National Frontier and Rural ATTC

National Frontier & Rural ATTC Addiction Technology Transfer Center Network

Introduction to Telehealth Technologies

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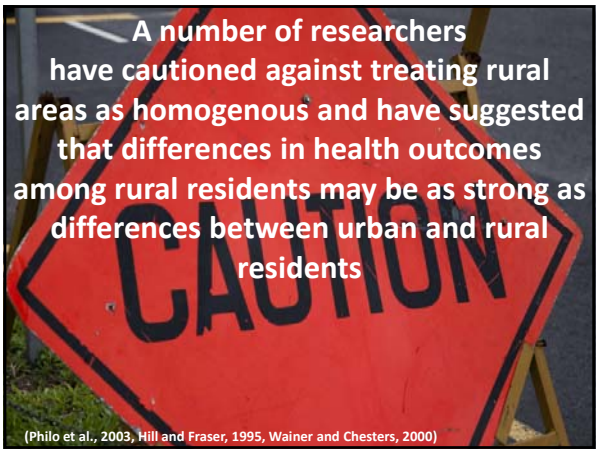
Specifically, there are few substance abuse treatment programs in rural areas

(Simons, Oliver, Gaher, Ebel, & Brummels, 2005)

where there is substantial need

(Rawson et al., 2002).....

suggesting that rural probationers may have to travel long distances to receive services



Johnson, 2006

Constrained economic opportunities have contributed to an aging of rural America, with significant out-migration of younger persons

This may result in younger adults remaining in rural areas who are less educated and less likely to be working or earning a living wage than their peers who moved away….

"stay-at-home" group at higher risk for substance abuse

(Conger, 1997)

Over the last decade, several major studies and reports have found that rather than being a safe haven, rural areas experience significant rates of substance abuse…..

(Van Gundy, 2006; CASA, 2000; NHDUS, 2005)

In a study of adolescents in mid-sized and rural communities, Elliot and Larson found that barriers to receiving care included

- lack of health care information
- lack of health care access
- poor insurance coverage
- parenting issues
- confidentiality concerns

(Elliott & Larson, *2004)*

Use of Technology by the General Public

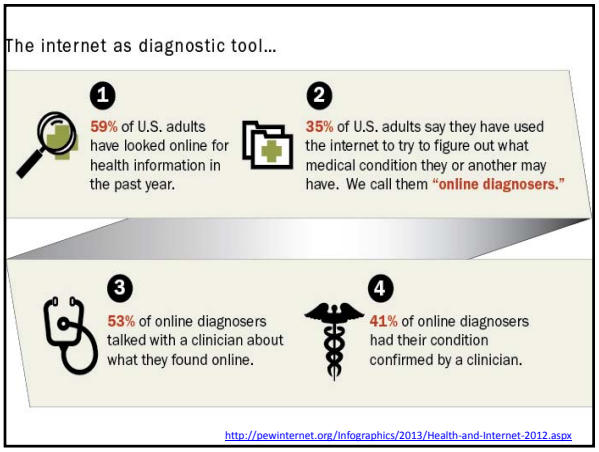
Technology has invaded our lives

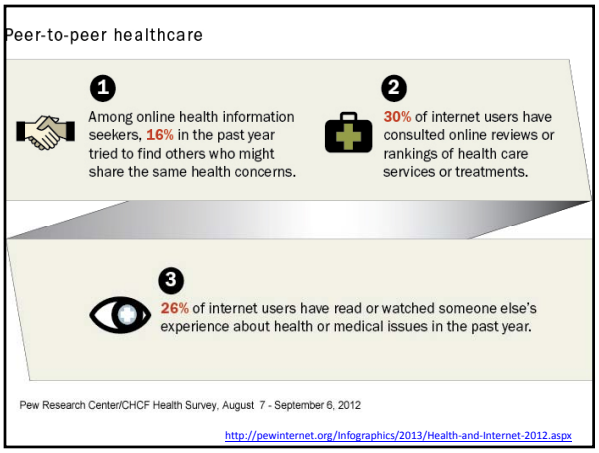
85% of American adults have cell phones

53% have smart phones

(Pew Report, 2012)

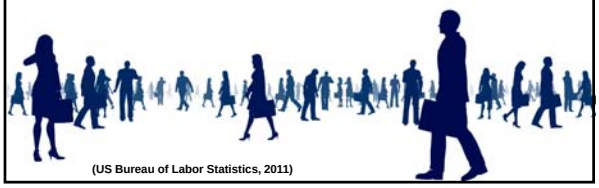
80% of Americans
use the Internet
(Pew Report, 2012)


