0.3
151307	St. Vincent Williamsport Hospital Inc.	Y	Ascension		226		0.3	0.3
151308	St. Vincent Mercy Hospital	Y	Ascension		1604		2.2	2.2
151309	St. Vincent Clay Hospital Inc.	Y	Ascension		732		0.9	0.9
151310	Parkview Wabash Hospital Inc.	Y	Parkview Health		160		0.2	0.2
151311	Indiana University Health Tipton Hospital Inc.	Y	Indiana University Health		562		1.0	1.0
151312	Indiana University Health White Memorial Hospital	Y	Indiana University Health		670		0.4	0.4
151313	Woodlawn Hospital	Y			395		0.5	0.5
151314	St. Vincent Salem Hospital Inc.	Y	Ascension		243		0.3	0.3
151315	Cameron Memorial Community Hospital Inc.	Y			445		0.4	0.4
151316	St. Vincent Frankfort Hospital Inc.	Y	Ascension		180		0.2	0.2
151317	Greene County General Hospital	Y			851		0.5	0.5
151318	Dukes Memorial Hospital	Y	Community Health Systems/Lutheran		995		0.8	0.8
151319	Gibson General Hospital	Y			176		0.1	0.1

Medicare Provider Number	Hospital Name	Critical Access Hospital? (Yes/No)	System (Blank = Independent)	Number of Inpatient Stays	Number of Outpatient Services	Allowed Amount, Inpatient Services (\$ Millions)	Allowed Amount, Outpatient Services (\$ Millions)	Allowed Amount, Inpatient and Outpatient Services (\$ Millions)
151320	Jay County Hospital	Y	Indiana University Health		1,484		1.0	1.0
151322	Perry County Memorial Hospital	Y			637		0.4	0.4
151323	Parkview Lagrange Hospital	Y	Parkview Health		217		0.3	0.3
151324	Franciscan Health Rensselaer Inc.	Y	Franciscan Alliance		101		0.0	0.0
151325	St. Mary's Warrick Hospital Inc.	Y	Ascension		66		0.1	0.1
151326	Union Hospital Clinton	Y	Union		716		0.6	0.6
151327	Sullivan County Community Hospital	Y			1,794		1.0	1.0
151328	Indiana University Health Bedford Hospital	Y	Indiana University Health		1,226		1.1	1.1
151329	Margaret Mary Health	Y			992		0.7	0.7
151330	Adams Memorial Hospital	Y			722		0.4	0.4
151331	Harrison County Hospital	Y			388		0.2	0.2
151332	Decatur County Memorial Hospital	Y			474		0.3	0.3
151333	Putnam County Hospital	Y			1,477		0.9	0.9
151334	Scott Memorial Hospital	Y	LifePoint		538		0.3	0.3
151335	St. Vincent Dunn Hospital Inc.	Y	Ascension		439		0.5	0.5

NOTES: Hospitals are included in this table if they are community hospitals (see main text for a definition) and if they submitted one or more claims paid by employers participating in this study. *Allowed amount* includes amounts paid by the health plan and cost-sharing paid by the enrollee and is rounded to the nearest \$100,000 (hospitals with allowed amounts less than \$50,000 are reported as 0.0). The number of services and the allowed amounts are suppressed for a hospital if there were fewer than 11 claims.

Medicare Provider Number	Hospital Name	All Out Serv		Depar	gency tment sits		aneous onary ontions	Endo	scopy		oscopic gery	CT/	MRI
		# of services	relative price	# of services	relative price	# of services	relative price	# of services	relative price	# of services	relative price	# of services	relative price
All		275,119	3.58	47,157	3.50	950	4.24	9,001	3.33	2,202	3.63	28,220	3.94
150001	Johnson Memorial Hospital	1,561	4.03	284	2.15			50	4.35	11	3.06	149	5.05
150002	Methodist Hospitals Inc.	1,931	2.79	431	2.66			111	2.33			167	3.39
150004	Franciscan Health Hammond	230	2.61	43	2.91								
150005	Hendricks Regional Health	6,142	3.45	855	3.47	16	4.00	346	2.82	55	2.76	523	4.36
150006	La Porte Hospital	133	5.02	13	3.43							12	5.39
150007	Community Howard Regional Health Inc.	1,436	4.12	318	4.26			25	3.11			182	3.33
150008	St. Catherine Hospital Inc.	315	2.42	63	2.84							22	2.25
150009	Clark Memorial Hospital	1,400	1.54	219	2.06			36	1.19	21	0.82	171	1.94
150010	St. Vincent Kokomo	2,176	3.40	494	4.26			110	3.28	21	3.61	238	3.25
150011	Marion General Hospital	3,077	3.79	593	3.79			98	4.15	13	3.82	381	3.95
150015	Franciscan Health Michigan City	292	2.74	38	3.34			28	2.87			16	4.49
150017	Lutheran Hospital of Indiana	5,920	3.41	917	3.55	27	3.57	592	1.97	58	3.40	632	3.83
150018	Elkhart General Hospital	814	3.17	141	2.00			19	3.14			84	3.42
150021	Parkview Regional Medical Center	10,597	5.09	1,765	4.63	34	5.25	571	4.71	114	4.66	909	7.25
150022	Franciscan Health Crawfordsville	929	3.10	185	3.19			25	2.05			89	4.27
150023	Union Hospital Inc.	5,383	3.28	724	4.05	64	2.15	200	2.86	57	2.72	588	4.48
150024	Eskenazi Health	1,389	2.86	275	2.68			29	2.68			93	4.61
150026	Goshen General Hospital	600	4.65	73	4.05			15	3.10			55	5.43

Table A.2. Private Prices for Outpatient Hospital Care in Indiana, Relative to Medicare (Medicare = 1.00)

