

# Chapter XI

## Healthcare Quality and Cost Transparency Using Web-Based Tools

**Jiao Ma**

*Saint Louis University, USA*

**Cynthia LeRouge**

*Saint Louis University, USA*

### **ABSTRACT**

*This chapter explores the use of Web sites to provide patients with understandable information about the quality and price of healthcare (healthcare transparency). Our first objective is to discuss patients' perceptions of empowerment and need for quality and cost information when choosing medical providers and facilities for healthcare procedures. To meet this objective, we address issues of patient awareness of sources of healthcare quality and cost information, perceived responsibility for managing healthcare costs, and knowledge of appropriate actions to exercise choice of providers. Our second objective is to investigate the potential of Web-based tools, which provide healthcare quality and cost information, to facilitate patients' decision-making processes regarding choice of provider for healthcare services, particularly common outpatient procedures. To meet this second objective, we use insights from user-centered design procedures (e.g., focus groups and in-depth interviews) associated with the development of a healthcare transparency Web-based tool.*

## INTRODUCTION

On May 10, 2006, Carolyn Clancy, M.D., Director of the Agency for Healthcare Research and Quality, testified before the Joint Economic Committee of the U.S. Congress outlining the commitment of the Department of Health and Human Services (HHS) to provide Americans with understandable information about the quality and price of healthcare. This vision has four objectives:

- Promote quality transparency;
- Promote price transparency;
- Facilitate the greater use of health information technology; and
- Transform healthcare so its incentives support a consumer-oriented healthcare system.

The synergy of these objectives is an informed and empowered healthcare consumer with a panoramic view of his/her healthcare situation.

The Internet has done much to facilitate this view by providing an ever-expanding bounty of information about health prevention and maintenance; however issues such as the general understandability and accuracy of this information still remain. Interactive tools and features that provide communication channels (e.g., peer support groups) and personalized information are increasingly common supplements to content pages. Monitoring devices have also been an area of great advancement and promise.

It is evident that patients have an appetite for prescriptive and preventative healthcare information and tools. However, does this need also exist for healthcare cost and quality transparency? The first objective of this chapter is to better understand patients' perceptions of empowerment and need for procedure quality and cost information when choosing medical providers and facilities. The second objective of the chapter is to address the potential of Web-based tools to facilitate and

enable the patients' decision-making processes. To meet these goals, questions of interest include:

- Do patients perceive quality and cost information as important to their choice of healthcare provider?
- Do patients feel empowered with quality and cost information to make decisions about where to have medical procedures (e.g., mammogram and bone density tests) or tests (e.g., spinal tap or allergy testing) performed?
- Would a Web-based tool that provides quality and/or cost information be compatible with the patients' decision-making processes?
- What factors should be considered in designing a useful and usable Web-based tool to provide quality and/or cost information for patients?

We review existing literature, assessment of existing healthcare transparency Web applications, and insights from user-centered design techniques from an on-going study involving developing such a tool to reveal issues, controversies, and problems associated with healthcare quality and cost Web-based tools, and discuss solutions. We adapt the constructs from a Theoretical Compatibility Model (Karahanna, Agarwal, & Angst, 2006) to use as thematic dimensions to organize our presentation of Web-based quality and cost tool compatibility, as well as provide insight within the landscape of existing information systems research.

## BACKGROUND

In America's democratic consumer culture, consumers can easily obtain information about price and quality for most purchases using existing resources (e.g., mass media such as TV, print publications, Web sites) to assist with purchase decisions. A noted exception is healthcare where cost and quality information is still limited

12 more pages are available in the full version of this document, which may be purchased using the "Add to Cart" button on the publisher's webpage: [www.igi-global.com/chapter/healthcare-quality-cost-transparency-using/28007](http://www.igi-global.com/chapter/healthcare-quality-cost-transparency-using/28007)

## Related Content

---

### Human Computer Interaction During Clinical Decision Support With Electronic Health Records Improvement

Katerina V. Bolgova, Sergey V. Kovalchuk, Marina A. Balakhontceva, Nadezhda E. Zvartauand Oleg G. Metsker (2020). *International Journal of E-Health and Medical Communications* (pp. 93-106).

[www.irma-international.org/article/human-computer-interaction-during-clinical-decision-support-with-electronic-health-records-improvement/240208](http://www.irma-international.org/article/human-computer-interaction-during-clinical-decision-support-with-electronic-health-records-improvement/240208)

### Vocal Folds Analysis for Detection and Classification of Voice Disorder: Detection and Classification of Vocal Fold Polyps

Vikas Mittaland R. K. Sharma (2021). *International Journal of E-Health and Medical Communications* (pp. 97-119).

[www.irma-international.org/article/vocal-folds-analysis-for-detection-and-classification-of-voice-disorder/277406](http://www.irma-international.org/article/vocal-folds-analysis-for-detection-and-classification-of-voice-disorder/277406)

### A Guideline to Use Activity Theory for Collaborative Healthcare Information Systems Design

Carolín Durst, Nilmini Wickramasingheand Jana Riechert (2017). *Handbook of Research on Healthcare Administration and Management* (pp. 616-626).

[www.irma-international.org/chapter/a-guideline-to-use-activity-theory-for-collaborative-healthcare-information-systems-design/163858](http://www.irma-international.org/chapter/a-guideline-to-use-activity-theory-for-collaborative-healthcare-information-systems-design/163858)

### Study of Vehicle Vibration for High-Performance Land Mobile Satellite Tracking System for Telemedicine

Toshihiko Kitano (2014). *International Journal of E-Health and Medical Communications* (pp. 27-48).

[www.irma-international.org/article/study-of-vehicle-vibration-for-high-performance-land-mobile-satellite-tracking-system-for-telemedicine/113967](http://www.irma-international.org/article/study-of-vehicle-vibration-for-high-performance-land-mobile-satellite-tracking-system-for-telemedicine/113967)

### Operationalizing the Science: Integrating Clinical Informatics into the Daily Operations of the Medical Center

Joseph L. Kannry (2008). *Human, Social, and Organizational Aspects of Health Information Systems* (pp. 219-239).

[www.irma-international.org/chapter/operationalizing-science-integrating-clinical-informatics/22462](http://www.irma-international.org/chapter/operationalizing-science-integrating-clinical-informatics/22462)