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ASPE RESEARCH BRIEF

OFFICE OF THE ASSISTANT SECRETARY FOR PLANNING AND EVALUATION

OFFICE OF HUMAN SERVICES POLICY - U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES

ADOPTED CHILDREN WITH SPECIAL HEALTH CARE NEEDS: CHARACTERISTICS, HEALTH, AND HEALTH CARE BY ADOPTION TYPE

This research brief presents information on adopted children with special health care needs,[1] using data from the 2005-2006 National Survey of Children with Special Health Care Needs (NS-CSHCN). The analysis takes advantage of questions in the NS-CSHCN that allow adopted children in the sample to be grouped and compared by adoption type, that is, foster care adoptions, international adoptions, and domestic adoptions through sources other than the public child welfare system (for convenience discussed below as "private domestic adoptions"). Findings provide a descriptive profile of adopted children with special health care needs (CSHCN); explore ways in which adopted CSHCN are similar to and different from other CSHCN; and describe their health status, health conditions and health care access and utilization across adoption types. The analysis excludes adoptive families in which a biological parent also resides in the household, which are primarily step-parent adoptions. The data presented are nationally representative of adopted CSHCN. Because only CSHCN are included in the sample, however, results may not be generalized to adopted children overall.

[1] While "special needs" in most fields is a shorthand for special health care needs, in adoption practice special needs also typically refers to a variety of factors such as the child's age and/or race/ethnicity that may make finding an adoptive home more difficult (Bower and Laws, 2002). References to special needs in the child welfare literature cannot be interpreted as synonymous with special health care needs. In this paper we refer specifically to children's special health care needs.

ABOUT THIS RESEARCH BRIEF

This ASPE Research Brief, written by Matthew D. Bramlett of the National Center for Health Statistics and ASPE's Laura F. Radel, presents the first information resulting from a multi-faceted effort to expand data about the health and well-being of adopted children. It takes advantage of questions added to the 2005-2006 National Survey of Children with Special Health Care Needs that identify adopted children by adoption type and age at adoption. More extensive data on adopted children and their families is forthcoming both from the 2007 National Survey of Children's Health and the National Survey of Adoptive Parents. Public use files from these additional data will be available early in 2009.

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BACKGROUND

The Changing Population of Adopted Children

Within the public child welfare field, finding adoptive families for older children and those with significant emotional and physical needs has been an emphasis in recent years (U.S. Department of Health and Human Services [US DHHS], 2005). Increasing numbers of older children and children with special health care needs are being adopted from other countries as well (Immigration and Naturalization Service 2000; Department of Homeland Security 2008). Although these children were once considered "unadoptable," policy and practice have evolved to seek homes for every child in need of a family (Bower, no date).

There have been significant changes in the sources from which children have been adopted in recent years. The number of adoptions from foster care and international sources grew substantially, while domestic adoptions from other sources declined (Child Welfare Information Gateway, 2004b; U.S. Department of State, 2008). As a result, between 1992 and 2001, private, independent and kinship adoptions declined from 77% of all new adoptions to 46%, while public agency (i.e., foster care) adoptions grew from 18% to 39% and international adoptions grew from 5% to 15%. Approximately 127,000 children were adopted in each year (Child Welfare Information Gateway, 2004b). Other sources, categorizing adoption types somewhat differently and comparing different years, show a similar change in distribution among adoption types, with foster care and international adoptions making up a much larger share of all adoptions than they did previously (Placek, 2007).

The changing mix of adoption types has been accompanied by changing demographic characteristics of the children adopted. Children adopted internationally and from foster care are more often from minority groups and are older than children adopted domestically from sources other than foster care (Howard, Smith and Ryan 2004). Children adopted internationally are divided approximately evenly between infants and children between the ages of 1 and 4 at the time of the adoption (40% and 43%, respectively, in 2007), although the proportion of children adopted annually at age 6 or older increased from 11% to 17% of international adoptions between 1998 and 2007 (Department of Homeland Security, 2008; Immigration and Naturalization Service, 2000). In contrast, children are adopted from foster care at a median age of 6.6 years old (US DHHS, 2008). Private domestic adoptions, other than step-parent adoptions, which are excluded from consideration here, almost always involve infants (Evan B. Donaldson Adoption Institute, no date; Child Welfare Information Gateway, 2003).

Adoption practice has adapted to this new situation with increased attention to families' needs for pre-adoption preparation and post-adoption services, particularly with respect to children with special health care needs (Wind, Brooks and Barth, 2007; Grogg and Grogg, 2007). Access to mental health services for children adopted from foster care has been of particular concern (Raghavan, Inkelas, Franke, and Halfon, 2007). Families frequently report difficulties identifying mainstream service providers familiar with the issues and needs of adopted children and adoptive families (The Casey Center for Effective Child Welfare Practice, 2003a; The Casey Center for Effective Child Welfare Practice, 2003b; Gibbs, Siebenaler and Barth, 2002).

Health Conditions of Adopted Children

Previous research has found that although most adopted children are in good health, they are at increased risk across a range of developmental domains. Studies are consistent in finding particularly elevated risks of mental health problems (Miller, Fan, Cristensen, Grotevant and van Dulmen, 2000; Nickman, Rosenfeld, Fine, et al., 2005; Brodzinsky, 1993). Even children adopted in infancy have been found to have moderately higher risks for having a disruptive behavior disorder as adolescents (Keyes, Sharma, Elkins, Iacono and McGue, 2008). Clinics specializing in the physical health needs of adopted children have been established in many large cities, making adoption medicine a new specialty (Nicholson, 2002; Tuller, 2001). The American Academy of Pediatrics established a specialty section on foster care and adoption medicine in 2000 (http://www.aap.org/sections/adoption/default.cfm).

Analysis of the 2003 National Survey of Children's Health found that adopted children are more likely than biological children (i.e., children living with at least one biological parent) to have special health care needs, moderate or severe health problems, developmental delay or physical impairment, learning disability, and other mental health difficulties. Parents of adopted children were more than five times more likely than parents of biological children to report ever being told that their child had a developmental delay or physical impairment (16% versus 3%). Nearly 20% of adopted children were reported by their parents to have moderate to severe current health problems compared with 7% of biological children, and 37% of adopted children had special health care needs as compared with 17% of biological children (Bramlett, Radel and Blumberg, 2007).

While there is a considerable literature on the special health care needs of adopted children, this literature is limited by a number of factors. First, studies often rely on small clinical samples that are not representative of a broader population. Second, studies typically include only one type of adoption (e.g. children adopted from foster care), making comparisons among adoption types impossible. Finally, studies that contain a broad cross section of adopted children have most often identified adopted children within data sets collected for other purposes that lack information with which to identify subgroups by factors such as adoption type and age at adoption that may be related to special health care needs.

Improving Data on Adopted Children

Since 2004, the Office of the Assistant Secretary for Planning and Evaluation, the Administration for Children and Families, and the Centers for Disease Control and Prevention's National Center for Health Statistics have collaborated on several interrelated activities intended to expand survey data about the health and well-being of adopted children. These efforts include (1) analysis regarding the health of adopted children based on the 2003 National Survey of Children's Health (Bramlett et al., 2007); (2) the addition of questions to the 2005-2006 National Survey of Children with Special Health Care Needs (NS-CSHCN) and the 2007 National Survey of Children's Health (NSCH) to enable the identification of adoption type and age at adoption for each adopted child in these surveys; and (3) the development and implementation of the National Survey of Adoptive Parents (NSAP). The NSAP is a 35-minute telephone survey intended to provide information on the health and well-being of adopted children, as well as

information about their needs and service utilization, their families' well-being, and their adoption-related experiences. The NSAP was conducted as an add-on to the 2007 NSCH (with a sample size of approximately 2,000 completed interviews) and as a call-back to adoptive parents who responded to the 2005-2006 NS-CSHCN (approximately 1,000 completed interviews). Data collection for both components was completed in the summer of 2008 and results will be available in 2009[2].

The present analysis takes advantage of questions in the 2005-2006 NS-CSHCN that allow adopted children in the sample to be grouped by adoption type (foster care, international, and domestic private). The analysis provides a descriptive profile of adopted CSHCN, explores ways in which adopted CSHCN are similar to and different from other CSHCN, and describes their health status, health conditions and health care access and utilization across adoption types. The analyses below exclude adoptive families in which a biological parent also resides in the household, primarily step-parent adoptions.

METHODS

Data

Data are drawn from the National Survey of Children with Special Health Care Needs, 2005-2006 (NS-CSHCN). The NS-CSHCN is a random-digit-dial telephone survey of households with children, conducted as a module of the State and Local Area Integrated Telephone Survey (SLAITS) by the Center for Disease Control and Prevention's National Center for Health Statistics (NCHS) and the Health Resources and Services Administration's Maternal and Child Health Bureau (MCHB). In households with children under age 18, all children are screened for special health care needs and one child with special health care needs is randomly selected to be the target for the detailed NS-CSHCN interview. In 2005-2006, the NS-CSHCN screened children in 192,083 households for special health care needs and conducted detailed interviews for 40,840 CSHCN (Blumberg et al., 2008).

Children with Special Health Care Needs

Children with special health care needs are defined by MCHB as those who (1) have or are at risk of a physical, developmental, behavioral or emotional condition and (2) require health or related services of a type or amount beyond that required by children generally (McPherson, 1998). The CSHCN Screener was developed to identify CSHCN as defined by MCHB (Bethell, 2002). To qualify as having special health care needs, a child must currently experience one or more of five health consequences attributable to a medical, behavioral, or other health condition that has lasted or is expected to last for at least 12 months. These consequences include: 1) ongoing limitations in the ability to perform activities that other children of the same age can perform; 2) ongoing need for prescription medications; 3) ongoing need for specialized therapies; 4) ongoing need for more medical, mental health, or educational services than are usual for most children of the same age; and 5) the presence of ongoing behavioral, emotional or developmental conditions requiring treatment or counseling (Bethell, 2002; Blumberg et al., 2008).

[2] For information on the content of the NSAP and public use files, see http://www.cdc.gov/nchs/about/major/slaits/nsap.htm.

Adopted Children with Special Health Care Needs

Respondents to the NS-CSHCN are adults in the household familiar with the child's health, usually the mother. Respondents are asked their relationship to the child, whether there are other adults in the household who act as parents to the child, and if so, the relationship of any such adult to the child (Blumberg et al., 2008). If the relationship is identified as "mother" or "father," the follow-up question asks if that is biological, step, foster or adoptive. If either the respondent or another adult in the household is identified as "adoptive mother" or "adoptive father" and there are no biological parents in the household, the child is identified as adopted. Follow-up questions ask whether the child was adopted from another country or resided in foster care prior to adoption, allowing us to categorize adopted CSHCN's adoption type as 1) international adoption, 2) foster care adoption, or 3) private domestic adoption (which includes all CSHCN identified as adopted who were neither adopted from another country nor from foster care).

Analysis Variables

Most of the analysis variables are either based on single variables from the questionnaire (Blumberg et al., 2008) or are self-explanatory. Insurance type, family structure, and household income relative to Federal Poverty Level are based on derived variables available on the public-use file and described in the methodology report (Blumberg et al., 2008). Variables that need further explanation are described here.

Child-level characteristics—For race/ethnicity, non-Hispanic multiple-race children are grouped with non-Hispanic Native American/Alaskan Native and non-Hispanic Native Hawaiian/Pacific Islander into "non-Hispanic other." Hispanic multiple-race children are grouped with "Hispanic." Siblings are defined as other children in the household irrespective of biological or adopted status.

Adoption date variables—Years since adoption is calculated as the difference between age in months at interview and age in months at adoption, divided by 12, and rounded to nearest whole integer. Year of adoption is derived from the century-month code for date of interview, age in months at adoption, and age in months at interview by calculating the number of months between adoption and interview and subtracting that sum from the century-month code for date of interview to derive the century-month code for date of adoption.

CSHCN Screener items—Children qualify on a screener item as CSHCN if they experience a health consequence that is due to a medical or other condition that has lasted or is expected to last at least 12 months.

Type of health conditions—The number of health conditions (0-16) is based on a battery of questions assessing whether the child currently had any of 16 specific health conditions (Blumberg et al., 2008). Seven conditions were not prevalent enough for reliable estimation by adoption type and are grouped together as "other condition:" Down syndrome, diabetes, heart problems, blood problems, cystic fibrosis, cerebral palsy, and muscular dystrophy. The remaining nine conditions are reported separately.

