

THE IMPACT OF ATTENTION DEFICIT HYPERACTIVITY DISORDER ON THE HEALTH OF AMERICA'S CHILDREN

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Attention deficit hyperactivity disorder (**ADHD**) is the second most impactful condition affecting children's health in the U.S. It accounts for **16 percent of the impact all health conditions have on Generation Z (0-19 years old)** as measured by the [Blue Cross Blue Shield \(BCBS\) Health Index](#).^{SM, 1} Children diagnosed with ADHD struggle with paying attention, controlling impulses and being overly active.²

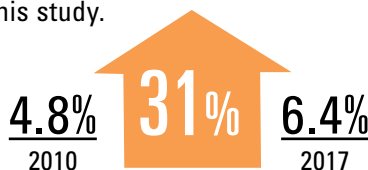
In 2017, about 2.4 million commercially insured American children were diagnosed with ADHD, climbing more than 30 percent over the past eight years.³ ADHD is most prevalent among middle school-aged children (11-13 years old), and boys are diagnosed about twice as much as girls.

With ADHD diagnosis on the rise, it is crucial to better understand the impact of this condition on the health of American children.

SPECIFIC FINDINGS

1. DIAGNOSIS SIGNIFICANTLY INCREASING

Diagnosis of ADHD in children 2-18 years old increased 31 percent over the eight-year period (2010-2017) of this study.



2ND

MOST IMPACTFUL CONDITION AFFECTING U.S. CHILDREN

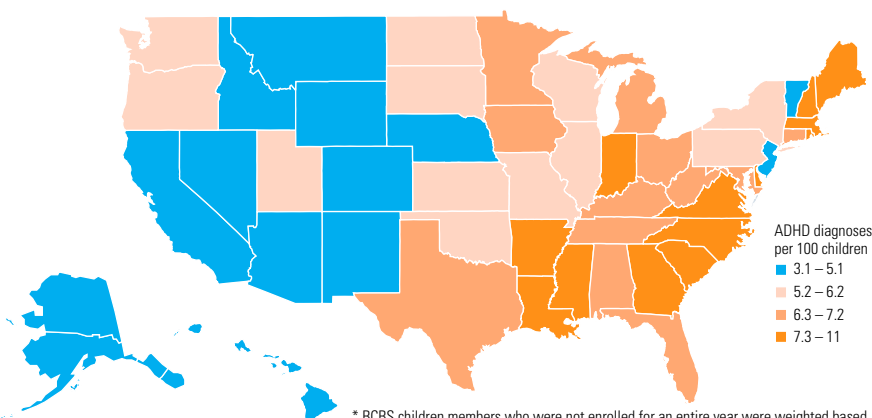
2. DIAGNOSIS RATES VARY BY AGE, GENDER AND GEOGRAPHY

MOST PREVALENT AMONG MIDDLE SCHOOL CHILDREN

Age Group	2017 Diagnosis Rate
Preschool (2-5)	1.0%
Elementary School (6-10)	7.4%
Middle School (11-13)	9.0%
High School (14-18)	7.2%

BOYS ARE DIAGNOSED ABOUT 2X AS OFTEN AS GIRLS

ADHD diagnosis rates are higher in the south and lower in the west, with a nearly three-fold difference between the rates of the highest and lowest states.

