



# A Profile of Health Problems and Quality of Care for Publicly vs. Privately Insured Children in the US

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## Background

Both the Children's Health Insurance Program Reauthorization Act (CHIPRA) of 2009 and the Affordable Care Act (ACA) seek to expand insurance coverage and ensure quality of care provided for children, youth and families. The 2011/12 National Survey of Children's Health (NSCH) is the most recent national and state-specific sample of children that allows identification of differences in health status and system quality by insurance source and across states; making it an important resource for assessing needs and tracking the impact of both the CHIPRA and ACA legislation on the health and health care of children and youth in the US.

Utilizing data provided in the 2011/12 NSCH, we compare 5 summary health status and 10 insurance coverage and system quality indicators aligned with CHIPRA and ACA priorities. Variations in children's health, consistency of insurance, access to and quality of care were evaluated by whether a child has public or private sector health insurance. National and across state variations are explored as are differences within and across specific socioeconomic and health related subgroups of children.

## Overview of CHIPRA and ACA Legislation Related to Children's Insurance and Health Care Quality

Children's Health Insurance Program Reauthorization Act (CHIPRA) of 2009

•Seeks to **improve access to and quality of care for children** enrolled in the Children's Health Insurance Program (CHIP) and Medicaid.

•Mandates **implementation and evaluation of quality of care measurement efforts.**

•A set of **core measures** has been specified, many of which are topics also included in the NSCH.

Patient Protection and Affordable Care Act of 2010 (ACA)

•Further emphasizes CHIPRA **insurance coverage and quality priorities.**

•Additional provisions related to **coverage for children with special health care needs.**

•**Requires measurement of quality across several domains and stratification of measures by CSHCN and socioeconomic status, both of which are possible to achieve using NSCH data.**

•Provision of a **full range of preventive services and support for Primary Care Medical Home demonstrations in pediatrics**

## Methods

### Data:

Data for this study were drawn from the 2011/12 NSCH public use data files prepared by the Child and Adolescent Health Measurement Initiative through its Data Resource Center for Child and Adolescent Health (DRC). The 2011/12 National Survey of Children's Health (NSCH) was conducted between February 2011 and June 2012 with at least 1800 parents of children 0-17 years old from each state. The NSCH is led and sponsored by the Maternal and Child Health Bureau and administered by the National Center for Health Statistics using the State and Local Area Integrated Telephone Survey mechanism.

### Child Health and Service Need Measures Evaluated

•CSHCN prevalence and service need complexity based on the CSHCN Screener

•Prevalence, comorbidity, and parent-assessed severity of 20 chronic medical, mental, behavioral, or developmental health conditions or problems

•Prevalence of 2 key risk factors: a) overweight or obesity for children aged 10 to 17 years, defined as  $\geq 85\%$  of body-mass-index (BMI) and b) moderate or high risk for developmental or behavioral problems based on responses to Parents Evaluation of Developmental Status© items included in the NSCH

### Insurance Consistency and Quality of Care Measures:

•Gaps in health insurance for children with either public (Medicaid or CHIP) or private health insurance

•Three preventive care measures included the following: a) preventive medical care visit, b) preventive dental care visit, and c) provision of developmental screening using a standardized parent-completed tool

•Two specialized services measures: a) problems accessing specialist care and b) receiving mental health services for children reported to have a mental, emotional, or behavioral health problem

•A three part medical home composite measure: a) personal doctor or nurse and a usual source of care b) family centered care, and c) problems accessing needed referrals and receiving needed care coordination across providers and with schools

•A "minimal quality of care index" consists of a composite measure of 3 positive systems—level quality of care attributes: adequate insurance, at least 1 preventive care visit in the past year, and receipt of care in a medical home.

### Statistical Analysis

National and state-by-state population prevalence for all health, insurance and quality of care variables were weighted to represent the population of non-institutionalized children age 0 to 17 years in the United States. For bivariate analyses, standard t-tests or chi-square tests of statistical differences were used. Multivariate analyses are used to estimate the adjusted odds of experiencing each health status, insurance and quality of care indicator according to whether a child has public vs. private insurance coverage. Child's age, sex, race, ethnicity, primary household language, and household income are controlled for in these analyses. Additionally, CSHCN status was included in regression models for quality of care variables.

