Relationship Between NCQA Medical Home Recognition and Health Care Utilization Among Children in Medicaid with Disabilities or Special Health Care Needs

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Background

- **The medical home is widely promoted as a model for coordinating preventive and specialty care for children with disabilities and special health care needs (CSHCN)**
- **Since 2008, National Committee for Quality Assurance (NCQA) has recognized qualifying practices as patient-centered medical homes (PCMHs)**

Study Questions

1. **Is NCQA recognition associated with differences in health care use for Medicaid-enrolled CSHCN?**
2. **What do providers and parents think are the most important components of pediatric medical homes?**

Study Hypotheses

- **Compared with children not treated by NCQA-recognized providers, CSHCN treated by recognized providers will:**
  - **Receive more preventive services**
  - **Experience fewer emergency department (ED) visits and hospitalizations**
  - **Receive care that is better coordinated**

Study Design

- **Cross-sectional analyses to quantify association between recognition and service use**
- **Semi-structured discussions with NCQA-recognized providers, parents in those practices, and parent leaders/advocates**

Data (1)

- NCQA data on practices and providers with PCMH recognition
  - November 2008–October 2011
  - National Provider Identifier (NPI) data on individual providers
- Medicaid data from Louisiana, Texas, Colorado, New Hampshire

Data (2)

- 2009 Medicaid Analytic eXtract Provider Characteristics (MAXPC)
  - Contains NPI data that can be merged to MAX claims data
- 2010 (beta) MAX
  - Enrollment data
  - Claims data

Cross-Sectional Methods: 2010 MAX Data (1)

- Identify children with special needs
  - Medicaid eligibility data for disability status
  - Claims data suggesting high health care costs based on Chronic Illness and Disability Payment System (CDPS) grouper
- Develop claims-based outcome variables

Cross-Sectional Methods: 2010 Max Data (2)

- Attribute children to providers
- Flag CSHCN attributed to recognized providers and develop matched comparison group
- Fit weighted logistic models
  - Account for clustering of CSHCN among providers

Study Populations

	LA 2010	TX 2010
NCQA-recognized providers	118	70
Children attributed to NCQA-recognized providers (treatment group)	11,725	1,381

Population Characteristics

Characteristics	Louisiana	Texas
Age, mean	7.3	6.6
Female, %	45.2	41.2
Disabled, %	11.2	14.4
No. conditions, mean	0.8	0.8
Prescription medications, mean	1.1	1.1
Months enrolled, mean	11.5	10.5

Cross-Sectional Multivariable Results: LA

Predicted Probabilities from Logistic Models

Outcome Measure	Treatment	Comparison
Any well-child visit	68.3	71.3
Any ED use	48.6	43.9*
Any hospitalization	3.9	4.4
30-day follow-up post-ED	41.4	47.1*
30-day follow-up post-hospitalization	59.1	57.2

*Significantly different from treatment at $p<0.05$ level

Cross-Sectional Multivariable Results: TX

Predicted Probabilities from Logistic Models

Outcome Measure	Treatment	Comparison
Any well-child visit	81.1	83.2
Any ED use	40.6	34.4*
Any hospitalization	3.0	2.6
30-day follow-up post-ED	52.3	51.1
30-day follow-up post-hospitalization	68.7	65.6

*Significantly different from treatment at $p<0.05$ level

Summary: Empirical Analyses in LA and TX

- **CSHCN attributed to NCQA-recognized providers in LA and TX did not have service use patterns associated with higher quality of care**
  - **Preliminary results**
  - **Some TX results changed in sensitivity analyses**

Discussions with Treatment Group Parents (1)

- Parents unfamiliar with the term "medical home" but value components of it:
  - Continuity of care
  - Access
  - Coordination

Discussions with Treatment Group Parents (2)

- Parents prioritized provider attributes
  - Know child's needs and care about family
  - Listen and include parents in decisions
  - Don't make patients feel rushed

Discussions with Parent Leaders

- **Parent leaders strongly support PCMH models, especially for CSHCN**
- **Parent leaders want expanded role for parents in practices' transformation into PCMHs**

Discussion

- **In LA and TX, no evidence that NCQA-recognized practices provide higher quality care**
- **Qualitative results suggest importance of PCMH practices incorporating parents' preferences and values to increase effectiveness of medical home**

Key Study Limitations (1)

- Results from only 2 states
  - LA and TX may be special cases
- Small sample size in TX
- Limited number of outcome measures
  - NCQA-recognized practices may score higher on other measures
  - Claims-based measures only

Key Study Limitations (2)

- Time between NCQA recognition and study implementation may be too short to observe impacts on these outcomes
- Unobserved differences between treatment and comparison children may explain some of the results,
  - No reliable data on race/ethnicity
- Limited number of parent discussions

Next Steps

- **Conduct additional analyses**
  - **Include race/ethnicity as control variable**
  - **Adjust for prior utilization**
- **Complete analyses in Colorado and New Hampshire**
- **Fit four-state pooled models**

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