Price Transparency in the United States Healthcare System

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Price Transparency in the United States Healthcare System

by

Gurlivleen (Minnie) Ahuja

A dissertation submitted in partial fulfillment of the requirements for the degree of Doctor of Business Administration
Muma College of Business
University of South Florida

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Date of Approval:
November 9, 2018

Keywords: Healthcare, price transparency, providers, payers, patients, health care policy

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DEDICATION

I dedicate this dissertation to my husband and my two children who are the love of my life; and my parents and siblings who were pivotal in laying a strong foundation for my education.

To my husband, Paul the words ‘meant for each other’ were meant for us. You let me be who I am and always stand by me. I may have doubts about myself, but your unshaken certitude and conviction in me have always pushed me to do my best.

To my children, Samia and Daras your laughter and smiles bring me joy. You motivate me to push boundaries and propel forward to meet challenges head on. I am growing with you, I am learning with you, and I see the world through your eyes. I am in awe of your vitality and exuberance. You have so much to give to the world with your kindness and courage. Go be your best version, spread your wings and chase your dreams and make them your reality.

To my mom, my late dad and my siblings Jeevan and Harsh, thank you! I am who I am because of you. The love of learning and the commitment to strive for the best is because of how I was brought up. Your role in shaping my future has undoubtedly been the strongest. I am grateful for us, our experiences and the bond that we share.

Lastly, I want to say, yes! I did it!
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To my dissertation team Dr. Ramil Cabela, Dr. Priya Dozier, and Dr. Valerie Mockus, I am glad to have shared this journey with you. Our triumphs and trepidations, our fears and joy, our jokes and encouragements, oh, how I will miss those! Thank you for making this journey a memorable one.

To all the participants in this study, thank you for accepting to share your insights and experiences about the evolving healthcare industry. Each one of you reflected passion which made my research more thought-provoking and interesting.

To my family, thank you for your encouragement. Your reassurance and inspiration helped me focus on my research knowing that you will always be there to help and support me.

To Robyn Lord and Shrimatee Maharaj for our random middle of the night conversations to check-in and for your positive reinforcement, thank you. Thanks to the entire DBA cohort of
2018, each one of you has been inspiring and amazing, and we are undoubtedly the best cohort ever, no matter what anyone else says.

To Michele Walpole, Lauren Baumgartner and Donna Gonzalez, we would have been lost without your support. Thanks for keeping track of what needed to be done so that we could focus on our dissertation.
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ABSTRACT

The study explores price transparency in the healthcare system. With the increase in healthcare spending resulting in advent of high deductible plans, consumers have been exposed to the high healthcare cost. Despite of being burdened with outrageous and extravagant bills, studies have shown that the consumers are not using price transparency tools to their benefit.

The literature review reveals that the major stakeholders in the healthcare industry have never been studied together to understand the research question on ‘Why is there lack of price transparency in the healthcare system?’ and that there is no theory that explains such a phenomenon.

This study undertakes a 360-degree, exhaustive view of all the major stakeholders involved in healthcare in aims to understand the reasons behind the lack of price transparency in the healthcare system and what is holding the industry back.

The study followed a grounded theory methodology approach, utilizing the data from 78 semi structured interviews. The 78 professionals and executives representing the major stakeholders in the healthcare industry contributed in providing information to uncover the key factors for an opaque healthcare industry.

Eighty-five hours of interviews resulted in 1,686 transcribed pages that provided insights and discernment to understanding the complexities and intricacies in the healthcare industry that prevent it from becoming fully transparent. The results provide richness of data for an emergent theory that explains the actions taken by major stakeholders to reduce healthcare spending based on their intrinsic interests and their perceptions of complexities of the healthcare industry.
The study presents practical implications on how a complex industry is slow to evolve and that a change is not possible unless it is deconstructed layer by layer to recognize the root cause. The change has to start for the core by simplifying the complexities that are created over time by the stakeholders who have always looked to optimize their motivations and have had no incentives to make the industry efficient.
PREFACE

Dissertation option 2, per the “USF DBA Dissertation Proposal” guidelines, includes a collection of articles/papers. This dissertation consists of three papers, presented as three chapters for this dissertation. Two of the three papers have been submitted for publication with an anticipation that the third one will also be submitted following completion of the dissertation requirements. All the three papers are standalone readings with their own executive summary and conclusion. An overview of each paper is given below and a synopsis of all the three papers combined is presented in the abstract.

Paper 1 / Chapter One: Why is there a Lack of Price Transparency for Healthcare Services across the U.S. Healthcare System

This paper utilized the research question review template format from the Muma Business Review (MBR). It is a review of literature to discern what the what has been already researched on the proposed research question of ‘Why is there lack of price transparency in the U.S. healthcare system.’ The body of the literature research is consolidated into tables that focus on the needs and opportunities of having price transparency, the advantages and disadvantages of having price transparency, the ways and barriers in creating price transparency and price transparency in action. The article lays a foundation on price transparency in the healthcare industry and can point a reader toward future research opportunities.
Paper 2 / Chapter Two: Deafening Silence: A Grounded Theory Study on the Healthcare Problem Nobody is Talking About

This paper utilized the Research Method Review template format from the Muma Business Review (MBR). It is an in-depth review on the research method ‘The Grounded Theory Methodology (GTM)’ that was used for the research on “Price transparency in healthcare system.” The paper discusses why and when GTM should be adopted, how to undertake and accomplish this type of research. It also discusses the advantages and disadvantages of using GTM, the three major GTMs, the challenges faced, and lessons learned during the process. It has a list of helpful resources and articles that can help a reader to comprehend GTM concepts.


This paper discusses the exploratory research done for this dissertation. It briefly touches on impetus of this research, the research design and data collection, a pilot phenomenological study and the major results and findings of an exhaustive grounded theory methodology study of the major stakeholders in the healthcare industry. It provides insights into the thinking and mindset of the payers, the providers, the patients and policy influencers and makers. The study resulted in creation of a proposed theory that explains the actions of strong stakeholders, each with their intrinsic interests pulling the complex, multifaceted industry in opposite directions.

All Three Papers as Part of the Traditional Dissertation

The sequence of papers followed a logical path towards the completion of the dissertation. Figure A explains the three papers in relation to the various components of a traditional dissertation. The research process started with a paper one, the literature review of the research question. It was followed by paper two, a deep dive in the exploratory grounded theory
methodology employed for the research study. Finally, the paper three brought it all together with detailed insights into the depth and richness of the 78 interview participants. The paper deliberates the findings, results, discussion and conclusions with a culmination of a complete picture of the complexities in healthcare industry and an emergent theory showing the actions as a result of the complexities. All the three papers provide a consistent approach to answering the primary research question of the dissertation: Why is there a Lack of Price Transparency for Healthcare Services across the U.S. Healthcare System.

Figure A. Traditional Dissertation and Collection of Articles
CHAPTER ONE:
WHY IS THERE A LACK OF PRICE TRANSPARENCY FOR HEALTHCARE SERVICES ACROSS THE U.S. HEALTHCARE SYSTEM?¹

Tagline

Despite being the foci of the U.S. healthcare industry, consumers are not empowered to make informed decisions about the healthcare services they consume. Lack of price transparency for various healthcare services impedes informed decision making, creating price discrimination and inefficient markets.

Keywords


Executive Summary

The United States of America has the highest total spending per person per year on healthcare in the world (WHO, 2012). The national health expenditure grew to $3.2 trillion in 2015, or $9,990 per person. Half of the $3.2 trillion spending was spent to pay for services provided by hospitals and physicians (CMS.gov, 2015). Despite the relatively high level of per capita expenditure on health, the U.S. ranks 50 out of 55 countries in life expectancy behind

¹ This chapter has been accepted for publication by the MUMA Business Review, a publication of MUMA College of Business, University of South Florida.
countries like Algeria and Cuba (Lisa Du 2016). In 2014, 33% of Americans (up from 19% in 2001) reported delaying or forgoing medical care due to high prices (Riffkin, 2014).

Approximately 11% of Americans remained uninsured in 2016 (Marken, 2016). Uninsured Americans are billed exorbitantly high prices for services and procedures, while those with insurance pay significantly less for the same (Austin & Gravelle, 2007). Though millions have received coverage under the Affordable Care Act, as of 2016, 92% are enrolled in high deductible plans with deductibles as high as $6,000 for an individual and $12,000 for families. High deductible plans keep affordable healthcare out of the financial reach of most Americans. Unfortunately, 2017 brought even higher premiums and deductibles to all Healthcare Marketplace plans, further blurring the lines between being financially assured of healthcare and being uninsured (HealthPocket.com, 2016; KFF, 2016b; Walsh et al., 2015).

Healthcare price transparency is a state where the information on the total price a patient has to pay to a provider for healthcare service is readily available before the service is provided. This information should be pertinent, meaningful, and accurate. It should enable the consumer to compare and choose providers based on price, anticipate cost, reduce unexpected expenses, and make an informed decision. The price should reflect the out-of-pocket responsibility of a consumer based on the insurance plan (private or public) and self-pay rates. This information should be presented alongside other relevant details such as quality, customer satisfaction scores, customers’ reviews, and ratings etc., to help define the value of the service and help consumers choose a provider with the desired value. Price transparency would empower consumers to select affordable alternatives, reducing their financial burden and overall healthcare costs. Efforts are currently underway, although the successful implementation of such initiatives depends on removing hurdles, shifting attitudes and engaging and involving all the stakeholders.
Introduction

Healthcare is the fastest growing market segment of the U.S. economy (Danzon, 1993). It is projected to grow 1.3% faster than the gross domestic product (GDP) per year over a period of 10 years (2015–2025). This means healthcare spending will account for nearly 20% of the GDP or one-fifth of the U.S. economy by the year 2025. Out of pocket spending grew to $338 billion in 2015 or 11% of the total National Health Expenditure (CMS.gov, 2015). Enrollment in the high deductible plan and out of pocket expenses for the consumers is increasing. For example, from 2006 to 2016, the percentage of covered workers enrolled in high-deductible employer-sponsored health plans increased from 4% to 29%. In 2006, 55% of the covered workers had an average annual deductible of $303 whereas, by 2016, 81% of covered workers had an average annual deductible of $1,478 for single coverage. The cost for the consumers does not end there. Consumers may also face substantial out of pocket expenses, even after reaching out of pocket deductibles. Sixty-four percent (64%) of covered workers had coinsurance for hospital admissions after meeting their deductible (KFF, 2016a). Consumers without any health insurance have to bear the full burden of the cost of care, without a third party to negotiate on their behalf. And to make matters worse consumers are not aware of their healthcare costs until after having received the service (GAO, 2011).

Patients/consumers are paramount to this industry, yet they are confined not only due to their medical condition but also due to their inability to choose the quality and price of their medical services. In most circumstances, consumers remain unaware and uninformed of the vast price differences that exist between various providers, insurances, and self-pay rates. Furthermore, a higher price for care does not translate to higher quality. Morally and ethically,
the healthcare industry should prioritize better healthcare outcomes over profits. Awareness, empowerment, and engagement of the consumers are critical to reducing healthcare costs.

Consumers have been complacent in the poor state of the American healthcare system. They have historically accepted the fact that complexity in healthcare creates opacity, which further prevents them from finding the cost of care before they receive it. Providers, on the other hand, have been complacent to the lack of transparency because they benefit from it. The complexity of the healthcare system and the complexity of a human body is a huge barrier to creating price transparency. Several types of research have been conducted to address the problem of opacity in the healthcare system and studies have presented ways that price transparency can be created successfully despite the barriers. Research is still underway to provide simplified, actionable solutions to resolve this complexity. Price transparency will assist consumers in becoming more aware of the financial liabilities of their care, facilitate better decision making, and improve the affordability of care. To ensure that consumers can find value care (better healthcare at a lower price), they have to be educated, empowered, and evolved!

**Protocol**

Using the University of South Florida online library and Google, research on the general healthcare industry was done. Then, using the aforementioned resources, a general literature search was conducted to ascertain previous studies on the lack of price transparency for various healthcare services. The general databases, i.e., Google Scholar, ABI-Informs, and JSTOR were used with specific keywords for this research. Queries were also tried in specific healthcare databases like PubMed Central which contains literature from MEDLINE; National Institute of Health, the nation’s medical health agency. Additional research was conducted in medical journals such as the Journal of the American Medical Association, Health Affairs, New England
Journal of Medicine, etc. Reports and healthcare information from the Government Accountability Office, National Conference of State Legislatures, Library of Congress, National Academy of Science, Institute of Medicine, Healthcare Laws, Legislations, Catalyst for Payment Reform, U.S. Department of Health and Human Services, Kaiser Family Foundation, PricewaterhouseCoopers Health Research Institute, Healthcare Financial Management, etc., were also reviewed. After reviewing about 400 articles for rigor, a summary of about 75 relevant articles was prepared. The summary was structured to address the research question and understand the current landscape of price transparency in healthcare. Though each article covered many issues, they were separated into six broad categories. The categories have related articles, though many articles had overlapping material.

**Literature Summary**

The literature review was divided into six categories (with some overlaps in some categories) to understand the concept of the price transparency in the healthcare industry. It was also discerned that the terms consumers and patients has been used interchangeably in the literature. It is important to recognize that all patients are consumers, but all consumers are not patients. Consumers make choices for healthcare but become patients only when they receive care (Beckers Hospital Review, 2015).
Table 1. Needs and Opportunities for Price Transparency

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<td>Reinhardt, U. E. (2014). Health care price transparency and economic theory.</td>
<td>• When identical service is sold to different buyers at different prices it is called price discrimination. This price discrimination is part of the U.S. health system. In U.S. every private health insurance negotiates prices with every healthcare practitioner. Large public health insurances like Medicaid and Medicare do not pay full fees to cover the full cost of treating patients and self-paying patients are asked to pay whatever can be pulled out from them sometimes with the help of debt collectors and the judiciary. (Reinhardt, 2014)</td>
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<td>Porter, M. E., &amp; Teisberg, E. O. (2007). How physicians can change the future of health care.</td>
<td>• Consumer-driven healthcare relies on the power of informed and engaged consumer, but currently they are uninformed and uninvolved. Choices of providers should be based on the value (price and quality). Consumers don’t have the capability and the information to drive the system or get value out of it. Thus they benefit from providers and medical teams’ involvement to help them make best choices for their health. (Porter &amp; Teisberg, 2007)</td>
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| Beck, M. (2014). How to bring the price of health care into the open. | • Price transparency is a simple yet radical idea. After the establishment of the Affordable Care Act, there is an impetus to change from consumers as well as from the insurance companies. This is a new territory in the healthcare industry because doctors and hospitals have never competed over price because the industry benefits from keeping the profit margins and cost muddy. The negotiation between the provider and payer have traditionally been proprietary. Neither the provider nor the payer wants the competition to know what they are willing to settle for. Most of the health plans offer some sort of transparency online tools for their members to address the demand in the healthcare industry.  

• Consumers should be given the price and the quality data together otherwise they could assume higher prices mean better quality.  

• Some experts believe that without consumer education price transparency will confuse rather than empower consumers and the price transparency efforts could backfire and result in high prices. If providers see that their competitors are paid more by the insurance companies, they too might increase their rates. (Beck, 2014) |
<p>| Brown, E. C. F. (2014). Irrational hospital pricing. | • The hospital prices are opaque and irrational and have no relationship with the cost of providing services. The services could be marked up from 100–1000%. Providers especially hospitals have incentives to inflate their prices for those with the least bargaining power and ability to pay, e.g. uninsured, out of network or high deductible patients thus resulting in higher overall cost in the market. They leverage their bargaining power against the payers. (Fuse Brown, 2014) |</p>
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<td>Brown, E. C. F. (2015). Resurrecting health care</td>
<td>• The U.S. spends more on healthcare than any other wealthy and developed nation. This is mostly because of high healthcare prices. Hospital services are the most expensive services bought by consumers and yet they don’t shop for it like for any other expensive products.&lt;br&gt;• Healthcare is expensive because of a number of undisciplined market forces. The overlapping of these multiple categories results in market failure.&lt;br&gt;• Lack of information on pricing and non-competitive marketplace results in increased pricing, creates monopolies and debts, bankruptcies and foreclosures for the society.&lt;br&gt;• Healthcare market inefficiencies can be solved by price transparency, but it does not address the non-competitive hospital market, who can still command high prices.&lt;br&gt;• Consumer Directed Health Care (CDHC), through the high-deductible plan, make the consumer aware of the healthcare cost and addresses the moral hazard problem by rationing the services through sensitization to price. Even with price information available, consumers will not or cannot bargain with hospitals because traditionally they have let the providers’ advice and prescribe what is good for them. (Fuse Brown, 2015)</td>
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<td>rate regulation.</td>
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<td>Leape, L. et al. (2009). Transforming healthcare: A safety imperative.</td>
<td>• Progress in the healthcare marketplace has been extremely slow. To move with the fast-paced era and have any meaningful improvement, five fundamental endeavors have to be achieved. Two fundamental attempts are to create transparency and engage consumers in making the decision for their own health. (Leape et al., 2009)</td>
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<td>Porter, M. E., &amp; Teisberg, E. O. (2004). Redefining competition in health care.</td>
<td>• The increase in healthcare cost but not the quality is the result of reduced competition, failure of reforms (wrong strategies, structure, and incentives) and lack of consumer awareness. This all can be changed to create a competitive marketplace by changing major ingredients like focusing on preventive healthcare, reforms to create competition, accessible information, and transparent pricing. (Porter &amp; Teisberg, 2004)</td>
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<td>Hall, A. (2014). Financial side effects: Why patients should be informed of costs.</td>
<td>• The cost of the treatment is obscure to the patient until after the treatment itself. Under informed consent, out of pocket cost should be presented to a patient before treatment takes place. This should be done as a part of disclosures like diagnoses, prognosis, and purpose of treatment, risk, and benefits, alternates. The cost to the patient is a part of bioethics and should be the moral foundation of disclosure and informed consent.&lt;br&gt;• In the U.S. healthcare system the medical and financial interest are inseparable and if the systems cannot disclose the cost to the patient then it is unsustainable both morally and financially. (Hall, 2014)</td>
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<td>Sands, D. Z., &amp; Wald, J. S. (2014). Transforming health care delivery through consumer engagement, health data transparency, and patient-generated health information.</td>
<td>• Ease of availability of communication technology has the capacity to provide effective information in healthcare. There is an untapped market so opportunities exist for us to harness this market for better decision making and self-improvement in the healthcare marketplace. (Sands &amp; Wald, 2014)</td>
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<td>Riggs, K. R., &amp; DeCamp, M. (2014). Providing price displays for physicians.</td>
<td>• With price transparency in focus, attention is given to increase consumer awareness, but less attention has been given to increase provider/physician awareness. Engaging providers is as important as engaging consumers. Research demonstrates that display of prices to the physician has been well received. When they are aware of the cost, they in-turn can help patients get cost-effective and high-value care. The physician generally has insufficient knowledge of the prices but this information will assist physician-patient shared decision making about treatment options and out of pocket cost. (Riggs &amp; DeCamp, 2014)</td>
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| GAO. (2011). Meaningful price information is difficult for consumers to obtain prior to receiving care. | • Price transparency is relevant to consumers who can plan services in advance. To be meaningful price transparency should be easily and timely available, credible, and easy to understand, paired with quality information and be actionable. Most meaningful price transparency will provide a consumer an estimate of total cost consumer has to pay – this will reflect any negotiated discounts, include all the cost associated with the service and out of pocket expenses. Healthcare industry has started to see price transparency initiatives grow because of regulations, consumer demand, insurances trying to get a competitive edge, and for a need for payers to reduce cost. Some initiatives such as Health Care Blue Book and PriceDoc were started to help consumers find fair prices for their healthcare services.  
• Providers use CPT codes (current procedural terminology) to price services. The CPT codes can be bundled together for an episode of care. PPACA requires HHS to help create bundled payments for an episode of care surrounding certain hospitalizations. GAO studied the extent to which healthcare price transparency is available to consumers. Quality information along with price information was important for the transparency measures. This information together can help consumers to make a better decision in selecting the greatest value of care (high quality and low-price provider). Research suggests that information on volume (number of services performed), mortality rates for a specific procedure, surgical complications or post-operation complications, average length of stay, and the satisfaction of the could help consumers make better decisions. The research found out that it is difficult to predict the price of healthcare service before it is provided because |
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<td>of various episode of care which may be provided by various providers and most of the time even providers are unaware of the cost off hand because of numerous insurances and their benefit structures. Insurance companies do not have the data required for calculating the real-time cost, prior to the patient receiving services. Legal factors can also be a barrier to price transparency as they prevent providers and insurers from sharing the contracted or negotiated rates. Thus, helping the consumers to make an informed decision. Lack of price transparency poses a serious threat to consumers who are being asked to pay a greater share of their healthcare cost. HHS and CMS are supporting various initiatives to promote price transparency.</td>
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<td>• Out of the 8 initiatives, Government Accountability Office (GAO) studies, only 2 were able to provide complete estimates because they have access to price data, negotiated rates, and claims data. Thus showing that despite complexities complete cost estimates can be provided to the consumers. (GAO, 2011)</td>
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<td>Ubel, P. A., Zafar, S. Y., &amp; Abernethy, A. P. (2013). Full disclosure - out-of-pocket costs as side effects.</td>
<td>• The article discusses the financial toxicity of high medical bills. Patients unknowingly face high financial concern as a side effect of their treatment that may deteriorate their well-being. It makes clinical sense to disclose financial consequences as side effects just as treatments’ side effects. Financial information is a vital component of the decision-making process that can help the patient 1) to seek monetary assistance before the treatment to avoid financial distress 2) choose between equally effective but potentially low-cost treatment alternatives.</td>
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<td>• The compromise between potential cost and benefit is ethically charged but patient engagement is harmed if financial impact is not discussed. But there are social and moral barriers to discussing cost. The providers feel that it’s their job is to provide the best care regardless of price and patients hesitate to ask because they feel that a discussion of cost might result in inferior treatment options. The discussion of money is not an easy discussion because of above-mentioned reasons and social barriers. Policy makers and healthcare stakeholders should push for price transparency to promote high-value care to reduce cost and improve efficiency. The article has a graph showing that as compared to private or public insured patients, uninsured patient below age 65 have more problem paying their medical bills or currently have a higher amount of medical bills that they are paying overtime or have a higher amount of medical bills that they can’t pay. (Ubel, Zafar, &amp; Abernethy, 2013)</td>
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<td>Phillips, K., &amp; Labno, A. (2014). <strong>Trend: Private companies provide health care price data.</strong></td>
<td>• The survey showed that most Americans (71%) don’t think that the price and quality are related. 21% believed there is a correlation and 8% were unsure. Consumers who had compared prices were more likely to perceive a positive association between price and quality. This can challenge the success of price transparency initiatives. Perceptions vary across demographic and other subgroups of consumers. (Phillips &amp; Labno, 2014)</td>
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<td>Schleifer, D. (2015). <strong>How much will it cost?</strong></td>
<td>• The majority of Americans have looked for price information and tried to find information before getting care. The survey suggested that consumers with higher deductibles were more likely to seek out price information. 21% compared prices across various providers and believed that they saved money and will do it again. The majority of the surveyed did not believe that higher price implied higher quality and wanted the payers to make transparent the amount they pay to the provider for the services. The research also highlighted barriers that most Americans are not aware that prices vary across the healthcare providers and are unsure where to find the information and how to compare prices. The most common way that consumers sought price information was by calling providers office or insurance companies; asking friends, relatives or colleagues; or checking the insurance companies’ websites. The majority of them would like to know the prices of the services in advance and about 40% said that they would choose a lower cost provider if the prices were known in advance. (Schleifer, 2015)</td>
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<td>Weimar, C. (2008). <strong>Doctors say future of price transparency appears cloudy.</strong></td>
<td>• The surveys show that majority of the physicians believe that there is a need for price transparency and that it is long overdue but were unsure of how the information will be presented and how the consumers will be educated to utilize it (Weimar, 2008)</td>
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<td>Sinaiko, A. D., &amp; Rosenthal, M. B. (2016). <strong>Examining a health care price transparency tool: Who uses it, and how they shop for care.</strong></td>
<td>• Aetna’s Member Payment Estimator, a web tool was studied to find out the demographic information on who was using it and for what reasons. Users of this tool were younger and healthier consumers with fewer comorbidities. They had higher annual deductible spending as compared to the nonusers. The services that were more often searched were planned, non-emergency service (like screenings, childbirth, imaging, non-emergency outpatient treatments etc. – called shop-able services). The consumer does not have an incentive to shop when the cost of the service dramatically exceeds the consumer’s deductible or when their out of pocket expense is fixed regardless of the provider (e.g. copays). Findings suggest that there is a need to focus on engaging consumers to use these tools (Sinaiko &amp; Rosenthal, 2016)</td>
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<td>Mehrotra, A. B., Tyler; Sinaiko, Anna D. (2014). Use patterns of a state health care price transparency website what do patients shop for?</td>
<td>• Several states have created price transparency website to help the consumers shop for prices. New Hampshire’s HealthCost website, which is at the forefront of this initiative was studied for a three-year period for this inquiry. The utility of the website was low. Only 1% of the state’s residents used the website. The most common searches were for outpatient visits, imaging, scans, and emergency department visits. (Mehrotra, Brannen, &amp; Sinaiko, 2014)</td>
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| Skinner, D. (2013). Defining medical necessity under the patient protection and affordable care act. | • Price Transparency will allow patients to know their financial responsibilities upfront and enabled them to determine how they want to pay. This will reduce the collection activities and the cost associated with them.  
• Numerous providers are providing price transparency on their websites just to follow the state mandate to list charges for some of their common procedures. Though consumers are attracted to providers with price transparency and they can differentiate themselves by truly embracing price transparency and understanding consumers’ need. Marketing campaigns and consumer-centric branding can incorporate price transparency and arrangement for payment can be made before the treatment is rendered. (Skinner, 2013) |
| Brennan, K. B., Bonney, R. S., Bertschinger, W., & Banks, K. (2006). Are you ready for pricing transparency? | • William Bertschinger, division chair, patient financial services, at Mayo Clinic in Rochester, Minn. mentioned that price transparency along with simplified billing will be required to reduce the frustration and satisfy the consumer. He explains that price transparency is not a technology issue but a cultural issue and remarks that if the hospitals don’t come up this vision for the future, the government will eventually take the lead and do it for them. (Brennan, Bonney, Bertschinger, & Banks, 2006) |