Medicare Provider Number	Hospital Name	All Out Serv		Depar	gency rtment sits	Coro	aneous onary entions	Endo	scopy		oscopic gery	CT/	MRI
		# of services	relative price	# of services	relative price	# of services	relative price	# of services	relative price	# of services	relative price	# of services	relative price
All		275,119	3.58	47,157	3.50	950	4.24	9,001	3.33	2,202	3.63	28,220	3.94
150030	Henry County Memorial Hospital	2,893	3.06	568	2.47			82	3.15	19	2.92	244	5.08
150034	St. Mary Medical Center Inc.	2,263	2.81	304	2.79	15	2.77	60	3.97	24	3.06	225	2.08
150035	Porter Regional Hospital	3,636	2.19	757	2.41	28	2.47	127	1.03	27	2.92	235	3.91
150037	Hancock Regional Hospital	3,663	4.36	581	4.49			56	3.16	13	3.41	421	4.74
150038	Indiana University Health Morgan Hospital Inc.	709	3.79	151	3.04			23	5.15			59	5.63
150042	Good Samaritan Hospital	1,963	3.78	473	3.62			68	2.51			188	6.00
150044	Baptist Health Floyd	2,102	1.90	307	2.58			34	1.14	13	1.01	160	2.67
150045	Dekalb Health	484	2.41	113	2.65			23	2.15			66	3.26
150046	Terre Haute Regional Hospital	1,479	4.17	265	4.75			143	4.17	13	3.77	173	5.72
150047	St. Joseph Hospital	614	3.64	107	3.25			22	2.43			60	4.61
150048	Reid Health	3,835	3.92	719	4.08	16	4.18	200	3.51	31	3.32	403	7.27
150051	Indiana University Health Bloomington Hospital	18,877	4.33	3,630	3.83	64	4.89	338	4.09	239	4.91	1,426	5.14
150056	Indiana University Health	36,359	4.24	3,534	2.69	149	5.92	283	2.62	130	3.72	3,684	5.15
150057	Franciscan Health Mooresville	3,207	4.43	676	5.32			127	4.22	12	2.63	245	4.92
150058	Memorial Hospital of South Bend	1,964	2.46	306	2.31			32	3.20	23	2.60	122	4.41
150059	Riverview Health	1,623	2.78	339	2.88			57	2.37	12	2.29	175	2.94
150061	Daviess Community Hospital	386	2.89	94	2.78			11	2.29			33	4.04
150064	Fayette Regional Health System	304	4.64	76	4.53							34	6.79
150065	Schneck Medical Center	4,259	3.44	586	2.93			138	4.80	13	4.70	330	6.81
150069	King's Daughters' Health	2,581	3.37	507	3.11			124	3.07	15	3.60	329	3.18

Medicare Provider Number	Hospital Name	All Out Serv			gency tment sits	Coro	aneous onary entions	Endo	scopy		oscopic gery	CT/	MRI
		# of services	relative price	# of services	relative price	# of services	relative price	# of services	relative price	# of services	relative price	# of services	relative price
All		275,119	3.58	47,157	3.50	950	4.24	9,001	3.33	2,202	3.63	28,220	3.94
150072	Memorial Hospital	2,277	2.83	527	1.95			52	3.69	26	2.87	215	2.67
150074	Community Hospital East	5,578	4.81	791	5.44	13	5.07	55	3.01	13	5.03	533	3.26
150075	Bluffton Regional Medical Center	496	3.37	105	3.45			38	2.55			47	4.94
150082	Deaconess Hospital Inc.	3,281	3.08	554	3.59			184	3.66	30	2.48	549	3.22
150084	St. Vincent Hospital and Health Services	10,523	3.95	1,472	4.96	76	3.71	392	5.06	119	4.64	1,074	3.02
150086	Dearborn County Hospital	416	1.82	82	2.01			23	1.26			58	2.40
150088	St. Vincent Anderson Regional Hospital Inc.	3,547	3.77	750	5.13			125	3.19	31	3.07	280	3.50
150089	Indiana University Health Ball Memorial Hospital	3,784	3.84	615	1.77	13	6.34	15	2.61	19	3.70	287	3.26
150090	Franciscan Health Dyer	315	3.20	36	2.97			16	4.16			12	3.54
150091	Parkview Huntington Hospital	401	5.34	99	4.51							47	7.45
150097	Major Hospital	1,771	3.86	330	3.98			54	3.25			166	5.33
150100	St. Mary's Medical Center	1,496	4.24	230	4.90			45	4.28	14	4.19	156	5.15
150101	Parkview Whitley Hospital	796	6.08	125	4.27			19	4.35			51	7.37
150102	Starke Hospital												
150104	Witham Health Services	1,373	4.09	356	3.89			16	5.98			105	6.99
150109	Franciscan Health Lafayette	4,888	3.05	667	3.05	28	4.80	117	3.58	33	4.35	409	4.27
150112	Columbus Regional Hospital	9,680	3.88	1,572	4.48	27	4.94	544	4.20	81	3.01	859	4.36
150113	Community Hospital of Anderson and Madison County	4,096	3.39	841	3.57	11	3.76			57	3.33	434	3.00
150115	Memorial Hospital and Health Care Center	1,267	2.51	190	2.50			55	2.67			147	4.29