Functional status—Bodily function difficulties are indicated if the parent reported that the child had any difficulty with seeing, hearing, breathing, swallowing or digesting, blood circulation, or chronic pain. Activity/participation difficulties are indicated by any difficulty with taking care of oneself, coordination, manual dexterity, learning, or communicating. Other emotional/ behavioral difficulties are indicated by any difficulty with anxiety/depression, behavior problems, or making friends (Blumberg et al., 2008).

Key Indicators—MCHB, with assistance from NCHS and the Child and Adolescent Health Measurement Inititative (CAHMI), has developed a set of indicators from the NS-CSHCN that measure the key concepts in the survey. National and State-level estimates of these indicators for 2005-2006 were released in *The National Survey of Children with Special Health Care Needs Chartbook 2005-2006* (US DHHS, 2007). Our indicators of health status, insurance, access to health care, impact on the family, and need and unmet need for services are based on the key indicators and are coded in the same manner as in that chartbook. More information on the key indicators is available at the CAHMI Data Resource Center website (http://www.childhealthdata.org/content/Default.aspx).

Statistical Analysis

We used the statistical software package SUDAAN, version 9, to obtain variance estimates that take into account the impact of the sampling weights and complex survey design using the Taylor Series approximation method (RTI, 2004). Statistical comparisons by adoption type were assessed using a t-test of the difference of proportions at the 0.05 level; estimates for international adoptions and private domestic adoptions were each compared with estimates for foster care adoptions. No adjustments were made to correct for multiple comparisons with a single referent group. Statistical comparisons of adopted CSHCN and all CSHCN were assessed using a t-test of the difference of proportions, where the standard error of the difference was adjusted to account for nonindependence of the two groups by incorporating their covariance. Estimates with a relative standard error (standard error divided by the estimate) higher than 0.3 do not meet NCHS standards for reliability and are flagged as unreliable in the tables. All comparisons are bivariate; disentangling the relationships among age at adoption, adoption type, and other variables is beyond the scope of this report.

RESULTS

In 2005, there were an estimated 470,000 adopted children with special health care needs in the United States, 4.6% of all children with special health care needs. Other analyses have found adopted children to be 2.5% of all children if step parent adoptions are included (U.S. Census Bureau, 2003), and 1.7% when defined, as here, to exclude step parent adoptions (Bramlett & Blumberg, 2007). Adopted children are over-represented among CSCHN, indicating that they have a higher prevalence of SHCN than nonadopted children. However, because the sample for this study includes only CSHCN we cannot determine the magnitude of the overrepresentation using these data.

Table 1: Number and Percent of Children with Special Health Care Needs (CSHCN) with Selected Child-level Characteristics, by Adoptive Status and Adoption Type

Characteristic	*All CSHCN*	*Adopted CSHCN*	*Adopted CSHCN by Adoption Type*		
			Foster Care	*Private Domestic*	*International*
	Frequency Count (Percent)				
Total					
Unweighted Sample Size	40,723	1,898 (4.7)	863 (45.5)	664 (35.0)	371 (19.5)
Weighted Population Estimate	10,221,439	469,564 (4.6)	217,365 (46.3)	163,093 (34.7)	89,106 (19.0)
	Weighted Percent (standard error)				
Age at interview					
0-5 years	20.9 (0.36)	15.6 (1.43)*	14.3 (2.33)	13.1 (1.89)	23.2 (3.46)†
6-11 years	37.2 (0.41)	41.2 (1.89)*	43.4 (2.75)	35.9 (3.21)	45.6 (4.12)
12-17 years	41.9 (0.42)	43.2 (1.95)	42.3 (2.66)	51.0 (3.54)†	31.2 (3.74)†
Sex					
Male	59.4 (0.42)	55.7 (1.91)*	56.2 (2.73)	58.0 (3.43)	50.4 (4.12)
Female	40.6 (0.42)	44.3 (1.91)*	43.8 (2.73)	42.0 (3.43)	49.6 (4.12)
Race & Ethnicity					
Hispanic	11.8 (0.30)	11.4 (1.24)	11.5 (1.93)	10.2 (1.97)	13.3 (2.75)
Non-Hispanic White	65.5 (0.42)	51.0 (1.96)*	48.4 (2.77)	65.6 (3.25)†	30.8 (3.68)†
Non-Hispanic Black	16.3 (0.34)	20.5 (1.62)*	31.8 (2.69)	15.8 (2.52)†	*1.5 (0.79)†*
Non-Hispanic Asian	1.6 (0.12)	10.2 (1.20)*	*0.9 (0.77)*	*0.9 (0.57)*	49.9 (4.16)†
Non-Hispanic Other	4.8 (0.18)	6.9 (0.96)*	7.5 (1.62)	7.5 (1.54)	*4.5 (1.42)*
Type of Health Insurance					
Private/Employment-based	59.1 (0.42)	50.9 (1.95)*	23.0 (2.14)	68.6 (3.10)†	86.7 (3.11)†
Public	28.1 (0.40)	31.6 (1.86)	48.8 (2.78)	21.7 (2.83)†	*7.6 (2.85)†*
Private & Public	7.4 (0.22)	14.1 (1.25)*	26.4 (2.37)	3.6 (1.01)†	*3.2 (1.23)†*
Other Comprehensive Insurance	2.0 (0.12)	1.8 (0.37)	*1.1 (0.39)*	*2.6 (0.81)*	*1.9 (0.85)*
Uninsured	3.5 (0.15)	1.7 (0.39)*	*0.7 (0.45)*	3.4 (0.92)†	*0.7 (0.43)*
Number of Siblings					
0	30.9 (0.37)	41.6 (1.88)*	35.2 (2.52)	48.4 (3.55)†	44.6 (4.06)†
1	37.4 (0.41)	28.7 (1.67)*	25.9 (2.33)	28.5 (3.05)	36.0 (3.75)†
2 or more	31.7 (0.42)	29.7 (1.96)	38.9 (2.82)	23.1 (3.51)†	19.5 (3.93)†
Number of Siblings with Special Health Care Needs					
0	67.4 (0.44)	67.5 (1.92)	57.8 (2.82)	75.6 (3.16)†	76.2 (3.98)†
1	24.9 (0.40)	22.3 (1.73)	24.8 (2.57)	22.2 (3.12)	16.3 (3.21)†
2 or more	7.7 (0.30)	10.2 (1.29)*	17.4 (2.31)	*2.2 (0.73)†*	*7.4 (3.02)†*

Note: italicized cells contain unreliable estimates (Relative Standard Error >0.3)
*Significantly different at the 0.05 level from the estimate for all CSHCN
†Significantly different at the 0.05 level from the estimate for CSHCN adopted from Foster Care
Source: National Survey of Children with Special Health Care Needs, 2005-2006

Characteristics of the Child—Table 1 shows child-level characteristics for all CSHCN, for adopted CSHCN, and for adopted CSHCN by adoption type. Almost half (46%) of adopted CSHCN were adopted from foster care, with 35% adopted from private domestic sources and 19% adopted internationally (figure 1). Adopted CSHCN were less likely to be very young as compared with all CSHCN. In addition, while both adopted CSHCN and all CSHCN were more likely to be male than female, the over-representation of males was less pronounced among adopted CSHCN. Race/ethnicity varies widely by adoption type: half of internationally adopted CSHCN were non-Hispanic Asian, compared with 1% of other adopted CSHCN; 32% of CSHCN adopted from foster care were non-Hispanic black, compared with 1.5% of internationally adopted CSHCN and 16% of other adopted CSHCN; and 66% of CSHCN adopted from private domestic sources were non-Hispanic white, compared with 31% of internationally adopted CSHCN and 48% of CSHCN adopted from foster care (figure 2).

Type of health insurance also varies widely by adoption type: internationally adopted CSHCN were overwhelmingly covered by private or employment-based insurance only, while 75% of CSHCN adopted from foster care were covered by either public insurance or a combination of private and public insurance (figure 3). The proportion uninsured for adopted CSHCN was about half that of all CSHCN, although this difference is mainly due to the lower rates of uninsurance among CSHCN adopted from foster care or internationally. Adopted CSHCN were more likely to have no siblings, although this varied by adoption type: CSHCN adopted from foster care were more likely to have any siblings than CSHCN adopted from other sources. Most CSHCN and adopted CSHCN had no siblings with special health care needs, but

Figure 1. Percent Distribution of Adoption Type, for Adopted Children with Special Health Care Needs

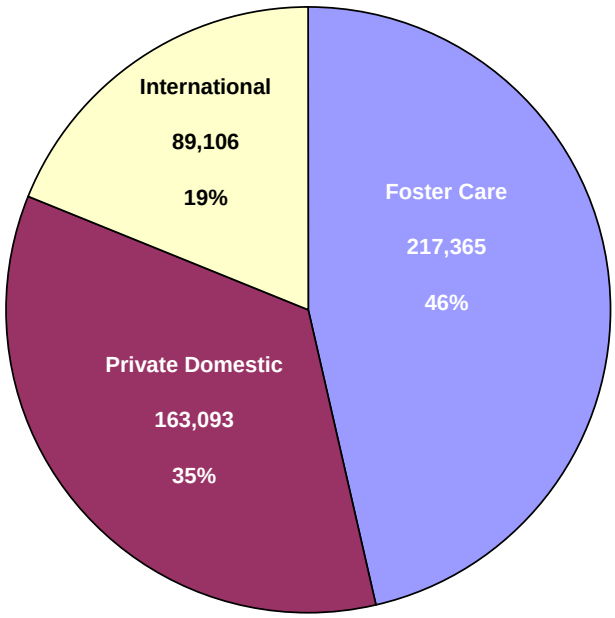


Figure 2. Percent of Adopted Children with Special Health Care Needs in Selected Race/Ethnicity Categories, by Adoption Type

