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Abstract

Medical homes deliver primary care that is accessible, continuous, comprehensive, family centered, coordinated, compassionate and culturally effective. Children with special health care needs (CSHCN) require a wide range of support to maintain health, making medical home access particularly important. We sought to understand independent risk factors for lacking access. We analyzed Ohio, USA data from the National Survey of Children with Special Health Care Needs (2005–2006). Among CSHCN, 55.6% had medical home access. The proportion achieving each medical home component was highest for having a personal doctor/nurse and lowest for receiving coordinated care, family-centered care and referrals. Specific subsets of CSHCN were significantly and independently more likely to lack medical home access: Hispanic (AOR=3.08), moderate/high severity of difficulty (AOR=2.84), and any public insurance (AOR=1.60). Efforts to advance medical home access must give special attention to these CSHCN populations and improvements must be made to referral access, family-centered care, and care coordination.

Keywords

Children with special health care needs, medical home, insurance, healthcare access, Hispanic, Medicaid

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Introduction

Children with special health care needs (CSHCN) “have or are at increased risk for a chronic physical, developmental, behavioral, or emotional condition and . . . require health and related services of a type or amount beyond that required by children generally” (US Department of Health and Human Services (HHS), 2008). CSHCN include children with a wide range of diagnoses and represent functional abilities that range from no functional difficulty to difficulties from the condition that have significant impact. CSHCN, however, all share some consequences of their conditions, such as reliance on medication or therapies, special educational services, or assistive device or medical equipment (Strickland et al., 2009). CSHCN also share a need for access to medical and support services to maintain physical, mental, and emotional health.

The expanded need for support among CSHCN makes access to a medical home particularly important. Access to a medical home is associated with less delayed or forgone care and fewer unmet healthcare and family support service needs (American Academy of Pediatrics (AAP), 2002). A medical home is a mode of delivering primary care that is accessible, continuous, comprehensive, family-centered, coordinated, compassionate, and culturally effective (AAP, 2007). The AAP (2002) believes that medical care of infants, children, and adolescents ideally should meet this definition to support child health and development. Benefits include increased patient and family satisfaction, establishment of a forum for problem solving, improved coordination of care, enhanced efficiency for children and families, increased professional satisfaction and increased wellness resulting from comprehensive care. Access to medical home by CSHCN is a US health priority. The HHS’ *Healthy People 2010* and 2020 objectives state, “All CSHCN will receive regular ongoing comprehensive care within a medical home” (HHS, 2000, 2011). The Maternal and Child Health Bureau includes access to medical home by CSHCN as one of six national critical indicators (HHS, 2008) and a Title V Block Grant national performance measure for states is the “percent of CSHCN who receive coordinated, ongoing, comprehensive care within a medical home”.

Within Ohio, 16.2% of children had special health care needs (Goudie et al., 2009), significantly higher than the national average of 13.9% and the 13th highest among the 50 states, and access to medical home for them has also been a state priority. In 2004 and 2006, the Ohio Department of Health (ODH) published a promise stating:

“In the year 2010 every child with a special health care need, regardless of payer source, will have a medical home with a committed primary care physician educated in the medical home concept. Payers of health services will be knowledgeable of the medical home concept.” (ODH, 2006).

Ohio has been a leader in the US in efforts to assure medical home access for CSHCN. Since 1995, the ODH has worked to improve access for CSHCN and in 2002 instituted a Medical Home Initiative Program. Focus groups with CSHCN families were conducted to understand needs, experiences, and how a medical home could assist (ODH, 2003). In 2003–4, Ohio was competitively selected to participate in the first National Initiative for Children’s Healthcare Quality’s Medical Home Learning Collaborative to improve the quality of care for CSHCN by implementing the medical home model in primary care practices and to build capacity to sustain and spread the model in primary care practices (HHS, 2005). As an outgrowth of the collaborative, a large pediatric practice serving a six-county rural area received a 3-year medical home implementation grant to improve care for CSHCN (HHS: Health Resources and Services Administration, 2007).

Perhaps reflective of these efforts, Ohio's CSHCN have the highest rate of access to medical home among states (Singh et al., 2009). Nonetheless, Ohio is still far from its goal of access for all CSHCN. To support ongoing efforts to improve medical home access, and inform the targeting of public health actions, we sought to better understand the risk factors associated with lacking medical home access among CSHCN.

