

Diagnosed Allergic Conditions in Children Ages 0–17: United States, 2024

Amanda E. Ng, Ph.D., M.P.H., Abhigya Giri, M.P.H., and Lauren Bottoms-McClain, M.P.H.

Key findings

Data from the National Health Interview Survey

- In 2024, diagnosed seasonal allergies were the most common allergies in children (20.6%), followed by diagnosed eczema (12.7%), and then diagnosed food allergies (5.3%).
- Children living in nonmetropolitan areas were more likely to have a diagnosed seasonal allergy compared with children living in metropolitan areas.
- The percentage of children with eczema was similar in girls (13.3%) and boys (12.2%).
- The percentage of children with a diagnosed food allergy increased with age.

Introduction

The prevalence of the major allergic conditions in children—seasonal allergy, eczema, and food allergy—has increased over the last several decades (1–3). Seasonal allergies include hay fever and allergic conjunctivitis and are associated with sneezing, cough, runny nose, and itchy eyes. Eczema, or atopic dermatitis, may cause itchy, bumpy rashes. On exposure to triggering foods, food allergies can lead to symptoms including hives, vomiting, trouble breathing, or throat tightening. Allergy symptoms are associated with lower quality of life, anxiety, and depression (4–6).

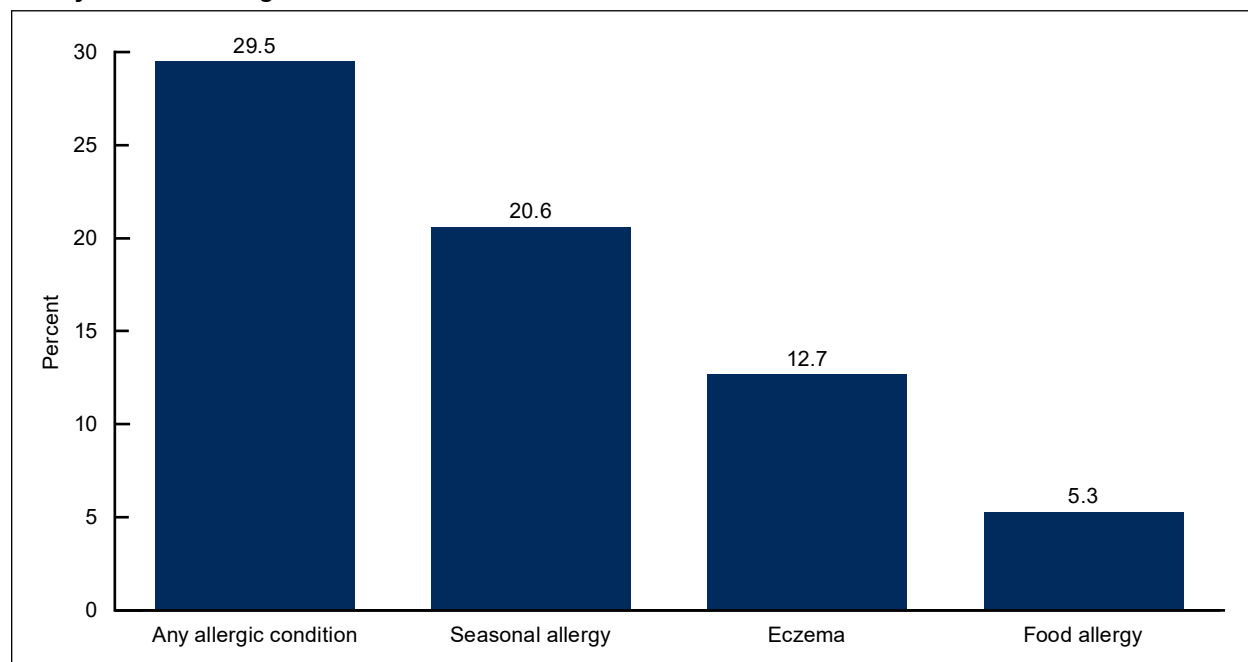
Data from the 2024 National Health Interview Survey (NHIS) were analyzed to provide estimates of diagnosed seasonal allergy, eczema, and food allergy by age, sex, and urbanization level.