**Table 2. Advantages of Having Price Transparency**

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<td>Kane, C. S., &amp; Harvey, G. (2015). Demystifying patient price estimates. The advantages of transparency.</td>
<td>• Consumers are asking for price transparent. Providers seeking to distinguish themselves and gain an edge should defy the secrecy and be receptive to this request. Providers who address these concerns proactively can be market differentiators. These future thinking providers can create competitive advantage by advertising their ability to provide price estimates and arrange for practical payment plans before services are rendered. It is indicated that patients will be attracted to these providers and are likely to access their services and follow through with the payment. (Kane &amp; Harvey, 2015)</td>
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• Price transparency resulted in a 16% reduction in prices of a lab test, 15% reduction in prices of imaging and 1% reduction in physician office visit pricing. (Whaley, 2015)  
• An insurance-initiated price transparency program resulted in patients choosing the lower cost facility (non-hospital) for MRI. This prompted the higher cost facility (hospital) to respond and resulted in a 30% reduction in price variation between the hospital and non-hospital facilities. (Wu, Sylwestrzak, Shah, & DeVries, 2014)  
• An experiment conducted to obtain the price of elective surgical procedure (hip arthroplasty) revealed wide variation in quoted prices (so shopping may result in considerable savings), difficulty in obtaining information and lack of provider knowledge to give price estimates. (Rosenthal, Lu, & Cram, 2013)  
• Increased transparency can reduce prices and increase competition but including quality can reduce commoditization and enable true value-based competition. (Durand et al., 2015)  
• Reference Pricing: A strategy where employers allow the employees to choose the providers but set a limit on what they would pay for a certain service. These practices lower the bargaining power of the hospitals as providers because they try to become a high-value provider and attract patient volume. To reduce their expenditure, some employers have used reference-pricing (allowed charges), to establish the limits they would pay for certain procedures covered under their insurance. Employees have to pay the difference between the prices if they choose a higher cost provider. This encourages the employees to choose low-cost providers and encourages providers to keep the prices low. |
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<td>within limits to draw increased patient volume California Public</td>
<td>It is expected that consumers will use healthcare price transparency data to choose high-value providers (higher quality and lower prices) that will help control national spending. The survey showed most consumers associate higher providers (higher quality and lower prices) that will help control national spending. The survey showed most consumers associate higher cost with a higher standard and vice versa and changing the perspective is challenging. It was found that when quality and cost were presented together then consumer looked at both and picked higher quality regardless of the cost to make an informed decision. (Hibbard, Greene, Sofaer, Firminger, &amp; Hirsh, 2012)</td>
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<td>Employees’ Retirement System (CalPERS). In the first year, the volume of</td>
<td>As per the Journal of Patient Safety, if the consumers were asked to shop by price only, they would pick higher price only if they thought higher price related to better quality. Once they were given quality and price information, they choose quality regardless of the price, showing that quality supersedes price. (Duke, Smith, Lynch, &amp; Slover, 2014)</td>
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<td>knee and hip surgeries at the low-priced facilities increased by 21% and</td>
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<td>decreased by 34.4% at high-priced facilities. Prices charged to the</td>
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<td>members reduced by 5.6% in low-priced facilities and by 34.3% at</td>
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<td>high-priced facilities. This accounted for $2.8 million saving for</td>
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<td>CalPERS and $0.3 million in lower cost-sharing for members in 2011.</td>
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<td>(James C Robinson &amp; Brown, 2013)</td>
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<td>Hibbard, J. H. G., Jessica; Sofaer, Shoshanna; Firminger, Kirsten;</td>
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<td>Hirsh, Judith. (2012). An experiment shows that a well-designed report</td>
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<td>on costs and quality can help consumers choose high-value health care.</td>
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<td>of hospital safety scores, total price, out-of-pocket cost, and</td>
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<td>household income on consumers' self-reported choice of hospitals.</td>
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<td>Austin, A., &amp; Gravelle, J. G. (2007). Does price transparency improve</td>
<td>In all markets prices generally differ because of two reasons – price differentiation and price discrimination and both of these characters exist in the Healthcare market. Hospitals try to charge more from uninsured patients who have lower income than insured patients because the uninsured have lower bargaining power. Healthcare differs from other commodity markets and few characters result in price discrimination and limit price transparency. These factors are: Healthcare is complicated and affects different people in different ways. Patients don’t know what they want. So, providers rather than consumers pick the product to be purchased. Patients pick Physicians and physicians pick hospitals. So, patients don’t have control over what hospital they go to. Other peoples’ money pays for hospital care (Hospital earns 1/3rd of revenue from Medicare, 1/3rd from private insurances and 1/6th from Medicaid). Insurances though protect consumers from financial consequences they also make them insensitive to the price. Out of pocket deductible is generally met for patients with complicated cases, so they are fully covered and thus insensitive to the prices. In either case, price plays little role in the choice of treatment. Payment for a</td>
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<td>market efficiency? Implications of empirical evidence in other markets</td>
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<td>for the health sector.</td>
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<td>service depends not just on the patient’s medical condition but also on the negotiated power of the patient’s insurer. Patients have poor or no information about hospital quality and cost because of lack of price transparency.</td>
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<td>• Price discrimination in healthcare occurs because of two reasons: Government policies w.r.t Medicare and Medicaid through the bargaining power of the insurance companies (the prices are generally set high to leave room for bargaining and discounting) and through providing some amount of free care for the needy. As consumers find out price differences, the prices might come equilibrium position.</td>
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<td>• Price transparency in healthcare may improve healthcare quality. Consumers still have difficulty finding useful price information to make informed decisions. Some of the transparency initiatives have shown minimal visible effect. Public pressure and the increased competition itself have resulted in a good pricing behavior from the providers.</td>
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<td>• The major difference between commodity and Healthcare market is that here patients pick physicians and physicians pick hospitals. So, consumer’s pressure to hold down the prices is more difficult, but they can exert pressure and question physicians. The publicity of price difference may result in voluntary compliance. Once price transparency results in reducing cost, it will also help hospitals to become productive. Reduction in prices will result in a reduction of amenities in healthcare. Lower prices could expand healthcare and increase the demand for procedures and services, thus bringing in high volume. Innovative providers may find ways to expand healthcare by using efficient and more cheaper methods. (Austin &amp; Gravelle, 2007)</td>
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<td>• Consumer-directed health plans (CDHPs) are plans where consumers participate actively in their healthcare. These plans are high deductible plans (over a $1000 for single coverage). The survey found that cost-conscious consumers are more likely to participate in these plans. As compared to the control group they are more likely to ask for lower cost alternatives, shop for the cost of the visit/ service, and choose lower cost option. These consumers feel vulnerable to high medical bills and over time have skipped recommended treatment, opted out of the medical care that was needed, did not fill prescriptions or took lesser doses of prescription as compared to the control group to save on the cost. (KFF, 2006)</td>
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<td>Coluni, B. (2012). Save $36 billion in us healthcare spending through price transparency.</td>
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<td>• For the employer-sponsored insurance program, price transparency can result in savings of $36 billion for the individuals and $6.8 million for employers over a 3-year period. (Coluni, 2012)</td>
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Table 3. Disadvantages of Having Price Transparency

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<td>Kyle, M. K., &amp; Ridley, D. B. (2007). Would greater transparency and uniformity of health care prices benefit poor patients?</td>
<td>• Thought price transparency can increase competition and reduce cost, it can also, deter businesses to enter bad markets, lower investment in quality care and lead the poor to pay more. (Kyle &amp; Ridley, 2007)</td>
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<td>Altman, S. H., Shactman, D., &amp; Eilat, E. (2006). Could us hospitals go the way of us airlines?</td>
<td>• Hospitals could become like the airline industry if price transparency initiatives succeed. Price transparency can reduce inefficiencies and make an industry lean but in the case of healthcare, it can be a morally charged issue. Price transparency would result in severe cost cutting, eliminating services, create efficiencies. If this happens then by 2025, hospitals would no longer be able to cross-subsidize Medicare, Medicaid and uninsured. The institutes that have provided important and needed services for their communities will no longer be able to do it. Price transparency will benefit all if the political system would be willing to pay for underfunded and needed services. (Altman, Shactman, &amp; Eilat, 2006)</td>
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Table 4. Ways to Create Price Transparency

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<td>Cornett, B. S. (2007). Transparency in health care: Through a glass, dimly.</td>
<td>• Incentives and rewards have to be aligned among all stakeholders - policymakers, providers, purchasers, payers, and patients, for any meaningful change to take place. Effective price transparency can be created by the right attitudes and attributes, appropriate culture, establishing effective policies and procedures, employee training, programs and processes to protect competitive intelligence and active communication among important stakeholders. (Cornett, 2007)</td>
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<td>Houk, S., &amp; Cleverley, J. O. (2014). How hospitals approach price transparency: The issue of price transparency has become more prevalent in health care recently, but hospitals may have different views of the concept depending on their relative charge levels.</td>
<td>• Hospitals were surveyed on ways to create price transparency. All respondent recognized it to be a strategic move but mentioned that there were challenges related to price transparency. The article presents a 5 point checklist to prepare for price transparency – buy-in of the leadership team, identify the starting point i.e. lower priced, higher demand services as a good starting point for price transparency efforts, consider how to disseminate price transparency information, identify other information that would help consumers assess the value of the service provided (e.g. provide quality and safety information), explain the healthcare pricing and why it differs from one provider to another. (Houk &amp; Cleverley, 2014)</td>
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<td>de Brantes, F., &amp; Delbanco, S. F. (2015). Getting accurate price estimates from price transparency tools.</td>
<td>One in five Americans has high deductible plans. 61% of employees in small firms and 41% of workers overall have a deductible of $1000. The deductible for a single coverage is $1200, with the total average healthcare cost of $2000. Showing that the individual pays 63% of the total healthcare expense from out of pocket. Beyond the out of pocket cost, there is co-insurance cost. The cost sharing for an individual for healthcare can go up to as high as $20,000/year. For insured consumers, healthcare is becoming a retail industry, where they can shop for prices. This need of shopping is being understood and many employers and they are providing price information to their employees through third-party vendors. The articles give the definition of price transparency. Price is defined as an estimate of the total cost for a healthcare service(s) after negotiated discounts.</td>
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<td>Today, most of all healthcare plans (about 98%) offer some type of online price transparency tool. The 2013 National Scorecard on Payment Reform shows that only 2% of consumers actually use this tool. As a result, the healthcare plans have turned to independent, third-party vendors in search of better tools. Castlight Health, Truven Analytics, Change Healthcare, and Healthcare Bluebook have been successful in developing good price transparency tools.</td>
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<td>Price transparency tools should provide information on price, quality and consumer’s share of the cost. Successful vendors claim an engagement rate as high as 60%. The article list how the tool can be consumer-friendly (ease of use, easy to understand, shows quality measure, allows comparison on price and quality side by side, helps consumers understand the value, contains information on other services e.g. pharmacy etc., help avoid unneeded care, help find less expensive options, encourage consumers to continue using the tool, can be customized, can provide reports to employers on utilization, savings, etc.)</td>
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<td>The article also mentions that even though the tools provide all this information, most of them lack accuracy and provide misleading or incomplete information which hurts the consumer. Most common problems and their solutions are suggested: A. Incomplete definitions of medical episodes (to prevent the vendors should 1. Clearly, defining an episode of care and alert of any additional cost. 2. Help consumers understand the difference between typical services vs. service with healthcare complications. 3. Have a provider score based on unplanned admissions vs. readmissions. 4. Provide information on outcomes for both short-term and long-term services) B. Ignoring weather providers deliver needed vs. unneeded services (to prevent this vendor should 1. Educate consumers on needed</td>
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<td>vs. unneeded services, 2. Create standard episode price based on recommended care) C. Creating price estimates from a small number of cases (to prevent this vendor should 1. Not show price estimates when the sample size is small. 2. Include confidence interval with price estimates. 3. Disclose the consumers about the provider’s whose price information is blocked due to gag clause by the provider) D. Not accounting for rate increases (to prevent this vendor should ensure that the published prices are either adjusted to reflect any recent negotiation fee or indicate the year for which the price is published) E. Not using visuals that are easy to understand and interpret (to prevent this vendor should stress on ease of use and ease of interpretation of information by the consumer). (François de Brantes &amp; Delbanco, 2015).</td>
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Ubérl, P. A. (2014). Can patients in the united states become savvy health care consumers? • For effective price transparency, information needs to be clear and incorporated into clinical conversations (with providers) of the pros and cons of healthcare services and any alternative options. Patients trust their providers and providers can offer information about options in a more meaningful (simpler) way to improve shared decision making. Medical training needs to place an emphasis on communication and empathy with patients. Smarter and better incentives should be designed to help consumers make smart decisions. Reference-based pricing can be incorporated to align consumer incentives of medical and financial decision making. (Ubérl, 2014).

Donovan, C. J., Mazoh, M., Brown, J. P., Moore, S., & Skalka, C. (2008). Surviving in the age of price transparency: A pricing model can be designed to not only create competitive advantage for a healthcare organization but also provide value to its patients. • To establish price transparency the first thing to do is to establish prices for the services. For this healthcare providers need to determine line item cost for the services. This cost should be routinely examined. Organizations will need to invest time and resources to develop detailed costs. Providers can work with payers and consumers to align payment strategies. Executive involvement and support are important. • Providers play an important role in creating trust by communicating value and other quality markers. In order to promote trust, many hospitals are providing consistent prices for their services. Creating price transparency is not a quick fix but will require strategic vision with measurable short, medium and long-term goals. (Donovan, Mazoh, Brown, Moore, & Skalka, 2008)
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<td>Decker, S. (2013). Getting in on transparency.</td>
<td>• Price transparency could transform the healthcare industry completely. Companies like Amazon have changed the way people shop by publishing the range of prices, customer reviews, and the quality of each vendor. This helps consumers to find the product that best fits their needs and budget. This transparency allows for easy and convenient decision making by providing information on their fingertips in one place. If this could be carried over to healthcare space, it will educate consumers to make an informed decision. The push for transparency is coming from the Center for Medicare and Medicaid Services (CMS). The U.S. senators appealed the Government Accountability Office (GAO) to examine consumers’ accessibility to accurate healthcare pricing information. Board of Directors of America’s Insurance Plan (AHIP) outlined price transparency as one of the strategies, to reduce cost and make healthcare more affordable. A survey conducted by CICERO Group presented on the opportunity to educate healthcare executives about transparency. Though the push is apparent, price transparency implementation has been weak because the tools are relatively new and lack presentation for accurate price information. The lack of price transparency is a result of the large investment of time and money to gather data and to create proprietary tools to interpret the data into useful information. Although the impact of price transparency is still being debated, a study found that the use of a cost estimation tool could have saved nearly $50 million had all the members of the health plan used it for lower cost options. A provider can differentiate based on price transparency by communicating directly with consumers. To thrive price transparency must be embraced to meet the needs of savvy consumers. Despite internal and external challenges, health plans are poised to continue with their efforts of creating price transparency. (Decker, 2013)</td>
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<tr>
<td>PwC. (2014). Healthcare’s new entrants: Who will be the industry’s Amazon.com.</td>
<td>• A survey done by PWC’s health research institute shows that consumers are looking for convenient and affordable healthcare, for example, getting a flu shot from Walgreens or buying a home kit to diagnose strep throat or getting a flat fee physical at retail clinics etc. These conveniences are improving the bargaining power of the consumer and will result in a market shift towards services that consumers can shop for. Some insurance companies have started providing price transparency tools for their members but still to come is national comprehensive healthcare shopping option. The survey revealed that consumers prefer an online healthcare shopping website to compare prices over either calling providers/insurances or using insurance companies’ websites. To remain competitive healthcare providers will have to think about consumers first and then work backward. They</td>
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- High deductible insurance has resulted in an evolution of cash only doctors. They are the pioneer in providing the consumers with price transparency. Prices are given an upfront and the third-party payer is eliminated to simplify the system. These providers have dis-enrolled from insurance plans, simplified the process and have a B to C relationship and provide service for cash. This practice allows the providers to better consumer satisfaction, creating loyalty. Cash only doctors could alienate consumers with a lower deductible. (Hammond, 2011)

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<td>PwC, 2014</td>
<td>will have to focus on B to C (provider to consumer) rather than B to B (provider to payer). Consumers will favor and reward those who provide ease and affordability in healthcare lists like online shopping for travel, entertainment, and consumer goods. PwC predicts that within a decade heal care will look and feel like consumer-oriented-tech industry. The obstacle to change is the third-party payment system. But success will prevail if consumer desires, regulatory requirements, and reimbursement complexities are understood.</td>
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<td>Reinhardt, U. E. (2013). The disruptive innovation of price transparency in health care.</td>
<td>The article mentions two reasons on why Americans pay higher prices for their healthcare services: First -the private health sector in the U.S. is highly fragmented and this limits the bargaining power (market power) of insurers against consolidated hospitals; Second, the veil of secrecy surrounding healthcare prices negotiated in private sector.</td>
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<tr>
<td>Thompson, T. G. (2007). Advocating price transparency.</td>
<td>This article discusses various barriers to price transparency. The first barrier to transparency is a lack of initiation from providers, to not put the information out. The attitude has to change and the providers have to be convinced that this is the right thing to do. The second barrier is a lack of uniform standards to present the information so that consumers can easily decipher it. The third barrier is a lack of interoperability between different regions because of the lack of uniform standards for quality and cost comparison. The fourth barrier is a lack of accurate information from the providers.</td>
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<tr>
<td>Tu, H. T. &amp; May, J. H. (2007). Self-pay markets in health care: Consumer Nirvana or caveat emptor?</td>
<td>As consumers make cost-conscious decisions, for self-pay procedures, they will shop even less if there is a lack of urgency or the cost of obtaining necessary information/quotes is high,</td>
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<td>and if there are quality concerns. Instead of shopping, they would just rely on word of mouth. It is argued that if there is limited shopping for self-pay procedures, then the shopping would be even more limited for the procedures covered by the insurances. (Tu &amp; May, 2007)</td>
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<td>Chen, J., Mullins, C. D., Novak, P., &amp; Thomas, S. B. (2016). Personalized Strategies to Activate and Empower Patients in Health Care and Reduce Health Disparities.</td>
<td>• To remove the culture barrier in healthcare, culturally sensitive interventions are essential to encourage patients to actively participate in their own healthcare. These tailored strategies will sustain patients’ involvement by imparting them knowledge and confidence to ask questions about their healthcare. Designing such methodologies will empower consumers to participate in decision-making. Knowledge and transparency are critical to creating such interventions. (Chen, Mullins, Novak, &amp; Thomas, 2016)</td>
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<tr>
<td>Betbeze, P. (2015). Health care Price Transparency: Patients and Payers Versus Providers?</td>
<td>• It is expected that 2/3 of the healthcare services will become price sensitive in the next decade. Consumers and payers are demanding price transparency but a stumbling block for providers is to provide the exact cost of care because the accurate pricing of healthcare service is absence. Though, it can create efficiencies, the release of price data has put providers on the defensive, resulting in a pushback. The high margin procedures generally subsidize money for specialized programs, so transparency impact these programs negatively. Rather than pushing back, providers and payers should work together to meet consumer demand and create price transparency. (Betbeze, 2015b)</td>
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<tr>
<td>Betbeze, P. (2015). The great transparency movement? The ability of consumers to shop for health care services based on price and quality won't take hold until innovative providers take some risk and a dose of faith.</td>
<td>• The complexity of healthcare procedures, health, coding, misplaced financial incentive and consumers, who have been historically shielded from participating in their own care are few reasons providers have not focused their resources (time, effort and expense) to making this process simpler. As the pressure mounts to create price transparency, the time and magnitude it has on the providers are unclear. (Betbeze, 2015a)</td>
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| Caballero, A. (2015). The state of price transparency and payment reform. | • Prices for a healthcare service can vary as much as 700% within the U.S.  
• Numerous health plans provide price transparency tools but a survey in 2013 indicated that only 2% of the health plan members are using the tools. (Caballero, 2015) |
| Mitka, M. (2011). Price of health care services. | • Government accountability office list barriers faced by consumers in getting cost information, such as refusal by insurers to share negotiated prices as this is proprietary in nature. Of the initiatives taken to create price transparency, two of the eight price transparency initiatives reviewed were found to give a complete cost and rest six had are certain constraining factors |
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<tr>
<td>Sinaiko, A. D., &amp; Rosenthal, M. B. (2011). Increased price transparency in health care — Challenges and potential effects.</td>
<td>• Congress passed three bills to improve healthcare transparency in 2010. Thirty (30) states are planning to implement price transparency for consumers. This would result in cost-conscious shopping for a lower cost provider, thus improving competition. If there is a weak response to comparative price information, lower-priced providers may raise their prices to match the higher priced provider, thus increasing the overall price level. The belief that higher cost must be better might result in a weak response to the transparency initiatives thus inspiring lower cost providers to raise their prices. Lack of competition in smaller areas with price transparency has not resulted in any cost reduction. Quality and health complication might change the pricing of care resulting the provider having to explain it to the patient. (Sinaiko &amp; Rosenthal, 2011)</td>
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| Ginsburg, P. B. (2007). Shopping for price in medical care. | • The taboo about consumers considering cost while deciding about healthcare is starting to erode. Price transparency discussion has downplayed the complexities in healthcare like medical care, the guidance of the providers, the role of the insurer as an agent for consumer and a purchaser in negotiating prices with providers. Shopping for healthcare is either done directly by the consumer or indirectly through their enrollment plan. Though it is thought that price transparency will reduce prices, but it could affect the quality. Lower income people will not be able to afford providers with high quality who also have higher prices. Also, the pressure on providers to reduce prices will stop them invest in order to improve quality. People considering choosing a lower cost provider might regret their decision based on quality.  
• The effectiveness and quality of the data will create better price transparency. Policy makers are pushing consumerism by providing incentives for high-deductible plans and pushing providers to post their prices. Price transparency will help consumers find a better value and pressure providers to lower their cost, slow the rising cost of healthcare and increase quality. Some situations are more suitable for price shopping than the others for example non-urgent services (urgent services cannot be shopped for but if a consumer had chosen a provider before the problem for the medical problem, the urgency can be shoppable too), non-complex services (consumers have a better idea of what they are shopping for and not worried about the variation in |
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<td>Merlis, M. (2007). Health care price transparency and price competition.</td>
<td>Consumers have an incentive to shop for prices because of high deductible plans. They still cannot make informed decisions because of the complex pricing system and the lack of publicly available information on prices. Many initiatives are underway from insurers, providers, state and federal agencies, and other third-party sources. One episode of care could differ from...</td>
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<td>• With high deductibles and higher co-insurance price information is becoming a priority for consumers. Reference pricing (patients pay the difference between price negotiated with the hospital and the price of a low-cost hospital (reference hospital) would increase the need for price shopping. Generally, the insurance tries to keep negotiated or contract prices with hospitals confidential. Regulations are playing an important part in price transparency. Policy makers at both federal and state levels have plans to help with the collection and publication of price data and consumer education on price shopping. Transparency efforts have already started at these levels.</td>
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<td>• For the insured consumers, insurers are in the best position to provide information on price differences among providers. For highly concentrated markets publishing the prices between providers and insurers might lead to higher than lower prices. Posting contract pricing can result in increased prices because the hospital will try to negotiate higher prices for services as the other highly paid provider.</td>
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<td>• Engaging consumer directly in comparing price and quality of the provider could reduce the cost, increase efficiency and quality. Insurers are well positioned to facilitate the transparency because of their ability to analyze complex information on prices and quality and translate it into usable data for their enrollees. The government can also help uninsured by posting prices and quality information. (Ginsburg, 2007)</td>
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<td>another because of the complexity with regards to testing performed and other providers involved.</td>
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<td>• If all providers and insurers knew all the prices providers received for a procedure, it could create an anti-competitive effect of shared price information. A provider may demand more for a service if it learned that the insurer was paying more to the other provider for the same service, thus increasing prices. Conversely, if an insurer learned that a provider was giving pricing discounts to competing insurers, they might demand same discounts, thus reducing prices. Higher bargaining power of either the provider or the payer will dictate the rise or fall in prices. Price transparency was previously under antitrust laws but is becoming more open.</td>
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<td>• To create simpler standardized pricing for a service, providers could use certain scales, or charge same uniform rates for all purchasers (insured or uninsured). In the latter case, the competition will be at the level of the health insurer and the discounts they can get from the providers.</td>
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<td>• Some proponents of price transparency feel that it will result in lowering the prices and improving quality, other says that the impact will be limited (because healthcare decisions are complicated and made urgently as a result consumer might not be able to or willing to shop; the financial incentives to shop for prices might not be strong because consumers only pay a fraction of true cost)</td>
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<td>• Studies have shown that cost sharing led to reduced overall spending. Price shopping may be more practical for frequent shoppers of healthcare services, e.g. patients with chronic conditions or for pediatric care services. Providers should actively discuss cost with their patients to promote price transparency. (Merlis, 2007) (This paper was written in 2007, incentives to shop have gone higher since because of increase in high deductible plans.)</td>
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<td>O'Kane, M. et al. (2014). Demanding value from our health care: Motivating patient action to reduce waste in health care.</td>
<td>• To get value out of the healthcare system, it is important to understand what is of value to consumers. One surveyed found 60% of people were not confident that the cost of healthcare could be reduced by shopping around.</td>
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<td>• Studies found that consumers can make improving health are value decisions when they are involved in their own care. Providing information alone is not enough unless it is easy to find and the consumers know how to use it. The challenge in involving consumers is that they are reluctant to talk about value, in some cases because they consider value as rationing and lesser quality of care. (O'Kane et al., 2012)</td>
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<td>Danzon, P. (1993). Health care industry.</td>
<td>• Healthcare industry does not have a defined output, like a shoe factory. The output is less defined, unpredictable, imperfect and not understood by both producers and consumers. The output is stochastic and dynamic. Nonetheless, healthcare industry obeys the fundamental rules of economics. In this industry, there is asymmetric information with consumers totally relying on the advice of the providers to understand the risk and benefits of treatment. The complexity arises because the provider is an agent not only for the patient but also for the third-party payer who in-turn is the ultimate agent of the patient. The government also is pervasive in healthcare because it is the largest insurer through Medicare and Medicaid. (Danzon, 1993)</td>
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Table 6. Healthcare Price Transparency in Action

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<td>Hegwer, L. R. (2015). Case studies in price transparency.</td>
<td>• Case study - successful price transparency initiative at MetroHealth System in Cleveland OH. Not only did the hospital increase customer satisfaction but also reduced the days in account receivable and has helped with from self-pay collections. (Hegwer, 2015)</td>
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| Whitehouse, D. (2015). Getting ahead on price transparency: A playbook for healthcare finance leaders: The movement toward transparency in pricing is gaining steam in the healthcare sector. | • Trends to create price transparency are evident on a national and state level. Centers for Medicare & Medicaid Services (CMS), in 2011, started publishing hospital-specific prices from Medicare data. A few websites like ContactMyDoc.com and Guroo.com are aimed to provide price transparency. As the trend of financial burden is shifting towards individuals, the consumer is more aware and cost-conscious just like payers. The healthcare providers need to catch up with this demand to create price transparency. Providers can distinguish themselves by defining prices as well as delivering value. (Whitehouse, 2015)  
• Six of the eight websites for transparency on radiology practices reported prices of the services. The sites also provided information on the quality of providers. Price comparison websites are helping consumers to choose price and quality of services. (Rosenkrantz & Doshi, 2016) |
| Tu, H. T., & Lauer, J. R. (2009). Impact of health care price transparency on price variation: The New Hampshire experience. | • New Hampshire is a unique market with weak provider competition (only 30 hospitals and 3 commercial insurers). It is a national leader in providing cost information on healthcare services paid by public and private insurers (NH HealthCost.com). Price transparency has resulted in an unenthusiastic price change. But this has helped to employers                                                                                                                                                           |
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<td>Kutscher, B. (2015). New Hampshire website reduces sticker shock for patients.</td>
<td>and policy makers to focus on the price difference and has resulted in some hospitals to moderate their demands for rate reductions and policy makers to focus on the price difference and has resulted in some hospitals to moderate their demands for rate reductions. NH was the only state to receive A grade in an annual report card on state transparency efforts issued by Catalyst for Payment Reform and the Healthcare Incentive Improvement Institute. It recognized as a national leader in creating price transparency services. Consumers can look up the actual price and their out-of-pocket cost. The state established a comprehensive health information system (CHIS) is a database of all-payer claims. Publishing the rates that insurance (both public and private) pays to the provider has an impact on the payment negotiation between providers and insurance. Price transparency has encouraged consumers to seek low-cost providers and prompted hospitals to offer lower cost care setting. Thought this website is visited by consumers, providers and insurers have been more involved. Employers can compare health plans premium and benefits through NH HealthCost. Health plans have started offering incentives to consumers for choosing a lower cost provider. State lawmakers require the providers to publish their charges but NH HealthCost (state website) has taken the pressure of the providers to post their prices. (Kutscher, 2015)</td>
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<td>Dafny, L., &amp; Cutler, D. (2011). Designing transparency systems for medical care prices.</td>
<td>Legislation introduced in 2011, mandates price transparency. States have passed their own price transparency laws. Though 34 states are using tools for price comparison, could result in cost reduction, it also could result in an increase in pricing especially in the case of imperfect markets. (Dafny &amp; Cutler, 2011)</td>
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<td>de Brantes, F., &amp; Delbanco, S. (2016). Report Card on State Price Transparency Laws</td>
<td>Many states have enacted legislation and have price transparency laws and regulation that mandates a public website. A review of state transparency laws conducted by Catalyst for Payment Reform (CPR) and Healthcare Incentives Improvement Institute (HC13) revealed that 90% of them failed to provide adequate information to their consumers because of poor design or inadequate functionality. Two states NH and Massachusetts received an A. (François de Brantes &amp; Delbanco, 2016) Systematic Internet searches were conducted to identify patient-oriented websites hosted by a state-specific institution. 62 such websites were found, out of which about ½ were launched in 2006. Opportunities exist to enhance the usability and effectiveness of these websites to focus on predictable non-urgent services. (Kullgren, Duey, &amp; Werner, 2013)</td>
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<td>NCSL (National Conference of State Legislatures). (2015). Hospital provider charge and actual payment data.</td>
<td>• As per National Conference of State Legislatures Centers for Medicare and Medicaid Services (CMS) have “Hospital Provider Charge and Actual Payment” database that compares charges of 100 common inpatient services and 30 common outpatient services in the country. The database includes the list price of 170,000 services across 3,300 hospitals as well as the actual amount paid by Medicare. (NCSL, 2015)</td>
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| Bumpass, D. B., & Samora, J. B. (2015). Price transparency in health care: The other half of the value equation. | • This price information is specific to a region and healthcare providers and should be available both to the consumer and third-party payer in a useable format prior to the purchase of a healthcare service. In the digital era, the consumers are savvy and adept at searching for maximum value for goods and services. Policy experts believe that empowering consumers to make value-driven choices in healthcare is the key to controlling the escalating healthcare costs. To this extent, accurate information on both quality and cost has to be presented. However, with the complex nature of healthcare economics, this goal is easier proposed than accomplished. Although empowering consumers will help them to select high-value healthcare if price and quality information is provided.  
• Currently, there are three primary sources of price transparency data: Insurance Companies, Center for Medicare and Medicaid Services (CMS) and State-run websites that publish all-payer claims databases (APCDs) and hospital pricing data. The information provided to the consumers through the Online Decision-Making tools (via their insurers) is inconsistent, with pricing information generally missing, privy only to the insurers’ customer base. Studies found that the current Medicaid data is irrelevant for the purpose of providing lowest cost hospitals. Currently, 12 states have APCDs and this information is available to the general public. Hospitals are also complying with the state price transparency regulations in over 35 states. However, not all the information is clear and useable. To meet the demand for price transparency, companies like CastLight Health and Healthcare Blue Book, are providing better pricing information. |

• With increased enrollment in high deductible plans, healthcare stakeholders are becoming more price sensitive.  
• To be successful in transparency endeavors, robust laws and regulation are needed that mandate provider to share the price information of procedures. Elizabeth Mitchell, CEO and President of Network for Regional Healthcare Improvement, feels that strong leadership at the federal level can improve price transparency. Medicare has started to release information on the cost of services and what doctors get paid. Mitchell feels if Medicare leads, others will follow. (Appold, 2016)
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<td>tools. Complexity, proprietary information on pricing data are the barriers to achieving price transparency. If both pricing and quality information is not available to the consumers, they might mistake cost for quality which is not frequently true. Collaboration between all the stakeholders (Insurers, employers, providers, and non-governmental healthcare quality stakeholders) and government (legislative efforts) is critical to the success of price transparency. (Bumpass &amp; Samora, 2015)</td>
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| Hammer, D. C. (2006). Adapting customer service to consumer-directed health care: By implementing new tools that provide greater transparency in billing, hospitals can decrease collection costs while improving consumer satisfaction. | • With the rise in consumer-directed, high-deductible healthcare plans, consumers instead of payers are shouldering an increasing amount of cost. The onus has shifted consumers and they are facing sticker shock and confusion. This shift is creating consumer demand for the value of healthcare, both for quality and price. With consumers paying for most of their cost, the risk of collection expenses shifts now to the providers. To mitigate the risks the providers, have to improve consumer relations, educate the consumer and share information i.e. provide price transparency, to reduce sticker shock and meaning full billing. 
• Few providers and hospitals have started providing price transparency and simplified billing through online tools to provide meaning full information to consumers. These tools are already paying off through increased payments, reduced cost of mailing and collection calls, increased customer satisfaction and loyalty. Thus, giving these providers a leadership role in the rapidly evolving market. As the advantages become clear, more of the providers will take a plunge to follow the price transparency trend. (Hammer, 2006) |
| Kaplan, J. L., & Mills, P. H. (2016). Price transparency in the online age. | • A study for price transparency in the field of plastic surgery revealed reduced advertisement and consultation cost when the surgeon's website was integrated with the price transparency platform. Consumers had the ability to create a wish list for plastic surgery and receive the breakdown of the price/fee for the procedure. Without any advertisement expenditure, the website had 208 consumers submitting 402 wish lists. On receiving the price for procedures, Approx. 18% of the consumers came back for consultation and 62% got the procedure done. This generated $92,000 in revenue, repeat customers, a lead generation without having to spend on advertisement. The price-aware consumers were 41% more likely book a procedure as compared to non-price aware consumers because of awareness, and reduced sticker shock. (Kaplan & Mills, 2016) |
Discussion

Patients rarely know the total cost of care until after the care has been provided. Price discrimination in the healthcare market is an understatement. There is so much of this discrimination that goes unnoticed because of the consumers lack awareness. For example, table 7 shows that a hospital charges different prices for the same service depending on who is paying for the service. Just by looking at table 7 (adapted from (Beck, 2014)), the idea of creating price transparency in healthcare seems quite apparent because the prices for an MRI for the knee, hip or ankle, without contrast at the same facility vary from $2,844 to $335 based on how you pay.