Objectives

The objectives of this study were to 1) identify risk factors for lack of access to medical home among Ohio's CSHCN, and 2) identify the components of medical home most lacking among children with the identified risk factors.

Methods

We analyzed data on children residing in Ohio from the National Survey of Children with Special Health Care Needs (NS-CSHCN) 2005–2006. The NS-CSHCN was developed by the Maternal and Child Health Bureau with the National Center for Health Statistics and provides nationally and state-representative data. Detailed descriptions of the national survey are available elsewhere (Blumberg, et al., 2008; HHS, 2008; National Center for Health Statistics, 2007).

The outcome was lack of access to medical home and was derived through a five-component indicator measured by 19 questions: 1) having a usual place for sick/well childcare; 2) having a personal doctor or nurse; 3) experiencing no difficulty in obtaining needed specialty referrals; 4) receiving needed care coordination; and 5) the presence of family-centered care (HHS, 2008; Strickland et al., 2004).

Explanatory variables were categorical and classified as follows: sex was a dichotomous variable; age was reclassified into three levels (0–5, 6–11, and 12–17 years); race and ethnicity was a single variable with four levels (Hispanic, non-Hispanic black, non-Hispanic white, and non-Hispanic other); severity of difficulty caused by the health problem(s) was classified into three categories (none, minor, and moderate/severe); household education (highest level of education received by a parent) was classified into two levels (high school graduate or less, and more than high school); poverty level was based on the imputed variable for family incomes and classified into four levels based on percent of the federal poverty level (FPL) (0–99%, 100–199%, 200–399%, and 400% or greater) (Pedlow et al., 2007); residence was classified into two levels based on the metropolitan statistical areas (MSAs) (non-MSAs; and areas with a population of <500,000). Type of health insurance was the primary independent variable of interest and reclassified into two levels (private only, and public/both private and public). Children with other comprehensive insurance or uninsured were excluded from multivariable analyses because of small sample size. Private insurance was defined as insurance provided through an employer or union or directly from an insurance company; public insurance was provided by Medicaid, the State Children's Health Insurance Program (SCHIP), or military healthcare.

Statistical analyses were conducted using SAS 9.1 software. SAS survey procedures for complex sample design and child level weights provided for the NS-CSHCN were used.

We estimated the prevalence and 95% confidence intervals (CIs) of CSHCN without medical home access according to each explanatory variable. In bivariate analyses, crude odds ratios (ORs) and 95% CIs were estimated for the association between each variables and lack of access. A multivariate logistic regression model was tested beginning with variables found to be associated

Table 1. Demographics of Ohio's children with special health care needs, 2005–6.

Demographics	Unweighted <i>n</i>	Percent
Sex		
Male	486	58.3
Female	331	42.0
Race and ethnicity		
White, non-Hispanic	639	74.0
Black, non-Hispanic	106	18.2
Hispanic	31	3.4
Other or multi racial	42	4.3
Age in years		
0–5	142	20.5
6–11	318	37.2
12–17	361	42.3
Poverty level*		
0% to ≤199%	287	35.0
200% to ≤299%	165	20.1
300% or greater	369	45.0
Highest education level of household		
High school graduate or less	204	36.3
More than high school	617	63.7
Type of insurance		
Private only	552	61.0
Any public	236	35.5
Other comprehensive	11	1.3
Uninsured	20	2.1
Severity of difficulty		
None	141	17.2
Minor	357	43.6
Moderate/Severe	320	39.1

*95 US Federal Poverty Level.

in bivariate models ($p \leq 0.25$). Sequentially, variables associated with $p > 0.1$ were removed from the model if their presence did not meaningfully change the OR for other variables. Then, sequentially, variables with bivariate $p > 0.25$ were added into the model if their p was < 0.1 or if their presence meaningfully changed the OR for other variables. Theoretically based effect modifiers were tested. Finally, for each explanatory variable identified as important in the multivariable model, differences in achieving each individual component of medical home were tested by Chi-square ($p < 0.05$) against the reference group.

Results

The 2005–6 NS-CSHCH included 821 Ohio respondents. Among CSHCN 58.3% were male, the majority (74.0%) were non-Hispanic white, 42.3% were between the ages of 12–17 years, 42.1% lived in households with incomes from zero through 199% of the FPL, and 64% lived in households where the highest education was more than high school (Table 1). The majority (61%) had private insurance. Almost one-third had any public insurance (35.5%), including 27.2% with only

Table 2. Access to each component of medical home among Ohio's children with special health care needs, 2005–6.

