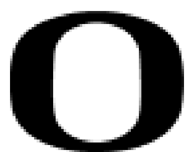

UNIVERSITY OF OREGON
APPLIED INFORMATION MANAGEMENT

Presented to the Interdisciplinary Studies Program:
Applied Information Management and the Graduate School of the University of Oregon
in partial fulfillment of the requirement for the degree of Master of Science

The Essential Role of Information for High Deductible Health Insurance Plan Consumers

CAPSTONE REPORT

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Abstract

for

The Essential Role of Information for High Deductible Health Insurance Plan Consumers

Key categories of medical information needed by high deductible health insurance plan members are identified in relation to cost and quality of care (Kelley & Attridge, 2006). This type of plan is also called a consumer driven health plan. A report card (Schauffler & Mordavsky, 2000) is developed for use by members to lobby employers, and for employers to use on behalf of their (Robinson, 2004) employees when negotiating with insurers who provide health plans.

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CHAPTER I – PURPOSE OF STUDY

Brief Purpose

The purpose of this study is to identify key categories of medical information that is needed in order for high deductible health insurance plan members in the US (Manos, 2007) to make cost effective decisions regarding their personal health care. Focus is on categories related to cost and quality of care, and on consumers who are enrolled in employer-sponsored high deductible health insurance plans (Department of Consumer & Business Services, 2007, p. 68; Kelley & Attridge, 2006). The goal is to design a framework for a "report card" (Schauffler & Mordavsky, 2000, p. 70) that could be used by consumers and employers of this group of health insurance plan members to identify the categories of information that should be provided. The underlying assumption is that consumers will be able to use this report card to lobby employers, and employers will be able to use this report card to negotiate with insurers who provide high deductible health plans, on behalf of their 'consumer' (Robinson, 2004, p. 1880) employees.

A high deductible health plan shifts the financial burden from the health insurance company to the insured health care consumer, making the consumer more vulnerable to cost and care choices (Rowland, 2007). The quality of a consumer's experience with a high-deductible health plan is therefore determined in part by the ability of that consumer to make decisions about their care (Kelley & Attridge, 2006, p. 30). Hibbard & Peters (2003) state that in order for an insured health care consumer to navigate within a complex health care system and make informed choices, the consumer must have accurate, timely and easily available information. Cost and quality of care options are seen as essential tools in allowing insured consumers to make informed choices (Christianson & Parente, 2004, p. 1126). Due to their relationship between the consumer and the doctor within the current US healthcare system structure, some

writers believe that medical insurance providers are in the position to provide them this kind of information (Robinson, 2004, p. 1881) (Herzlinger & Para-Parisi, 2004, 1213).

On average, insured high deductible health insurance plan members spend more time researching their next car purchase than they do researching their own medical care (Kowalczyk, 2007). Poor information, as well as lack of information, leads patients to make poor healthcare decisions. The lack of information not only jeopardizes the consumers' ability to receive quality healthcare, but also results in higher costs for the consumer (*Economic Report of the President*, 2002). As high deductible health plans become more prominent in the marketplace, "consumers must have understandable and comparable information on quality and price" in order to drive effective decision making (Clarke, 2006).

The majority of high deductible health insurance plan members receive health care coverage through their employer or the employer of a family member (Clemans-Cope & Garrett, 2006). This places emphasis on the employer to be involved and to think strategically about their role of providing insurance as a benefit (Enthoven, 2003, p. 237). Schauffler & Mordavsky (2001) believe that there is a low level of trust that the health insurance company will provide accurate information. Kelley & Attridge (2006) state that as a result, employers must take charge to help their insured employees gain access to information on quality and price data (p. 31).

This study is designed as a literature review (Leedy & Ormrod, 2005, p. 64) in which resources on medical information related to cost and quality care options are selected. These selections will address categories of information consumers need for decision making within a high deductible health plan. A qualitative approach to data analysis using the Data Analysis Spiral (Leedy & Ormrod, 2005, p. 150) is used to organize and synthesize the raw data. First, data on categories of medical information concerning two main topics (cost and quality of care)

are gathered from sources including periodical indexes specifically focused in the health and medical discipline such as Medline and PubMed, as well as industry news digests (American Health Insurance Plans SmartBrief). Information is then classified by topic category to aid in sorting. Categories are based on the dominant, logical groupings of themes within the data, and synthesized by seeking relationships between potential sub-topic categories as they emerge. Upon synthesis within the data spiral, the output of the analysis is presented in tables identifying a set of categories of medical information related to cost and quality of care, required by high deductible health insurance plan members.

The primary outcome from this study is a “report card” (Schauffler & Mordavsky, 2000, p. 70) containing categories of cost and quality of care data needed by high deductible health insurance plan members in order for them to make cost effective more informed decisions regarding their medical treatment. Wedig & Tai-Seale (2002) define report cards as tools which translate complex data about health insurance plan benefits and treatments into categories that are understandable and useful to consumers, helping them to make better-informed choices.

The intent is that the report card can be used by high deductible health insurance plan members in efforts to lobby employers for increased availability of these categories of information. The assumption is that the report card can also provide employers with a powerful tool to use when negotiating plans with insurer.

Full Purpose

The goal of this study is to empower individuals who are enrolled in high deductible health insurance plans through their places of employment to be able to make better informed decisions about health care options. More than half of all Americans with health insurance are covered through an employer, and employers are trying to influence health care consumer use by significantly increasing what is termed as ‘point-of-care cost sharing’ (Rowland, 2007, p. 2). Higher deductibles also are being used to this end—28% of employers significantly increased their deductibles in 2005 and another 17% planned to do so in 2006 (Kelley & Attridge, 2006, p. 28). The rise in health insurance premium costs, (up 87 percent between the years 2000 and 2006), is part of the motivation behind the move on the part of health insurance companies to offer health care plans with higher deductibles (Rowland, 2007, p. 4).

A high deductible health plan is also known within the health insurance industry (Shearer, 2004, p. 1) as a “consumer driven health plan” (CDHP). Under a high deductible health plan, emphasis is placed on the consumer, by the plan, to “shift more health care costs to consumers at the point of service, on the presumption that it is desirable to give consumers incentives to pay greater attention to the cost and quality consequences of their health care choices” (Christianson & Parente, 2004, p. 1123). These types of plans share the following two essential product characteristics:

1) Insurance coverage is designed with something known as a “coverage gap” before a high deductible is reached. Coverage gap refers to the dollar threshold until a deductible is met, often around $5000 (Shearer, 2004, p. 1). This means that a health insurance consumer can expect to pay $5000 out of pocket prior to receiving any insurance benefit; and

2) Support tools (portals, websites) (Koonce & Giuse, 2007, p. 77) intending, but not always delivering, (Kelley & Attridge, 2006, p. 30) on the promise to facilitate more extensive, better-informed consumer involvement in health care decision-making (Christianson & Parente, 2004, p. 1123). Support tools can include any number of products, such as The Health Plan Employer Data and Information Set (HEDIS) produced by the National Committee for Quality Assurance (NCQA) in accreditation of health plans ("What is HEDIS?", n.d.) and Oregon PricePoint, a web site produced by the Oregon Association of Hospitals and Health Systems (OAHHS) which maintains cost information on 64 types of hospitalization (*Oregon PricePoint*, 2005).

The employee in a high deductible health plan assumes the role of advocate for their own care (*Improving Health Care*, 2004 p. 29) due to the burden of cost that they may face (Rowland, 2007). The employee can use the report card as a tool in their advocacy with their employer as well. Effective advocacy involves a) identifying what you need; b) identifying who needs to be influenced, c) analyzing the issue, d) using tools to achieve the goal, and c) evaluating the outcome (Thompson & White, 2003).

The need the employee faces is to have access to information on categories of quality and cost information in order to make informed choices about their health care (Hibbard & Peters, 2002, p. 413). In an employer sponsored health insurance plan, the employer is the decision maker needing to be influenced (Clemans-Cope & Garrett, 2006). In analysis of the issue, it is determined that while categories of quality and cost information are needed (Hibbard & Peters, 2002), this information is frequently not available (*Economic Report of the President*, 2002). By

using the report card as a tool, the employee is able to effectively lobby the employer to negotiate with the insurer, who will then (ostensibly) make the requested changes.

The primary audience for this study is the individual who is insured in a high deductible health insurance plan at their place of employment – referred to in this paper as the ‘consumer’. Consumers are eager for access to information related to cost and quality of care options (*Achieving Meaningful Healthcare Cost Transparency*, 2007). According to a 2006 survey done by the Council for Affordable Health Insurance, 84 percent of respondents agreed that hospitals, doctors and pharmacies should publish their prices for all goods and services, and 79 percent said that if such information were available, they would shop for the best price (*Results from Nationwide Poll on Price Transparency*, 2006). Meaningful price information must provide a consumer with the ability to get an estimate—prior to service—of the full potential cost for the treatment, incorporating their specific condition and insurance coverage. Estimates, along with information about a provider’s quality of care, would allow patients to make more meaningful decisions about the value of care from each provider (*Patient Friendly Billing*, n.d.).