Table 7. One Test, Many Prices: The Cost Depends On Who's Paying*

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<th>Who Pays</th>
<th>Prices for the Same service</th>
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<td>List or &quot;chargemaster&quot; price</td>
<td>$2,844</td>
</tr>
<tr>
<td>Cash price</td>
<td>$695</td>
</tr>
<tr>
<td>UnitedHealth care negotiated price</td>
<td>$1,990</td>
</tr>
<tr>
<td>Blue Cross negotiated price</td>
<td>$617</td>
</tr>
<tr>
<td>Aetna Negotiated price</td>
<td>$520</td>
</tr>
<tr>
<td>Cigna negotiated price</td>
<td>$341-$362</td>
</tr>
<tr>
<td>Medicare Rate</td>
<td>$335</td>
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*The table shows the cost of MRI for the knee, hip or ankle, without contrast, at Oakwood Health Care System, Dearborn, MI. As collected by PricingHealthcare.com - Adapted from (Beck, 2014)

On a similar note, Figure 1 (Reinhardt, 2011) shows the actual transaction prices paid by a large New Jersey Health insurance company for a colonoscopy, by the facility where the procedure was performed in 2007. The figure shows that for the same procedure, with the same insurance, patients paid different prices within the facility as well as different prices among different facilities.
There is clear evidence of price discrimination among providers for the same service. Healthcare providers, especially hospitals, have an incentive to inflate their price because they don’t compete on prices. Hospitals have a ‘Chargemaster price’ that is overinflated and has no cost basis. These kinds of prices hurt the uninsured, out of network, and high deductible patients. In other words, the patients who need the most financial support are the ones that receive the least.

Higher bargaining power of hospitals (Fuse Brown, 2014), the lack of consumer awareness, healthcare regulations, complexity in coding, and ambiguity in health condition are some of the factors that make price transparency in healthcare a seemingly insurmountable task. Consumers have been sheltered to the true cost of care for so long because insurance companies have been historically acting as an intermediary payer for their healthcare services. The third-party payer system was invented in 1930 to shield consumers from catastrophic bills. Since then, consumers have been paying only about 13% out-of-pocket of all healthcare spending. Since 90% of the reimbursements came from the insurances, hospitals did not have to worry about the
consumers (Lutz, 2007). With high deductible plans becoming the norm, employers are pushing the cost sharing of healthcare on to their employees. Consequently, consumers have started to demand price transparency. To meet this demand, providers have to understand the market, the consumers, and their own cost structure and then reevaluate their pricing by re-engineering business processes around consumers rather than the billing side of the business. They will have to create pricing that is meaningful to the consumers. Price transparency could shift the balance of power into the hands of the consumers instead of the providers.

Healthcare services are one of the most expensive services in a consumer’s lifetime (Jaffe et al., 2006). It is estimated that half of personal bankruptcies and one-quarter of home foreclosures are due to medical debt (Fuse Brown, 2014). Prices set by the providers are arbitrary, have no relationship to the cost of providing services, and can vary widely from the same provider (Appendix 8). To be better informed, consumers should have the ability to compare prices to anticipate cost. This comparison will encourage providers to offer quality at competitive prices thus reducing the overall healthcare spending. Having the information on prices will reduce sticker shock and financial and psychological stress of not knowing the cost and receiving large bills after the fact. Consumers will be better able to manage their healthcare expenses if they are aware and can plan for the expenses they would incur as a result of a healthcare service. This ability to manage the financial cost will not only reduce anxiety but also improve the consumer experience and health outcomes.

There is a certain taboo associated with discussing prices in healthcare and both the providers and patients shy away from it. Providers feel that it is their job to provide the best healthcare regardless of the cost, and patients feel that the conversation of cost might result in substandard services. There needs to be a paradigm shift in the thinking of all the stakeholders to
understand that since consumers are shouldering a higher amount of out-of-pocket cost, financial health is one of the important components of total health.

Conclusions

The healthcare industry has been slow to change on certain forefronts; but with changing the regulatory landscape, higher out-of-pocket cost, emphasis on healthcare consumerism and the advent of smart technology (cell phones, tablets, and wearable technology) that provides access to information at the consumer’s fingertips, creating price transparency is becoming a business necessity. Consumers will be able to shop for the best care for their money can buy before receiving care. For all of this to flourish, all stakeholders (consumers, payers, providers, and government), will have to come on board. Consumer awareness and consumer engagement are critical for price clarity. Consumers want accurate, easy to comprehend, and meaningful information that is easily available. Estimates of the total cost of the services do not matter to consumers; they want to understand their out-of-pocket responsibility. Complexity in healthcare and lack of efficient tools have yet to provide the consumer with the relevant price details. Price transparency initiatives that are underway are not sufficient and do not give complete information. Under pressure from consumers, multiple transparency initiatives (by Medicare, private insurances, and providers) are underway and 39 states have passed some kind of price transparency regulations. The healthcare industry has taken a step in the right direction but has much further to go. Studies show that prices should always be presented with other data to help consumers choose the best value for their specific healthcare needs. Additional information on quality and customer satisfaction is important because, if not available, higher prices could be construed as higher quality, though the prices have no correlation with the quality.
To put the research in perspective of Malcolm Gladwell’s (2000) book “Tipping Point,” the connectors and the mavens are already there (initial efforts introduced by private and public entities to create price transparency). The stickiness factor because of high deductibles and a shift in cost is there. The only thing missing is the power of context that will tip price transparency in healthcare. Success is only a matter of time until a critical mass is achieved to reach the tipping point.
CHAPTER TWO:

DEAFENING SILENCE: A GROUNDED THEORY STUDY ON THE HEALTHCARE PROBLEM NOBODY IS TALKING ABOUT

Tagline

Healthcare price transparency has been one of the buzzwords in healthcare for a few years now. Though the importance of price transparency cannot be discounted, consensus on its definition and presentation has been heavily debated. This grounded theory research attempts to uncover the reasons and impediments on why price transparency has not been achieved and sheds some light on what is holding the industry back.

Keywords

Price Transparency, Health Care Industry, Price Opacity, Patients, Providers, Payers, Policy, Grounded Theory, Methodology, Research, Healthcare, Lessons, Challenges

Executive Summary

National healthcare spending has risen from 5% of the GDP in 1960 to about 18% in 2016 and is expected to be 20% or one-fifth of the total GDP in 2026. The out-of-pocket costs shot up from $13 billion in 1960 to $353 billion in 2016 and are projected to grow in the coming years (CMS.gov, 2018). Private sector employers paid about $665 billion in 2016 in healthcare-related costs for their employees. (This includes both health premiums and out-of-pocket cost for the employee) (CMS.gov, 2018). High deductible plans were created to motivate consumers to

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2 This chapter has been submitted for review to the MUMA Business Review, a publication of MUMA College of Business, University of South Florida.
shop prudently. It was assumed that increased skin in the game would lead the patients and employers to seek better prices, thus reducing high healthcare spending to create a competitive marketplace. Theoretically, the healthcare market, like any other market, should be highly price transparent and competitive, ultimately achieving a market equilibrium with stable prices. The reality is that though change is inevitable, it has been slow to come. Price transparency has been a buzzword in the healthcare industry, but the industry has managed to defend its status quo, thus making price transparency a challenge. In fact, the healthcare industry has hardly been affected or changed over time. The motivation behind this study was to gain insights into the underlying reasons of price opacity of non-emergency services in the U.S. healthcare system.

The grounded theory approach was used to enable the researcher to uncover the complexities and intricacies in the market that would have been otherwise hard to uncover because of its sensitive nature. For this research, semi-structured interviews were conducted for 78 participants representing various sectors of the healthcare industry. The analysis of 85 hours of interviews guided the researcher to generate an emergent theoretical model by delving the reasons behind the lack of price transparency. The methodological approach (or model) can be leveraged to other similar situations in multi-stakeholder industries to understand the lack of change despite strong drivers and good intentions. The grounded theory approach is flexible for exploring complex phenomena and addressing ambiguous problems. The salient feature of this method is its outcome, which is either a theory or model that is grounded in the data. The theories created from the data make the solutions specific and relevant to the phenomenon being addressed. The grounded theory method could be a viable research approach for executives and managers because they can benefit from gathering data from the pool of participants within their organizations. The approach provides an excellent opportunity for the organization to create
solutions as a team. This paper addresses the benefits and limitations of grounded theory methodology, as well as the lessons learned and challenges faced during the research process. It provides some resources for managers to start a similar journey using this research methodology.

**The Research Problem**

Since its inception during WWII, healthcare pricing has been opaque and has been one of the very few industries that have not advanced to empower their consumers/patients (Reinhardt, 2014). With the advent of consumerism, healthcare is one of the few areas of commerce where consumers agree to spend out of pocket for the service without knowing the actual price. Imagine buying a new car. Could you envision visiting a dealership, purchasing a new car without knowing the price and then driving off only to receive a bill in the mail weeks later revealing the actual price? Would you do that? Why would you? It seems absurd buying something without knowing its price, but this is precisely what is happening in healthcare. Consequently, we need to challenge ourselves to use new methods to advance our thinking and come up with innovative solutions to promote healthcare price transparency.

**Rationale for Using Grounded Theory Methodology**

The research presented in this paper uses Grounded Theory Methodology (hereafter called GTM). When existing theories may not fully explain the process, this type of research enables the researcher to comprehend the full extent of problems before providing solutions that might have little to no impact (Creswell, 2013). GTM is generally used for the domains of study with little research and information or when there are nonexistent or unsubstantiated theories. The methodology is useful to develop a better interpretation of complex problems that need detailed explanations and more in-depth analysis. GTM allows the participants to talk at length and candidly with the researcher especially when the information discussed is sensitive and
complex. Rather than verifying existing theories or models (Birks & Mills, 2015), GTM focuses on collecting and interpreting data to conceive frameworks or theories that can be leveraged to other similar situations in different industries (Creswell, 2013). Grounded theory methodology (GTM) is often chosen for qualitative studies to study the technological/socio-technical changes and behaviors in emergent research areas (Wiesche, Jurisch, Yetton, & Krcmar, 2017).

**Grounded Theory Methodology for an Interpretive Research Study on Healthcare Pricing**

To elucidate price opacity in healthcare, GTM was adopted to explore and understand complexity and sensitivity in the multifaceted healthcare industry. This methodology is conducive for the dynamic healthcare world which is characterized by numerous pertinent and intervening variables. It was invaluable for the researcher to hear and understand the reality from the viewpoint of the participants who have been discussing this topic forever but who have not been able to come up with a solution. This methodology has enabled the researcher to analyze various perspectives, grasp the intricacies, and discover emerging patterns in data to generate a comprehensive model to address the issue. While the complexity in healthcare system cannot be understated, it has been fascinating to discover that all the stakeholders have varying perceptions and opinions that deviate even within the same group. The research took a 360-degree view of the healthcare industry by talking to the major stakeholders for a preview to determine the underlying reasons to why consumer/patient has merely become a rubber stamp instead of being a powerful entity controlling their health and wealth.
Grounded Theory Methodology

Grounded theory methodology is a qualitative research approach initially developed by sociologists Glaser and Strauss (1967) in their book, The Discovery of Grounded Theory, and used for their investigative study in social sciences. Although it was initially used in social sciences, GTM has been used since in many disciplines including nursing, anthropology, psychology, education, business, information systems and many more (Strauss & Corbin, 1994). As per Glaser’s definition, grounded theory is a general methodology that analyzes the collected data, using systematic methods to generate a theory (Glaser, 1992). As GTM is inductive, it does not require hypothesis generation, though one can be generated during the process of theory building. The study involves going back and forth between the data and the analysis to come up with a theory or model (Charmaz, 2014). GTM has the advantage of being able to explore evolving conditions and social processes to create a theory that is current and grounded in the data collected for a specific situation. It fits the real-life research with emphasis on individuals, their lived experience, influences and perceptions (Hallberg, 2006). As per Corbin and Strauss (1990), the research methodology considers the non-static conditions and their influence on the phenomenon to allow the researcher to identify concepts, build relationships among them to develop theories, models, and explanations that can provide new insights to the research. It is broad, with flexible guidelines (rather than rigid rules) that can be adapted to any area or subject (Hallberg, 2006). GTM is often chosen for qualitative studies to explore the technological/socio-technical changes and behaviors in emergent research areas (Wiesche et al., 2017). The primary purpose of grounded theory research is to explain the core category for the specific phenomenon
being studied. With its intuitive appeal, and its ability to address dynamic situations it stimulates critical thinking and creativity that is ideal for the managers.

**Advantages and Disadvantages of Grounded Theory Methodology**

Grounded theory methodology can be very advantageous to the managers because it is timely, specific, rigorous, and generates a theory that is grounded in the data. It provides the researcher with the opportunity to study, analyze, and conceptualize the data to discern phenomena that are not explained by existing theories. The objectivity and connection to the data make this theory trustworthy and credible (Allan, 2003; Hussein, Hirst, Salyers, & Osuji, 2014). Grounded theory can be tailored well in mixed method research (MM-GT). Using both methods in research is gaining popularity. So, GTM can be used both for qualitative and quantitative data (Glaser, 2003). It can also be used in conjunction with any quantitative approach to add depth and rigor or to test a theory generated during the theory building process. Researchers who have undertaken the two approaches together have applauded the benefits of employing MM-GT (Guetterman, Babchuk, Howell Smith, & Stevens, 2017).

Though there are tremendous benefits of using GTM, its time-consuming nature, limited generalizability, and flexible approach can come across as having limitations. Another potential drawback can be the variation in cognitive thinking. In GTM, a researcher uses a cognitive approach to explain and analyze the data, their style may seem lucid and logical to some and incoherent and chaotic to the others (Heath & Cowley, 2004). Though not recommended, it is acceptable to do a preliminary but noncommittal literature review at the beginning of the research. A literature review might be needed to set a direction and orient the researcher to the current conditions. A detailed literature review can be done during the analysis phase to confirm any emergent findings (Birks & Mills, 2015). Another unique challenge presented by GTM is
that the researcher must have a clear and open mind, which is almost never possible (Urquhart & Fernandez, 2016). A clear mind prevents any previous theories to influence the new concepts and to prevent any preconceived ideas in the development of a new theory. Birks and Mills (2015) recommend listing the existing ideas, perceptions, experience, and knowledge before commencing the research. A manager should be able to discern the situations where GTM can be valuable and situations where it cannot be used because of its limitations.

**Variations in Grounded Theory Methodology**

Before deciding which GTM model to use, it is imperative to be familiar with the differences in the three major grounded theories discussed in the literature (Figure 1). Though the definition and basic premise of grounded theory methodology are universally accepted by researchers, the process, techniques, and rigor in data collection, handling and, analysis differ based on the type of GTM approach chosen (Evans, 2013). There have been a few variations to this study over the years, but the concept of having the data grounded to the theory has remained consistent. Glaser emphasizes the approach to openness and ingenuity in the interpretation of data in Glaserian Methods (CGT) (Glaser, 1978). Straussian grounded theory (QDA) takes a prescriptive position and a linear approach to thinking and conceptualizing data. It differs from CGT in data collection, data analysis, and coding structure. (Strauss & Corbin, 1994). The third, more recent methodology, the Constructivist GTM was developed by Charmaz in 2006, This GTM approach has flexible guidelines for data collection and analysis. This methodology states that concepts are constructed and not discovered as mentioned in CGT (Charmaz, 2014). Charmaz suggests a social interaction methodology that accentuates the involvement and collaboration of both the researcher and the participants in constructing a theory (Cho & Lee, 2014). A significant source of disagreement between CGT and the other two GTM approaches is
about having a pre-conceived question at the beginning of the research process. Glaser dismisses having a specific research question when starting and recommends to start with an intention to know more about the area of research (Devadas, Silong, & Ismail, 2011; Glaser, 1992) Another major difference between the three GTMs is the use of literature. Once again Glaser prohibits the use of literature at the beginning of the process to prevent being influenced by it, whereas Straussians believe that it can be done at any research phase but should be non-committal, and Constructivist GTM recommends literature review at every stage (Corbin & Strauss, 1990, 2008; Devadas et al., 2011).

Researchers should be careful while following a methodology for grounded theory because numerous published papers and books on GTM have not only engaged in theory mixing or theory slurring but also seldom mention the grounded theory that is being used (Goulding, 2002; Martin, 2011). Most articles and books have been mixing up and switching among the three methodologies and using a “method of skip and dip while collecting data” (Gynnild, 2011). Thus, leading the novice researcher to believe that various GTMs follow a comparable path causing misunderstandings and confusion. Learning and distinguishing between different methodologies and similar sounding terminology can be daunting especially when different GTMs are mixed and matched while doing research (Evans, 2013).

Nonetheless, despite the deviations in coding methods, literature use, data analysis in the three methodologies, the core principals such as constant comparison, memo writing, theoretical sampling, and theoretical saturation have remained constant (Kenny & Fourie, 2017). Figure 2 describes the similarities and differences between the three GTMs.
Typical Protocol

For any research, the first step is to have a research question. Once the researcher knows the area of study, the next step is to peruse the best possible method to complete the research. In this section, I describe how I applied the typical protocol to my research.

Research Question

A research project starts with a research question to address a topic of interest. The research described here emanated from the researcher’s interest in understanding the lack of price transparency for non-emergency healthcare services across the U.S. Health Care System, especially when consumers have been footing their bill because of the high out-of-pocket deductible. Consequently, the research question is:

*Why is there a lack of price transparency for non-emergency healthcare services across the U.S. Health Care System?*

Hypothesis

This inductive and exploratory research has no hypotheses at this time. As per GTM, hypotheses are not formulated in advance but could be created as a part of the theory building process and can be later tested using qualitative or quantitative measures (Evans, 2013).
Research Method

A preliminary literature review did not reveal any evidence of GTM studies undertaken to elucidate the opacity in healthcare. The review did reveal that no existing theories explain the phenomena of price opacity in the healthcare system. Thus, the use of GTM was appropriate to generate concepts, ideas, and theories for understanding the opacity in the market. There were four main reasons to use GTM: (1) to get an opportunity to interview participants to get a rich description of their realities in the complex and social environment (Hallberg, 2006); (2) to gain an understanding of the powerful, complex, multi-stakeholder industry with money and a strong lobby fighting to keep the industry’s fundamental interests in place (Rappleye, 2017); (3) to examine relationships and behaviors about the phenomenon of price transparency to develop a theory that is grounded or rooted in the observations of the study participants (Trochim, 2006); and (4) to delve into issues that interviewees might find sensitive or hard to explain. This
A rigorous qualitative approach assisted in creating an explanation of the factors, and reasons that have contributed to a price opaque healthcare market. Such a theory or model with rich explanations resulting from interviews is grounded in data collected from the leaders in healthcare. As a result, this potential framework can be leveraged to similar conditions in this or any other industry (Creswell, 2013).

Of the three GTM approaches, Straussian grounded theory by Corbin and Strauss was selected for this study because it provides a systematic, well-structured and linear approach to data analysis and theory creation (Corbin & Strauss, 1990). This approach is suited for a novice researcher because it provides guidance and a framework for research. Its prescriptive style specifies the steps, giving direction on how to code and structure the data. The method supports the concept of having a research question or an idea of the concept that a researcher wants to study. The research question can be formed through literature research or the researcher’s experience and knowledge (Corbin & Strauss, 2008; Evans, 2013). Straussian grounded theory is also flexible with the review of the literature at the early stages for theoretical sensitivity which is appropriate since most researchers are aware of the literature to some level before they start their analysis. Another reason for pursuing Strauss and Corbin’s GTM was because it was the preference of the researcher’s [dissertation] committee and the researcher. With limited time and no experience with grounded theory, it was agreed upon that Straussian grounded theory would be a most appropriate approach for the researcher’s dissertation research.

**Institutional Review Board (IRB) Submission**

The researcher submitted for an Institutional Review Board (IRB, hereafter) approval but was recommended by the IRB committee that an IRB was not required because the study focused on the participants sharing professional information and opinion about the industry.
Please note not all the studies are deemed exempt. For dissertation research, a judicial approach of having a conversation with the committee and following their direction is recommended. Though the IRB was not required, an IRB form was created and sent to most of the participants to encourage their participation by letting them know formally that their name and organization will be kept confidential.

**Participant’s Selection Criteria**

The target segment for this research was healthcare leaders in various organizations with knowledge and insights on the healthcare pricing and policy landscape. Recruitment drew from various segments of the healthcare industry (Figures 4 and 5). As the focus was to gain insights on the opaque healthcare system, executives (CEOs, COOs, CFOs, EVPs, SVPs, VPs, Executive and Senior Directors, business owners, etc.), professionals (consultants, physicians, researchers, academics, journalists, lobbyist) and other key stakeholders of the industry were selected. Seventy-eight participants with twenty-two years of average healthcare industry experience were recruited from academics, hospitals, healthcare insurance companies, healthcare brokers, healthcare vendors, healthcare administrators, employers, lobbyist, journalists/reporters, healthcare consultants, physicians, hospital association, non-profit policy organizations, consumer advocate associations. The groups were then aggregated to represent four sectors/sides: Provider, Payer, Patient, and Policy side (the 4 Ps hereafter). Providers, physicians, hospital lobbyists, and hospital associations were aggregated to form the provider side; insurance companies, brokers and benefit advisors and healthcare vendors were aggregated under the Payer side; Consumer advocates/authors, journalist/reporters, consultants, employers, and employer lobbyists were aggregated under the patient side; the Policy side consisted of those who proposed, made or evaluated healthcare pricing policies such as government employees and
academicians studying healthcare. Figure 3 shows the distribution of participants under each of the 4 Ps.

<table>
<thead>
<tr>
<th>4 PS</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>PROVIDER SIDE</td>
<td>28</td>
</tr>
<tr>
<td>PATIENT SIDE</td>
<td>15</td>
</tr>
<tr>
<td>PAYER SIDE</td>
<td>20</td>
</tr>
<tr>
<td>POLICY SIDE</td>
<td>15</td>
</tr>
<tr>
<td>TOTAL</td>
<td>78</td>
</tr>
</tbody>
</table>

![Figure 3. The 4 Ps of a Pie](image)

**Participants’ Enrollment**

The initial selection and recruitment of individuals were done through networking (references of family, friends, peers, professors, and acquaintances, professional and personal circle). Of the 50 people contacted, 40 responded and 28 were interviewed. As a few interviews progressed, recruitment looked like a daunting process. It soon became evident that the existing process of recruiting would not result in sufficient and specific participation. The researcher struggled initially to enroll the desired individuals in various healthcare segments for the interviews. She requested her LinkedIn contacts to help her network. Connecting through LinkedIn also had its challenges because most of the networking contacts that were being
pursued were not the right candidates for the research. The researcher then reached out to the right candidates directly, without the support of the network. She looked for leaders, executives, and professions prominent in the targeted 4P healthcare segments. LinkedIn has a personalized invite option under the member’s profile, that allows a 300-word introduction to connect to a person. The researcher used this feature extensively to send messages to the desired individual based on their profiles. The researcher used the 300 words to give the candidates a preview in the research. Through this tool, the researcher was able to reach out to the various organizations and individuals that she would not have otherwise been able to reach out to and connect.

The researcher used half an hour each day to send numerous invitations. She reached out to journalists, academics, authors, consumer advocates, college professors, academic writers, researchers, think tanks, non-profit organizations, hospitals, physicians, insurance companies, broker firms, benefits advisors, employers, healthcare innovators, vendors, consultants, lobbyist, government, etc. For each organization, she targeted 3–5 participants depending on the size and relevance of the organization. Of the approximately 500 invitations, roughly 50 declined the request. Two hundred seventy-five (275) did not respond and 175 accepted. Once connected, the researcher texted them to find their personal preferences for communication (personal email, administrative email, or cell phone text, LinkedIn chat). The researcher followed up with a thank you note for accepting the invitation with a detailed informational email on the research. She followed up again with the participants who did not reply to see if they had received the previous information and if they have any questions on the research. On average, three correspondences were sent to each of the 175 candidates, of whom 88 responded. On average, another three correspondences were sent to the 88 respondents to set up and interview. Of these candidates, 50 interviews were successfully conducted. The participants could choose a phone or in-person
interview. In some cases, multiple interviews were set up with one person in consideration of their time.

Questionnaire and Interviews

The open-ended, generative interview questions were framed in such a way that they were neither static nor confining (Trochim, 2006). The semi-structured interview questions facilitated open discussion and provided the opportunity to ask follow-up questions for clarification. Each interview on average took approximately 60–75 minutes. To triangulate and add rigor to the GTM, interviews that were conducted included healthcare leaders from various professions each with a different perspective of price opacity. This approach provided a holistic view of the opacity in the healthcare system. The interviews process continued until saturation was achieved.

The interviews were divided into three parts:

- Part one (5 minutes): Participants were requested to provide a brief description of the current role they play in the organization and any past role that was relevant to healthcare pricing.
- Part two (30–40 minutes): Questions were asked about the factors contributing to price opacity in the healthcare system. The questions were about the general healthcare system and the price opacity as relevant to their organization and the industry.
- Part three: (25–30 minutes): Questions were directed on the status of the healthcare system including their perceptions of the consumer behavior.

Data Collection

Interviews are an essential characteristic of grounded theory. They provide the data used as a building block to create a theory. The research was an iterative process consisting of interviews with U.S. healthcare industry leaders who are knowledgeable about healthcare pricing and policy strategies. A total of 78 interviews (in-person and over the phone) were planned and conducted over a seven-month period (February–August). The interviews were recorded,
professionally transcribed and edited for accuracy before the data analysis process. Seventy-eight interviews resulted in 85 hours of interview data, giving an average of 65 minutes per interview, with the longest one being 168 minutes. Of the 78 interviews, 14% (n=11) were conducted face to face, and the remaining were conducted over the phone. Of the 67 interviews conducted over the phone, 14 interviews were conducted in parts (two or three) over a period of time. The researcher was cognizant of the fact that some participants were too busy to devote a full hour at one time for the interview. Being flexible in spreading the interview to two-three parts increased the acceptance and enrollment of the participants.

**Theoretical sampling.** As the data was being collected during the interviews, the analysis was being done continuously. The simultaneous process of interviewing and evaluation of the data enables the researcher to establish theoretical sampling. Theoretical sampling is the process of continuous selection of the participants based on the findings from previous interviews. The initial interviews guide the researcher to the areas that need to be probed, and sampling enables the exploration of all ideas and concepts that emerge during the interviews (Glaser & Strauss, 1967). Theoretical sampling was done to collect data and information based on the core concept of price opacity. As the field of healthcare is complex and layered, the researcher talked to different players in the healthcare industry to understand people, events, and behaviors in order to identify relationships between different variables (Corbin & Strauss, 2014). This sampling led the researcher to various areas/sectors in the healthcare industry that aided with the visualization of a 360-degree view of the healthcare industry. Theoretical sampling helped to document relationships and uncover discrepancies.

**Saturation.** After theoretical sampling, the interview process continued until saturation was achieved (Glaser & Strauss, 1967). The researcher continued the interviewing process till no
more new codes were being generated. This point in the analysis where new data is confirming what the researcher already knows, and the concepts generated are redundant is called saturation. At the saturation point, there was no benefit in seeking more interviews because the researcher had heard the same information repeatedly.

Theoretical sampling and saturation are crucial in developing a theory. Not doing so can result in missing a principal theme(s) or concept(s) leading to an incomplete analysis and hence a weak or irrelevant theory. It is important to note that the number of interviews required to attain saturation differs based on the area of study and the research question. A researcher should handle this solely based on the data being gathered and on the repetitions of information being heard during the interview process.