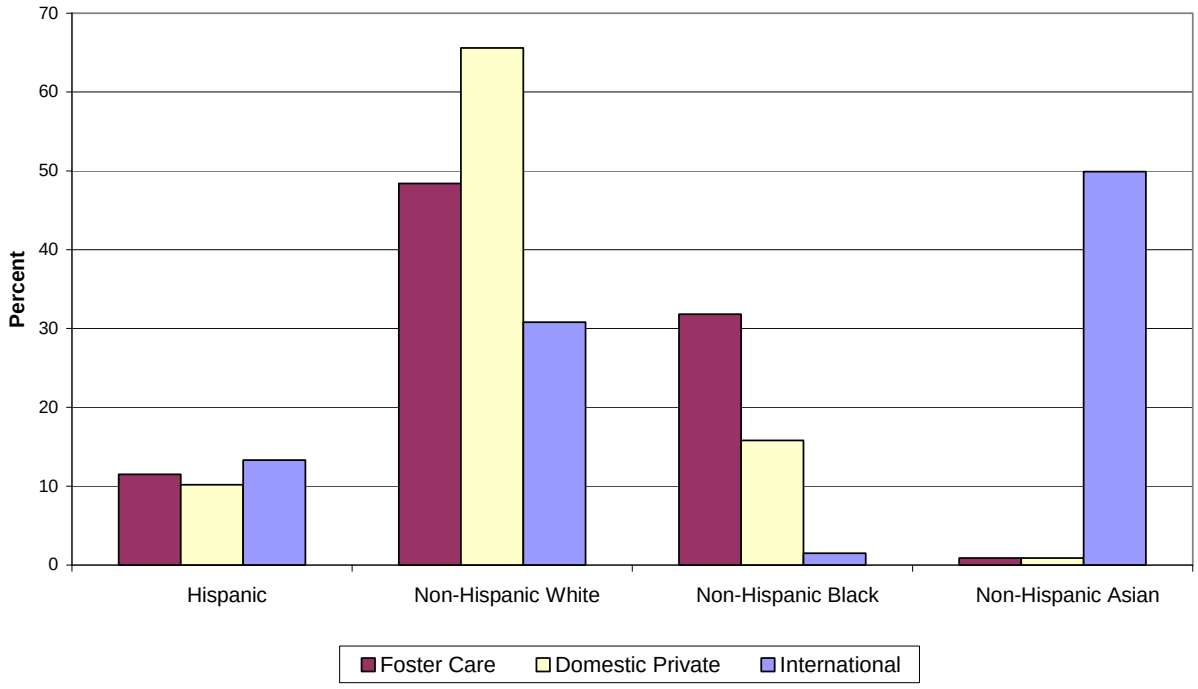
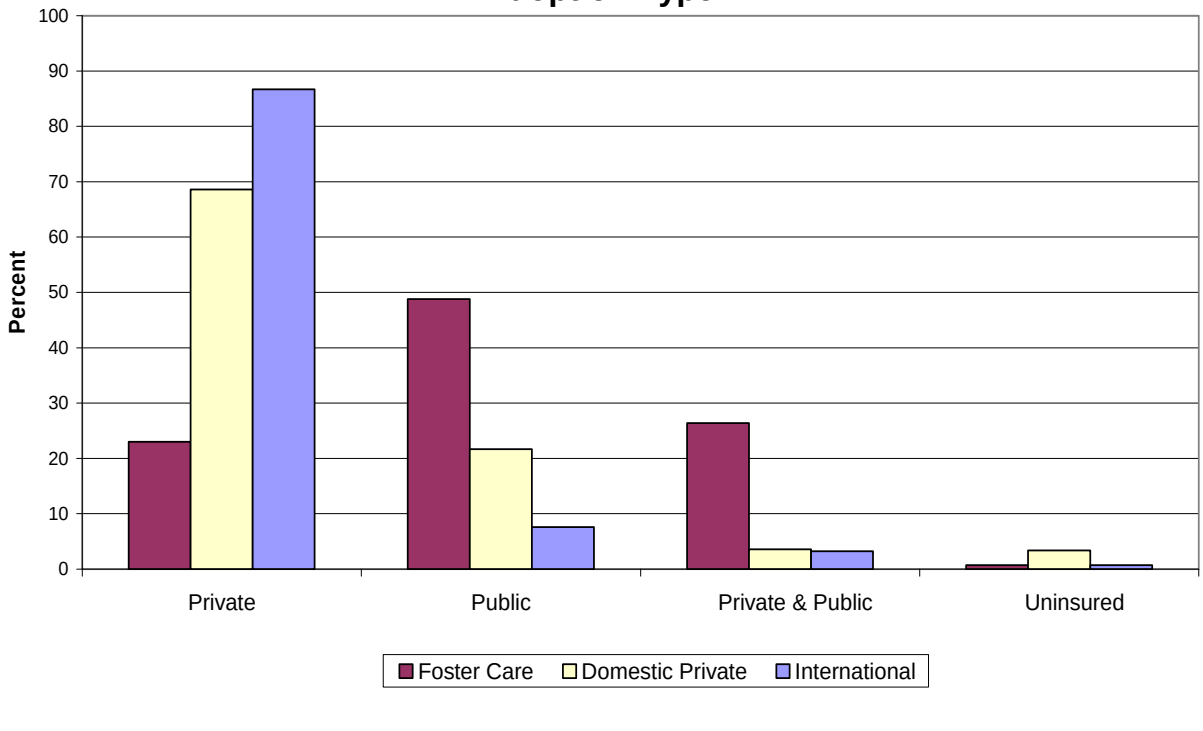


Figure 3. Percent of Adopted Children with Special Health Care Needs with Selected Types of Health Insurance, by Adoption Type



10% of adopted CSHCN, and 17% of CSHCN adopted from foster care had two or more siblings with special health care needs.

Characteristics of the Household—Table 2 shows household-level characteristics for all CSHCN, for adopted CSHCN, and for adopted CSHCN by adoption type. More than a quarter of CSHCN adopted from foster care lived in households with 3 or more adults, considerably more than among other adopted CSHCN. Adopted CSHCN were more likely to live in single-mother or other family structure households and less likely to live in stepfamilies than all CSHCN. The primary language in the household was more likely to be English among adopted CSHCN (at nearly 100%) than among all CSHCN. The highest education in the household was higher among adopted CHSCN, compared with all CSHCN. Eighty-six percent of internationally adopted CSHCN lived in households where the highest education was a college degree or higher, compared with 59% of CSHCN adopted from private domestic sources and only 47% of CSHCN adopted from foster care. Household income relative to the poverty level was higher among adopted CSHCN than all CSHCN, although CSHCN adopted from foster care were considerably less likely to be in the highest income category than other adopted CSHCN (figure 4). Although most adopted CSHCN live in households that receive no cash assistance from welfare, receipt of cash assistance was less prevalent among adopted CSHCN than all CSHCN, and less prevalent (near zero) among internationally adopted CSHCN than among CSHCN adopted from foster care. Adopted CSHCN were a little more likely than all CSHCN to live in a Metropolitan Statistical Area.

Adoption-Related Characteristics—Table 3 shows characteristics related to adoption for adopted CSHCN and for adopted CSHCN by adoption type. Age at adoption was comparable for internationally adopted CSHCN and CSHCN adopted from private domestic sources (and about two-thirds of each group were adopted at ages 0-1); but CSHCN adopted from foster care were much less likely to be adopted at 0-1 years of age and more likely to be adopted at older ages (figure 5). More years had passed since the adoption for CSHCN adopted from private domestic sources, compared with CSHCN adopted from foster care. That is, on average, their adoptions occurred longer ago. Those adopted from private domestic sources were more likely to have been adopted in 1988-1996, and less likely to have been adopted in 2000-2006, compared with CSHCN adopted from foster care. Almost half of adopted CSHCN had only one adoptive parent in the household. The likelihood of having only one adoptive parent in the household did not differ significantly by adoption type. Although only 5% of adopted CSHCN had parents other than adoptive parents in the household, internationally adopted CSHCN were even less likely to have other parents in the household, compared with CSHCN adopted from foster care.

Table 2: Percent of Children with Special Health Care Needs (CSHCN) with Selected Household-level Characteristics, by Adoptive Status and Adoption Type

Household Characteristic	*Weighted Percent (standard error)*				
	All CSHCN	*Adopted CSHCN*	*Adopted CSHCN by Adoption Type*		
			Foster Care	*Private Domestic*	*International*
Number of Adults[1] in Household					
1	16.4 (0.33)	14.5 (1.31)	12.4 (1.69)	18.5 (2.65)	12.5 (2.63)
2	64.9 (0.41)	64.9 (1.80)	60.9 (2.68)	66.8 (3.15)	71.1 (3.66)†
3 or more	18.8 (0.33)	20.6 (1.48)	26.8 (2.44)	14.7 (2.06)†	16.5 (2.98)†
Family Structure[2]					
Two-parent biological/adoptive	55.0 (0.43)	52.9 (1.94)	52.8 (2.78)	50.2 (3.56)	57.9 (4.07)
Two-parent stepfamily	10.0 (0.26)	2.3 (0.49)*	*2.2 (0.84)*	2.5 (0.63)	*2.0 (1.09)*
Single mother family	29.9 (0.41)	36.4 (1.87)*	36.2 (2.70)	39.6 (3.41)	31.2 (3.86)
Other	5.2 (0.19)	8.5 (1.00)*	8.9 (1.63)	7.8 (1.42)	8.9 (2.23)
Primary Language in Household					
English	95.3 (0.21)	98.8 (0.40)*	98.8 (0.65)	99.6 (0.24)	97.3 (1.31)
Not English	4.7 (0.21)	*1.2 (0.40)**	*1.2 (0.65)*	*0.4 (0.24)*	*2.7 (1.31)*
Highest Education in Household					
Less than High School	6.8 (0.24)	4.5 (0.74)*	3.3 (0.91)	7.1 (1.64)†	*2.5 (1.17)*
High School/GED	23.1 (0.38)	15.0 (1.44)*	17.9 (2.21)	16.2 (2.61)	*5.6 (2.31)†*
Some College	25.3 (0.36)	22.0 (1.51)*	31.4 (2.55)	18.1 (2.26)†	6.0 (1.67)†
4-year Degree or higher	44.8 (0.42)	58.6 (1.90)*	47.4 (2.76)	58.6 (3.40)†	85.9 (2.93)†
Household Income relative to Federal Poverty Level (FPL)					
0 to less than 100% FPL	19.0 (0.37)	11.5 (1.29)*	14.5 (2.12)	12.9 (2.31)	*1.7 (0.82)†*
100 to less than 200% FPL	22.0 (0.38)	19.6 (1.59)	26.6 (2.61)	15.8 (2.35)†	*9.7 (3.15)†*
200 to less than 400% FPL	30.1 (0.40)	30.8 (1.92)	34.2 (2.82)	26.4 (3.46)	31.0 (3.81)
400% FPL and up	28.9 (0.39)	38.2 (1.94)*	24.7 (2.30)	44.9 (3.69)†	57.6 (4.17)†
Any Household Member has Received Cash Assistance from State/County Welfare	6.2 (0.23)	3.2 (0.61)*	3.3 (0.80)	*4.3 (1.34)*	*0.9 (0.51)†*
Metropolitan Statistical Area (MSA) Status					
In an MSA	82.7 (0.27)	85.6 (1.17)*	83.2 (1.90)	86.9 (1.79)	88.8 (2.28)
Not in an MSA	17.3 (0.27)	14.5 (1.17)*	16.8 (1.90)	13.1 (1.79)	11.3 (2.28)

Note: italicized cells contain unreliable estimates (Relative Standard Error >0.3)
[1]Includes biological, adoptive, step or foster parents as well as other adults in the household (adopted CSHCN have no biological parents in the household)
[2]Based only on biological, adoptive, step or foster parents irrespective of other adults in the household
*Significantly different at the 0.05 level from the estimate for all CSHCN
†Significantly different at the 0.05 level from the estimate for CSHCN adopted from Foster Care
Source: National Survey of Children with Special Health Care Needs, 2005-2006

Figure 4. Percent of Adopted Children with Special Health Care Needs in Selected Household Income Categories, by Adoption Type

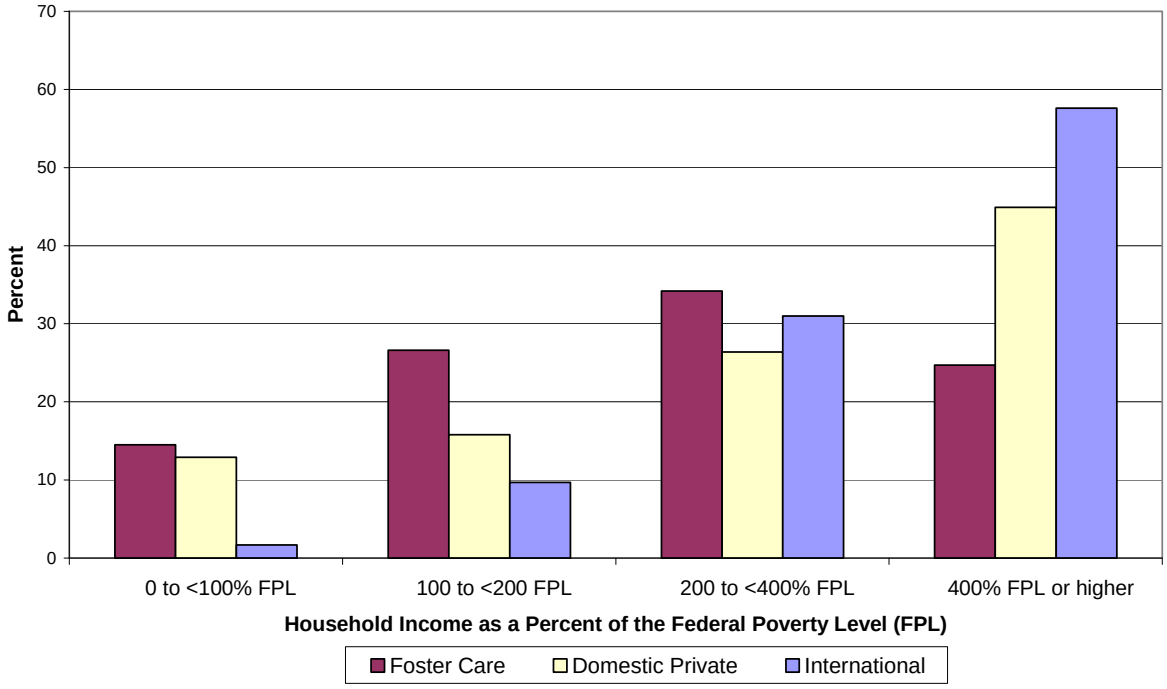


Figure 5. Percent Distribution of Age at Adoption, for Adopted Children with Special Health Care Needs, by Adoption Type