Component	Unweighted <i>n</i>		Percent	(95% CI)*
Personal doctor or nurse	820	yes	94.6	(92.7–96.5)
		no	5.4	(3.5–7.3)
Usual source for both sick and well care	817	yes	94.0	(92.0–96.0)
		no	6.0	(4.0–8.0)
Access to referrals if needed	236	yes	86.2	(81.2–91.3)
		no	14.0	(8.7–18.8)
Family-centered care	793	yes	72.5	(69.0–76.3)
		no	27.5	(24.0–31.3)
Effective care coordination	621	yes	67.3	(63.1–72.0)
		no	28.4	(28.4–37.0)
All components	791	yes	55.6	(51.6–59.7)
		no	44.4	(40.3–48.4)

*95 percent confidence interval.

public insurance and 8.3% with a combination of public and private. Very few had other comprehensive insurance (1.3%) or were uninsured (2.1%). In total, 17% had no difficulty related to their condition, 43.6% had minor severity and 39.1% had moderate or severe difficulty, including 9% with severe.

Among Ohio's CSHCN, 55.6% had access to a medical home (Table 2). The proportion achieving each of the five components that make up comprehensive care in a medical home ranged from 94.6% having a personal doctor or nurse to a low of 67.3% receiving coordinated care when needed.

The univariate ORs and 95% CIs for lack of access to medical home are presented in Table 3. Hispanic children were found to have 3.51 higher odds for lack of access to medical home compared with white non-Hispanic children; children in households below 200% of the FPL had 2.17 higher odds for lack of medical home compared with children at 300% of the FPL or greater; children with any public insurance had 2.03 higher odds for lack of access to medical home compared with those with private insurance; and children with severe or moderate severity of difficulty had 3.62 higher odds for lack of access to medical home compared with children with no severity of difficulty, while children with mild severity had 1.77 higher odds for lack of access to medical home compared with children with none. Sex, age group, education, being non-Hispanic Black or non-Hispanic mixed or other race compared with non-Hispanic white, or having FPLs between 200 and 299% compared with 300% or greater were not significantly associated with medical home access.

The final multivariate model found independent relationships between medical home and type of insurance, race/ethnicity, and severity of difficulty (Table 4). Hispanic children were significantly more likely to be without access to a medical home (AOR=3.08) than non-Hispanic white children. Children with high severity of difficulty had almost three times the odds of being without a medical home (OR=2.8) compared with children with no difficulty. Children with any public insurance were more likely to be without medical home (OR=1.60).

Looking at individual components of medical home, compared with non-Hispanic white children, Hispanic children were significantly less likely to have access to needed referrals, to receive family-centered care, and care coordination (Figure 1). Children with moderate to severe difficulty

Table 3. Univariate odds ratios for lack of access to medical home, Ohio 2005–06.

Independent variables	Unweighted <i>n</i>	%	Coefficient	Standard errors	Odds ratio	(95% CI)*	<i>p</i> -value
Sex							
Female	318	41.3	-0.21	0.17	0.81	(0.58–1.13)	0.22
Male	469	46.5					
SEX							0.22
Race/ethnicity							
NH Black	100	51.8	0.42	0.26	1.52	(0.90–2.55)	0.12
Hispanic	30	71.4	1.26	0.46	3.51	(1.41–8.73)	0.01
NH Other	39	40.0	-0.08	0.37	0.92	(0.11–1.92)	0.83
NH White	619	41.5					
RACE							0.02
Age in years							
12–17	345	44.0	0.05	0.24	1.05	(0.66–1.67)	0.62
6–11	307	45.7	0.12	0.24	1.12	(0.71–1.79)	0.62
0–5	139	42.8					
AGE							0.87
Percent of federal poverty level (fpl)							
0–199%	274	54.0	0.77	0.19	2.17	(1.50–3.17)	<0.0001
200–299%	161	44.0	0.38	0.22	1.46	(0.95–2.26)	0.08
300% or greater	356	35.0					
POVERTY							0.0003
Highest education level in household							
HS graduate or less	194	48.0	0.23	0.19	1.26	(0.87–1.82)	0.23
More than HS	597	42.4					
EDUCATION							0.23
Insurance							
Any Public	223	36.0	0.70	0.19	2.03	(1.40–2.95)	0.002
Private only	536	64.0					
INSURANCE							0.0002
Severity of functional difficulty							
Moderate/Severe	304	38.6	1.28	0.22	3.62	(2.17–6.06)	<0.0001
Minor	346	43.9	0.57	0.26	1.77	(1.06–2.95)	0.0280
None	138	17.5					
DIFFICULTY							<0.0001