Medicare Provider Number	Hospital Name	All Out Serv			gency tment sits	Cord	aneous onary entions	Endo	scopy		oscopic gery	CT/	MRI
		# of services	relative price	# of services	relative price	# of services	relative price	# of services	relative price	# of services	relative price	# of services	relative price
All		275,119	3.58	47,157	3.50	950	4.24	9,001	3.33	2,202	3.63	28,220	3.94
150125	Community Hospital	1,676	3.33	248	2.96			63	3.78	15	3.70	198	2.17
150128	Community Hospital South	4,287	4.43	1,134	5.12	22	5.34	106	3.39	38	4.61	624	3.75
150129	Community Westview Hospital	653	3.10	145	3.99			54	2.88			54	3.54
150133	Kosciusko Community Hospital	491	4.22	74	3.84			20	2.42			47	5.98
150146	Parkview Noble Hospital	564	6.14	144	4.89							64	7.43
150149	Women's Hospital	356	3.12	67	2.80					14	2.79		
150150	Dupont Hospital LLC	3,140	3.95	613	3.48			85	3.06	66	3.84	361	4.60
150153	St. Vincent Heart Center of Indiana LLC	437	3.84	54	6.19	53	5.05					87	2.85
150154	Indiana Heart Hospital												
150157	St. Vincent Carmel Hospital Inc.	1,887	4.33	365	5.08			152	5.39	39	4.29	256	2.97
150158	IU Health West Hospital	7,463	3.65	1,512	2.61	29	4.76	37	4.50	56	3.75	888	4.76
150160	Orthoindy Hospital	2,004	2.32									555	2.35
150161	Indiana University Health North Hospital	6,546	3.37	1,324	2.78			128	4.89	122	3.26	852	4.77
150162	Franciscan Health Indianapolis	11,342	3.70	1,499	5.24	60	4.00	626	4.15	109	2.96	931	5.07
150164	Monroe Hospital	2,619	2.65	720	2.27			112	2.72	44	3.25	406	3.21
150165	Franciscan Health Munster	172	2.65					19	3.48			18	4.94
150166	Pinnacle Hospital	119	2.03					16	1.54			24	3.78
150167	Orthopaedic Hospital at Parkview North LLC	582	4.71									183	6.69
150168	The Orthopaedic Hospital of Lutheran Health Network	505	2.87									85	2.91

Medicare Provider Number	Hospital Name	All Out Serv		Depar	gency rtment sits	Cord	aneous onary entions	Endo	scopy	Laparo Sure	scopic gery	CT/	MRI
		# of services	relative price	# of services	relative price	# of services	relative price	# of services	relative price	# of services	relative price	# of services	relative price
All		275,119	3.58	47,157	3.50	950	4.24	9,001	3.33	2,202	3.63	28,220	3.94
150169	Community Hospital North	6,091	4.11	1,379	5.19			158	3.31	72	5.22	1,288	3.24
150172	Physicians' Medical Center LLC	380	0.67					239	0.86				
150173	Indiana University Health Arnett Hospital	7,213	2.84	1,125	2.73	47	3.98	589	3.19	44	3.74	623	4.64
150175	The Heart Hospital at Deaconess Gateway LLC	164	3.04			17	4.79						
150176	Kentuckiana Medical Center LLC	66	1.19	17	1.51								
150177	Unity Medical and Surgical Hospital	72	1.30									17	3.13
150179	Fairbanks	113	16.39										
150181	St. Vincent Fishers Hospital Inc.	1,218	3.99	444	4.97			43	4.85			180	3.00
150182	Franciscan Health Carmel	116	2.20										
151300	Community Hospital of Bremen Inc.	137	1.34	37	1.34							16	1.25
151301	St. Vincent Randolph Hospital Inc.	569	2.94	87	3.44							31	3.31
151302	Indiana University Health Blackford Hospital	326	1.55	125	1.52							32	1.91
151303	St. Vincent Jennings Hospital Inc.	566	3.40	218	3.41			22	3.45			65	3.41
151304	Rush Memorial Hospital	309	1.81	114	1.83							33	1.62
151305	Pulaski Memorial Hospital	226	2.09	63	2.14							18	1.67
151306	Indiana University Health Paoli Hospital	414	2.03	94	2.06			13	2.44			32	2.25

Medicare Provider Number	Hospital Name	All Out Serv		Depar	gency tment sits	Cord	aneous onary ontions	Endo	scopy		oscopic gery	СТ/	/MRI
		# of services	relative price	# of services	relative price	# of services	relative price	# of services	relative price	# of services	relative price	# of services	relative price
All		275,119	3.58	47,157	3.50	950	4.24	9,001	3.33	2,202	3.63	28,220	3.94
151307	St. Vincent Williamsport Hospital Inc.	226	3.08	95	3.17							28	3.16
151308	St. Vincent Mercy Hospital	1,604	2.41	427	2.44			38	2.43			170	2.40
151309	St. Vincent Clay Hospital Inc.	732	2.81	293	2.85			24	2.85			100	2.79
151310	Parkview Wabash Hospital, Inc.	160	1.98	38	1.93							22	1.98
151311	Indiana University Health Tipton Hospital Inc.	562	2.40	127	2.48			35	2.43			68	2.43
151312	Indiana University Health White Memorial Hospital	670	1.57	199	1.59			15	1.70			66	1.68
151313	Woodlawn Hospital	395	2.26	98	2.31							44	2.18
151314	St. Vincent Salem Hospital Inc.	243	2.17	53	2.19			15	2.13			29	2.23
151315	Cameron Memorial Community Hospital Inc.	445	1.76	61	1.72			16	1.96			39	1.46
151316	St. Vincent Frankfort Hospital Inc.	180	2.83	64	2.82							16	2.84
151317	Greene County General Hospital	851	1.90	194	1.99			14	1.93			66	1.37
151318	Dukes Memorial Hospital	995	2.20	291	2.20			27	2.27			56	2.20
151319	Gibson General Hospital	181	2.35	65	2.27							17	2.34
151320	Jay County Hospital	1,500	1.93	305	1.91			37	1.92			136	1.95
151322	Perry County Memorial Hospital	643	1.99	215	1.94			13	2.08			65	1.99
151323	Parkview Lagrange Hospital	222	2.51	63	2.51							31	2.52
151324	Franciscan Health Rensselaer, Inc.	131	1.12	21	1.03							15	1.23