The secondary audience for this study is the employer who offers high deductible health insurance plans to their employees. Employers are in the best position to negotiate with health insurance companies to provide information related to cost and quality of care for their employees (*Achieving Meaningful Healthcare Cost Transparency*, 2007). This information is unlikely to be fully provided until employers demand it of insurers (Kelley & Attridge, 2006). Of the major stakeholders in the current health care system, (doctors/hospitals, consumers, the government and health insurance companies), employers are the best able to assume the responsibility to negotiate with insurance companies for cost and quality care information on behalf of their insured employees because:

- Doctors and hospitals have little incentive to provide information about products, services and prices (Kelley & Attridge, 2006);
- Consumers lack the power to collect system wide health care information themselves (Kelley & Attridge, 2006);
- The federal government has yet to become involved in the commercial insurance market that affects employers (Kelley & Attridge, 2006) (*Executive Order*, 2006); and
- Health insurance companies are viewed by consumers as the least likely sources of trusted information (Schauffler & Mordavsky, 2001).

Given these larger conditions, it falls to employers to advocate for necessary information to be provided to employees (Kelley & Attridge, 2006). Employers are regularly in the position to negotiate for benefits and price when selecting a company health plan (*Improving Health Care*, 2004, p. 223). A precedent for this kind of activity is noted in The Boston Globe, which reports that employers, along with consumers and local elected officials in Boston are pushing for more access to cost and quality of care data (Kowalczyk, 2007).

This study is designed as a literature review (Leedy & Ormrod, 2005, p. 64) which is framed by a health care consumer's experience on a high deductible health plan. The focus is on medical information related to cost and quality care options and the importance of this information being made available to these health care consumers. Key areas of focus in the study are on the structure of a high deductible health plan (Rowland, 2007), how that structure implies the need for information on cost and quality of care to be available to health care consumers (Kelley & Attridge, 2006, p. 30), and the employer role in advocating for this information for their insured employees (Rowland, 2007).

A qualitative approach to data analysis using the Data Analysis Spiral (Leedy & Ormrod, 2005, p. 150) is used to organize and synthesize the raw data using the steps of Organization, Perusal, Classification and Synthesis. A qualitative approach such as the data analysis spiral is ideally suited for this analysis process because of the ability it provides to interpret, evaluate and judge the effectiveness of situations or processes (Leedy & Ormrod, 2005, p. 134). In particular, the qualitative approach in this study is used to analyze the role of information on cost and quality of care that exists between:

- The high deductible health insurance plan and the employer (Shearer, 2004, p.2)
- The employer and the health care consumer (Clemans-Cope & Garrett, 2006, p. 2)
- The health care consumer and the high deductible health insurance plan (Christianson & Parente, 2004).

Upon synthesis within the data spiral, the output of the analysis is presented in a table identifying a set of categories of medical information related to cost and quality of care, required by high deductible health insurance plan members. This information will give health care consumers the tools they need to make cost-effective choices about their medical care (Hibbard & Peters, 2003) within their high deductible health plan.

The final outcome is presented in a "report card" (Schauffler & Mordavsky, 2001, p. 70) format. The report card is framed in a way that meets the informational needs of consumers who are enrolled in high deductible health insurance plans. The model for categories of quality of care is based on The Health Plan Employer Data and Information Set (HEDIS). The HEDIS report is produced by the National Committee for Quality Assurance (NCQA) in certification of health plans (*Essential Guide to Health Care Quality*, n.d.). The model for the scope of price data is based on Oregon PricePoint, a web site produced by the Oregon Association of Hospitals and

Health Systems (OAHHS). Oregon PricePoint maintains cost information on 64 types of hospitalization (*Oregon PricePoint*, 2005).

Significance of Study

The more consumers know about price and quality, the better they can direct their dollars in support of informed health care decision-making (Scalise, 2006, p. 36). High deductible health insurance plans are designed to increase the cost burden on the consumer (Shearer, 2004, p. 8). The increasing cost burden that a high deductible health plan can place on a consumer is significant when it is considered that in 2003, 19% of those covered under an employer-sponsored health plan experienced out of pocket costs that consumed more than 10% of their family income (Clemans-Cope, L. and Garrett, B., 2006). Economists have defined this category of individual as “underinsured” —an individual who, despite having health insurance, would potentially face out of pocket costs exceeding 10% of their income if they were to have a catastrophic illness—all because their health insurance is not comprehensive enough (Shearer, 2004, p. 8). The “coverage gap” (Christianson & Parente, 2004, p. 1123) that exists in high deductible health plans before any deductible applies, usually at around $2000-$5000 spent in out-of-pocket expenses, will cause a large number of families of relatively modest income to fall into the underinsured category (Shearer, 2004, p. 8). In this system, having access to information about cost and quality of care is essential in helping consumers make the best possible health care decisions (*Improving Health Care*, 2004).

The challenge with effecting change in an employer provided health insurance plan is that someone other than the ultimate consumer of the health care is often making most of the decisions about what coverage to purchase and how much to pay (*Improving Health Care*, 2004, p. 223). The NCQA counters this position by saying that despite whom makes these decisions about plan choice, both high deductible health insurance plan members and employers ultimately

make use of categories of information on cost and quality, such as contained in the report card, to guide health care purchasing decisions (*Essential Guide to Health Care Quality*, n.d.). As stated previously, in using the report card as a lobbying tool the employee can play a role in lobbying the employer for incorporation of this type of information in the health plan the employer offers.

Limitations

The resource material used for this study is US periodical (magazine, journal) scholarly and popular articles from the past seven years (2000-2007). This limitation in time focuses this study on current literature, written on the US healthcare, specifically high deductible insurance plans. Recent literature is key for this study because of events which frame the discussion around consumerism (Federal Trade Commission, 2004, p. 4) and high deductible health insurance plans, such as:

1) 2006 – President George W. Bush issues executive order on August 22 to promote transparency in cost and quality data for federal health programs (*Executive Order*, 2006)

2) 2003 - The passage of The Medicare Prescription Drug, Improvement, and Modernization Act. This act introduces provisions for Medical Health Savings Accounts (MHSA) which are a component of some high deductible healthcare plans (Shearer, 2004, p. 2) (*Medicare Prescription Drug, Improvement, and Modernization Act,* n.d.)

3) 2000 - The price of insurance premiums begins a sharp increase (Clemans-Cope & Garrett, 2006, p. 2)

4) 2000 - The move begins on the part of insurers to create high deductible health insurance plans (Rowland, 2007, p. 4)

5) 2000 – The end of the managed care era arrives (Robinson, 2004, p. 1881).

This study does not focus on consumer-imposed barriers to access of information, including but not limited to illiteracy (Skelton, 2007), medical illiteracy (Olney et al, 2007) or lack of education (Studdert & Gresenz, 2003).

It is assumed the reader has a basic level of understanding of the roles of these three components of the US health care delivery system (consumer, medical provider, health insurer) and health insurance terms (claims, co-pays, deductibles). No in-depth explanation of these systems or relationships is given. Terms most specific to this paper are included in Appendix A.

Consumers are defined as US citizens who are participants in a high deductible employer sponsored group health insurance plan. Individuals who are covered under an individual health insurance policy, (Shearer, 2004, 9, p. 1) those who are Medicare eligible, and those who are uninsured, are not part of this study. Employers are defined as companies that maintain a high deductible group health insurance for their employees (Improving Health Care, 2004, p. 7)

Medical Health Savings Accounts (MHSA) and hybrid high deductible plans with an MHSA component are not part of this study, and neither are the tax implications for employer or employee resulting from participation in a MHSA.

The Health Plan Employer Data and Information Set (HEDIS) care measures are not being considered in their entirety. Of the 71 categories HEDIS measures, only 24 are identified as having a direct application to commercial health plans (HEDIS 2007 Summary Table, 2007). These 24 are being used as part of this study. Likewise, of the quality measures presented by Dassow (2005, p.5) only the 19 conditions ranked as “very important” by 75% of physician respondents in Dassow’s study are being considered.

Quality is defined as "doing the right thing at the right time in the right way for the right person and having the best result possible" (Federal Trade Commission, 2004). Three elements are analyzed in consideration of quality in this paper: a) Process – whether heath care consumers are getting the treatment they need; b) Outcomes – how successful the treatment was; and c) Experience – what the health care consumer thought of their care (*Essential Guide to Health Care Quality*, n.d, p. 14) (Kowalczyk, 2007).

