

Improving Quality Care for Children with Special Needs

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Organization:	University of Tennessee, Knoxville
Mechanism:	RFA: HS05-013: Limited Competition for AHRQ Transforming Health Care Quality Through Information Technology (THQIT)
Grant Number:	UC1 HS 016133
Project Period:	September 2005 – January 2010, Including No-Cost Extension
AHRQ Funding Amount:	\$1,096,491
Summary Status as of:	January 2010, Conclusion of Grant

Target Population: Children with Special Health Care Needs, Pediatric*

Summary: This project developed a secure, Web-based electronic health record (EHR) called the Tennessee Child Health Profile (TN-CHP) to provide comprehensive information on children with special health care needs (CSHCN). The goal of the TN-CHP is to expedite primary diagnosis by making it easier for primary care providers, parents, and legal guardians to access and manage CSHCN information. The TN-CHP links data on newborn screening (NBS) and newborn hearing screening (NHS) from the public health database of the Tennessee Department of Health with data on diagnosis, treatment, and followup from programs providing CSHCN services. Outcome measures included rates of CSHCN identification from NBS and NHS, tracking of diagnosis, and delivery of CSHCN services. The project also investigated the effect of birth weight on the lag time between date of birth and diagnosis.

Specific Aims:

- Make available to health care providers secure Web access to a comprehensive EHR of CSHCN to ensure current information and continuity of care. **(Achieved)**
- Improve the coordination and quality of care provided to CSHCN in ambulatory settings by the use of health information technology. **(Achieved)**
- Provide accurate, comprehensive health care information for developmental tracking of children. **(Achieved)**

2010 Activities: The project team conducted statistical analysis of outcome measures for followup of NBS and NHS and developed the final report.

Grantee's Most Recent Self-Reported Quarterly Status (as of January 2010): This project is complete with all major milestones achieved. The allocated funds were underspent in the first three years but were expended during the no-cost extension period of the project.

Impact and Findings: The major successes include: 1) the development of a comprehensive, Web-based EHR for CSHCN; 2) the participation of major stakeholders representing State departments, academic centers, and consumer agencies; and 3) data analysis of outcomes, including followup of NBS and NHS that was conducted and showed the lag times between birth and dates of screening tests and diagnosis and numbers of confirmed cases.

Specifically, the team found that there is a statistically significant difference in mean lag time of 1.65 days

from date of birth to first collect between the low birth-weight babies (<1,500 grams) and those weighing 2,500 grams or more, and a statistically significant difference in mean lag time of 1.35 days from date of birth to first collect between the low birth-weight babies and those weighing between 1,500 and 2,500 grams. They also found that low birth-weight babies experience a mean lag time from date of birth to first report that is nearly five days longer than babies with weights from 1,500-2,500 grams, and more than 9.0 days longer than babies with weights greater or equal to 2,500 grams. Finally, low birth-weight babies experience a mean lag time from first collect to first report that is nearly five days longer than babies with weights from 1,500-2,500 grams, and 7.3 days longer than babies with weights greater than or equal to 2,500 grams.

Strategic Goal: Develop and disseminate health IT evidence and evidence-based tools to support patient-centered care, the coordination of care across transitions in care settings, and the use of electronic exchange of health information to improve quality of care.

Business Goal: Knowledge Creation

* *AHRQ Priority Population*