The internet as diagnostic tool…
1
59% of U.S. adults have looked online for health information in the past year.
2
35% of U.S. adults say they have used the internet to try to figure out what medical condition they or another may have. We call them "online diagnosers."
3
53% of online diagnosers talked with a clinician about what they found online.
4
41% of online diagnosers had their condition confirmed by a clinician.
http://pewinternet.org/Infographics/2013/Health-and-Internet-2012.aspx

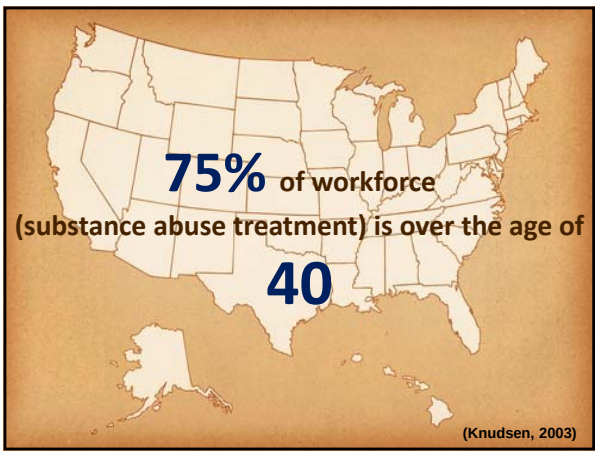

Peer-to-peer healthcare
1
Among online health information seekers, 16% in the past year tried to find others who might share the same health concerns.
2
30% of internet users have consulted online reviews or rankings of health care services or treatments.
3
26% of internet users have read or watched someone else's experience about health or medical issues in the past year.
Pew Research Center/CHCF Health Survey, August 7 - September 6, 2012
http://pewinternet.org/Infographics/2013/Health-and-Internet-2012.aspx

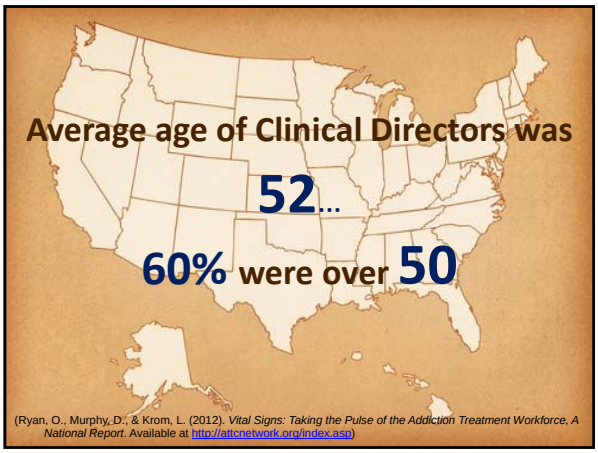
Behavioral Health Workforce

- Clinical/Counseling Psychologists - **152,000**
- Mental health/substance abuse Social Workers - **138,700**
- Mental Health Counselors - **113,300**
- Substance Abuse Counselors - **86,100**
- Psychiatrists - **34,400**
- Marriage and Family Therapists - **27,300**

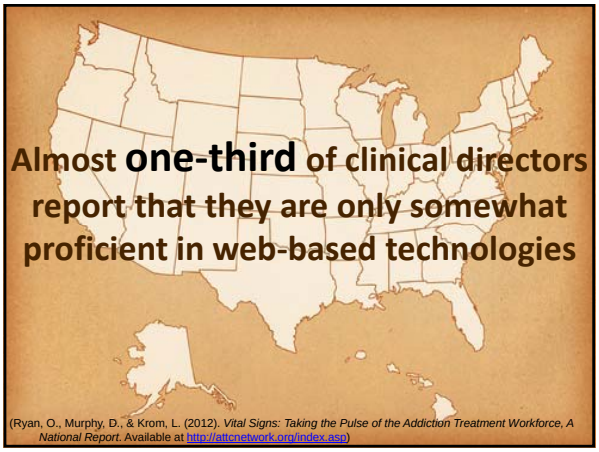


(US Bureau of Labor Statistics, 2011)





(Ryan, O., Murphy, D., & Krom, L. (2012). *Vital Signs: Taking the Pulse of the Addiction Treatment Workforce, A National Report*. Available at http://attcnetwork.org/index.asp)



(Ryan, O., Murphy, D., & Krom, L. (2012). *Vital Signs: Taking the Pulse of the Addiction Treatment Workforce, A National Report*. Available at http://attcnetwork.org/index.asp)

Digital Immigrants

(Zur, 2012; Prensky, 2001)

As Digital Immigrants learn – like all immigrants, some better than others – to adapt to their environment, they always retain, to some degree, their "accent," that is, their foot in the past.