Medicare Provider Number	Hospital Name	All Out Serv			gency tment sits	Corc	aneous onary entions	Endo	scopy	Laparo Surç		CT/	MRI
		# of services	relative price	# of services	relative price	# of services	relative price	# of services	relative price	# of services	relative price	# of services	relative price
All		275,119	3.58	47,157	3.50	950	4.24	9,001	3.33	2,202	3.63	28,220	3.94
151325	St. Mary's Warrick Hospital, Inc.	66	2.10	21	2.05								
151326	Union Hospital Clinton	730	2.32	182	2.31			13	2.20			79	2.34
151327	Sullivan County Community Hospital	1,770	1.81	341	1.84			41	1.86			164	1.78
151328	Indiana University Health Bedford Hospital	1,191	2.47	253	2.07			46	2.54			111	2.02
151329	Margaret Mary Health	1,024	2.26	260	2.14			28	2.37			64	2.26
151330	Adams Memorial Hospital	709	1.67	152	2.21			20	0.95			92	1.26
151331	Harrison County Hospital	505	1.86	118	2.12			11	1.31			50	1.10
151332	Decatur County Memorial Hospital	534	2.00	132	2.09			13	2.16			52	1.73
151333	Putnam County Hospital	1,504	1.83	356	1.87			29	1.87			183	1.83
151334	Scott Memorial Hospital	603	2.35	162	2.47			11	2.80		<u>.</u>	70	1.72
151335	St. Vincent Dunn Hospital Inc.	400	2.42	102	2.51			16	2.56			34	1.81

NOTES: Hospitals are included in this table if they are community hospitals (see main text for a definition) and if they submitted at least one claim paid by an employer participating in this study. The number of services and relative prices are suppressed for hospitals that provided fewer than 11 outpatient services.

Medicare Provider Number	Hospital Name		patient ays	Ortho	pedics	Chil	dbirth	Abuse	stance /Mental alth		ılatory stem		iratory stem
		# of stays	relative price	# of stays	relative price	# of stays	relative price						
All		14,349	2.17	1,348	2.14	2,946	1.62	558	1.50	1,084	2.63	837	2.20
150001	Johnson Memorial Hospital	33	1.93										
150002	Methodist Hospitals Inc.	113	1.78			14	1.40			15	1.80		
150004	Franciscan Health Hammond												
150005	Hendricks Regional Health	186	1.63	16	1.76	49	1.83					18	1.89
150006	La Porte Hospital												
150007	Community Howard Regional Health Inc.	56	2.30			16	1.93						
150008	St. Catherine Hospital Inc.	13	1.77										
150009	Clark Memorial Hospital	98	1.02			30	0.99			12	1.46		
150010	St. Vincent Kokomo	130	2.21	14	2.32	33	2.14						
150011	Marion General Hospital	97	1.34			17	1.44			13	1.71		
150015	Franciscan Health Michigan City												
150017	Lutheran Hospital of Indiana	339	2.45	21	3.32	36	1.33			42	2.53	45	2.13
150018	Elkhart General Hospital	49	2.27	13	2.17					13	2.48		
150021	Parkview Regional Medical Center	493	2.51	17	3.15	113	1.44			49	3.37	35	1.60
150022	Franciscan Health Crawfordsville	12	2.21										
150023	Union Hospital Inc.	272	1.67			61	1.70			35	1.80	47	1.89
150024	Eskenazi Health	55	1.32										
150026	Goshen General Hospital	22	2.41										

Table A.3. Private Prices for Inpatient Hospital Care in Indiana, Relative to Medicare (Medicare = 1.00)

Medicare Provider Number	Hospital Name	:	patient ays	Ortho	pedics	Chil	dbirth	Abuse	stance /Mental alth	:	ulatory stem		iratory stem
		# of stays	relative price	# of stays	relative price	# of stays	relative price						
All		14,349	2.17	1,348	2.14	2,946	1.62	558	1.50	1,084	2.63	837	2.20
150030	Henry County Memorial Hospital	78	1.31	19	1.28	23	1.65						
150034	St. Mary Medical Center Inc.	110	1.85			11	1.88			13	2.38	11	1.67
150035	Porter Regional Hospital	210	1.70	16	1.49	42	1.67			21	2.32	15	2.04
150037	Hancock Regional Hospital	99	1.88			25	1.88						
150038	Indiana University Health Morgan Hospital Inc.												
150042	Good Samaritan Hospital	64	2.13			11	2.55						
150044	Baptist Health Floyd	109	1.26	11	1.12	24	1.12			11	2.12		
150045	Dekalb Health	21	1.70										
150046	Terre Haute Regional Hospital	108	2.00			13	1.73	13	1.63	16	2.24	12	2.31
150047	St. Joseph Hospital	35	1.75					18	1.39				
150048	Reid Health	188	2.20	25	1.99	29	2.16			14	2.19	13	2.68
150051	Indiana University Health Bloomington Hospital	1,321	2.17	71	2.86	399	1.56	67	1.96	55	3.26	54	2.48
150056	Indiana University Health	1,811	2.35	159	2.08	145	1.33	43	1.52	160	2.32	121	1.98
150057	Franciscan Health Mooresville	107	2.27	58	2.20	14	2.57						
150058	Memorial Hospital of South Bend	211	1.93	18	2.04	45	1.28	15	0.47			15	1.70
150059	Riverview Health	80	1.71	15	1.67	23	1.81						
150061	Daviess Community Hospital	14	0.80										
150064	Fayette Regional Health System	12	1.69										
150065	Schneck Medical Center	118	2.27			43	2.52						
150069	King's Daughters' Health	97	2.27			26	2.08						