Availability of cost information is considered the ability of the health care consumer to get an accurate estimate, prior to service, of the amount owed for the treatment they are about to receive (Patient Friendly Billing, n.d.). Within this study, the term cost refers to Average Billed Charges which is defined as the suggested retail cost for a procedure (Achieving Meaningful Healthcare Cost Transparency, 2007). This represents the out of pocket cost a high deductible health plan consumer would pay (Oregon PricePoint, 2005). Cost data is limited to the following categories:

- Uncomplicated Vaginal Delivery
- Psychoses
- Normal Newborn
- Major hip/knee/Ankle/Foot Surgery, including replacement
- Heart failure and shock
- Simple pneumonia (lung inflammation), Adults, with complications
- Uncomplicated Cesarean Section
- Chest Pain
- Rehabilitation
- Miscellaneous Digestive Disorders, Adults, with Complications

Problem Area

According to Clarke (2006), in a high deductible health insurance plan, an informed medical consumer is a consumer who has access to categories of medical information related to

cost and quality of care on which they can make effective decisions about their care. Additionally, according to Kelley & Attridge (2006), this need for access to information lies at the heart of every assumption about consumerism (Kelley & Attridge, 2006). Consumerism in this context refers to the act of providing information that helps patients, as consumers, make effective decisions (Becker, 2007). For example, purchasing a car is one activity in which consumers typically rely on information in order to make an informed choice (Kowalczyk, 2007). Consumerism in health care is no different, and it is based on the premise that consumers have access to categories of cost and quality of care information. Kelley & Attridge (2006) suggest that such information should allow high deductible health insurance plan members to work through three basic decision-making steps:

1) Seek health care information before making health care decisions;

2) Select care based on its true cost and quality; and

3) Make appropriate plan and provider selections.

Health information in general has traditionally been insufficient or unavailable for health care consumer decision-making (Shearer, 2004; *Improving Health Care*, 2004, p. 6; Embi et al, 2006). Due to a lack of common standards for determining the categories of health care information that should be made available to consumers (Clarke, 2006; Scalise, 2006, p. 36), consumer health information is often insufficient or unavailable for decision making (Shearer, 2004; *Improving Health Care*, 2004, p. 6; Embi et al, 2006). The result is that consumers simply do not make use of any information at all (Schauffler & Mordavsky, 2001, p. 84). But, with the rise of high deductible insurance health plans, "... the rise of consumerism, including the push for pricing transparency, quality measures and pay-for-performance programs are only going to intensify" (Becker, 2007).

CHAPTER II – REVIEW OF REFERENCES

The Review of References focuses on eleven works analyzed as part of this study. It presents a brief summation of the key aspects of each work, their importance to this study and the notable qualifications of the author(s). This listing is arranged in alphabetical order.

Becker, C., (2007, January 1). Consumers Are King. *Modern Healthcare*, p. 24.

Becker's article is a forward-looking view of consumer-driven trends affecting the medical community in 2007. Among items are the trends towards the availability of cost and quality information ("transparency") and high deductible health plans. She backs up much of what she cites as coming trends from surveys or indicators from prior years.

Becker is cited in this study to support the Problem Area, Definitions, and the data analysis plan in the Method chapter. The citations used help introduce and focus the discussion of consumerism, and also provide indicators as to the rapid development of this topic area.

Cinda Becker is a writer for Modern Healthcare magazine covering finance, governance and health care business news. She has a MA in Journalism and is a past Kiplinger Fellow at Ohio State University.

Christianson, J., and Parente, S., (2004, August) Evidence About Consumer Experiences. *Health Services Research*. Vol. 39, No. 4.

Christianson & Parente explore the experience of a health care consumer in a ("consumer directed") high deductible health plan by studying the transition of one employer, University of Minnesota, to a high deductible plan for their employees. Aggregate data of health plan enrollment for the employer is studied along with the results from telephone surveys of plan

enrollees. Christianson & Parente conclude that there are significant differences in the health care consumer experience on a high deductible plan versus a more traditional plan, with a key difference being an increase in paperwork for the consumer. The study is introduced with a summary of the basic components of a high deductible health plan, as well as a background of key differences between different types of plans.

The Full Purpose and Purpose of Study are supported by Christianson & Parente's discussion on the key role of information as a necessary element for health care consumer choice. Discussion of the concept of coverage gap is supported by this article in the Cost and Definition sections.

Stephen Parente is the Academic Director of the Medical Industry Leadership Institute at Carlson School of Management. He holds a PhD in health finance and organization as well as a MPH in health economics. He has authored numerous works in the health care field. Jon Christianson is a professor and James A Hamilton Chair in Health Policy and Management at the University of Minnesota. He holds a PhD in economics. He has authored many articles in the health care field and is a 1995 recipient of the Annual Research Award from National Institute for Healthcare Management.

Hibbard, J. and Peters, E., (2003) Supporting Informed Consumer Health Care Decisions. *Annual Review of Public Health*. Vol. 24, p. 413.

In exploring the role of information in decision making, Hibbard & Peters analyze the role of information in the health care decision making in order to recommend best approaches. Their findings coincide with those of Schauffler & Mordavsky, in that more information for

health care consumers isn't necessarily better information. Information must be targeted and delivered at the point of decision making to be of most impact to health care consumers.

The argument Hibbard & Peters pose on the importance of information, is key to the arguments presented in this study. Both the Brief Purpose and the Full Purpose are supported by their assertions on the importance of information to health care consumers. Additionally, Hibbard & Peters supply a definition for consumer driven health care, and important industry term used frequently in literature consulted for this study.

Judith Hibbard is a professor in the Department of Public Policy and Management at the University of Oregon. She has Ph.D. in Social and Administrative Health Sciences and has published extensively. Ellen Peters is a senior research scientist and principal investigator at Decision Research in Eugene, Oregon as well as a member of executive committee of the Institute of Cognitive and Decision Sciences at the University of Oregon. She has a PhD in Psychology, Judgment and Decision Making and has published numerous articles.

Improving Health Care: A Dose of Competition (2004, July) Retrieved March 27, 2007 from http://www.usdoj.gov/atr/public/health_care/204694.htm.

This article is a joint report by the Federal Trade Commission and the Department of Justice. Based on hearings conducted by these agencies, the report seeks to recommend the introduction of market competition (Improving Health Care, 2004, p. 4) in the health care system as a method to improve efficiency and deliver better quality. Both agencies assert that, "Price competition generally results in lower prices and, thus, broader access to health care products and services" (p. 4). High deductible health plans and the components of cost and information access are discussed in the report as well.

The statements of this report support the Full Purpose, Limitations and Significance of Study. Contributions of this report to this study focus around consumers' use of information.

This paper is co-authored by the Federal Trade Commission and the Department of Justice. Content is derived largely from testimony given to both of these federal agencies during the span of February to October, 2003.

Kelley, B. and Attridge, M., (2006) Information Access. *Benefits Quarterly*, Second Quarter, 2006.

Kelley & Attridge explore the rise of high deductible health plans and how information access is at the root of the success or failure of these types of plans. Written in a very straightforward manner, the article breaks down the history of high deductible plans, the financial limitations of the plans, the role of the employer in the plan and the importance of information availability for employees. Key to this article is its emphasis on the types of information (cost and quality) required for health care consumers to make good decisions.

Kelley & Attridge support this study in the Brief Purpose, Full Purpose and Problem area. This paper is cited extensively in relation to the role of information in high deductible health plans, which is paramount to this study.

Mark Attridge is president of Attridge Studios, a consultancy in the employee assistance field. He holds a PhD and has taught at the University of Minnesota, the University of Wisconsin and Augsburg College. He has been the Chair of the Research Committee for the Employee Assistance Professionals Association and conducted numerous clinic studies. Bruce Kelley is Director of Government Relations for the Mayo Foundation.

Kowalczyk, L., (2007, April 2) Wanted: More information on healthcare. *The Boston Globe*. Retrieved April 2, 2007 from http://www.boston.com/yourlife/health/other/articles/2007/04/02/wanted_more_information_on_healthcare?

This article by Kowalczyk, appearing in The Boston Globe, provides a snapshot of the effect of consumer demand on the availability of healthcare information. This article cites a situation in Boston in which employees and employers are demanding changes to the way health care information is being made available.

Kowalczyk is cited in the Brief Purpose, Full Purpose, Method and Limitations sections. The citations give support to the arguments made in this study on the importance of the availability of heath care quality information and the pressures employer groups can have in advocating for change.

Liz Kowalczyk is a writer at The Boston Globe newspaper covering medicine and health care. She has written several articles for The Boston Globe in this field. The Boston Globe has won several Pulitzer prizes for its investigative reporting as well as numerous national and regional journalism awards.

Leedy, P., and Ormrod, J., (2005) Practical Research. Pearson Education: New Jersey.

The insight into the research presented by Leedy & Ormrod goes beyond simply a presentation on theory. The text provides practical advice on the application of several types of qualitative and quantitative research models, while also providing key tips on the structure and strategy of research. Leedy & Ormrod provide the foundation for the qualitative data analysis spiral used in this study.

Jeanne Ellis Ormrod holds a PhD in Psychology and is a professor of Psychological Sciences at the University of Northern Colorado. She has published numerous books in the field of Psychology. Paul Leedy is the author of many books on research. He passed away in 2002.