What is Your Digital Accent

(Prensky, 2001)

(Zur, 2012; Prensky, 2001)

Digital Natives

"native speakers" of the digital language of computers, cell phones, video games and the Internet

(TEDs Data; SAMHSA, 2011)

Almost **70%** of individuals who received SUD services were under the age of **40**

'One of the biggest problem facing education today is that our Digital Immigrant Instructors, speak an outdated language (that of the pre-digital age) and are struggling to teach a population that speaks an entirely new language.'

(Prensky, 2001)

1942 by
Carl Rogers

And then….. advances in fax machines, word processors, answering machines, video taping, and voice mail.

Summarily rejecting technology advances seems as equally inappropriate as an enthusiastic and uncritical embrace of all technology

Can a meaningful clinical relationship be developed if a client and counselor do not share the same physical space?

(Chester & Glass, 2006)

"People meet and fall in love on the Internet…. SO why would a therapeutic relationship not also be possible?"

(Alleman, 2002, p. 201)

TELEHEALTH is not new

1879

(Aronson, 1977; Backhaus et al., 2012; IOM, 2012; Wittson et al., 1961; Wittson & Benschoter, 1972)

Annually, 10 million patients receive telemedicine services

(IOM, 2012)

Addiction Treatment Lags Behind

There are few published works on the use of telehealth to provide or enhance substance abuse services in rural areas.

(Balas & Boren, 2000; Benavides-Vaello et al., 2013; Ryan & Gross, 1943)

Telehealth

'the use of telecommunications and information technologies to provide access to health information and services across a geographical distance'

Telemedicine

'use of medical information exchanged from one site to another via electronic communications to improve patient health status'

(Institute of Medicine (IOM), 2012)

Definitions

- Synchronous communications
  - Videoconferencing
  - Telephone
- Asynchronous Communications
  - Email
  - Web-based programs
- Some telehealth technologies include both type of communications

(IOM, 2012)

Literature Review

- Videoconferencing
- Computer-based Interventions
- Web
  - Screeners
  - Support Groups
  - Virtual Reality/Video Games
  - Disease Management Programs
- Web-Portals
  - Videoconferencing
  - Messaging (chat and email)
- Telephone
  - Continuing Care
  - Interactive Voice Response
- Mobile Phones
  - Texting

Videoconferencing

VA Services

- **146** hospitals provided **55,000** community-based outpatient clinic patients with **140,000** telemental health visits
- **6,700** patients received home-based telemental health services
- **25%** decrease in hospitalization for receiving telemental health services between 2006-2010
- **30%** reduction in admissions during the first 6 months of care in 2011

(Darkins et al., 2008; IOM, 2012)

Systematic Review of Videoconferencing Psychotherapy

- Patients and providers perceived a strong therapeutic alliance over videoconferencing
- Studies that compared videoconferencing to in-person psychotherapy reported similar satisfaction levels between the conditions
- high levels of satisfaction and acceptance with telemental health have been consistently demonstrated among patients across a variety of clinical populations and for a broad range of services

(Backhaus et al., 2012)

Videoconferencing Studies in Addiction Treatment

- Opioid Treatment-group counseling
  (King et al., 2009)
- Alcohol Treatment
  (Postel et al., 2005)
- Alcohol Treatment
  (Frueh et al., 2005)
- Teleconferencing Supervision (TCS)- MI
  (Smith et al., 2012)

(Backhaus et al., 2012)

Technology-Based Interventions

To date, more than 100 different computer-assisted therapy programs have been developed for a range of mental disorders and behavioral health problems

(Klein, et al., 2012; Moore, et al., 2011)

In general, technology-based behavioral health interventions have been shown to be well accepted, efficacious and cost effective, especially when compared to standard care

Aronson, Marsch, & Acosta, 2013

Technology-based Behavioral Health Interventions

- may consist of text, audio, video, animations, and/or other forms of multimedia
- use information from medical records, physiological data capture devices, or other sources
- may be interactively customized, or tailored, to an individual user's needs

