



# Health Care Access and Health Status of Children Raised by a Parent with Disabilities: Results from the 2007 and 2008 North Carolina BRFSS and CHAMP Surveys



Donna R. Miles, PhD<sup>1</sup>; Michael J. Steiner, MD<sup>2</sup>; Harry Herrick, MSPH, MSW<sup>1</sup>; Tamera Coyne-Beasley, MD<sup>2</sup>; Elizabeth Mizelle, MPH<sup>3</sup>; Michael Sanderson, MPH<sup>3</sup>; Karen Luken, MS<sup>4</sup>; Carol A. Ford, MD<sup>2</sup>

<sup>1</sup>State Center for Health Statistics, Division of Public Health, North Carolina Department of Health and Human Services, Raleigh, NC

<sup>2</sup>Division of General Pediatrics and Adolescent Medicine, Department of Pediatrics, University of North Carolina, Chapel Hill, NC

<sup>3</sup>Children and Youth Branch, Division of Public Health, North Carolina Department of Health and Human Services, Raleigh, NC

<sup>4</sup>North Carolina Office on Disability and Health, FPG Child Development Institute, University of North Carolina, Chapel Hill, NC

## Background

Thirty-percent of adults with a disability (ages 18-64) are responsible for the care of a minor living in their household, and approximately 15% of all parents of children under age 18 have a disability.

Caregivers with a disability face unique parenting challenges as a result of their disability.

Previous studies on children raised by a parent with a disability rely on small sample sizes or fail to include aspects of general health of the child.

## Study Objective

The purpose of the current study is to characterize health care access and outcomes in children and adolescents raised by a primary caregiver with or without a disability.

## Methods

### Design

- Data included cross sectional surveys collected in 2007 and 2008 through the North Carolina BRFSS and CHAMP.
- The Behavioral Risk Factor Surveillance System (BRFSS) is an annual telephone survey that assesses health characteristics of non-institutionalized adults age 18 and older.
- The Child Health Assessment and Monitoring Program (CHAMP) is an annual telephone survey that assesses health characteristics of children (birth-17years). Eligible children for the CHAMP survey are drawn from the BRFSS. The adult most knowledgeable about the child's health (i.e. 'primary caregiver') completes the CHAMP survey.
- BRFSS adults who were the primary caregiver of a CHAMP child were eligible for inclusion in the current study.

### Sample

- 64% of all BRFSS households with a child (ages 0-17) completed CHAMP.
- 23% of primary caregivers were identified as disabled.

Table 1. Sample sizes by survey year.

	2007	2008	Total
Completed BRFSS	14,777	15,835	30,612
BRFSS Household with Children	4,334	4,565	8,899
Completed CHAMP	2,715	2,987	5,702
Same Respondent Completed both BRFSS & CHAMP (Current Study)	2,153	2,418	4,571
Caregiver with a Disability	513	601	1,114
Caregiver without a Disability	1,640	1,817	3,457

### Measures

**Primary Caregiver with Disabilities:** Disability status of the primary caregiver was based on respondent endorsement of one or more of the 4 disability questions on the 2007 and 2008 BRFSS surveys (2 questions from the Core Disability Module and 2 NC state added disability questions).

**Child Health Care Access and Outcomes:** Child health characteristics were assessed through the 2007 and 2008 NC CHAMP surveys.

### Statistical Analyses

- BRFSS and CHAMP data are weighted based on estimates from the North Carolina state census. SAS 9.2 (Cary, NC) software survey procedures were used to account for the complex survey design. The  $\chi^2$  statistic or t-test was used to assess whether sample characteristics differed by caregiver disability. Logistic regression models were used to examine differences in child health characteristics by caregiver disability, after accounting for other covariates.

## Results

### Demographic Characteristics of Caregivers with and without a disability (Table 1)

Compared to caregivers without a disability, caregivers with a disability were:

- more likely to have lower levels of education;
- more likely have a household income < 200% Federal Poverty Level;
- older (mean age = 41.9 years vs. 38.5 years);
- more likely to be a grandparent;
- less likely to be married;
- less likely to be employed for wages.