## Results: National Prevalence and State Variation

Figure 1. National Prevalence of Health Problems and Health Service Needs

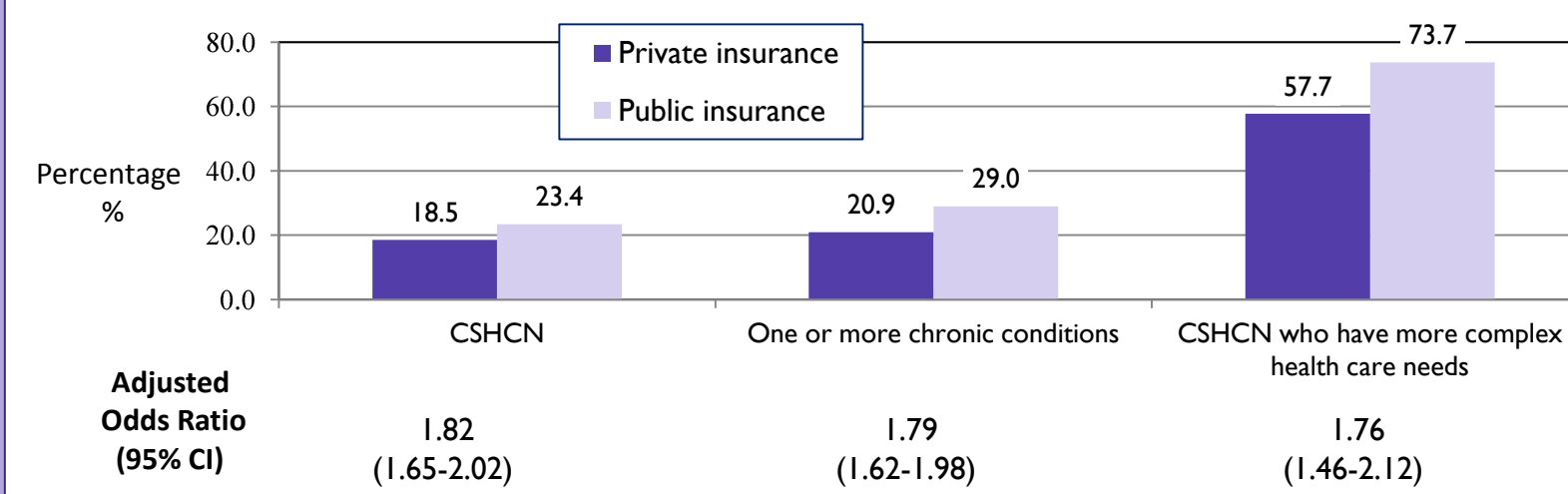


Table 1. National and State Prevalence of Health Problems and Health Service Needs

Indicator	Children with Public Insurance	Children with Private Insurance
Children with Special Health Care Needs (CSHCN)	15.9% (CA) – 35.9% (KY)	12.5% (CA) – 21.9% (KY)
Children with 1 or more chronic condition (of 20 asked about)	20.3% (CA) – 42.0% (KY)	13.2% (AK) – 25.4% (DE)
CSHCN who have more complex health care needs	62.8% (CA) – 88.9% (KY)	46.0% (LA) – 69.2% (UT)

