Child Health Background Materials

1. Bethell C, *Memo from CAHMI to NQF regarding Summary Data: Provided to the NQF Measures Prioritization Committee,* The Child and Adolescent Health Measurement Initiative: Oregon Health & Science University; 2010. (See attachment)
2. Bethell C, "*Table Sort A and Table Sort B" (NQF Child Stream Ranking of Conditions and Quality),* The Child and Adolescent Health Measurement Initiative: Oregon Health & Science University; 2010.
3. Institute of Medicine (IOM), *Children's Health, The Nation's Wealth: Assessing and Improving Child Health,* Washington, DC: National Academies Press; 2004.
4. Bethell C, *A Profile of Leading Health Problems and System Performance for Children Using the 2007 National Survey of Children's Health*, The Child and Adolescent Health Measurement Initiative: Oregon Health & Science University; pp. 1-32.
5. Miller MR, Gergen P, Honour M, et al., Burden of illness for children and where we stand in measuring the quality of this health care, *Ambul Pediatr,* 2005;5: 268-278.

Population Health Background Materials

1. Schroeder SA, We can do better – improving the health of the American people, *N Engl J Med.* 2007;357: 1221-1228.
2. IOM, *State of the USA Health Indicators: Letter Report,* Washington, DC: National Academies Press; 2008, 1-4.
3. Kindig DA, Asada Y, Booske B, A population health framework for setting national and state health goals, *JAMA,* 2008;299(17):2081-2083.
4. Maciosek MV, Coffield AB, Edwards NM, et al., Priorities among effective clinical preventive services: results of a systematic review and analysis, *Am J Prev Med* 2006;31(1): 52-61.
5. Institute of Medicine (IOM), *Future Directions for the National Healthcare Quality and Disparities Reports,* Washington, DC: National Academies Press; 2010, 1-4.
6. National Quality Forum (NQF), *National Priorities Partnership: Population Health Convening Meeting Summary Draft,* Washington, DC: NQF; In press.

CAHMI
The Child and Adolescent Health Measurement Initiative

April 16, 2010

To: Tom Valuk and the NQF Measures Prioritization Committee
From: Christina Bethell, The Child and Adolescent Health Measurement Initiative , Committee Member
Re: Starting point summary data on prevalence, costs, outcomes and system performance for children with chronic conditions. Summary data on overweight and obesity and other risks to healthy development.

Attached are several short summary tables to inform initial Child Health Stream discussions of the Measures Prioritization Committee. These data tables **draw on national, population-based datasets** assessing the health and health expenditures for children and youth. These are the National Survey of Children's Health (NSCH), the National Survey of Children With Special Health Care Needs (NS_CSHCN) and the Medical Expenditures Panel Survey (MEPS) data. I have received permission to also share a more updated analysis as summarized in the attached paper regarding leading health problems and quality of care for children in the US from the 2007 NSCH. It was my wish to further synthesize this memo and the new paper (and other information) and present it personally to the committee. However, for now, my hope is that this information will suffice to begin to frame discussions at this phase of orientation to the child health stream. While there are discrepancies in the data presented below from the 2005/06 NS-CSHCN and with those provided in the updated paper based on the 2007 NSCH, these differences to not lead to different conclusions. I can further discuss this as time permits.

Finally, in a separate attachment is a **spreadsheet listing all health conditions** assessed in the 2007 NSCH (most recent). The columns showing **prevalence, complexity, outcomes and quality can be sorted** for purposes of considering priorities (using sheets "Sort Prevalence, Outcomes" and "Sort Quality"). While some argue to consider going up to age 26 when assessing children's health and health care quality, the data presented in this spreadsheet are for children age 0-17 only. While nowhere close to the sophistication of the Booz, Allen spreadsheet it is at least a beginning step.

