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Use of Distance Delivery Interventions (Web-based, mHealth, Telehealth) for Hard-to-Reach, Vulnerable Midlife and Older Individuals

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College of Allied Health Professions



Disclaimer

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Colleagues and Experts in Field



Panelists



- Lindy Clemson, PhD
- Sara Wilcox, PhD

Linkages

- Complimentary Health Promotion approaches
- Conceptual Frameworks
- Interprofessional
- Community



Goal Stretch our Thinking!





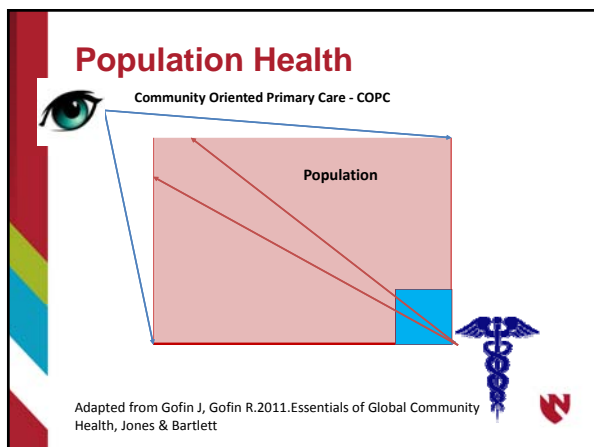
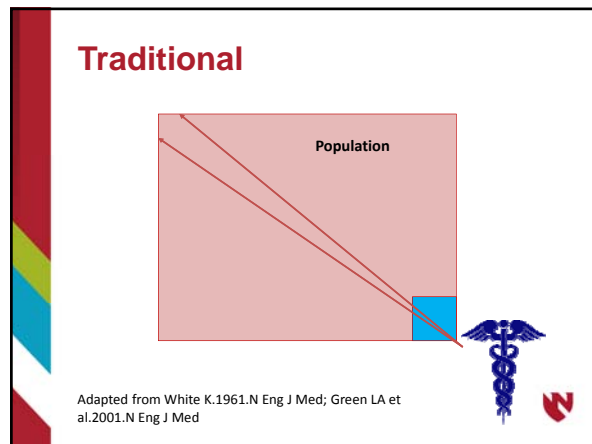
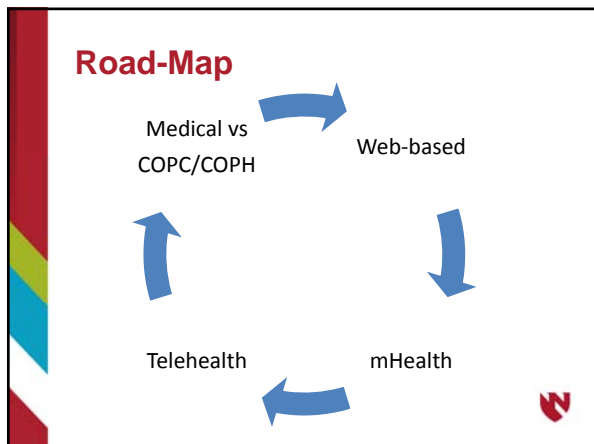
Objectives

Distance Delivery Interventions For Hard to Reach, Vulnerable Midlife and Older Individuals