Figure 2. Nationwide Prevalence of Health Risks

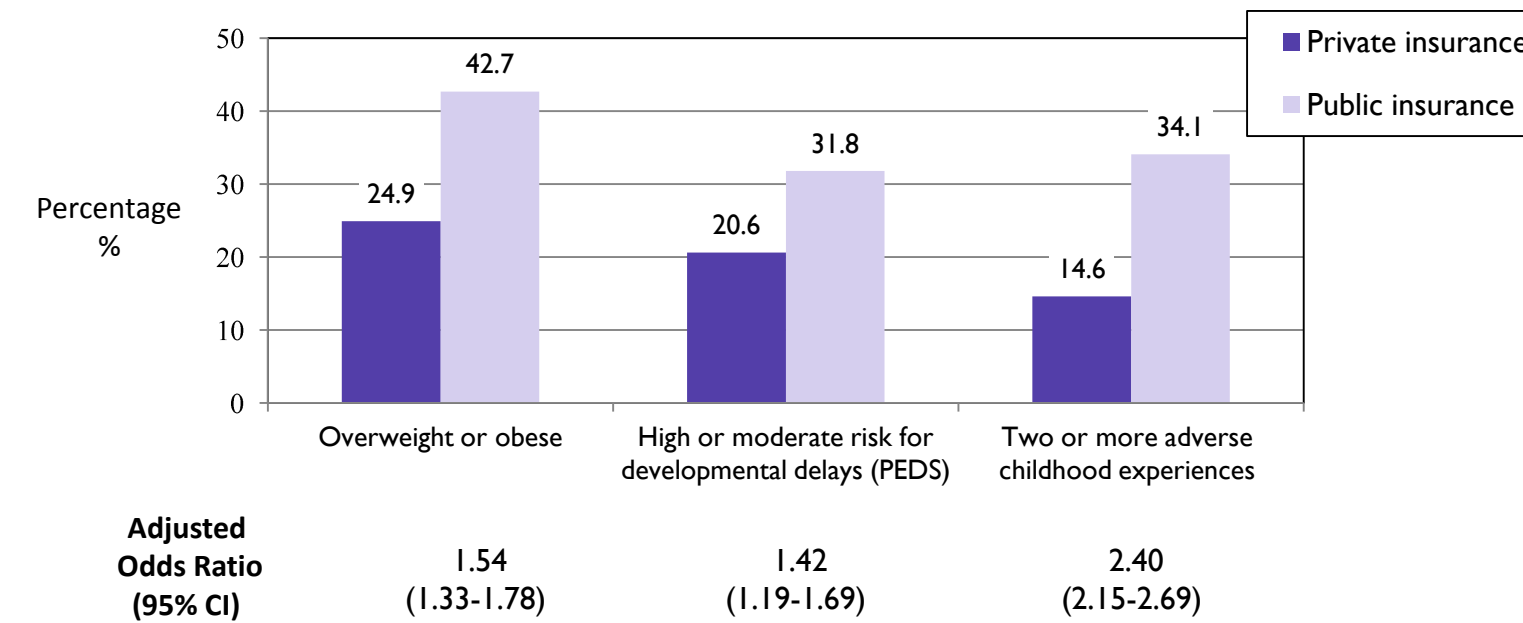


Table 2. Nationwide and State Prevalence of Health Risks

Indicator	Children with Public Insurance	Children with Private Insurance
Children who meet criteria for overweight/obese based on BMI	21.0% (UT) – 57.9% (TX)	16.1% (UT) – 32.0% (SC)
Children who meet criteria for being at high or moderate risk for developmental, behavioral, or social delays (PEDS©)	16.0% (TN) – 41.4% (HI)	11.9% (AK) – 27.5% (NY)
Children experiencing two or more adverse childhood experiences (of the 9 asked about)	22.5% (CA) – 47.6% (KY)	8.7% (CT) – 23.4% (NV)