Before summarizing the data findings on leading health problems and system performance/quality related to the data tables appended to this memo, I want to be sure the committee is aware of **common considerations** related to assessing priorities for children's health problems and quality measurement. First of all, **children are developing**. As such, to only focus on existing diseases undermines the most important focus for health care for children—to promote their healthy development and successful entry into school and transition into adulthood. Given the high rates of **risk for developmental problems, obesity** and so on, it would be remiss if I did not encourage the committee to recognize the importance of focusing on minimizing risks for future health problems and that this issue is much more pressing for children than for adults. Evidence is growing rapidly regarding the importance of early childhood preventive and developmental services as well the lifelong costs of childhood obesity and the key role of health care and collaboration between health care and communities in addressing these health risks.

Next, **children are dependent**. As such, quality measurement and improvement will involve parents and the health of parents is a key factor in child health. This raises special considerations and topics for measurement that are worth discussing in-depth during our upcoming meetings, including the need to consider youth reported information (many health status and quality measures require parent/youth report). In addition, **diagnoses for children are especially varied**—meaning, there are hundreds of diagnoses and very few children with any one diagnosis have only that diagnosis. This has a key impact of measurement sampling and precision and has led to the common practice of specifying cross-cutting denominators of children with special health care needs vs. a condition by condition approach.

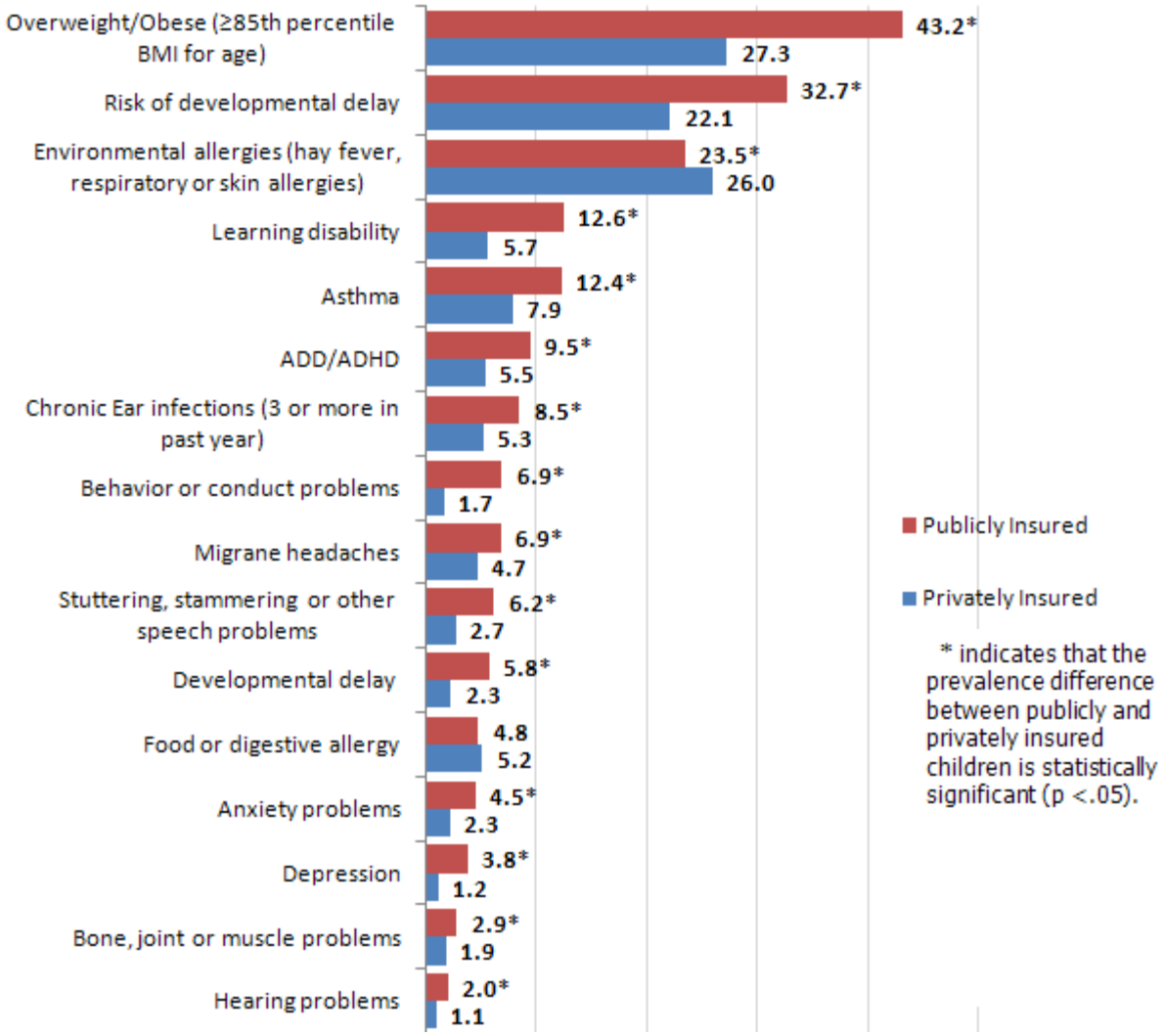
Another reason for not focusing in diagnoses only is that children often have health problems long before they are diagnosed formally and waiting until diagnosis often leads to missing windows of opportunity to attenuate lifelong health problems and negative health events (e.g. emergency and hospital care, poorer overall health trajectories over time, etc.). Finally, diagnosis of health problems in children is children are **disproportionately poor and minority.** As such, all measurement must ensure collection of SES and other variables so as to properly track and reduce disparities.

