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.

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

Local site: BHECN
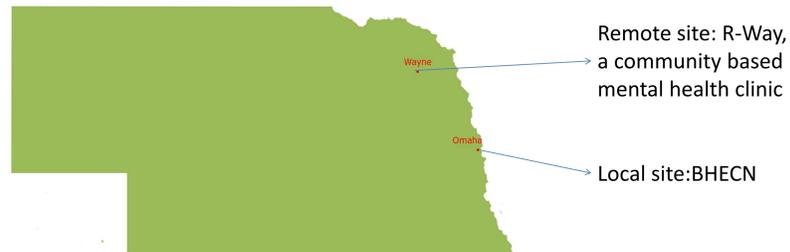
Tele-health System: Linking Wayne and Omaha
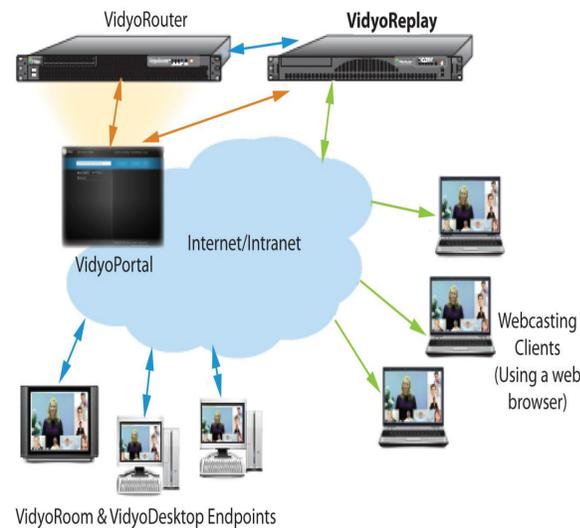
Videoconferencing back-end servers hosted in UNMC, Omaha

Dr. Carl Greiner using the Tele-health System

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

Evaluation

	Adobe Connect	Skype	Vidyo	Nefsis
Platform	✔ Windows	✔ Windows	✔ Windows	✔ Windows
	✔ Linux	✔ Linux	✔ Linux	✔ Linux
	✘ Mobile App	✔ Mobile App	✔ Mobile App	✘ Mobile App
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

Potential barriers

Cost Issue
- Infrastructure
- Training and support

Resistance to change
- User Acceptance
- Restructuring of work flow

Technological illiteracy
- Application functionality
- Troubleshooting

Legal, regulatory
- State to State license
- Insurance reimbursement
- HIPAA compliancy
- Privacy
- Security

Technical factors
- Internet connectivity
- Bandwidth

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