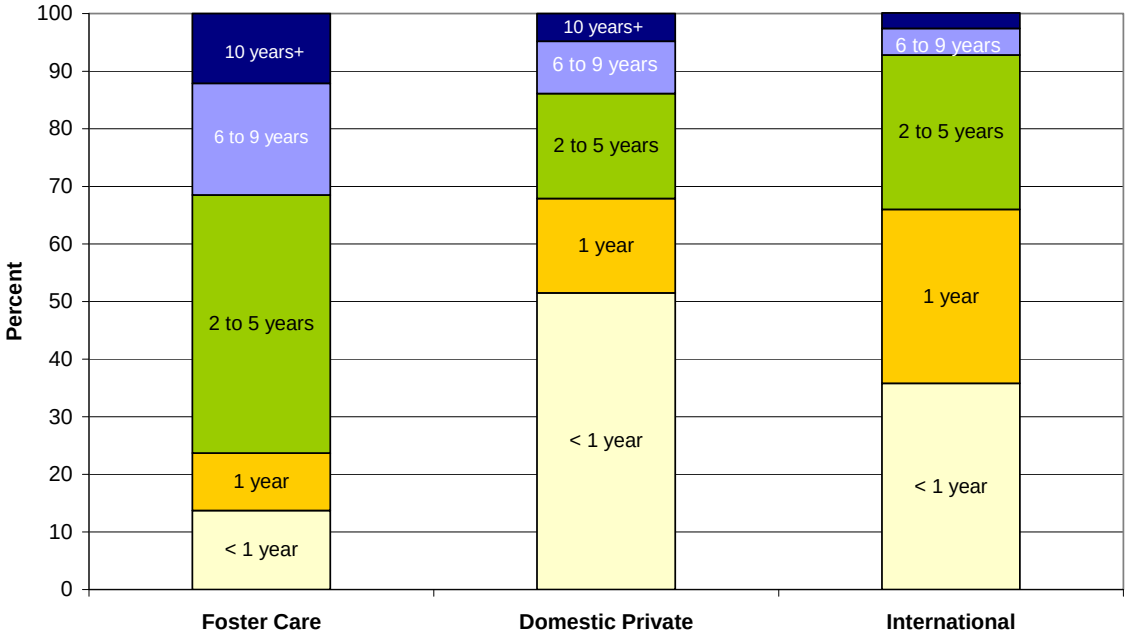


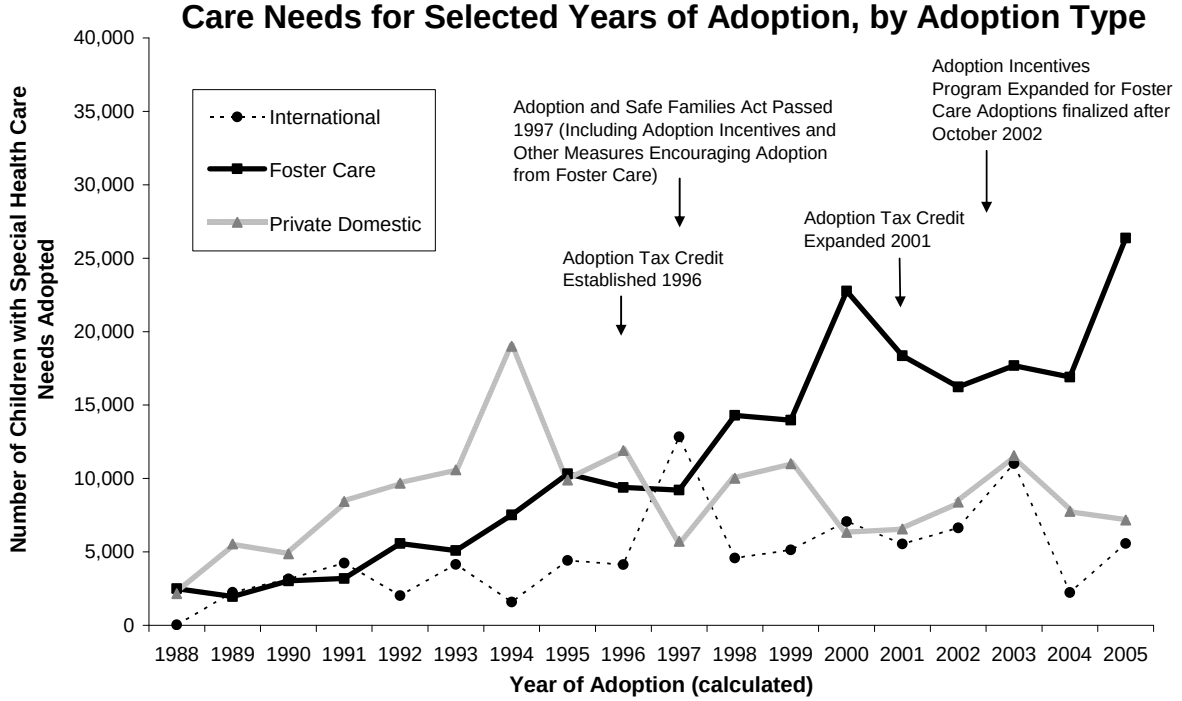
Table 3: Percent of Adopted Children with Special Health Care Needs (CSHCN) with Selected Adoption-specific Characteristics, by Adoption Type

Characteristic	*Weighted Percent (standard error)*			
	Adopted CSHCN	*Adopted CSHCN by Adoption Type*		
		Foster Care	*Private Domestic*	*International*
Child's Age at adoption				
<1 year	30.9 (1.81)	13.7 (1.87)	51.5 (3.58)†	35.8 (4.08)†
1 year	16.1 (1.57)	10.0 (1.50)	16.4 (3.33)	30.2 (3.89)†
2-5 years	32.2 (1.76)	44.8 (2.79)	18.2 (2.20)†	26.8 (3.29)†
6-9 years	13.0 (1.32)	19.4 (2.18)	9.1 (2.10)†	*4.6 (2.00)†*
10 years or older	7.8 (1.02)	12.1 (1.83)	4.8 (1.43)†	*2.7 (1.01)†*
Years since adoption[1]				
0-2	16.8 (1.55)	21.3 (2.52)	11.9 (2.25)†	15.2 (3.22)
3-5	22.1 (1.60)	26.7 (2.67)	15.7 (2.19)†	22.8 (3.20)
6-8	20.8 (1.46)	24.4 (2.37)	17.0 (2.17)†	19.1 (3.06)
9-11	18.0 (1.43)	15.2 (1.89)	18.5 (2.48)	23.8 (3.71)†
12 or more	22.3 (1.83)	12.4 (1.55)	36.9 (3.83)†	19.1 (3.35)
Year of Adoption[2]				
1988-1990	5.5 (0.87)	3.5 (1.04)	7.9 (1.87)†	6.1 (1.70)
1991-1993	11.4 (1.14)	6.4 (0.97)	18.1 (2.47)†	11.7 (3.04)
1994-1996	16.9 (1.70)	12.6 (1.69)	25.7 (3.88)†	11.4 (2.17)
1997-1999	18.7 (1.38)	17.4 (1.92)	16.8 (2.18)	25.4 (3.70)
2000-2002	21.1 (1.51)	26.6 (2.51)	13.4 (1.78)†	21.7 (3.36)
2003-2006	26.3 (1.77)	33.5 (2.78)	18.2 (2.65)†	23.6 (3.54)†
Number of Adoptive Parents in Household				
1	45.6 (1.93)	45.2 (2.77)	49.3 (3.55)	39.8 (4.04)
2	54.4 (1.93)	54.8 (2.77)	50.7 (3.55)	60.2 (4.04)
Presence of Parents[3] other than Adoptive Parents in Household	4.7 (0.79)	5.9 (1.43)	4.7 (1.08)	*2.1 (0.94)†*

Note: italicized cells contain unreliable estimates (Relative Standard Error >0.3)
[1]Years since adoption calculated as (age in months at interview) – (age in months at adoption), divided by 12, then rounded to nearest whole integer
[2]Year of adoption derived by subtracting the number of months between adoption and interview from the century-month code for date of interview to derive the century-month code for date of adoption; older children adopted in the earliest years would have been older than 17 when CSHCN interviews were conducted in 2005 (and would have screened out of the survey). This results in an undercount of adoptions, particularly foster care adoptions, that occurred during the late 1980s and early 1990s
[3]Step or foster parents or other adults in the household who were reported to act as parents to the child
*Significantly different at the 0.05 level from the estimate for all CSHCN
†Significantly different at the 0.05 level from the estimate for CSHCN adopted from Foster Care
Source: National Survey of Children with Special Health Care Needs, 2005-2006

Figure 6 shows the number of adoptions of CSHCN per year, relative to the timing of various policy initiatives designed to encourage adoption. Overall, foster care adoptions of CSHCN have been increasing over time, while the trends for international and private domestic adoptions of CSHCN have remained flatter. The federal Adoption Tax Credit was established in 1996 and expanded in 2001, allowing adoptive parents to recoup adoption costs on their federal tax returns. Following the 2001 expansion, parents adopting children with special needs within the U.S. could claim a credit of $10,000 regardless of actual expenses incurred (special needs, for the purposes of the adoption tax credit, includes children with special health care needs, but is broadly defined as noted in footnote 1). The amount of the tax credit is indexed for inflation and is phased out at higher income levels (U.S. Department of Treasury, 2007; Mickelson and Scott, 2006). The Adoption and Safe Families Act of 1997 (ASFA, P.L. 105-89) was intended to speed

Figure 6. Number of Adopted Children with Special Health Care Needs for Selected Years of Adoption, by Adoption Type



Note: Older children adopted in earliest years shown would have been older than 17 when CSHCN interviews were conducted in 2005 (and would therefore have been screened out of the survey). This results in an undercount of adoptions, particularly foster care adoptions, that occurred during the late 1980s and early 1990s.

permanency decisions for children in foster care. Among other reforms, it established timelines within which child welfare agencies were required, under most circumstances, to file for termination of parental rights and seek an adoptive home for the child if reunification with parents was not possible. ASFA also established the Adoption Incentives Program under which states receive additional funds for increasing the number of children adopted from foster care. The Adoption Incentives Program was reauthorized and expanded in 2002 (U.S. House of Representatives, Committee on Ways and Means, 2004). The number of CSHCN adopted from foster care increased following both these initiatives and follows a generally upward trend since 1997, with most of the increase occurring in the period between 1997 and 2000. Readers are

reminded that the study sample includes only children with at least one special health care need and trends shown here may not represent the broader population of adopted children.

Special Health Care Needs, Health Conditions, and Functional Status—Table 4 shows type and number of CSHCN Screener criteria, type of health conditions, and functional status for all CSHCN, for adopted CSHCN, and for adopted CSHCN by adoption type. Compared with all CSHCN, adopted CSHCN were more likely to be identified as CHSCN on the basis of elevated need for services, physical/occupational/speech therapy, behavioral/developmental/emotional problems requiring treatment or counseling, or limitation in activity (figure 7). CSHCN adopted from foster care were more likely than other adopted CSHCN to be identified due to behavioral/ developmental/emotional problems, more likely than internationally adopted CSHCN to have been identified as having limitations in activity, and more likely than CSHCN adopted privately within the U.S. to have elevated service use and need for specialized therapies. Compared with all CSHCN, adopted CSHCN were less likely to meet only 1 CSHCN screening criterion, and more likely to meet 3, 4 or 5 screening criteria (figure 8). CSHCN adopted from foster care had more special health care needs, on average, than other adopted CSHCN. All of the types of health conditions that showed significant differences between adopted CSHCN and all CSHCN followed the same pattern: physical health conditions (asthma, allergies, migraines) were less prevalent among adopted CSHCN, and mental health conditions (ADD/ADHD, autism, mental retardation, and emotional problems) were more prevalent among adopted CSHCN (figure 9).