**Data Analysis**

As the researcher prepared to undertake her journey into the grounded theory process, it was recommended that she put forth any assumptions and be vigilant of any biases she might have (Birks & Mills, 2015). Doing this created clarity and kept the researcher grounded in the process. Before starting the data analysis process, it is imperative for the researcher to get familiar with the key terms (Figure 4). Knowing the concepts will reduce confusion as the methodology progresses.
Straussian Grounded Theory coding guidelines were followed for this research. The interviews provided the data for coding which is the central process for all GTMs. The Straussian Grounded Theory starts with data gathering, for in-depth analysis that facilitates insights for the discovery of emerging patterns to generate a theory. The research process that starts with having a research question to creating a theory is outlined in Figure 5.
The GTM analysis begins with an iterative process of open coding and axial coding ending with selective coding. This continuous analysis helps to identify codes, subcategories, categories and phenomenon that helps with theoretical integration to create a theory or model (Strauss & Corbin, 1994). On the way to creating a theory, other steps like memo writing and constant comparison are crucial for facilitating analysis and data integration. As the analysis continues, emerging core concepts are identified, and tentative linkages are developed between the data and the theoretical concepts (Trochim, 2006). NVivo 12 was used for the coding process. It is a software that helps the researcher drag and drop the codes into concepts and then categories. It makes search functions easy and presents the data in an easy to visualize and conceptualize form. The program can handle a lot of data in one place and is very helpful in sorting, arranging and organizing data.
**Literature review.** A non-committal literature review was conducted a few months before the analysis process to prevent any literature influence and biases during the analysis phase. To some extent, the literature review is essential because it helps the researcher to analyze the condition and create an informed research question (Corbin & Strauss, 1990). Without any knowledge of the literature, a researcher would not know of other similar studies done on the phenomenon of interest. Thus, the literature review is important in justifying the use of GTM (Antle, 1986). To the best of the researcher’s knowledge based on her literature review, GTM had not been used to study price opacity in healthcare. The researcher was able to justify the study using GTM because it would help with explaining the opacity in the complicated and layered healthcare market.

**Open coding.** The researcher began by reading the transcriptions breaking it apart by words, phrases, line by line and in some case blocks of data with relevant context (Corbin & Strauss, 2008). This stage of coding is the most time consuming and results in numerous concepts because the interviews can open many theoretical directions. The open coding gives a preliminary list of concepts about the phenomenon that continues to grow with each interview. A total of 23,038 phrases/lines or sections were coded. On average, 77 codes were created per interview with total 6,019 open codes for the 78 interviews. Similar codes in different interviews were consolidated to create 364 distinct open codes. Table 8 shows some open codes, the percent of participants who talked about them and the number of times the participants mentioned them. To give an example, the code of ‘consumer awareness’ was mentioned by 50 participants (64%) and they talked about it in some way about 124 times. So, ‘customer awareness’ was coded 124 times under one open code.
Table 8. Example List of Open Codes and Their Occurrences During the Interview

<table>
<thead>
<tr>
<th>Open Codes</th>
<th>Number of Participants who mentioned this concept</th>
<th>Total number of times the concept was coded (mentioned by the participants)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Consumer Awareness</td>
<td>50 (64%)</td>
<td>124</td>
</tr>
<tr>
<td>Consumer Education Empowerment Engagement</td>
<td>31 (40%)</td>
<td>50</td>
</tr>
<tr>
<td>Stuck with the plan</td>
<td>15 (19%)</td>
<td>24</td>
</tr>
<tr>
<td>Difficult to find information - helpless</td>
<td>34 (44%)</td>
<td>62</td>
</tr>
<tr>
<td>Historical Behavior</td>
<td>46 (60%)</td>
<td>100</td>
</tr>
<tr>
<td>Opaque Billing</td>
<td>5 (6%)</td>
<td>11</td>
</tr>
<tr>
<td>Patients are not Purchasers</td>
<td>56 (72%)</td>
<td>125</td>
</tr>
<tr>
<td>Patient's Skin in the Game; insulated because of benefit design</td>
<td>49 (63%)</td>
<td>123</td>
</tr>
<tr>
<td>Playing with house money</td>
<td>21 (27%)</td>
<td>36</td>
</tr>
<tr>
<td>Consumer: lack of motivation or- desire</td>
<td>50 (64%)</td>
<td>148</td>
</tr>
<tr>
<td>Unsuccessful and Cultural Slow change</td>
<td>26 (33%)</td>
<td>55</td>
</tr>
<tr>
<td>Ineffective tools</td>
<td>37 (47%)</td>
<td>92</td>
</tr>
<tr>
<td>Closer to home/work</td>
<td>7(14%)</td>
<td>10</td>
</tr>
<tr>
<td>Feel that there is not much of a price difference</td>
<td>4(8%)</td>
<td>5</td>
</tr>
<tr>
<td>Time</td>
<td>9(18%)</td>
<td>11</td>
</tr>
<tr>
<td>Prefer Choices</td>
<td>4(8%)</td>
<td>5</td>
</tr>
<tr>
<td>Not going to the doctors’ too often</td>
<td>3(6%)</td>
<td>4</td>
</tr>
<tr>
<td>Family support</td>
<td>5(10%)</td>
<td>5</td>
</tr>
<tr>
<td>Health foremost</td>
<td>20(40%)</td>
<td>32</td>
</tr>
<tr>
<td>Patient sickness, Lack of energy</td>
<td>12(24%)</td>
<td>15</td>
</tr>
<tr>
<td>Severity of sickness; comorbidities</td>
<td>6(12%)</td>
<td>12</td>
</tr>
<tr>
<td><strong>Trust in the Physician</strong></td>
<td><strong>42(48%)</strong></td>
<td><strong>83</strong></td>
</tr>
<tr>
<td>What will people say - shy - hesitant</td>
<td>8(16%)</td>
<td>8</td>
</tr>
</tbody>
</table>

**Axial code.** In this coding step number of open codes are reduced by grouping similar open codes or concepts in related categories. The aggregation creates second-level themes based on shared properties (Corbin & Strauss, 2008). Axial coding starts the consolidation process for the raw data to provide the pieces of a puzzle to build a theoretical model or theory. There was a total of 67 axial codes or categories. As an example, the axial coding for patient’s emotions was
mentioned by 64% of the participants and is shown in Table 9. The open code ‘trust in the physician’ highlighted in Table 9 can be seen grouped under the axial code ‘patient’s emotions.’

Table 9. Example of an Axial Code with the Underlying Open Codes

<table>
<thead>
<tr>
<th>Axial Code (showing aggregation of open codes)</th>
<th>Number of Participants who mentioned this concept</th>
<th>Total number of times the concept was coded (mentioned by the participants)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Patient’s Emotions</td>
<td>50 (64%)</td>
<td>190</td>
</tr>
<tr>
<td>Closer to home/work</td>
<td>7(14%)</td>
<td>10</td>
</tr>
<tr>
<td>Feel that there is not much of a price difference</td>
<td>4(8%)</td>
<td>5</td>
</tr>
<tr>
<td>Time</td>
<td>9(18%)</td>
<td>11</td>
</tr>
<tr>
<td>Prefer Choices</td>
<td>4(8%)</td>
<td>5</td>
</tr>
<tr>
<td>Not going to the doctors’ too often</td>
<td>3(6%)</td>
<td>4</td>
</tr>
<tr>
<td>Family support</td>
<td>5(10%)</td>
<td>5</td>
</tr>
<tr>
<td>Health foremost</td>
<td>20(40%)</td>
<td>32</td>
</tr>
<tr>
<td>Patient sickness, Lack of energy</td>
<td>12(24%)</td>
<td>15</td>
</tr>
<tr>
<td>Severity of sickness; comorbidities</td>
<td>6(12%)</td>
<td>12</td>
</tr>
<tr>
<td><strong>Trust in the Physician</strong></td>
<td><strong>42(48%)</strong></td>
<td><strong>83</strong></td>
</tr>
<tr>
<td>What will people say - shy - hesitant</td>
<td>8(16%)</td>
<td>8</td>
</tr>
</tbody>
</table>

**Selective coding.** Selective coding is the last step that helps to link the categories to create a relationship (Corbin & Strauss, 2008). In this step, the theory starts to emerge as all categories are unified through the integration around a core category (Corbin & Strauss, 1990). Core category is a concept that can broadly and abstractly represent the main idea of the study (Corbin & Strauss, 2014). This concept has to be abstract to allow the linkages and connections of various axial codes required in the explanation of the core phenomenon. Too many codes can create panic and confusion, so it is advisable to pick only the selective codes that are relevant to addressing the research question. The selective codes determine the vital and central processes that enable the generation of theory relevant to the core phenomenon. For this research, the core
phenomenon is factors affecting in price transparency in healthcare. Examples of selective codes are shown in Table 10. Selective code of ‘Labyrinths in healthcare’ looked at relationships and connections of similar axial codes that cause intricacies in the system. The figure shows that all (100%) of the participants had talked about this in one way or the other. Of the 67 axial codes, a total of four selective codes were produced, of which two were pertinent to the research question. Table 10 shows the axial codes unified under the selective code or the core category of ‘Labyrinths in healthcare’. The axial code ‘patient’s emotions’, highlighted in figure 6 can be seen linked to the selective code ‘labyrinth in healthcare’ in Table 10.

**Constant comparison.** Constant comparison is a process of comparing code constantly. It can be within a single interview, between interviews of the same group, interviews of a different group, the comparison in pairs in the same group or comparison in pairs with the different group (Boeije, 2002). The researcher may pick a way of constant comparison that most benefits theoretical sampling. Comparing different codes helped the researcher with the theoretical sampling, with determining similarities and differences among the stakeholders and with validating emerging categories (Corbin & Strauss, 1990).

**Memo writing and diagramming.** Memo writing or “memoing” is a narrative process that helps articulate and document the grounded theory. The process is undertaken to track the analysis and develop codes and relationships (Creswell, 2013). Memos can be written or draw (also called diagramming). Writing and sketching helps the researcher to link concepts together as concrete ideas. It helps with visualization of relationship to the identification of logic (Corbin & Strauss, 2014). Memo writing should begin with the first interview and continue until the end. The memos started as a basic expression of thought initially but towards the end had grown in thought and complexity (Corbin & Strauss, 2014). This process helped in the development of a
theory as the researchers wrote and sketched out ideas. About 113 memos were created, 78 on the interviews and the remaining were a reflection on the analysis compilation of thoughts and ideas, process flow diagrams, relationships diagrams, flowcharts, etc. The memos were written at various points in the research to assimilated thoughts from the study. See Figure 6 for an example of a memo.

**Table 10.** Example of a Selective Code with the Underlying Axial Codes

<table>
<thead>
<tr>
<th>Selective Code (showing aggregation of axial/open codes)</th>
<th>Number of Participants who mentioned the categories</th>
<th>Total number of times the concept was mentioned (coded)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Labyrinths in Healthcare</strong></td>
<td>78 (100%)</td>
<td>3688</td>
</tr>
<tr>
<td>Alone insufficient information</td>
<td>25(32%)</td>
<td>43</td>
</tr>
<tr>
<td>Asymmetric information</td>
<td>22(28%)</td>
<td>37</td>
</tr>
<tr>
<td>Barriers to change</td>
<td>74(95%)</td>
<td>598</td>
</tr>
<tr>
<td>Complex Nature inherent in Health</td>
<td>37(47%)</td>
<td>92</td>
</tr>
<tr>
<td>Complexity of the whole system</td>
<td>66(85%)</td>
<td>238</td>
</tr>
<tr>
<td>Confidentiality clause - Gag order</td>
<td>47(60%)</td>
<td>116</td>
</tr>
<tr>
<td>Consensus and Interoperability</td>
<td>34(44%)</td>
<td>106</td>
</tr>
<tr>
<td>Consumer Limitations</td>
<td>70(90%)</td>
<td>353</td>
</tr>
<tr>
<td>Govt and Regulations</td>
<td>45(58%)</td>
<td>127</td>
</tr>
<tr>
<td>Healthcare Lobby</td>
<td>32(41%)</td>
<td>87</td>
</tr>
<tr>
<td>Inefficient market</td>
<td>40(51%)</td>
<td>95</td>
</tr>
<tr>
<td>Intrinsic Motivation</td>
<td>74(95%)</td>
<td>543</td>
</tr>
<tr>
<td>Market and patient mix</td>
<td>33(42%)</td>
<td>110</td>
</tr>
<tr>
<td>Meaningful Information - user friendly</td>
<td>42(54%)</td>
<td>130</td>
</tr>
<tr>
<td>Misaligned Incentives</td>
<td>29(37%)</td>
<td>60</td>
</tr>
<tr>
<td>Non-Cooperation</td>
<td>6(8%)</td>
<td>9</td>
</tr>
<tr>
<td>Not a Core Competence</td>
<td>20(26%)</td>
<td>42</td>
</tr>
<tr>
<td>Partial visibility</td>
<td>20(26%)</td>
<td>37</td>
</tr>
<tr>
<td><strong>Patient’s Emotions</strong></td>
<td>50(64%)</td>
<td>190</td>
</tr>
<tr>
<td>Policy and physician’s lack of awareness</td>
<td>15(19%)</td>
<td>27</td>
</tr>
<tr>
<td>Porter’s 5 Forces</td>
<td>59(76%)</td>
<td>308</td>
</tr>
<tr>
<td>Quality Transparency</td>
<td>33(42%)</td>
<td>76</td>
</tr>
<tr>
<td>Quality vs Price - value</td>
<td>28(36%)</td>
<td>64</td>
</tr>
<tr>
<td>Lack of Resources</td>
<td>17(22%)</td>
<td>33</td>
</tr>
<tr>
<td>Too many payers and plans</td>
<td>24(31%)</td>
<td>37</td>
</tr>
<tr>
<td>Too much cost</td>
<td>15(19%)</td>
<td>25</td>
</tr>
<tr>
<td>Uncertainty-Fear of change</td>
<td>22(28%)</td>
<td>49</td>
</tr>
<tr>
<td>Understanding the real cost of Healthcare</td>
<td>13(17%)</td>
<td>18</td>
</tr>
<tr>
<td>Variation in cost and price</td>
<td>19(32%)</td>
<td>38</td>
</tr>
</tbody>
</table>
WP was in the top management of a big health insurance company, but a major incident where faced a conflict between his ethics and his role in his company. Work vs. ethics incident shook his inner core and had a substantial impact on him. He felt that staying in his job was not an honorable thing to do, so he resigned. His primary goal now was to help people understand the healthcare system better, encourage them to get involved and push for more transparent, equitable and fair healthcare system. He became a whistleblower, a strong proponent for healthcare reform for consumers, a passionate writer, journalist and a HC consultant. He believes HC is very unfair and uses that as a motivation to prevent the perpetuation of an opaque HC industry. He believes the healthcare model will morph and though the assurances will not go away, their business model will change. As per him, big employers will bring in disruption that will lead to price transparency (PT). He believes neither the providers not the healthcare insurance has any interest in creating price transparency, but they are providing lip service to make everyone believe that they are working towards it. He also believes that the providers and health insurance have enough money to have lobbyist push their interests and to continue to perpetuate price opacity. He says that consumers don’t shop for healthcare prices because it’s too complicated for them, they don’t have time, do not understand the daunting system, don’t know where to find information, they are hesitant to ask for prices, unsure if they are making the right decision, they are not organized. His Mission is to educate and motivate consumers to work together and demand PT. He believes getting rid of the proprietary information/gag orders with enable PT.

Quotes:

*Complexity and the lack of transparency benefits the industries.*
They can keep prices high and keep consumers pretty much ignorant of how healthcare is priced, and how much they will either be charged whether they have health insurance.

*Lack of price transparency contributes to the inequity in our healthcare system and the fact that people who are least able to pay are often subjected to the highest prices.*

*The system that we have is a symbiotic relationship among the players [it] benefits both the provider and the insurer, but not the patient*

*We do not have knowledge that we should have about the deals that insurance companies strike with providers.*

*You must begin with educating and to get people motivated to understand how they are being disadvantaged by the current system. And that just hasn’t happened yet.*

*I worked in healthcare for a long time. I’m well-educated. I am now old enough to be in Medicare. But when I was looking at making a decision ... it’s bewildering.*

*You don’t really know if you’re making a good decision. Healthcare is extraordinarily complex, even without pricing being a factor.*

**Figure 6.** Example of Memo Writing

**Findings**

The first thing the researcher realized while following the GTM was that she needed a lot of patience. The grounded theory process produced an enormous data set. Going through each of the 78 interviews, resulted in 23,038 sentences and sections that were coded to yield a total of...
6,019 codes, 364 open codes, 67 axial codes, and four selective codes. Selective codes reflect the emerging theory by refining categories to core categories. As the selective codes were formed by connecting and relating the categories, the researcher observed that not all the selective codes were significant in explaining the core phenomenon. Only two selective codes were eventually analyzed for contemplation of a theory. These selective codes helped the researcher in reinforcing the core phenomenon of reasons for lack of price transparency in healthcare. A lot has been written in the literature about the importance of price transparency, so it was interesting to get the first-hand take of the four main stakeholders’ segments, the 4 Ps (provider, payers, policy, and patient side) on the issue. It was seen that the factors in each segment were interconnected with the factors in the other segment. Figure 7 shows several overlapping factors that lead to opacity in healthcare. The factors highlight the labyrinth of the healthcare market. All these, factors are associated with each other and impact not only the segments but also have and an overarching impact on price transparency. The interviews gave the researcher an exhaustive view of the healthcare industry and factors that result in price opacity. The next step was to absorb and analyze the core categories to start the formulation of the theory for price opacity in the healthcare market.

**Challenges Faced, and Lessons Learned**

A complete list of dos and don’ts is presented in Table 11. These are the lessons learned by the researcher as she went through the research process.
**Figure 7. Labyrinth of Healthcare**

**Table 11. Personal Learnings: Dos and Don’ts**

<table>
<thead>
<tr>
<th>Dos</th>
<th>Don’ts</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>People</strong></td>
<td></td>
</tr>
<tr>
<td>Use the professional network (LinkedIn) to find the right candidates for the interview</td>
<td>Don't write to prospective participants (or participants) on the weekend or Monday. Tuesdays and Thursdays are better days to write.</td>
</tr>
<tr>
<td>At the beginning of the research, put aside 30 minutes of your day to connect with prospects</td>
<td>When trying to solicit interviews, reach for the professionals. Don’t be intimidated by their title. Per my experience, the top management is often eager to help.</td>
</tr>
<tr>
<td>When sending an email wait for about three days to get the response.</td>
<td>Don’t give up if they don’t reply; keep on sending them reminders.</td>
</tr>
<tr>
<td>Continue to follow up with a person until you get a “yes” or a “no.” On average, 3–4 follow-ups will do the trick to get you an answer either way. Remember, it’s better to ask twice than to lose your way once.</td>
<td>Don’t worry about rejection or getting a “no” for an answer. It’s not personal.</td>
</tr>
<tr>
<td>Connect with the administration staff (if available). This is the best way to schedule, reschedule, and get any relevant document.</td>
<td>Don’t take the participant's anger directed toward an issue personally. It is not you; it’s the issue.</td>
</tr>
<tr>
<td>Try to be flexible with your time to accommodate the time of the participant.</td>
<td>If you have any ideas, thoughts, don’t wait until you grab a pen to write them down. Open the recorder in your phone and recorder away!</td>
</tr>
<tr>
<td>Sideline conversations before or after the interview can contain some important data. Ask the participants if you can include it in your study.</td>
<td></td>
</tr>
</tbody>
</table>
Table 11 (Continued)

<table>
<thead>
<tr>
<th>Dos</th>
<th>Don'ts</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>People</strong></td>
<td></td>
</tr>
<tr>
<td>Initial interviews will be choppy and long. It's okay. Like anything else, this is a learning process; you will quickly start to have a flow.</td>
<td></td>
</tr>
<tr>
<td>If the interviews seem to run over, as a courtesy, remind the participant that their scheduled time has ended. Request to continue the interview if they have extra time or request a follow-up. Most participants oblige.</td>
<td></td>
</tr>
<tr>
<td>Always be personable, humble, and professional. Thank the participant when done; request to keep the lines of communication open and continue liking and commenting on their LinkedIn feeds.</td>
<td></td>
</tr>
<tr>
<td>Once the participant interviews with you, it will be difficult for you to get a response back (most not all cases) from them because of their schedule and other commitments.</td>
<td></td>
</tr>
<tr>
<td>So, clarify and repeat things you don’t understand. Don’t hesitate to ask again. (this might be your last chance).</td>
<td></td>
</tr>
<tr>
<td>If they are interested, agree to send them the results of your final dissertation.</td>
<td></td>
</tr>
<tr>
<td><strong>Process</strong></td>
<td></td>
</tr>
<tr>
<td>Understand the key terms and difference between the three GTMs.</td>
<td>Don’t panic if you find that you had accidentally coded some codes under the wrong category. Constant comparison will enable to identify these codes and re-code them directly.</td>
</tr>
<tr>
<td>Pick a GTM then one of the seminal books and follow it.</td>
<td>Don’t get bogged down by the amount of data collected or codes created. Remember to look at them from a collective framework.</td>
</tr>
<tr>
<td>Use referred articles for quick summaries and refreshing concepts.</td>
<td>Don’t worry about the number of interviews when you start the process. You will be doing theoretical sampling and once you start hearing the same information, that is your cue that you have saturation and can stop.</td>
</tr>
<tr>
<td>Have as many as possible open codes. It is easier to aggregate than to break the codes apart.</td>
<td>Different research will have a different number of interviews to get to saturation</td>
</tr>
<tr>
<td>Get interviews transcribed, read once, and then read while coding. Highlight quotes save them separately.</td>
<td>Don’t throw any memos or drawings out. You never know when you might need them.</td>
</tr>
<tr>
<td>Sketch a lot of diagrams. These help to conceptualize concepts and refine your thinking in terms of relationships and connections.</td>
<td></td>
</tr>
<tr>
<td>Memo writing a must. The more, the merrier. It is useful for theory generation.</td>
<td></td>
</tr>
<tr>
<td>If your final product is a model and not a theory, don’t fret - explain your model as the end product of the research. You can always come back and develop your model to a theory.</td>
<td></td>
</tr>
<tr>
<td>Work in groups if it is an option.</td>
<td></td>
</tr>
<tr>
<td>Keep calm and carry on - practice patience.</td>
<td></td>
</tr>
</tbody>
</table>
### Table 11 (Continued)

<table>
<thead>
<tr>
<th>Dos</th>
<th>Don’ts</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Technology</strong></td>
<td></td>
</tr>
<tr>
<td>Have two recording devices (one for backup) while interviewing.</td>
<td></td>
</tr>
<tr>
<td>Check transcriptions for accuracy and correctness.</td>
<td></td>
</tr>
<tr>
<td>Along with recording devices, write notes. Handwritten notes help the researcher to underline and highlight any important quotes, concepts, and ideas while speaking during the interview.</td>
<td></td>
</tr>
<tr>
<td>Save the data on a password-protected cloud (never on your hard drive).</td>
<td></td>
</tr>
<tr>
<td>If using a cell phone as a recording device, put it on airplane mode, this prevents incoming calls to stop your recording.</td>
<td></td>
</tr>
<tr>
<td>If planning to use NVivo, learn it beforehand. It is a powerful software and will be a huge time saver if you understand the software to use it optimally.</td>
<td></td>
</tr>
</tbody>
</table>

### People

As mentioned before, it was difficult for the researcher to get the right candidates through the networks. The researcher turned to LinkedIn to look for the appropriate profiles for recruitment. Most of the professionals have information on their work, experience, and education. It is a powerful resource to connect to professionals of choice by sending them a 300-word invitation. Though the response rate was not as good as networking response rate, it did help the researcher to get in touch with the right people. A researcher should be open to the schedule and convenience of the participant. On this journey, the researcher interviewed positive-minded, cheerful, as well as brusque and curt participants. Regardless of their demeanor, all had a passion to help and desire to get their ideas across. Some blunt candidates were bitter because they felt that the government is doing things that do not make sense in the healthcare market. They were not against the goal of price transparency but were opposed to the methods being followed to get there. As a researcher, it is imperative to keep an open mind to not taking the conversation personally or getting confrontational with the participant. Another important fact to remember is that the interview is not over till it is over. Until the researcher is with the
participant either on the phone or in person, the conversation continues. Many participants continued talking when the recording devices are off, and pens are down. If the participant makes an important point during these sideline conversations, ask for their permission to include that point as a data point. Most participants will say “yes!”

Processes

“Keep calm and carry on” was the mantra used during the research process. A researcher has to be flexible with time. Enrolling, communicating, scheduling, and interviewing the candidates, as well as transcribing, and coding the data exhausted the researcher. Time was a huge factor in this research. GTM, in general, is a time-consuming, but rewarding process. It is advisable to work in a group to cover a project of such magnitude. For smaller research projects, it is advisable not to procrastinate; start coding as soon as the first interview is done. Looking back, the researcher had mixed feelings while doing this research. It was not the amount of data that bogged the researcher down but the lack of clarity of key terms and generalization of GTM. Most of the articles/books researched and read mixed the terms and methodologies from all the three GTMs; this created confusion on what was the right process to follow. Not all the books provided structure, the information was scattered throughout and not presented very concisely. To make matters worse, the books from the same author used different keywords in different editions. The best way to keep such confusion at bay is to pick one edition from the author based on the methodology that is preferred and just follow that book. The researcher also had a hard time finding information on how to do a constant comparison. While conducting research and collecting data, it was essential to remember that till the saturation is achieved, there would be many possible directions a concept can go, so it is important not to get attached to an idea. Also, there might be some information that does not seem important but as the researcher re-codes and
does a constant comparison, the information that did not seem essential starts to make sense and resurfaces as a concept. During the constant comparison process, the researcher noticed that she had put certain codes under the wrong category. These errors were caught and fixed. So, another added benefit of constant comparison is that it helps to “right the wrong” by giving an opportunity to the researcher fix the errors in coding. During the analyzing process, the coding went seamlessly until the researcher reached the selective coding phase. The researcher was burnt out and did not feel like going back to the research because the coding process had exhausted her. She stepped away for a few days to reenergize and get back on track. During selective coding, the researcher drew a number of diagrams in multiple different ways to form a model that made sense. It was an iterative process that continued to evolve. In GTM, models continue to mature and evolve as more information is added. A vital virtue learned in GTM is patience and flexibility.

**Technology**

Be wary of the technology. Always have two recording devices while interviewing participants. These can be old cell phones, tablets, etc. (with apps like just press record or rev). The researcher had some instances where one of the recording devices did not work, having two of them saved the day. If the functional cell phone is used as a recording device, make sure put it on airplane mode otherwise recording stops as soon as the phone receives a call. When this happened with the researcher, she forgot to turn the recording back on. Thankfully, she had another recording device as a backup. Another word of caution is to review the transcriptions even though they were professionally transcribed. Not all the transcriptions were of the same quality. It is advisable to have the recording play while reading the transcripts. The researcher found a range of errors in 40% (n=31 of the 78) of the transcripts with six being exceedingly
erroneous. Lastly, always save the data on a secure cloud and not on the PC. The researcher’s laptop crashed but she was able to recover the data from the cloud.

**Learn More**

The researcher has tried to provide the context in which GTM can be used and the broad difference between the three different methodologies. For more information on the basics of GTM and difference in the three GTM the researcher has created a list of articles that helped her the most (Figure 8, top section). Once a particular GTM has been chosen, it is recommended to read the example cases for that specific methodology (Figure 8, bottom section). The articles will provide the researcher with a clear understanding of how to follow a research process step by step using the methodology. GTM has some seminal texts based on the methodology being followed (Table 12). These texts are written by the authors and researchers who developed the GTMs and provide information on following a specific methodology. Researchers should pick the book based on the methodology they want to follow. If there are multiple editions of the book, any edition will work (latest edition is preferred), but it is recommended not to use multiple editions because the researcher has noticed some subtle (keyword) difference between editions. For a quick overview of Straussian GTM, the researcher has compiled a list of simplified steps ‘Cliff Notes on Straussian GTM.’ The list is not a comprehensive and exhaustive list and is not an alternative to text, but it gives the researcher a birds-eye-view on the process.
**Basics Review: GTM**
- Qualitative Inquiry and Research Design (Book: John Creswell)
- Grounded Theory: A practical Guide (Book: Melanie Birks, Jane Mills)
- Contrasting Classic,Straussian, and Constructivist Grounded Theory: Methodological and Philosophical Conflicts (Article: Méabh Kenny, Robert J Fourie)
- Reducing Confusion about Grounded Theory and Qualitative Content Analysis: Similarities and Differences (Article: Ji Young Cho, Eun-Hee Lee)
- Using Grounded Theory as a Method of Inquiry: Advantages and Disadvantages (Article: Sandra Hirst, Vince Salyers, Joseph Osuji)
- Grounded Theory: An Exploration of Process and Procedure (Article: Diane Walker and Florence Myrick)
- Theoretical Coding: Text Analysis in Grounded Theory 5.13 (Article Andreas Böhm)
- A purposeful approach to the constant comparative method in the analysis of qualitative interviews (Article: Hennie Boeije)

**Figure 8.** Similarities and Differences between the Three GTM Approaches

**Table 12.** Seminal Books and Reading on Different GTM Approaches*

<table>
<thead>
<tr>
<th>Year</th>
<th>Author</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>1978</td>
<td>(Glaser, 1978)</td>
<td>Theoretical sensitivity</td>
</tr>
<tr>
<td>1987</td>
<td>(Strauss, 1987)</td>
<td>Qualitative analysis for social scientists</td>
</tr>
<tr>
<td>1990</td>
<td>(Strauss &amp; Corbin, 1990)</td>
<td>Basics of qualitative research: Grounded theory procedures and techniques</td>
</tr>
<tr>
<td>1992</td>
<td>(Glaser, 1992)</td>
<td>Basics of grounded theory analysis</td>
</tr>
<tr>
<td>1994</td>
<td>(Strauss &amp; Corbin, 1994)</td>
<td>‘Grounded theory methodology: An overview’ in Handbook of qualitative research (1st ed.)</td>
</tr>
<tr>
<td>1995</td>
<td>(Charmaz, 1995)</td>
<td>‘Grounded theory’ in Rethinking methods in psychology</td>
</tr>
<tr>
<td>1998</td>
<td>(Strauss and Corbin 1990)</td>
<td>Basics of qualitative research: Grounded theory procedures and techniques (2nd ed.)</td>
</tr>
<tr>
<td>2005</td>
<td>(Clarke, 2005)</td>
<td>Situational analysis: Grounded theory after the postmodern turn</td>
</tr>
<tr>
<td>2006</td>
<td>(Charmaz, 2014)</td>
<td>Constructing grounded theory: A practical guide through qualitative analysis</td>
</tr>
</tbody>
</table>

*Adapted from (Birks & Mills, 2015) Grounded Theory: A Practical Guide*
Cliff Notes on Straussian GTM

1. Start with a research question or the phenomenon of interest.

2. Write down your pre-conceived ideas or assumptions, so you can go back to these and remind yourself not to get biased during the analysis phase.