Rowland, D., (2007, January 31) Health Care: Squeezing the Middle Class with More Costs and Less Coverage. *Henry J. Kaiser Family Foundation.*

Rowland's coverage of the plight of the middle class in relation to affordability of health insurance takes the form of testimony given to the US House of Representatives, Ways and Means Committee on January 31, 2007. While the article focuses on the cost issues facing middle class US health care consumers, she cites the high deductible health plans as a symptom as well as a cause of the affordability issues. She concludes that shifting more costs onto consumers (such as happens in a high deductible health plan) only further cripples access to, and quality of, health insurance.

Rowland is cited in this study in support of the Brief Purpose, Full Purpose and Limitations. Her paper provides key support to the argument in this study of the financial burden high deductible health plans may place on consumers.

Diane Rowland is executive vice president of the Henry J. Kaiser Family Foundation and executive director of the Kaiser Commission on Medicaid and the Uninsured. She has written numerous articles and given testimony before government officials on several occasions.

Scalise, D., (2006, November). The See-through Hospital. *Health and Hospital Networks.*

Scalise provides an overview of cost and quality reporting in the hospital setting, framed in a general discussion of the transparency movement. The term transparency is used in the

article to refer to hospitals and doctors "…being open about what [they] do and how [they] do it" (Scalise, 2006, p. 35). In addition to a discussion on the components of cost and quality information, Scalise focuses on the challenges faced by hospitals and doctors in sharing this information as well as the importance of the efforts undertaken thus far. While this study is not strictly focusing on the hospital as the source for information, the components of Scalise's discussion on the challenges and importance of delivering cost and quality of care data are important in providing background on the issue.

Within this study, Scalise supports the Method and Significance of Study sections. The support to the Method of study is through:

- Framing the report card as a tool for information on cost and quality.
- Presentation of cost as a variable concept, subject to many influences in the health care setting

Dagmara Scalise is a senior writer for Health and Hospital Networks magazine. She is a Bronze and Silver award recipient of the American Society of Healthcare Publications Editors 2006 awards competition and has written over ten research articles in health care subjects.

Schauffler, H., and Mordavsky, J., (2001) Consumer Reports in Health Care: Do They Make a Difference? *Annual Review of Public Health*. Vol. 22, p. 69-89.

Through a review of studies conducted 1993-2000, Schauffler & Mordavsky explore the question of whether consumer report cards in health care make any difference in consumer behavior. Their review provides a comprehensive look at the recent history of report card use in health care, as well as the challenges that exist for successful implementation of the report card model. To be relevant to consumers, Schauffler & Mordavsky posit that a report card must be

delivered with relevant information and come from a trusted source. Schauffler & Mordavsky provide essential support to the Brief Purpose, Method and Definitions through the definition and supporting context for the report card concept.

Helen Halpin (Schauffler) holds a PhD and is director of Center for Health and Public Policy Studies at the University of California, Berkley. Halpin has written more than 60 publications and is cited by three other sources used in this study. Jennifer Ibrahim (Mordavsky) holds a PhD in Health services & Policy Analysis, MPH in Health Policy & Administration and a MA in Political Science. She is an assistant professor at the College of Health Profession at Temple University.

Shearer, G., (2004, February 25) Impact of Consumer Driven Health Care on Consumers. *Consumers Union*. Retrieved March 23, 2007 from http://www.consumersunion.org/pub/0225JECTestimonyNoSummary.pdf.

The testimony of Gail Shearer before the Joint Economic Committee on February 25, 2004 provides a foundation for understanding the issues surrounding how high deductible ("consumer driven") health plans impact health care consumers. Shearer presents a viewpoint decidedly against the trend of high deductible health plans, citing evidence on the high costs associated with the plans as well as flaws in recommendations from the President's Economic Report as reasons why high deductible plans are unsuitable for health care consumers.

As Shearer provides significant foundational knowledge of the workings of high deductible health plans, the work is cited throughout this study. In particular, Shearer supports the Full Purpose, Significance of Study, Problem Area, Limitations and Definitions. The definition of a high deductible health plan is cited in Definitions as well as the Full Purpose. The

features of the deductible (amount, cost) are cited in the Significance of Study. Shearer's definition of a Medical Health Savings Account is cited as a limitation of the study.

Gail Shearer is the Director of Health Policy Analysis for the non-profit Consumers Union. She has published several other articles for Consumers Union on the topics of Medicare drug plans, the Medicare Modernization Act and health care reform.

CHAPTER III – METHOD

The overall design of this study is a literature review (Leedy & Ormrod, 2005, p. 64) in which resources are selected on medical information related to cost and quality care options as they pertain to a health care consumer's experience on a high deductible health plan. Becker (2007) asserts that 2007 will bring rapid change in the area of health care consumer access to price and quality of care data (p. 1). Because of this, literature collection is focused on literature in the form of scholarly articles and commentary, published since 2000. Literature collection for existing scholarly articles and commentary is conducted through databases focused on the health and medicine (PubMed and Medline) as well as general and interdisciplinary (ArticleFirst and Academic Search Premier). Current news is gathered through review of a health news digest (American Health Insurance Plans SmartBrief). Additional literature is gathered through consulting peer-reviewed sources as found in the 'works cited' lists of source material. The following search terms are used:

1) Healthcare AND transparency
2) Health care AND transparency
3) Health care AND transparency AND insurance
4) Transparency
5) Consumer driven
6) Consumerism
7) High deductible health plan

The search terms are selected based upon their applicability to the topic as well as their use within the industry. The term *transparency* is used quite heavily within the health insurance industry and in literature in the health care field to describe "…the initiative enabling consumers

to compare the quality and price of health care services, so they can make informed choices among doctors and hospitals." (*Value Driven Health Care*, n.d.). This single term captures concepts such as price, quality and choice. The terms *health care* and *insurance*, when used in conjunction with the term transparency help focus the search results. *Consumerism* is an industry term used to describe the empowerment or "act of providing information that helps patients (as consumers) make effective decisions" (Becker, 2007) in high deductible health plans. When used as a search term, it captures articles about the movement behind the creation of the high deductible plans.

The result of this search strategy is a significant set of literature (60 resources) related to broader topic information on cost and quality of care. The seven-year time span (2000-2007) of literature collected as part of this study results in a unique perspective on the development of this rapidly developing (Becker, 2007) topic. The literature is nearly universal in the recognition of a problem or potential problem in the access to information needed to make quality healthcare choices.

A qualitative approach to data analysis is performed on the literature selected for the analysis data set, through use of the data analysis spiral (Leedy & Ormrod, 2005, p. 150). The larger set of literature gathered in the literature collection phase is analyzed in a four-step process:

1) **Organization** – literature (now termed data) is organized. In this stage the literature review begins with an initial reading of the material as a way to discover the availability and quality of literature on the topic. This initial reading also helps determine potential ways to frame the topic.

2) **Perusal** – as the organized literature is read, subject areas emerge and are noted. The subject areas in this stage of the study are identified in relation to a set of pre-determined coding terms applied during the reading, as follows:

- High deductible health plans
- Consumerism / medical information / transparency
- Employer role providing high deductible health insurance plans

3) **Classification** – concepts identified during coding are grouped and presented in lists occuring by theme and sub theme, related to the initial subject areas. Preliminary review reveals the following examples:

- Theme: High deductible health plans

  Sub theme: Features of a high deductible health plan

- Theme: Consumerism / medical information / transparency

  Sub theme: How cost and quality information benefit high deductible health insurance plan members

- Theme: Employer role in providing health insurance plans

  Sub theme: Importance of employer role as employee advocate

4) **Synthesis** – integration and summary of the data in which hypotheses are offered. An hypothesis is framed for each key theme, based on a synthesis of the results of the Classifications. Once the hypotheses are formed, the goal is to design a final outcome of study framed within the needs of the primary and secondary audiences.

The results of the data analysis process (noted above in step three, Classification) are re-framed to meet the needs of the audiences of this study and presented together in a "report card" (Schauffler & Mordavsky, 2001, p. 70) format. The primary purpose of a report card is to help consumers make better-informed health care decisions by providing information on price and quality of care in a comparative format (Schauffler & Mordavsky, 2001, p. 69). Wedig & Tai-Seale (2002) promote that when information is presented in the form of a report card, it can positively impact consumer choice and access to information (p. 1046). Data on both cost and quality of care are presented together in the report card - a format which is not readily available to high deductible health insurance plan members today for comparative purposes (Scalise, 2006) (Wedig & Tai-Seale, 2002, p. 1033). This report card can be used by insured high deductible health insurance plan members and their employers to identify categories of information related to cost and quality that should be provided. The assumption is that this report card can be used to effectively advocate for the availability of this information – employee to employer, and employer to the health insurance company.

Framework for the report card comes from the measures and formats of existing tools aimed at consumers and/or employers plans (Essential Guide to Health Care Quality, n.d.) (Oregon PricePoint, 2005). A discussion of the two areas of content follows.

