Attention-Deficit/Hyperactivity Disorder in Children Ages 5–17 Years: United States, 2020–2022

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Key findings

### Data from the National Health Interview Survey

• During 2020–2022, the prevalence of ever diagnosed attention-deficit/hyperactivity disorder (ADHD) was 11.3% in children ages 5–17 years, with boys (14.5%) having a higher prevalence than girls (8.0%).

• Children ages 5–11 years were less likely than children ages 12–17 years to have ADHD.

• White non-Hispanic children ages 5–17 years were more likely to have ADHD (13.4%) than Black non-Hispanic (10.8%) and Hispanic (8.9%) children.

• The prevalence of ADHD decreased as the level of family income increased.

• Children with public (14.4%) or private (9.7%) health insurance were more likely to have ADHD than children without insurance (6.3%).

Attention-deficit/hyperactivity disorder (ADHD) is one of the most common mental disorders of childhood (1). It is characterized by a pattern of inattention, impulsivity, or hyperactivity that leads to functional impairment experienced in multiple settings (2). Symptoms of ADHD occur during childhood, and many children continue to have symptoms and impairment through adolescence and into adulthood (3). This report describes the percentage of children and adolescents ages 5–17 years who had ever been diagnosed with ADHD from the 2020–2022 National Health Interview Survey (NHIS).

What was the prevalence of diagnosed ADHD in 2020–2022 and did it differ by sex and age?

• During 2020–2022, 11.3% of children ages 5–17 years had ever been diagnosed with ADHD (Figure 1, Table 1).

Figure 1. Prevalence of children ages 5–17 years ever diagnosed with attention-deficit/hyperactivity disorder, by age group and sex: United States, 2020–2022
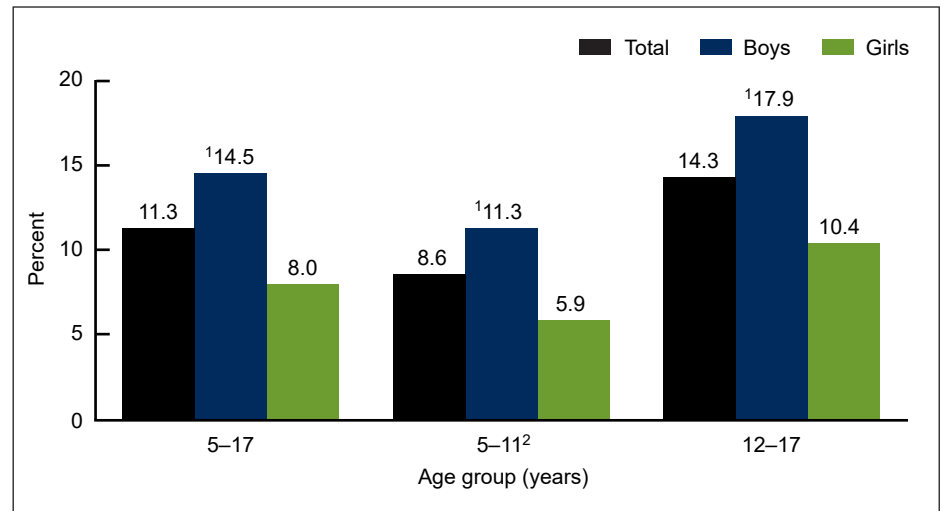
[1]Significantly different from girls ($p < 0.05$).
[2]Significantly different from children ages 12–17 years ($p < 0.05$).
NOTES: Attention-deficit/hyperactivity disorder is based on a response to the question, "Has a doctor or other health professional ever told you that [sample child] had Attention-Deficit/Hyperactivity Disorder or ADHD or Attention-Deficit Disorder or ADD?" Estimates are based on household interviews of a sample of the civilian noninstitutionalized population.
SOURCE: National Center for Health Statistics, National Health Interview Survey, 2020–2022.

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- Boys (14.5%) were more likely than girls (8.0%) to have ADHD, and this pattern was seen for children ages 5–11 years and 12–17 years.

- Among both boys and girls, the prevalence of ADHD was lower in children ages 5–11 years (8.6%) than in those ages 12–17 years (14.3%).