Medicare Provider Number	Hospital Name		patient ays	Ortho	pedics	Chil	dbirth	Abuse	stance e/Mental ealth		ulatory stem		iratory stem
		# of stays	relative price	# of stays	relative price	# of stays	relative price						
All		14,349	2.17	1,348	2.14	2,946	1.62	558	1.50	1,084	2.63	837	2.20
150072	Memorial Hospital	60	0.78			29	1.05						
150074	Community Hospital East	294	2.27	23	2.71	20	1.78	125	1.56	37	2.94		
150075	Bluffton Regional Medical Center	13	1.29										
150082	Deaconess Hospital Inc.	158	2.18	26	1.97			23	1.69	20	2.62		
150084	St. Vincent Hospital and Health Services	1,115	2.51	87	2.40	186	2.12	13	1.67	100	2.96	57	2.45
150086	Dearborn County Hospital	25	1.42										
150088	St. Vincent Anderson Regional Hospital Inc.	120	1.79			15	2.07	28	1.10				
150089	Indiana University Health Ball Memorial Hospital	209	1.98	25	1.48	35	1.67			22	2.72	17	1.68
150090	Franciscan Health Dyer	15	1.71										
150091	Parkview Huntington Hospital												
150097	Major Hospital	39	2.44			11	2.34						
150100	St. Mary's Medical Center	117	2.61	17	1.78	20	2.42			15	3.24		
150101	Parkview Whitley Hospital	12	1.77										
150102	Starke Hospital												
150104	Witham Health Services	32	1.96										
150109	Franciscan Health Lafayette	270	2.73	48	2.71	48	2.36			30	2.97	23	3.22
150112	Columbus Regional Hospital	330	2.19	23	1.79	83	2.58	24	1.64	36	2.24	30	2.78
150113	Community Hospital of Anderson and Madison County	211	2.00	18	2.49	60	1.87					17	1.67

Medicare Provider Number	Hospital Name		patient ays	Ortho	pedics	Chil	dbirth	Abuse	stance e/Mental ealth		ulatory stem		biratory stem
		# of stays	relative price	# of stays	relative price	# of stays	relative price						
All		14,349	2.17	1,348	2.14	2,946	1.62	558	1.50	1,084	2.63	837	2.20
150115	Memorial Hospital and Health Care Center	35	1.68			11	1.43						
150125	Community Hospital	95	2.13			13	1.75						
150128	Community Hospital South	297	2.41	27	2.56	80	2.48			19	3.37		
150129	Community Westview Hospital	15	1.85										
150133	Kosciusko Community Hospital	21	3.26										
150146	Parkview Noble Hospital	12	2.06										
150149	Women's Hospital	87	0.14			42	0.19						
150150	Dupont Hospital LLC	329	1.48			137	1.16						
150153	St. Vincent Heart Center of Indiana LLC	111	3.01							102	3.05		
150154	Indiana Heart Hospital												
150157	St. Vincent Carmel Hospital Inc.	331	2.17	18	2.53	85	2.39						
150158	IU Health West Hospital	351	2.08	22	1.91	91	1.99			18	2.45	27	1.89
150160	Orthoindy Hospital	125	1.41	113	1.40								
150161	Indiana University Health North Hospital	819	1.96	47	1.59	292	1.96					23	1.96
150162	Franciscan Health Indianapolis	532	2.39	19	2.32	108	2.42			52	2.68	22	2.27
150164	Monroe Hospital	74	1.70	24	1.89								
150165	Franciscan Health Munster												
150166	Pinnacle Hospital	13	2.28										
150167	Orthopaedic Hospital at Parkview North LLC	88	3.21	88	3.21								

Medicare Provider Number	Hospital Name		patient ays	Ortho	pedics	Chil	dbirth	Abuse	stance e/Mental ealth		ulatory stem		biratory stem
		# of stays	relative price	# of stays	relative price	# of stays	relative price						
All		14,349	2.17	1,348	2.14	2,946	1.62	558	1.50	1,084	2.63	837	2.20
150168	Orthopaedic Hospital of Lutheran Health Network	51	1.61	50	1.61								
150169	Community Hospital North	701	2.48	32	2.46	197	2.09			11	3.08	20	2.57
150172	Physicians' Medical Center LLC												
150173	Indiana University Health Arnett Hospital	248	2.65	14	2.46	34	1.98			25	2.93	29	2.95
150175	Heart Hospital at Deaconess Gateway LLC	14	2.65							14	2.65		
150176	Kentuckiana Medical Center LLC												
150177	Unity Medical and Surgical Hospital												
150179	Fairbanks	104	1.26					104	1.26				
150181	St. Vincent Fishers Hospital Inc.	56	2.08			21	2.67						
150182	Franciscan Health Carmel	15	2.26	15	2.26								
151300	Community Hospital of Bremen Inc.												
151301	St. Vincent Randolph Hospital Inc.												
151302	Indiana University Health Blackford Hospital												
151303	St. Vincent Jennings Hospital Inc.												
151304	Rush Memorial Hospital												
151305	Pulaski Memorial Hospital												

Medicare Provider Number	Hospital Name	All Inpatient Stays		Orthopedics		Childbirth		Substance Abuse/Mental Health		Circulatory System		Respiratory System	
		# of stays	relative price	# of stays	relative price	# of stays	relative price	# of stays	relative price	# of stays	relative price	# of stays	relative price
All		14,349	2.17	1,348	2.14	2,946	1.62	558	1.50	1,084	2.63	837	2.20
151306	Indiana University Health Paoli Hospital												
151307	St. Vincent Williamsport Hospital Inc.												
151308	St. Vincent Mercy Hospital												
151309	St. Vincent Clay Hospital Inc.												
151310	Parkview Wabash Hospital Inc.												
151311	Indiana University Health Tipton Hospital Inc.												
151312	Indiana University Health White Memorial Hospital												
151313	Woodlawn Hospital												
151314	St. Vincent Salem Hospital Inc.												
151315	Cameron Memorial Community Hospital Inc.	9											
151316	St. Vincent Frankfort Hospital Inc.												
151317	Greene County General Hospital												
151318	Dukes Memorial Hospital												
151319	Gibson General Hospital	*											
151320	Jay County Hospital												
151322	Perry County Memorial Hospital												
151323	Parkview Lagrange Hospital												

Medicare Provider Number	Hospital Name	All Inpatient Stays		Orthopedics		Childbirth		Substance Abuse/Mental Health		Circulatory System		Respiratory System	
		# of stays	relative price	# of stays	relative price	# of stays	relative price	# of stays	relative price	# of stays	relative price	# of stays	relative price
All		14,349	2.17	1,348	2.14	2,946	1.62	558	1.50	1,084	2.63	837	2.20
151324	Franciscan Health Rensselaer Inc.												
151325	St. Mary's Warrick Hospital Inc.												
151326	Union Hospital Clinton												
151327	Sullivan County Community Hospital												
151328	Indiana University Health Bedford Hospital												
151329	Margaret Mary Health												
151330	Adams Memorial Hospital												
151331	Harrison County Hospital												
151332	Decatur County Memorial Hospital												
151333	Putnam County Hospital												
151334	Scott Memorial Hospital												
151335	St. Vincent Dunn Hospital Inc.												