Quality

Quality is considered the practice of "doing the right thing at the right time in the right way for the right person and having the best result possible" (Federal Trade Commission, 2004). In determining how to measure quality in relation to health care, three elements are analyzed: a) Process – whether heath care consumers are getting the treatment they need; b) Outcomes – how successful the treatment was; and c) Experience – what the health care consumer thought of their care (*Essential Guide to Health Care Quality*, n.d, p. 14) (Kowalczyk, 2007).

The categories of care determined through the data analysis process provide a framework for the measurement of quality, encompassing process, outcomes and experience (*Essential Guide to Health Care Quality*, n.d., p. 14). Dassow (2007) is a complication of quality of care measures ranked by physicians, of which categories ranked as "very important" by 75% of respondents are used for this analysis (p.5). Katz & Soodeen (2006) present a compilation of quality of care indicators from administrative data including claims and discharge reports (p. 2238). The Health Plan Employer Data and Information Set (HEDIS) report covers 71 categories of care, however not all categories are appropriate for use within a commercial health plan (HEDIS 2007 Summary Table, 2007). This study only utilizes 24 out of the 71 categories in the report card. These 24 categories, along with the data from Katz & Soodeen (2006) and Dassow (2007), focus on quality as it relates to a health care consumer's experience with their doctor.

The categories utilized within the Report Card framework are as follows:

1. Blood pressure†^
2. Tobacco use†, Medical Assistance With Smoking Cessation
3. HDL/LDL cholesterol management †^
4. Vaccination status†,‡, ^ (Childhood, Adolescent, Adult) ^
5. Antidepressant medication management‡^
6. Asthma care‡ ^
7. Diabetes care ‡^
8. Cancer Screening – Colorectal, Breast, Cervical^
9. Medication, Annual Monitoring for Patients on Persistent Medications^

The Health Plan Employer Data and Information Set (HEDIS) provides a model for the layout of the quality data in the study's report card. Summary HEDIS data on accredited health

plans is presented in a web based format through the NCQA website (Figure 1) with stars indicating how well that plan performed in that category against standards and/or category measures (“Definitions: Insurance Terms”, n.d.). As this study is focusing on a localized group of health care consumers from a single employer, a report card presented in a paper format is used. To aid in accessibility to the report card, it has been designed for potential distribution online through an employer’s intranet (Koonce & Giuse, 2007, p. 77).

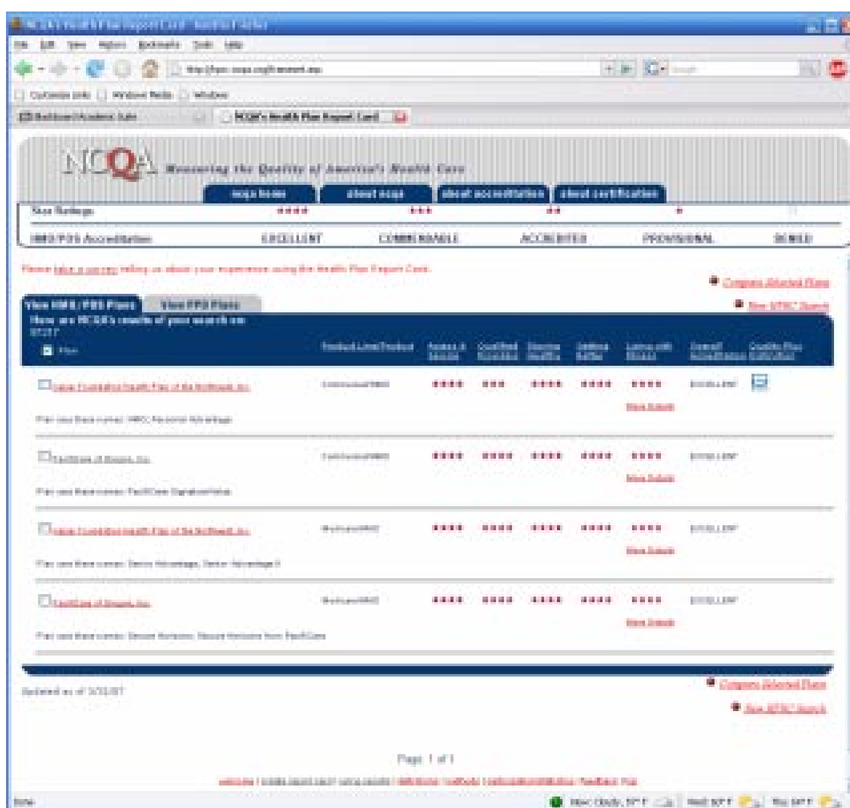

Figure 1: NCQA HEDIS Data

Within each health plan accredited by the NCQA, each of the categories assessed in the HEDIS report is viewable in relation to how well that plan preformed in the category compared to other plans (“Health Condition Ratings”, n.d.). Data is displayed in an easy to read bar graph format (Figure 2).

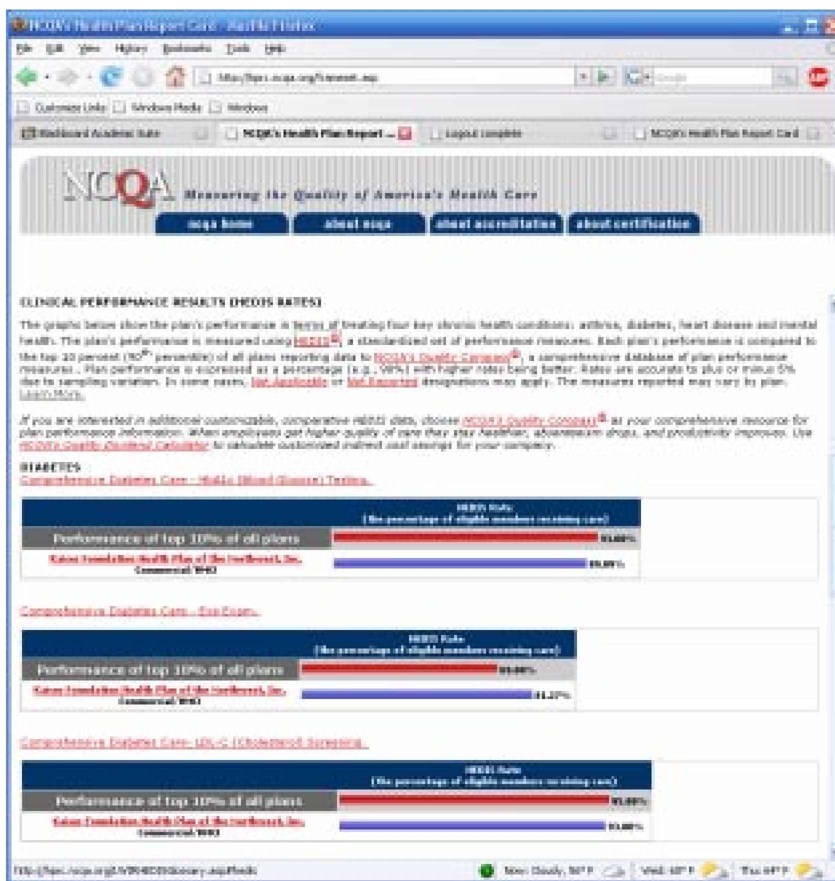

Figure 2: NCQA Bar Graph

Cost

In the context of health care, providing access to cost information on common medical procedures means the health care consumer has the ability to get an accurate estimate, prior to service, of the amount owed for the treatment they are about to receive (*Patient Friendly Billing*, n.d.). It is recognized that getting accurate cost information from doctors in advance of treatment is complex due to variables that can affect cost (DoBias, 2006). This is due to several factors such as the possibility of complications arising in a medical procedure which require additional care at an increased cost (Scalise, 2006, p.36) and also co-payments or discounts to the final amount which are dependent upon the billing arrangement or health insurer (Clarke, 2006).

Because of this potential variability in pricing for health care services, it is important to define how a cost is determined for this study (*Achieving Meaningful Healthcare Cost Transparency*, 2007). Cost can be defined as: a) Actual cost – the cost the doctor incurs by providing care; b) Average Billed Charges – The suggested retail cost for a procedure; c) Relative cost – The cost for a procedure as paid by a health insurance company, based on average local cost; and d) Consumer cost – The health insurance consumer's out of pocket cost, usually a co-pay or coinsurance. (*Achieving Meaningful Healthcare Cost Transparency*, 2007).

A consumer in a high deductible health insurance plan will bear a substantial burden of cost for their care before they reach a deductible (Rosenthal, 2006, p. 674). Because of this sizeable coverage gap (Christianson & Parente, 2004, p. 1123) the most applicable definition of cost to a health care consumer in a high deductible health insurance plan is the one which represents what they will end up paying. Average Billed Charges represents the out of pocket cost a high deductible health plan consumer would pay (*Oregon PricePoint*, 2005).