NH = Non-Hispanic; HS = High School

*95 percent confidence interval.

were less likely to have access to referrals, receive family-centered care, and care coordination (Figure 2). Children with public insurance were significantly less likely to receive family-centered care and care coordination (Figure 3).

Conclusion

This study identifies populations of Ohio CSHCN with lower likelihood of access to medical home. Furthermore, we identify the individual components of medical home that those populations are lacking. Independent risk factors for lack of access to medical home include Hispanic ethnicity,

Table 4. Final logistic regression model for lack of access to medical home among children with special healthcare needs, Ohio 2005–06.

Independent variables	Unweighted n	Adjusted Odds Ratio	95% CI*
Race			
Black, non-Hispanic	95	1.188	0.679–2.079
Hispanic	29	3.084	1.222 – 7.786
Other, non-Hispanic	35	1.079	0.517–2.254
White, non-Hispanic	594	–	–
Type of insurance			
Any public insurance	222	2.192	1.165–4.122
Private insurance	531	–	–
Severity Of functional difficulty			
Moderate/Severe	281	2.840	1.640–4.917
Minor	337	1.592	0.935–2.709
None	135	–	–

*95 percent confidence interval.

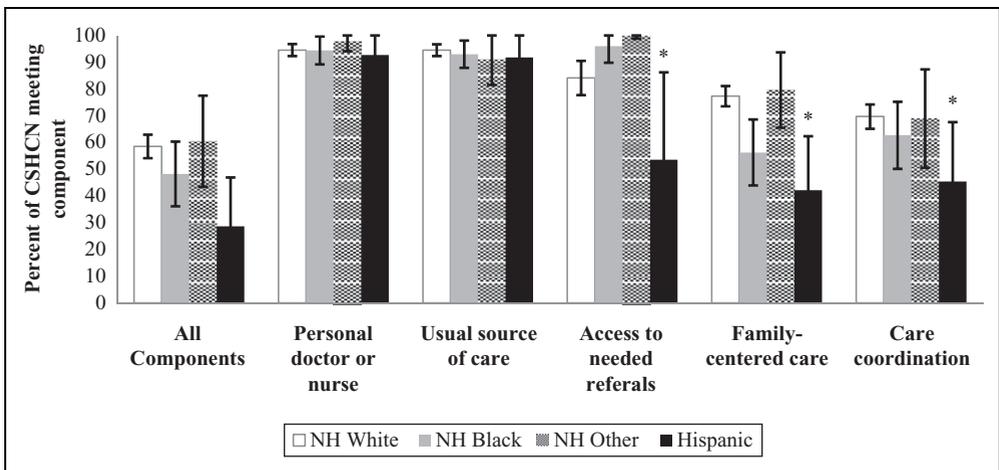


Figure 1. Access to individual and all components of medical home among Ohio’s children with special health care needs, by race and ethnicity, 2005–6.

*Significantly different ($p < 0.05$) by Chi Square compared with non-Hispanic white.

receipt of public insurance, and moderate or severe level of functional difficulty. All three high-risk groups were less likely to receive family-centered care and care coordination. In addition, Hispanic children and children with moderate to severe difficulty were less likely to have access to referrals.

Previous studies have identified similar factors. Nationally, children (including CSHCN) of Hispanic ethnicity are less likely to have access to every component of medical home (Strickland et al., 2009, 2011). Other surveys have reported that Hispanic parents are less likely to report their child’s medical care as adequate (Swanson et al., 2011). Access to medical home has also been associated with language; children in families in which English was the primary language had a