Please let me know if additional information is needed, including information about the many notable geographic or demographic variations in the data presented.

Below is a high-level summary of the key data provided and issues to note as you review this information.

1. **Chronic Condition Prevalence**: While nearly 45% of all children have one of more of a common list of health problems, a more conservatively estimated 14% to 19% of children ages 0-17 in the US have at least one chronic condition that has also resulted in an above-routine need or use of health care and related services. This translates into 10.3 to 14.2 million children. Nearly 1 in 4 households is estimated to include at least one child meeting criteria for having a special health care need. This rate does not vary substantially according to a child's household income. (Table 1) . The Figure below summarizes prevalence for all US children from the most recent 2007 NSCH—this is included for convenience herre and is discussed in greater depth in the attached draft paper (please do not distribute and keep confidential).

Figure 1: Prevalence of Health Conditions: Public vs. Privately Insured Children.



2. **Common Complexity and Comorbidity**: Two-thirds of children with chronic conditions and special health care needs (66.1%) are estimated to have more than one of the 16 specific health conditions for which data was collected in the NS-CSHCN. (Tables 2 & 3) Over 85% experienced one or more of the specific functional difficulties assessed. (Table 4) While 46% have parents who report child use of prescription medications as the primary health care need, 64% required other types of specialized therapies and services. (Table 3) More recent data from the NSCH tell a similar story regarding the common complexity and presence of multiple conditions among children in the US.
3. **Expenditures and Impact of Chronic Conditions**: Using the widely endorsed Children With Special Health Care Needs (CSHCN) definition and identification methodology, conservative estimates of medical expenditures for these children is approximately $24.5 billion. (Table 1) Lack of condition prevalence information in the MEPS prevented estimation of expenditures information for specific conditions. However, reports show that the most common uses of medical care (including outpatient, ER, specialty and hospitalization) map well to the ranked prevalence of conditions outlined here.
4. **Overweight and Obese Children**: Valid data for estimating overweight and obesity were available from the NSCH for children ages 10-17. If we add children who are estimated to be overweight or obese to the CSHCN definition of children with chronic conditions, approximately 42.8% of all children ages 10-17 may be considered to have a chronic condition and special health care need. Expenditures for this more robust group was not estimated due to time and data restrictions. (Table 6)
5. **Children with Developmental, Emotional and Behavioral Risks**: If we further add young children who met criteria for being at moderate or high risk for developmental or behavioral problems and children whose parents report a moderate to severe emotional, behavioral or developmental problems, we arrive at an estimated 34.5% of all children ages 0-17 (25.1 Million) who experience an ongoing health condition requiring effective health care services. (Table 6)
6. **System Performance:** As with adults, children with chronic condition share many cross-cutting system and health care effectiveness needs to prevent illness, treat common acute conditions, promote their development and manage chronic conditions. Of all children with chronic conditions resulting in a special health care need, only 1 in 5 children ages 0-11 and 13.7% ages 12-17 met criteria for low-threshold, cross-cutting measure of high-quality care (using the MCHB Core Outcomes for CSHCN). For children ages 0-11, this ranges from 7.1% (CF) to 23.9% (Diabetes) across the 16 specific health conditions for which data was available. The range for children ages 12-17 is 3.3% (MR/DD) to 15.6% (Asthma). (Table 5) Fewer than half of children with chronic conditions met basic criteria for having a Medical Home. This ranged from 26.7% for children with Autism to 49.8% for children with Asthma. (Table 6). More recent studies agree (Mangione-Smith; Bethell, etc.) that no more than half of children meet a minimal criteria for receiving quality care.
7. **Child Health Outcomes:** In addition to functional difficulties (Table 4), 1 in 7 (14.3%) school-age children with chronic conditions as defined here missed two or more weeks of school and 1 in 6 (16.6%) needed to repeat a grade in school. This ranges from 13.7% (ADHD) to 34.4% (Arthritis/Joint) across the 16 health conditions for which data were available. (Table 3 and 6)
8. **Family Impact and Health:** Only half of mothers of children with chronic conditions report being in very good or excellent health and nearly 1 in 4 families reported they had to cut back or stop working due to their child's health and health care needs (23.8%)—ranging from 22.4% (Asthma) to 63.1% (CF). (Table 5)