Figure 3. Nationwide Insurance and Access to Care

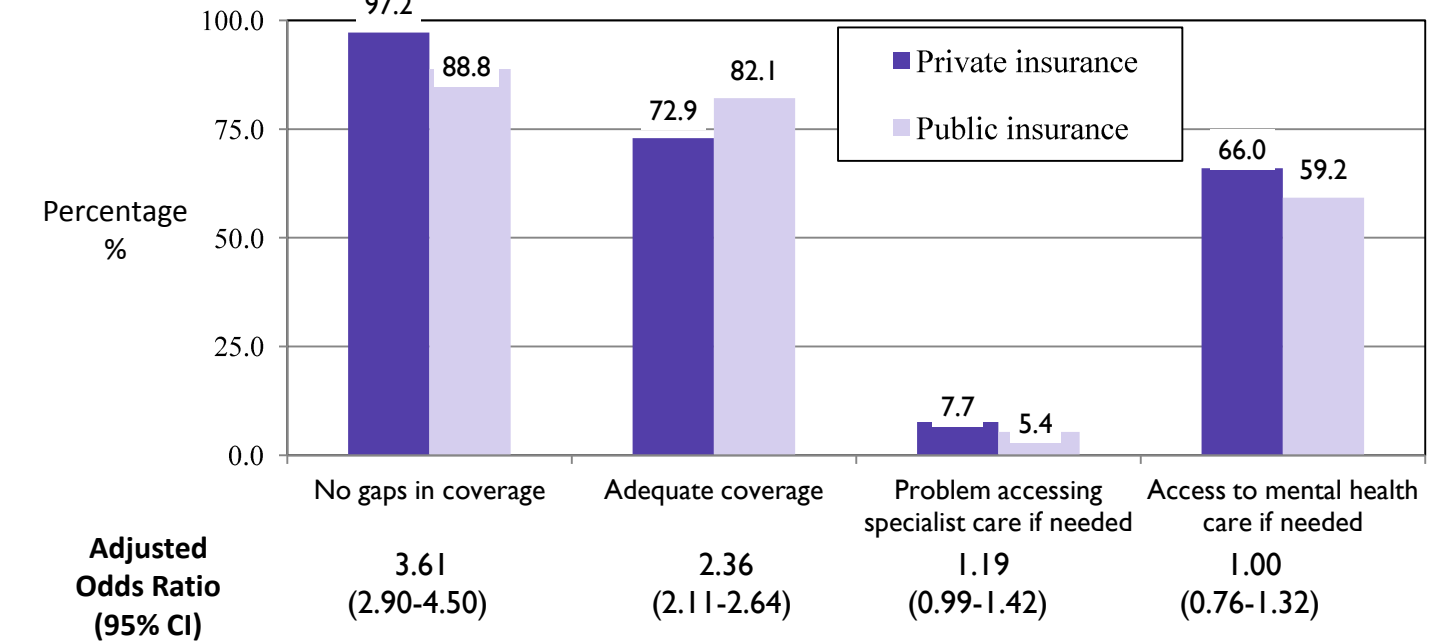


Table 3. Nationwide and State Insurance and Access to Care

Indicator	Children with Public Insurance	Children with Private Insurance
No gaps in coverage in past 12 months	83.5% (TX) – 97.0% (IL)	93.9% (NV) – 99.0% (WI)
Coverage is adequate	76.0% (CA) – 90.8% (VT)	67.7% (FL) – 81.1% (HI)
Problem accessing specialist care if needed	15.1% (NJ) – 2.5% (MT)	8.1% (NV) – 3.3% (AK)
Access to mental health care if needed (age 2-17 years)	41.6% (NJ) – 88.5% (ND)	36.9% (LA) – 85.1% (ND)

## Prevalence of Special Health Care Needs, Chronic Health Problems and Key Health Risks

An estimated 23.6% of US children (17 million) currently have at least 1 of 20 chronic health conditions assessed, increasing to 38.5% when being overweight or obese, or being at high or moderate risk for developmental, behavioral or social problems are included. CSHCN prevalence ranges from 14.4% to 26.4% across the 50 states and the District of Columbia for all children and is significantly higher for children with public health insurance (6.3 million [23.4%]) compared with those with private health insurance (7.7 million [18.5%]; p < .05). Compared with privately insured children, the prevalence, complexity, and severity of health problems were systematically greater for the 37.1% of all children who are publicly insured, after adjusting for variations in demographic and socioeconomic factors (table 1 and figures 1 and 2). Prevalence of special needs and specific health conditions is generally lower for Hispanic children living in households with Spanish as their primary household language—a pattern consistent with prior research. White, black, and Hispanic children living in English-speaking households were more similar, although some variations were observed depending upon the health condition evaluated. Although prevalence rates varied by race/ethnicity, once identified as having a special health care needs or specific health condition, groups were similar on service need complexity, number of conditions and health risks (not shown).

## Health Care Quality Measures

After adjustment for demographic and health status differences, the probability of meeting insurance consistency and health care quality measure criteria was less for publicly insured children on all but two measures, where rates were higher for publicly insured children: (1) adequacy of insurance measure and (2) developmental and behavioral screening measure (tables and figures: 1 and 3 and 4).

•Notable disparities were observed among publicly insured children according to race/ethnicity and across all children by special needs status and household income:  
• Among publicly insured children, gaps in insurance coverage were highest for Hispanic children (12.5%)  
• Among publicly insured children, white children had the lowest rate of reported inadequate insurance (14.2%), which was statistically different from that of Hispanic children (20.3%), and black children (17.8%) p < .05).  
• Among publicly insured children, Hispanic and black children more often experienced not receiving needed mental health services compared with white children (47.7%, 55.0%, and 30.4%, respectively, p < 0.05).