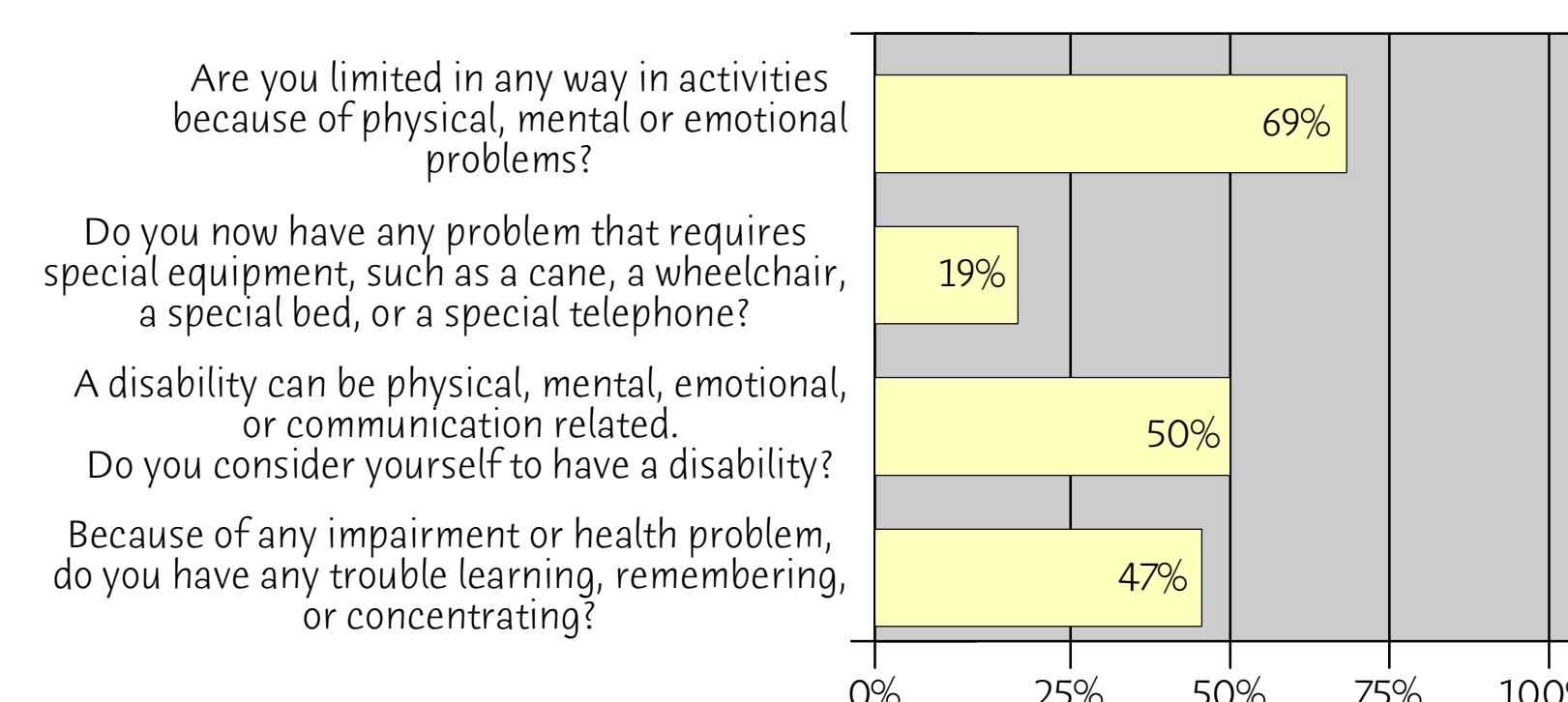
Children of caregivers with a disability included in this study were significantly older than children of caregivers without a disability (mean age = 9.3 years vs. 8.3 years).

Table 2. Demographic Characteristics for Caregivers with and without a Disability (N = 4571)

	Caregiver with Disability		Caregiver without Disability	
	N	%	N	%
Total	1114	100%	3457	100%
<b>Sex</b>				
Male	230	18.4%	764	21.0%
Female	884	81.6%	2693	79.0%
<b>Race/Ethnicity</b>				
White non-Hispanic	386	56.9%	1244	61.8%
Black non-Hispanic	105	24.0%	245	20.2%
Other	110	19.1%	327	18.0%
<b>Primary Caregiver*</b>				
Mother	712	66.9%	2579	75.6%
Father	202	15.7%	688	19.4%
Grandparent	173	14.8%	135	3.5%
Other	27	2.6%	55	1.4%
<b>Caregiver Education Level*</b>				
HS or less	441	39.6%	870	26.1%
Some college	331	31.2%	885	25.3%
College graduate	342	29.1%	1699	48.6%
<b>Household Federal Poverty Level*</b>				
<100%	255	28.5%	276	11.3%
100-199%	247	25.1%	524	18.1%
200-299%	159	16.0%	601	18.0%
300-399%	161	14.4%	760	23.8%
>400%	191	16.1%	1057	28.8%
<b>Marital Status*</b>				
Married	686	60.8%	2613	74.6%
Divorced	158	12.8%	326	8.3%
Widowed	44	3.5%	51	1.2%
Separated	89	8.4%	113	3.8%
Never married	102	10.1%	229	8.3%
Unmarried couple	34	4.4%	125	3.7%
<b>Employment Status*</b>				
Employed for wages	445	38.3%	2259	62.1%
Self-employed	84	6.4%	289	8.0%
Out of work >1yr	50	4.5%	59	2.3%
Out of work <1yr	57	5.6%	99	3.2%
Homemaker	151	15.6%	598	20.1%
Student	34	4.1%	73	2.2%
Retired	51	4.1%	65	1.6%
Unable to work	240	21.4%	15	.5%

