

ADHD

Headline

In 2002, one out of every 10 males ages three to 17 were reported to have been diagnosed with attention-deficit/hyperactivity disorder by a doctor or other health professional. ([See Figure 1](#))

Importance

Children with attention-deficit/hyperactivity disorder (ADHD) have “chronic level[s] of inattention, impulsive hyperactivity, or both such that daily functioning is compromised.”¹ Children can be diagnosed with one of three types of ADHD: predominantly inattentive type (previously known simply as attention deficit disorder), predominantly hyperactive-impulsive type, or combined type.² Treatment for ADHD can include behavioral counseling, emotional counseling, practical support, and medication.³

Approximately half of all children with ADHD have other mental disorders as well, including learning disorders, oppositional defiant disorder, Tourette’s syndrome, conduct disorder, anxiety, and depression.⁴

ADHD can affect children’s lives in many ways, especially when it goes untreated. Children with ADHD may have a more difficult time making and maintaining friendships than do their peers.⁵ Adolescents with ADHD may be more likely than their peers to fall behind in their school work,⁶ to use alcohol and tobacco, have negative moods, and spend less time with their families.⁷ Children and adolescents with ADHD are also much more likely than their peers to suffer injuries while walking, biking, or driving and to be admitted to the hospital for accidental poisoning.⁸

Recently, the Environmental Protection Agency (EPA) included ADHD as an emerging issue in its second annual report *America’s Children and the Environment: Measures of Contaminants, Body Burdens, and Illnesses*. Although it is unknown whether environmental contaminants contribute to ADHD, several of the symptomatic behaviors are similar to those for children exposed to lead and PCBs (polychlorinated biphenyls).⁹

Trends

The percentage of children diagnosed with ADHD increased slightly from 1997 to 2002, from six (5.5) to seven (7.2) percent. ([See Table 1](#))

Differences by Gender

Males were about two and a half times more likely than females to have been diagnosed with ADHD in 2002 (10 and 4 percent respectively). ([See Figure 1](#))

Differences by Race and Hispanic Origin

In 2002, 8 percent of non-Hispanic white children and 8 percent of non-Hispanic black children had been diagnosed with ADHD compared to only 4 percent of Hispanic children. ([See Table 1](#))

Differences by Age

Older children are more likely to have been diagnosed with ADHD. In 2002, 1 percent of children ages three to four had been diagnosed with ADHD, while 7 percent of children ages five to 11 and 10 percent of children ages 12 to 17 had been diagnosed with ADHD. ([See Figure 2](#))

Differences by Type of Insurance Coverage

In 2002, 11 percent of children with public health insurance had been diagnosed with ADHD, compared to only 6 percent of children with private insurance and 5 percent of children with no health insurance. ([See Figure 3](#))

Differences by Welfare/TANF Receipt

ADHD is more common among children living in families in which at least one person received welfare or TANF in the past year. In 2002, 14 percent of children in families receiving welfare had been diagnosed with ADHD, compared with 7 percent of children in families not receiving welfare. ([See Table 1](#))

State and Local Estimates

None Available

International Estimates

None Available

National Goals

None

Definition

For this indicator, children with attention-deficit/hyperactivity disorder (ADHD) are those who have been identified by a doctor or other health professional as having the disorder. This information is reported by a knowledgeable adult within the household, usually a parent.

Children with ADHD are characterized by having a “chronic level of inattention, impulsive hyperactivity, or both such that daily functioning is compromised.”¹⁰ More information is available from the 2000 Diagnostic and Statistical Manual for Mental Disorders (DSM-IV-TR), which gives criteria for diagnosing ADHD and is available online at <http://www.cdc.gov/ncbddd/adhd/symptom.htm>.

Note: attention-deficit/hyperactivity disorder is the American Psychiatric Association’s current term used for children who may have previously been diagnosed as having either attention deficit disorder or attention-deficit/hyperactivity disorder.¹¹

Data Source

Data for 1998 to 2002: Child Trends original analysis of National Health Interview Survey data.

Data for 1997: Bloom B, and Tonthat L. *Summary Health Statistics for U.S. Children: National Health Interview Survey, 1997 Vital Health Statistics 10(203)*. 2002. http://www.cdc.gov/nchs/products/pubs/pubd/series/sr10/pre-200/sr10_203.htm

Raw Data Source

National Health Interview Survey
<http://www.cdc.gov/nchs/nhis.htm>

Next Update

Winter 2005

¹ *Attention-Deficit/Hyperactivity Disorder--What is ADHD?* (November 2001). National Center on Birth Defects and Developmental Disabilities, CDC. Retrieved March 13, 2003, from the World Wide Web: <http://www.cdc.gov/ncbddd/adhd/adhdwhat.pdf>

² Ibid.