Aronson, Marsch, & Acosta, 2013

Computers

Web-based Screeners

Web-Based Support Groups

Centerstone's v-recover.com

Virtual Reality

Video Games

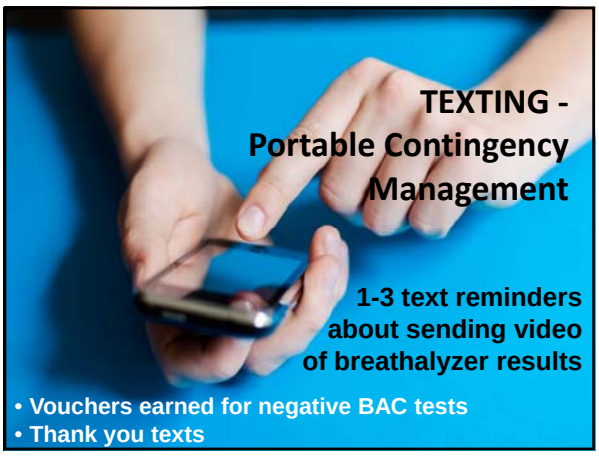
Mobile Phones

Interactive Voice Response

Interactive Voice Response

- Automated, computer-based interventions have shown promise in treating substance use disorders
- Fully automated systems offer a number of potential advantages including:
  - low cost
  - consistent delivery
  - greater accessibility and availability of treatment
  - increased flexibility of scheduling and convenience

(Cranford, Tennen, & Zucker, 2010; Mundt, et.al., 2006)



TEXTING - Portable Contingency Management

1-3 text reminders about sending video of breathalyzer results

- **Vouchers earned for negative BAC tests**
- **Thank you texts**

Other Web-Based Technologies

Email

Messaging – Chat

Operation PAR
eServices
Providers
Clients
Guests
eNews
eTraining
Now You Can Get the Treatmeant You Need from the Privacy of Your Home!
eServices is an alternative to traditional therapy that gives you effective intervention and counseling services on your computer. Meeting with your therapist online, at your convenience, saves you time, energy and money. All you need is a phone or internet connection.
eServices uses evidenced based intervention and treatment practices; practices that are proven to be effective.
eServices can also be used for Assessments and Evaluations, Employee Assistance Programs (EAP), Student Assistance Programs (SAP), Outpatient Services, and much, much, more...
Scheduling Flexibility & No Traveling
Support 24/7
Phone or Web-cam Based
Affordable Fees
Private & Confidential
Many Insurances Accepted
Individual & Group Settings
Evidenced Based Practices Utilized

Complete online and phone counseling services
gateway connect
1-877-389-9966

Telephone

Use of the Telephone

Monitor/treat chronic mental & physical illness

- Smoking (Stead, et al., 2006)
- Depression (Simon, et al., 2000)
- Obsessive Compulsive Disorder (Taylor, et al., 2003)
- Hypertension (Bosworth, et al,. 2005)
- Diabetes (Kim & Oh, 2003)
- Rheumatology problems (Pal, 1998)

Telephone Continuing Care for SUDs

- Telephone Monitoring and Adaptive Counseling (TMAC) (McKay, 2004)
- Focused Continuing Care (FFC) (Betty Ford Clinic)
- Telephone Enhancement of Long Term Engagement (TELE) (Hubbard et al., 2007)
- Individual Therapeutic Brief Phone Contact (ITBPC) (Kaminer & Napolitano, 2004) ***ADOLESCENTS***
- Telephone Case Monitoring (TCM) (McKellar et al., 2012)
- Telephone Continuing Care (TCC) (Godley et al., 2010)

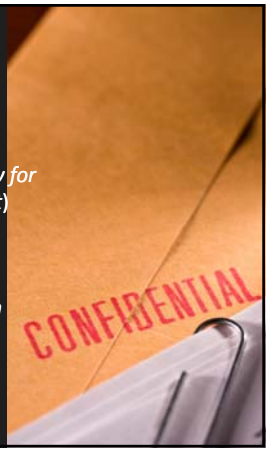
Privacy, Security, & Confidentiality Issues with Telehealth

HIPAA
(*Health Insurance Portability & Accountability Act*)

HITECH
(*Health Information Technology for Economic & Clinical Health Act*)

Privacy Rule
(*Standards for Privacy of Individually Identifiable Health Information*)

42 CFR Part 2
(*Substance abuse treatment*)



Protected Health Information (PHI)

Privacy, Security, & Confidentiality

Privacy & Security Rules are Different

- HIPAA Privacy Rules - **What** situations can individual health information be disclosed, no matter its format (oral, paper, or electronic)?
- HIPAA Security Rules - **How** are disclosures in electronic format made?

(Karasz et al., 2012; www.hhs.gov/ocr/privacy/hipaa/understanding/srsummary.html)

Privacy, Security, & Confidentiality

Final Rule specifically states because "paper-to-paper" faxes, person-to-person telephone calls, video teleconferencing, or messages left on voice-mail were not in electronic form before the transmission, those activities are not covered by this rule (p. 8342).