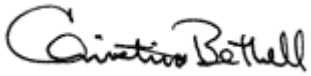
It is important to note that three major national surveys collecting data on children evaluated here (MEPS, NS-CSHCN, NSCH) each use a common non-condition specific method for identifying children with special health care needs (CSHCN). These are children with chronic conditions whose conditions result in a special, above routine service need. I have sent a two page primer on the CSHCN definition and associated identification methodology. Extensive validity information is available if required.

It is this CSHCN population for which further information about health care expenditures and prevalence of health conditions is most readily available and that is presented here. This approach is more conservative than a condition check-list (e.g. leads to a more robust denominator) as well as more inclusive of the many children with conditions

requiring above routine use of services but for whom a diagnosis has not yet been provided. It may be useful to note that there is frequently more variation in health needs and health care effectiveness within a group of children with a chronic condition as there is across children with different conditions. This finding is one observation leading some to support consideration of cross-cutting system effectiveness topics (e.g. Medical Home; Care Coordination) and cross-cutting clinical effectiveness topics (e.g. Self-Care Management and Support; Patient/Parent/Youth Engagement Interventions, etc.)

I look forward to discussing these and other findings the committee explores prioritization among health issues in children for purposes of quality measurement and improvement.

Sincerely,



Christina Bethell, PhD, MPH, MBA
Associate Professor, School of Medicine, Department of Pediatrics
Oregon Health & Science University
Director, Child and Adolescent Health Measurement Initiative
Director, National Data Resource Center for Child and Adolescent Health
bethellc@ohsu.edu

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Table 1: Prevalence and Estimated Medical Expenditures for Children With Chronic Conditions and Special Health Care Needs, Ages 0-17 (Source: Child and Adolescent Health Measurement Initiative analysis of the National Survey of Children With Special Health Care Needs --2005/06 and summary of findings from the 2002 Medical Expenditures Panel Survey; April 2009)

	Among all children ages 0-17 in the U.S.[a]		Among CSHCN: By Complexity of Special Health Care Need (% for each of 4 mutually exclusive special need categories)[a, b]			
NOTE: Prevalence varies by age, gender, race/ethnicity. Prevalence did not vary by household income. Over 1 in 5 households are estimated to have one or more CSHCN. For more information see www.childhealthdata.org.	% Meeting Criteria for Having a Chronic Condition Resulting in a Special Health Care Need	Estimated number of CSHCN:	Condition currently managed primarily by prescription medications	Above routine need/use of services is primary special need	Requires BOTH prescriptions AND above routine services	Functional limitations compared to same-age childre and in addition to/despite above routine service use, special therapies and/or RX Meds
	13.9%	10.2 Million	43.7%	14.3%	20.7%	21.3%
	13.9-19% estimated across national data sources.[a]		4,465,840	1,457,087	2,116,871	2,179,641
			Among CSHCN: Average Yearly Expenditures By Complexity of Special Health Care Need			
Estimated Expenditures for Children With Chronic Conditions and Special Health Care Needs[b]	Average Yearly Expenditures for All CSHCN Ages 0-17[b]		Managed primarily by prescription medications	Above routine need/use of services is primary special need	Requires BOTH prescriptions AND above routine services	Functional limitations compared to same-age children and in addition to/despite above routine service use, special therapies and/or RX Meds
	$2399 Source: 2002 MEPS; More recent can be generated with additional time.		$1,416.00	$1,314.00	$2,374.00	$5,064.00
	(vs. $717 for non_CSHCN)		**Estimated Total Expenditures Across All CSHCN: $24,469,800,000.00 ($24.5 Billion)**			