Figure 4. Preventive Health Care Nationwide

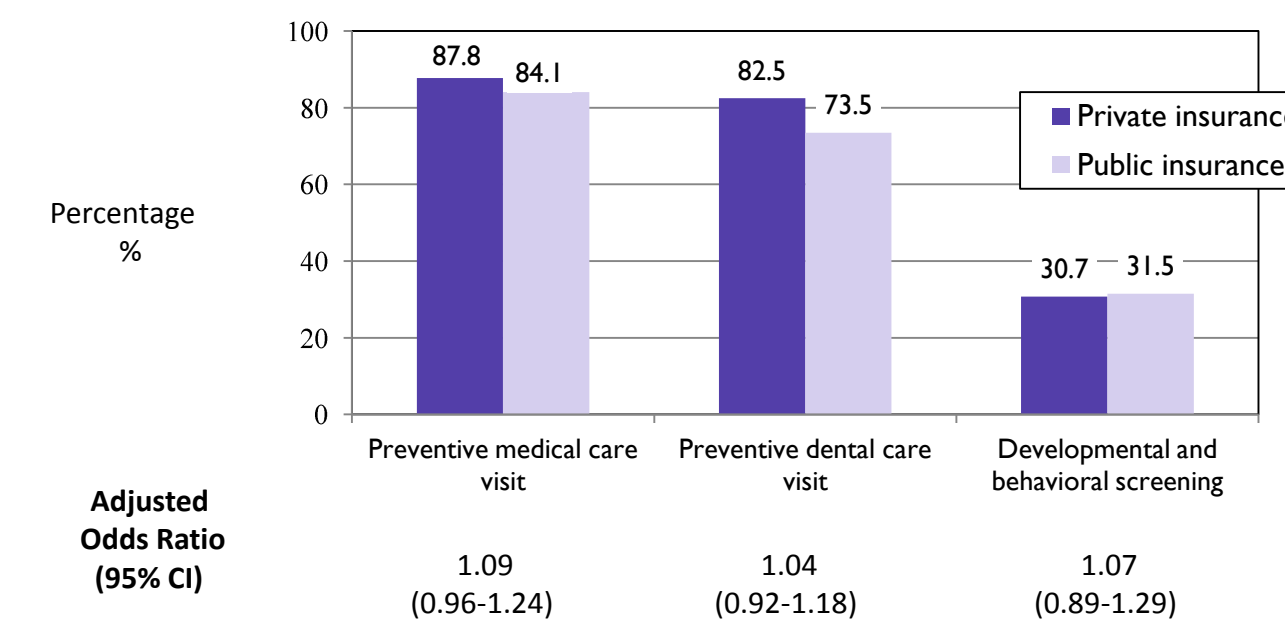


Table 4. Preventive Health Care Nationwide and State

Indicator	Children with Public Insurance	Children with Private Insurance
Preventive medical care visit (age 0-17)	77.1% (AK) – 91.2% (PA)	71.2% (ID) – 96.6% (DC)
Preventive dental care visit (age 1-17)	60.8% (MO) – 84.9% (DC)	73.0% (NV) – 90.7% (VT)
Developmental and behavioral screening (age 0-5)	17.1% (MT) – 72.9% (MA)	16.7% (MS) – 60.8% (NC)