³ *Attention Deficit Hyperactivity Disorder: A Decade of the Brain Report*. (96-3572)(1996). Bethesda, MD: National Institute of Mental Health. <http://www.nimh.nih.gov/publicat/adhd.pdf>

⁴ Ibid.

⁵ *Attention-Deficit/Hyperactivity Disorder--Peer Relationships and ADHD* (April, 2002). National Center on Birth Defects and Developmental Disabilities, CDC. Retrieved March 13, 2003, from the World Wide Web: <http://www.cdc.gov/ncbddd/adhd/peer.htm>

⁶ *Fact Sheet: Attention Deficit/Hyperactivity Disorder* (2001). American Psychiatric Association. Retrieved March 14, 2003, from the World Wide Web: http://www.psych.org/public_info/adhdfactsheet42401.pdf

⁷ Whalen, C. K., Jamner, L. D., Henker, B., Delfino, R. J., & Lozano, J. M. (2002). The ADHD Spectrum and Everyday Life: Experience Sampling of Adolescent Moods, Activities, Smoking, and Drinking. *Child Development*, 73(1), 209-227.

⁸ *Attention-Deficit/Hyperactivity Disorder—Injuries and ADHD* (January, 2002). National Center on Birth Defects and Developmental Disabilities, CDC. Retrieved March 13, 2003, from the World Wide Web: <http://www.cdc.gov/ncbddd/adhd/injury.htm>

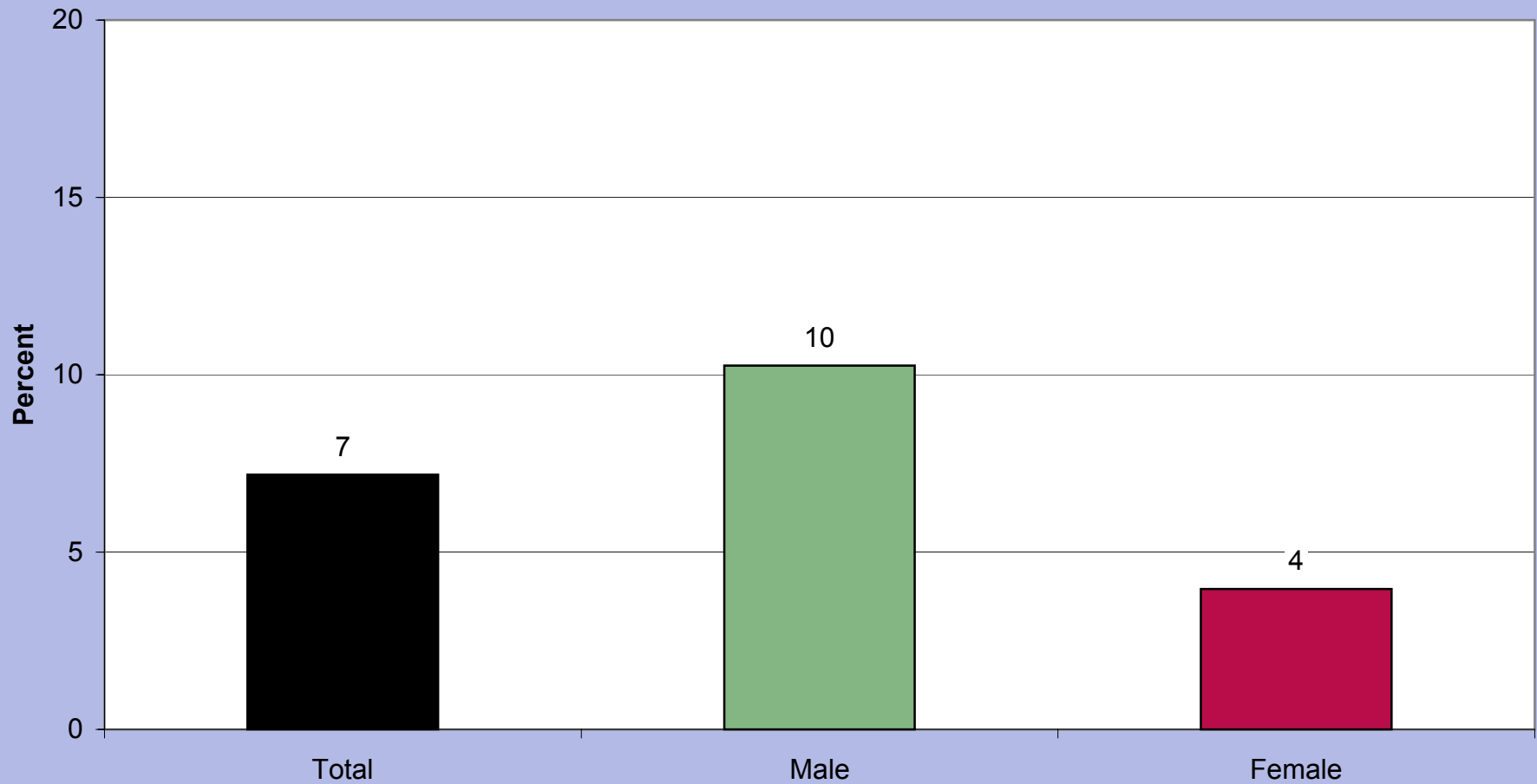
⁹ *America’s Children and the Environment: Measures of Contaminants, Body Burdens, and Illnesses*. (Second Edition) (2003). Environmental Protection Agency. http://www.epa.gov/envirohealth/children/ace_2003.pdf