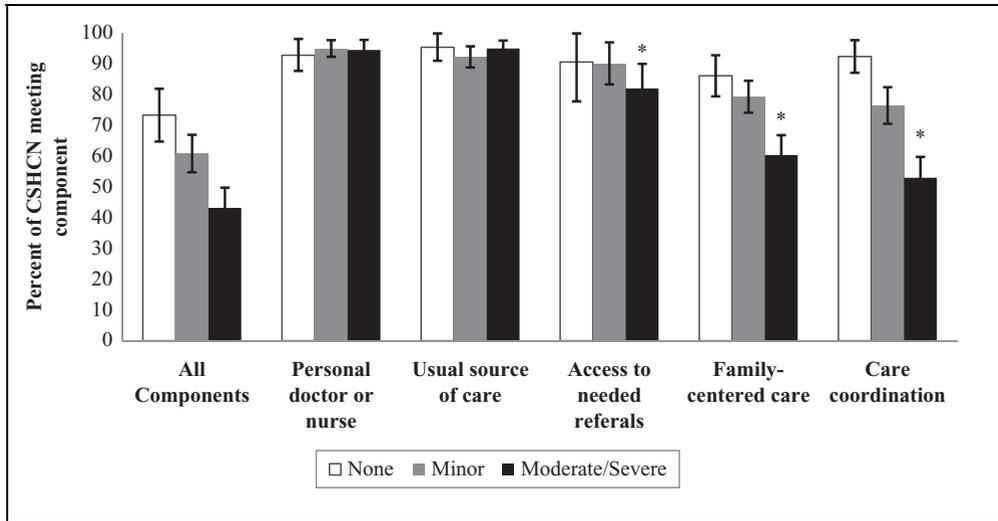


Figure 2. Access to individual and all components of medical home among Ohio's children with special health care needs, by severity of difficulty, 2005–6.

*Significantly different ($p < 0.05$) by Chi Square compared with no difficulty.

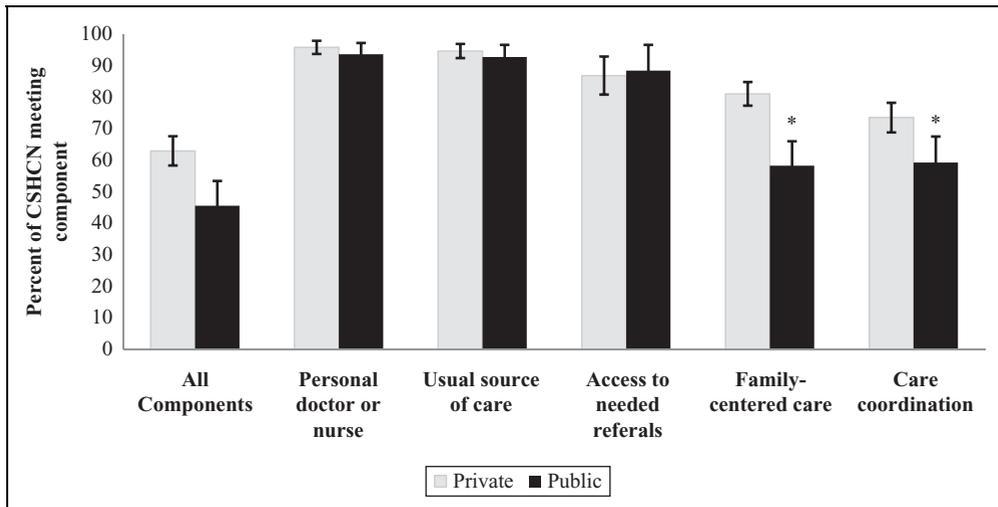


Figure 3. Access to individual and all components of medical home among Ohio's children with special health care needs, by public versus private insurance status, 2005–6.

*Significantly different ($p < 0.05$) by Chi Square compared with private insurance.

twofold higher prevalence of access compared with children in families in which other languages were primarily spoken (Strickland et al., 2011). In one study of all children and in another of only CSHCN, the language of the interview was associated with access only among those with the lowest income (Fulda et al., 2009). In Ohio, Hispanic CSHCN were least likely to receive

family-centered care than any other component of medical home, and were significantly less likely to receive this component than any other racial/ethnic group studied.

CSHCN in Ohio with moderate to severe difficulty due to their condition had three times the odds of being without medical home access regardless of race or insurance. Similarly, both in Maine (Tippy et al., 2005) and nationally (Fulda et al., 2009), receiving care in a medical home was less likely among CSHCN with greater severity, independent of poverty. Here, CSHCN with moderate/high severity had lower access to family-centered care and care coordination. This may be in part due to the increased amount of health care services that must be coordinated among CSHCN with high severity, such as disabilities (Swanson et al., 2011). This study did not find independent relationships with other factors as has been shown by others, including age group, sex, and maternal education (Fulda et al., 2009; Labree et al., 2010).