[a]Bethell, CD, Read, D, Blumberg, SJ, Newacheck, PW. *What is the prevalence of children with special health care needs? Toward an understanding of variations in findings and methods across three national surveys*. *MCH Journal*. Jan 2008.

[b]Bramlett, MD, Read, D, Bethell, C, Blumberg, SJ. *Differentiating Subgroups of Children with Special Health Care Needs by Health Status and Complexity of Health Care Needs*. *MCH Journal*. April 2009

Table 2: Prevalence of Children With Chronic Conditions and Special Health Care Needs, Ages 0-17: By Number of Conditions and Functional Difficulties
(Source: Child and Adolescent Health Measurement Initiative analysis of the National Survey of Children With Special Health Care Needs --2005/06; April, 2009)

	PREVALENCE among all CSHCN ages 0-17 in the U.S.[a]		By Complexity of Special Health Care Need (% for each of 4 mutually exclusive special need categories)[b]			
Number of Health Conditions Among the List of 16 Conditions Asked About	% of CSHCN:	Estimated number of CSHCN:	Managed primarily by prescription medications	Above routine need/use of services is primary special need	Requires BOTH prescriptions AND above routine services	Functional limitations compared to same-age childre and in addition to/despite above routine service use, special therapies and/or RX Meds
Child has only 1 of the conditions asked about	33.9%	3,460,439	44.3%	32.8%	28.5%	18.4%
Has 2 Health Conditions	33.4%	3,291,784	36.0%	24.2%	34.1%	27.8%
3 Health Conditions	12.3%	1,439,565	8.4%	13.2%	19.8%	20.7%
4 or More Health Conditions	6.4%	1,115,905	2.5%	8.3%	13.3%	27.5%
None from list/other	9.9%	913,745	8.8%	21.5%	4.3%	5.6%
Total	100.0%	10,221,438	100.0%	100.0%	100.0%	100.0%
Number of Functional Difficulties Among the 14 Types of Difficulties Asked About	% of CSHCN:	Estimated number of CSHCN:	Managed primarily by prescription medications	Above routine need/use of services is primary special need	Requires BOTH prescriptions AND above routine services	Functional limitations compared to same-age childre and in addition to/despite above routine service use, special therapies and/or RX Meds
Only 1 of the Functional Difficulties Asked About	30.5%	1,565,190	47.3%	18.0%	23.0%	11.6%
2 Functional Difficulties	15.4%	3,113,992	14.6%	18.6%	18.7%	11.9%
3 Functional Difficulties	11.2%	1,575,834	6.5%	16.0%	15.7%	13.0%
4 or More Functional Difficulties	27.7%	1,139,793	5.1%	37.4%	34.0%	61.0%
None from list/none or other	15.3%	2,826,630	26.5%	10.0%	8.6%	2.6%
Total	100.1%	10,221,439	100.0%	100.0%	100.0%	100.1%

[a]Bethell, CD, Read, D, Blumberg, SJ, Newacheck, PW. *What is the prevalence of children with special health care needs? Toward an understanding of variations in findings and methods across three national surveys*. *MCH Journal* . Jan 2008.