¹⁰ *Attention-Deficit/Hyperactivity Disorder-- What is ADHD?* (November 2001) . Retrieved March 13, 2003, from the World Wide Web: <http://www.cdc.gov/ncbddd/adhd/adhdwhat.pdf>

¹¹ *America's Children and the Environment: Measures of Contaminants, Body Burdens, and Illnesses.* (Second Edition) (2003). Environmental Protection Agency.
http://www.epa.gov/envirohealth/children/ace_2003.pdf

Figure 1

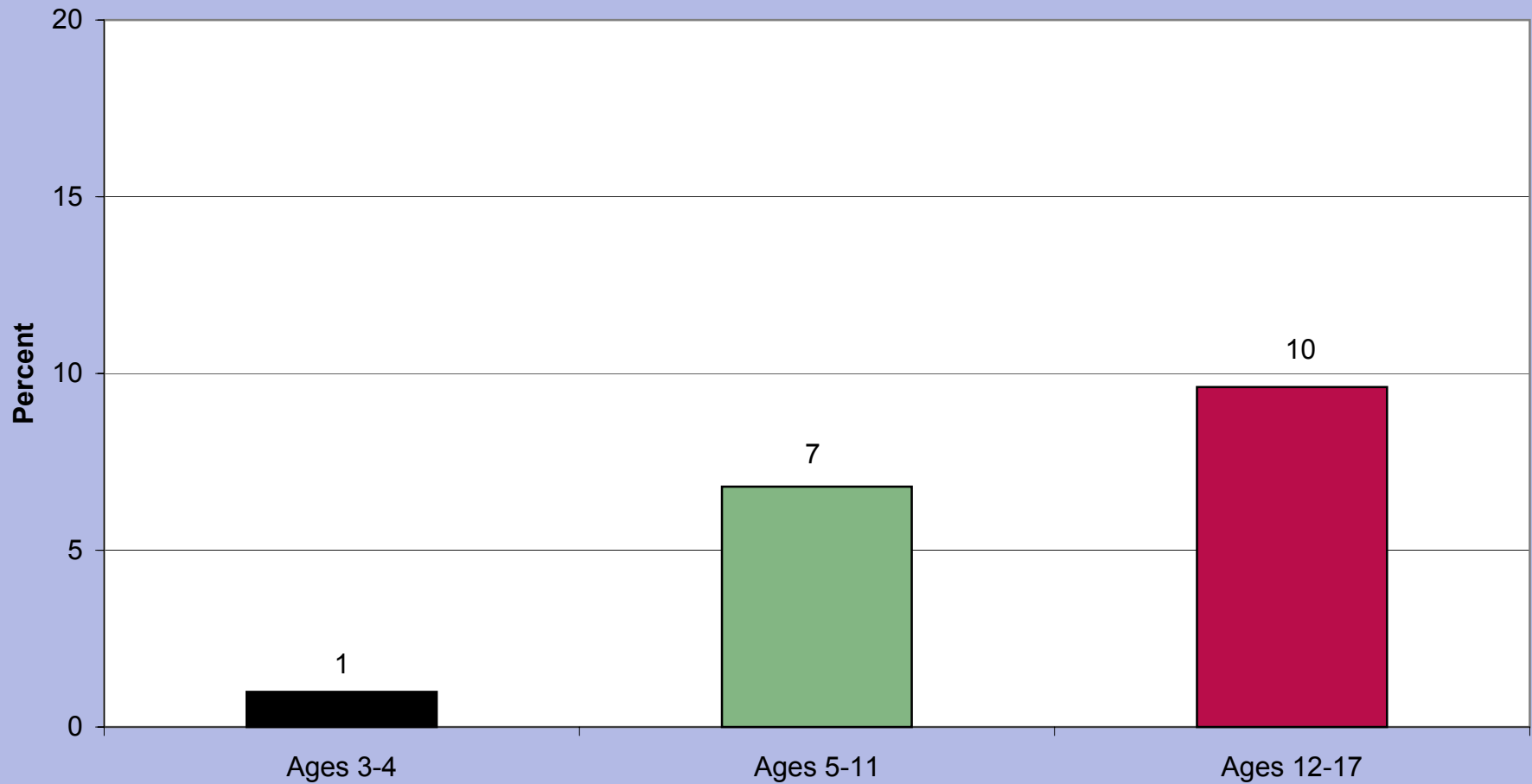
Percentage of Children Ages Three to 17 Who Have Been Diagnosed with ADHD, by Gender, 2002