\* Significant difference between groups, p < .0001

Figure 1. Prevalence of BRFSS Disability Items among Caregivers with a Disability

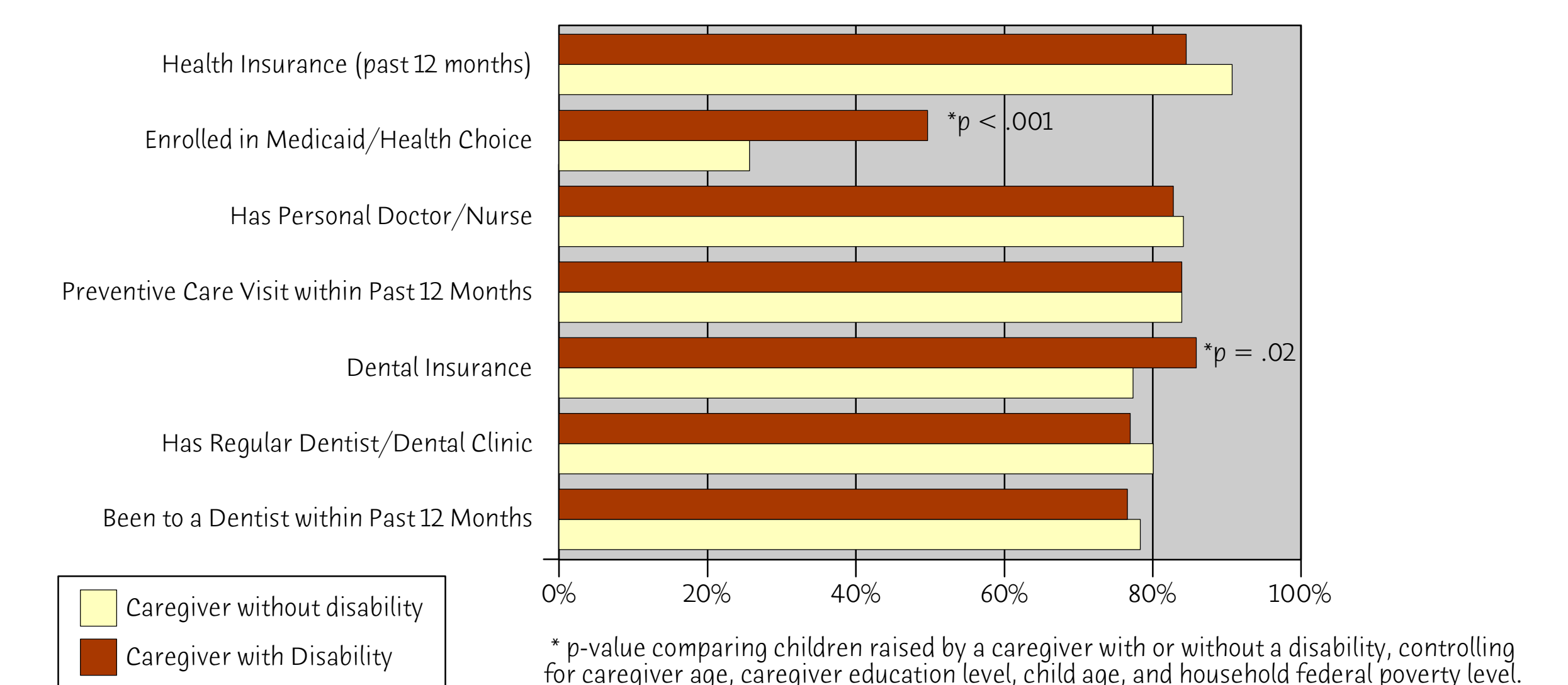


### Child Health Care Access and Utilization (Figure 2)

Compared to children raised by a caregiver without a disability, children raised by a caregiver with a disability were:

- more likely to be enrolled in Medicaid/NC Health Choice.
- more likely to have dental insurance.