3. Start the coding process by reading the interviews, labeling phrases/sentences/sections (by hand or on a computer using any software or even excel). The labels can be about anything (people, ideas, feelings, concerns, technology, processes, opinions, activities actions – you name it, and you can label it). Start with a lot of codes (hundreds or more). You can always consolidate them later.

4. Write memos often and after each interview or piece of data is collected. Memos are your reflections, thoughts, ideas on the process, people or analysis. Memo writing is just like writing a diary; its flexible but has a significant impact on theory creation. Never discount the power of memo writing.

5. Consolidate similar codes under groups or categories. Once again, categories can represent people, processes, technology, feelings, opinion, etc. The only difference in the first and second level coding is an aggregation of similar codes to minimize the number of codes.

6. Draw relationships, linkages, and anything that helps with creating a visual image. Drawing may help in finding the missing relationships or linkages. Discuss your drawings as this might stir conversation that would help theoretical sampling.

7. Theoretical sampling is selecting data (participant or information) that helps with an exploration of all ideas gathered through your previous data collection. As the data collection continues, the data gives clues about what other areas should be explored.

8. Keep an open mind. Coding can be done differently by different people. There is no specific way, style or format for coding. Remember these are your thought on how the idea should be represented and coded, so there is no right and wrong answer.

9. Compare interviews with one another; this also helps with theoretical sampling and re-coding.

10. In the third cycle coding, aggregate the categories from the second cycle and try to create relationships and connections. Drawing and discussing relationships and models assist in enabling theory generation.

11. The theory might or might not come out at the end of the analysis. It is okay because some GTM studies end at a model. You might go back again and try to come up with the theory. Remember, it is not you; it is the process; it can be challenging and daunting.

12. Trust the process. If you stay at it, the theory will emerge, but it is okay to end with the discovered model. There is light at the end of the tunnel, thought the tunnel might be long.
13. Seek help from co-workers, colleagues, support groups, professionals who know the process, while keeping the confidentiality of the participants.

14. Brainstorm by discussing with people and drawing various categories and their relationships.

15. All through the process, keep an open mind and don’t allow your preconceived notions to interfere with what your data shows.

16. Patience Pays – If you feel like giving up – DON’T

17. There will be a eureka moment when the theory comes to light. This can happen anywhere and at any time.

Conclusions

Real life is often never black and while GTM helps the researcher to understand and see the grey and make sense of it. GTM is the ideal way to comprehend and capture the lived experiences and appreciate that real-life situations change with time, culture and generations.

The theory presented in this article is Straussian GTM. The purpose of using this methodology was to have a comprehensive understanding of the challenges and limitation faced by each of the 4 Ps (provider, patient, payer, and policy side) resulting in the opaque healthcare market. The GTM enabled the researcher to put together different aspects and perspectives of the four segments to see an interconnected picture. Through this methodology the researcher was able to connect different concepts, to get to a model of the factors that impact price transparency in healthcare. Upon completion of this study, the researcher expects to have a framework or a theory to understand the challenges in creating a price transparent healthcare market.

In this article the researcher has tried to put together the types of phenomena that lend themselves to using GTM, the justification of using GTM for studying the opaque healthcare market, the advantages and limitation of using this methodology, the steps to be followed for Straussian methodology, relevant texts on GTM and the challenges faced in the research process. The key mantra while undertaking the journey of GTM is to “practice patience.” There are many
challenges that a researcher might face, but it is important to remember that “the best things come to those who wait,” and the final result of having your own theory is invigorating.
CHAPTER THREE:
A SIMPLE COMPLEXITY: DECONSTRUCTING THE HEALTHCARE TRANSPARENCY ISSUE

Abstract

If you build it, they will come—the mantra that cannot be applied to healthcare price transparency. With the increase in high deductible plans and the consumers sharing the burden of increased healthcare cost at the point of care, price transparency was expected to eventually bring down healthcare spending. Though consumers are becoming increasingly inquisitive about the prices of their healthcare services, efforts to create price transparency, in an aim to reduce healthcare spending, have not been successful. Grounded theory research was conducted to understand the factors that impact price transparency of healthcare services in the United States of America. For the study, I interviewed seventy-eight professionals and executives representing the major stakeholders in the healthcare industry. Each stakeholder segment with its independent sets of complexities, motivations, and barriers creates a multifaceted maze in the healthcare industry. This layered maze compounds the effect of all individual factors, subsequently leading to the slow evolution of the healthcare system regarding price transparency. The research uncovered the intricacies, perspectives, conflicting interests, influences of various stakeholders, and more importantly, the explanations that keep the industry opaque.

Keywords

Price Transparency, Health Care Industry, Price Opacity, Patients, Providers, Payers, Policy, Healthcare, Grounded Theory, High Deductible Health Plans
Healthcare Terrain

Healthcare spending is expected to continue on an upward spiral of growth over the next ten years. U.S. healthcare spending accounted for at 18% of the GDP in 2016 but is expected to grow to 20% by 2026, an estimated growth rate that is one percentage point faster than the GDP. The cost of consumer out-of-pocket for healthcare in 2016 was $353 billion, with an average annual deductible of $3,572 for an individual, and $7,474 for a family in 2017. There were 27.6 million people uninsured, of which 45% remain uninsured because of the cost of healthcare insurance (KFF, 2017). All of these numbers underscore the importance of price transparency in healthcare to empower the consumers to who continue to spend more out-of-pocket every year. Price transparency should be able to create competition, reduce healthcare spending, and improve the affordability of care (Durand et al., 2015). It should enable consumers to be aware of the financial liabilities of their care and facilitate better decision making (Durand et al., 2015); thus, allowing them to make informed decisions and reduce their financial burden and overall healthcare cost (Bumpass & Samora, 2015).

In 2001, George Akerlof, Michael Spence, and Joseph Stiglitz received the Nobel Memorial Prize in Economic Sciences for their research related to asymmetric information. Akerlof's seminal paper (1970), “The Market for Lemons,” states that information asymmetry in the marketplace creates an adverse selection, leaving just “lemons” in the market and leading to a market collapse. According to David W. Johnson, the CEO and Founder of 4sight Health, opaque pricing is the lemon in healthcare and the information asymmetry results in unnecessary expenditures in healthcare (Johnson, 2015). Healthy consumers with high deductibles may exit the healthcare market leading to a market with sick consumers who will have to continue to pay higher prices (that they might not be able to afford) to get medical coverage. To equalize the
information gap and promote efficiency healthcare price transparency is imperative. The transparent market will make shopping for a healthcare service less complicated and effortless. It is a sine qua non for properly functioning markets (Reinhardt, 2014).

Price transparency, though, a very straightforward concept, has different interpretations, with a debate on what prices to publish (Skelley & Brown). Some propose publishing price of a service based on the chargemaster, while some want to publish price negotiated with the insurance, and while the others want to publish average price of a service based on total hospital claims data (Dafny & Cutler, 2011). However, to be meaningful to a consumer, price transparency can be defined as the readily available information on the total amount a consumer has to pay to a provider for healthcare service before the service is provided. This information should be pertinent, meaningful, and accurate. It should enable the consumer to compare and choose providers based on price, anticipate cost, reduce unexpected expenses, and make an informed decision. The price should reflect the out-of-pocket responsibility of the patient based on insurance plans (private or public) and self-pay rates. This information should be presented with other information (like quality, customer satisfaction scores, customers’ reviews, and ratings, etc.) to define the value of the service and aid consumers in choosing a provider with the desired value for their specific healthcare needs (François de Brantes & Delbanco, 2015).

Price opacity, or the lack of price transparency, lends itself to creating price discrimination, which in economic terms means selling identical services to different buyers at different prices. The U.S. healthcare market leads the patient blindfolded into the health system. In virtually all areas of commerce, except healthcare, consumers are aware of the price and quality of the product they intend to buy before they buy it (Reinhardt, 2014). Price negotiations between the private insurance companies and healthcare providers to subsidize the prices are
confidential, and patients are clueless about the prices of the healthcare services until after the services have been received (GAO, 2011). The disparity in the price charged to the consumers varies widely. On the one hand, Medicare and Medicaid, the large public healthcare insurance companies do not pay full fees for medical services; and on the other hand, the cash-pay/self-pay patients and the uninsured patients are asked to pay the full price—or whatever can be pulled out of them in some cases—with the help or debt collectors or courts (Reinhardt, 2014). The issues with medical care and bills have resulted in severe social problems. In the early 1980s, only 8% of bankruptcy cases had a medical cause (Sullivan, Warren, & Westbrook, 2000). However, the bankruptcy rate has sharply increased, and it is estimated that half of personal bankruptcies and one-quarter of home foreclosures are a result of medical debt (Fuse Brown, 2014).

Prices charged by the providers for healthcare services are based on the hospital’s chargemaster. The chargemaster is merely the list of all the services and all the supplies a hospital provides. This price list is arbitrary, and the creation and maintenance of this ad hoc list varies between hospitals (Reinhardt, 2006). The price of a service is based on the negotiation of insurance companies with the providers and not with the cost of providing services. The price of a service can vary drastically with the same provider based on how the service is paid for (Figure 9). It can also vary for the same service with different providers even with the same insurance (Figure 10). More than a dozen hospitals in the U.S. are charging more than ten times their total costs for treatment (Table 13), and the average charge to cost ratio of the hospitals by the state range from approximately 125% to 580% (National Nurse United, 2014). The patients with higher out-of-pocket deductibles or no insurance, who cannot afford the cost of care, have limited options—either to forgo medical care or be exposed to financial ruin.
The Price Depends on Who is Paying

<table>
<thead>
<tr>
<th>Type of Payment</th>
<th>Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>List or &quot;chargemaster&quot; price</td>
<td>$2,844</td>
</tr>
<tr>
<td>Cash price</td>
<td>$695</td>
</tr>
<tr>
<td>UnitedHealthcare negotiated price</td>
<td>$1,990</td>
</tr>
<tr>
<td>Blue Cross negotiated price</td>
<td>$617</td>
</tr>
<tr>
<td>Aetna Negotiated price</td>
<td>$520</td>
</tr>
<tr>
<td>Cigna negotiated price</td>
<td>$341-$362</td>
</tr>
<tr>
<td>Medicare Rate</td>
<td>$335</td>
</tr>
</tbody>
</table>

**Figure 9.** One Test, Many Prices.*

*The table shows the price of MRI for the knee, hip or ankle, without contrast, at Oakwood Health care System, Dearborn, Mich. as collected by PricingHealthcare.com - Adapted from (Beck, 2014).

**Figure 10.** Price Discrimination between the Providers*

*The table shows the actual transaction prices paid by a large New Jersey Health Insurer for a colonoscopy in 2007 to various facilities where the procedure was performed. Adapted from (Reinhardt, 2011).
Table 13. Charge to Cost Ratio*

<table>
<thead>
<tr>
<th>List of Hospital</th>
<th>Charge to Cost Ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Meadowlands Hospital Medical Center, Secaucus, NJ</td>
<td>1,192%</td>
</tr>
<tr>
<td>2. Paul B. Hall Regional Medical Center, Paintsville, KY</td>
<td>1,186%</td>
</tr>
<tr>
<td>3. Orange Park Medical Center, Orange Park, FL</td>
<td>1,139%</td>
</tr>
<tr>
<td>4. North Okaloosa Medical Center, Crestview, FL</td>
<td>1,137%</td>
</tr>
<tr>
<td>5. Gadsden Regional Medical Center, Gadsden, AL</td>
<td>1,128%</td>
</tr>
<tr>
<td>6. Bayonne Medical Center, Bayonne, NJ</td>
<td>1,084%</td>
</tr>
<tr>
<td>7. Brooksville Regional Hospital, Brooksville, FL</td>
<td>1,083%</td>
</tr>
<tr>
<td>8. Heart of Florida Regional Medical Center, Davenport, FL</td>
<td>1,058%</td>
</tr>
<tr>
<td>9. Chestnut Hill Hospital, Philadelphia, PA</td>
<td>1,058%</td>
</tr>
<tr>
<td>10. Oak Hill Hospital, Spring Hill, FL</td>
<td>1,052%</td>
</tr>
</tbody>
</table>

*Adapted from NNU and IHSP: Top 10 Most Expensive Hospitals in the U.S. listed according to the percentage of their charges relative to their costs

Historically, 90% of the reimbursements have come from insurance companies, so patients have seldom worried about the price (Lutz, 2007). However, with the increase in high deductible plans, the patients are paying more out of pocket (Hammer, 2006). With the intention to help patients choose efficient providers for their care, legislation was introduced in 2009 to mandate price transparency (Dafny & Cutler, 2011). Implicit in these policies lies the assumption that reduction of governmental intervention would stimulate the healthcare sector to behave like any other commerce marketplace, i.e., in a price-competitive manner and would result in cost-efficient medical care (J.C. Robinson, 1988). Needless to say, these changes have been slow to appear because of the lack of meaningful information for the consumer to use, and because most consumers still remain unaware of the price discrimination existing in the healthcare market (GAO, 2011; Schleifer, 2015).
With changes in the regulatory landscape, higher out-of-pocket costs, emphasis on healthcare consumerism, and the advent of smart technology (cell phones, tablets, and wearable technology) that provide access to information at our fingertips, price transparency in the healthcare market should have arisen. Organizations such as Amazon, Airbnb, Uber, and Expedia have delivered a shopping experience where consumers can compare and shop for the best value for their money. For a meaningful change to take place in healthcare, incentives and rewards have to be aligned across all stakeholders (The patients, The providers, The payers, The Policymakers), and they all will have to be on board (Cornett, 2007). The U.S. healthcare system is due for an overhaul to a more price transparent system. Though multiple transparency initiatives (by Medicare, private insurance companies, and the providers) are underway, and 35 states have passed price transparency regulations; yet there has been a minimal impact on price transparency results (Bumpass & Samora, 2015; Sinaiko & Rosenthal, 2016).

Having conducted a literature review of the healthcare terrain above, in the next section, I introduce my research motivation and my research question. This is followed by a description of the research methodology used in my study and the findings from the perspective of the four important stakeholders, the 4 Ps (The providers, The payers, The patients, and The policymakers) in the healthcare landscape. In the discussion, I present an integrated view of the stakeholders with a model that emerged for my analysis and the implications regarding price transparency in healthcare.

**Research Motivation**

Healthcare price transparency has been a hot topic in the healthcare industry for a decade now, but the tactic of creating price transparency to reduce healthcare spending has shown modest results. Despite various price transparency tools available through insurance companies,
private vendors, and state government, the utility remains low and the market continues to stay opaque (Mehrotra et al., 2014; Rosenkrantz & Doshi, 2016; Sinaiko & Rosenthal, 2016). With the advent of consumerism, healthcare is one of the few areas of commerce where consumers agree to spend out of pocket for the service without knowing the actual price of the service. This study aims to delve deeper into the factors that result in an opaque healthcare system and propose an emergent theory or model to explain why the market has maintained its status quo on price opacity. In response to these stated purposes, I propose the following research question:

*Why is there a lack of price transparency for Healthcare Services across the U.S. Healthcare System?*

The focus of the research is on price transparency of non-emergency and shop-able services.

Healthcare is a complex industry and like any other industry uses specific terminology. During my research, I heard and came across a lot of terms, some which understood and some not so much. I have added definitions of a few key terms that have been discussed in this paper for reference (Appendix 8).

The impetus of the study also comes from my pilot phenomenological research study conducted by interviewing seventeen patients who were waiting to be seen by a doctor at a doctor’s office. The study revealed some interesting findings about why consumers do not shop for prices in the healthcare market. Among the themes that emerged, these major ones surfaced:

- Patients are unaware of the price variation and discriminations that exist between the providers with the same insurance.
- Historically patients have assumed that their health insurance plans would cover the cost.
- Patients trust their physicians to make the right (health and cost) decision for them.
- Patients observed that the physician and the staff are unaware of the cost of service.
• Patients believe that the pricing is all done by insurance companies and this pricing is rigid.

• Even though some transparency efforts are emerging, patients are unaware of the resources that are increasingly available to compare healthcare prices.

• Patients discern that the energy and time put into finding the prices not worth an effort.

• Some patients are hesitant about discussing the cost of care with their doctor especially when it comes to health (considered a taboo).

The interviewees from the pilot study described agony over the outrageous bills from the hospitals both in emergency and non-emergency settings. In most cases, the patients called to question the billed amount to put the price into perspective. These ‘after the fact’ bills leave the patients stranded with no choice but to pay or have collection agencies aggravate them about their bills (Riffkin, 2014).

Having researched the view of one major stakeholder, the patient, in the pilot study; the logical next step was to take a comprehensive look at the industry and understand the perspective of all the major stakeholder on price opacity in the healthcare system.

**Research Methodology**

My initial literature review found no evidence of theories that could explain the lack of price transparency in healthcare. Though there is ample literature on healthcare price transparency and opacity, there is no evidence of an exhaustive study investigating and understanding the intricacies of the major stakeholders together. After reviewing various methodologies, I felt that Grounded Theory Methodology (GTM) would be the best approach for this domain. This methodology would allow me to have candid conversations with the participants to delve deeper into interpreting the complexities in the multilayered and multifaceted healthcare industry. Another reason for using Grounded Theory Methodology was to come up with explanations and develop a model or a theory that is grounded in the data.
collected through the interviews of the industry leaders representing a significant stake in the healthcare industry.

GTM guidelines, as outlined by Corbin and Strauss (2008), were followed starting with data gathering. Open coding was done at the line by line and sometimes at a few lines and paragraph level to incorporate the participant's idea. Open codes were aggregated by concepts to create axial codes or categories. Initially, theoretical sampling was done to collect data and information based on the core concept. I was seeking information on the price-opaque healthcare system to understand all the factors and their relationships, co-dependencies, and boundaries relevant to my core concept. This sampling led me to various areas/sectors in the healthcare industry that provided me with a 360-degree view of the healthcare industry. While multiple iterations of open and axial coding were being done, comparisons were also made across different healthcare areas vis-à-vis the provider side, the payer side, the patient side, and the policy side. The coding and interviewing were done until saturation was achieved. I stopped the interview process when each segment of the healthcare industry (i.e., Stakeholders in each segment) started giving me information that was redundant and stopped producing additional codes. Finally, after saturation was achieved, selective coding was done to identify core categories. Throughout the process, memo writing helped with narrating the codes in concrete explanations and diagramming enables visual creation (Strauss & Corbin, 1994). The continuous analysis along with constant comparison and memo writing led to the development of a relational model that helps in explaining the phenomenon of price opacity in the healthcare market. (See Figure 11.)
Participant Selection

An exhaustive selection of all the industry stakeholders was important for this study. I wanted to understand the viewpoint of each stakeholder so that I could get a comprehensive perception and understanding of the factors that are keeping the industry opaque. I recruited industry executives (CEOs, COOs, CFOs, EVPs, SVPs, VPs, Executive and Senior Directors, business owners, etc.) and professionals (consultants, physicians, researchers, academics, journalists and lobbyist) who are the healthcare leaders in various organizations with knowledge, expertise, and insights on the healthcare pricing and policy landscape. These executives were categorized to represent the four main stakeholders (Table 14) in the healthcare industry, namely the provider, the payer, the patient, and the policy side (the 4 Ps hereafter).
The providers of healthcare services are doctors, nurses, nurse practitioners, physician assistants, other healthcare professionals, hospitals, clinics, offices providing healthcare services like imaging, medical labs, etc. For this research, I have grouped providers and their representatives under ‘The provider side’ This side is represented by hospitals, group practices, physicians, hospital lobbyists, and hospital associations. The provider side has vested interest in the providers who deliver care.

The healthcare insurance companies are generally referred to as payers. The payer along with other professions manages and administers plans and benefits. For this research, I have used healthcare insurance companies and other professions such as brokers, benefits advisors and healthcare vendors as ‘The payer side.’ This side acts as an intermediary between the patients and the providers to meet the healthcare needs of consumers (patients, caregiver, employer who provides healthcare to their employees) by assisting in and assessing their circumstances.

The patient side focuses on patients and consumers. These terms have also been used interchangeably to represent specific meaning. Not all healthcare consumers (non-sick consumers, parents, caretakers, etc.) are patients but all patients are consumers. Consumers become patients when they enter a healthcare system for a service; but when healthy, they are no
longer a patient but are still consumers. In this research, ‘The patient side’ is represented by consumer advocates/ authors, journalist/reporters, consultants, employers, and employer lobbyists. This side is the voice of the patients because it represents their concerns.

The policy in healthcare is state and the federal government. For this research ‘The policy side’ is represented by thinktanks, researchers, academia and nonprofit research organizations which influence policy and participate in creating changes in regulations. This side is continually researching and writing in academic journals, assessing the current healthcare industry, and educating the government on various issues in healthcare.

Table 14 shows the percentages of the 4 Ps to the total participants. Of all the participants, 28 (36%) represented the provider side, 15 (19%) the patient side, 20 (26%) the payer side, and 15 (19%) the policy side.

Many of the participants have experience in various sectors of healthcare. For example, a participant on the provider side, with a total of 18 years, has been with the provider side for the last eleven years and previously spent seven years representing the policy side. This cross experience makes my study participants more attuned to different perspectives and enables them to be more conscious of the complexities confronted by the other segments of healthcare. With a total experience of 1,688 years and average experience of 22 years, most of these industry leaders have been in healthcare long enough to reflect on the past and have a critical acumen to glimpse into and anticipate the future.

Data Collection

The seventy-eight interviews (over the phone and in person) were planned and conducted in small batches over the seven-month period (February–August). They were then transcribed
and edited for correct content. The average interview was 65 minutes long with the longest one being 168 minutes, resulting in 85 hours of interview data.

The semi-structured interview structure facilitated open discussion providing me an opportunity to cross-question or clarify information to dig deeper into relevant topics. The interviews were divided into three sections, and the participants were asked the same set of questions:

- In the brief (five minutes) first section, participants were requested to provide a short description of the current role they play and or any past role they had played in healthcare pricing.
- The second section that typically lasted thirty to forty minutes asked questions about the opacity in the healthcare system and their organization (if relevant)
- The third and final section that typically lasted twenty-five to thirty minutes asked questions about the direction of healthcare and the current the interviewee's perceptions toward the consumer behavior.

**Results**

**The 4 Ps – The Patient, The Provider, The Payer, and The Policy Side**

The healthcare system, just like any other market, has a demand and a supply side. The demand side is consumers/patients. The supply-side is the health delivery systems, the providers, the hospitals, the doctors, the physical therapists, etc. The difference in a regular market vs. healthcare is that it has a strong policy regulation and a payer side that act as a liaison between the demand and the supply side (Figure 12).
Figure 12. The 4 Ps in a Pod

The Provider Side: Health Delivery Systems and Their Representation

As mentioned above, the provider's side is represented by the healthcare delivery systems and the groups with a vested interest for the providers and healthcare professionals.

The provider side and the industry.

*Meaningless information.* Because of increased healthcare spending, the changing landscape is bringing all players into the limelight. With the blame game and the finger pointing, the providers perceive that they have been criticized the most for high prices because they stand to lose the most from price transparency (Fuse Brown, 2014). However, surprisingly, most of the
provider side participants that I interviewed agree with the importance of price transparency but caution that the price transparency information available is meaningless to the patient. There is a hope that technology will make dissemination of information easier, but the information should be simple, clear, understandable and relevant.

One of the many reasons for price opacity in healthcare: The price information available to the consumer is not meaningful and does not provide relevant information for them to make decisions. My participants are resistant to government mandating the publishing of prices that are irrelevant to the consumer and do not help with their decision making.

• Provider side – Physician 4: “Some providers will give you that information but it's not really a price. It's really an estimate of your financial responsibility within the constraints of your insurance. It's very difficult, even with as much press as price transparency gets, every institution, every office seems to have some twists and contortions that make the exercise very, very difficult.”

• Provider side – Health system 8: “Putting up hospital charges and comparing them is meaningless. Putting up actually payments by insurance companies is much more meaningful. But that [information] is protected under most circumstances as protected contractual information. I think that's the sort of thing that should be open.”

• Provider side - Hospital association 2: “All the healthcare system stakeholders are going to have to figure out how to get the right information to the right people [consumers] Knowing the prices, for example, the list price of a surgery is not necessarily meaningful. What's meaningful for the consumer is knowing the immediate liability he [she] has.”

The provider power and market consolidation. The providers are aware that high spending, high deductible health plans, media outcry, and government attention are bound to significantly change the healthcare industry. Having to protect their territory and run their businesses, they are ready for the change that might come their way. They are already involved with mergers and acquisitions, integrating vertically to become health insurers and horizontally by buying freestanding outpatient clinics. This benefits them in a few ways: First, they can have a greater market presence and hence greater market share; Second, once they get the consumers into their outpatient clinics, they can refer them for services within their network. Third, the
integration through mergers and acquisitions can help them to create an integrated healthcare system that will help the hospitals to increase efficiencies and at the same time provide a better customer experience; Fourth, they can eliminate (to some extent) the competition in the market to establish monopolies and oligopolies; Fifth, they can reduce the threat of competition hence price transparency and hence the impact to their bottom line.

Market consolidation and market power of the providers (supplier) also leads to price opacity. In a preemptive response to the changes that will be coming to the healthcare market, the providers have begun consolidation and expansion effort for various reasons.

• Provider side – Hospital association 3: “You can't say that when they're [hospitals or healthcare delivery systems] consolidating it is for monopoly reasons. It's because they're trying to build an integrated, care-delivery network. It is high quality, low cost because ultimately, they're going to be accountable for total cost of care. They can't depend on somebody else to be high quality and low cost. They need to build it. That's exactly why CVS wants to have a payer.”

• Provider side -Hospital association 6: “I think it's about acquisition. The larger you are, you have [hospital or healthcare delivery systems] a great economy of the scale you could reduce your cost, but I think that's one reason, I think another reason is you can consolidate for instant, if you're trying to create a tertiary care center where you have high-end surgery procedures. If you're larger you can start to funnel patients from other facilities into your central system. Again, efficiency, I would say more of a gross efficiency prospective.”

• Provider side- Hospital association 5: “The market's changing for multiple reasons. It's not just one. The complexity of care today is chewing up the small and solo practitioner. They cannot manage all the infrastructure needed to run a modern system. They want the world to stay fee-for-service because they could control their destiny. But in order to run modern digital health information systems and in order to communicate and manage complex enterprises that are interfacing and coordinating care, [they] need a lot of infrastructure.”

Physicians’ lack of knowledge about prices. Physicians also do not want to discuss prices with the patients because they perceive it belittles their profession. They get offended and emphasize that discussing prices degrades their services and the selfless profession of being a
physician. The other reason is that as a physician, they have not been involved in the price discussion and are unaware of the high prices.

The physicians’ lack of knowledge about the prices and a lack of desire to discuss them or to bring price as a part of total healthcare experience also leads to maintaining the status quo of price opacity. The physicians discern that discussion about prices is not a part of their profession.

- Payer side - Insurance company 5: “I mean, doctors in general are just almost offended. And they’re scientists, so they went to school and they were good in science, and they became doctors. They don't want to be business owners. They don't want to be thought of like a pizza shop, and they don't want to have to have prices and marketing” No, and our providers don't have any reasons, I'm saying I don't think they understand.”

- Provider side - Hospital system 13:“Our providers don't have any reasons [to hide prices], I'm saying I don't think they understand. Our providers have very little interest in any event [of creating price transparency] anyway.”

- Patient side- Journalist 1: “You don't just have to say, "Oh, I'll pay it [a drug]," You can call the doctor back and say, "Look, I just need a little liquid and antibiotics [ for a pink eye]. Is there's something else you can give me?" and the doctor was like, "My God, you're kidding. $300? That's insane. Here, you can take this." If people are made to feel comfortable with that [calling the doctor] they will realize the doctors, when they prescribe something that's very expensive, don't do it because they are going to make money off of it. They're busy and it's very difficult to do everything that they need to do [know the prices of product and services]. I don't think that there's ill intent here.”

The provider side and the payers.

Preservation of self-interest. The providers have a symbiotic relationship with the payer (i.e., insurance companies) health plans. Both sides sit on the negotiating table, and both come out a winner. The providers are able to give the desired amount of discount to the insurance companies by increasing their prices on the chargemaster and still able to keep their price margin and the insurance companies are able to get the desired percent discount. It is a win-win for both.
All the stakeholders who benefit from the opaque healthcare system strive for the protection of self-interest. There are different ways the providers and healthcare insurance companies negotiate to protect their interests and still be synergetic.

