



# Sleep Routines and Tiredness Among Children Ages 2–17 Years: United States, 2024

Lindsey I. Black, M.P.H., Amanda E. Ng, Ph.D., M.P.H., and Dzifa Adjaye-Gbewonyo, Ph.D.

## Key findings

Data from the National Health Interview Survey

- In 2024, about 86% of children had a regular bedtime most days or every day.
- The percentage of children with a regular bedtime increased with increasing family income.
- About 8% of children complained of being tired most days or every day.
- Asian non-Hispanic children were less likely to complain of being tired compared with Black non-Hispanic, White non-Hispanic, and Hispanic children.

## Introduction

Children's sleep duration and quality are important parts of their overall well-being, and adequate sleep is associated with improved mental and physical health (1,2). This report uses 2024 National Health Interview Survey (NHIS) data to describe the percentage of children ages 2–17 years with regular bedtimes, as well as the percentage of children who complain of being tired during the day. Estimates are presented by age group, sex, disability status, family type, and family income.

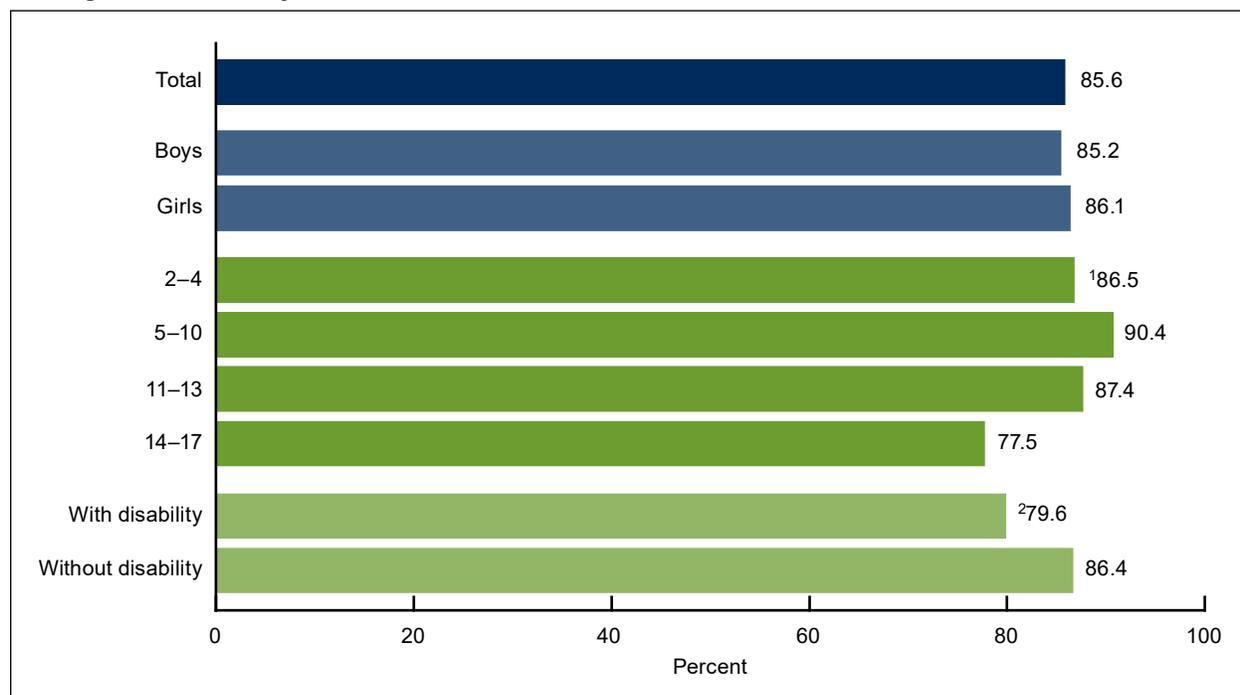
## Child characteristics and regular bedtime

A total of 85.6% of children had a regular bedtime most days or every day (Figure 1, Table 1). A similar percentage of girls (86.1%) and boys (85.2%) had a regular bedtime. The percentage of children with a regular bedtime increased from 86.5% among children ages 2–4 to 90.4% among children ages 5–10, then decreased to 87.4% among those ages 11–13 and further



declined to 77.5% among those ages 14–17. Children without disability were more likely to have a regular bedtime (86.4%) than children with disability (79.6%).