[b]Bramlett, MD, Read, D, Bethell, C, Blumberg, SJ. *Differentiating Subgroups of Children with Special Health Care Needs by Health Status and Complexity of Health Care Needs*. *MCH Journal*. April 2009

CAHMI: www.cahmi.org; www.childhealthdata.org

Table 3: Prevalence of Selected Health Conditions and Complexity of Health Care Needs, CSHCN Ages 0-17

Source: Child and Adolescent Health Measurement Initiative analysis of the 2005/06 National Survey of Children With Special Health Care Needs -- April, 2009

	PREVALENCE among all CSHCN ages 0-17 in the U.S.		Comorbidity (% of CSHCN)	Complexity of Special Health Care Needs (% of CSHCN with specified condition in each of 4 mutually exclusive categories)			
Chronic health conditions asked about in 2005-2006 National Survey of Children with Special Health Care Needs	% of CSHCN with specified condition:	Estimated number of CSHCN with condition:	CSHCN with 2 or more chronic conditions from list of 16	Managed primarily by prescription medications	Above routine need/use of services is primary special need	Requires BOTH prescriptions AND above routine services	Functional limitations compared to same-age childre and in addition to/despite above routine service use, special therapies and/or RX Meds
Allergies (any type)	53.0%	5,373,570	78.7%	51.5%	8.6%	19.4%	20.5%
Asthma	38.8%	3,940,813	79.7%	57.9%	4.6%	18.9%	18.6%
Attention deficit disorder or attention deficit hyperactivity disorder	29.8%	2,986,481	75.1%	23.4%	13.5%	37.5%	25.6%
Depression, anxiety, eating disorder or other emotional problem	21.1%	2,147,200	89.7%	10.9%	22.1%	32.8%	34.2%
Migraine or frequent headaches	15.1%	1,536,967	93.9%	29.6%	14.9%	25.0%	30.4%
Mental retardation or developmental delay	11.4%	1,161,426	91.1%	2.7%	18.3%	12.1%	66.9%
Allergies (food only)	11.0%	1,098,190	80.4%	47.1%	7.4%	18.9%	26.6%
Autism or autism spectrum disorder	5.4%	544,181	90.0%	2.4%	17.2%	14.5%	65.9%
Arthritis or other joint problems	4.2%	432,580	89.7%	18.5%	11.5%	17.1%	52.8%
Heart problem, including congenital heart disease	3.5%	358,346	76.2%	15.0%	18.6%	19.4%	47.0%
Epilepsy or seizure disorder	3.5%	355,251	86.6%	17.1%	4.6%	22.4%	55.9%
Blood problem such as anemia or sickle cell disease (not trait)	2.3%	238,051	89.4%	27.0%	12.7%	17.5%	42.8%
Cerebral palsy	1.9%	189,324	91.2%	3.7%	12.0%	5.0%	79.3%
Diabetes	1.6%	161,399	60.8%	26.4%	3.5%	46.1%	23.9%
Down syndrome	1.0%	97,527	95.5%	1.6%	10.3%	5.9%	82.2%
Muscular dystrophy	0.3%	34,672	89.1%	6.6%	9.0%	25.7%	58.8%
Cystic fibrosis	0.3%	28,336	70.0%	23.7%	10.0%	38.1%	28.2%

Table 4: Functional Difficulties Experienced by Children With Chronic Conditions and Special Health Care Needs

Source: Child and Adolescent Health Measurement Initiative analysis of the 2005/06 National Survey of Children With Special Health Care Needs -- April, 2009