NOTES: Hospitals are included in this table if they are community hospitals (see main text for a definition) and if they submitted at least one claim paid by an employer participating in this study. The number of services and relative prices are suppressed for hospitals that provided fewer than 11 inpatient stays.

- 3M Health Information Systems, Integrated Outpatient Code Editor Software, Installation and User Manual for PC, v16.2, July 2015.
- Barnett, Jessica C., and Marina S. Vornovitsky, *Health Insurance Coverage in the United States:* 2015, Washington, D.C.: U.S. Census Bureau, P60-257(RV), 2016. As of August 15, 2017: https://www.census.gov/content/dam/Census/library/publications/2016/demo/p60-257.pdf
- Berenson, Robert A., Paul B. Ginsburg, Jon B. Christianson, and Tracy Yee, "The Growing Power of Some Providers to Win Steep Payment Increases from Insurers Suggests Policy Remedies May Be Needed," *Health Affairs*, Vol. 31, No. 5, May 2012, pp. 973–981. As of August 18, 2017: http://content.healthaffairs.org/content/31/5/973.abstract
- Berenson, Robert A., Jonathan H. Sunshine, David Helms, and Emily Lawton, "Why Medicare Advantage Plans Pay Hospitals Traditional Medicare Prices," *Health Affairs*, Vol. 34, No. 8, 2015, pp. 1289–1295. As of August 15, 2017: http://content.healthaffairs.org/content/34/8/1289.full.pdf
- Centers for Medicare and Medicaid Services, *MA Payment Guide for Out of Network Payments*, Washington, D.C., April 15, 2015. As of August 15, 2017: https://www.cms.gov/Medicare/Health-Plans/MedicareAdvtgSpecRateStats/Downloads/OONPayments.pdf
- Centers for Medicare and Medicaid Services, *DRG Summary for Medicare Inpatient Prospective Payment Hospitals, FY2014*, Microsoft Excel, Washington, D.C., 2016a. As of August 15, 2017:

https://www.cms.gov/Research-Statistics-Data-and-Systems/Statistics-Trends-and-Reports/Medicare-Provider-Charge-Data/Downloads/Inpatient_Data_2014_XLSX.zip

Centers for Medicare and Medicaid Services, *Hospital Outpatient Prospective Payment System*, Washington, D.C., January 2016b. As of August 15, 2017: https://www.cms.gov/Outreach-and-Education/Medicare-Learning-Network-MLN/MLNProducts/downloads/HospitalOutpaysysfctsht.pdf

Centers for Medicare and Medicaid Services, APC Summary Tables: National and State Summaries of Outpatient Charge Data, CY2014, Microsoft Excel, Washington, D.C., June 23, 2016c. As of August 15, 2017: https://www.cms.gov/Research-Statistics-Data-and-Systems/Statistics-Trends-and-Reports/Medicare-Provider-Charge-Data/Downloads/Outpatient_Summary_2014_XLSX.zip

- Centers for Medicare and Medicaid Services, *Medicare Severity Grouper with Medicare Code Editor Software, Installation and User's Manual ICD-10 Version* (for personal computers, Software version 34.0), Washington, D.C., October 2016d. As of August 15, 2017: https://classic.ntis.gov/assets/pdf/MSGMCE_Installation_UserGuideI-10_v340.pdf
- Centers for Medicare and Medicaid Services, *Critical Access Hospital*, Washington, D.C., ICN 006400, November 2016e. As of September 21, 2016: https://www.cms.gov/Outreach-and-Education/Medicare-Learning-Network-MLN/MLNProducts/downloads/CritAccessHospfctsht.pdf
- Centers for Medicare and Medicaid Services, 2016 Provider of Services (POS) File, Other, Washington, D.C., January 2017. As of August 15, 2017: https://www.cms.gov/Research-Statistics-Data-and-Systems/Downloadable-Public-Use-Files/Provider-of-Services/POS2016.html
- Centers for Medicare and Medicaid Services, Office of Enterprise Data and Analytics, *Medicare Fee-for Service Provider Utilization and Payment Data Inpatient Public Use File: A Methodological Overview*, Washington, D.C., January 19, 2017. As of August 15, 2017: https://www.cms.gov/Research-Statistics-Data-and-Systems/Statistics-Trends-and-Reports/Medicare-Provider-Charge-Data/Downloads/Inpatient_Methodology.pdf
- Christianson, Jon B., Robert E. Mechanic, Christina A. Andrews, and Joy M. Grossman, *Health System Change in Indianapolis, Indiana*, Washington, D.C.: Center for Studying Health System Change, 1997.
- Clemens, Jeffrey, and Joshua D. Gottlieb, "In the Shadow of a Giant: Medicare's Influence on Private Physician Payments," *Journal of Political Economy*, Vol. 125, No. 1, 2017, pp. 1–39.
- CMS—See Centers for Medicare and Medicaid Services.
- Cooper, Zack, Stuart Craig, Martin Gaynor, and John Van Reenen, *The Price Ain't Right? Hospital Prices and Health Spending on the Privately Insured*, Health Care Pricing Project, December 2015. As of August 15, 2017: http://www.healthcarepricingproject.org/sites/default/files/ pricing_variation_manuscript_0.pdf
- Department of Health and Human Services, "Medicare Program; Hospital Inpatient Prospective Payment Systems for Acute Care Hospitals and the Long-Term Care Hospital Prospective Payment System Policy Changes and Fiscal Year 2016 Rates; Revisions of Quality Reporting Requirements for Specific Providers, Including Changes Related to the Electronic Health Record Incentive Program; Extensions of the Medicare-Dependent, Small Rural Hospital Program and the Low-Volume Payment Adjustment for Hospitals; Final Rule," *Federal Register*, Vol. 80, No. 158, August 17, 2015, pp. 49325–49843. As of August 15, 2017: http://www.gpo.gov/fdsys/pkg/FR-2015-08-17/html/2015-19049.htm