- **Payer side – Insurance company 4:** “The payers will try to get the hospital or the physician to take the least amount of money possible for that service, as long as it is what they call reasonable and customary. Which means as long as it's around what others in the area are getting for this service or this procedure, we [payer] want to pay you the least amount on that as we can. And so, it doesn't matter whether or not price transparency, which is different than cost transparency. So, the cost transparency is being able to do that knee replacement for $500 but charging $50,000, the price transparency is we can do it for $500 but our charge or our price for doing it is $25,000, but if you have this insurance, it's only going to be $10,000.”

- **Policy side – Academia 1 (He is on the board of a non-profit hospital):** “There is a sort of an unholy alliance between the hospitals and the insurance companies, commercial insurance companies that they both play this game like that discount really means something. In one board meeting I went into they said, "Well we're [the hospital] going to have to raise our charges." I said, "Well why would you raise your charges. I mean we're doing fine financially. And Medicare is generous in the payment for this. We're an efficient operation. We've got plenty of capital. Why would you need to raise the charges?" Well because [insurance company] wants a discount. Why would they want a discount? They're getting the best price of anybody. They're getting the same price we charge everybody, including the feds. They said, "No, they want a desired discount." So, we raised the price to 50% above what we paid before and gave them a 30% discount and they were happy. It makes no sense at all. This is where I first got really cynical about insurance companies. Because they needed to show their small group clients that they were actually saving them money. So, they had to show them that the discount was what they negotiated from their hard-nosed position. In spite of the fact that they were actually net paying 20% more than they would have otherwise. Made no sense. They were happy”.

**Contractual negotiation.** On one side, the payers and the providers work hand-in-glove whereas, on the other, a talk about price transparency starts the blame game. The providers argue that insurance companies have all the information on prices as well as information on patient benefits, so they should be the ones to publish prices. The insurance companies present a counterclaim that the providers have price information, too, and they should provide it because they are the first line of interaction between the patient and doctor. Moreover, the patients expect all their questions to be answered when they meet the providers. The providers fight back
because they do not have real-time information about the benefit plans. In reality, neither of them wants the prices to be out because it is proprietary data for both; and if out, it can dampen their abilities to negotiate prices.

The contractual negotiation protected by the anti-trust laws, motivation for protecting their (providers and payers) individual interest, blaming the other are few other reasons for an opaque healthcare. My participants (the provider and the payer side) blamed each other and the confidentiality clause for price opacity in healthcare.

- Provider side – Hospital association 2:” It's the payer's responsibility, the third-party payer responsibility to make sure that either through the provider who gets the information electronically from the payer or between the websites the payer has, that they make people aware under what circumstances they would have to pay X.”

- Payer side- Insurance company 4: “Hospitals don't want it [share their information]. Hospitals would rather not have their information shown and shared about how much they're charging for different services, because they know that will in most cases cause for a change in behavior when it comes to the overall patient and where they're going”.

- Patient side – Consumer advocate/Author 2: “The contracts that health insurers have with healthcare providers require secrecy. That actually benefits both the provider and the insurer, but not the patient, not the consumer because we don't have knowledge that we should have about the deals that insurance companies strike with providers.”

**The provider side and the policy.**

*Reluctance to invest resources on ineffectual causes.* The providers are displeased with the government. They do not welcome government intervention because they argue that the government does not play fairly and intervenes without complete knowledge of how a change may impact the healthcare market. This is the reason that the hospitals have the strongest lobbying market.

The hospitals lack resources and the providers are unwilling to invest more capital in something that might not work or have value. The provider side expressed their frustration with high regulation cost.
• Provider side – Hospital association 4: “The resources [to create price transparency] but who's going to be able to do all of this within a hospital and how many FTEs [full-time employee] are they going to have to hire to devote to that. And when you just look at how much they're already spending on regulatory burden. [W]e did a study at the [an Association] and found that regulatory requirements associated with complying with federal regulations account for approximately $1,200 of the cost for every hospital admission.”

• Provider side – Hospital system 7: “All this time, all the regulations that they put on hospitals drive their cost up. If we want to get price down, we need to delete the amount of regulations we have. Hospitals are too heavily regulated right now. It's ridiculous. They have to hire staff just to deal with all the certifications and qualifications, and surveys, and then follow up to surveys. They [have to be] survey by everybody. That's a full-time job. It probably costs in the hospital [one full-time employee] with benefits up to $100,000 a year, American College of Radiology comes in and surveys radiology. Oh, wait a minute, do you have any nurses in here? Well, we're going to have to look at their credentials because you know, there's regulations through the American Nurses Association. Well, let's go over to this department, what regulations do we have here? We have this, this and this, and then everybody has to do joint commission. And then everybody has to pass the Florida department of public health. I mean, they're just constantly, constantly regulated and being surveyed, and those regulations aren't free. They impose regulations that require you to change staffing levels, change facilities. Add doors, add sprinklers, add ... and that all costs. And somebody at the end of the day has to pay that, or else that hospital closes. So that's why their costs are higher.”

Cost shifting. On the issue of price transparency, the providers are at with odds with the government. They stress that the government tactics to create price transparency add no value to the consumer but instead add another administrative burden on top of other regulations the providers have to comply with. They feel that the government pays them below cost on Medicare and Medicaid payments and thus they have to shift costs to the commercial insurance companies so that they can have a decent bottom line to run the hospitals.

The providers remark that they are paid below cost for their Medicare and Medicaid patients. Therefore, they have to cost shift to make up the difference by charging higher prices to the commercial insurances. Price transparency would create a challenge to cost shift.

• Provider side – Hospital system 10: “If you look at from the hospital and the State of [Name of the state] 60% of my business is Medicare, 10% of my business is charity care, and about 15% of my business is Medicaid. Medicaid pays a little bit less than Medicare
does. For me, 85% of my business pays me less than cost, so I have to make money on that 15% of my business, which is why you get that cost shift.”

- Policy side – Nonprofit organization 5: “Everybody in the country loses money on Medicaid. Most hospitals lose money on Medicare. And where do they make that up? On the commercial insurance side. They have to charge more on the commercial insurance side to make up for that and that is cost shift. What better way to describe that to the community than say, "Hey, we have to charge more because we got a 20% Medicaid burden. That [cost shifting] is probably one of the biggest challenges, of transparency is that some hospitals have to make up for a massive indigent volume.”

*Not on board with regulatory efforts.* The government (CMS: Centers for Medicare and Medicaid Services) has recently announced two initiatives to create transparency. Most states that are participating are mandating that the hospitals publish their chargemaster prices. Surprisingly, the providers with whom I talked did not mind creating price transparency. Instead, they had concerns with the way price transparency is being ushered in. They claim that the ways the government (both state and federal) is trying to create price transparency is just for media attention. The second initiative led by the government is to publish the average prices of service at the state and hospital level. Once again, the average prices do not provide any relevant information to the consumer. These prices can be skewed depending on the type of market (a market with high government subsidies like Medicare and Medicaid patients’ market will show lower costs of a service, vs. a market with most commercial insurance companies). The average price does not reflect the price a patient would pay out of pocket. Both initiatives are opposed by the providers and the policymakers.

The providers perceive that the government is mandating hospital system to publish irrelevant information and is meaningless for the patient. They are apprehensive about it and not on board with the efforts made by the government to create price transparency.

- Provider side – Hospital association 3: “Of these proposals [state and federal efforts for price transparency] to mandate cost reports being public, that's a waste [publishing the charges]. That's not going to do any good. It doesn't mean anything to anybody. It's a wasted effort. I would oppose that. That is an unnecessary expense that means nothing to
a person [because the patient or the insurance companies never pays these charges and even if you pay of pocket you never pay those].”

• Patient side – Consultant 4: “The Inpatient Prospective Payment rule that just came out [May 2018]. They [Centers for Medicare and Medicaid Services] put in there that they're interested in hospitals posting chargemaster data and regulating it, mandating that they do. It’s a proposed rule but and people are going to probably lobby against it. You don't know what's going to be finalized, so who knows, but they put it in there, and they're using authority from the Affordable Care Act to be able to do that. But we'll see what happens.”

• Provider side – Hospital system 6: “State of [State] is going to hire a vendor, create some pricing bundles. They would pull all of our hospital claim information and [average them] do pricing bundles for things like hip surgery, a knee surgery, and I think there may have been a cardiac.” Another provider side from hospital association 1 mentioned this database by saying: “The data that's available is like with the charge data and the health charges have gotten convoluted, are more connected to Medicare than anything else. So, I think that it's just a complex system and then there is a lot of data out there…but there's no data to show what it costs.”

The provider side and the patients/consumers.

Unaware and uninformed consumers. The providers attribute to lack of price transparency to consumer awareness and education. They discern that consumers have to be responsible and take charge of their financial situation.

The consumers are unaware and uninformed of the price variation. According to the provider side, the patients need to take more responsibility for health finance.

• Policy side – Academia 8: “I think it's a combination of reasons. If you look at some surveys that have come out, a research is being conducted, often patients don't know that the information exists and they don't even know to consider it. Then, there's another group that doesn't know where to find it.”

• Provider side – Hospital system 4: “I think we've got the tools [for price transparency], particularly down to the patient level. What I think is lacking is education and adoption. So, whatever we could do to up that, to me, is going to be the big ... you know, that's the game changer here. Folks have to understand. They have a responsibility to understand what their healthcare costs. Like I said, I think our particular American society has been educated to not have to do that”

Trust in physicians. The patients have great faith in physicians but not so much in the hospital systems. They trust and regard the physicians and put them on pedestals and are
reluctant to talk about prices with their physicians. They hesitate because they are ashamed of giving an impression of frugality, that they are putting the money before their health.

Patients’ trust in their physician, results in patients blindly following their instructions without asking any questions, let alone worry about the price.

- Patient side – Employer 2: “A lot of people are like, "Well my doctor told me I had to go over here and get that done, so I'm going to do over here and get that done." They don't even think about, "Do I have to go over there? Or can I do something else? They trust their doctors."

- Payer side -Benefit advisor 1: “People will make choices for crazy reasons. I've been in situations where it's like, "Look, if you go to this hospital, you have to get on a plane to go to this hospital, but it's going to save the health plan [thousands of dollars], and the outcome data shows that you have a much higher chance of survivability for this surgery you're getting ready to have. Would you go to this other hospital?" They said, "No, I want to stay here with my local doctor in the hospital."

- Provider side – Hospital system 6: “We go to the doctor we like, and we go to the hospital that the doctor tells us to go to, and we've left the decision to the doctor that we trust and to the insurance company that's paying the bill. We never said, "Hey, this is really my responsibility to sort this out, to shop doctors. I really should be looking at their backgrounds and selecting one that's good for me. I should look at what they charge, and maybe I should pick hospitals on other things like quality, and I haven't been doing that." I think we've abdicated our role as a consumer because we've left it to the doctor we trust and the insurance that's paying the bill, and that's it.”

**The Payer Side: Healthcare Insurance Companies, Benefit Advisors and Vendors**

The payer side is represented by healthcare insurance companies, brokers, and benefits advisors and healthcare vendors. This is a side that assists the patient side (patients, healthcare consumers, and employers) with the administration of, as well as benefits planning and decision making for their healthcare needs. The insurance companies are referred to by other stakeholders as the BUCAs (which stands for BlueCross Blue Shield; United; Cigna; Aetna or BUCAHs with Humana included).
The payer side and the industry.

Complex nature of healthcare. Consumers are not clamoring for price transparency but the insurance companies, some providers, vendors, and some state website have tools for them to use for price shopping. The utility of these tools remains low because of many reasons, one of which is the complexity of the health information, the human body, and diseases. For a patient, it is arduous to understand the key terms, biomechanisms, pharmacology, diseases, etc., that could impact them. A vendor that sells medical management services to employers helps patients to navigate through the healthcare episodes by providing disease management. They provide advocacy on behalf of patients. The medical management is performed by independent doctors and nurses who help the patient understand the disease, help them with the treatment options, cost and quality matrices, etc.

Healthcare is complex and perplexing. The information is very confusing for the patient, who when in need of healthcare, is in a weak and feeble state. They need handholding and guidance at this stage.

- Payer side – Vendor 6: “We have patients all the time who will call and say, "I need help finding an in-network podiatrist." We say, "Okay, great. I can help you with that. Why do you need to see a podiatrist?" They'll say, "My knee hurts." Well, you don't go to podiatrist for knees, podiatrist is for feet. So, the whole medical jargon, lingo kind of stuff will need someone, preferably a nurse or a doctor, someone to help them navigate through that. So, we have medical interpreter.”

- Payer side – Vendor 3: “Spending millions and millions of dollars on unnecessary services you don't need. There's an alternative way to provide very, very healthy, wonderful, rich health insurance benefits to your employees but you got to insert a watchdog. That watchdog is medical management.”

- Payer side – Benefit advisor 3: “[In the complex healthcare system] Consumers can pick one MRI center or the other, but they're not going to be able to navigate the system for pricing as it relates to surgical procedures because it's too complicated. You then have to get engaged with pre-certification process. You have to coordinate the case management. It's a complicated process, so what we do is have a healthcare navigator to help you through the process, because it just gets to be too complicated without having a health professional to help you navigate.”
Payer power and market consolidation. The argument about who can and should publish the prices is ongoing, but neither the providers nor the insurance companies want to do it. For the insurance companies, putting the prices online would mean being out of business. Insurance companies are a liaison to negotiate the prices of healthcare services in bulk for their members (because they have strength in the number of members). If the negotiated prices are published, the need the insurance companies will be eliminated. The market will come to equilibrium through competition, and the role of the third party will be eliminated. Price transparency threatens the purpose and very existence of insurance companies that are aware of the potential shift in the market and are ready for the change. To avert the risk, they have started integrating vertically. They are buying pharmacies, clinics, and nursing homes and have jumped into the provider vertical. They are also now changing their role in servicing the industry to become administrators of self-insured employer plans. Over time, the lines between the providers and insurance companies will blur. Each stakeholder is trying to preserve its own interests by positioning itself for the future. This dynamism in the healthcare market will change it in unexpected ways.

The market consolidation and market power of the payers keep the market opaque. In anticipation of the changes coming to the healthcare market, the insurance companies have begun consolidation and expansion with other insurance companies. They have also started venturing into the provider line of business in an effort to remain viable with the changes in the healthcare market and to share the 80–85% of the share from the Medical Loss Ratio. As per the Medical Loss Ratio (MLR), 80–85% of the premium dollars have to be spent on care. This leaves the insurance companies with 15–20% of premium dollars for the administration of the
health plans while still trying to make some profit. With the new wave of expansion insurance, companies now are acquiring providers in order to get the 80–85% share.

- Payer side – Vendor/Author 5: “These insurance companies would be out of business if people did direct contracting, and they could figure out exactly what was being paid for things[services]. But the health plans have a huge incentive to kind of stay in the middle and keep things [prices] opaque and talk in terms of discounts from reasonable and customary or discount the premiums to Medicare instead of just talking about plain old prices”.

- Payer side – Vendor 1: “So patients are not allowed to see the contracts that their health plans have negotiated. Insurance companies and hospital organizations or medical organizations have contracted confidentiality with one another on this. And the agreement in that contract is to prevent anyone from scrutinizing or reviewing what the exchange of revenue is going to look like for any particular service that the insurance company's paying to the doctor. Because they want proprietary, that's their bread and butter. That's their revenue source. And it's a revenue for both sides.”

**Fear of change.** Healthcare represents 18% of the GDP (KFF, 2017). The payers believe that with the increase in healthcare spending, healthcare has become convoluted. It has become too big to fail or change directions quickly. There are many stakeholders in and around the industry, who have a vested interest in keeping the industry opaque and to perpetuate a status quo.

Healthcare sector is 18% of the GDP and expected to grow to 20% by 2026. There are many groups who have a vested interest in healthcare and its growth. Complete transparency can dishevel the industry and cause havoc. Uncertainty and fear of change have kept the industry opaque.

- Payer side – Vendor 1: “When we say moving the Titanic, it's not necessarily moving the Titanic. It's not really that difficult to move the Titanic or the industry. But what happens is when we look at the industries and the way they're built, they're publicly traded companies that are at the top of the healthcare food chain. They have a responsibility to their shareholders. And if they disrupt themselves, there is a risk for stabilized revenue stream, which would devalue them by making such an aggressive shift in change. It is a requirement for the industry heads to maintain their financial portfolio with the level of stability that keeps investors interested in them. It would also weaken them because they would not be able to create the regulatory environment that they want to have that protects entry of other people into the marketplace.”
• Payer side – Benefit advisor 4: “Healthcare itself has become too big to fail. There are so many special interests that do not want to let it fail because now what it does is it causes us to artificially prop up GDP growth. What would happen if 10% of our GDP [Gross domestic product] evaporated overnight? That would be worse than 2008 [economic collapse] that nearly caused a worldwide economic collapse. That's the other reason I think it's going to be really hard to get that [full price transparency],”

• Payer side – Benefit advisor 6: “Once it [healthcare] is transparent there's less ability to hide money, make more money. The problem is people in America like to make money. So, the more secretive it is, the more elusive it is the easier it is to make money. It's all driven by profit.”

*Misaligned incentives.* With the growing concerns on high healthcare spending, there is a strong motivation for finding ways to reduce it (Thorpe, 2005). In anticipation of any major changes in healthcare, the insurance companies have started to adapt. They are venturing in mergers and acquisition to move into the healthcare delivery side by acquiring clinics and other facilities. They have also ventured out of just being an underwriter for healthcare service (their current role, with higher risk) into becoming administrators of healthcare service, with minimal risk. As per the Medical Loss Ratio (MLR), 80–85% of the premium dollars have to be spent on care. This leaves the insurance companies with 15–20% of premium dollars for the administration of the health plans while still trying to make some profit.

The incentive of the stakeholders is not aligned. Stakeholders are looking for ways to maximize their profit and currently, there are no incentives for the stakeholders to create a transparent market. Opacity and high prices are conducive to maximizing profit.

• Payer side – Vendor 2: “The more recent strategy which is, insurance companies have realized that the better way to make money is to actually become a provider of care and focus on that 85 cents on the dollar, rather than just being an insurance company. There is a huge movement of insurance companies now wanting to become providers of care whether it’s a merger between Aetna or CVS. Whether it’s a merger between other insurance company and other providers of care or organic growth. Like United Health is doing with provider acquisitions. Everybody starts to understand that to make money they need to be focused on those 85 cents to a dollar rather than on 15 cents and trying to squeeze a cent more out of 15 cents that they have.”
• Payer side – Insurance company 1: “ASO is the Administrative Service Only contracts. The insurance market on the commercial side is classified in two broader categories. One is the fully insured, where the insurance company underwrites the policy and they own the full risk. If somebody falls sick, then the insurance pays the bill. The other market is called ASO which is administrative service only, wherein the big employers have a policy for the employee, and that policy is an ASO policy, meaning that the employer has contracted with [any insurance company], and this insurance company only charges the Admin fee to administer the policy. The whole risk of paying my claim lies with my employer.”

**The payer side and the providers.**

*Profiteering and greed.* As mentioned in the provider section, the payers and the providers work in symbiosis. This love and hate relationship has resulted in finger-pointing and quibbling on who is responsible for increased healthcare spending and an opaque industry.

The intrinsic motivation of profiteering and greed drives both the payers and the providers and other industries (like medical devices, pharmaceuticals etc.) that benefit from an opaque industry to keep the status quo.

• Payer side – Insurance company 2: “I'll give you an example. In this example, the hospital said to us, "Hey, we billed you for an inpatient stay," and this was for somebody who was on a ventilator, "and you denied all of our charges for oxygen." I said, "Well, yeah, I mean, oxygen is ... if somebody's on oxygen that's one thing. If they're on a ventilator, the ventilator works with oxygen, so why would oxygen be separate?" They said, "Well, if you're not going to pay for oxygen, we're going to gross up the charges for room and board, and you're going to end up paying for it anyway. Even though you'll be denying that line item, we're just going to gross up the charges for room and board."

• Payer side -Vendor 2: “If you look at it somewhere in the middle from a corporate segment there are stakeholders that would prefer the status quo versus folks who would want to change it. The folks who get the benefit of this lack of transparency are obviously providers that charge more of the services that are available in the market at a much lower price. So that they enjoy the benefit of the lack of transparency. And they would prefer that it stays the way it is right now.”

*Lack of cost accounting for healthcare services.* The payer side agrees with the provider side that the government does not pay enough to the hospitals for the services under Medicare and Medicaid. However, the payer side claims that hospitals have found an easy way to get out of the predicament. Whenever the hospital’s bottom line is in jeopardy, instead of focusing on
improving their efficiencies and or reducing cost, the hospital increases the prices through the chargemaster.

The hospitals do not have a cost accounting system for the cost of services, their prices are based on the chargemaster and they increase the prices of healthcare services without understanding the underlying cost structure.

- Payer side -Insurance company 1: “I meet with a lot of CFO's of hospitals, and when I ask them what cost accounting measures they have, they look at you like ... dumb. Now, the fact is, that you cannot run any organization without having a very clear handle on the cost structure because that controls your profit line. But the fact is, the American system is such that most of the hospitals are not for profit, they didn't have a focus to sustain or make profit, and for that reason, most of them don't have a proper cost accounting structure. In an ideal world, if I run the hospital, I should know that I have thousand square feet of space for example and how much each of the square foot generates value for me. Meaning that how much I get from the outpatient care, how much do I get from the outpatient surgery, how much do I get for inpatient care, and so on and so forth. I put on top of it the resource cost and then I say, 'this is the cost to do my services'. They [Hospitals] don't have cost accounting to tell them what the cost of the service is. In balancing the overall book, without knowing the cost, they face two challenges. First, is the uninsured population who comes and doesn’t pay and by law they [the hospitals] have to treat them [the uninsured]. Second, is the government payment, the Medicare and Medicaid payment are only a fraction of a dollar that they [hospitals] get on the services that they provide. So, their overall costing goes back to the point where they have to negotiate better rates [using the chargemaster] with the commercial payer, so that they at least are sustainable [profitable].”

- Payer side – Broker 1: “I think the delivery system [hospitals] has been reluctant to lift the veil [ to become transparent] of what they charge and this whole idea of having this chargemaster and the "retail fee" that is associated with their services, but in probably 70 to 80, if not 90% of the cases, they don't accept that retail fee. They accept a discounted amount from a Blue Cross plan or an Aetna plan or whomever it might be because of this negotiated discount. And there are these write off advantages that they have between what they accept and what they charge. It's a very complex system, and I think they've[hospitals] been very reluctant to open the door or the black box in that regard.”

**The payer side and the policy.**

*Ineffective price transparency regulations.* Insurance companies distrust the government because they too feel that the government imposes mandates that are not well thought through.

An example given was of EMR (electronic medical records). The government had mandated that
all the providers had to have the patient records in an electronic format in order to make them accessible to anyone in real-time. All the providers complied and had all the records in electronic format, but the problem remains that the records cannot be shared over different platforms because of combability issues and the information is still not accessible real-time to the front-line staff, physicians, etc. One of the benefit advisors from the payer side ridiculed by saying that “EMR is just a glorified filing cabinet.” The payer side recognizes that the federal and state government are making an effort toward price transparency but believe it is not adequate to change the system.

Though healthcare is a highly regulated market, strong and meaningful price transparency regulations have not been proposed. Weak healthcare price transparency regulations have kept the industry opaque. The regulations are well intended but not well thought through, thus leading to erroneous outcomes.

- Payer side- Benefit advisor 4: “I'm not going to rely on the federal government to do that [create price transparency]. I'm not going to rely on Amazon and Jeff Bezos and Berkshire Hathaway and Warren Buffet, JP Morgan, and all those guys, to solve it either. Because they're all tied to the stock market. Again, go back and take a look at it. The problem is that there's too much money and that actually creating change would be too disruptive to the market”.

- Payer side – Insurance company 4: “Legislators aren't going to require it [price transparency] because you have some sides that give money from physicians and you have some sides that get money from insurance companies, or associations. So, in order to continue to get re-elected, they will make sure that they maintain their autonomy towards decision, or ambivalence towards decision-making yet talk on stump speech about how they want to make sure that it's done differently so that they can continue to get re-elected.”

Apprehension of government-led initiatives- governments’ lack of awareness causes consensus and interoperability problems. The payer side believes that poorly-conceived regulations passed by the government can have unintended consequences. A common example sighted is of the Medical Loss Ratio (MLR). As discussed above, it states that at least 80–85% of
the total premium dollars should be spent for medical care and the remainder for administrative purposes. The intentions were clear that medical care would benefit in quality and payers would be able to create efficiency by managing the remaining 15–20% of the premium dollars.

Uncertainty of the government led initiatives has led the stakeholders to believe that the regulation is not well thought through. The consensus of the stakeholders is that government though quick to pass mandates, the lack of awareness rarely understand the intricacies of the healthcare market. On top of this, there is no governing body overseeing the consistency to provided consensus and interoperability. This has weakened the trust of the payers, the providers, patients and policymakers on the government. Consequently, any initiatives led by the government are also met with suspicion and caution.

- Payer side- Benefit advisor 6: “Let me ask you a question. What's bigger, what percent of a million dollars or four percent of a billion dollars? I think that was an unintended consequence. It doesn't take a genius to figure that out and it should have been realized before it was put into the law. The intent of the law was to limit the profits of the insurance company, but what they inadvertently did was they completely misaligned the incentives of the insurance company and the employer and now they're directly at odds with each other. Now, insurance company and staff they found ways to maximize profit and do what they need to do to make the most amount of money possible.”

- Payer Side – Vendor 3: “Who is the governing body [for healthcare price transparency]? There's no governing body in healthcare to say, "Okay, let's create a system that talks to each other and let's have these ... " Like an IT project management. There's nobody, so everybody does their own things and that's why they [ the systems] don't talk [ are not compatible with each other].”

- Payer Side – Broker 2: “You have a lot of regulation based on geography and political alignment. So, many times those understandings of what that should mean are incomplete because the definition or the process of managing that is defined differently by the organization that is trying to put in the regulation.”

**The payer side and the patients/consumers.**

*Patients not the direct purchasers.* Historically, the payer side has protected patients by making purchasing decisions and protecting them from financial consequences and at the same time making them insensitive to the prices (Austin & Gravelle, 2007). In healthcare, unlike other
markets, a third party (the insurance companies) is paying for the services being consumed by the patient.

Another reason for price opacity in healthcare is that patients are not the direct purchasers and are insulated from the healthcare prices because of the presence of a third party, the healthcare insurance companies. Thus, insurance companies reduce patients’ sensitivities to healthcare prices.

- Payer side – Insurance company 3: “Moral hazard is just created by the end user, or at least historically with the lack of not having been in the game creates a situation where you don't have the two direct parties having to interact with each other. There's a whole lot of other unnecessary complexities that have taken over this system that the hospitals and other some individuals providers have taken advantage of and are really used to their advantage.”

- Payer side – Benefit advisor 6: “Hospitals have the bargaining power because they're negotiating with someone that doesn't actually foot the bill. They're negotiating with the insurance company, so they have complete bargaining power.”

- Patient side – Consultant 3: “I think because for so long we've been in really good health plans. We've had HMOs, we've had PPOs. You might not have had to get authorization, even. "I need to go to the dermatologist, so if it's not costing me anything, or if it's costing me very little, it's $10 for a copay, wow, I'm not going to pay much attention to that.”

**Quality transparency.** My participants emphasized the need for quality transparency along with or instead of price transparency. The impetus to push quality is because patients do not care about price as much as quality. The emphasis has been on providing both price and quality tools in tandem to give the consumer resources to find comprehensive transparency and a better value (better quality at a lower price).

Patients value the need for quality over price. The price transparency tools have no value for them because they prefer quality over price, this keeps the system opaque.

- Payer side – Benefit advisor 3: “You can get some limited transparency out in the marketplace, otherwise, number organizations like Healthcare Bluebook, Castlight and even some of the carrier tools that will give you some limited pricing around things like MRIs, radiology, lab, but nobody gives you transparency by doctor around quality ratings
or by a hospital around quality ratings and that's really the most important, because in healthcare, unlike anything that I know of, there's an inverse relationship between cost and quality.”

- Payer side- Vendor/Author 6: “What you find is the highest quality facilities are typically the lowest cost, which is the biggest challenge for us to get patients to understand. American consumers think that the highest quality is always the most expensive because that's how it is in every industry except healthcare... [this] kind of consumer buying attitude doesn't hold true with healthcare. That the providers who do the highest volume of the procedure usually do it much faster, easier, smoother, have fewer complications. Because they do such a high volume the cost is lower.”

Absence of accurate and reliable price transparency tools. The insurance companies have spent money and resources to create price transparency tools for consumers but have seen insignificant consumer interest and usage. These tools have limited impact because they are not reliable or efficient. They do not allow a universal search and are just bound to the insurance network, only the enrollees in the insurance plan can access the tools, the tools are not accurate, and most people remain unaware of these tools.

The absence of accurate and reliable tools for transparency is another factor why transparency tools are pervasive. These tools though available do not provide meaningful information so their usage is limited.

- Patient side – Consultant 1: “Those things [price transparency tools on insurance company’s website] don't work very well. People don't know how to use it, and they have very low adoption rates. So, even though we have more price transparency than we've had in the past, we still don't have good ways for people to access price transparency. I think that's another barrier.”

- Payer side – Broker 1: “There just haven't been the tools to do any kind of research. You can't [search for] MRI with or without contrast ..you can't ask [research] on what's it going to cost me if I get an x-ray instead, or based on my benefits and my employer plan or if I buy it on my own, what's my out of pocket going to be, and or is there someplace better to go?”

