Leveraging IT to Deliver Tele-mental Health Services to Rural Communities

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Introduction

Rural states, like Nebraska, face many unique challenges with delivering behavioral health services. This is primarily due to a lack of service providers available in rural communities. According to the Nebraska’s Behavioral Health Workforce report in 2011, 88 of Nebraska’s 93 counties were federally designated mental health professional shortage areas.

This research aims to identify some of the technological opportunities that can improve behavioral mental health delivery services using telecommunications. We present a case study of a pilot that was conducted between two mental health delivery sites, an urban metropolitan area medical center (UNMC/BHECN, Omaha) and a rural community clinic (R-Way, Wayne) with a population of less than 5,000. Over the course of the study, Dr. Carl Greiner conducted several counseling sessions with patients in a managed care facility in Wayne, NE. Our preliminary results suggest that the technology is now mature and robust enough to deliver quality and acceptable behavioral mental health services over the internet. Furthermore, the technology is also HIPAA compliant.

Evaluation

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<tr>
<th>Platform</th>
<th>Adobe Connect</th>
<th>Skype</th>
<th>Vidyo</th>
<th>Nefsis</th>
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Security

| Security | ✓ HIPAA compliant Fips 140-2 encryption | ✓ HIPAA compliant Fips 140-2 encryption | ✓ HIPAA compliant Fips 140-2 encryption | ✓ HIPAA compliant Fips 140-2 encryption |

Tele-health System: Linking Wayne and Omaha

Potential barriers

- Cost Issue: Infrastructure, Training and support
- Resistance to change: User Acceptance, Restructuring of workflow
- Technological illiteracy: Application functionality, Troubleshooting
- Legal, regulatory: State to State license, Insurance reimbursement
- Technical factors: Internet connectivity, Bandwidth, HIPAA compliancy, Privacy, Security

Dr. Carl Greiner using the Tele-health System

Local site: BHECN
Remote site: R-Way, a community based mental health clinic

Videoconferencing back-end servers hosted in UNMC, Omaha

Front end components (Top to bottom): Chat 50 echo reduction, Vidyo Desktop and Logitech C9000 camera.

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