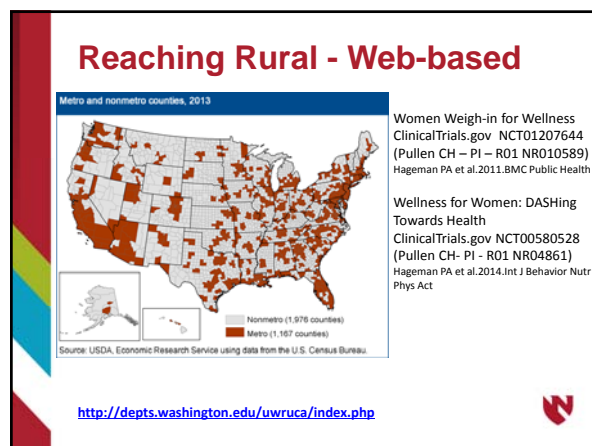
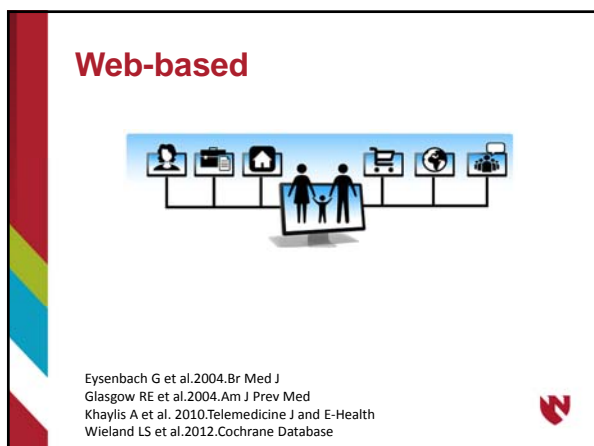
The learner will be able to:

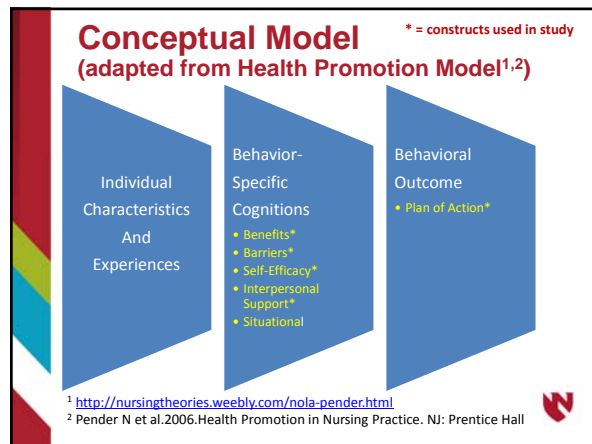
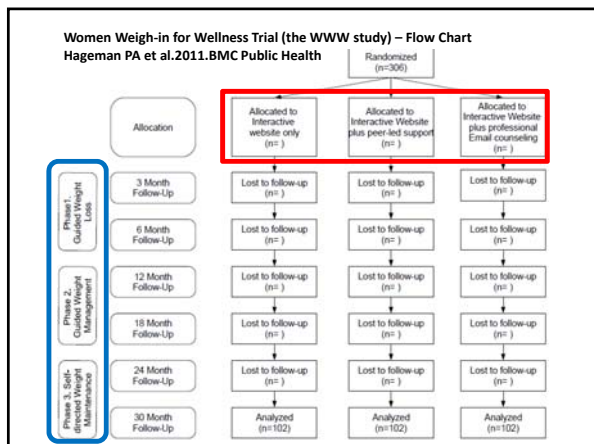
- 1) Identify benefits and limitations of various technologies for use with the identified population.
- 2) Discuss literature findings about feasibility, acceptability, effectiveness of distance delivery interventions for self-monitoring, safety and behavior change in the identified population.
- 3) Identify regulatory and other concerns when using telehealth and other distance delivery technologies for managing patient/client care.





- ### Technology Definitions
- (See Glossary with references)
- eHealth
 - web-based
 - mHealth
 - Telehealth
 - Synchronous/Asynchronous (store and forward/home monitoring)
 - Telemedicine
 - Telerehabilitation
- Note for researchers - eCONSORT
Eysenbach G & CONSORT EHEALTH GROUP.2011.J Med Internet Res