	PREVALENCE among all CSHCN ages 0-17 in the U.S.		Functional Difficulty (% of CSHCN with specified condition; not mutually exclusive)				Missed school (% of CSHCN ages 6-17 with condition)
Chronic health conditions listed in 2005-2006 National Survey of Children with Special Health Care Needs	% of CSHCN with specified condition:	Estimated number of CSHCN with condition:	One or more from a list of 14 functional difficulties	Difficulty with any bodily function	Difficulty with participation in any activity	Emotional or behavioral difficulty	CSHCN missed 11 or more days of school due to illness
Allergies (any type)	53.0%	5,373,570	84.3%	68.6%	42.2%	37.3%	16.4%
Asthma	38.8%	3,940,813	95.4%	92.4%	34.4%	29.9%	16.8%
Attention deficit disorder or attention deficit hyperactivity disorder	29.8%	2,986,481	94.5%	42.8%	86.8%	72.5%	13.7%
Depression, anxiety, eating disorder or other emotional problem	21.1%	2,147,200	99.2%	59.0%	79.9%	95.5%	24.3%
Migraine or frequent headaches	15.1%	1,536,967	97.8%	91.5%	63.5%	64.7%	28.6%
Mental retardation or developmental delay	11.4%	1,161,426	99.5%	54.1%	98.3%	74.3%	24.4%
Allergies (food only)	11.0%	1,098,190	88.4%	75.6%	43.1%	38.9%	20.3%
Autism or autism spectrum disorder	5.4%	544,181	99.1%	43.8%	96.3%	88.5%	20.4%
Arthritis or other joint problems	4.2%	432,580	96.7%	84.5%	75.1%	58.8%	34.4%
Heart problem, including congenital heart disease	3.5%	358,346	83.3%	63.2%	58.6%	45.3%	24.8%
Epilepsy or seizure disorder	3.5%	355,251	88.4%	61.8%	77.7%	58.3%	28.8%
Blood problem such as anemia or sickle cell disease (not trait)	2.3%	238,051	94.2%	81.6%	58.9%	51.9%	32.3%
Cerebral palsy	1.9%	189,324	98.9%	62.4%	97.2%	47.7%	28.1%
Diabetes	1.6%	161,399	64.6%	50.5%	31.8%	33.4%	24.6%
Down syndrome	1.0%	97,527	98.8%	56.8%	97.3%	62.4%	28.3%
Muscular dystrophy	0.3%	34,672	94.2%	70.3%	78.0%	63.8%	33.4%
Cystic fibrosis	0.3%	28,336	94.3%	79.6%	27.1%	33.7%	25.0%

Table 5: Health System Performance for Children With Chronic Conditions and Special Health Care Needs

Source: Child and Adolescent Health Measurement Initiative analysis of the 2005/06 National Survey of Children With Special Health Care Needs -- April, 2009)

	PREVALENCE among all CSHCN ages 0-17 in the U.S.		Met Criteria for National MCHB Core Outcome Criteria (% of CSHCN with specified condition in each age group)[a]		Medical Home (% of CSHCN with condition)[b]	Adequate Insurance (% of CSHCN with condition)	Impact on Family (% of CSHCN with condition)
Chronic health conditions listed in 2005-2006 National Survey of Children with Special Health Care Needs	% of CSHCN with specified condition:	Estimated number of CSHCN with condition:	Met all five criteria for a system of care (ages 0-11 only)	Met all six criteria for a system of care (ages 12-17 only)	CSHCN whose health care meet Medical Home criteria	CSHCN whose insurance is inadequate for their needs	CSHCN whose conditions caused family members to cut back or stop working
All Children With Chronic Conditions and Special Health Care Needs (CSHCN)			**20.4%.**	**13.70%**	**47.10%**	**38.00%**	**23.80%**
Allergies (any type)	53.0%	5,373,570	22.4%	15.4%	49.2%	33.8%	23.2%
Asthma	38.8%	3,940,813	22.6%	15.6%	49.8%	32.3%	22.4%
Attention deficit disorder or attention deficit hyperactivity disorder	29.8%	2,986,481	16.9%	10.8%	39.3%	36.1%	29.5%
Depression, anxiety, eating disorder or other emotional problem	21.1%	2,147,200	12.0%	7.6%	29.8%	41.5%	39.9%
Migraine or frequent headaches	15.1%	1,536,967	13.3%	9.7%	34.7%	40.8%	32.8%
Mental retardation or developmental delay	11.4%	1,161,426	11.0%	3.3%	29.8%	39.4%	54.5%
Allergies (food only)	11.0%	1,098,190	20.5%	15.6%	45.0%	38.0%	31.2%
Autism or autism spectrum disorder	5.4%	544,181	9.6%	2.5%	26.7%	48.6%	57.2%
Arthritis or other joint problems	4.2%	432,580	12.0%	8.5%	29.8%	44.5%	41.2%
Heart problem, including congenital heart disease	3.5%	358,346	21.2%	7.6%	46.1%	33.1%	39.2%
Epilepsy or seizure disorder	3.5%	355,251	11.5%	7.9%	36.1%	40.8%	54.2%
Blood problem such as anemia or sickle cell disease (not trait)	2.3%	238,051	9.4%	6.6%	39.1%	39.6%	45.4%
Cerebral palsy	1.9%	189,324	12.5%	6.0%	30.1%	42.8%	63.1%
Diabetes	1.6%	161,399	23.9%	12.9%	45.1%	36.2%	36.7%
Down syndrome	1.0%	97,527	10.7%	0.6%	29.7%	40.6%	55.1%
Muscular dystrophy	0.3%	34,672	11.3%	7.0%	29.0%	51.3%	53.7%
Cystic fibrosis	0.3%	28,336	7.1%	7.1%	33.0%	22.9%	45.0%

