PROJECT TITLE: Telemedicine in Primary Care & in the Management of Chronic Conditions: Exploring Patient & Provider Perspectives

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RESEARCH THEME: Access to Care

BUDGET: $200,000	MULTI-UNIVERSITY PROJECT: YES	PROJECT YEAR: 2

DESCRIPTION:

Timely access to quality healthcare service is a real challenge—as outlined in the 2015 IOM report—and misalignment of resources and demands result in long delays for care. Telehealth can offer alternative and timely care to rural area patients who lack sufficient healthcare options. Telehealth can also help to improve health conditions and to promote active patient engagement, which is particularly important for chronic disease management. This project identifies drivers and barriers of patient engagement by population groups and chronic conditions and provides recommendations for implementing appropriate telehealth/telemedicine interventions through multiple care settings given governmental policies, reimbursement payments, and delivery of care.

HOW THIS IS DIFFERENT THAN RELATED RESEARCH:

The adoption of telemedicine and the level of patient engagement and services provided across healthcare facilities remain uneven and far from optimal. Little evidence, particularly in the form of understanding from the viewpoint and situation of providers, is available to guide stakeholder organizations as they consider introducing telemedicine into primary care practice. This study examines issues including point-of-access, administrative logistics, timely primary care, monitoring chronic disease and mental health, and providing equal and affordable care to the poor and rural areas. We also investigate and design a personalized remote patient monitoring system to connect patients and providers. By exploring successful application in multiple settings such as the rural and primary care setting, this study will define the terms telehealth and telemedicine.

EXPERIMENTAL PLAN:

1) Literature review of existing primary care literature to identify (a) various iterations of the telemedicine service provision in primary care contexts, (b) possible forces affecting adoption and innovation, and (c) indicators of technology readiness factors and pathways for primary care practices to implement telemedicine services in primary care.
2) Secondary data analysis of former CHOT landscape project to identify (a) various iterations of the telemedicine service provision in primary care contexts and (b) possible forces affecting adoption and innovation.
3) Create a low-level prototype showcasing the design of a personalized remote patient monitoring system. This system will integrate telehealth devices using a smartphone application to connect patients and providers.

EXPECTED MILESTONES:

1) Perform systematic literature review
2) Identify gaps in care through gap analysis
3) Data and system modeling including optimizing point-of-access
4) Develop and administer survey instrument to be completed by providers and carry out pilot study
5) Collect feedback from partner sites and conduct further analyses to characterize barriers to the use of telehealth services and assess their level of telemedicine readiness

BENEFITS TO INDUSTRY:

1) Understanding the adoption and diffusion of telemedicine in primary care can inform decision making regarding service design, implementation, operations, and provider engagement.
2) An assessment tool based on these forces can help assess individual primary care organizational readiness for telemedicine innovation to promote organizational success in delivering this mode of service.

EXPECTED DELIVERABLES:

1) Technology readiness model for telemedicine in primary care settings
2) Conference presentations
3) Piloted technology in Primary Care Assessment Survey
4) Optimized point-of-access for study sites
5) A low-cost personalized prototype remote patient monitoring device