Did the prevalence of diagnosed ADHD differ by race and Hispanic origin and age?

- Among children ages 5–17 years, White non-Hispanic (subsequently, White) children were more likely to have ever been diagnosed with ADHD (13.4%) than Black non-Hispanic (subsequently, Black) (10.8%) and Hispanic (8.9%) children (Figure 2, Table 2).

- Among children ages 5–11 years, White children were more likely than Hispanic children to have ADHD; however, observed differences among Black children and either White or Hispanic children were not significant.

- Among children ages 12–17 years, the prevalence of ADHD was higher among White children (17.0%) than for Black (13.0%) and Hispanic (11.7%) children.

- The prevalence of ADHD was higher in children ages 12–17 years than in children ages 5–11 years for all race and Hispanic-origin groups.

Figure 2. Prevalence of children ages 5–17 years ever diagnosed with attention-deficit/hyperactivity disorder, by age group and race and Hispanic origin: United States, 2020–2022
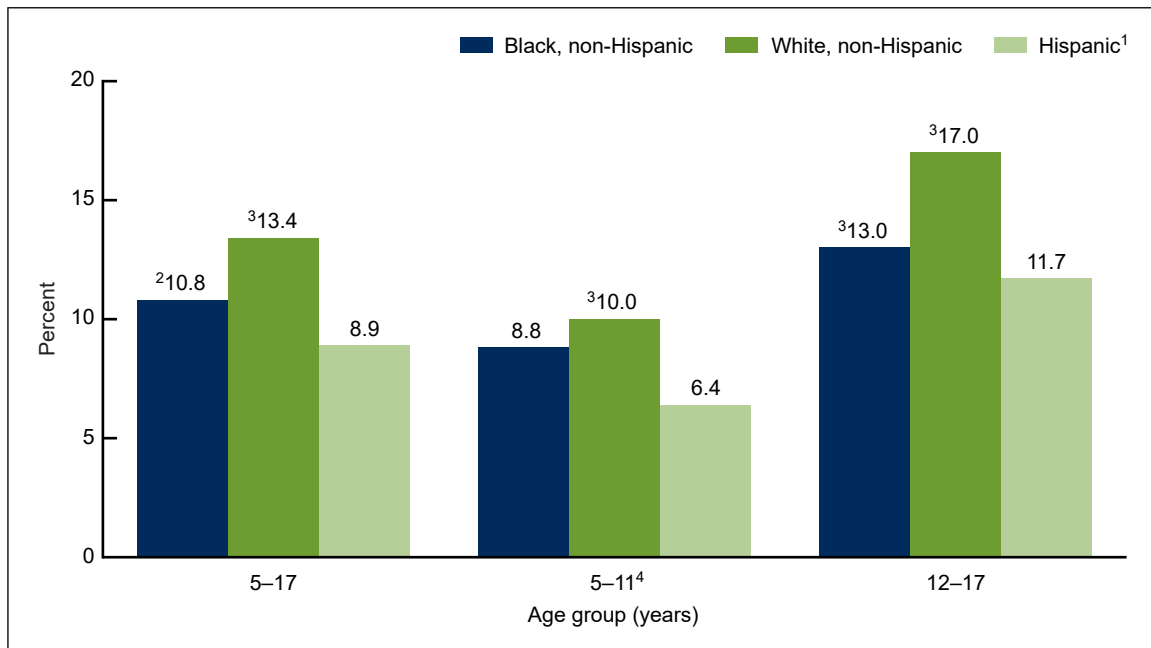
[1]Children of Hispanic origin may be of any race.
[2]Significantly different from non-Hispanic White children ($p < 0.05$).
[3]Significantly different from Hispanic children ($p < 0.05$).
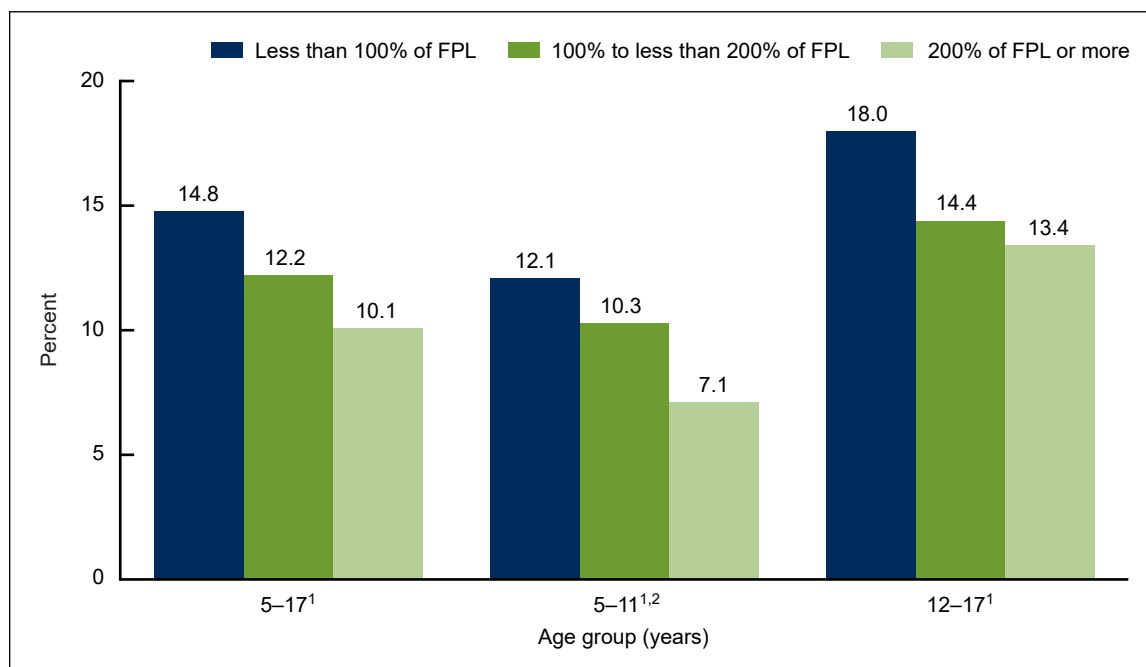[4]Significantly different from children ages 12–17 years ($p < 0.05$).
NOTES: Attention-deficit/hyperactivity disorder is based on a response to the question, "Has a doctor or other health professional ever told you that [sample child] had Attention-Deficit/Hyperactivity Disorder or ADHD or Attention-Deficit Disorder or ADD?" Estimates are based on household interviews of a sample of the civilian noninstitutionalized population.
SOURCE: National Center for Health Statistics, National Health Interview Survey, 2020–2022.

