

## Facilitators and Barriers to Adoption of a Successful Urban Telemedicine Model

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<b>Organization:</b>	University of Rochester
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**Summary:** Since its inception in 2001, the Health-e-Access telemedicine network (HeA) in Rochester, NY, has been used to manage acute childhood illness. Three telemedicine service models have evolved from HeA's ability to bring care directly to children, instead of children traveling to their care provider. The three models focus on child, school, and after-hours neighborhood care. These models give families in Rochester several options for care of children with acute illnesses. Dr. McConnochie and his research team hypothesized that families will embrace the use of telemedicine via these new service models once they recognize their advantages over traditional care models, such as the use of emergency department care.

The goal of this project is for HeA to replace inconvenient, inefficient, and expensive traditional models of care with convenient, high-quality, and less-expensive models. The project is deploying and solidifying sustainable business models for each of the three telemedicine service models in four inner-city zip code areas in Rochester. Additionally, the project is identifying facilitators and barriers of implementation, monitoring the impact on utilization patterns, and creating and disseminating an implementation and sustainability toolkit. The research team is using both qualitative and quantitative methods of research, including unstructured key informant interviews, semi-structured interviews, and statistical analysis of utilization patterns. Identification of facilitators and barriers to replication of an existing telemedicine model may promote widespread replication in other communities and for a broader range of patients.

### Specific Aims:

- Achieve substantial deployment and solidify sustainable business models for each of the three urban telemedicine service models. **(Ongoing)**
- Identify facilitators and barriers to dissemination of the three telemedicine service models. **(Ongoing)**
- Monitor impact of the HeA models on utilization patterns. **(Ongoing)**
- Create and disseminate an implementation and sustainability toolkit. **(Ongoing)**

**2011 Activities:** A number of methods were used to identify and assess barriers and facilitators of telemedicine implementation. Key informant interviews were conducted with parents, nurses who manage parent phone calls, telemedicine assistants who enable visits, providers, site staff, and leadership from various collaborating organizations. Focus groups were conducted with the parents of children who

were eligible for telemedicine visits.

The research team developed and implemented a phone-based community illness survey to assess how families respond to the medical needs of a sick child. The goal is to complete 300 surveys; 200 were completed by the end of 2011. Survey recipients were obtained from a Rochester City School District list of 1,800 randomly sampled children eligible for telemedicine visits. Nearly half of these were unable to be reached due to intermittent cellular phone access, use of prepaid phone cards, or change in phone numbers. A new list of eligible children was requested from the school district.

Another focus of 2011 was the engagement of stakeholders of telemedicine. Continuing from 2010, Dr. McConnochie met with parent groups, physician organizations, insurance companies, and policymakers to promote the benefits of telemedicine. He is also collaborating with the Finger Lakes Health Systems Agency (FLHSA) to promote reimbursement for telemedicine visits. FLHSA has identified telemedicine as a strategy to reduce non-emergency visits to the emergency department and has been instrumental in drawing local insurers into the discussion of broader reimbursement for telemedicine, especially telemedicine infrastructure.

As last self-reported in the AHRQ Research Reporting System, project progress and activities are mostly on track and project budget funds are somewhat underspent due to conserving funds for upcoming cost-intensive activities.

**Preliminary Impact and Findings:** The preliminary information gathered from key informant interviews with nurses indicated that they believe telemedicine is valuable and would use it for their own children. Additionally, the researchers found that the call center tracks the rate of dropped calls (the number of times a caller hangs up while on hold), and noted an increase in the number of dropped calls. The interviews revealed that the process of explaining telemedicine requires significant time because most parents are not familiar with the concept. This causes lengthy on-hold times and lead to the high dropped call rate. In response, the team developed a script to help nurses explain telemedicine to parents more efficiently.

The focus group participants were urban mothers without telemedicine experience, the main demographic targeted for the study. Telemedicine was described as a more convenient way to get medical care for children because it does not require going to the doctor's office or waiting for an appointment. Among parents with telemedicine experience, satisfaction has been very high, and convenience has been a dominant theme among perceived benefits. Yet among mothers without telemedicine experience, most had a somewhat negative response to the "convenience" benefit. Focus group participants perceived the convenience of telemedicine as "cutting corners," and explained that "good mothers" do not cut corners; rather, they bring their children to the doctor's office. As a result, HeA now markets telemedicine as quality care that can reduce time spent in waiting rooms to allow more quality family time. The participants also expressed that a demonstration of telemedicine would greatly facilitate their understanding of the technology and that recommendations by their own providers would be a key determinant of their interest in using telemedicine for their children.

For the grant efforts, there were approximately 2,000 telemedicine visits in 2011, of which 55 percent of visits resulted in a prescription. This may be an early indication that telemedicine visits are serving a need in the community.

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**Target Population:** Inner City\*, Pediatric\*

**Strategic Goal:** Develop and disseminate health IT evidence and evidence-based tools to improve health care decisionmaking through the use of integrated data and knowledge management.

**Business Goal:** Implementation and Use

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*\* This target population is one of AHRQ's priority populations.*