- Dobson, Allen, Joan DaVanzo, and Namrata Sen, "The Cost-Shift Payment 'Hydraulic': Foundation, History, and Implications," *Health Affairs*, Vol. 25, No. 1, January/February 2006, pp. 22–33. As of August 18, 2017: http://content.healthaffairs.org/cgi/content/abstract/25/1/22
- EFI-See Employers' Forum of Indiana.
- Employers' Forum of Indiana, "About Us," web page, undated. As of August 17, 2017: http://employersforumindiana.org/about/
- FAIR Health, *The Role of Medicare in Out-of-Network Reimbursement*, New York, 2013. As of August 15, 2017: https://www.feeestimator.org/uploads/patient_material/18/The_Role_of_Medicare_Reimburs ement.pdf
- Franzini, Luisa, Chapin White, Suthira Taychakhoonavudh, Rohan Parikh, Mark Zezza, and Osama Mikhail, "Variation in Inpatient Hospital Prices and Outpatient Service Quantities Drive Geographic Differences in Private Spending in Texas," *Health Services Research*, Vol. 49, No. 6, December 2014, pp. 1944–1963.
- Gaynor, Martin, and Robert Town, *The Impact of Hospital Consolidation—Update*, Synthesis Project, Robert Wood Johnson Foundation, 2013. As of August 15, 2017: http://www.rwjf.org/content/dam/farm/reports/issue_briefs/2012/rwjf73261
- Ginsburg, Paul B., Wide Variation in Hospital and Physician Payment Rates Evidence of Provider Market Power, Washington, D.C.: Center for Studying Health System Change, Research Brief No. 16, November 2010. As of August 18, 2017: http://www.hschange.org/CONTENT/1162/1162.pdf
- Ginsburg, P. B., and L. G. Pawlson, "Seeking Lower Prices Where Providers Are Consolidated: An Examination of Market and Policy Strategies," *Health Affairs*, Vol. 33, No. 6, 2014, pp. 1067–1075. As of August 18, 2017: http://content.healthaffairs.org/content/33/6/1067.full.pdf
- Gobeille v. Liberty Mutual Insurance Company, 577 U.S. (2016). As of August 18, 2017: https://www.supremecourt.gov/opinions/15pdf/14-181_5426.pdf
- Hayes, Kevin J., Julian Pettengill, and Jeffrey Stensland, "Getting the Price Right: Medicare Payment Rates for Cardiovascular Services," *Health Affairs*, Vol. 26, No. 1, January/February 2007, pp. 124–136. As of August 17, 2017: http://content.healthaffairs.org/content/26/1/124.full.pdf+html
- Health Care Cost Institute, 2015 Health Care Cost and Utilization Report, Washington, D.C., November 2016. As of August 15, 2017: http://www.healthcostinstitute.org/wp-content/uploads/2016/12/2015-HCCUR-11.22.16.pdf

- Indiana Hospital Association, "Indiana's Hospital Systems," web page, undated. As of August 15, 2017: https://www.ihaconnect.org/Indiana-Hospitals/Pages/Hospital-Map.aspx
- Institute of Medicine, *Geographic Adjustment in Medicare Payment: Phase I: Improving Accuracy*, Washington, D.C., 2012.
- Kaiser Family Foundation and Health Research and Educational Trust, *Employer Health Benefits, 2016 Annual Survey*, Menlo Park, Calif., 2016. As of August 15, 2017: http://files.kff.org/attachment/Report-Employer-Health-Benefits-2016-Annual-Survey
- Katz, Aaron, Grace Anglin, Emily Carrier, Marisa K. Dowling, Lucy B. Stark, and Tracy Yee, *Indianapolis Hospital Systems Compete for Well-Insured, Suburban Patients*, Washington, D.C.: Center for Studying Health System Change, December 2011.
- Katz, Aaron, Robert E. Hurley, Kelly J. Devers, Leslie A. Conwell, Bradley C. Strunk, Andrea B. Staiti, J. Lee Hargraves, and Robert A. Berenson, *Competition Revs Up the Indianapolis Health Care Market*, Washington, D.C.: Center for Studying Health System Change, 2003. As of August 17, 2017: http://www.hschange.org/CONTENT/523/523.pdf
- Lechner, Amanda E., Rebecca Gourevitch, and Paul B. Ginsburg, *The Potential of Reference Pricing to Generate Health Care Savings: Lessons from a California Pioneer*, National Institute for Health Care Reform, December, 2013.
- Massachusetts Health Policy Commission, *Policy Brief on Out-of-Network Billing*, Boston, 2015. As of August 15, 2017: http://www.mass.gov/anf/budget-taxes-and-procurement/oversight-agencies/ health-policy-commission/publications/2015-ctr-out-of-network.pdf
- Mattke, Soeren, Chapin White, Mark Hanson, and Virginia Kotzias, *Evaluating the Impact of Policies to Regulate Involuntary Out-of-Network Charges on New Jersey Hospitals*, Santa Monica, Calif.: RAND Corporation, RR-1809-CPH, 2016. As of August 15, 2017: http://www.rand.org/pubs/research_reports/RR1809.html
- Mays, Glen P., Thomas Bodenheimer, Laurie E. Felland, Kelly L. McKenzie, Hoangmai H.
 Pham, and Lydia E. Regopoulos, *Continued Hospital Expansions Raise Cost Concerns in Indianapolis*, Washington, D.C., Center for Studying Health System Change, June 2005.
- Medicare Payment Advisory Commission, *Hospital Acute Inpatient Services Payment System*, Washington, D.C., October 2014.
- Medicare Payment Advisory Commission, *Medicare Payment Policy*, Washington, D.C., March 2016a.