Consumer skepticism. Another reason that consumers do not use the transparency tool is that they distrust anyone (insurance companies and employers) who directs them to a lower cost
provider. They feel they are entitled to go anywhere and that the insurance companies and/or employers may have a financial motivation to direct them to go to a lower cost provider.

Consumer doubt towards the price transparency tools and initiatives impede the progress towards transparency. Consumers do not trust the tools provided by insurance companies or employers. Consumers believe they are being led to lower cost providers for financial gain of the insurance companies and/or employer.

- Policy side - Academia 4: “They[patients] think that the insurers are too self-interested. The third-party payer has a greater interest in price transparency so is always sending them[patients] to the cheapest provider. That's exactly why the patient doesn't trust the third-party payer as a source of information. My insurer is always going to tell me to go to [XYZ] City Hospital even if that's not the best choice for me. [This] would be the fear.”

- Payer Side – Vendor 4: “We did more detailed data [survey] on them. They had about 30,000 employees, a large insurance firm. And what we learned is that the employees distrusted the idea they were being directed to lower cost providers. They thought there was more in it for the employers was for them.”

**The Patient Side: The Consumer Advocates, Journalists, and Employers**

The patient side is represented by groups that have first-hand knowledge about consumers and who represent their collective voice and their interests. The group consists of consumer advocates/authors, journalist/reporters, consultants, employers who pay for employees’ health insurance, and employer lobbyists.

High deductible plans have severe health and financial implications for patients. Research shows that a major impact of the high deductible plans is that patients are foregoing care because the prices are impacting them financially. Despite their anger and frustration, there is very little evidence that a majority of them are shopping for healthcare services. Moreover, those who shop, do not always follow through or are not satisfied with their shopping for various reasons.
The patient side and the industry.

Healthcare not an economic transaction. Despite the high deductible plans, patients are not shopping. The complexity is in part a barrier for them. Most of them are not sure what they are buying or what they should buy (and if that service is right for them) and if they are sure then they are not sure what they are getting for their money when they shop for healthcare services. Are they getting everything they need or are there other parts to getting a total service and are there alternatives? These and many other questions are difficult for a patient to answer while shopping. This inhibits their shopping propensity and thus most of the patient healthcare is not an economic transaction.

- Patient side – Consumer advocate/ Author 2: It's hard [shopping]. It's not easy, and you don't have any certainty that you're making a good decision. Even if you are quite educated, and adept, and computer savvy, it's not easy. I don't know if that can change.

- Policy side – Academia 4: “The records of people's use of decision support tools and so on is pretty mixed. You want somebody else to pay for and to worry about the economic implications of their medical care. They really do. People do not want to view their healthcare as a normal economic transaction even though in some ways it is.”

Intricacies in healthcare and information asymmetry. As mentioned above, despite their high deductible plans, they are not shopping. This lack of shopping, even when the patients have to pay out of pocket, can be attributed to many things including consumer priority, preference, the industry’s complexity, and fragmentation. Some of the complexity like not being knowledgeable about health condition is inherent to healthcare but other complexities like lack of standardization in products and services, fragmentation of care, opacity at numerous levels etc. causes confusion.

For a consumer, being a patient is intimidating enough. To top that off the added intricacies in healthcare makes it more challenging for them to maneuver through. The stress of
making the right decision, while handling other complexities in healthcare is enough to create anguish that adds up to the health sufferings.

- Patient side - Consumer advocate/Author 2: “I worked in healthcare for a long time. I'm pretty well-educated. I am now old enough to be in Medicare. But when I was looking at making a decision … it's bewildering. You don't really know if you're making a good decision. Healthcare is extraordinarily complex, even without pricing being a factor.”

- Policy side – Academia 3: “There is information asymmetry in healthcare. The seller knows a lot more than the consumer. Consumers are not shopping for healthcare prices because it’s too complicated for them, they don’t have time, do not understand the daunting system, don’t know where to find information, they are hesitant to ask for prices, unsure if they are making the right decision, they are not organized.”

- Patient side – Consultant 1: “You've got benefit designs, and there are provider contracts and all this stuff. You've got different lines of business. You've got HMO versus PPO. You've got Medicare versus Medicaid versus commercial insurance. You've got group insurance, individual insurance. You've got the high deductible plans and out of pocket maximums and co-pays and deductibles. There's just ... It's really complex.”

*Fragmentation in healthcare.* The healthcare industry is very fragmented. There are numerous layers to provide and manage the care of a patient. It starts from employer and insurance companies providing insurance to inpatient visits, outpatient visits, physician visits, pharmacies, laboratories, imaging centers, physical therapies, occupation therapies, nursing homes proving healthcare services; to brokers, benefit managers, third-party administrators helping the employer; to third party vendors who help the employer with certain sections of healthcare for example like quality vendors (create websites to help the employees find quality providers) price transparency vendors (create websites to help the employees find better prices providers), reference-based pricing vendors (vendors who help employers negotiate reference-based prices), medical management vendors (these vendors focus on medical management, utilization management, and disease management), wellness vendors (vendors who focus on the wellness and prescreening for the employees), etc. Though each sector or layer of healthcare is vital and has its own role in the healthcare industry, this has led to fragmentation. The
fragmented healthcare system creates complexity because it is difficult to add price transparency to each layer for a coordinated care experience.

- Patient side – Consumer advocate 4: “Our healthcare system broadly is causing problems because we have an incredibly fragmented healthcare system. It’s very hard to introduce transparency in a way that covers all of those different parts of the healthcare system in the same way. There are also parts of the healthcare system that frankly don’t want transparency. It’s better for them not to have people understand exactly how much it costs for a band-aid when it costs $1,000. That would bring a lot more of an uproar than having it buried within a bill that people don't really understand.”

- Provider side- Hospital association 3: the system is so fragmented and truly not competitive because you basically have everybody out there optimizing, profiting as much as they can for themselves. Now, they're [some providers] moving to actually organizing care delivery to compete for the patient.”

**The patient side and the provider.**

*Patient and provider relationship: Trust and barriers.* Patients tend to have faith and trust in their physicians. They follow their instructions, do as they are told, and most of the time do not ask questions. Consumers are hesitant to discuss the prices because of shyness, culture, or hesitance. Some patients do not ask because they do not want the physician to think that they are cheap and worry more about the price than health.

Patients do not shop for prices because they trust their physicians and do as they are told. There are social and cultural barriers that prevent patients to shop and discuss the prices with their physicians.

- Patient side – Journalist 1: “We want to have people talk about price in healthcare. A lot of people are very reticent about doing this. They don't want to look like they're being cheap. They don't want their doctor to give them what they think is an inferior treatment because, you know, Americans tend to equate cost with quality when it comes to healthcare even though there's abundant evidence that that is not the case.”

- Patient side – Consultant 4:” Now that's harder to imagine that consumers will change their behavior because you build relationships with your physicians, so even if you hear that they're not as good, people will stay because they have a relationship.”

- Policy side – Academia 4: We want to trust that person. We want to find someone that we believe is excellent and then we really don't want to bargain with that person and dicker
with him over the price. I don't know how it is in other societies, but I think that's a pretty fundamental issue.

- Payer side – Vendor 2: “That's generally in our minds, that fear of not being healthy for your loved ones drives you to not think about money at that point in time.”

The patient side and the payer.

Too many payers. The lack of price transparency begins with choosing a health plan. The options for payer plans are often too complicated. There are too many payers, that have different networks, different plans, and then different benefit packages under the plans (Figure 13). There is no way to compare the cost of services under each plan because of the huge number of possibilities.

The multi-payer systems contribute to the complexity, which makes transparency even more challenging.

- Patient side – Consultant 4: “There are tons of plans, and there's just so much variation. So how does the provider, to be fair to the provider, how do they even begin to display the prices because if you have Plan A, Aetna Plan B ... and then they probably have hundreds of plans they accept, especially if you're a big hospital, and it all varies. And so it's just the system we've created because we don't have a rate.”

- Provider – Hospital association 5: “The fact that we have a multi-payer, multi-contract competitive marketplace where there is, you have disincentives for creating price transparency in the market.”

The decision of choosing a payer is based on the coverage and if the patient’s physician is in the network. Historically, the patient has been shielded from the prices in healthcare because they are not directly paying the provider. It has been seen that when patients are not using their own money, they are insensitive to the price and once they know they will meet their out of pocket deductible, they might over-utilize the services. The patients are angry and frustrated about the high deductibles and resent having to pay a substantial amount for healthcare service out of pocket. Their resentment can be seen in the remark a consumer advocate made when I referred to the insurance companies as payers: “They don’t pay for anything; the consumers and
employers are the actual payers who share the burden either through premiums or out-of-pocket deductible.”

![Figure 13. Too Many Insurance Companies – Too Many Configurations](image)

Patients want the price transparency tools to be meaningful and easy to use and believe the current tools are rudimentary (as discussed under “Absence of Accurate and Reliable Price Transparency Tools”). Patients do not trust their insurance companies (as discussed under “Consumer Skepticism”). They feel whenever the insurance companies have a financial motivation to lead the patients to a lower cost provider.

**In-network limitations.** Patients feel restricted by their network. They are quite aware that going out of network can have profound financial implication as they in most would not be covered. So, the patients have assumed they have limited shopping opportunities.

Most patients do not shop for healthcare because they have to be in the network under their health plan as a part of the insurance network.
• Patient side- Employer lobbyist 1: “A lot of people are in the wrong plan and don't shop around or don't have the information at their fingertips to make a better plan selection. So, they end up paying more.”

• Patient side- Employer 1: “Well, generally they're not [shopping], because most consumers are grouped in with a group plan from their employer. Many organizations offer a single plan, and that's it.”

The patient side on policy.

Role of government: A debate on single payer. The patient side (along with the payer and the provider) has less faith in policy. Even though most consumers do not shop, many of them, especially the self-funded employers, have taken sides on the role of government in healthcare. Some feel that government intervention is necessary to crack down on the issue of price transparency, with the implication is to reduce the total healthcare spending. While some strongly disagree with government’s intervention to socialize healthcare, they understand that the efforts to make consumer shop through high deductible healthcare plans did not work.

Patient side feels that we are at an impasse to reduce healthcare spending. Some believe that it is time to move in socialize healthcare while some believe there is still time to fix the healthcare system without having the government intervene.

• Patient side – Journalist 1: “I used to be a whole lot more sanguine about hopes that we could fix the problems. Now I don't know how you would unless there's a really strong regulator, who can actually do something and who is actually privy to a lot of information that is secret and considered. The insurance system certainly has its flaws, but it's the system that we have. But, short of single payer, I don't know how you have perfect price transparency. Like I said, our system isn't great, but it's a system at least, and people rely on it. So, I don't know what to do about that.”

• Payer side- Vendor 2:” I'm not quite sure politically how real a single player model is. And in the future of where we as a capitalistic country tend to focus in on our benefits of a capitalistic society. I don't know how real as a single-payer model.

A patient’s world.

A patient being on the demand side of the equation and spending more out-of-pocket, has the most to gain with price transparency. Figure 14 shows the path for a patient who intends to
shop. The first step is to know whether the service is an inpatient or an outpatient service. The ability to shop for inpatient services is minimal entirely because of how services are priced. A Fee-for-Service (hereafter referred as FFS) pricing for inpatient service charges a patient for all the services and products utilized while the patient is admitted (including physician fee, anesthesia, room rental, supplies like gloves, sutures, oxygen, etc.). For a patient, it is difficult to comprehend the list and know with any degree of certainty whether a particular product or service was necessary or not. Hence, shopping for inpatient services is next to impossible. Having said that, it is easier and possible to shop for outpatient services if a patient is aware of what kind of service is he is looking to get. For example: to get an x-ray, a patient should know if the x-ray is with or without contrasts, details about their insurance, deductible, benefits plan, etc. The next step to shop is to have an awareness that there is price variation in healthcare services. Once the awareness is there, the next step is to know where and how to shop (website, phone call). If the process to get the information is easy (finding the medical or CPT codes for a service, calling the clinic and insurance company and being held on the phone is not ease of use). Then, the last step is to decide whether the information received during this process was meaningful and informative. If such a shopping experience is good, a patient may enter the decision loop again depending on other factors that are important at the time. Most patients exit the loop or do not shop because shopping for healthcare services is difficult, time-consuming, and provides them information that is either difficult to understand or is meaningless.
Figure 14. To Shop or Not to Shop

*Price generally not a part of decision making.* With all the conversation of price transparency, it has been noticed that consumers quite often do not bring up price as a part of
their decision making. They have numerous other factors that they worry about and price is just one subset of numerous other decision factors

- **Payer side – Benefit advisor 6:** “We had a culture for 30 or 40 years where the cost didn't matter and that allowed the cost the balloon even faster. Now, the biggest challenge is these high deductible plans is that in theory, these would have resulted in people become a better consumer because they'll have more skin in the game, but they're [people] so used to not thinking about costs.”

- **Patient side – Consultant 4:** “We clamor, as consumers, for pricing on certain things. I want to know what Amazon's going to charge me for whatever thing I'm buying. People don't clamor for healthcare prices. They just don't, and it makes sense.”

- **Policy side – Academia 6:** The consumer had almost no interest in knowing the price that somebody else was paying for. And even as deductibles went higher, very often, still did not dawn on the consumer that prices varied.

  *Patients do not shop.* Most of the patients do not think about price when making healthcare pricing decisions this is evident because even the high deductible plans, have not resulted in the reduction of healthcare spending because patients are not shopping, and all the four sides concur (Fernandopulle, 2015; Park, 2006).

  Patients are not shopping for healthcare services will continue to keep the system opaque no matter what initiatives or efforts are made to create transparency.

- **Provider side – Health system 11:** “I don't think there's a lot of that going on.”

- **Payer side – Vendor 4:** “Minimal impact [of shopping].”

- **Patient side – Journalist 1:** “I think most of the studies show that they're not.”

- **Policy side – Academia 8:** “There's not very much evidence for patients shopping based on price.”

  My interviews also highlighted things other than price that take a priority for a patient in the decision making when getting a healthcare service. Figure 15 shows various factors that could be of precedence to a patient. As is evident from Figure 15, price is just one of the many factors used in making a healthcare decision.
Figure 15. Inside the Mind of a Patient - Where is Waldo (Price)?

**The Policy Side - The Policymakers and the Influencers**

The policy side is represented by researchers, academics, non-profit organizations, and think-tanks who educate the general public and government on important healthcare issues. This side has a significant influence on policy because they are the subject matter experts. They are coming up with ideas and products to optimize healthcare, though not all are popular or successful.
In recent years, healthcare spending has escalated. High deductible plans were created in an effort to reduce healthcare spending (Durand et al., 2015). With consumers spending more out of pocket, the need for price transparency in the healthcare system is imperative. Policymakers presumed that the high deductible plans would incentivize consumers to shop for better prices in healthcare services, thus creating competition, and eventually reduce the healthcare spending (Semigran, Gourevitch, Sinaiko, Cowling, & Mehrotra, 2017) (Figure 16).

![Figure 16. High Deductible Health Plans & Price Transparency – A Function of Healthcare Spending](image)

**Single payer approach to reduce healthcare spending.** The assumed effect of high deductible plans was that patients would shop because they are now spending more out of pocket. This would in turn help with reducing the overall healthcare spending. Since the consumers are not shopping (as discussed under “The Patient Side”), the overall spending
continues to grow, the healthcare industry is concerned that if nothing is done soon to curb the spending, single payers might be the only solution to get the spending under control. Single payer is one of the approaches and not all seem to be in favor.

Single payer has its advantages and disadvantages. On the pros, government intervention will bring in economies of scale, single administrator that could cut cost and hence healthcare spending. But, on the cons, the industry is worried about the impact on health, quality of care, innovations, and competition.

- Provider side- Health system 14: “if costs continue to rise at the pace that they are, the government might end up going towards the single payer type system which I think is not going to work either.”

- Payer side – Vendor 6: “I think that those who are proponents of single payer don't really understand what they're asking for. UK, which has one of the longest histories of single-payer systems, has major problems with access to care. I don't know that the American public is going to tolerate that.”

- Payer side – Vendor 3: “I do not want socialized medicine. I want medicine to be competitive as hell.”

Moving away from fee-for-service (FFS). High deductible plans and price transparency do not seem to be bringing down healthcare spending. To achieve this goal, there are other approaches being considered and proposed within the industry. One such proposal is to change the ways the providers are getting paid for the healthcare services they provide. These payment reform propose to move FFS model (where they charge for each and every product and service utilized while taking care of a patient) to more value-based care, incorporating bundled payments (services where a single price is quoted as a bundle; for example, tonsillectomy, hysterectomy, knee replacement, open heart surgery).

- Policy side -Nonprofit organization - 1: “The medical-industrial complex does not want people to understand what it does and to get them to compete. That's where the episode of care comes in because it allows you to structure healthcare delivery in terms of defined products. Now, that's something that people can understand. I'll give you a little example that you'll immediately grasp. Imagine if you needed to buy a dishwasher, but instead of
Whirlpool and Bosch putting these dishwashers out for a price, what you see is the parts list, a couple hundred parts. Then, this insurance has a discounted fee-for-service scheduled, somehow you have to assemble that all together in your head as a product. What an episode of care model does is to build contracts around these discreet lines of services that makes sense to consumers.”

- Payer side – Benefit advisor 4: “When anything gets this complicated [referring to FFS] it gets expensive because of all the administration. Doctors are spending six hours of their day inputting numbers into a financial reporting system, so they could bill. That's something to think about. So, if we can take them off the table and just say, "You can do all of that in one hour a day [bundled payment], that's a pretty good time to have better outcomes in healthcare.”

**Moving towards bundled services.** Changing the payment system toward bundled care would change the way healthcare is paid for and create a more intuitive approach to healthcare services. This approach is easily understood by the consumers who have always thought of healthcare in terms of episodes and not as a list of parts (as when billed by FFS). Bundled payment comes in various forms of risk sharing. It could be risk and profit sharing between insurance companies and the providers and alternatively, hospitals might want to take all the risks so that they can keep all the profits. Early adoption of bundles services like knee and hip replacement have been seen in the contractual agreements between hospitals and insurance companies.

- Provider side- Health system 12: “Bundle payment and risk scores say that if you're a 62-year-old male with hypertension, diabetes, obesity, your risk score is going to be significantly higher than a 24-year-old male with a normal BMI and the cost of care for that normal male and the cost of care for that 62-year-old male, is going to be based on that risk score.”

- Provider side – Health system 8: “We like the idea of bundled services, again, with the proper identification of those patients. But, we have worked with some of the insurance companies to implement those. That's the good news. The bad news is, is that most of the insurance companies' systems are not geared to doing that.”

- Payer side – Insurance company 5: “The negotiation on bundled services is mutual. The health plan may approach a provider and say, “We have a new bundle. If you're interested, we'd like to do this.” And the hospital might say anything from, “We have no experience in that. We're not ready,” to, “We want to do that. We want to do that, but we want to take full risk,” and they negotiate. Or the hospital may come to the payer, saying,
“We have 10 new lines of service that we've created bundles and we're ready to deal.” So, it's a back-and-forth.”

**Reference-based pricing.** Another approach that is seen increasingly, especially in California and the Midwest, is reference-based pricing. Reference-based pricing can be done with help of reference-based-pricing vendors without the need of a network. There are many healthcare vendors using this technique of paying the provider a certain percent of Medicare. This approach uses Medicare prices for service as a reference point, and vendors negotiate some percentage on top of that (for example 140% of a Medicare price). This approach is based on a premise that employers will save on healthcare by paying the providers based on the Medicare payments. The approach has seen mixed results.

- Policy side – Academia 6: “That [use of reference-based-pricing] was really an enormous change in the right direction. It was a big change because it was an acknowledgment that pricing mattered.”
- Policy side – Nonprofit organization 3: “Really ambitious employers could set up or demand reference pricing, or some other way to leverage it in their negotiations with providers.”

The participants discussed other approaches to manage healthcare spending and creating a transparent healthcare for the patient. Few of the other approaches that were discussed are Direct Primary Care (DPC), tele-health etc. These alternative practices are making inroads to creating a better, accessible, economical, competitive and value-based healthcare system.

**Integration across the Ps**

The 4 Ps discussed are interwoven among themselves. Each of the P’s not only has its own set of complexities but also influences and impact the other P’s by the virtue of co-existing in one industry. Each one has its own preferences and perceptions that influence the others positively or negatively.
In my interviews with all the 4 Ps, multiple factors impacting price transparency were revealed. Most of them have been addressed above under the headings “The Provider side,” “the Payer side,” “the Patient side,” and “the Policy side.” Integrating the various factors shows many the moving parts and complexities in the healthcare system. Figure 17 shows the factors based on each stakeholder. Each of these factors manifests its complexity throughout the industry.

**Figure 17. Factors Impacting Price Transparency in the Healthcare System**
In my attempt to understand the lack of price transparency by studying the 4 Ps, I was able to discern 2 Ps in one pod and 2 Ps in another—each reflecting their ideas and motivations. This divides the industry into two halves with each stakeholder with diametrically opposed drive and impetus.

“Who Cares…?” – A Story about the Patients and the Providers

The supply and demand sides of the equation are the ones who are least interested in creating price transparency. The supply side, for obvious reasons, has the least interest in creating price transparency because it impacts their bottom line and lets out all the secret ways they generate profit. The provider side is mostly unaware of the increased out-of-pocket prices that the patients have to pay. In most cases, physicians are unaware of the prices of service that the hospital charges the patients. Figure 18 shows the two main Ps: the supply and demand and statement of “Who Cares?”

The demand side, the patients, stand to gain the most from price transparency, especially when they have high-out-of-pocket deductibles. The patients who are fully insured do not care because they are playing with house money and have little motivation to shop. The patients with high deductibles have been shown to delay care but still not shop for better healthcare prices (Fuse Brown, 2015; Riffkin, 2014). The reason starts from the macro to micro in that order: The complexity of the healthcare, asymmetric information, historic behavior where insurance covered all the cost, opaque billing, cultural concerns, type of insurance, benefit design, network, deductibles, copays, coinsurances, support system, the provider, trust in physician, physical health, co-morbidities, clarity of diagnoses, appropriateness of service, understanding of their condition, course of treatment, awareness, education, value, quality, price proximity of care, convenience, time, motivation and many more. These reasons are also reflected in Figure 15.
With so many combinations and priority level, where is the price is like saying “Where is Waldo?” The price is lost in a whole host of other factors that might be preferable to consider over price.

**Figure 18.** Two Ps in a Pod - Who Cares…?

**Demand – The patients.** The patients do not care a lot about price transparency because of many reasons discussed above including the reason that historically they have never done it and that price is the last thing on their mind when they are looking for healthcare options.

- Patient side – Consumer advocate/Author 2: “We're all so darn busy. Because that's just one more thing that people are asked to do. A lot of places don't feel that they are able to do that or know where to go to get it. Our concern that, if they see that one hospital has a lower price than another, maybe the quality is not so good.”
• Patient side – Consultant 2: It’s [not shopping for healthcare] been built into our culture for so long that it’s a hard thing to change. It’s just taken for granted.

• Payer side – Benefit advisor 6: “They figure it's just so expensive that what good is going to be saving a couple hundred bucks anyway. I'm going to meet my out of pocket and my deductible.”

Supply – The providers.

The providers rather not have price transparency because the opacity reduces competition and gives them ample opportunities to make a profit.

• Patient side – Consultant 4: “I worked at [a hospital] for a number of years, and I loved them ... but they've been sitting on the outside. The largest for-profit chain is sitting on the outside, not really engaging in these models because number one, they make money off fee-for-service, and number two, I just feel like there's a set of hospitals that are going to ride that gravy train until it's really out.”

• Patient side – Employer 2: “I think most providers don't want people to know how much they're charging, because then the game's up, right? I just think they're money hungry. In certain circumstances, I'm not saying all providers, but I've seen it. I've seen it over 900% upcharge on items. That's crazy.”

• Payer side – Vendor 3: “The key factor in affecting pricing transparency is greed. That's the number one thing impacting it is greed across the board.”

…Maybe We Do! – A Story about Payer and Policy Influencers

When the two most important players in the game are not interested in playing, should the game even be played? Maybe it should because it is not about the players but the game itself.

The other 2 Ps in the pod are payer side and the policy side. These two collectives are making efforts through value-based bundled care and reference-based-pricing to reduce healthcare spending. The issue of price transparency might remain or fade away if the high deductible plans go away as a result of certain payment reforms. However, these two P sides are making significant strides to address the bigger picture. There are many reforms that are in the pipeline or waiting for adoption. Figure 19 shows the 2 Ps who are planning to change the
healthcare landscape by making payment reforms, that will eventually result in reduced healthcare spending.

![Diagram: Healthcare Systems]

**Figure 19.** Two Ps in a Pod …Maybe We Do!

Both policymakers/influencers and payer are trying to usher in payment reforms that will change the healthcare system for better. They are using various strategies that will reduce healthcare spending and create comprehensive transparency that included price, quality and service transparency. These reforms focus on reducing the complexity of the payment system to make it simpler and intuitive to understand.

- **Policy side – Nonprofit organization 1:** “What an episode of care model [bundled model] does is to build contracts around these discreet lines of services that makes sense to consumers. Once you study this stuff, I hope you've come to understand that ordinary people have always thought about healthcare in terms of episodes. It's just that the American system, which I can speak to most in-depth, simply doesn't respond that way to them. You see all these transparency tools and high-deductible plans, and I'm telling people for years, "No, that won't get it done at all."

- **Patient side – Consultant 4:** “It just all depends what we end up doing with this payment system. I think if we stick with fee-for-service, you're going to see more of it [ the need for price transparency]. I think if we move outside of fee-for-service, it [ price transparency] becomes less important.”

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• Provider side – Hospital association 3: “We have advocated the payment reform, we'll continue to advocate the payment reform, and you will never get price transparency, true price transparency, until you change the payment model.”

• Payer side: Insurance company – 5: “If I'm going to have a knee replacement, there's going to be an anesthesiology bill, a surgeon bill, a facility charge from the hospital. All of those things needed to be put together into a bundle so that you could show somebody, “Your real cost for a knee replacement here is going the be this. Bundled care and taking the data and making it more intelligible, is useful to a consumer to what they're really going to spend.”

Playing the Game

Given these many different levels of motivation, the strategy for the game varies considerably. Some are satisfied with maintaining the status quo as seen above with the patients and the providers. Some are trying to change old, deep-rooted system to create a new, fresh, intuitive, accessible and affordable healthcare system as can be seen with policy makers/influencers and payers.

Some continue to play the game as is.

The patients and the providers. Changes in the healthcare system had a minimal impact on the patients and the providers. Though patients should have been the most affected by high deductible plans, they consider it to be a part of the change that they will have to deal with. With many price transparency tools, they have chosen just to consider high deductible as collateral damage and carry on with their regular practice of buying healthcare. Providers also do not care about price transparency because being transparent creates publicity of their practices to charge and this can lead to unintended consequences that might not be good for their reputation. Some quotes expressing this attitude can be seen under the topic “Who cares?” Both the sides are continuing with their practices of finding services (patients) and providing services (providers) regardless of the changes in the industry.

• Payer side – Benefit advisor 4: “I think ignorance is bliss. We've always been taught that our insurance company's going to pay for it. In fact you go to your doctor and you say,
"How much is this going to cost?" They say, "Oh, don't worry. Your insurance company covers it."

- Payer side- Vendor 4: “Time and time and time again we see it [price transparency] just doesn't work and it actually has a negative intimate impact. I'll say it again. People associate higher cost providers with higher quality. Transparency is bogus. The providers are completely aware of it too. They are not the least bit scared about healthcare transparency.”

- Payer side – Vendor 5: “I am at a A rated hospital here. My odds of infection here, maybe they're 10 times higher here than they are in [hospital B, which is far but cheaper], but that means they're 1% instead of 21%. I mean, I can live with that.”

Some make do with short-term solutions.

Payers and policymakers/influencers. To reduce healthcare spending, the policy side developed high deductible health plans. The assumption was that since consumers will be spending out of pocket, they will shop for better-priced services resulting in reduced healthcare spending. The payer side that includes insurance companies, benefits advisors, vendors and brokers tried to help the employers and patients reduce the cost of their healthcare by creating transparency tools for the patients to shop. Both the payers and the policy side have come up with quick solutions to help the patient side. These short-term solutions did not work because patients are still not shopping for healthcare services.

- Patient side – Consultant 4: “Oh, they're giving points and rebates to the consumer at the front end. And they get creative, and they solve the problem, but doesn’t really solve the problem. [An insurance company] completely backed away from spending any more money on doing price transparency tools”

- Policy side – Academia 1: “The assumption is that if everybody knew the price and were transparent, if all the prices were out there, then it'd be like a normal consumer market. People would be able to select among the options. And then we'd have competition and you keep the price, and the cost down. That's the obvious assumption here. The problem is that healthcare doesn't work that way for a whole variety of reasons.”

- Payer side – Vendor 3: “We have a number of vendors that attempted to make it into the market a few years ago, called transparency vendors. They died out.”

- Payer side – Vendor 4: “Because I've had firsthand experience of members and large employers I've worked with and they are not using it. [price transparency tools].”
Others find sustainable solutions.

Payers and policymakers/influencers. With the short term solutions not having the desired results, policymakers and payers are looking for sustainable and systematic solutions to tackle the problem of healthcare spending. The focus seems to be on payment reforms that are considered necessary to reduce healthcare spending and create a comprehensive transparency. Bundled payments is a concept that has gained acceptance but the whole payment system will need to transform to optimally process these bundles.

- Policy side -Academia 1: “We’ve done this [bundled payments] for a long time in maternity. We have most companies to bundle them pre and postpartum stuff about maternity all in one package. So, the obstetrician gets one fee and then the hospital gets one fee. We're doing that now with knees and a few other things.