Did the prevalence of children with diagnosed ADHD differ by family income and age?

- Among children ages 5–17 years, the prevalence of ADHD decreased as family income as a percentage of the federal poverty level increased, from 14.8% in those with family incomes of less than 100% of the federal poverty level to 10.1% in those with family incomes of 200% of the federal poverty level or more (Figure 3, Table 3).

- This pattern of decreased prevalence of ADHD with increased family income was seen among children in both age groups.

- Children ages 5–11 years were less likely than those ages 12–17 years to have ADHD across all family income levels.

Figure 3. Prevalence of children ages 5–17 years ever diagnosed with attention-deficit/hyperactivity disorder, by age group and family income: United States, 2020–2022

[1]Significant linear trend by family income ($p < 0.05$).
[2]Significantly different from children ages 12–17 years ($p < 0.05$).
NOTES: FPL is federal poverty level, which is based on the ratio of the family's income in the previous calendar year to the appropriate poverty threshold defined by the U.S. Census Bureau. Attention-deficit/hyperactivity disorder is based on a response to the question, "Has a doctor or other health professional ever told you that [sample child] had Attention-Deficit/Hyperactivity Disorder or ADHD or Attention-Deficit Disorder or ADD?" Estimates are based on household interviews of a sample of the civilian noninstitutionalized population.
SOURCE: National Center for Health Statistics, National Health Interview Survey, 2020–2022.

Did the prevalence of children diagnosed with ADHD differ by health insurance coverage and age?