Figure 5. Medical Home Nationwide

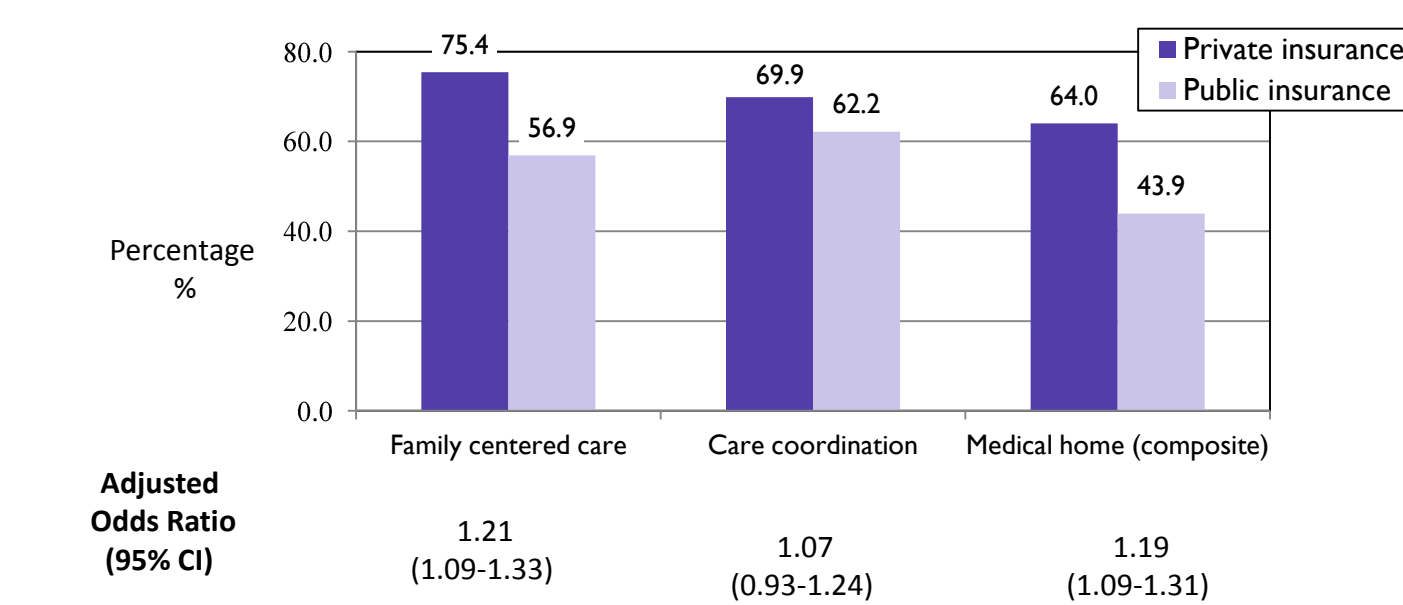


Table 5. Medical Home Nationwide and State

Indicator	Children with Public Insurance	Children with Private Insurance
Family centered care	42.7% (AZ) – 77.4% (VT)	66.9% (NV) – 83.2% (VT)
Care coordination when needed	50.5% (DC) – 73.1% (TX)	63.1% (TX) – 79.4% (VT)
Met all Medical Home criteria	31.0% (AZ) – 62.4% (VT)	56.5% (NV) – 73.7% (VT)