Figure 7. Percent of Children with Special Health Care Needs (CSHCN) Qualifying on each CSHCN Screener Criterion, by Adoptive Status

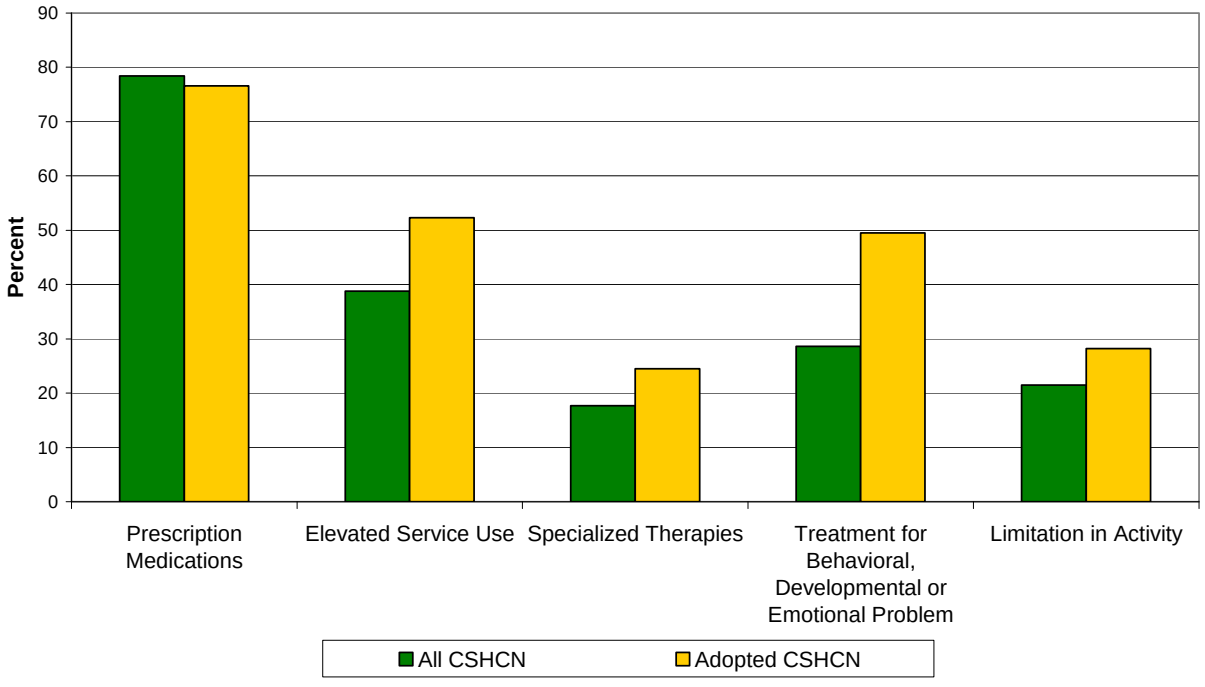


Table 4: Percent of Children with Special Health Care Needs (CSHCN) with Selected Types and Numbers of Special Health Care Needs (SHCN), Health Conditions, or Functional Status Characteristics, by Adoptive Status and Adoption Type

Type or Number of SHCN or Health Condition or Functional Status	*Weighted Percent (standard error)*				
		Adopted	*Adopted CSHCN by Adoption Type*		
	All CSHCN	*CSHCN*	*Foster Care*	*Private Domestic*	*International*
CSHCN Screener Item					
Prescription Medications	78.4 (0.36)	76.6 (1.59)	75.7 (2.39)	80.1 (2.58)	72.3 (3.67)
Elevated Service Use	38.8 (0.41)	52.3 (1.94)*	56.7 (2.72)	47.3 (3.55)†	50.7 (4.11)
Physical/Occupational/Speech Therapy	17.7 (0.32)	24.5 (1.60)*	26.4 (2.45)	18.4 (2.33)†	31.2 (3.79)
Treatment for Behavioral/ Developmental/Emotional Problem	28.6 (0.38)	49.5 (1.95)*	56.5 (2.74)	45.6 (3.57)†	39.7 (3.97)†
Limitation in Activity	21.5 (0.35)	28.2 (1.81)*	32.5 (2.64)	25.5 (3.30)	22.8 (3.51)†
Number of SHCN					
Any 1	55.0 (0.42)	38.8 (1.90)*	34.4 (2.63)	42.0 (3.54)	43.4 (4.06)
Any 2	20.6 (0.35)	22.2 (1.60)	20.2 (2.23)	25.4 (2.98)	21.0 (3.41)
Any 3	12.8 (0.28)	16.6 (1.31)*	19.2 (2.05)	13.0 (1.90)†	16.8 (3.12)
Any 4	7.7 (0.23)	14.3 (1.52)*	15.5 (2.02)	13.4 (3.05)	12.9 (3.02)
All 5	3.9 (0.15)	8.2 (1.05)*	10.6 (1.89)	6.3 (1.36)	5.9 (1.50)
Average # SHCN (1-5)	1.85 (0.01)	2.31 (0.05)*	2.48 (0.08)	2.17 (0.09)†	2.17 (0.10)†
Type of Health Condition					
Asthma	38.8 (0.42)	28.8 (1.76)*	30.0 (2.68)	30.3 (3.01)	22.8 (3.66)
ADD/ADHD	29.8 (0.39)	53.8 (1.97)*	60.1 (2.73)	54.0 (3.60)	38.2 (4.05)†
Autism	5.4 (0.19)	8.0 (1.36)*	7.5 (1.56)	11.1 (3.19)	*3.9 (1.34)*
Mental Retardation	11.4 (0.28)	21.6 (1.53)*	28.3 (2.50)	14.6 (2.13)†	18.1 (3.02)†
Emotional Problems	21.1 (0.35)	34.6 (1.90)*	40.3 (2.71)	34.4 (3.65)	20.8 (2.91)†
Seizure Disorder	3.5 (0.14)	4.2 (0.71)	6.0 (1.33)	2.0 (0.55)†	*3.6 (1.49)*
Migraine/Frequent Headaches	15.1 (0.31)	10.2 (1.09)*	8.8 (1.28)	13.3 (2.21)	*8.0 (2.66)*
Joint Problems	4.3 (0.18)	3.4 (0.61)	3.6 (0.93)	3.7 (1.07)	*2.3 (1.17)*
Allergies	53.0 (0.42)	41.5 (1.90)*	42.0 (2.78)	43.0 (3.41)	37.6 (3.86)
Other condition(s)[1]	10.0 (0.26)	9.3 (1.12)	11.5 (1.88)	5.8 (1.19)†	10.4 (2.87)
Average # of Conditions (0-16)	1.92 (0.01)	2.14 (0.06)*	2.37 (0.09)	2.11 (0.09)†	1.65 (0.09)†
Functional Status					
Bodily Function Difficulties	57.4 (0.42)	46.7 (1.94)*	49.3 (2.77)	44.7 (3.44)	43.9 (4.16)
Activity/Participation Difficulties	49.3 (0.42)	72.6 (1.68)*	76.8 (2.38)	71.9 (2.83)	63.7 (4.08)†
Emotional/Behavioral Difficulties	41.9 (0.43)	58.2 (1.93)*	68.1 (2.57)	56.4 (3.54)†	37.4 (3.76)†

Note: italicized cells contain unreliable estimates (Relative Standard Error >0.3)
*Significantly different at the 0.05 level from the estimate for all CSHCN
†Significantly different at the 0.05 level from the estimate for CSHCN adopted from Foster Care
[1] Other conditions include Down syndrome, diabetes, heart problems, blood problems, cystic fibrosis, cerebral palsy and muscular dystrophy
Source: National Survey of Children with Special Health Care Needs, 2005-2006

Figure 8. Percent Distribution of Number of Special Health Care Needs Screener Qualifying Criteria, by Adoptive Status

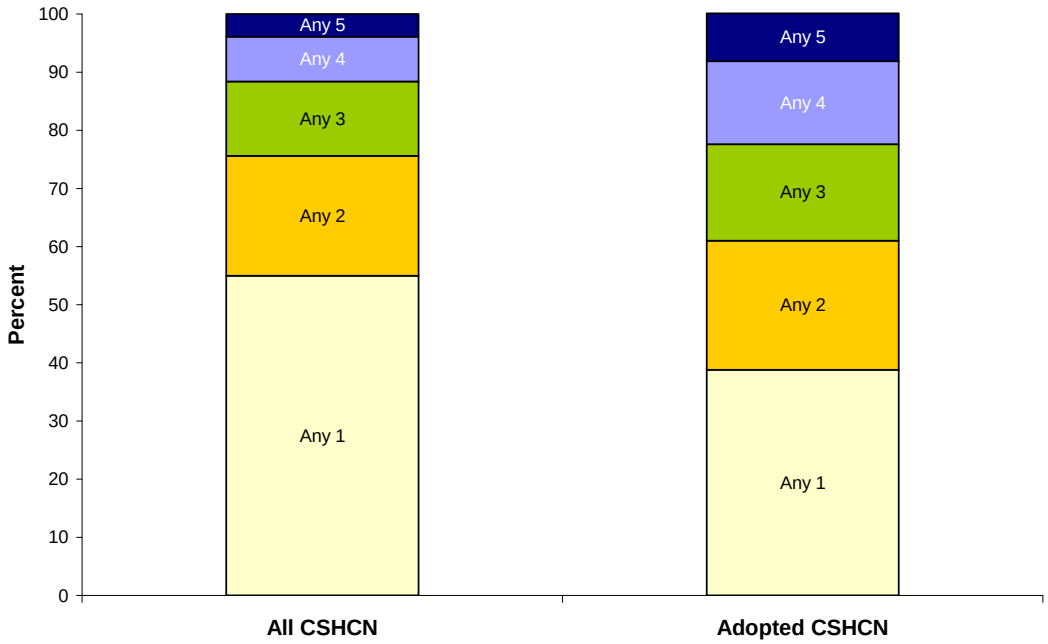
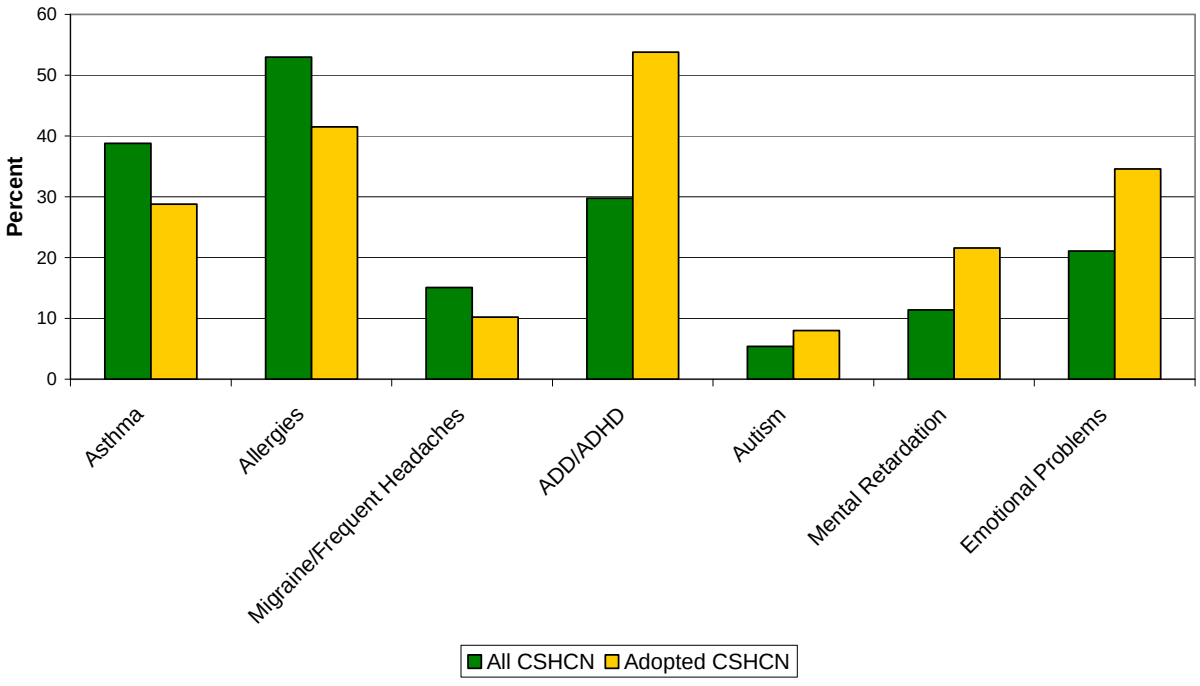
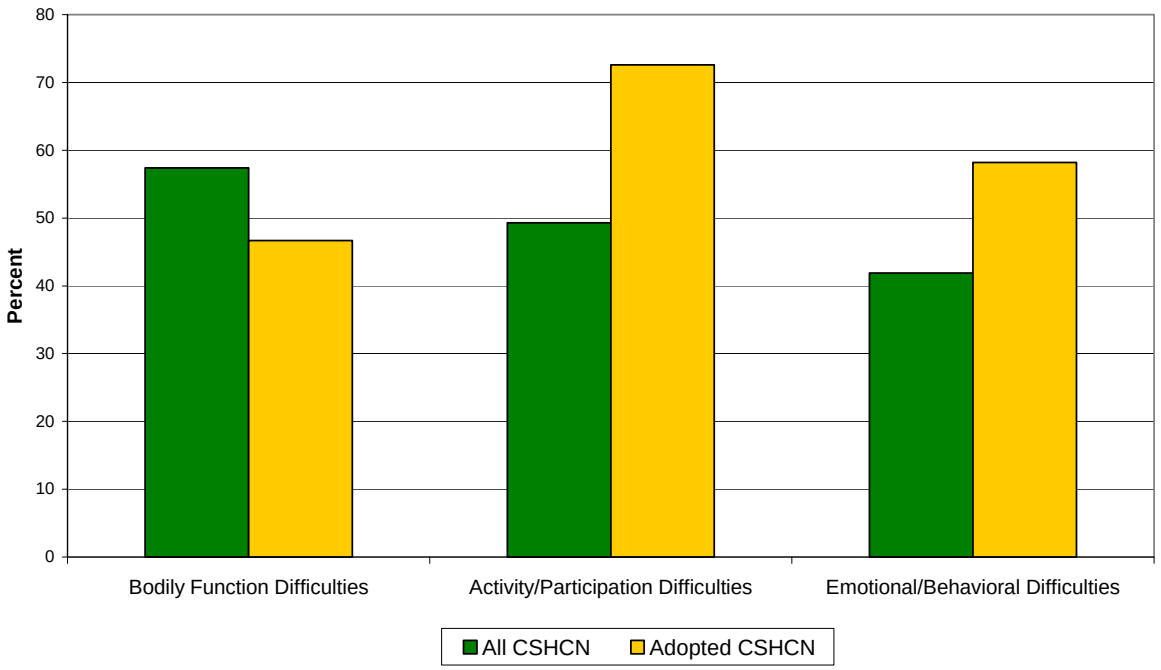