- Among children ages 5–17 years, the highest prevalence of ADHD was in children with public insurance coverage (14.4%) and the lowest was among uninsured children (6.3%) (Figure 4, Table 4).

- In children ages 5–11 years, those with public insurance had the highest prevalence of ADHD (11.6%), but observed differences between those with private insurance (6.8%) and without insurance (5.9%) were not significant.

- Among children ages 12–17 years, prevalence of ADHD was highest in those with public insurance (17.6%), followed by children with private insurance (12.8%) and children without insurance (6.7%).

Figure 4. Prevalence of children ages 5–17 years ever diagnosed with attention-deficit/hyperactivity disorder, by age group and health insurance coverage: United States, 2020–2022
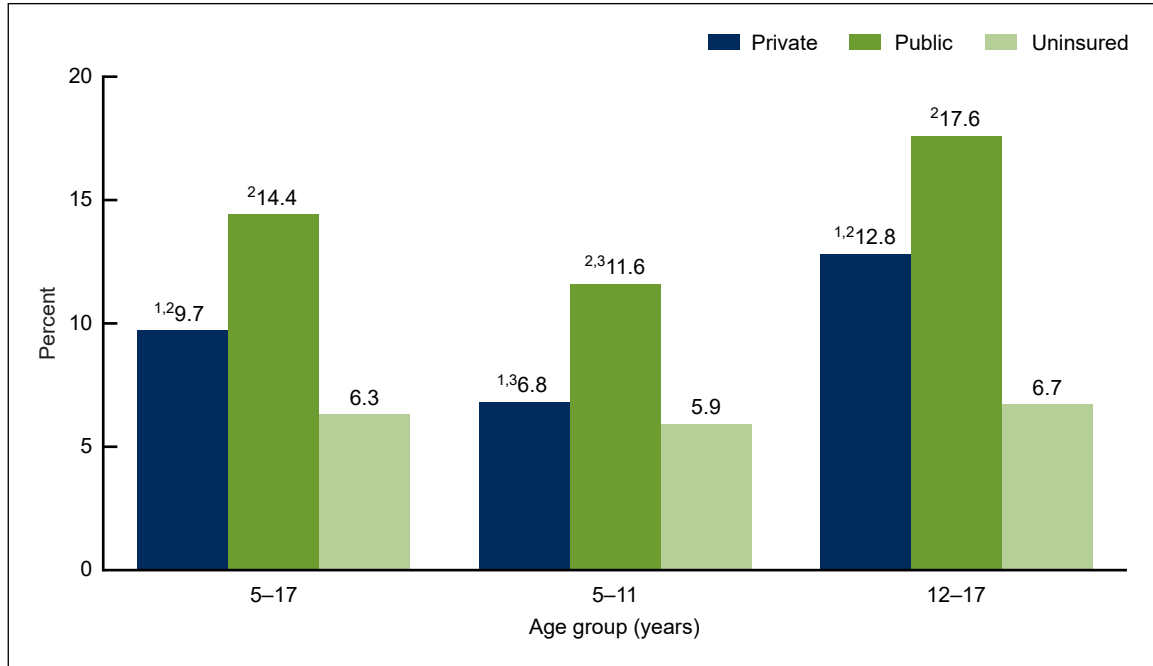
[1]Significantly different from children with public insurance ($p < 0.05$).
[2]Significantly different from uninsured children ($p < 0.05$).
[3]Significantly different from children ages 12–17 years ($p < 0.05$).
NOTES: Attention-deficit/hyperactivity disorder is based on a response to the question, "Has a doctor or other health professional ever told you that [sample child] had Attention-Deficit/Hyperactivity Disorder or ADHD or Attention-Deficit Disorder or ADD?" Estimates are based on household interviews of a sample of the civilian noninstitutionalized population.
SOURCE: National Center for Health Statistics, National Health Interview Survey, 2020–2022.