**Figure 1. Percentage of children ages 2–17 years with a regular bedtime most days or every day, by sex, age, and disability status: United States, 2024**



<sup>1</sup>Quadratic trend by age group ( $p < 0.05$ ).

<sup>2</sup>Significantly different from children without disability ( $p < 0.05$ ).

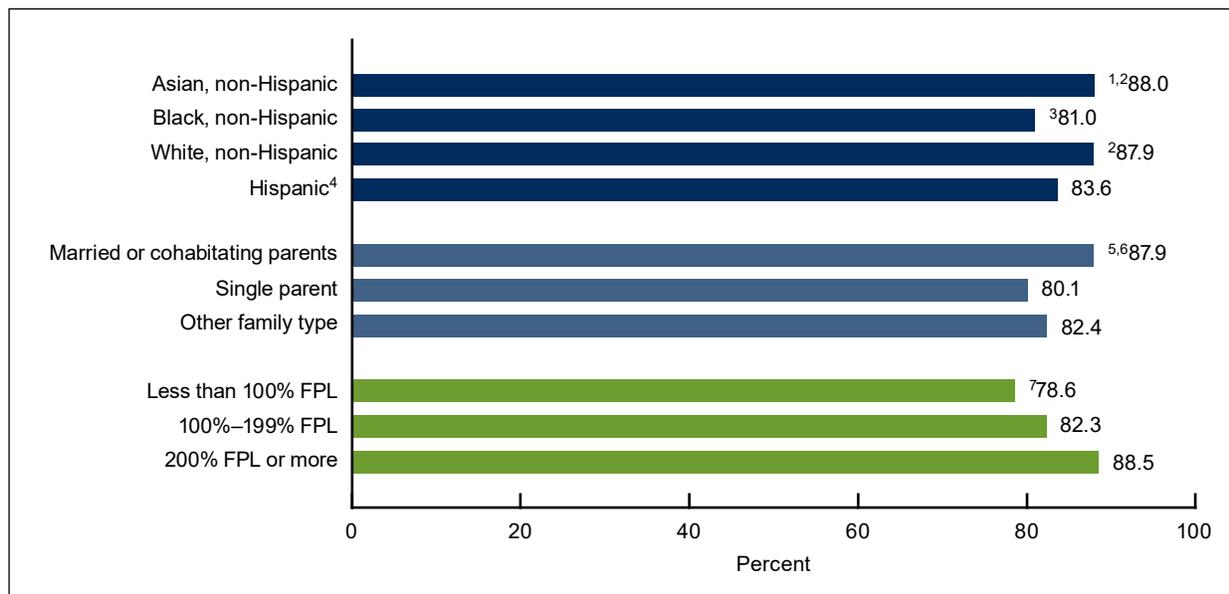
NOTE: Estimates are based on household interviews of a sample of the U.S. civilian noninstitutionalized population.

SOURCE: National Center for Health Statistics, National Health Interview Survey, 2024.

## Family characteristics and regular bedtime

Asian non-Hispanic (subsequently, Asian) (88.0%) and White non-Hispanic (subsequently, White) (87.9%) children were more likely to have a regular bedtime compared with Hispanic (83.6%) and Black non-Hispanic (subsequently, Black) (81.0%) children (Figure 2, Table 2). Children in families with married or cohabitating parents were more likely to have a regular bedtime (87.9%) compared with children with single parents (80.1%) and children in other family types (82.4%). The percentage of children with a regular bedtime increased with increasing family income, ranging from 78.6% among those in families with incomes less than 100% of the federal poverty level (FPL) to 88.5% among those in families with incomes of 200% FPL or more.

**Figure 2. Percentage of children ages 2–17 years with a regular bedtime most days or every day, by race and Hispanic origin, family structure, and family income: United States, 2024**



<sup>1</sup>Significantly different from Black children ( $p < 0.05$ ).

<sup>2</sup>Significantly different from Hispanic children ( $p < 0.05$ ).

<sup>3</sup>Significantly different from White children ( $p < 0.05$ ).

<sup>4</sup>Children of Hispanic origin may be of any race.

<sup>5</sup>Significantly different from single-parent families ( $p < 0.05$ ).

<sup>6</sup>Significantly different from other family types ( $p < 0.05$ ).

<sup>7</sup>Significant linear trend by family income ( $p < 0.05$ ).