Figure 9. Percent of Children with Special Health Care Needs with Selected Health Conditions, by Adoptive Status



CSHCN adopted from foster care had more health conditions, on average, than other adopted CSHCN. Adopted CSHCN were less likely to have bodily function difficulties and more likely to have activity/participation and emotional/behavioral difficulties, compared with all CSHCN (figure 10). CSHCN adopted from foster care were more likely than other adopted CSHCN to have emotional/behavioral difficulties and more likely than CSHCN adopted internationally to have activity/participation difficulties.

Figure 10. Percent of Children with Special Health Care Needs with Selected Functional Status Difficulties, by Adoptive Status



Health Status, Insurance, Access to Care and Impact on the Family—Table 5 shows indicators of health status, insurance coverage, access to health care, and the impact of the child's condition(s) on the family for all CSHCN, for adopted CSHCN, and for adopted CSHCN by adoption type. Adopted CSHCN were more likely to have conditions that greatly or consistently affected their activities, but less likely to miss more than 10 days of school due to illness, compared with all CSHCN. CSHCN adopted from foster care were more likely to miss more than 10 school days than other adopted CSHCN. Adopted CSHCN were less likely to experience gaps in insurance coverage the previous year and less likely to have inadequate insurance, compared with all CSHCN. CSHCN adopted internationally were more likely to have problems getting a referral to see a specialty doctor than CSHCN adopted from foster care. Having a usual source of care did not differ by adoptive status or adoption type, but adopted CSHCN were less likely to lack a personal doctor or nurse. Receipt of family-centered care did not vary significantly by adoptive status or adoption type, except that adopted CSHCN were less likely to have problems with

Table 5: Percent of Children with Special Health Care Needs (CSHCN) with Selected Health Status, Insurance, Access to Care or Impact on the Family Characteristics, by Adoptive Status and Adoption Type

Health Status, Insurance, Access to Care or Impact on the Family Indicator	*Weighted Percent (standard error)*				
		Adopted CSHCN	*Adopted CSHCN by Adoption Type*		
	All CSHCN		*Foster Care*	*Private Domestic*	*International*
CSHCN whose health conditions affect daily activities consistently/a great deal	24.0 (0.37)	30.9 (1.69)*	35.3 (2.58)	26.3 (2.71)†	28.2 (3.65)
CSHCN who missed >10 school days due to illness	14.3 (0.33)	9.7 (1.08)*	13.2 (1.93)	8.2 (1.46)†	*3.4 (1.17)†*
CSHCN ever uninsured during past year	8.8 (0.24)	4.8 (0.70)*	3.7 (0.92)	6.2 (1.35)	*5.1 (1.60)*
CSHCN currently uninsured	3.5 (0.15)	1.7 (0.39)*	*0.7 (0.45)*	3.4 (0.92)†	*0.7 (0.43)*
Insured CSHCN with inadequate insurance	33.1 (0.41)	29.2 (1.88)*	26.0 (2.46)	31.9 (3.62)	32.4 (4.19)
Benefits don't meet child's needs	12.7 (0.30)	13.4 (1.61)	11.4 (1.97)	18.0 (3.56)	9.8 (2.20)
Non-covered costs aren't reasonable	30.4 (0.42)	26.1 (1.90)*	22.5 (2.49)	29.0 (3.67)	28.5 (3.95)
Plan doesn't allow needed providers	9.3 (0.27)	10.3 (1.48)	9.5 (1.62)	12.0 (3.34)	*9.0 (2.84)*
CSHCN who had difficulty getting a referral	21.1 (0.64)	19.8 (3.10)	13.4 (2.40)	24.9 (7.39)	25.9 (5.74)†
CSHCN without a usual source of care	5.7 (0.21)	4.3 (0.74)	4.4 (1.15)	4.4 (1.21)	*4.0 (1.49)*
CSHCN without a personal doctor/nurse	6.5 (0.22)	4.0 (0.65)*	4.5 (1.10)	3.9 (1.02)	*2.8 (0.97)*
CSHCN without family-centered care[1]	34.5 (0.42)	31.5 (1.90)	31.2 (2.52)	32.9 (3.62)	29.5 (4.20)
Doctors don't spend enough time	21.3 (0.37)	18.0 (1.53)*	17.2 (2.05)	19.1 (2.71)	18.0 (3.88)
Drs. don't listen carefully	11.2 (0.28)	8.9 (1.06)*	9.4 (1.64)	8.7 (1.88)	8.0 (1.88)
Drs. aren't sensitive to customs/values	11.1 (0.28)	9.3 (1.07)	9.6 (1.45)	10.2 (2.19)	7.0 (1.71)
Drs. don't provide enough information	16.9 (0.32)	17.3 (1.65)	17.1 (2.09)	20.2 (3.45)	12.7 (2.81)
Respondent doesn't feel like partner	12.4 (0.29)	11.3 (1.27)	11.9 (1.86)	11.3 (2.33)	9.9 (2.52)
CSHCN whose families pay >$1000 out of pocket for health care	20.0 (0.32)	26.1 (1.87)*	17.1 (2.12)	32.9 (3.84)†	35.7 (3.80)†
CSHCN whose families had financial problems due to child's health	18.1 (0.32)	17.1 (1.57)	15.9 (2.06)	17.8 (3.08)	18.5 (3.30)
CSHCN whose families spend 11+ hours per week providing/ coordinating care	9.7 (0.26)	9.1 (1.06)	12.2 (1.82)	7.7 (1.63)	*4.3 (1.43)†*
CSHCN whose family members had to cut back or stop work to care for child	23.8 (0.36)	27.5 (1.71)*	33.3 (2.65)	21.2 (2.57)†	25.2 (3.80)

Note: italicized cells contain unreliable estimates (Relative Standard Error >0.3)
[1]Only 8 adopted children were eligible for the 6th component, whether the family gets an interpreter if needed
*Significantly different at the 0.05 level from the estimate for all CSHCN
†Significantly different at the 0.05 level from the estimate for CSHCN adopted from Foster Care
Source: National Survey of Children with Special Health Care Needs, 2005-2006

doctors not spending enough time or listening carefully, relative to all CSHCN. Although families of adopted CSHCN were more likely to pay more than $1,000 out of pocket for medical care, compared with all CSHCN, they were not more likely to have financial problems due to the child's health. Similarly, although families of adopted CSHCN were more likely to cut back on work in order to provide care for the child, they were not more likely to spend 11 or more hours per week providing, arranging or coordinating health care for the child.

Health Care Services, Family Support Services, and Special Services—Table 6 shows need for and receipt of health care services, family support services, and special services for all CSHCN, for adopted CSHCN, and for adopted CSHCN by adoption type. All the specific health care services that showed a significant difference, except durable medical equipment, indicated a greater need for the service among adopted CSHCN, relative to all CSHCN (figure 11). Few health care services showed a significant difference by adoption type. Unmet need for health care services did not significantly differ by adoptive status or adoption type. The families of adopted CSHCN were more likely to need respite care and family mental health care, and were twice as likely to have any unmet need for family support services, relative to all CSHCN. CSHCN adopted from foster care were more likely than other adopted CSHCN to have need and unmet need for family support services, although differences between CSHCN adopted from foster care and CSHCN adopted from private domestic sources were largely not significant (figure 12). Adopted CSHCN were more likely to receive Early Intervention and Special Education services, relative to all CSHCN.

Figure 11. Percent of Children with Special Health Care Needs with Selected Health Care Service Needs, by Adoptive Status