The model for the scope of cost data is based on Oregon PricePoint. Oregon PricePoint is a web site produced by the Oregon Association of Hospitals and Health Systems (OAHHS) which maintains cost information on 64 types of hospitalization (*Oregon PricePoint*, 2005) for select hospitals in Oregon and it takes into account the Average Billed Charges a high deductible health care consumer would expect to pay. For the purposes of this study, a subset of the 64 types of hospitalization representing the ten most common types of hospitalization is used and adapted. These types are as follows:

- Uncomplicated Vaginal Delivery
- Psychoses
- Normal Newborn
- Major hip/knee/Ankle/Foot Surgery, including replacement

- Heart failure and shock
- Simple pneumonia (lung inflammation), Adults, with complications
- Uncomplicated Cesarean Section
- Chest Pain
- Rehabilitation
- Miscellaneous Digestive Disorders, Adults, with Complications

Average charges are displayed for the selected hospital as well as other hospitals (Figure3).

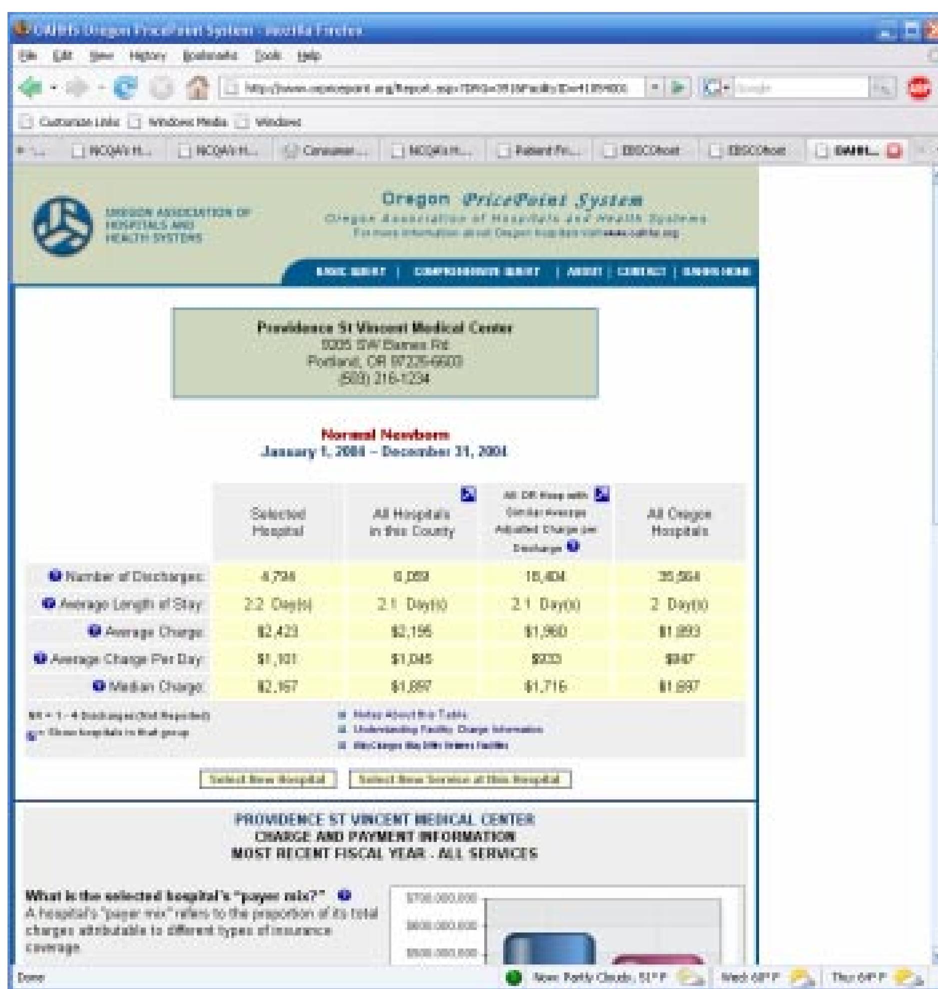

Figure 3: Oregon PricePoint

CHAPTER IV – ANALYSIS OF DATA

Three coding terms, defined during stage two of the data analysis spiral—the Perusal stage—are used to guide the coding process during data analysis. These terms are: 1) High Deductible Health Plans; 2) Consumer Information/Transparency; and 3) Employer Role. Table 1: Analysis of Three Key Coding Terms, presents the raw results of the coding, noted as occurrences of the terms are identified in each of the twenty six sources analyzed.

	Source	High Deductible Health Plans	Consumer Information/ Transparency	Employer Role
1	Achieving Meaningful Healthcare Cost Transparency (2007)		X	
2	Becker (2007)	X	X	X
3	Christianson & Parente (2004)	X	X	
4	Clarke (2006)		X	
5	Clemans-Cope & Garrett (2006)			X
6	Dassow (2007)		X	
7	DoBias (2006)		X	
8	Economic Report of the President (2002)	X	X	X
9	Enthoven (2003)	X		X
10	Essential Guide to Health Care Quality (n.d.)		X	X
11	Executive Order: Promoting Quality (2006)		X	
12	Health Insurance in Oregon (2007)		X	X
13	Herzlinger (2004)	X		X
14	Hibbard & Peters (2003)		X	
15	Improving Health Care: A Dose of Competition (2004)	X	X	X
16	Kelley & Attridge (2006)	X	X	X
17	Koonce & Guise (2007)		X	

	Source	High Deductible Health Plans	Consumer Information/ Transparency	Employer Role
18	Kowalczyk (2007)		X	X
19	Patient Friendly Billing (n.d.)		X	
20	Rosenthal (2006)	X	X	X
21	Rowland (2006)	X	X	
22	Scalise (2006)		X	
23	Schauffler & Mordavsky (2001)		X	X
24	Shearer (2004)	X	X	
25	Value Driven Health Care (n.d.)		X	
26	Wedig & Tia-Seale (2002)		X	

Table 1: Analysis of Three Key Coding Terms

A summary review of Table 1 reveals that the category most often examined in this set of literature is Consumer Information/Transparency, appearing in 23 of the 26 of the selected sources (88%). Employer Role is mentioned in 12 of the 26 selected resources (46%), and High Deductible Health Plans are found in 10 of the 26 selected resources (38%). Further analysis of the frequency of categories in Table 1 shows that Employer Role and High Deductible health Plans remain in 2nd and 3rd place respectively. Of the 23 resources that explored Consumer Information/Transparency, 9 of these also explored the employer role (39.1%) and 8 of these explored the High Deductible Health Plans term (34.7%). Additionally, nine resources examine two of the three resources together (35%). Five resources, Becker (2007), Economic Report of the President (2002); Improving Health Care: A Dose of Competition (2004); Kelley & Attridge (2006) and Rosenthal (2006) examine all three categories (19%).

As part of stage three of data analysis- the classification stage,-the set of key coding terms presented in Table 1 are categorized into sub-themes. As defined in Chapter 3, the three

sub themes correlate to initial subject areas: 1) High Deductible Health Plans; 2) Consumer Information/Transparency; and 3) Employer Role. Sub-themes, generated upon review of the raw data reported in Table 1, are displayed in Table 2, grouped according to subject area and noted according to the code number of the citation (see Table 1) and the frequency of occurrence within the selected literature.

Subject area one, High Deductible Health Plans, has three sub themes: A) Features of a high deductible health plan - grouping resources on unique characteristics of this health plan; B) Offering of plans by employers and reasons therefore – the making available of high deductible health plans by employers; and C) Consumer experiences in [a high deductible health plan] – a consumer point of view of a high deductible health plan.

Subject area two, Consumer Information/Transparency, has five sub themes: A) How cost and quality information benefit high deductible health insurance plan members – the advantage of this information for high deductible health plan members; B) As an increasing trend – how the health insurance marketplace is seeing a growth in demand for consumer information/transparency; C) Features of consumer information/transparency – unique characteristics of this subject area; D) Transparency as a facet of consumerism – how transparency is part of the consumer movement; E) Information as a necessary component of choice – how information on cost and quality is necessary for high deductible health plan members to make informed choices.

Subject area three, Employer Role, has three sub themes: A) Importance of employer role and employee advocate – the value of the role of the employer as an advocate for the employee; B) Importance of employer offered insurance – the value of the employer offering health

insurance for their employees; C) Employer role in reducing cost of health insurance – the position of the employer as a change agent in reducing health insurance cost.

Table 2 has two additional descriptive columns, citation codes and frequency. The citation codes correspond to the number of the resources as listed in Table 1. The citation codes listed for each sub theme indicate which resources directly support the corresponding sub-theme. The Frequency column represents a tally of the total number of resources which support a particular sub-theme.

