

# Telemedicine and Telehome Health

Pamela Whitten, PhD  
Michigan State University

# Telemedicine/Telehealth/Ehealth

- “...the use of electronic information and telecommunications technologies to support long-distance clinical care, patient and professional health related education, public health and health administration.”

*(Office for the Advancement of Telehealth  
– OAT)*



# Telehealth Today

- Applications are all over the map...
- Can view from different perspectives
  - Specialty service
  - Delivery Model

# Traditionally Cited Barriers

- Legal/Regulatory
  - Privacy/Security/Confidentiality
  - Licensure/Credentialing
  - Reimbursement
- Telecommunication Challenges/Technological Standards
- Cultural



# Home Care

- Includes a wide range of health and social services
- Services are delivered to the recovering, disabled, chronically, or terminally ill patients' home
- Services include: nursing, speech therapy, hospice services, home health aides, etc.



# Remote monitoring

- Periodic or continuous
- Provides one or more objective physiologic data such as vital signs or subjective data such as disease management, symptom assessment from the patient to a distant location using a capturing device and telecommunications link



# Sample Project

## Telehome Health for CHF St. Vincent's, Indianapolis

- To improve quality of patient care
- Reduce the length of stay and/or rehospitalization for patients with heart failure
- To develop, implement, and evaluate telehome care services
- Develop a business case for future telehome care development

# AMD CareCompanion



# Results

- Demographics (n = 51)
  - Mean Age = 75.33 years
  - Race
    - 21.7% Black
    - 78.3% White
  - Gender
    - 65.2% Female
    - 34.8% Male

# Significant Outcomes

- Shortness of Breath
- Management of Oral Medications
- Ability to perform moderate activities
- Level of Energy
- Did your heart failure prevent you from living as you wanted during the past month by:
  - “...Causing swelling in ankles/legs?”
  - “...Making you sit or lie down to rest during the day?”
  - “...Making you short of breath?”
  - “...Making you tired, fatigued, or low on energy?”
  - “...Making you stay in a hospital?”
  - “...Giving you side effects from treatments?”
  - “...Making you worry?”

# Three Types of Change

- Physical Changes
  - Decreased swelling
  - Decreased shortness of breath
  - Less frequent hospitalization
  - Fewer side effects from treatment
- Behavioral Changes
  - Enhanced management of oral meds
  - Enhanced engagement in moderate activities
  - Improvement in lifestyle
- Emotional Changes
  - Increased energy
  - Less worry

# Future Potential

- **Cost Efficiencies** - With healthcare costs skyrocketing, telehome care may improve management of chronic diseases in cost effective ways
- **Improved Access** - Patients can have multiple services at their fingertips
- **Enhanced care delivery** - Has the potential to increase productivity and the quality of the coordination of care

Questions?