

Chapter XII

Perceptions of E-Health in Rural Communities

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ABSTRACT

This chapter is drawn from a comprehensive study that examined the effect Human-Computer Interaction usability factors had on rural residents' perception of trust in e-health services. Written comments provided by participants were examined to develop a qualitative assessment of dimensions that are important to rural residents' perceptions of e-health. Identification of these dimensions will aid e-health system designers and administrators in creating better e-health applications.

INTRODUCTION

Recently, Dr. Patricia Grady, Director National Institute of Nursing Research, reported to Congress that “the healthcare of rural populations is a concern because of poverty, lack of services, and/or health vulnerability of the population” (Grady, 2005). Rural residents typically have limited access to healthcare services, such as specialty physicians, conventional healthcare sites, community-based clinics, and homes (Grady, 2005). The Internet can provide access to a variety of e-health services, such as computer-based healthcare communication intervention programs that provide customized information and social

support for rural families. General-purpose e-health applications may also help improve the healthcare delivery to rural areas. These applications include purely clinical applications (e.g., physicians consulting on a diagnosis), emergency health communication applications (e.g., distributing information about Severe Acute Respiratory Syndrome), disease-focused applications (e.g., diabetes self-management support), Internet communication between patients and physicians, and commercial applications that have no association with a patient's own healthcare provider (e.g., WebMD) (Wilson, 2008).

This chapter is drawn from responses to a comprehensive study that analyzed the effect

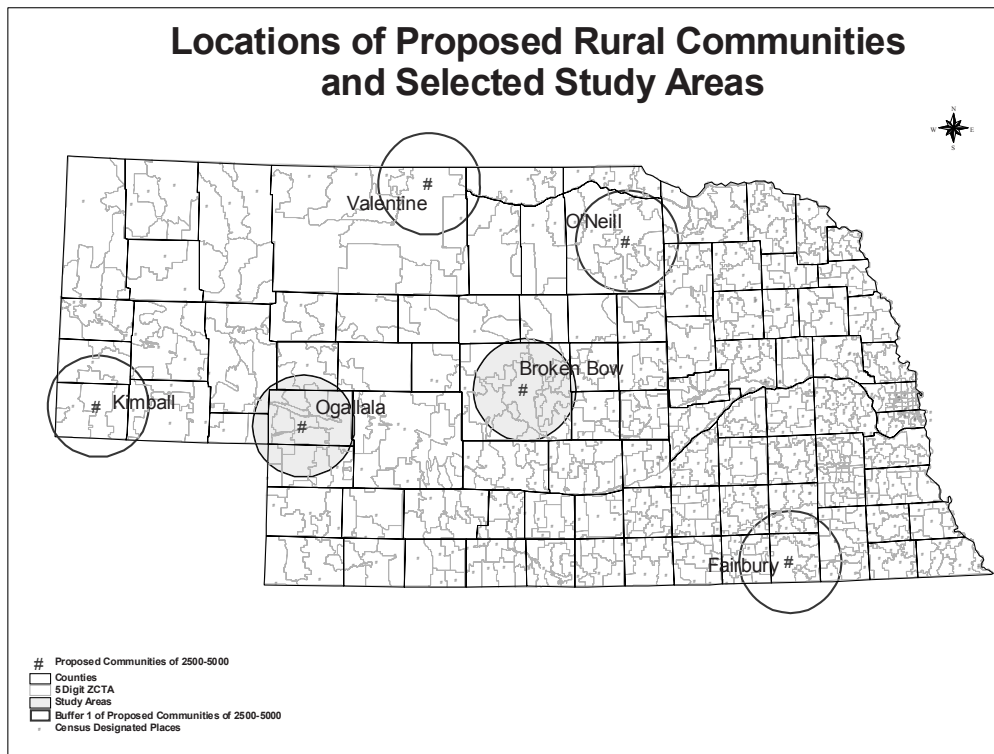
that human-computer interaction (HCI) usability factors have on rural residents' perception of trust when using e-health services. Primary results are reported by Fruhling and Lee (2006). The study also solicited comments from the participants regarding their perceptions of a sample e-health Web site and the likelihood of using such services. Further, the study included a feedback mechanism to gather data from rural residents who did not wish to participate in the overall study. Demographic responses and feedback provide the basis to describe the relevant characteristics of rural residents. Participants' written comments are analyzed to identify qualitative dimensions that are important to rural residents in determining whether to accept and use e-health services.

RELEVANT CHARACTERISTICS OF RURAL RESIDENTS

Participants for this study were selected based on the location where they live. According to experts at the Nebraska Rural Health Research Center, Nebraska communities that have a population between 2,500 and 5,000 are referred to as "rural." A list was developed of six Nebraska communities that meet these criteria and are located at least 25 miles from a similar or larger-size community (see Figure 1). The two communities selected for the study, Broken Bow and Ogallala, are located further than 25 miles from a Critical Access Hospital in addition to the above criteria.

Letters inviting participation in this study were mailed to people living outside the town boundaries of Ogallala and Broken Bow. There were 3,992 rural resident mailing addresses eli-

Figure 1. State of Nebraska showing candidate study communities



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