Subject Area	Related Sub-themes	Citation Codes	Frequency
1. High Deductible Health Plans			
a.	***Features of a high deductible health plan***	2, 3, 8, 13, 14, 15, 16, 20, 21, 24	10
b.	*Offering of plans by employers and reasons therefore*	2, 9, 15, 16, 21, 24	6
c.	*Consumer experiences in*	3, 13, 20, 21, 24	5
2. Consumer information/transparency			
a.	***How cost and quality information benefit high deductible health insurance plan members***	1, 2, 3, 4, 6, 7, 8, 10, 12, 14, 15, 16, 19, 20, 21, 22	16
b.	*As an increasing trend*	1, 2, 6, 8, 16, 17, 18, 21, 22, 25	10
c.	*Features of consumer information/transparency*	3, 6, 7, 8, 11, 12, 15, 16, 19, 21, 22	11
d.	*Transparency as a facet of consumerism*	2, 4, 8, 15, 16, 20, 22, 25	8
e.	*Information as a necessary component for choice*	14, 15, 16, 21, 23, 24, 25, 26	8
3. Employer Role			
a.	***Importance of employer role as employee advocate***	2, 8, 9, 10, 12, 13, 16, 18, 20, 23	10
b.	*Importance of employer offered insurance*	5, 8, 12, 20	4
c.	*Employer role in reducing cost of health insurance*	9	1

Table 2: Identification of Sub Themes

A summary review of Table 2 reveals that each subject area has one dominant sub-theme. For subject area one, High Deductible Health Plan, the dominant sub-theme is 1a, Features of a

high deductible health plan. For subject area two, Consumer information/transparency, the dominant sub-theme is 2a, How cost and quality information benefit high deductible health insurance plan members. For subject area three, Employer role, the dominant sub-theme is 1a, importance of employer role as an employee advocate. Of the dominant sub-themes, the sub-theme with the highest frequency in the resources is 2a with a frequency of 16 out of 23 (69%).

Stage four of data analysis involves a summation of the data presented in Table 2, through generation of a hypothesis for each initial subject area and set of sub-themes. The hypotheses, shown in Table 3, are designed to summarize and describe the relationship that exists within each theme to other themes, and ultimately to the larger context of study (Leedy & Ormrod, 2005, p. 150). Each of the three themes explored in Table 1 has an hypothesis associated with it which builds upon the sub-theme revealed in Table 2. The hypothesis associated with theme "High deductible health plan" focuses on the high deductible health plan, while expanding on the structure [features] that necessitate a health care consumer's need for information on cost and quality. The hypothesis associated with "Consumer information/transparency" continues the idea of the consumer need for access raised in the previous hypothesis and emphasizes the importance of access to information in making effective decisions. The "Employer role" hypothesis continues the theme of access to information raised in the previous hypothesis and connects it to the role of the employer in advocating for this information on behalf of their employees.

	Theme	**Sub-theme**	**Hypothesis**
1	High deductible health plans	Features of a high deductible health plan	The structure of the high deductible health plan shifts cost burden (Shearer, 2004) as well as control of heath care choices to the consumer, prompting them to seek out information on all costs and health care options in order to make choices based on cost and quality of care (Kelley & Attridge, 2006).
2	Consumer information/transparency	How cost and quality information benefit high deductible health insurance plan members	Consumers need access to information on categories of information related to cost and quality of care in order to make cost effective cost and quality decisions about their health care (Economic Report of the President, 2002).
3	Employer role	Importance of employer role as employee advocate	Because of their connection with more than half of high deductible health insurance plan members in the US (Clemans-Cope & Garrett, 2006) and their position of trust in the eye of the consumer (Schauffler & Mordavsky, 2001), employers should play a major role in advocating on behalf of their employees for categories of information related to cost and quality to be made available.

Table 3: Hypothesis Generation

The results of the data analysis process noted above are re-framed to meet the needs of high deductible health insurance plan consumers, and presented together in a “report card” (Schauffler & Mordavsky, 2001, p. 70) format. The primary purpose of a report card is to help consumers make better-informed health care decisions by providing information on price and quality of care in a comparative format (Schauffler & Mordavsky, 2001, p. 69). Determinations of applicable quality of care measures for the report card (Schauffler & Mordavsky, 2001, p. 70) are performed through analysis of several applications of quality measures in heath care. Dassow (2007) presents categories of care as ranked by physicians (p.5). Katz & Soodeen (2006) present a compilation of quality of care indicators from administrative data including claims and discharge reports (p. 2238). The Health Plan Employer Data and Information Set (HEDIS) report covers 71 categories of care (HEDIS 2007 Summary Table, 2007) of which 24 are used in this analysis.

As demonstrated by Dassow (2007, p.2) some consolidation was performed in this analysis to match up like terms and eliminate redundancy. For example, “Comprehensive Diabetes Care and Diabetes Care: Eye Examination” is merged to be “Diabetes Care”. “Use of Appropriate Medications for People with Asthma” is merged with “Asthma care”. Consolidation in this manner reveals the following nine common categories for use in the report card, cited by two or more resources:

1. Blood pressure†^
2. Tobacco use†, Medical Assistance With Smoking Cessation
3. HDL/LDL cholesterol management †^
4. Vaccination status†,‡, ^ (Childhood, Adolescent, Adult) ^
5. Antidepressant medication management‡^
6. Asthma care‡ ^
7. Diabetes care ‡^

8. Cancer Screening – Colorectal, Breast, Cervical^
9. Medication, Annual Monitoring for Patients on Persistent Medications^

Key to sources:

† Dassow
‡ Katz & Soodeen
^ HEDIS

Element of Quality Measure	Frequency
Blood pressure†^	2
Alcohol/drug use†	1
Physical functioning-ADL†	1
Tobacco use†, Medical Assistance With Smoking Cessation^	2
Psychological distress†	1
Breathing difficulties†	1
Role functioning†	1
Bowel or bladder difficulties†	1
Pain - level†	1
Pain - limitations†	1
Dietary habits†	1
Body mass index†	1
Eating/swallowing difficulties†	1
Seizures/syncope†	1
Usual physical activity†	1
Physical functioning-IADL†	1
Quality of life (general) †	1
HDL/LDL cholesterol management †^	2
Vaccination status†,‡, ^ (Childhood, Adolescent, Adult) ^	3
Antidepressant medication management‡^	2
Asthma care‡ ^	2
Diabetes care ‡^	2

Postmyocardial infarction‡	1
Potentially inappropriate prescribing of benzodiazepines for older adults‡	1
Appropriate Treatment for Children With Upper Respiratory Infection^	1
Appropriate Testing for Children With Pharyngitis^	1
Inappropriate Antibiotic Treatment for Adults with Acute Bronchitis^	1
Cancer Screening – Colorectal, Breast, Cervical^	2
Chlamydia Screening in Women^	1
Beta-Blocker Treatment After a Heart Attack^	1
Persistence of Beta-Blocker Treatment After a Heart Attack^	1
User of Spirometry Testing in the Assessment and Diagnosis of Chronic Obstructive Pulmonary^	1
Disease (COPD) ^	1
Follow-Up After Hospitalization for Mental Illness^	1
Follow-Up Care for Children Prescribed Attention-Deficit/Hyperactivity Disorder (ADHD) ^	1
Medication, Annual Monitoring for Patients on Persistent Medications^	2
Use of Imaging Studies for Low Back Pain^	1
Disease Modifying Anti-Rheumatic Drug Therapy in Rheumatoid Arthritis^	1

Table 4: Elements of Quality

The analysis for cost measures is performed on data from Oregon PricePoint. Oregon PricePoint is a web resource from the Oregon Association of Hospitals and Health Systems (OAHHS). This resource contains cost information on 64 types of hospitalization (*Oregon PricePoint*, 2005) for select hospitals in Oregon. A subset of the cost of 64 types of hospitalization, representing the ten most common types of hospitalization, is used. These cost types are as follows:

1. Uncomplicated Vaginal Delivery
2. Psychoses
3. Normal Newborn

4. Major hip/knee/Ankle/Foot Surgery, including replacement
5. Heart failure and shock
6. Simple pneumonia (lung inflammation), Adults, with complications
7. Uncomplicated Cesarean Section
8. Chest Pain
9. Rehabilitation
10. Miscellaneous Digestive Disorders, Adults, with Complications

Element of Cost Measure	**Frequency**
Uncomplicated Vaginal Delivery	1
Psychoses	1
Normal Newborn	1
Major hip/knee/Ankle/Foot Surgery, including replacement	1
Heart failure and shock	1
Simple pneumonia (lung inflammation), Adults, with complications	1
Uncomplicated Cesarean Section	1
Chest Pain	1
Rehabilitaton	1
Miscellaneous Digestive Disorders, Adults, with Complications	1

Table 5: Elements of Cost

The report card (Schauffler & Mordavsky, 2001, p. 70) is designed to be used by the primary and secondary audiences, the health care consumers in a high deductible health plan and their employers. The Health Plan Employer Data and Information Set (HEDIS) provides a model for the layout of the data in the report card, shown in Table 6: Sample Report Card Format.