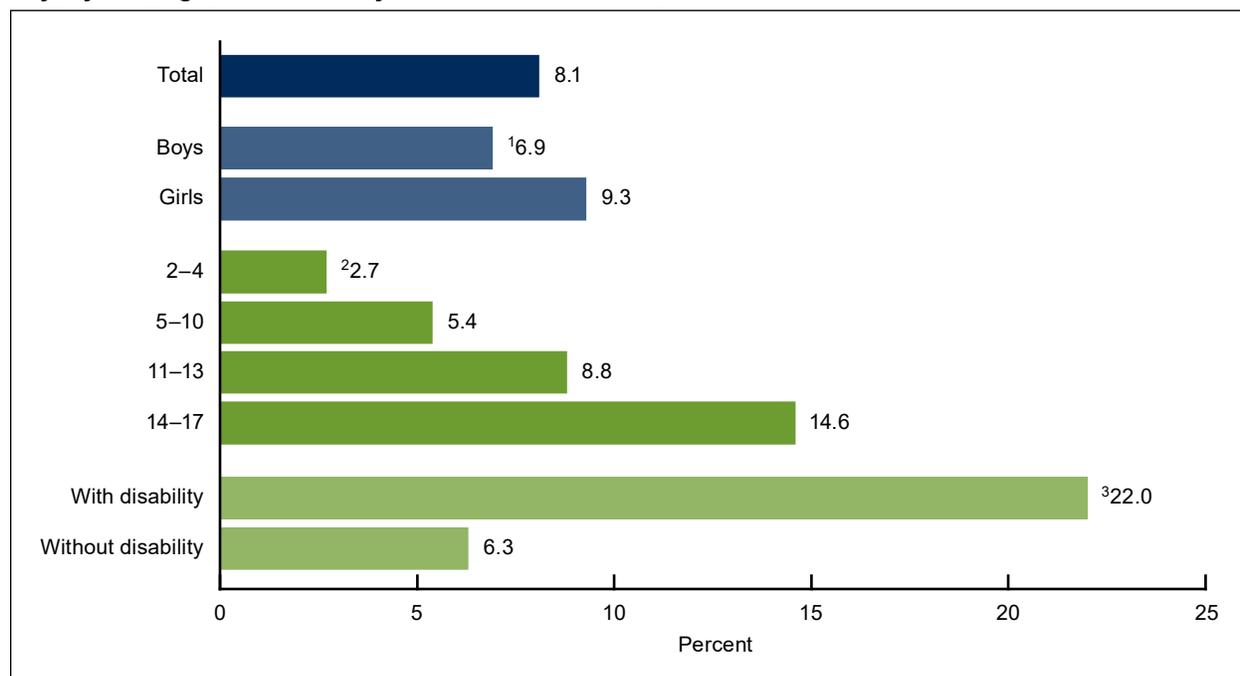
NOTES: FPL is federal poverty level. Estimates are based on household interviews of a sample of the U.S. civilian noninstitutionalized population.

SOURCE: National Center for Health Statistics, National Health Interview Survey, 2024.

## Child characteristics and daytime tiredness

In 2024, 8.1% of children complained of being tired during the day most days or every day (Figure 3, Table 3). Girls were more likely (9.3%) than boys (6.9%) to complain of being tired. The percentage of children who complained of being tired increased from 2.7% among children ages 2–4 to 5.4% among children ages 5–10, and from 8.8% among children ages 11–13 to 14.6% among children ages 14–17. Children with disability were more than three times as likely to complain of being tired (22.0%) as children without disability (6.3%).

**Figure 3. Percentage of children ages 2–17 years who complain of being tired most days or every day, by sex, age, and disability status: United States, 2024**



<sup>1</sup>Significantly different from girls ( $p < 0.05$ ).

<sup>2</sup>Significant quadratic trend by age group ( $p < 0.05$ ).

<sup>3</sup>Significantly different from children without disability ( $p < 0.05$ ).