Summary

This report describes national estimates of the prevalence of ever diagnosed ADHD in children and adolescents ages 5–17 years by age group, sex, race and Hispanic origin, family income, and health insurance status using data from the 2020–2022 NHIS. Overall, 11.3% of children ages 5–17 years had ever been diagnosed with ADHD. The prevalence was higher in children ages 12–17 years than in children ages 5–11 years, and the same pattern was seen across nearly all subgroups of sociodemographic characteristics presented, including sex, race and Hispanic origin, and family income. Boys were more likely than girls to have ADHD. Differences were found between race and Hispanic-origin groups, with White children generally having the highest prevalence. Children in families with lower family income were more likely to have ADHD than those with higher family income. In general, the prevalence of ADHD was highest in children with public insurance and lowest among those who were uninsured.

Definitions

Diagnosed attention-deficit/hyperactivity disorder: Respondents were asked, "Has a doctor or health professional ever told you that [sample child] had Attention-Deficit/Hyperactivity Disorder or ADHD or Attention-Deficit Disorder or ADD?"

Family income as a percentage of the federal poverty level: Based on the ratio of a family's income in the previous calendar year to the appropriate poverty threshold (given the family's size and number of children) defined by the U.S. Census Bureau (4). The 2020, 2021, and 2022 NHIS imputed income files were used to allow for imputed values when family income was not provided (5–7).

Health insurance coverage: Based on a hierarchy of mutually exclusive categories. Children with more than one type of health insurance were assigned to the first appropriate category in the following hierarchy: private, Medicaid or other public, other coverage, or uninsured. "Uninsured" includes children who had no coverage and those who had only Indian Health service coverage or had only a private plan that paid for one type of service such as dental or vision care. Children with "other coverage" are included in the totals but are not shown separately.

Race and Hispanic origin: Categories shown for non-Hispanic children are for those who selected only one racial group; respondents had the option to select more than one racial group. Children categorized as Hispanic may be of any race or combination of races. Estimates for non-Hispanic children of races other than White only or Black only are not shown but are included in total estimates.

Data source and methods

Data from the 2020–2022 NHIS were used for this analysis. NHIS is a nationally representative household survey of the U.S. civilian noninstitutionalized population. It is conducted continuously throughout the year by the National Center for Health Statistics. Interviews are typically conducted in respondents' homes, but follow-ups to complete interviews may be conducted over the telephone. Because of the COVID-19 pandemic, interviewing procedures were disrupted, and 68.0% of 2020, 61.4% of 2021, and 56.1% of 2022 Sample Child interviews were conducted at least partially by telephone (8–10). For more information about NHIS, visit https://www.cdc.gov/nchs/nhis.htm.

Point estimates and the corresponding confidence intervals were calculated using SAS-callable SUDAAN software (11) to account for the complex sample design of NHIS. All estimates were based on parent or guardian report and meet NCHS data presentation standards for proportions (12). Differences between percentages were evaluated using two-sided significance tests at the 0.05 level.

About the authors

Cynthia Reuben and Nazik Elgaddal are with the National Center for Health Statistics, Division of Analysis and Epidemiology.

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Figure Tables

Data table for Figure 1. Prevalence of children ages 5–17 years ever diagnosed with attention-deficit/hyperactivity disorder, by age group and sex: United States, 2020–2022

Age group (years) and sex	Percent (95% confidence interval)	Standard error
5–17		
Total.	11.3 (10.7–12.0)	0.3
Boys	14.5 (13.5–15.4)	0.5
Girls	8.0 (7.3–8.8)	0.4
5–11		
Total.	8.6 (7.8–9.4)	0.4
Boys	11.3 (10.1–12.5)	0.6
Girls	5.9 (5.0–6.9)	0.5
12–17		
Total.	14.3 (13.3–15.2)	0.5
Boys	17.9 (16.5–19.5)	0.8
Girls	10.4 (9.3–11.6)	0.6

NOTES: Attention deficit hyperactivity disorder is based on a response to the question, "Has a doctor or other health professional ever told you that [sample child] had Attention-Deficit/Hyperactivity Disorder or ADHD or Attention-Deficit Disorder or ADD?" Estimates are based on household interviews of a sample of the civilian noninstitutionalized population.

SOURCE: National Center for Health Statistics, National Health Interview Survey, 2020–2022.

