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Telehealth Activities in RCHE

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Applying the principles of
Engineering, Management & Science
to improving Healthcare delivery.

Telehealth Activities in RCHE

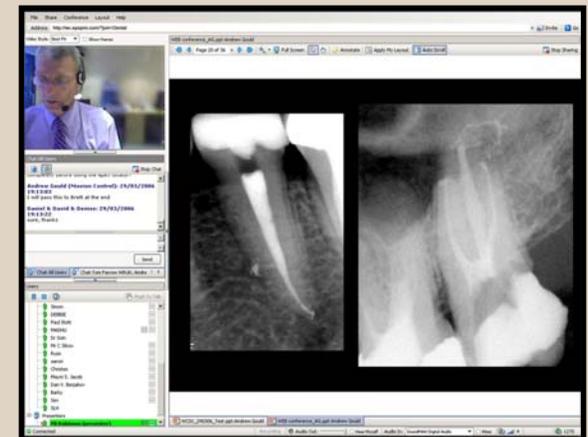
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- Telehealth refers to a variety of mediated healthcare delivery and supporting methodologies, including:
 - Synchronous provider/patient consultations through teleconferencing (telemedicine, teleoncology, telecardiology, etc.)
 - Store and forward diagnostic imaging (teleradiology)
 - Home-based patient monitoring (home telecare/tele homehealth)
 - Distance education for healthcare professionals
 - Etc.



- Indiana is a little behind, but that is changing.
 - Medicaid now reimburses for telemedicine consultations
- Broadband access to rural healthcare facilities continues to grow.
- Growing number of support resources have been developed
 - Telehealth Advisory Consortium
 - Midwest Alliance for Telehealth and Technology Resources
 - RCHE

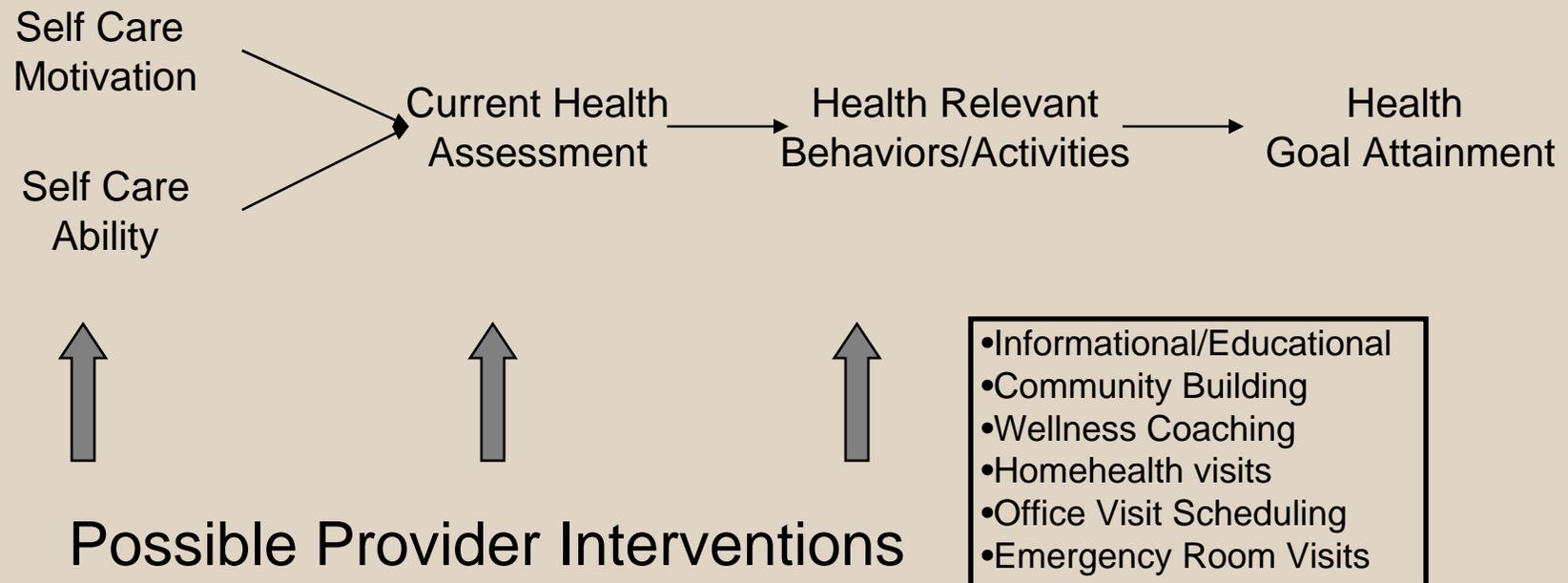
- Telehealth: the application of information and communication technologies to structure the nature of healthcare interventions
 - Healthcare intervention: Any interaction between healthcare providers and patients intended to address a relevant health outcome
- How can we refine how information/communication technologies are used to provide better matches between provider services and patient needs?
- Healthcare...Any Time, Any Place

The goal:

- To provide viable ranges of services that are:
 - Patient centered
 - Proactive/preventative
 - Economically sustainable
 - Effective across all stages of healthcare need

- **Chronic Disease**
 - Strong self care component
 - Existing home monitoring technology availability
 - A growing issue with an aging population
 - Ample opportunities for rethinking healthcare delivery options and self care interventions

A Self Care Model



- Factors affecting how people manage care:
 - Health Literacy
 - General
 - Condition Specific
 - Technology Use
 - Sophistication
 - Preferences
 - Resource Availability
 - Information access
 - Technology availability

The Example of Tele Homehealth

- Tele homehealth technologies:
 - Patients get care at home
 - Reduce health provider travel and related expenses
 - Daily monitoring of health status changes
- Disadvantages
 - Limited patient education
 - Limited patient/provider interaction
 - Constrained and proprietary functionality
 - Lack of integration with other HIT systems



- How can we model user characteristics to structure content and delivery needs?
 - Home Computers
 - Mobile Devices
 - Specialized Monitoring Devices
- What can patterns of this information use tell us about individual self care management?
 - Breadth of Self Care Knowledge
 - Depth of Self Care Knowledge
 - Self Care Engagement Level
- How does self care management interact with other provider data resources (EMR's, health monitoring systems, etc.) to predict health status and risk stratification?
- How can we tailor provider interventions to respond to patient needs at different risk stratifications?

- Telehealth technologies can impact health outcomes in ways that are more:
 - Nuanced
 - Self care supporting
 - Patient centered
 - Sustainable
- The main key is to glue what we already know together more effectively.

- Midwest Alliance for Telehealth and Technology Resources
- One of five regional telehealth resource centers funded by the Office for the Advancement of Telehealth (US Dept. of Health and Human Services)
 - 900K over 3 years.
 - Michigan (led by Marquette General Hospital in Upper Peninsula)
 - University of Kansas Medical Center
 - Purdue University
 - Michigan State University

- To develop resources facilitating the use of telehealth technologies to expand healthcare delivery options in the tri-state region.
 - Developing best practice guidelines
 - Providing technical assistance
 - Showcasing exemplary programs
 - Conducting research on telehealth
 - Soliciting additional funding to support telehealth activities
 - Providing other services as needs are identified
- Secondary goal of developing a mechanisms for sustaining mission beyond third year.