To ensure the patient's privacy during treatment sessions, clinicians should consider the use of private networks or encrypted videoconferencing software.

Internet could serve as a proverbial "foot in the door" for clients who are uneasy about seeking mental health treatment

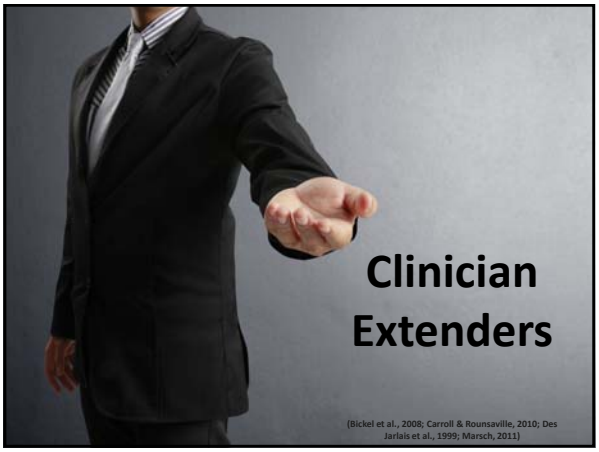
How to do this… using Telehealth Technologies

Videoconferencing

Prison Settings

- TES-Computer-based Intervention
  - TES used in 10 prisons in 4 states
  - Chaple, 2012; Blenko, 2012; & Chaple, et al. 2013
- MAPIT-Computer-based Intervention
  - Walters, et al., 2014

TBIs….
Could help providers implement EBPs



Technology-Based Interventions

- Serve as Adjuncts to standard treatment
- Save clinician time
- Extend clinician expertise
- Integrate other EBPs to provide additional services to clients with co-morbid conditions
- Provide access to computerized smoking cessations programs or other health-related conditions

(Carroll & Rounsaville, 2010)

Most VoIP technology systems provide a very reliable, high quality and competent teleconferencing session with their patients…….

However, to determine if the VoIP videoconferencing technologies are private, secure, and compliant with HIPAA, a risk analysis should be performed

Watzlaf, et al., 2010

Sykpe or Vsee or Other Vendors

- Questions Regarding 3 HIPAA Requirements
  - Audit Trails
  - Chat boxes information is stored on company's computers
  - Vsee can track which accounts connect but does not know the time or the content
- Visit this site for reviews of vendors
  - http://www.telemental healthcomparisons.com/
  - You will have to give them your email address if you want to review these comparisons

1st CHOICE

Use the HIPAA compliance checklist (prepared by Watzlaf & colleagues) and compare it to the VoIP technology software privacy and security policies provided by the software vendor and ask if they are willing to enter into a BAA (Business Associate Agreement)

HIPAA Compliance Checklist for VoIP
Checklist on NFAR website

2nd CHOICE

Purchase HIPAA compliant software specific to VoIP with vendors that will walk you through each piece of the HIPAA legislation to make certain the software is private and secure and be willing to enter into a BAA (Business Associate Agreement)

License Portability

Conducting Therapy Across State Lines

What each state licensing board allows/requires
Which State governs

(American Psychologist ,2009)

Ethical Considerations in Designing Telehealth Technologies

- How provider- or patient-centric is the technology?
- Does the shift to remote services promote the values traditionally at the heart of caregiving?
- To what extent should technology usage involve attempts to manipulate users into different behaviors?

(Kaplan & Litewka, 2008)

Ethical Considerations in Designing Telehealth Technologies

- How might the replacement of human contact by new technologies be improved?
- To what extent is the use of technology aimed toward creating market needs over the improvement of health or well-being?

(Kaplan & Litewka, 2008)

Ethics

"E-health is not only a technological improvement, but a re-engineering of healthcare processes requiring consideration of sociotechnical aspects of their design and development. It is meant to broaden the scope of healthcare delivery, place citizens at the center of services, and provide them increased interaction with health professionals who look after their health needs."

(Nykanen 2006, in Kaplan & Litewka, 2008)

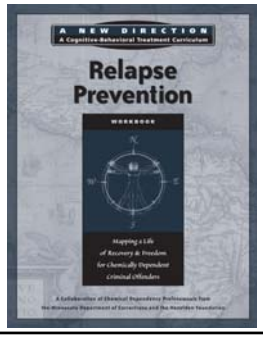
Whether its Group Counseling

Like This

or Like This

or Client Homework

Like This



Or Like This

Telehealth is in the Best Interest of the Clients

Expanding Access

Enhancing Treatment Services

Thank you

www.nfarattc.org