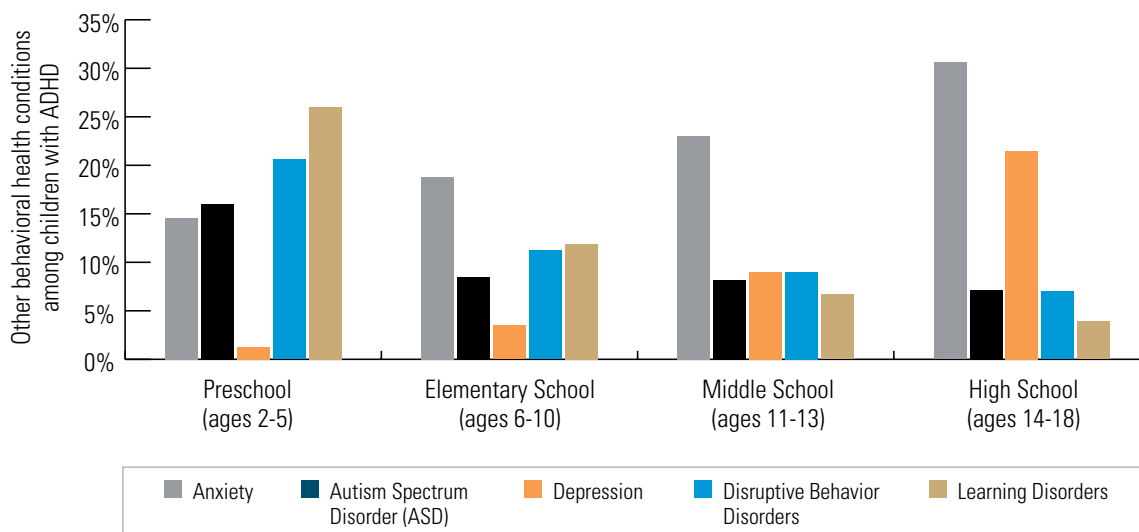


* BCBS children members who were not enrolled for an entire year were weighted based on the proportion of the year in which they were enrolled. For example, BCBS children members who were only enrolled for 6 months were counted as 0.5 BCBS children members.

- 1 Based on 2017 data from the BCBS Health Index unless otherwise specified. For more information, see: <https://www.bcbs.com/the-health-of-america/health-index>
- 2 According to the Centers for Disease Control and Prevention (CDC), ADHD is one of the most common neurodevelopmental disorders of childhood. For more information, see: <https://www.cdc.gov/ncbddd/adhd/facts.html>
- 3 Total patient count was extrapolated from the study population to the commercially insured population of American children (2-18 years old) in 2017.

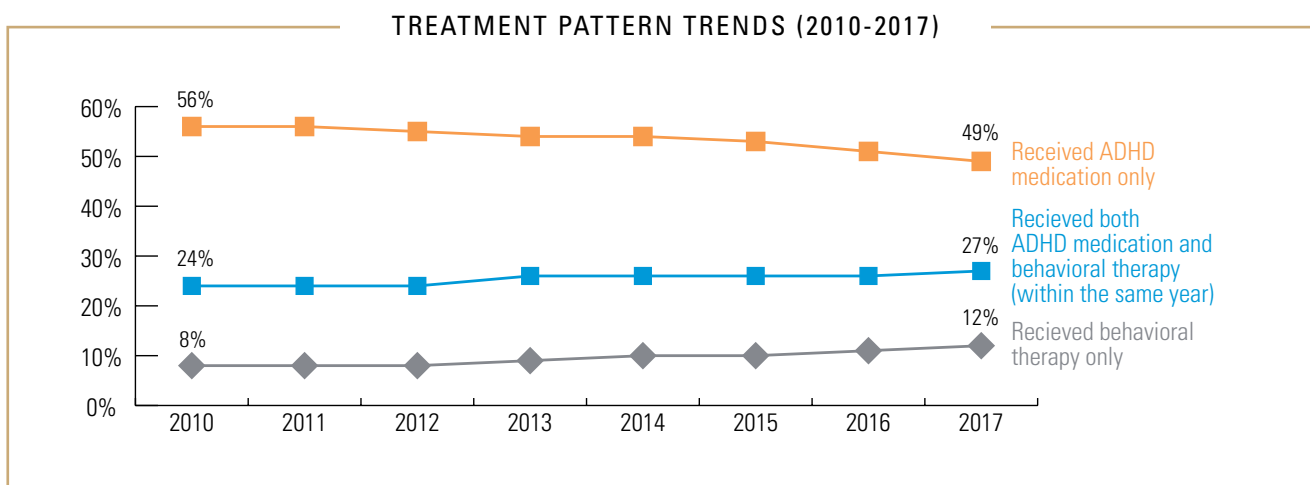
3. CHILDREN WITH ADHD LIKELY TO HAVE OTHER BEHAVIORAL HEALTH CONDITIONS

- About 4 in 10 children with ADHD are also diagnosed with at least one other behavioral health disorder.
- Depression and anxiety diagnoses sharply increase when children reach middle school and high school.