Figure 2. Health Care Access and Utilization for Children Raised by a Caregiver with and without a Disability



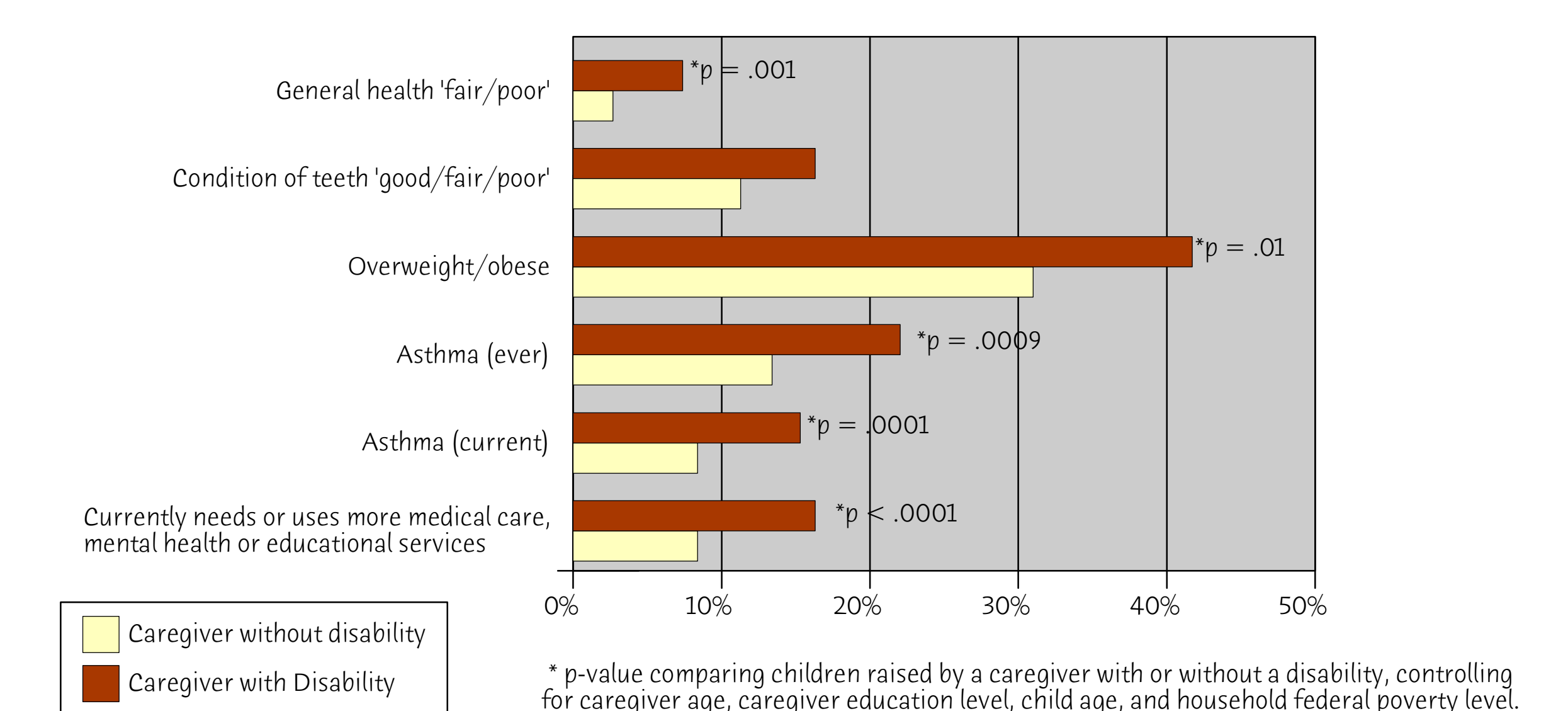
\* p-value comparing children raised by a caregiver with or without a disability, controlling for caregiver age, caregiver education level, child age, and household federal poverty level.

### Child Health Status (Figure 3)

Compared to children raised by a caregiver without a disability, children raised by a caregiver with a disability were:

- more likely to receive 'fair or poor' general health ratings.
- more likely to be overweight/obese.
- more likely to have asthma.
- more likely to use more medical, mental health or educational services than their peers.

Figure 3. Health Characteristics of Children Raised by a Caregiver with and without a Disability



\* p-value comparing children raised by a caregiver with or without a disability, controlling for caregiver age, caregiver education level, child age, and household federal poverty level.

## Conclusion

- Children of both caregivers with or without a disability have similar health care access and utilization.
- Children raised by a caregiver with a disability appear to have significantly worse health outcomes.
- Findings highlight the particular health needs among children raised by a caregiver with a disability.

## Implications

- When providing support for persons with disability, there is a need to focus both on the person with a disability and on the needs of all the family members. Development of 'intergenerational' models of health care and services should be investigated.
- Further study is necessary to inform state and federal policies that may alleviate health disparities among children raised by a caregiver with a disability.
- The majority of children raised by a caregiver with a disability had low household incomes. The impact of poverty on children living with a caregiver with a disability merits further research.