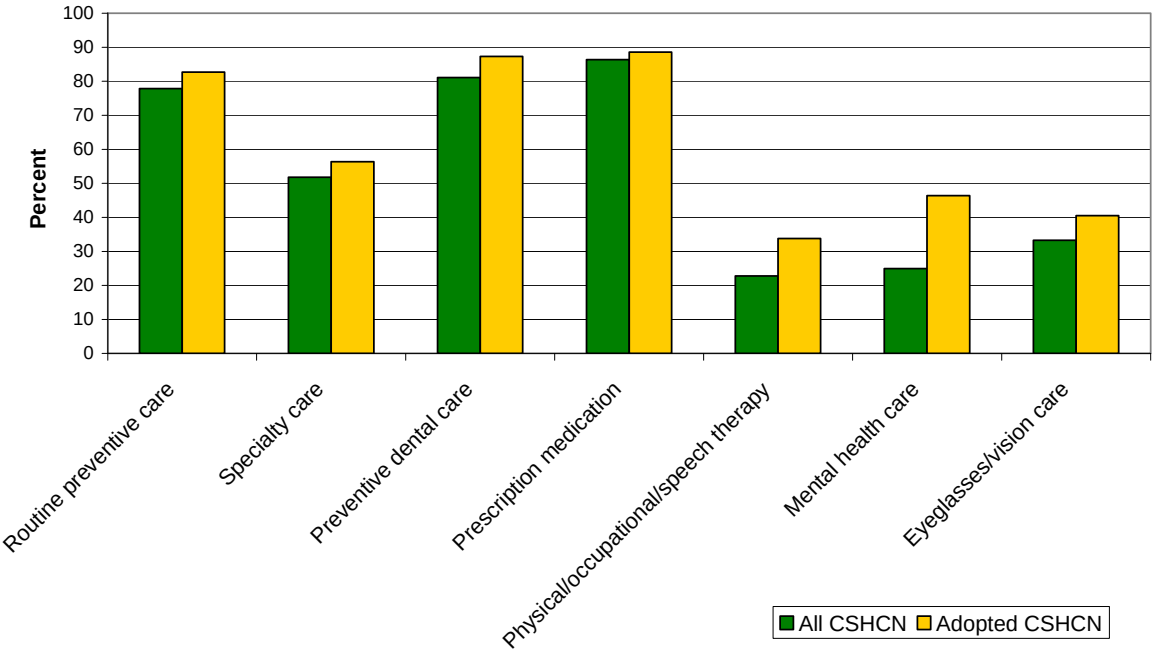
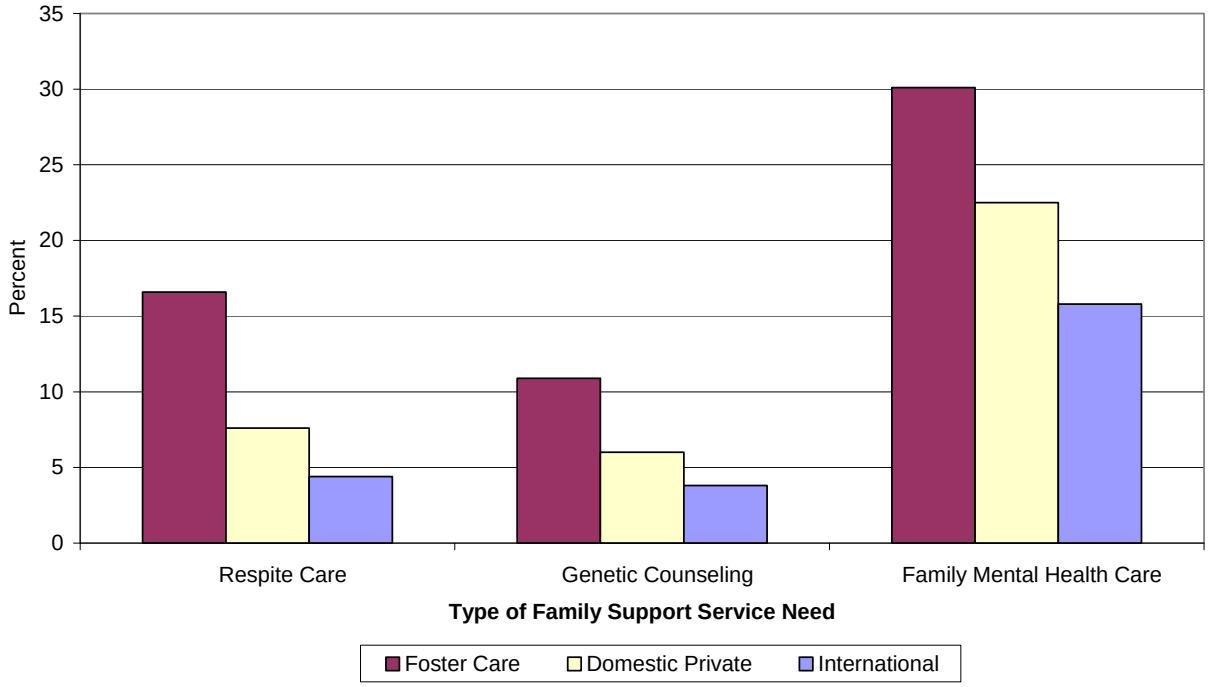


Table 6: Percent of Children with Special Health Care Needs (CSHCN) with Need for and Receipt of Health Care Services, Family Support Services, and Special Services, by Adoptive Status and Adoption Type

	Weighted Percent (standard error)				
		Adopted	*Adopted CSHCN by Adoption Type*		
	All CSHCN	*CSHCN*	*Foster Care*	*Private Domestic*	*International*
CSHCN with need for Health Care Services					
Routine preventive care	77.9 (0.35)	82.7 (1.45)*	79.8 (2.35)	81.7 (2.48)	91.6 (1.82)†
Specialty care	51.8 (0.42)	56.4 (1.91)*	52.2 (2.76)	58.7 (3.38)	62.6 (4.07)†
Preventive dental care	81.1 (0.34)	87.3 (1.23)*	88.6 (1.70)	83.4 (2.48)	91.2 (2.09)
Other dental care	24.2 (0.36)	27.9 (1.76)*	24.2 (2.35)	29.1 (3.35)	34.7 (3.89)†
Prescription medication	86.4 (0.30)	88.6 (1.07)*	87.3 (1.58)	91.0 (1.92)	87.2 (2.22)
Physical/occupational/speech therapy	22.8 (0.36)	33.8 (1.86)*	36.3 (2.69)	26.7 (3.30)†	40.7 (4.05)
Mental health care	25.0 (0.37)	46.4 (1.95)*	52.8 (2.75)	46.0 (3.60)	31.5 (3.54)†
Substance abuse treatment	2.8 (0.19)	3.6 (0.66)	3.1 (0.76)	*4.2 (1.37)*	*3.5 (1.44)*
Home health care	4.5 (0.19)	4.8 (0.80)	6.9 (1.49)	*2.2 (0.78)†*	*4.2 (1.49)*
Eyeglasses/vision care	33.3 (0.39)	40.5 (1.91)*	44.0 (2.74)	37.3 (3.49)	37.9 (3.96)
Hearing aids/hearing care	4.7 (0.19)	5.4 (0.77)	5.0 (1.21)	4.6 (1.09)	7.6 (1.90)
Mobility aids	4.4 (0.18)	4.3 (0.80)	3.7 (1.00)	2.7 (0.75)	*8.9 (3.11)*
Communication aids	2.2 (0.13)	3.0 (0.66)	*3.9 (1.19)*	*2.3 (0.79)*	*1.9 (1.18)*
Medical supplies	18.6 (0.32)	16.3 (1.37)	18.0 (2.22)	14.3 (1.89)	15.9 (3.23)
Durable medical equipment	11.4 (0.27)	9.0 (1.14)*	8.8 (1.69)	8.2 (1.68)	10.8 (3.04)
CSHCN with 1 or more unmet need for specific health care services	16.1 (0.32)	15.9 (1.52)	16.5 (1.94)	16.7 (3.23)	12.8 (2.43)
CSHCN whose families have need for Family Support Services					
Respite Care	4.5 (0.19)	11.1 (1.20)*	16.6 (2.07)	7.6 (1.84)†	*4.4 (1.45)†*
Genetic Counseling	5.7 (0.21)	7.8 (1.13)	10.9 (2.02)	6.0 (1.57)	*3.8 (1.31)†*
Family Mental Health Care	12.3 (0.28)	24.8 (1.68)*	30.1 (2.61)	22.5 (2.89)	15.8 (2.67)†
CSHCN with 1 or more unmet need for family support services	4.9 (0.19)	10.0 (1.15)*	12.9 (1.88)	8.5 (1.97)	5.6 (1.38)†
CSHCN who receive Special Education services (children ages 3+)	28.5 (0.40)	42.8 (1.94)*	46.7 (2.78)	38.7 (3.46)	40.5 (4.17)
CSHCN who receive Early Intervention services (children under age 3)	22.6 (1.37)	49.8 (9.01)*	*60.2 (18.7)*	49.7 (13.5)	*42.3 (15.6)*

Note: italicized cells contain unreliable estimates (Relative Standard Error >0.3)
*Significantly different at the 0.05 level from the estimate for all CSHCN
†Significantly different at the 0.05 level from the estimate for CSHCN adopted from Foster Care
Source: National Survey of Children with Special Health Care Needs, 2005-2006

Figure 12. Percent of Adopted Children with Special Health Care Needs with Selected Family Support Service Needs, by Adoption Type



DISCUSSION

Adopted CSHCN are a distinct group among the larger population of CSHCN. They are less likely to have physical health conditions or bodily function difficulties, but are more likely to have mental health conditions, activity/participation and emotional/behavioral functional difficulties. They are more likely to have most of the special health care needs assessed in the CSHCN Screener and more likely to need a variety of health care and family support services, relative to all CSHCN. They also have a number of advantages in terms of their families' ability to meet these challenges. They are more likely to be insured, to have consistent and adequate insurance coverage, and to live in households with higher income and education. In addition, although their families pay more out of pocket for their health care, they do not appear to suffer greater financial difficulties as a result.

That adopted CSHCN were somewhat more likely to live with single mothers than other CSHCN and that almost half of adopted CSHCN had only one adoptive parent in the household may suggest a propensity for single individuals to adopt children with special health care needs. Alternatively, it may reflect a preference on the part of adoption agencies to place children with married couples, making CSHCN and other children for whom it is harder to find adoptive homes more available to individual adopters. Another possibility is that the stress placed on adoptive parents by their children's special health care needs may contribute to separation or divorce among couples who have adopted CSHCN.

Adopted CSHCN differentiated by adoption type are distinct groups in many ways as well. Demographically, the groups vary by race, income and age at adoption. Their racial differences reflect those of the populations available for adoption from various sources. African American children are overrepresented among children available for adoption from foster care, and Asian children are overrepresented among those available for adoption internationally. Income differences among adoption types are likely related to the cost of adoption for private and (especially) international adoptions, and are likely related to health insurance status and other health care issues that correlate with income. Age at adoption is likely related to differences in the prevalence of special health care needs, though disentangling relationships among age, adoption type, and the prevalence of special health care needs is beyond the scope of this analysis.

That former foster children are much more likely than other adopted CSHCN to rely exclusively on public insurance or to combine public and private insurance appears to reflect federal and state policies that provide Medicaid coverage to children adopted from foster care as part of adoption assistance agreements (Child Welfare Information Gateway, 2004). Because families sometimes fear the potential health care costs of conditions that are not apparent at the time of adoption, the findings that relatively few families report financial difficulties as a result of their children's special health care needs, and that adoptive parents are no more likely than other parents of CSHCN to report such difficulties, are important and encouraging.

Despite their demographic differences, in some ways CSHCN adopted from different sources are more similar to one another than they are to the general population of CSHCN. Adopted CSHCN from all sources had high rates of activity/participation difficulties, ADD/ADHD, and treatment for an emotional/developmental/behavioral condition. It is interesting that the rates were high both among CSHCN adopted from foster care and those adopted from private domestic sources, although interpretation is complicated by this being a sample only of CSHCN. That internationally adopted children had lower rates of these problems may in part be related to age differences, since internationally adopted CSHCN were younger overall and these diagnoses are less common in preschool children.

On the other hand, CSHCN adopted from different sources do differ on some dimensions of health and health care. In every instance of a significant difference by adoption type in type or number of special health care needs, type or number of health conditions, functional status or health status, CSHCN adopted from foster care had a higher prevalence of the problem or poorer status than other adopted CSHCN. Families of CSHCN adopted from foster care were more likely than families of internationally-adopted CHSCN to report needing mental health care for the child, needing all three family support services, and having an unmet need for family support services. However, they were less likely to report having difficulty getting a referral to a specialty doctor, paying more than $1,000 out of pocket for health care services, or needing certain health care services.

Many adopted CSHCN have multiple special health care needs and/or multiple health conditions. Adopted CSHCN have more health care needs and more health conditions, on average, than other CSHCN, and CSHCN adopted from foster care have more special health care needs and more health conditions, on average, than other adopted CSHCN. This affirms the

recent attention (The Casey Center for Effective Child Welfare Practice, 2003a; The Casey Center for Effective Child Welfare Practice, 2003b; Gibbs et al., 2002) to ensuring the availability of service providers, particularly mental health professionals, who understand adoption issues, and suggests that recent attention to ensuring the availability of post-adoption services is well grounded, especially for children adopted from foster care (Wind et al., 2007; Grogg and Grogg, 2007; Raghavan et al., 2007).

In interpreting the findings reported here it is important to recognize that this sample includes only CSHCN. The underlying prevalence of particular conditions or health care needs in the full population of adopted children cannot be assessed with these data. Data from a representative sample of all adopted children would be necessary to examine questions of population prevalence. Such data will be available when the 2007 National Survey of Children's Health is released in 2009.

Limitations

As a sample survey, the NS-CSHCN was subject to non-random error, including coverage bias and nonresponse bias. In addition, these survey findings are based on parents' experiences and perceptions about children's health. Information provided about health care status and services was not verified with health care professionals.

The NS-CSHCN question that identified adoptions from foster care reads: "Was (sample child) residing in foster care prior to being placed for adoption? This includes children placed by private agencies on behalf of a state or county child welfare agency." This question does not allow us to distinguish between CSHCN adopted by their foster parents from CSHCN in foster care adopted by people other than their foster parents, such as relatives or by families previously unknown to the child. The question also does not allow us to distinguish CSHCN adopted directly from foster care from CSHCN adopted through a private agency some time after residing in foster care. Thus, the phrase, "adopted from foster care" should not be interpreted to specifically mean "adopted by the foster parents" or "adopted directly from foster care." It simply means, "adopted after having lived in foster care." Analyses based on the 2007 National Survey of Children's Health and the National Survey of Adoptive Parents, to be released in early 2009, will be able to distinguish children adopted by their foster parents from children adopted after foster care by persons other than their foster parents.