Source: Original analysis by Child Trends of the 2002 National Health Interview Survey data

Figure 2

Percentage of Children Ages Three to 17 Who Have Been Diagnosed with ADHD, by Age, 2002

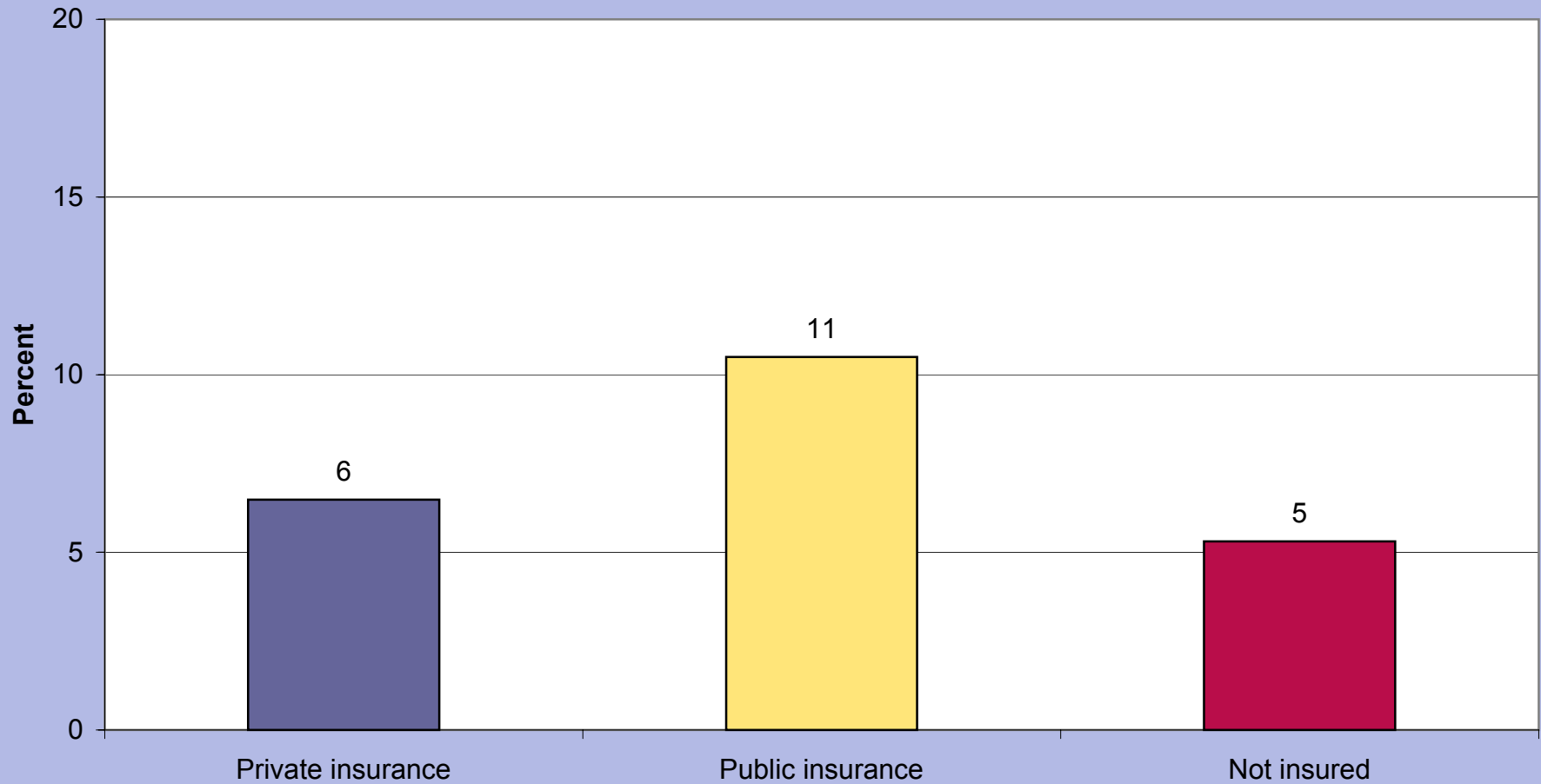


Source: Original analysis by Child Trends of the 2002 National Health Interview Survey data



Figure 3

Percentage of Children Ages Three to 17 Who Have Been Diagnosed with ADHD, by Type of Health Insurance, 2002



Notes: Children with both public and private insurance are placed in the private insurance category. As defined here, public health insurance for children consists mostly of MEDICAID or other public assistance programs, including State plans. It does not include children with only Medicare or the Civilian Health and Medical Care Program of the Uniformed Services (CHAMPUS/CHAMP-VA/Tricare).

Source: Original analysis by Child Trends of the 2002 National Health Interview Survey data

Table 1

Percentage of Children Ages 3 to 17 who Have Been Diagnosed by a Doctor or Health Professional as Having Attention Deficit Hyperactivity Disorder (ADHD), 1997-2002

	1997 ¹	1998	1999	2000	2001	2002
Total	5.5	5.9	5.6	6.6	6.4	7.2
Gender						
Male	8.3	8.5	8.4	9.3	9.1	10.3
Female	2.6	3.2	2.7	3.8	3.5	4.0
Age group						
Ages 3-4	0.5	0.7	0.6	1.0	0.8	1.0
Ages 5-11	5.9	6.1	5.3	6.5	6.3	6.8
Ages 12-17	6.8	7.5	7.7	8.6	8.3	9.6
Race and Hispanic Origin²						
White, non-Hispanic	6.5	7.0	6.7	8.0	7.4	8.3
Black, non-Hispanic	4.3	4.9	4.3	5.0	5.7	7.8
Hispanic	3.3	3.5	2.7	3.8	3.5	3.7
Non-Hispanic other	2.4	2.2	3.8	2.1	3.7	1.8
Poverty Status						
At or above poverty	-	6.0	5.8	7.3	6.5	7.2
Below poverty	-	6.7	7.7	7.0	7.1	9.7
Parental Education³						