- Policy side -Academia 5: “They're doing some contracts with insurers for bundled payments, which, generally, I believe is a positive step. These bundled payment contracts usually are shared savings. Bundled payment contracts will involve a benchmark and a sharing of savings or losses, based on performance.

- Payer side – Benefit advisor 2: “Over at Hospital [X] clients save 50 to 70% from having direct contracted these bundle payments of surgery.”

- Payer side- Broker 1: “Bundled payment integrates quality requirements with financial need and creating a payment structure that doesn’t break the bank for the payer, it also allows the provider to continue to deliver the kind of care they need to and enhance the member experience and leverage technology to their own benefit.”

Some go overboard with the strategies.

Payers. Some of the long-term strategies to reduce healthcare spending and address price transparency have backfired. Reference-based-pricing though initially picked up some traction, is getting resistance from the providers because they are not getting paid enough. This has resulted in some court cases and has caused friction between the employers and the providers.

- The Provider side – Health system 14: “And that's a problem with the reference-based pricing world is that they get pushed back from provider. There are some legal issues. A lot of times when you're not paying your providers and facilities enough, they'll push back and add a CPT code for this, or up for extra charge.”
• Payer side – Benefits advisor 2: “Reference-based pricing has its own challenges but is it better than what's in place? I would say it depends on who you talk to. [providers are fighting back]”

• Payer side – Vendor 3: “They [provider] didn’t agree with reference-based pricing. They fought back, and that ultimately hurt the employer.”

Discussion

Quite often, a quick view creates a perception that might not tell the whole story. I did this research to understand the factors that impact price transparency by talking to the major stakeholders who are a big part of the industry. I still feel very unsure about how much I have been able to discern and interpret because I have barely scratched the surface during my research. I have learned that analyzing things in silos masks the complexities that are inherently important.

Each of the 4 Ps is examined independently to show intricacies that increase tremendously in numerous directions when all the P’s are studied together. The complexities in the industry are profound and create a network effect where even a small change can have a large impact. Each side (the patient side, the provider side, the payer side, and the policy side) with its preferred direction, cannot move quickly because of the complexities that interconnect them. The findings from this research give an exhaustive view of the healthcare industry thus reinforces the use of grounded theory methodology to understand entanglement in the complex healthcare market. The far-reaching and deep-rooted impact of all four sides is clearly understood went these sides are examined together.

A study of the healthcare field shows that price transparency today cannot be sufficiently achieved. Transparency must extend beyond price transparency to also encompass quality, services, satisfaction, treatment options etc. The underlying payment systems, the motivation of stakeholders especially the consumers and the variability in multiple factors are too complex to
be solved with a simple solution. The findings from analyzing the 4 Ps lead me to create a “Transparency Action Theory” presented in Figure 20. The theory states that the actions or solutions to create transparency are dictated by the complexity in a system and the time in hand. There are four approaches under this theory: Ain’t Broken–Don’t Fix-it, Band-aid, Fix-it, Overkill approach.

Figure 20. Transparency Action Theory
**Ain’t Broken- Don’t Fix-it Approach**

With a perception that the healthcare system has less complexity, the patients and the providers are slightly inclined towards the idea of “Who Cares…?” Both these stakeholders are not worried about price transparency. The providers really don’t care because opacity is the best way for them to keep prices unreasonably high. On the other hand, consumers who should care about their out-of-pocket deductibles do not shop for numerous reasons (Figure 8). Some of the quotes under “Who Cares?” and “Some continue to play the game” show that patients trust their providers, do not consider price as an important factor because they equate high price to better quality. It has also been observed that historically consumers have displayed insensitivity to prices because they were insulated by the insurance companies. Though the insulation has depleted since the patients are paying more out of pocket, their attitude and philosophy of not worrying about prices in healthcare still remain.

The 2 Ps in the pod “Who cares…?” continue to move along with little concern about the changes in the industry. They continue with their traditional shopping habits and have not made any substantial changes in the way they shop (the patients) or price the services (the providers). That is why one of the participants said that ignorance is bliss. For both the patients and the providers in the present time, the industry “Ain’t Broken” so they are not voicing any concerns to fix it.

In this “Ain’t Broken-Don’t fix it” approach, the stakeholders understand that the system has relatively less complexity but are content with the way it is at the present time and want to maintain the status quo. They are amenable to the certainty in the system and do not want to disturb or change the dynamics. The benefit of such an approach is that the stakeholders who like the state of equilibrium, stay stable in the situation without the commotion in the system. Though
this approach does not add value, it does not deplete any resources of the system either. The major disadvantage of this approach is that it prevents growth and innovation and keeps the system at a stagnation point.

**Band-aid Approach**

During the advent of high deductible plans, there was an urgency in the healthcare market to create tools that would help the consumer shop for services. Media attention and government focus on high healthcare spending created an urgency that led the payers and policymakers to come up with quick-fix or a band-aid solution that at the time seemed rational. It was assumed that with high out-of-pocket deductibles, and having more skin in the game, the consumers would be more cognizant of the price. They would want to shop for better prices and hence need tools and incentives. In this frenzy to create resources, insurance companies, state and federal agencies and even third-party vendors started investing to create the best software tools for price transparency.

The 2 Ps in the pod “Maybe we do,” who want to change the industry, thought that creating tools and providing incentives to use them, would change consumers behavior that would lead to a competitive market. Unfortunately, the price transparency initiatives did not produce the desired results and it soon became clear that very few consumers were shopping for healthcare services. We can see in the quotes from the section “Some make do with short-term solutions” many solutions to push the consumer to shop, failed. Many price transparency vendors went out of business and insurance companies stopped investing money on transparency resources. The rebates and points provided by the employers to their employees as an incentive to shop were ineffective as well.
The “Band-aid” approach is called so because it is a quick and dirty way to address an urgent circumstance as a stop loss. The solutions are not thought through well, but on the surface, they look rational and viable. The stakeholders understand that the system has greater complexity, but with limited time and resources, this approach is the best way to solve a problem. The benefit of such an approach is that it has a quick turnaround and buys time to find better solutions while doing some damage control. The major drawback for this approach is that it does not address the underlying problem and can create unintended consequences. For example, the Medical Loss Ratio (MLR) policy. The intentions were good, but it was a quick fix to create efficiencies on the payer end (with only having to spend 15 cents of a dollar) and to improve quality and services on the provider end (with having to 85 cents of a dollar). This policy created misaligned incentives on two levels. First, the payer had now the incentive to increase the cost of healthcare to have a bigger base for the 15%. Second, the insurance companies started to expand on the provider side to gain a portion of the 85%.

**Fix-it Approach**

The outcomes of the low utility of price transparency tools made some policymakers and payers realize that getting the patients to shop by adding a financial responsibility on their shoulders or giving them incentives is not the answer to reducing the total healthcare spending. They had to think about long-term solutions. They had time on their side during which they could do research to find better solutions. They realized that unlike other industries, they could not depend on the demand side (patients) to reduce healthcare spending. Their solution would come from the supply side. The prices of healthcare services have been going up because there is no cost accounting method to tell the providers the real cost of their service. Healthcare payment systems use contractual negotiations between the providers and the payers. These contractual
agreements were built on the premise that the prices of services would never need to be transparent. This perpetuated the high cost of services. The result is that today, we have a system that is too complex and convoluted to ever become transparent.

The 2 Ps in the pod “Maybe we do” realized that the “Band-aid” approach did not work, so they continue to seek ways to solve the problem of high healthcare spending. They have proposed many reforms including payment reforms that are designed to result in comprehensive transparency (price, quality, service, treatment etc.). The concept of bundled payments treats an episode as a bundle and prices it based on the risk rather than charging for every service and supply to treat that episode. As seen under the sections “Maybe we do” and “Others find sustainable solutions” bundled payments help with integrated care, enhances customer experience, promotes cost savings and creates an incentive for the provider to provide better service and performance.

For the “Fix-it” approach, the stakeholders recognize that the system has greater complexity, so they try to address it with solutions that are well researched, tried and tested. To add to their advantage, these stakeholders also have the time by their side to analyze, research and experiment with different options. This approach is for long-term, sustainable solutions that add value to an organization. This approach addresses the underlying problem because it dives deep to identify the root cause. This approach is important for multifaceted problems that could have a number of complicated factors causing trouble. The major drawbacks of this approach it that it takes time and needs commitment and patience.

**Overkill Approach**

Some approaches like reference-based pricing became quite successful in reducing employers’ healthcare expenses. This success provided opportunities for a number of vendors to
jump in the healthcare market and provide this expertise to many employers. As this approach started to come to fruition, benefitting the employers in reducing cost, many providers felt alienated. The providers perceive that they are already underpaid for Medicare and Medicaid patients and hence they have to cost shift to the commercial market to maintain a healthy bottom line. With reference-based pricing, the providers are paid a certain percent on top of Medicare price, but it is not as much as they would have been paid with a commercial insurance. So, though they are making some profit, it is not enough, and they resent being undercut by reference-based pricing vendors (and employers being represented by them).

Reference-based pricing yielded encouraging results but its overuse by the payers in an attempt to save money for the employers by cutting the profit margins of the providers resulted in the providers feeling marginalized and hence resisting the approach. A good solution became an overkill when used in excess and when the vendors become overzealous with the solution’s success. As we can see from quotes in “Some go overboard with the strategies” that the providers are fighting back to the reference-based pricing either by adding additional code for a medical service or procedure to the bill or by fighting legal battles with the employers. This has resulted in some employers being skeptical about the reference-based pricing.

An “Overkill Approach” is good for trial and error solutions. This approach is good for trying out different methods in a relatively lesser complex environment where only a few factors are being considered. Reference-based pricing could have been a great solution if other variables like being marginalized by Medicare, treating the uninsured and surviving in the highly regulated industry did not hurt the provider. The ‘Overkill Approach’ can be used for a multifaceted problem setting, working on a single facet to understand its complexities. This approach can actually highlight specific problems by breaking a complex industry in silos and overusing
certain techniques to understand the boundaries and limits of that area. The major drawbacks of this approach are that it can create unintended consequences and make some stakeholders resentful.

**Conclusion**

Various initiatives and efforts have been made in the industry to motivate consumers to be financially savvy patients. Almost all healthcare organizations including insurance companies, hospitals, state and federal agencies, employers through the third-party vendors and private third-party vendors have created some kind of price transparency tools to guide the consumers (Appold, 2016; Dafny & Cutler, 2011; Hammer, 2006). Despite making the tools pervasive, their utility remains low, and the market continues to stay opaque (Mehrotra et al., 2014; Rosenkrantz & Doshi, 2016; Sinaiko & Rosenthal, 2016). The limelight on price transparency came about when high deductible plans were created in an effort to reduce the overall healthcare spending. Though the literature has not been fully synthesized on the effect of high deductible plans on total spending, initial studies show they are unlikely to have an impact on the total healthcare spending (Fernandopulle, 2015; Park, 2006).

When examining the healthcare industry, we need to move past the simplified narrative created by single-sided studies. They obscure the complex issues and cause our perspective to go awry. A simplified lens can blind us to the complexities in healthcare and skew our understanding. We have to move away from the perception that healthcare is inflexible and a monolithic domain. Instead, we should look into deconstructing the complex healthcare system layer by layer to find meaningful solutions to solving the problem of healthcare spending.

Most patients do not shop for healthcare services because of their personal priorities and complexity in the information. In most cases, patients who shop for healthcare do not know what
they are buying or getting. The complex payment model of the healthcare system was built on the premise of not needing to be transparent. It adds to the complexities in healthcare and makes price transparency very difficult to comprehend. Even the industry experts have admitted during the research process that even they have not been able to understand the healthcare in its fullest because of its complexities. With lukewarm results for the utility of price transparency tools, it has gone down in the priority list to become a minuscule issue and is not on the radar of hospital associations, policymakers, think tanks, and payers. On the surface, the concept of price transparency seems simple, but on talking to all four stakeholder groups the intricacies and complexities in healthcare have become visible. In the current state of healthcare, any kind of price transparency ushered will be meaningless. It will create frustrations, confusions and a waste of valuable resources and at the end, it will still be too complicated for the patients to understand and use.

The main concern of the industry remains rising healthcare spending. As an industry, we should stop talking about the healthcare price transparency as it is today and start focusing our resources on bigger and better things like making healthcare simpler through direct primary care, payment reforms, population health, telemedicine and artificial intelligence in medicine that can bring down healthcare spending. Payment reforms are the new buzz in the market, and once again there are associated with vast expectations of reducing healthcare spending and bringing comprehensive transparency (not just price but also quality and service). Healthcare is going through trial and error phase and will eventually find a way to create a market that is better than anyone ever expected. Like a phoenix, healthcare will rise from the ashes of despair and will be more beautiful and efficient than ever!
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Appendix 1: IRB Exemption

January 23, 2018

Gurlivleen Ahuja
College of Business Administration
Tampa, FL 33612

RE: Not Human Subjects Research Determination
IRB#: Pro0003667
Title: Lack of Price Transparency in U.S. Health Care System

Dear Ms. Ahuja:

The Institutional Review Board (IRB) has reviewed your application. The study activities do not involve collection of data from the subjects, but rather information and opinions about industry and company practices. As such, the activities do not meet the definition of human subject research under USF IRB policy, and USF IRB approval and oversight are therefore not required.

While not requiring USF IRB approval and oversight, your study activities should be conducted in a manner that is consistent with the ethical principles of your profession. If the scope of your project changes in the future, please contact the IRB for further guidance.

If you will be obtaining consent to conduct your study activities, please remove any references to "research" and do not include the assigned Protocol Number or USF IRB contact information.

If your study activities involve collection or use of health information, please note that there may be requirements under the HIPAA Privacy Rule that apply. For further information, please contact a HIPAA Program administrator at (813) 974-5638.

Sincerely,

John Schinka, Ph.D.,
Chairperson USF Institutional Review Board
Appendix 2: IRB Letter

Informed Consent to Participate in Research

You are being asked to take part in a research study. Research studies include only people who choose to take part. This document is called an informed consent form. Please read this information carefully and take your time making your decision. Ask the researcher or study staff to discuss this consent form with you, please ask him/her to explain any words or information you do not clearly understand. The nature of the study, risks, inconveniences, discomforts, and other important information about the study are listed below.

We are asking you to take part in a research study called: 

*Lack of Price Transparency in U.S. Health Care System*

The person who oversees this research study is Gurlivleen (Minnie) Ahuja. This person is called the Principal Investigator. However, other research staff may be involved and can act on behalf of the person in charge. She is being guided in this research by Prof. Jung Chul Park.

The research will be conducted at any site of your preference where you are comfortable to participate in an interview as a part of this research within the University of South Florida.

Purpose of the study

The purpose of this study is to explore the price opacity in the U.S. healthcare system. The prices of a service can vary widely at the same provider because of the type of insurance or with different providers even with the same insurance. It has been seen that consumers are not aware of this price variance because prices are not transparent. A patient generally finds out about the cost of care after the service has been consumed. The research aims to understand, the factors and causes that result in the lack of price transparency in healthcare. The study will also explore the opportunities and conditions that can create a price transparent marketplace. The study excludes emergency services.

With the increase in high deductible insurances, the consumers pay most of the healthcare cost from out of pocket. Despite this, the market has been slow to move towards price transparency. I would like to explore why healthcare is an area of commerce where patients cannot compare the cost of service.

The study aims to develop a theory, model, or explanation about the lack of price transparency in the healthcare system. The research will be conducted via academic research, trade journals, and popular press along with an interview with experts in healthcare pricing field to understand the industry better.

I would like to conduct an interview with you at your convenience and follow up with you at an appropriate time as needed, to seek your insights and expert commentary about the industry and your organization, focusing specifically on price transparency in healthcare to inform the goals of this research.
Why are you being asked to take part?

I am asking you to participate in this research study because of your understanding of the healthcare market and your insights into the healthcare pricing field. I feel that I can learn from your expertise. You are eligible for this research based on the participant inclusion criteria provided below:

- Your profession exposes (exposed) you to the healthcare field
- You have an understanding of how healthcare pricing works in your organization
- You can speak expertly on the price opacity in the healthcare market
- You work in the United States

Study Procedures:

If you take part in this study, you will be asked to provide a personal artifact (examples: resume, LinkedIn profile, professional or personal website, news article, essay, biography or other published interviews about you) that will help provide background information about you. You can opt out of providing this personal artifact by informing the principal investigator and indicating your wishes on the last page of this consent form. Should you provide a personal artifact, you should know that no identifiable information such as your name, age, gender, or your employer’s/organization’s names (past or present) will be revealed in the data analysis and subsequent report coming out of this research. Only the principal investigator will have access to your artifacts.

You will also be asked to participate in an interview which will take approximately 60-90 minutes. During the interviews, you will be asked to elaborate on price transparency in the healthcare industry and your organization. Along with your expert opinion, you can provide documents that can help with the research. These documents could include but are not limited to official documents, reports, news articles, and other published essays or interviews etc. Your interview will be scheduled at any date, time, and place that is convenient for you. You can expect the interviews to be scheduled any day between February and May 2018. Advanced notice and a consent form will be provided at least one weeks prior to scheduling your interview session.

The interviews will be audio-recorded. The recordings will be downloaded and stored in a secure password protected cloud server. The principal investigator will send the recordings in a secure electronic file to a designated transcriber. There will be only two individuals who have access to the audio recordings - the principal investigator and a transcriber unless you consent to share these recordings for future academic or professional learning purposes such as in classroom or conference presentations. Please see options for providing permission or no permission to share recordings on the last page of this consent form.

Once the recordings are transcribed, there will be a maximum of three individuals who have access to the interview transcripts – the principal investigator, a second coder, and an optional third coder that the principal investigator designates to help establish the reliability of data analysis. For most transcripts, the third coder will be requested only as a backup in the absence of the second coder. During initial reading and analysis of transcripts, you may be asked follow-up questions to clarify information that you gave during the actual interview.

Names, gender, the age of study participants, and names of past or present employers/organizations will not be included in the analysis or any of the discussions. The analysis will be anonymized, and the data will be analyzed in an aggregated fashion ensuring the anonymity of individuals. In coding and analysis of data, a secure master list will be stored in a separate folder in a password protected secure cloud server. Only the principal investigator will have access to this master’s list. These recordings will be maintained
for five years from the date that the Final Report of this research is submitted after which they will be deleted from the secure cloud server. You have the right to review and delete recordings.

**Total Number of Participants**

About forty individuals (or until a saturation point is reached) will take part in this study at USF.

**Alternatives / Voluntary Participation / Withdrawal**

You do not have to participate in this research. You can stop participating at any time for any reason.

**Benefits**

You will receive no benefit(s) by participating in this research study. Your contribution will add rigor to the research, and your insights and knowledge will be valuable to the research. Others may benefit in the future from the information we find in this study that leads to the advancement of our knowledge.

**Risks or Discomfort**

This research is considered to be minimal risk. That means that the risks associated with this study are the same as what you face every day. There are no known additional risks to those who take part in this study.

**Compensation**

You will receive no payment or other compensation for taking part in this study.

**Costs**

It will not cost you anything to take part in the study.

**Privacy and Confidentiality**

We will keep your study records private and confidential. Certain people may need to see your study records. Anyone who looks at your records must keep them confidential. These individuals include:

- The research team, including the Principal Investigator, the transcriber, the coder, dissertation committee and research staff.
- University people who need to know more about the study, and individuals who provide oversight to ensure that we are doing the study in the right way. Staff who have oversight responsibilities for this study, including staff in USF Research Integrity and Compliance.
- Any agency of the federal, state, or local government that regulates this research. *Office for Human Research Protection (OHRP)*

We may publish what we learn from this study. If we do, we will not include your name. We will not publish anything that would let people know who you are unless you provide permission to do so.

**You can get the answers to your questions, concerns, or complaints**

If you have any questions, concerns or complaints about this study, or experience an unanticipated
Consent to Take Part in this Research Study

I freely give my consent to take part in this study. I understand that by signing this form, I agree to take part in research. I have received a copy of this form to take with me.

_____________________________________________ ____________
Signature of Person Taking Part in Study Date

_____________________________________________
Printed Name of Person Taking Part in Study

I am also indicating my consent (or no consent) to provide my personal artifacts such as a resume, LinkedIn profile, professional or personal website, news article, essay, biography or other published interviews about myself.

☐ Yes, I will provide my personal artifacts as requested.

☐ No, I opt out of providing my personal artifacts as requested.

Additionally, I am providing (or not providing) my permission to share the audio/video recordings of my interview for future uses intended for academic or professional learning purposes such as in classroom, conference or online presentations:

☐ Yes, I agree to share audio recordings of my interview.

☐ No, I do not agree with sharing audio recordings of my interview.

Statement of Person Obtaining Informed Consent

I have carefully explained to the person taking part in the study what he or she can expect from their participation. I confirm that this research subject speaks the language that was used to explain this research and is receiving an informed consent form in their primary language. This research subject has provided legally effective informed consent.

_____________________________________________                                ___________
Signature of Person obtaining Informed Consent                      Date

_________________________________________________
Printed Name of Person Obtaining Informed Consent
Appendix 3: 300-Character Count Invite

Dear [Name],

I am pursuing my doctorate dissertation on healthcare price transparency & am interviewing healthcare pricing executives for their insights. I know you are busy but feel that your feedback will add value to my research (all personal info is kept confidential). Hoping to connect.

Thanks
Appendix 4: Information/ Introduction to the Research

Price Transparency in Healthcare

A letter of Introduction

Purpose of the study

The purpose of this study is to explore the price opacity in the U.S. healthcare system. The prices of a service can vary widely at the same provider because of the type of insurance (Figure A) or with different providers even with the same insurance (Figure B). It has been seen that consumers are not aware of this price variance because prices are not transparent. A patient generally finds out about the cost of care after the service has been consumed. The research aims to understand, the factors and causes that result in the lack of price transparency in healthcare. The study will also explore the opportunities and conditions that can create a price transparent marketplace. The study excludes emergency services.

With the increase in high deductible insurances, the consumers pay most of the healthcare cost from out of pocket. Despite this, the market has been slow to move towards price transparency. I would like to explore why healthcare is an area of commerce where patients do not have the ability to compare the cost of service.

The study aims to develop a theory, model, or explanation about the lack of price transparency in the healthcare system. The research will be conducted via academic research, trade journals, and popular press along with an interview with experts in healthcare pricing field to understand the industry better.

I would like to conduct an interview with you at your convenience and follow up with you at an appropriate time as needed, to seek your insights and expert commentary about the industry and your organization, focusing specifically on price transparency in healthcare to inform the goals of this research.

Why are you being asked to take part?

I am asking you to participate in this research study because of your understanding of the healthcare market and your insights into the healthcare pricing field. I feel that I can learn from your expertise. You are eligible for this research based on the participant inclusion criteria provided below:

- Your profession exposes (exposed) you to the healthcare field
- You have an understanding of how healthcare pricing works in your organization
- You can speak expertly on the price opacity in the healthcare market
- You work in the United States

What to expect

You will be asked to participate in an interview which will take approximately 60 minutes. During the interview, you will be asked to talk and elaborate on price transparency in the healthcare industry and your organization. Along with your expert opinion, you can provide documents that can help with the research. These documents could include but are not limited to official documents, reports, news articles, and other published essays or interviews etc. Your interview will be scheduled at any date, time, and place that is convenient for you. You can expect the interviews to be scheduled between February and May 2018. Advanced notice and a consent form will be provided at least one weeks prior to scheduling your interview session. I may contact you with follow-up or clarifying questions via an agreed upon format after the interview has concluded.
Your contributions will be very valuable to the research. It will not only help me to complete my dissertation but also add rigor to the research and make it purposeful through your insights and knowledge.

**Figure A: One Test, Many Prices**

*Adapted from (Beck, 2014)*

The figure shows the cost of MRI for the knee, hip or ankle, without contrast, at Oakwood Health Care System, Dearborn, MI as collected by PricingHealthcare.com

**The cost depends on who is paying**

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**Figure B: Price variation between providers**

*Adapted from (Reinhardt, 2011)*

The figure shows the cost Actual Transaction Prices Paid by Large New Jersey Health Insurer for a Colonoscopy, By Facility Where Procedure Was Performed, 2007

**Contact Information:**

If you have any additional questions on the research, please contact

Principal Investigator: Minnie Ahuja  
Cell: 216-235-9840  
Email: miniahuja@aol.com
## Appendix 5: LinkedIn, Non-LinkedIn and Total Enrollment Stats

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Appendix 6: Questionnaire

Interview Question
Names, gender, age of study participants, and names of past or present employers/organizations will not be included in the analysis or any of the discussions. The analysis will be anonymized, and the data will be analyzed in an aggregated fashion ensuring the anonymity of individuals.

The research aims to understand, the factors and causes that result in price opacity in healthcare. The study will also explore the opportunities and conditions that can create a price transparent marketplace. The study aims to develop a theory, model, or explanation about the lack of price transparency in the healthcare system. The study excludes emergency services.

The questions that it is trying to address:

RQ: Why is there a lack of price transparency for Healthcare Services across the U.S. Health Care System?

Potential Interview Questions – all questions pertain to non-emergency services/procedures

Demographic Questions

- How long have you been at this company/job?
- What is your current position here?
- How long have you been in this position?
- Tell me a little about what you do?
- How does this relate to pricing?
- How many years have you been exposed to healthcare pricing information?

General Industry Questions

- How important do you think price transparency is in healthcare?
- Why do you hold this opinion about the importance of price transparency?
- What direction is the healthcare industry taking towards with price transparency?
- What are the key factors that are impacting price transparency in healthcare?
  - Probe on these factors
- What are the pros and cons of price transparency in healthcare?
- What stakeholders will price transparency help and hurt?
- In virtually any area of commerce, consumers know the price (or have an estimate) of things they intend to purchase beforehand, except healthcare (Reinhardt, 2014). Do you agree with this statement?
  a) What are the factors that result in price opacity in the healthcare industry?
  b) What are the key barriers and challenges the U.S. Health Care System has faced in providing price transparency?
  Past, present future
  c) What steps/actions have been taken by the industry to create price transparency?
d) What are other steps/actions is the industry taking to create price transparency in healthcare?
e) What are other steps/actions that the industry can/should take to create price transparency in healthcare?

Organization specific questions

- What role does your organization play in creating price transparency in the healthcare system?
- What is your organization’s approach to healthcare price transparency?
  - Does the organization have any have policies about healthcare transparency?
    a) What factors dictate/dictated your direction?
    b) How is your organization impacted with what the competition is doing regarding price transparency?
    c) What steps/actions has your organization taken to create price transparency in healthcare?
    d) What steps/actions is your organization currently taking to create price transparency in healthcare?
    e) What steps/actions should your organization take to create price transparency in healthcare?
    f) What tools do you need (or have used) to implement price transparency?
- What do you think the healthcare market will look like in 10 years regarding price transparency?

Consumer Questions (if not covered)

- How are consumers responding to increases in out-of-pocket deductibles/health costs?
- How are consumers shopping for the best prices in healthcare?
- How does ease of access to information on cell phone mobility play in pricing transparency?
- Which areas/services within Healthcare are consumers seeking pricing information for?
- Which services in healthcare are/will become price elastic?
- Which services are/will remain price inelastic?
- How can the industry afford not to provide consistent price transparency for select or all services with current changes such as high deductible and access to information?
## Appendix 7: List of Participants with their Titles, Type, Total Years of Experience in Healthcare and in different Sectors

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Appendix 8: Concepts and Definitions of Some Commonly Used Key Terms

- **Chargemaster**: A hospital price list of all goods and services/procedures performed in the hospital.

- **Coinsurance**: The percentage of costs paid by the patient for a covered healthcare service, after the deductible requirement is met (Greene, 2015).

- **Copayment or copay**: A fixed dollar amount paid by the patient for a covered healthcare service after the deductible has been paid by the patient. Copays can vary for different services within the same plan, like drugs, lab tests, and visits to specialists. Generally, plans with lower monthly premiums have higher copayments. Plans with higher monthly premiums usually have lower copayment (Greene, 2015).

- **Fee-For-Service**: A method in which physicians and other healthcare providers are paid for each service performed (Greene, 2015).

- **Health Insurance**: A contract between healthcare consumer and the health insurer to pay some or all of the healthcare costs in exchange for a premium that is paid by the consumer (Greene, 2015).

- **Health plan or benefit plans** are the plans offered by healthcare insurance companies. Plans differ based on your premium, deductible, co-payment, co-insurance, network, etc.

- **Healthcare delivery system**: A facility or group of facilities that provide healthcare services. It could be a single hospital, clinic, or a chain/group of hospitals and affiliated outpatient clinics.

- **Healthcare Price Opacity**: Nonexistence of healthcare price transparency.

- **Healthcare Services**: Services, tests, and procedures are interchangeably used to represent the healthcare received from the providers.

- **High Deductible Health Plan**: The IRS defines these health plans as plans with deductible of at least $1,350 for an individual or $2,700 for a family. The premium of these plans is based on the deductible; higher the deductible lowers the monthly premium. A patient has to pay the deductible before the insurance kicks in (Greene, 2015).

- **Inpatient services**: Healthcare services care that you get when you are admitted to a healthcare facility, like a hospital or skilled nursing facility as an inpatient (Greene, 2015).

- **Out-of-pocket deductible**: The amount paid by the patient for covered healthcare services before the insurance plan starts to pay (Greene, 2015).

- **Outpatient services**: Healthcare services care that you get when you go to a healthcare facility, get the services and leave within hours. You are not admitted overnight and you do not stay in the facility.

- **Price of a Service**: The price that a consumer has to pay for healthcare services. Price is a function of the type of insurance or the design of the insurance benefit plan that the consumer has. The deductible, copayment, and coinsurance determine how much a patient pays and how much healthcare insurance pays for a healthcare service.