Data table for Figure 2. Prevalence of children ages 5–17 years ever diagnosed with attention-deficit/hyperactivity disorder, by age group and race and Hispanic origin: United States, 2020–2022

Age group (years) and race and Hispanic origin	Percent (95% confidence interval)	Standard error
5–17		
Black, non-Hispanic.	10.8 (8.9–12.9)	1.0
White, non-Hispanic	13.4 (12.5–14.3)	0.4
Hispanic[1]	8.9 (7.8–10.1)	0.6
5–11		
Black, non-Hispanic.	8.8 (6.5–11.7)	1.3
White, non-Hispanic	10.0 (8.9–11.2)	0.6
Hispanic[1]	6.4 (5.1–7.9)	0.7
12–17		
Black, non-Hispanic.	13.0 (10.3–16.1)	1.4
White, non-Hispanic	17.0 (15.7–18.4)	0.7
Hispanic[1]	11.7 (10.0–13.5)	0.9

[1]Children of Hispanic origin may be of any race.
NOTES: Attention deficit hyperactivity disorder is based on a response to the question, "Has a doctor or other health professional ever told you that [sample child] had Attention-Deficit/Hyperactivity Disorder or ADHD or Attention-Deficit Disorder or ADD?" Estimates are based on household interviews of a sample of the civilian noninstitutionalized population.

SOURCE: National Center for Health Statistics, National Health Interview Survey, 2020–2022.

Data table for Figure 3. Prevalence of children ages 5–17 years ever diagnosed with attention-deficit/hyperactivity disorder, by age group and family income: United States, 2020–2022

Age group (years) and family income	Percent (95% confidence interval)	Standard error
5–17		
Less than 100% of FPL	14.8 (12.8–17.1)	1.1
100% to less than 200% of FPL	12.2 (10.9–13.7)	0.7
200% of FPL or more	10.1 (9.4–10.9)	0.4
5–11		
Less than 100% of FPL	12.1 (9.6–15.0)	1.4
100% to less than 200% of FPL	10.3 (8.5–12.3)	1.0
200% of FPL or more	7.1 (6.3–8.0)	0.4
12–17		
Less than 100% of FPL	18.0 (14.7–21.6)	1.4
100% to less than 200% of FPL	14.4 (12.5–16.4)	1.0
200% of FPL or more	13.4 (12.3–14.5)	0.6

NOTES: FPL is federal poverty level, which is based on the ratio of the family's income in the previous calendar year to the appropriate poverty threshold defined by the U.S. Census Bureau. Attention deficit hyperactivity disorder is based on a response to the question, "Has a doctor or other health professional ever told you that [sample child] had Attention-Deficit/Hyperactivity Disorder or ADHD or Attention-Deficit Disorder or ADD?" Estimates are based on household interviews of a sample of the civilian noninstitutionalized population.

SOURCE: National Center for Health Statistics, National Health Interview Survey, 2020–2022.

Data table for Figure 4. Prevalence of children ages 5–17 years ever diagnosed with attention-deficit/hyperactivity disorder, by age group and health insurance coverage: United States, 2020–2022

Age group (years) and health insurance coverage	Percent (95% confidence interval)	Standard error
5–17		
Private	9.7 (9.0–10.4)	0.4
Public	14.4 (13.2–15.7)	0.6
Uninsured	6.3 (4.5–8.6)	1.0
5–11		
Private	6.8 (5.9–7.6)	0.4
Public	11.6 (10.1–13.3)	0.8
Uninsured	5.9 (3.3–9.5)	1.5
12–17		
Private	12.8 (11.7–13.9)	0.6
Public	17.6 (15.7–19.5)	0.9
Uninsured	6.7 (4.0–10.5)	1.6

NOTES: Attention deficit hyperactivity disorder is based on a response to the question, "Has a doctor or other health professional ever told you that [sample child] had Attention-Deficit/Hyperactivity Disorder or ADHD or Attention-Deficit Disorder or ADD?" Estimates are based on household interviews of a sample of the civilian noninstitutionalized population.

SOURCE: National Center for Health Statistics, National Health Interview Survey, 2020–2022.

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