Some high school or less	-	4.9	5.7	5.8	4.2	6.4
High school graduate/ GED or equivalent recipient	-	6.6	5.8	6.9	6.8	9.1
Some college, no degree/AA degree	-	6.1	6.2	7.5	7.6	7.2
Bachelor's degree or higher	-	5.3	4.5	5.9	5.3	5.6
Insurance Coverage						
Private insurance⁴	-	5.2	5.1	6.3	5.8	6.5
Public insurance⁵	-	9.9	8.5	9.0	9.7	10.5
Not insured	-	4.9	5.2	5.4	4.4	5.3
Usual source of health care⁶						
No usual source	-	4.1	3.8	5.0	3.1	5.4
Usual source	-	6.1	5.8	6.8	6.6	7.3
Welfare/TANF						
At least one family member received income from welfare/TANF	-	7.7	6.7	9.5	8.9	14.0
No one in family received income from welfare/TANF	-	5.8	5.6	6.4	6.1	6.8
Food Stamps						
At least one family member eligible to receive food stamps	-	7.0	7.3	8.4	10.0	11.0
No one in family eligible to receive food stamps	-	5.8	5.4	6.4	5.9	6.6

¹ Data from Bloom B, and Tonthat L. *Summary Health Statistics for U.S. Children: National Health Interview Survey, 1997* Vital Health Stat 10(203). 2002.

² Persons of Hispanic origin may be of any race.

³ Parental education reflects the education level of the most educated parent in the child's household.

⁴ Children with both public and private insurance are placed in the private insurance category.

⁵ As defined here, public health insurance for children consists mostly of MEDICAID or other public assistance programs, including State plans. It does not include children with only Medicare or the Civilian Health and Medical Care Program of the Uniformed Services (CHAMPUS/CHAMP-VA/Tricare).

⁶ Excludes emergency rooms as a usual source of care.

Source: Except where otherwise noted, original analysis by Child Trends of National Health Interview Survey data 1998-2002