- Medicare Payment Advisory Commission, *Outpatient Hospital Services Payment System*, Washington, D.C., October 2016b. As of August 15, 2017: http://www.medpac.gov/docs/default-source/paymentbasics/medpac payment basics 16 opd final.pdf?sfvrsn=0
- MedPAC-See Medicare Payment Advisory Commission.
- Murray, Robert, "Hospital Charges and the Need for a Maximum Price Obligation Rule for Emergency Department and Out-Of-Network Care," *Health Affairs Blog*, May 16, 2013. As of August 15, 2017: http://healthaffairs.org/blog/2013/05/16/hospital-charges-and-the-need-for-a-maximumprice-obligation-rule-for-emergency-department-out-of-network-care/
- Newman, David, and Eric Barrette, "Making the Case for States to Reduce Out-of-Network Charges," *Health Affairs Blog*, December 5, 2016. As of August 15, 2017: http://healthaffairs.org/blog/2016/12/05/making-the-case-for-states-to-reduce-out-ofnetwork-charges/
- Nguyen, Nguyen X., Richard G. Kronick, and Steven H. Sheingold, *Comparing Physician Payment Rates Between Medicare and Private Payers in 2009*, Washington, D.C., AcademyHealth, June 2013.
- Pelech, Daria, An Analysis of Private-Sector Prices for Physician Services, Washington, D.C.: Congressional Budget Office, June 26, 2017. August 17, 2017: https://www.cbo.gov/publication/52818
- Robinson, James C., Timothy T. Brown, and Christopher Whaley, "Reference Pricing Changes: The 'Choice Architecture' of Health Care for Consumers," *Health Affairs*, Vol. 36, No. 3, 2017, pp. 524–530. As of August 17, 2017: http://content.healthaffairs.org/content/36/3/524.full.pdf
- Selden, Thomas M., Zeynal Karaca, Patricia Keenan, Chapin White, and Richard Kronick, "The Growing Difference Between Public and Private Payment Rates for Inpatient Hospital Care," *Health Affairs*, Vol. 34, No. 12, December 2015, pp. 2147–2150. As of August 17, 2017: http://content.healthaffairs.org/content/34/12/2147.abstract
- Small, Brian G., "Outpatient Facility Reimbursement," Society of Actuaries, *Health Section News*, No. 44, October 2002. As of August 15, 2017: https://www.soa.org/Library/Newsletters/Health-Section-News/2002/October/hsn-2002-iss44-small.aspx
- Stensland, Jeffrey, Zachary R. Gaumer, and Mark E. Miller, "Private-Payer Profits Can Induce Negative Medicare Margins," *Health Affairs*, Vol. 29, No. 5, 2010, pp. 1045–1051.

- Trish, Erin, Paul Ginsburg, Laura Gascue, and Geoffrey Joyce, "Physician Reimbursement in Medicare Advantage Compared with Traditional Medicare and Commercial Health Insurance," *JAMA Internal Medicine*, July 10, 2017.
- Trish, Erin E., and Bradley J. Herring, "How Do Health Insurer Market Concentration and Bargaining Power with Hospitals Affect Health Insurance Premiums?" *Journal of Health Economics*, Vol. 42, 2015. As of August 17, 2017: http://dx.doi.org/10.1016/j.jhealeco.2015.03.009
- Wall, J. K., "New Tool Could Drive Down Employers' Health Care Costs," *Indianapolis Business Journal*, Vol. 33, No. 48, January 21–27, 2013.
- Whaley, Christopher, Jennifer Schneider Chafen, Sophie Pinkard, Gabriella Kellerman, Dena Bravata, Robert Kocher, and Neeraj Sood, "Association Between Availability of Health Service Prices and Payments for These Services," *JAMA*, Vol. 312, No. 16, 2014, pp. 1670– 1676.
- White, Chapin, *Health Status and Hospital Prices Key to Regional Variation in Private Health Care Spending*, National Institute for Health Care Reform, February 2012.
- White, Chapin, "Contrary to Cost-Shift Theory, Lower Medicare Hospital Payment Rates for Inpatient Care Lead to Lower Private Payment Rates," *Health Affairs*, Vol. 32, No. 5, May 2013, pp. 935–943.
- White, Chapin, Amelia M. Bond, and James D. Reschovsky, *High and Varying Prices for Privately Insured Patients Underscore Hospital Market Power*, Washington, D.C.: Center for Studying Health System Change, September 2013.
- White, Chapin, Paul B. Ginsburg, Ha T. Tu, James D. Reschovsky, Joseph M. Smith, and Kristie Liao, *Healthcare Price Transparency: Policy Approaches and Estimated Impacts on Spending*, La Jolla, Calif.: West Health Policy Center, May 2014.
- White, Chapin, James D. Reschovsky, and Amelia M. Bond, *Inpatient Hospital Prices Drive Spending Variation for Episodes of Care for Privately Insured Patients*, National Institute for Health Care Reform, February, 2014a.
- White, Chapin, James D. Reschovsky, and Amelia M. Bond, "Understanding Differences Between High- and Low-Price Hospitals: Implications for Efforts to Rein in Costs," *Health Affairs*, Vol. 33, No. 2, February 2014b, pp. 324–331.