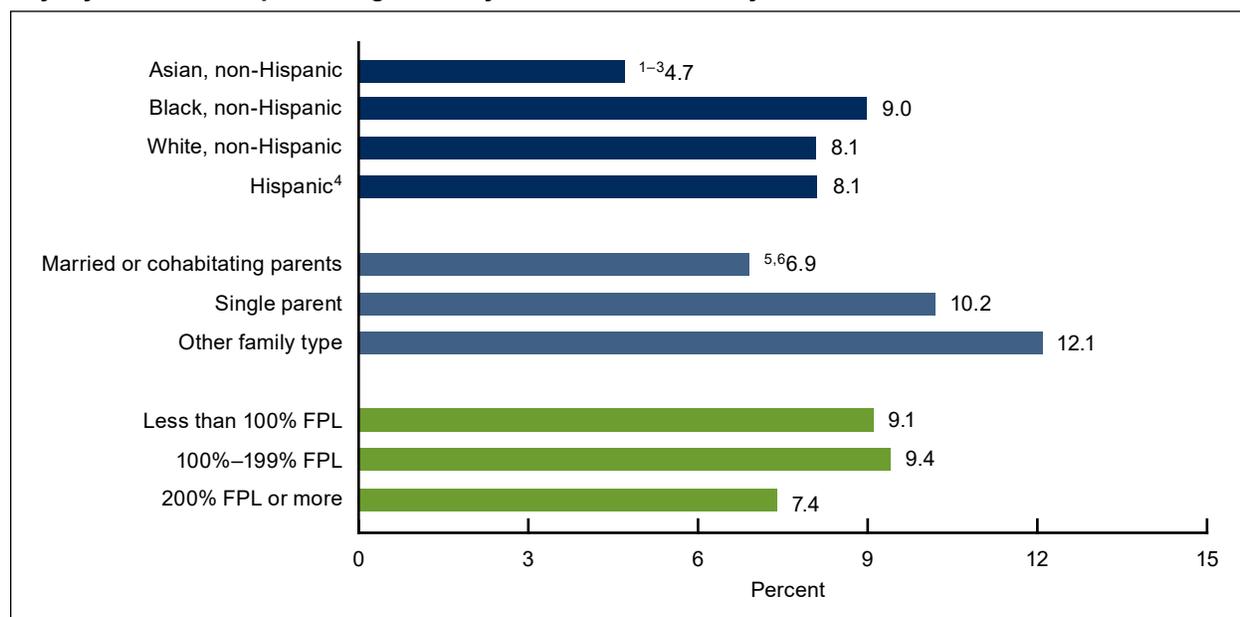
NOTE: Estimates are based on household interviews of a sample of the U.S. civilian noninstitutionalized population.

SOURCE: National Center for Health Statistics, National Health Interview Survey, 2024.

## Family characteristics and daytime tiredness

Asian children were about half as likely (4.7%) as Black (9.0%), White (8.1%), and Hispanic (8.1%) children to complain of being tired (Figure 4, Table 4). No other statistically significant differences were seen among race and Hispanic-origin subgroups. Children in families with married or cohabitating parents were less likely to complain of being tired (6.9%) compared with children with single parents (10.2%) and children in other family types (12.1%). The percentage of children who complained of being tired was 9.1% among those in families with incomes of less than 100% FPL, 9.4% among those in families with incomes of 100%–199% FPL, and 7.4% among those in families with incomes of 200% FPL or more. This observed difference was not significant.

**Figure 4. Percentage of children ages 2–17 years who complain of being tired most days or every day, by race and Hispanic origin, family structure, and family income: United States, 2024**



<sup>1</sup>Significantly different from Black children ( $p < 0.05$ ).

<sup>2</sup>Significantly different from White children ( $p < 0.05$ ).

<sup>3</sup>Significantly different from Hispanic children ( $p < 0.05$ ).

<sup>4</sup>Children of Hispanic origin may be of any race.

<sup>5</sup>Significantly different from single-parent families ( $p < 0.05$ ).

<sup>6</sup>Significantly different from other family types ( $p < 0.05$ ).

NOTES: FPL is federal poverty level. Estimates are based on household interviews of a sample of the U.S. civilian noninstitutionalized population.

SOURCE: National Center for Health Statistics, National Health Interview Survey, 2024.

## Summary

Data from the 2024 NHIS show that among children ages 2–17 years, 85.6% have a regular bedtime. Variation in a regular bedtime was seen by selected child and family characteristics. An estimated 8.1% of children overall complained of being tired during daytime, and the percentage varied by selected child and family characteristics.

Adequate sleep quality and quantity are factors associated with health and well-being (3). Increasing the number of children and adolescents who get sufficient sleep is a Healthy People 2030 core objective (4). Consistent bedtimes have been associated with sufficient sleep duration for children (5).

## Definitions

**Being tired:** Based on responses of “most days” or “every day” to the survey question, “In a typical school week, how often does (sample child) complain about being tired during the day? Would you say never, some days, most days, or every day?”

