Using Mobile Technology to Maintain Health & Age in Place

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Aging

Triumphs

Challenges
The Promise of Technology...

• Wellness promotion and risk reduction
• Chronic disease support
• Caregiver support
• Safety
The Ideal Mobile Gero-Technology

- Based on important need
- Data support action!
- Balance autonomy vs. Safety
- Older adult form factor friendly
- Cost effective (out of pocket vs. Provided by insurance)
- If within healthcare system incorporates looped clinical feedback
What’s in A Mobile Device/ App?

- Mini-devices (in smart phone or device)
- Algorithms applied to input
- Feedback to Company
- Post-processing of data (storage for future algorithm development)
- Output providing feedback to user(s)
Older Adults and Technology: Who’s In Who’s Out

1. Younger, more highly educated, or more affluent seniors—substantial technology assets, and a positive view of online platforms. ~59%

2. Older and less affluent, often with significant challenges with health or disability—disconnected from digital tools and services, both physically and psychologically. ~41%
Aging and Technology: Non-Responsive for the Oldest Old

- Physical challenges to using technology
- Skeptical attitudes about the benefits of technology
- Difficulties learning to use new technologies

Pew Research Center's Internet Project July 18-September 30, 2013 tracking survey.

PEW RESEARCH CENTER
Devices Won’t Trump Your Vices

• Four healthy lifestyle factors—not smoking, maintaining a healthy weight (BMI<30), exercising regularly (>3.5 hours of physical activity/wk) and a healthy diet (high consumption of fruits and vegetables while limiting meat and refined carbs) are associated with up to 80% risk reduction of developing chronic diseases.

Earl S. Ford; Manuela M. Bergmann; Janine Kroger; Anja Schienkiewitz; Cornelia Weikert; Heiner Boeing. Healthy Living Is the Best Revenge: Findings From the European Prospective Investigation Into Cancer and Nutrition-Potsdam Study. Arch Intern Med., 2009; 169 (15): 1355-1362
Mobile Health Promotion Technologies

• Smoking Cessation
  • Smoke Free, Quit it Lite, Craving to Quit, Quit Pro

• Nutrition Support/ Weight Loss
  • IPIIT, NOOM Weight Loss, Weight Watchers

• Physical Activity
  • Fitbit, Jawbone UP, Garmin, MapMyFitness, Runkeeper, Strava, Runtastic, Misfit, Withings, Healthkit

• Stress Reduction, Meditation & Happiness
  • Thync, Self-Help for Anxiety Management (SAM), Relax and Rest, Worry Watch, Nature Sounds, Worry Box, Anxiety Free
CONGRATULATIONS Jane!

On behalf of Evolution Fitness Systems, we're delighted to let you know that already this week you have achieved the recommended guidelines for physical activity. Great effort!

NB: The World Health Organization's recommended guidelines are based on 150 minutes of moderate or 75 minutes of vigorous intensity activity. In MYZONE terms, this equates to 300 MEPs per week and 1300 MEPs per month.

Cheers,
Evolution Fitness Systems
Mobile Medication Management

- Use 40% of prescription drug and 35% OOC
- 65+ average of 14 Rx/year
- 85+ average of 18 Rx/yr
- 28% of hospitalizations due to medication issue
Chronic Diseases in Aging

Projected Prevalence of Alzheimer’s Disease, 2010—2050

- Alzheimer's disease affects an estimated 5.4 million in the U.S
- Nearly half of all people 85 and older will be stricken with the disease.

Caregiver Support

- Tremendous impact on family members, friends and caregivers.
- Family members are often at a loss to find appropriate care and services for their loved ones, and they typically have few, if any, resources to help them navigate their way through the complex health care system.
Home Monitoring
Virtual Waiting Room in Your Living Room

http://paidpost.nytimes.com/philips/living-health/tech-for-a-new-age.html?_r=1
Wearables Will Matter

- By 2019, 1/5 boomers will wear a wearable
- Reminder messages that use personal voice prompts
- Inactivity/activity monitoring
- Remote in-home monitoring systems
- Tracking and location devices
Falls

• Each year, 2.5 million older people are treated in emergency departments for fall injuries.
• Over 700,000 patients a year are hospitalized because of a head injury or hip fracture.
• Falls are the most common cause of traumatic brain injuries.
• Adjusted for inflation, the direct medical costs for fall injuries are $34 billion annually; Hospital costs account for $22 billion.
• The #1 concern on PCOA survey

Alert Systems/Fall Monitors
Mobility/Balance Interventions- Exer-Gaming to Improve Balance

- Impaired postural control with muscle weakness is a predictor of falls
- Postural control is the ability to maintain, achieve, or restore a state of balance during any posture or activity
- Aging has a detrimental effect on postural control due to sensory, motor and central processing systems, and neuromuscular control mechanisms
- Exergaming has high potential to change

3 Suggestions for Integrating Aging Technologies Into Your Life

1. **Stay Healthy:** Consider using a FitBit, MyZone, or other application to set physical activity goals, and to track your activity to better motivate your staying active and engaged.

2. **Stay out of the Hospital:** If you or a loved one have multiple chronic conditions, consider seeking a system that offers in-home telehealth support.

3. **Stay Safe:** If you or a loved one are at high fall risk, or wandering risk, consider an alert/ fall pendant with integrated alerts.
Thank You Supporters!
Questions???