4. TREATMENT PATTERNS CHANGING GRADUALLY

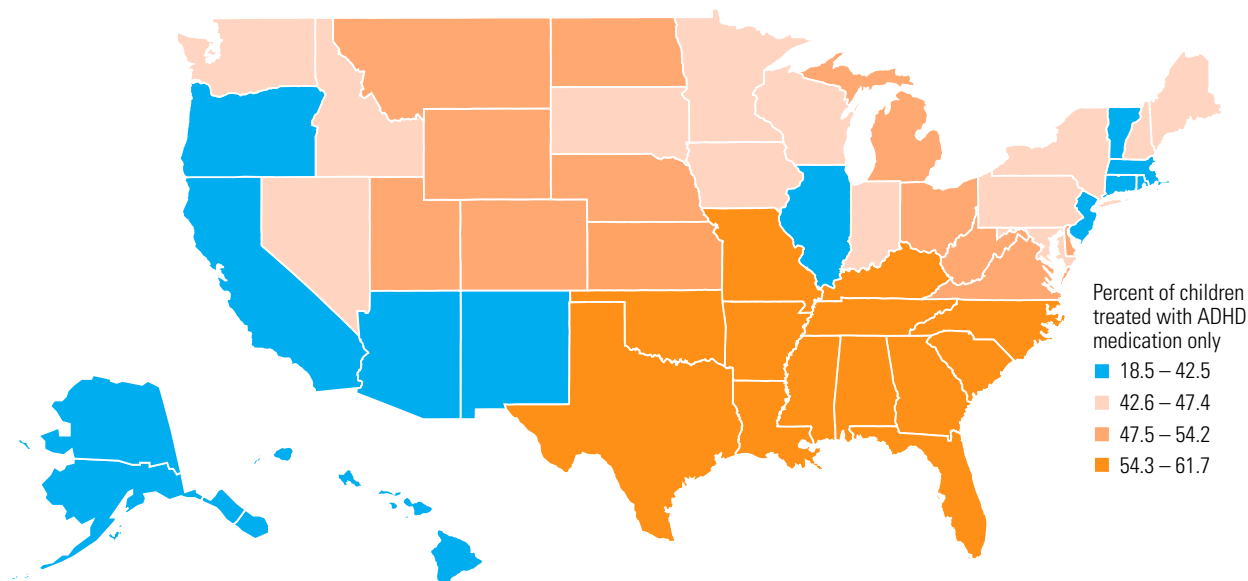
Though declining, nearly half of children with ADHD were treated with only medication in 2017. The American Academy of Pediatrics (AAP) recommends both behavioral therapy and medication, preferably together, as ADHD treatment options for children 6 years old and up.⁴



⁴ For children under 6 years old, the AAP recommends behavioral therapy as the first line of treatment before medication. ADHD treatment guidelines from the AAP indicate that for school-age children and adolescents, behavioral treatment in combination with approved medication is the preferable clinical approach. For more information, see: <https://pediatrics.aappublications.org/content/128/5/1007> and <https://www.cdc.gov/ncbddd/adhd/guidelines.html>.

5. TREATMENT VARIES BY REGION

The southern region of the U.S. has a significantly larger portion of children treated with only medication.



CONCLUSION

ADHD is one of the most common behavioral health conditions affecting children in the United States. Over the past eight years, ADHD diagnoses continued to increase, especially impacting middle school-aged boys. While 4 in 10 children with ADHD also have at least one other behavioral health disorder, treatment patterns for ADHD vary widely across the U.S. These ADHD trends indicate a need to continue focusing on the diagnosis and treatment for a growing number of American children.

METHODOLOGY

This is the 25th study of the Blue Cross Blue Shield, The Health of America Report® series, a collaboration between Blue Cross Blue Shield Association and Blue Health Intelligence (BHI), which uses a market-leading claims database to uncover key trends and insights in healthcare affordability and access to care. Analysis was performed by and also includes administrative claims data from HealthCore, a wholly owned and independently operated health outcomes subsidiary of Anthem, Inc. This report focuses on the diagnosis and treatment of ADHD among commercially insured American children 2-18 years old from 2010-2017. The study population was identified by utilizing ADHD diagnosis codes in BCBS medical claims.



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