**Disability status:** Defined by the reported level of difficulty (no difficulty, some difficulty, a lot of difficulty, or cannot do at all/unable to do) in 13 core functioning domains: 1) seeing, 2) hearing, 3) mobility, 4) self-care, 5) communication, 6) learning, 7) remembering, 8) concentrating, 9)

accepting change, 10) controlling behavior, 11) making friends, 12) anxiety, and 13) depression. Children who were reported to have “a lot of difficulty” or “cannot do at all” to at least one of domains 1–11, or “daily” to domains 12 or 13, are classified in the “with disability” category. Children who were reported to have “no difficulty” or “some difficulty” to all domains 1–11 and “never,” “a few times a year,” “monthly,” or “weekly” to domains 12 and 13 are classified in the “without disability” category.

**Family income as a percentage of federal poverty level:** Based on the federal poverty level, which was calculated from the family’s income in the previous calendar year and family size using the U.S. Census Bureau’s poverty thresholds (6). Family income was imputed when missing (7).

**Family type:** Children were categorized as living in single-parent families if they had a 1) single parent, never married or 2) single parent, ever married. Children were categorized as living in two-parent families if they had married parents living in the same household as the child or cohabitating parents living in the same household as the child. Children categorized as living in other family types include those who had at least one related or unrelated adult (not a parent) in the same household as the child.

**Race and Hispanic origin:** Categories shown for non-Hispanic children are for those with only one racial group selected. Children categorized as Hispanic may be of any race or combination of races. Analyses were limited to the race and Hispanic-origin groups for which data were reliable and had a large enough sample to make group comparisons.

**Regular bedtime:** Based on responses of “most days” or “every day” to the survey question, “In a typical school week, how often does (sample child) go to bed at the same time? Would you say never, some days, most days, or every day?”

## Data source and methods

Data from the 2024 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 (NCHS). Interviews are typically conducted in a respondent’s home, but follow-ups to complete interviews may be conducted over the telephone. For more information on the survey, visit the NHIS website: <https://www.cdc.gov/nchs/nhis/index.htm>.

Point estimates and their corresponding variances were calculated using SAS-callable SUDAAN software (8) to account for the complex sample design of NHIS. Differences between percentages were evaluated using two-sided significant tests at the 0.05 level. Tests for trends by age group and family income were evaluated using logistic regression. All estimates in this report meet NCHS standards of reliability as specified in “National Center for Health Statistics Data Presentation Standards for Proportions” (9).

## About the authors

Lindsey I. Black, Amanda E. Ng, and Dzifa Adjaye-Gbewonyo are with the National Center for Health Statistics, Division of Health Interview Statistics.

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## Figure tables

**Data table for Figure 1. Percentage of children ages 2–17 years with a regular bedtime most days or every day, by sex, age group, and disability status: United States, 2024**

Characteristic	Percent (95% confidence interval)	Standard error
Total	85.6 (84.5–86.7)	0.55
Sex		
Boys	85.2 (83.8–86.6)	0.71
Girls	86.1 (84.5–87.5)	0.75
Age group (years)		
2–4	<sup>1</sup> 86.5 (83.8–88.9)	1.28
5–10	90.4 (88.9–91.7)	0.72
11–13	87.4 (85.1–89.4)	1.08
14–17	77.5 (75.3–79.6)	1.09
Disability status		
With disability	<sup>2</sup> 79.6 (76.2–82.7)	1.61
Without disability	86.4 (85.3–87.5)	0.56
<sup>1</sup> Quadratic trend by age group ( $p < 0.05$ ). <sup>2</sup> Significantly different from children without disability ( $p < 0.05$ ). NOTES: Estimates are based on household interviews of a sample of the U.S. civilian noninstitutionalized population. Confidence intervals were calculated using the Korn–Graubard method for complex surveys. SOURCE: National Center for Health Statistics, National Health Interview Survey, 2024.		

**Data table for Figure 2. Percentage of children ages 2–17 years with a regular bedtime most days or every day, by race and Hispanic origin, family structure, and family income: United States, 2024**

Characteristic	Percent (95% confidence interval)	Standard error
Race and Hispanic origin		
Asian, non-Hispanic	<sup>1,2</sup> 88.0 (84.2–91.1)	1.70
Black, non-Hispanic	<sup>3</sup> 81.0 (77.2–84.5)	1.80
White, non-Hispanic	<sup>2</sup> 87.9 (86.6–89.2)	0.64
Hispanic <sup>4</sup>	83.6 (81.5–85.6)	1.04
Family structure		
Married or cohabitating parents	<sup>5,6</sup> 87.9 (86.6–89.0)	0.59
Single parent	80.1 (77.6–82.5)	1.23
Other family types	82.4 (76.7–87.3)	2.59
Family income		
Less than 100% FPL	<sup>7</sup> 78.6 (75.2–81.6)	1.59
100%–199% FPL	82.3 (80.0–84.5)	1.13
200% FPL or more	88.5 (87.3–89.6)	0.57