## Minimal Quality of Care Index Composite Measure

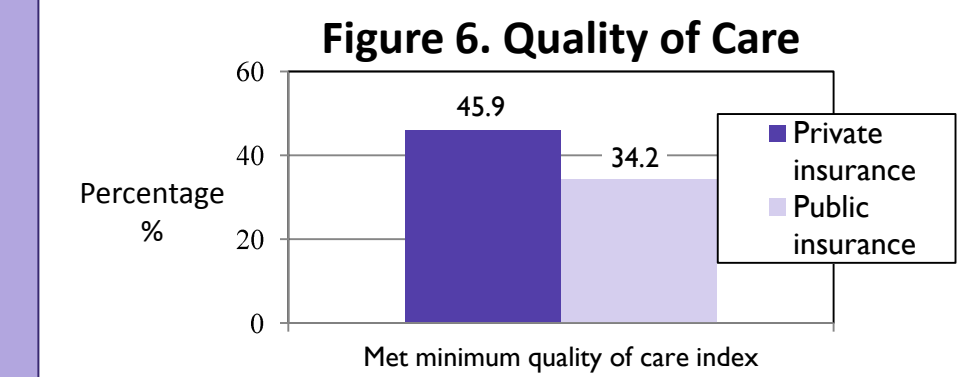
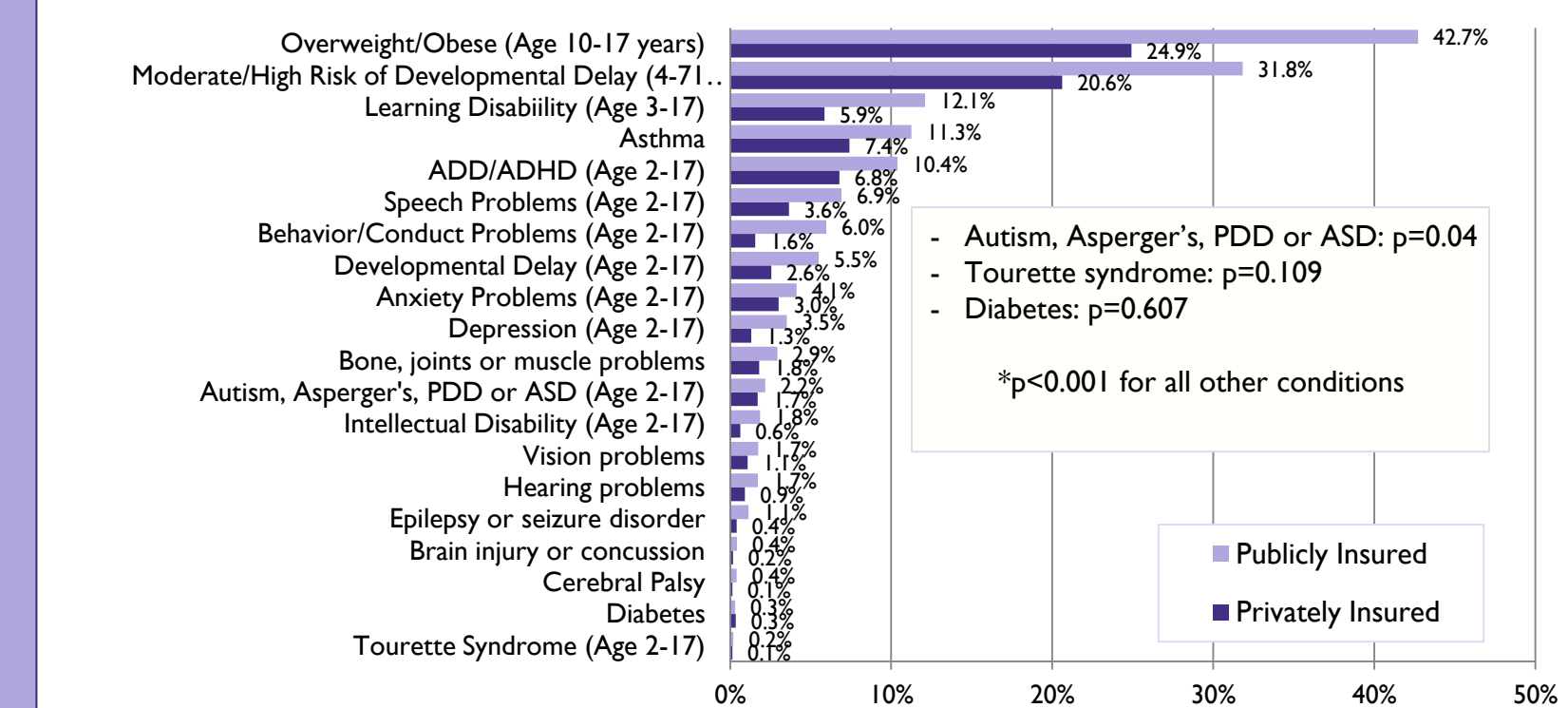


Table 6. Quality of Care

Indicator	Children with Public Insurance	Children with Private Insurance
Met minimum quality of care index	22.6% (AZ) – 53.6% (VT)	37.1% (MS) – 56.0% (NH)

Fewer than half of all US children (39.0%) met criteria across each of 3 minimal quality indicators (insurance usually or always adequate, at least 1 preventive care visit, met medical home criteria), with wide variations across states, ranging from 29.4% to 53.5%. Older children (34.9%) CSHCN (34.1%), and publicly insured children (34.2%) scored positively on this minimal quality of care composite measure less frequently than younger, healthy, and privately insured children (figure and table 6).

Figure 7. National Prevalence of Specific Health Conditions



## Conclusions and Implications

Significant health status and health care quality disparities exist between US children with public versus private sector health insurance coverage, even when controlling for a range of demographic and health status factors. There is also wide variation both within and across states in the prevalence of numerous indicators of child health and health care quality that point to the potential impact of policies and programs impacting child health.

Findings support CHIPRA and ACA emphasis on improving health care system performance in areas of (1) insurance duration and adequacy, (2) health care access, (3) chronic condition management and (4) health promotion and disease prevention. Results demonstrate the importance of continuously evaluating disparities in health and quality of health care delivery between publicly and privately insured children; which is critical to realize the goals of health care reform to eliminate disparities and promote the early and lifelong health of children, youth of families in the US.

Analyses support the use of the NSCH to produce standardized and comparable state level data relevant to CHIPRA and ACA provisions requiring that states report on children's health insurance coverage and quality of care and stratifying these measures according to children's special health care needs and socioeconomic status. Further evaluation of these data can help evaluate the impact of state programs and policies as health care reform unfolds.

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