Private domestic adoptions, other than step-parent adoptions which were excluded from our analysis, almost always involve infants (Evan B. Donaldson Adoption Institute, no date; Child Welfare Information Gateway, 2003). However, our results indicate that only slightly more than half of CSCHN adopted from private domestic sources were under age 1 at adoption and one third were two years of age or older at adoption. This is likely an artifact of sample design. Prevalence of CSHCN is lower at younger ages (US DHHS, 2007), presumably because there has been less opportunity to recognize the health problems of the child or because the child's health problems develop or become more noticeable as the child ages. It is also possible that some CSHCN are placed for adoption at older ages because of health problems that were not evident at birth or that over time became more than their families could handle. This once again

underscores the importance of not generalizing these results to the population of all adopted children.

CONCLUSION

In the child welfare field, adoption has traditionally been viewed as an outcome, that is, the achievement of a goal for the child (Bay Area Social Services Consortium, 2005; Poertner, McDonald and Murray, 2000). After finalization, the child is legally part of the adoptive family, which has assumed all rights and responsibilities of parents (Hollinger, 1993). Limited follow-up may be conducted over the first few months, but rarely does extensive contact between the family and the agency, public or private, domestic or international, continue beyond finalization. In recent years, however, the view of adoption as an outcome has gradually been replaced by a conceptualization of adoption as a process rather than a discrete event. Adopted children and adoptive families face issues that continue and evolve over time, well beyond an initial adjustment period, and indeed throughout their lifetimes (Grotevant and Kohler, 1999).

Many adoption agencies, both public and private, have begun developing post-adoption services, although their availability varies and it is unclear what proportion of families desire or make use of such services. The development of post-adoption services for children adopted from foster care has been encouraged by the availability, since 2001, of funds for adoption promotion and support services through the federal Promoting Safe and Stable Families Program. Funds received by states from the Adoption Incentives Program (created in 1997) may also be used for this purpose (U.S. House of Representatives, Committee on Ways and Means, 2004). With respect to international adoptions, implementation in 2008 of the Hague Convention on Intercountry Adoptions has begun to improve the availability of post-adoption services for families. This treaty affects adoptions between nations that have ratified it and went into effect in the U.S. in April 2008 (U.S. State Department, 2008). Among its provisions is a requirement that all agencies conducting adoptions between nations participating in the treaty be accredited. Standards for accreditation include items requiring the availability of post-adoption services[3]. While relatively few adoptions to the U.S. are subject to the Hague Convention at this time, many agencies performing international adoptions have sought accreditation because they operate in at least one country that has ratified the treaty. Overall, the establishment of accreditation processes for intercountry adoption agencies has promoted the availability of post-adoption services for families adopting internationally.

For CSHCN, continued or emerging special health care needs underscore that adoption is not a finite event, as families must adapt to meet the child's ongoing needs. These needs tend to be more extensive for CHSCN adopted from foster care than for other adopted CSHCN. Data from the National Survey of Adoptive Parents will help illuminate the ongoing needs of adopted children and how their families utilize services available after the adoption is finalized.

[3] The Council on Accreditation is the major body accrediting international adoption service providers. Their accreditation standards regarding post-adoption services may be found at: http://www.coastandards.org/standards.php?navView=private&core_id=821

REFERENCES

Bay Area Social Services Consortium (2005). *Understanding and Measuring Child Welfare Outcomes.* Berkeley, CA: University of California at Berkeley, School of Social Welfare. Accessed June 30, 2008 at: http://cssr.berkeley.edu/bassc/public/outcomes_summ.pdf

Bethell CD, Read D, Stein REK, Blumberg SJ, Wells N and Newacheck PW (2002). Identifying children with special health care needs: development and evaluation of a short screening instrument. *Ambulatory Pediatric*s, 2: 38-47.

Blumberg SJ, Welch EM, Chowdhury SR, Upchurch HL, Parker EK and Skalland BJ (2008). Design and operation of the National Survey of Children with Special Health Care Needs, 2005-2006. National Center for Health Statistics. *Vital Health Stat* 1. Advance Access Online Version, accessed June 4, 2008 at: http://www.cdc.gov/nchs/data/slaits/NSCSHCN_0506_DO_112807.pdf.

Bower, JW (no date). *Achieving Permanence for Every Child: The Effective Use of Adoption Subsidies.* St. Paul, MN: North American Council on Adoptable Children, Accessed June 20, 2008 at: http://www.nacac.org/adoptalk/exec_adoption_subsidies.html

Bower, JW and Laws, R (2002). *Forever Families: Support for Families of Children with Special Needs*. St. Paul, MN: North American Council on Adoptable Children, Accessed June 30, 2008 at: http://www.nacac.org/adoptionsubsidy/ForeverFamilies.pdf

Bramlett, MD, Radel, LF and Blumberg, SJ (2007). The health and well-being of adopted children. *Pediatrics*, 119: 54-60.

Bramlett, MD and Blumberg, SJ (2007). Family structure and children's physical and mental health. *Health Affairs*, 26(2): 549-558.

Brodzinsky, DM (1993). Long-term outcomes in adoption. *Future of Children*, 3: 153-166.

The Casey Center for Effective Child Welfare Practice (2003a). *Strengthening Families & Communities: An Approach to Post-Adoption Services***.** Accessed June 18, 2008 at: http://www.caseyfamilyservices.org/pdfs/casey_pawhitepaper.pdf

The Casey Center for Effective Child Welfare Practice (2003b). *Strengthening Families & Communities: Promising Practices in Adoption-Competent Mental Health Services***.** Accessed June 18, 2008 at: http://www.caseyfamilyservices.org/casey_mhpaper.html

The Child Welfare Information Gateway (2003). *Adoption options*. Accessed June 25, 2008 at: http://www.childwelfare.gov/pubs/f_adoptoption.cfm

Child Welfare Information Gateway (2004a). *Adoption Assistance for Children Adopted From Foster Care: Factsheet for Families.* Accessed June 30, 2008 at: http://www.childwelfare.gov/pubs/f_subsid.cfm

Child Welfare Information Gateway (2004b). *How many children were adopted in 2000 and 2001?* Washington, DC: Child Welfare Information Gateway. Available online at: http://www.childwelfare.gov/pubs/s_adopted/index.cfm

Evan B. Donaldson Adoption Institute (no date). *International Adoption Facts* and *Private Domestic Adoption Facts*. Accessed June 18, 2008 at: http://www.adoptioninstitute.org/research/internationaladoption.php and http://www.adoptioninstitute.org/research/domesticadoption.php

Gibbs, D, Siebenaler, K and Barth, RP (2002). *Assessing the Field of Post-Adoption Services: Family Needs, Program Models and Evaluation Issues. Summary Report.* Washington, DC: U.S. Department of Health and Human Services, Office of the Assistant Secretary for Planning and Evaluation. Available online at: http://aspe.hhs.gov/hsp/post-adoption01/summary/index.htm

Grogg, SE and Grogg, BC (2007). Intercountry adoptions: Medical aspects for the whole family. *Journal of the American Osteopathic Association,* 107(11): 481-489.

Grotevant, HD and Kohler, JK (1999). Adoptive Families. In: *Parenting and Child Development in "Nontraditional" Families*. (Lamb, ME, ed.). Mahway, NJ: Lawrence Erlbaum, Associates.

Hollinger, JH (1993). Adoption Law. *The Future of Children*, 3(1): 43-61.

Howard, JE, Smith, SL and Ryan, SC (2004). A comparative study of child welfare adoptions with other types of adopted children and birth children. *Adoption Quarterly,* 7(1): 1-31.

Immigration and Naturalization Service (2000). *1998 Statistical Yearbook of the Immigration and Naturalization Service*. Washington, DC: Immigration and Naturalization Service. Available online at: http://www.dhs.gov/xlibrary/assets/statistics/yearbook/1998/1998yb.pdf

Keyes, MA, Sharma, A, Elkins, IJ, Iacono, WG and McGue, M (2008). The mental health of U.S. adolescents adopted in infancy. *Archives of Pediatric and Adolescent Medicine,* 162(5): 419-425.

McPherson M, Arango P, Fox H, Lauver C, McManus M, Newacheck PW, Perrin JM, Shonkoff JP and Strickland B (1998). A new definition of children with special health care needs. *Pediatrics*, 102: 137-140.

Mickelson, EM and Scott, C (2006). *Tax Benefits for Families: Adoption*. Washington, DC: Congressional Research Service.

Miller, BC, Fan X, Chrisensen, M, Grotevant, HD and van Dulmen, M (2000). Comparisons of adopted and nonadopted adolescents in a large, nationally representative sample. *Child Development,* 71: 1478-1483.

Nicholson, LA (2002). Adoption medicine and the internationally adopted child. *American Journal of Law and Medicine,* 28(4): 473-490.

Nickman, SL, Rosenfeld, AA, Fine P, et al. Children in adoptive families: Overview and update. *Journal of the American Academy of Child and Adolescent Psychiatry,* 44: 987-995.

Placek, P (2008). National Adoption Data. In: *Adoption Factbook IV*. (Atwood, TC, Allen, LA, Ravenel, VC, and Callahan, NF, eds.). Alexandria, VA: National Council for Adoption.

Poertner, J, McDonald, TP and Murray, C (2000). Child welfare outcomes revisited. *Children and Youth Services Review,* 22(9/10): 789-810.

Raghavan, R, Inkelas, M, Franke, T and Halfon, N (2007). Administrative barriers to the adoption of high-quality mental health services for children in foster care: A national study. *Administration and Policy in Mental Health and Mental Health Services Research,* 34: 191-201.

Research Triangle Institute (2004). *SUDAAN Language Manual, Release 9.0*. Research Triangle Park, NC: Research Triangle Institute.

Tuller, David (2001). Adoption medicine brings new parents answers and advice. *New York Times*, September 4, 2001.

U.S. Census Bureau (2003). Adopted children and step children: 2000. *Census 2000 Special Reports, CENSR-6RV*. Washington, DC: US Government Printing Office. Available online at: http://www.census.gov/prod/2003pubs/censr-6.pdf

U.S. Department of Health and Human Services (2005). *A report to Congress on adoption and other permanency outcomes for children in foster care: Focus on older children*. Washington, DC: Children's Bureau. Available online at: http://www.acf.hhs.gov/programs/cb/pubs/congress_adopt/index.htm

U.S. Department of Health and Human Services, Administration for Children and Families (2008). *The AFCARS Report 14.* Accessed June 18, 2008 from http://www.acf.hhs.gov/programs/cb/stats_research/afcars/tar/report14.htm

U.S. Department of Health and Human Services, Health Resources and Services Administration, Maternal and Child Health Bureau (2007). *The National Survey of Children with Special Health Care Needs Chartbook 2005-2006*. Rockville, MD: U.S. Department of Health and Human Services. Available online at: http://mchb.hrsa.gov/cshcn05/

U.S. Department of Homeland Security (2008). *Yearbook of Immigration Statistics: 2007*. Washington, DC: U.S. Department of Homeland Security, Office of Immigration Statistics. Available online at: http://www.dhs.gov/ximgtn/statistics/publications/yearbook.shtm

U.S. Department of State (2008). Hague Adoption Convention. Accessed August 8, 2008 at: http://travel.state.gov/family/adoption/convention/convention_462.html

U.S. Department of State. *Immigrant Visas Issued to Orphans Coming to the U.S.* Accessed June 18, 2008 at http://www.travel.state.gov/family/adoption/stats/stats_451.html

U.S. Department of Treasury (2007). Federal Income Tax Benefits for Adoption: Use by Taxpayers 1999-2005. Washington, DC: U.S. Department of Treasury, Office of Tax Analysis. Available online at: http://www.house.gov/mcdermott/AdoptionTaxCreditStudy2007.pdf

U.S. House of Representatives, Committee on Ways and Means (2004). *2004 Green Book: Background Material and Data on the Programs Within the Jurisdiction of the Committee on Ways and Means*. Washington, DC: Committee on Ways and Means.

Wind, LH, Brooks, D and Barth, RP (2007). Influences of risk history and adoption preparation on post-adoption services use in U.S. adoptions. *Family Relations,* 56: 378-389.

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