

# Integrated Telemedicine System Demonstrates Reduction in Children’s Emergency Department Visits



Children in school and child care settings often exhibit symptoms of acute illness, with staff unable to decide which students need to be sent home. It is common for these children to be removed from the setting, even though they may not be contagious or pose a significant risk to other children. These unnecessary removals

come at a great cost to both families and the health care system. Children lose learning time and parents must take time off from work, often until they get a doctors’ note confirming that the child is well enough to return to school or child care. For parents in low-wage occupations in particular, this may lead to loss of income or even a job. Low-income parents also are more likely than more well-off parents to bring their children to costly emergency departments (EDs) rather than a physician’s office for care (Halfon et al., 1996).

In 2001, pediatricians from the University of Rochester Medical Center developed and implemented a telemedicine initiative to help address this problem. The Health-e-Access program gives “child sites” (child care centers and schools) access to telemedicine equipment and trained telehealth assistants—either on-site or roaming—who can facilitate remote consultations with primary care physicians. Those consultations allow for timely diagnosis and treatment of children and reduce unnecessary removals of those who are not contagious or in need of immediate in-person medical care. The visits are typically with the childrens’ own physicians, which promotes continuity of care.

A 2004 AHRQ THQIT grant allowed the program to expand to additional sites and funded an evaluation of the program. Children enrolled in Health-e-Access received more medical care than a similar group of unenrolled children. Also, because they were less likely to use EDs (see Table 1), their access to care was much more convenient and was less disruptive to educational and parental workplace responsibilities; in addition, the cost of care to participating insurance companies was lower.

**TABLE 1: HEALTH-E-ACCESS CHILDREN’S ACCESS AND COST RELATIVE TO OTHER SIMILAR CHILDREN**

Outcome	Difference
Visits for Illness	
<i>Total*</i>	+22.9 percent
<i>Emergency Dept.</i>	-23.6 percent
Cost of all illness visits†	-3.0 percent

Health-e-Access has expanded to include 10 child care centers and 12 elementary schools. The program’s demonstrated cost reductions led all local payers other than fee-for-service Medicaid<sup>1</sup> to reimburse costs of telehealth visits. In the summer of 2010, in part as a result of a different AHRQ-sponsored grant,<sup>2</sup> Health-e-Access will expand into elder care by introducing access to locations such as assisted living environments and senior day care centers.

**Grant Title:** Valuation of Primary Care-Integrated Telehealth

**Principal Investigator:** Kenneth M. McConnochie, Rochester, New York

**Grant Number:** This project was supported by grant number R01 HS 015165 from 9/30/2004 to 9/29/2008.

**AHRQ Final Report:**

<http://healthit.ahrq.gov/R01HS015165McConnochiefinalreport2008>

<sup>1</sup> According to Federal statute, such reimbursement would require a waiver, which can only be granted if applied statewide.

<sup>2</sup> Principal Investigator, Dr. Manish Shah, R01 HS018047, Evaluating Telemedicine for Acute Illnesses in Assisted Living Residences

\* Includes office, ED, urgent care, telemedicine

† Estimate assumes telemedicine visits are reimbursed at usual office visit rates and ED visits avoided are reimbursed at rates typical in the Rochester community for telemedicine-appropriate problems.