We found that CSHCN using public insurance had twice the odds of lacking medical home access compared with children with private insurance. Nationally for CSHCN, receiving care in a medical home was associated with insurance type after considering socioeconomic status (Fulda et al., 2009). Specifically, CSHCN in households under 133% of FPL with Medicaid insurance were significantly 1.21 times more likely than CSHCN with private insurance to have a medical home. However, in households at greater levels of poverty, children with Medicaid insurance were less likely to have access. This study did not find a similar interaction. The associations between insurance status, adequacy, and medical home among CSHCN are complex. Just having insurance is not sufficient, as independent of poverty, CSHCN with inadequate insurance were less likely to have received medical home care (Tippy et al., 2005). Parents of CSHCN are less likely to have full-time employment or employer-provided health insurance (Heck and Makuc, 2000). We did identify that the components of medical home that were lower among CSHCN with Medicaid insurance were family-centered care and care coordination.

This study was subject to limitations. The small sample size for Ohio CSHCN limits the power to detect weak associations and precluded the ability to study uninsured children or children with other comprehensive insurance. However, the proportion of children without health insurance, even those with low income, is low in the US (Swanson et al., 2011). Secondly, the definition of CSHCN in the national survey is broader than the criteria for inclusion for some public health programs; extrapolation of findings to populations served by these programs must be done with caution.

Among Ohio's children 16.2% have special health care needs, compared with only 13.9% nationally (HHS, 2008). The prevalence is generally higher among older children, males, African-American and children in lower socioeconomic status households. Ohio has been a leader in the US in expanding access to medical home for CSHCN and these efforts may play a role in Ohio's high ranking among states for CSHCN. Indeed, state-level factors, including poverty rate and level of health care infrastructure and expenditure, have been found to be associated with access after controlling for individual-level factors (Singh et al., 2009).

Ohio continues to build on efforts to improve medical home access. Ohio's Patient-Centered Medical Home Education Pilot Project, passed by the 128th General Assembly in 2010 (Ohio State Government: Ohio Revised Code, 2010), is converting at least 44 primary care practices to patient-centered medical homes and will establish scholarships for medical and nursing students who participate in medical home training and practice primary care in Ohio post-residency.

The results of these analyses demonstrate that such efforts to advance medical home access must attend to CSHCN populations with public insurance, greater severity of difficulty and of Hispanic ethnicity. Interventions should focus on improving access to referrals, receipt of

family-centered care, and care coordination. To do this, we must better understand cultural and other access barriers for Hispanic families, children with public insurance and children with greater severity of difficulty.

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References

- AAP, American Academy of Pediatrics (2002) Policy Statement: The Medical Home. *Pediatrics* 110: 184–86 (reaffirmed 2008).
- AAP, American Academy of Pediatrics, The National Center of Medical Home Initiatives for Children with Special Needs. American Academy of Family Physicians, American College of Physicians, American Osteopathic Association (2007) *Joint Principles of the Patient-Centered Medical Home*. Available at <http://www.medicalhomeinfo.org/> (accessed 26 August 2011).
- Blumberg SJ, Welch EM, Chowdhury SR, et al. (2008) Design and operation of the National Survey of Children with Special Health Care Needs, 2005–2006. *Vital Health Stat 1* Dec (45): 1–188.
- Fulda KG, Lykens K, Bae S, et al. (2009) Factors for accessing a medical home vary among CSHCN from different levels of socioeconomic status. *Maternal and Child Health Journal* 13(4): 455–456.
- Goudie A, Fairbrother G, Simpson L, et al. (2009) *Profile of Children with Special Health Care Needs in Ohio*. Ohio Family Health Survey. Available at: <http://www.childhealthdata.org> (Accessed 26 August 2011).
- Heck KE and Makuc DM (2000) Parental employment and health insurance coverage among school-aged children with special health care needs. *American Journal of Public Health* 90(12): 1856–1860.
- HHS, US Department of Health and Human Services (2000) *Healthy People 2010: Understanding and Improving Health*. 2nd ed. Washington, DC: US Government Printing Office.
- HHS, US Department of Health and Human Services National Initiative for Children's Healthcare Quality (2005) *Spread of the Medical Home Concept: Comprehensive Final Report*. [pdf] Washington, D.C. Available at: <http://www.nichq.org/pdf/MHLC2FinalReportFinal%20Medical%20Home%20footer%20link.pdf> (accessed 26 August 2011).
- HHS, US Department of Health and Human Services: Health Resources and Services Administration (2007) *Integrated Services for Young Children with Special Health Care Needs – Project Period Final*. Washington, D.C. Available at: https://perfddata.hrsa.gov/MCHB/DGISReports/Abstract/AbstractDetails.aspx?cbAbstractSummary=H02MC02615_2007_NonResearch_6&tbKeyword=ohio%20medical%20home&rbKeyword=All (accessed 23 April 2012).
- HHS, US Department of Health and Human Services, Health Resources and Services Administration, Maternal and Child Health Bureau (2008) *The National Survey of Children with Special Health Care Needs: Chartbook 2005-2006*. Maryland: US Department of Health and Human Services. Available at: mchb.hrsa.gov/cshchn05/MCO/02ccr.htm (accessed 31 March 2011).

