

## Chapter 5.13

# Demographic Differences in Telehealth Policy Outcomes

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### ABSTRACT

This chapter is an analysis of demographic variables influencing policy outcomes with online health information searches in the general U.S. public. This study is based on The Internet and American Life Daily Tracking Survey, August 2006 from the Pew Research Center for the People and the Press. Multivariate regression statistical technique is used to explore changes in individual level behavior following the search for online medical information. The data show individuals in most need of healthcare services (poor, less educated, and minority groups) and those with a recent demand for services, are more likely to make changes to improve their health after accessing online medical information.

### INTRODUCTION

The public sector in the U.S. is increasingly using the Internet to provide information, deliver services, and interact with citizens, businesses, and other

government agencies (West, 2003, 2004). There are numerous reasons for the government adoption of electronic government (e-government) practices that “refer to the delivery of information and services via the Internet or other digital means” (West, 2004, pp 2). E-government is expected to deliver services and information around the clock, making government more efficient and transparent to the public (Tolbert and Mossberger, 2006; West, 2003). The adoption of these practices may make government more responsive through its ability to provide communication options that are quicker and more convenient for users (Thomas and Streib, 2003).

Telehealth is an important example of e-government that takes on many forms. Although there is no consensus on its definition, the United States Congress defines telehealth as the use of electronic information and telecommunication technology to support long-distance clinical healthcare; patient and professional health-related education; public healthcare and administration (U.S. House of Representatives 2157, 2001). In practice, telehealth is understood as the inclusion of telemedicine plus other on-line social services.

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Regardless of how telehealth is defined, this new medium for delivering medical services has been adopted with the goal to improve the accessibility of public and private healthcare, service quality and clinical outcomes. It is often implemented as a way to provide cost-effective healthcare. However, if we examine all the different aspects of telehealth in the U.S.—technology-enabled delivery, regulation and enabling legislation (state policies), and healthcare information available online, we find a unifying theme of broadening healthcare access. Telehealth practices may act to expand healthcare services through improving the dissemination of health information by Internet to the public, facilitating Internet based second opinions on disease management, improving consultative services to rural facilities and has the potential to reduce medical errors (Schmeida, 2005).

Despite the hopes for telehealth (as well as other forms of e-government), there is also a literature suggesting that these service delivery advancements will not live up to expectation. One barrier to the Internet for expanding healthcare access is the Internet cleavages that exist among United States citizens---people who do and do not use the Internet. These differences in Internet usage are based on a number of socioeconomic factors including age, income, education and race. The variation in Internet practices attributed to these socioeconomic factors has been linked to underlying inequalities in Internet access and technological skills, along with psychological barriers (Mossberger, Tolbert and Stansbury, 2003; Stanley, 2003). This suggests that e-government will only act to widen the gap between those that do and do not benefit from telehealth services.

Supporting this literature on Internet inequalities is research examining the differences in online health information searches among the various socioeconomic groups in the U.S. (Schmeida and McNeal, 2007). In exploring differences among socioeconomic groups in searching for Medicare and Medicaid information online, Schmeida and

McNeal (2007; 2006) find some disparities are narrowing as the elderly and poor in need of these publicly subsidized health insurance programs are online searching for information at the U.S. Centers for Medicare & Medicaid Services Web site. Services and information obtainable at this Web site include eligibility criteria, enrollment procedures, Medicare plan options, local physicians and medical suppliers, pharmacy directory and healthcare chat rooms. In addition, beneficiaries can obtain personal information on their benefits and services. However, people without Internet access and experience, remain disadvantaged in accessing this critical information that can link them to needed healthcare services, suggesting that e-government service delivery advancements may not be living up to expectation.

This current research on Internet healthcare information and government services only represents an initial step in exploring the impact of online health searches and does not discuss the policy implication of these findings. To minimally understand the healthcare consequences of disparities in Internet usage in the U.S., one needs to examine if telehealth is changing how citizens take care of themselves and others. This chapter discusses these behavioral outcomes and the policy implications. In exploring this issue, this chapter will first examine the literature on barriers to the promises of e-government with a focus on the digital divide. Next, it will outline government policy toward eliminating barriers to Internet use. Finally, multivariate regression analysis will be used to empirically test the impact of one example of telehealth (seeking medical information online) and behavior directed toward improving and maintaining health.

## **THE REALITIES OF INTERNET USAGE IN THE UNITED STATES**

Despite the promises of e-government, there is a literature suggesting there are barriers to realizing



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