Phase 1 Web-based Intervention

University of Nebraska Medical Center

www.womenweighin.org

Phase 2 & 3 Web-based Examples

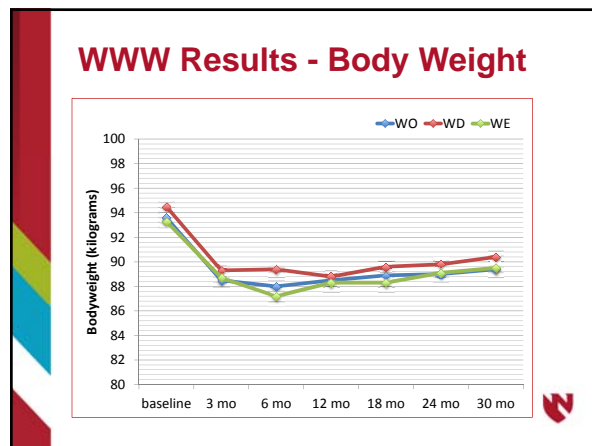
University of Nebraska Medical Center

www.womenweighin.org

Discussion Board Group - Example

University of Nebraska Medical Center

www.womenweighin.org





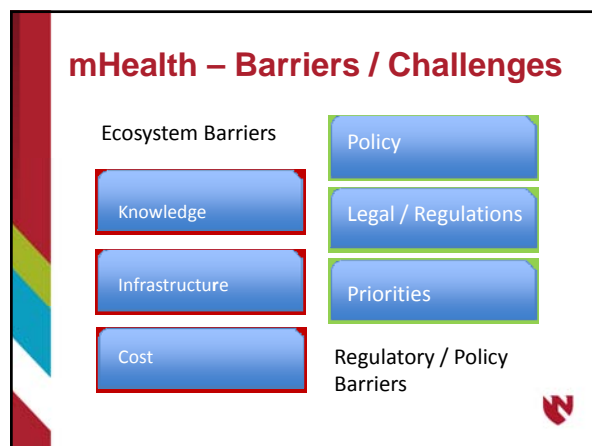
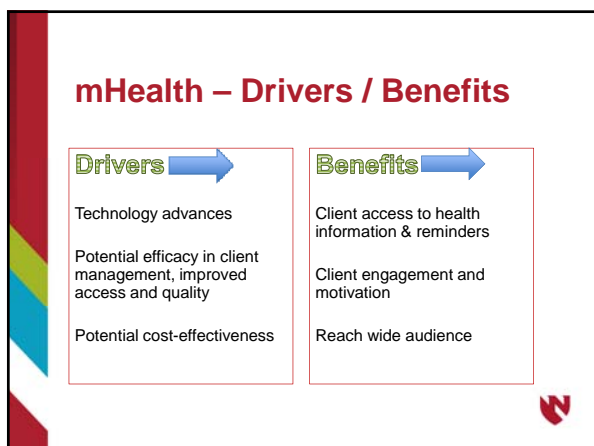
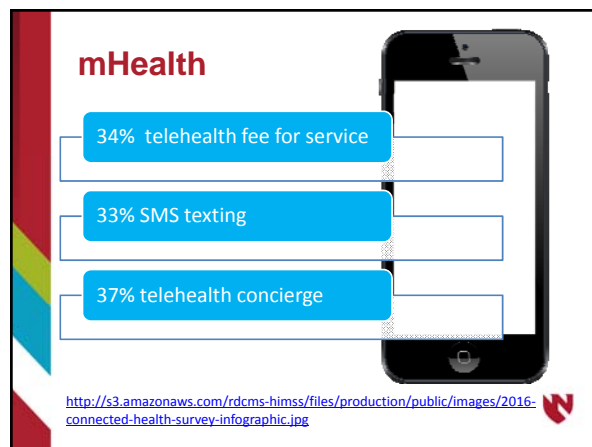
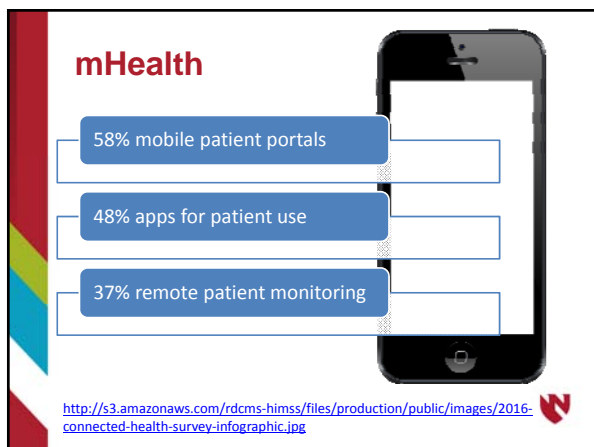
Discussion/Implications

Despite limitations, web-based interventions have potential for changing behavior.