- HHS, US Department of Health and Human Services. Office of Disease Prevention and Health Promotion (2011) *Healthy People 2020*. Washington, DC. Available at: <http://healthypeople.gov/2020/topicsobjectives2020/objectiveslist.aspx?topicId=26> (accessed 26 August 2011).
- Labree W, Foets M and Weisglas-Kuperus N (2010) Continuity and coordination of care during and after neonatal intensive care. *Journal of Child Health Care* 14(3): 239–249.
- National Center for Health Statistics (2007) *The National Survey of Children with Special Health Care Needs (NS-CSHCN) 2005-6: The Public Use Data File*. Hyattsville, MD: US Department of Health and Human Services.
- ODH, Ohio Department of Health Joint BCMH/AAP Ohio Chapter: Children with Disabilities Committee (2006) *Medical Homes for Children with Special Health Care Needs Promise to the State*. [pdf] Ohio. Available at: <http://www.odh.ohio.gov/ASSETS/535FF353BB2A4FA584E8DEC3FD13D2D9/StatePromise.pdf> (accessed 26 August 2011).
- Ohio Department of Health Ohio Medical Home Focus Group Project (2003) *Summary Report*. [pdf] Ohio. Available at: <http://www.odh.ohio.gov/ASSETS/628549A9CE1A4169A08DA8E07EA603E2/facct0503.pdf> (accessed 26 August 2011).
- Ohio State Government: Ohio Revised Code (2010) *General Assembly File No. 36, HB 198, § 1, Patient Centered Medical Home Education Pilot Project*. Ohio. Available at: <http://codes.ohio.gov/orc/185> (accessed 26 August 2011).
- Pedlow S, Luke JV and Blumberg SJ (2007) *Multiple imputation of missing household poverty level values from the National Survey of Children with Special Health Care Needs, 2001, and the National Survey of Children's Health, 2003*. [pdf] USA. Available at: www.cdc.gov/nchas/data/slaits/mimp0103.pdf (accessed 26 August 2011).
- Singh GK, Strickland BB, Ghandour RM, et al. (2009) Geographic disparities in access to the medical home among US CSHCN. *Pediatrics* 124(4): S352–S360.
- Strickland BB, McPherson M, Weissman G, et al. (2004) Access to the medical home: results of the National Survey of Children with Special Health Care Needs. *Pediatrics* 113(5): 1485–1492.
- Strickland BB, Singh GK, Kogan MD, et al. (2009) Access to the medical home: New Findings from the 2005-2006 national survey of children with special health care needs. *Pediatrics* 123(6): e996–e1004.
- Swanson ME, Wall S, Kisker E, et al. (2011) Health disparities in low-income families with infants and toddlers: Needs and challenges related to disability. *Journal of Child Health Care* 15(1): 25–38.
- Strickland BB, Jones JR, Ghandour RM, et al. (2011) The Medical Home: Health Care Access and Impact for Children and Youth in the United States. *Pediatrics* 127(604): 604–611.
- Tippy K, Meyer K, Aronson R, et al. (2005) Characteristics of coordinated ongoing comprehensive care within a medical home in Maine. *Maternal and Child Health Journal* 9(2Suppl): s13–s21.