[a]U.S. Department of Health and Human Services, Health Resources and Services Administation (2007) The National Survey of Children with Special Health care Needs Chartbook; 2005-2006

[b]The Child and Adolescent Health Measurement Initiative. Measuring Medical Home: A Resource Manual for Researchers and Analysts. Sponsored by the National Center for Health Statistics, Centers for Disease Control and Prevention, US Department of Health and Human Services. September 2008.

Table 6: Prevalence of Children and Youth with Chronic Conditions, Obesity, Risk for Delay or Other Emotional, Behavioral or Developmental Problem
Source: Child and Adolescent Health Measurement Initiative analysis of the National Survey of Children's Health, 2003 (2007 data available soon) April, 2009)

	PREVALENCE among all children in the U.S.		Selected Health Outcomes and Health System Performance Indicators (National Survey of Chidlren's Health, 2003)		
Health Condition or Problem	% of children ages 0 - 17	Estimated number of children	Repeated a Grade in School (Ages 6-17 only)	Mother's Physical and Mental Health Very Good or Excellent	Met Criteria for Having a "Medical Home"[c]
Has a Chronic Condition Resulting in a Special Health Care Need (CSHCN) (ages 0-17)[a]	13.8%-19.1%	10.2-13.9 M	17.7%	50.5%	44.2%
Overweight or Obese Using Standard BMI Criteria (ages 10-17 only)[b]	30.6%	9,489,997	15.4%	48.2%	38.9%
Total Either CSHCN and/or Overweight or Obese (ages 0-17)	*27.5%*	*19,983,640*	*16.0%*	*50.6%*	*42.1%*
Sub-Total Either CSHCN and/or Overweight or Obese (ages 10-17 only)	*42.8%*	*14,236,867*	*13.0%*	*55.1%*	*40.4%*
Meet Criteria for Being At Moderate or High Risk for a Developmental or Behavioral Delay or Problem (ages 1-5 only)	24.5%	4,913,967	n/a	52.2%	43.9%
Parent Reported Moderate/Severe Emotional, Behavioral or Developmental Problem (EBD) (ages 3-17 only)	9.2%	5,620,307	27.7%	34.2%	33.1%
Total Either At Moderate/High Risk for Developmental Problem or EBD	*14.4%*	*9,926,940*	*27.7%*	*43.3%*	*38.2%*
TOTAL OF ANY OF THE ABOVE FOUR HEALTH PROBLEMS OR CONDITIONS (ages 0-17)	**34.5%**	**25,066,850**	**16.6%**	**50.4%**	**42.2%**

[a]Bethell, CD, Read, D, Blumberg, SJ, Newacheck, PW. What is the prevalence of children with special health care needs? Toward an understanding of variations in findings and methods across three national surveys. MCH Journal. Jan 2008.

[b]Singh GK, Kogan, MD, Van Dych PC. A multilevel analysis of state and regional disparities in chidhood and adolescent obesity in the United State. J Community Health. 2008; 33(2); 90-102.

[c]The Child and Adolescent Health Measurement Initiative. Measuring Medical Home: A Resource Manual for Researchers and Analysts. Sponsored by the National Center for Health Statistics, Centers for Disease Control and Prevention, US Department of Health and Human Services. September 2008.