Consider other implications – patient perspectives about health provider

Note APTA private practice section
<http://http://www.privatepracticesection.org/fit-factor/>

Neve M et al. 2010. Obes Reviews
 Perri MG et al. 2008. Arch Intern Med
 Wieland LS. 2012. Cochrane Database Systematic Reviews



mHealth

Research Learning

Apps tracking and managing conditions

SMS (text) Reminders
Talking provider
Refills

Consumer Use of Mobile Phones for Health

mHealth Rural Men Study

Men Needed

The Rural Men's Health Study...

Becker BJ et al. 2016. Cardiopulm Phys Ther Journal, pg 30

mHealth and Behavior Change

Monitors with apps

- May be less powerful than face-to-face
- May have greater public health impact
- Half of electronic activity monitor systems had
 - Goal setting
 - Social support & comparison
 - Prompts/cues
 - Reward & focus on past success
- Missing
 - Practice
 - Action plans & problem solving
- What is potential for rehabilitation?

Lyons EJ et al. 2014. JMedInternetResearch

Telehealth

(Goes beyond web & phone)

Telehealth (Regulations)

Telehealth operates across state lines
Knowing state and federal regulations is important

Laws and regulations are constantly changing – Vigilance helps compliance

Calouro C et al. 2014. Int J Telerehabilitation
Bremner D et al. 2010. Int J Telerehabilitation

Telehealth (Payment Issue)

- Medicare does not cover PT/OT/Speech
- Medicaid is leading use of telehealth as covered services
- Other plans – some pay and some do not

Wilson. 2016. J Telem Telecare
Thomas L, Capistrant G. 2015. American Telemedicine Association.
www.americantelemed.org

Telehealth Resources (www.apta.org)



<http://www.apta.org/Telehealth/>

- Legislation and Regulation
- Risk Management Considerations
- Billing and Coding Considerations
- Telehealth in Practice
- Telehealth Into PT Education
- Research Opportunities

Telehealth Resources (www.fsbpt.org)



<https://www.fsbpt.org/FreeResources/RegulatoryResources/TelehealthinPhysicalTherapy.aspx>

Lessons learned (Physician use)

- Rapid explosion of laws
- Guidelines – limited or not-consistent
- Reimbursement less than office visit
- Online patient interactions do not affect in person physician frequency
- Studies underway

Wilson F et al.2016.J Telemedicine Telecare
North F et al.2014.Telemedicine and e-Health
See reference list for additional sources

Lessons learned (Plans-Private)

- Rapid explosion in plans offering telemedicine
- 73% offer nurse coaching for lifestyle management
- Employers view telemedicine consultations as low cost alternative; current use is low
- Retail based clinics dramatically expand telemedicine care – though controversial

Medscape.2015.Survey results from National Business Group on Health
See reference list for additional sources

Lessons learned (Current research – rehabilitation)

- Feasible alternative to in-person encounters for meeting PT supervision requirements in SNF
- Effective in other populations (TKA, MS, Stroke)
- Validity and reliability of assessment
- No specific CPT codes
- As noted by Lee & Brown
 - All telehealth is not same
 - Practitioners should establish standard of care

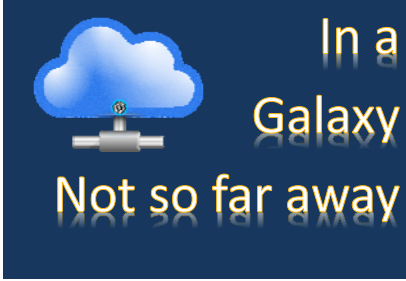
Lee AC, Brown, CA. 2015.APTA Learning Center Module
Lee AC, Harada NH.2012.Phys Ther
Mani S, et al. 2016.J Telemedicine and Telecare
See reference list for additional sources

Summary


- Rapid advances technology
- Literature
 - Infancy
 - Benefits / Barriers
- Tools
 - Behavior change
 - Interprofessional
 - Merits at individual / public health levels

HagemanPA.2016.http://digitalcommons.unmc.edu/cahp_pt_pres/1/

Where can we go? The future..