<sup>1</sup>Significantly different from Black children ( $p < 0.05$ ).  
<sup>2</sup>Significantly different from Hispanic children ( $p < 0.05$ ).  
<sup>3</sup>Significantly different from White children ( $p < 0.05$ ).  
<sup>4</sup>Children of Hispanic origin may be of any race.  
<sup>5</sup>Significantly different from single-parent families ( $p < 0.05$ ).  
<sup>6</sup>Significantly different from other family types ( $p < 0.05$ ).  
<sup>7</sup>Significant linear trend by family income ( $p < 0.05$ ).  
NOTES: FPL is federal poverty level. Estimates are based on household interviews of a sample of the U.S. civilian noninstitutionalized population. Confidence intervals were calculated using the Korn–Graubard method for complex surveys.  
SOURCE: National Center for Health Statistics, National Health Interview Survey, 2024.

**Data table for Figure 3. Percentage of children ages 2–17 years who complain of being tired most days or every day, by sex, age, and disability status: United States, 2024**

Characteristic	Percent (95% confidence interval)	Standard error
Total	8.1 (7.4–8.9)	0.38
Sex		
Boys	16.9 (6.0–7.9)	0.48
Girls	9.3 (8.2–10.5)	0.57
Age group (years)		
2–4	<sup>2</sup> 2.7 (1.7–4.2)	0.59
5–10	5.4 (4.4–6.5)	0.51
11–13	8.8 (7.0–10.9)	0.96
14–17	14.6 (12.8–16.4)	0.90
Disability status		
With disability	<sup>3</sup> 22.0 (18.7–25.6)	1.71
Without disability	6.3 (5.6–7.0)	0.36

<sup>1</sup>Significantly different from girls ( $p < 0.05$ ).  
<sup>2</sup>Significant quadratic trend by age group ( $p < 0.05$ ).  
<sup>3</sup>Significantly different from children without disability ( $p < 0.05$ ).  
NOTES: Estimates are based on household interviews of a sample of the U.S. civilian noninstitutionalized population. Confidence intervals were calculated using the Korn–Graubard method for complex surveys.  
SOURCE: National Center for Health Statistics, National Health Interview Survey, 2024.

**Data table for Figure 4. Percentage of children ages 2–17 years who complain of being tired most days or every day, by race and Hispanic origin, family structure, and family income: United States, 2024**

Characteristic	Percent (95% confidence interval)	Standard error
Race and Hispanic origin		
Asian, non-Hispanic	<sup>1–3</sup> 4.7 (2.6–7.7)	1.23
Black, non-Hispanic	9.0 (6.8–11.6)	1.19
White, non-Hispanic	8.1 (7.0–9.3)	0.56
Hispanic <sup>4</sup>	8.1 (6.7–9.6)	0.73
Family structure		
Married or cohabitating parents	<sup>5,6</sup> 6.9 (6.1–7.8)	0.44
Single parent	10.2 (8.6–12.1)	0.89
Other family types	12.1 (7.4–18.2)	2.59
Family income		
Less than 100% FPL	9.1 (7.1–11.4)	1.07
100%–199% FPL	9.4 (7.8–11.1)	0.82
200% FPL or more	7.4 (6.5–8.3)	0.46

<sup>1</sup>Significantly different from Black children ( $p < 0.05$ ).  
<sup>2</sup>Significantly different from White children ( $p < 0.05$ ).  
<sup>3</sup>Significantly different from Hispanic children ( $p < 0.05$ ).  
<sup>4</sup>Children of Hispanic origin may be of any race.  
<sup>5</sup>Significantly different from single-parent families ( $p < 0.05$ ).  
<sup>6</sup>Significantly different from other family types ( $p < 0.05$ ).  
NOTES: FPL is federal poverty level. Estimates are based on household interviews of a sample of the U.S. civilian noninstitutionalized population. Confidence intervals were calculated using the Korn–Graubard method for complex surveys.  
SOURCE: National Center for Health Statistics, National Health Interview Survey, 2024.

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