The report card measures cost and quality of care, two areas necessary to support health consumer choice (Kelley & Attridge, 2006). As stated in Chapter 3, quality is an important measure which takes into account the process, outcome and experience in a determination of an

overall sense of accuracy. Cost is defined in Chapter 3 as the average billed charges made available to health care consumers in advance of treatment.

CHAPTER V – CONCLUSION

This study is intended to provide US consumers (Manos, 2007) who are enrolled in high deductible health plans key categories of medical information needed to make cost effective decisions regarding their personal health care. Currently, insured high deductible health insurance plan members spend more time researching their next car purchase than they do researching their own medical care (Kowalczyk, 2007). This staggering fact combined with the knowledge that high deductible health plans are gaining in popularity with insurance companies and employer groups (Rowland, 2007, p. 4) means that the demand for information about cost and quality data will increase (Becker, 2007, p. 1).

Poor information, as well as lack of information, leads patients to make poor healthcare decisions. The lack of information not only jeopardizes the consumers' ability to receive quality healthcare, but also results in higher cost for the consumer (Congressional Council of Economic Advisors, 2002). As high deductible health plans become more prominent in the marketplace, "consumers must have understandable and comparable information on quality and price" in order to drive effective decision making (Clarke, 2006). And while categories of quality and cost information are needed (Hibbard & Peters, 2002), this information is frequently not available (*Economic Report of the President*, 2002).

The output of this study is a model to help translate complex data about health insurance and benefits into categories that are understandable and useful to high deductible health plan consumers, helping them to make better-informed choices (Wedig & Tai-Seale, 2002). This model is known as a "report card" (Schauffler & Mordavsky, 2000, p. 70), containing categories of cost and quality of care data needed by high deductible health insurance plan members in order to make cost effective more informed decisions regarding their medical treatment. The

analysis conducted as part of this study yields eight categories related to quality of care (Table 4) and ten categories of cost (Table 5), which populate the categories in the report card (Schauffler & Mordavsky, 2000, p. 70). With these categories defined, health care consumers will be able to use this report card to lobby employers, and employers will be able to use this report card to negotiate with insurers who provide high deductible health plans, on behalf of their 'consumer' (Robinson, 2004, p. 1880) employees.

Two sample report cards are provided below – one for quality of care (see Table 6) and one for cost (see Table 7). The input data categories for the report card are drawn from the analysis done in Tables 4 & 5. Because the categories of quality and care are discrete, they are displayed in two distinct tables on quality and cost, respectively. Data drawn from Table 4 are the result of analysis for common categories of care (Dassow, 2007, Katz & Soodeen, 2006, HEDIS 2007 Summary Table, 2007) which results in nine categories populating the Quality Measure column on the quality report card in Table 6. As presented in Chapter 3, the NCQA model for ratings is being used to compare a given provider against their peers in the same category ("Health Condition Ratings", n.d.). Ratings in each of the nine categories are displayed pictorially by use of 0-4 diamonds indicating the level of quality ("Definitions: Insurance Terms", n.d.). Pictorial ratings are as follows: Zero diamonds equal no data available; one diamond (♦) equals a low level of quality; two diamonds (♦♦) equals a moderate level of quality; three diamonds (♦♦♦) equals a moderately high level of quality; and four diamonds (♦♦♦♦) equals a high level of quality.

Table 7 is populated with the data resulting from the analysis of common cost categories in Table 5. The categories resulting from this analysis represent the top 10 types of hospitalization in the state of Oregon (*Oregon PricePoint*, 2005). As presented in Chapter 3, the format of the cost information uses the cost categories from Oregon PricePoint model (Figure 3).

In Table 7, “Element of cost measure” is populated with the 10 elements of cost from the analysis in Table 5; “Average billed charges: This facility” column is populated with data on the average billed charge for the corresponding procedure; “Element of cost measure: State average” represents the average cost statewide for this procedure.

Doctor:		
	Quality Measures	**Quality Rating** *Scale:* *<no diamonds> = no data* ♦ = low level ♦♦ = moderately low ♦♦♦ = moderately high ♦♦♦♦ = high
1	Blood pressure	
2	Tobacco use, Medical Assistance With Smoking Cessation	
3	HDL/LDL cholesterol management	
4	Vaccination status (Childhood, Adolescent, Adult)	
5	Antidepressant medication management	
6	Asthma care	
7	Diabetes care	
8	Cancer Screening – Colorectal, Breast, Cervical	
9	Medication, Annual Monitoring for Patients on Persistent Medications	

Table 6: Sample Quality Report Card Format

Hospital facility name:		
Element of Cost Measure	**Average Billed Charges**	
	This Facility	State Average
Uncomplicated Vaginal Delivery		
Psychoses		
Normal Newborn		
Major hip/knee/Ankle/Foot Surgery, including replacement		
Heart failure and shock		
Simple pneumonia (lung inflammation), Adults, with complications		
Uncomplicated Cesarean Section		
Chest Pain		
Rehabilitaton		
Miscellaneous Digestive Disorders, Adults, with Complications		

Table 7: Sample Cost Report Card Format

The report cards for both cost and quality of care are designed to be used by both health care consumers and employers. Consumers are able to make more meaningful decisions about the value of care from a provider by using cost and quality information (*Patient Friendly Billing*, n.d.). In consulting the report card, the health care consumer would have at-a-glance access to both the cost and quality of care data enabling them to make an informed decision. In populating the categories in the report cards with cost and quality data, employers play an essential role in making that information available. Employers are in the best position to negotiate with health insurance companies to provide information related to cost and quality of care for their employees (*Achieving Meaningful Healthcare Cost Transparency*, 2007). Employers will also be

able to use this report card to negotiate with insurers who provide high deductible health plans, on behalf of their ‘consumer’ (Robinson, 2004, p. 1880) employees.

APPENDIX A – DEFINITIONS

Commercial (Health Insurance)
"Health care coverage paid for by employers or individual consumers." ("Definitions: Insurance Terms", n.d.)

Consumer (Health Care Consumer)
An individual that utilizes health care services (Robinson, 2004, p. 1880)

Consumerism
The act of providing information that helps patients (as consumers) make effective decisions (Becker, 2007)

Consumer Driven Health Care
"The approach is based on the assumption that, with greater financial responsibility, employees will make better decisions for themselves and their families with respect to health plans, providers, and treatments. Moreover, the assumption is that these new "empowered employees" will feel the impact of their decisions more directly and will be motivated to make choices that maximize value in the form of both quality and cost." (Hibbard & Peters, 2003)

"Used to describe a wide variety of different health benefit designs that shift more health care costs to consumers at the point of service, on the presumption that it is desirable to give consumers incentives to pay greater attention to the cost and quality consequences of their health care choices" (Christianson & Parente, 2004)

Employer
An individual or group employing any number of employees that also makes available a high deducible health insurance plan for their employees as a benefit (Improving Health Care, 2004, p. 7) (Clemans-Cope & Garrett, 2006, p. 6).

Health Care Cost
Cost is defined as a consumer having the ability to get an estimate, prior to service, of the amount owed for the treatment (*Patient Friendly Billing*, n.d.). In a high deductible health plan, consumer view of cost is "Average Billed Charges", or the suggested retail cost for a procedure (Achieving Meaningful Healthcare Cost Transparency, 2007), which is what a high deductible health plan consumer is likely to pay (*Oregon PricePoint*, 2005).

Health Care Quality
Quality is considered the practice of "doing the right thing at the right time in the right way for the right person and having the best result possible." (Federal Trade Commission)

HEDIS® (Health Plan Employer Data and Information Set)
"HEDIS is NCQA's tool used by health plans to collect data about the quality of care and service they provide. HEDIS consists of a set of performance measures that tell how well health plans perform in key areas: quality of care, access to care and member satisfaction with the health plan and doctors. HEDIS requires health plans to collect data in a standardized way so that

comparisons are fair and valid. Health plans can arrange to have their HEDIS results verified by an independent auditor." ("Definitions: Insurance Terms", n.d.)

High Deductible Health Insurance
"Designed to create a ''gap'' between the dollars in the account and the level at which a deductible is reached" (Christianson & Parente, 2004)

See "consumer driven health care" (Shearer, 2004)

Health Insurance Provider
A company, either for profit or non-profit, that provides compensation (coverage) to groups of enrollees in the event of illness. In exchange for coverage, a regular fee is charged to enrollees based on their overall risk for needing covered services (*Health Insurance in Oregon*, 2007, p. 1)

Quality (of health care information)
"…[the presence] of good information on the success of different treatments—in terms of the best outcome per dollar…" (*Economic Report of the President*, 2002, p. 147)

Report Card
Report cards help consumers make better-informed choices among the products and services they consume. In the case of health insurance, report cards seek to translate complex data about plan benefits and treatments into a small number of dimensions that are understandable and useful to consumers (Schauffler & Mordavsky, 2001, p. 70)

Transparency
"Transparency is a broad-scale initiative enabling consumers to compare the quality and price of health care services, so they can make informed choices among doctors and hospitals." (US Department of Health & Human Services)

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