In a
Galaxy
Not so far away



Glossary

Highlighted in ExPAAC II Presentation July 27-30, 2016. Hageman PA: Use of distance delivery interventions (web-based, mHealth, telehealth) for hard-to-reach, vulnerable midlife and older individuals.

e-health E-health is an emerging field in the intersection of medical informatics, public health and business, referring to health services and information delivered or enhanced through the internet and related technologies. In broader sense the term characterizes not only a technical development but a state of mind, a way of thinking, an attitude, and a commitment for networked, global thinking, to improve health care locally, regionally and worldwide by using information and communication technology.

Ref: Eysenbach G. What is e-health? J Med Internet Res 2001;3(2):e20
<http://www.jmir.org/2001/2/e20/> doi:10.2196/jmir.3.2.e20

mHealth* 1) mHealth is "the delivery of healthcare services via mobile communication devices"

Ref: Foundation for the National Institutes of Health (FNIH)
www.caroltorgan.com/mhealth-summit/

2) "mHealth is the use of mobile and wireless devices to improve health outcomes, healthcare services and health research."

Ref: National Institutes of Health Consensus Group mHealth. [2013-03-25].
<http://www.hrsa.aquilentprojects.com/healthit/mhealth.html>

3) "Mobile Health (mHealth) is an area of electronic health (eHealth) and it is the provision of health services and information via mobile technologies such as mobile phones and Personal Digital Assistants (PDAs)."

Ref: World Health Organization (WHO)
<http://www.who.int/tb/areas-of-work/digital-health/definitions/en/>

4) "mHealth stands for mobile-based or mobile-enhanced solutions that deliver health. The ubiquity of mobile devices in the developed or developing world presents the opportunity to improve health outcomes through the delivery of innovative medical and health services with information and communication technologies to the farthest reaches of the globe."

Ref: The mHealth Alliance
<http://www.mhealthknowledge.org/resource-type/mhealth-alliance>

5) mHealth is "The use of mobile networks and devices in supporting e-care. Emphasizes leveraging health-focused applications on general-purpose tools such as smartphones and Short Message Service (SMS) messaging to drive active health participation by consumers and clinicians."

Ref: US Broadband Plan <http://download.broadband.gov/plan/national-broadband-plan-chapter-10-health-care.pdf>

Telehealth Telehealth is the use of electronic communications to provide and deliver a host of health-related information and health care services, including, but not limited to physical therapy-related information and services, over large and small distances. Telehealth encompasses a variety of health care and health promotion activities, including, but not limited to, education, advice, reminders, interventions, and monitoring of interventions.

Ref: APTA Board of Directors TELEHEALTH - DEFINITIONS AND GUIDELINES BOD G03-06-09-19 [Retitled: Telehealth; Amended BOD G03-03-07-12; Initial BOD 11-01-28-70] [Guideline]

Telemedicine Use of medical information exchanged from one site to another via electronic communications to improve a patient's clinical health status. Telemedicine includes a growing variety of applications and services using two-way video, email, smart phones, wireless tools and other forms of telecommunications technology.

Telerehabilitation refers to the delivery of rehabilitation services via information and communication technologies. Clinically, this term encompasses a range of rehabilitation and habilitation services that include assessment, monitoring, prevention, intervention, supervision, education, consultation, and counseling.

Synchronous: Interactive video connections that transmit information in both directions during the same time period.

Asynchronous: Term describing store and forward transmission of medical images and/or data because the data transfer takes place over a period of time, and typically in separate time frames. The transmission typically does not take place simultaneously. This is the opposite of synchronous.

Ref: American Telemedicine Association <http://www.americantelemed.org/about-telemedicine/what-is-telemedicine#.V2RViqJFOwh>

*Definitions of mHealth are listed randomly, not by any level of meaning or relevance

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International Journal of Telehealth <http://telerehab.pitt.edu/ojs/index.php/Telerehab/issue/view/250>