Diagnosed allergic conditions

- In 2024, 29.5% of children had a diagnosed seasonal allergy (subsequently, seasonal allergy), diagnosed eczema (subsequently, eczema), or diagnosed food allergy (subsequently, food allergy) ([Figure 1](#), [Table 1](#)).
- One in five children had a seasonal allergy (20.6%). Just over 1 in 10 had eczema (12.7%), and 1 in 20 had a food allergy (5.3%).

Figure 1. Percentage of children ages 0–17 with a diagnosed seasonal allergy, eczema, food allergy, or any of these allergic conditions: United States, 2024



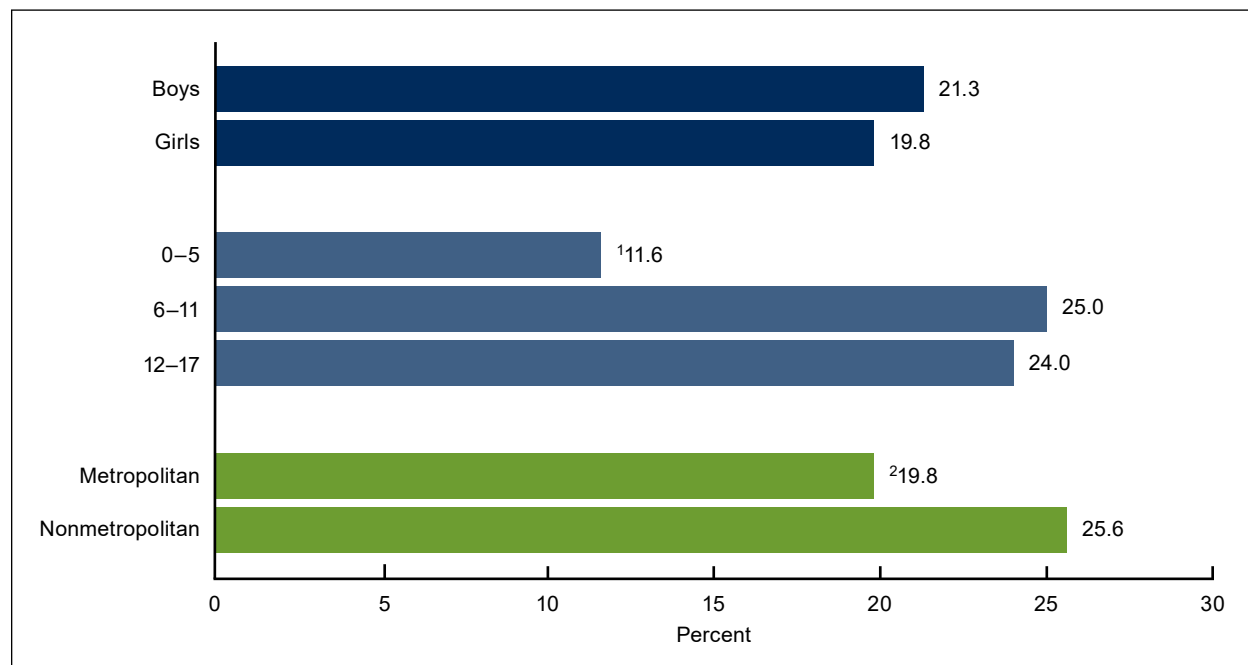
NOTES: Children were considered to have any allergic condition if they were diagnosed with one or more of three selected conditions: seasonal allergy, eczema, or food allergy. Categories for each allergic condition were not mutually exclusive. Estimates are based on household interviews of a sample of the U.S. civilian noninstitutionalized population.
SOURCE: National Center for Health Statistics, National Health Interview Survey, 2024.

Diagnosed seasonal allergy

- The percentage of boys with a seasonal allergy (21.3%) was similar to the percentage of girls with a seasonal allergy (19.8%) ([Figure 2](#), [Table 2](#)).
- Children ages 6–11 (25.0%) and 12–17 (24.0%) were more likely to have a seasonal allergy compared with children ages 0–5 (11.6%).

- Children living in nonmetropolitan areas (25.6%) were more likely to have a seasonal allergy compared with children living in metropolitan areas (19.8%).

Figure 2. Percentage of children ages 0–17 with a diagnosed seasonal allergy, by sex, age, and urbanization level: United States, 2024



¹Significant quadratic trend by age ($p < 0.05$).

²Significantly different from children living in nonmetropolitan areas ($p < 0.05$).

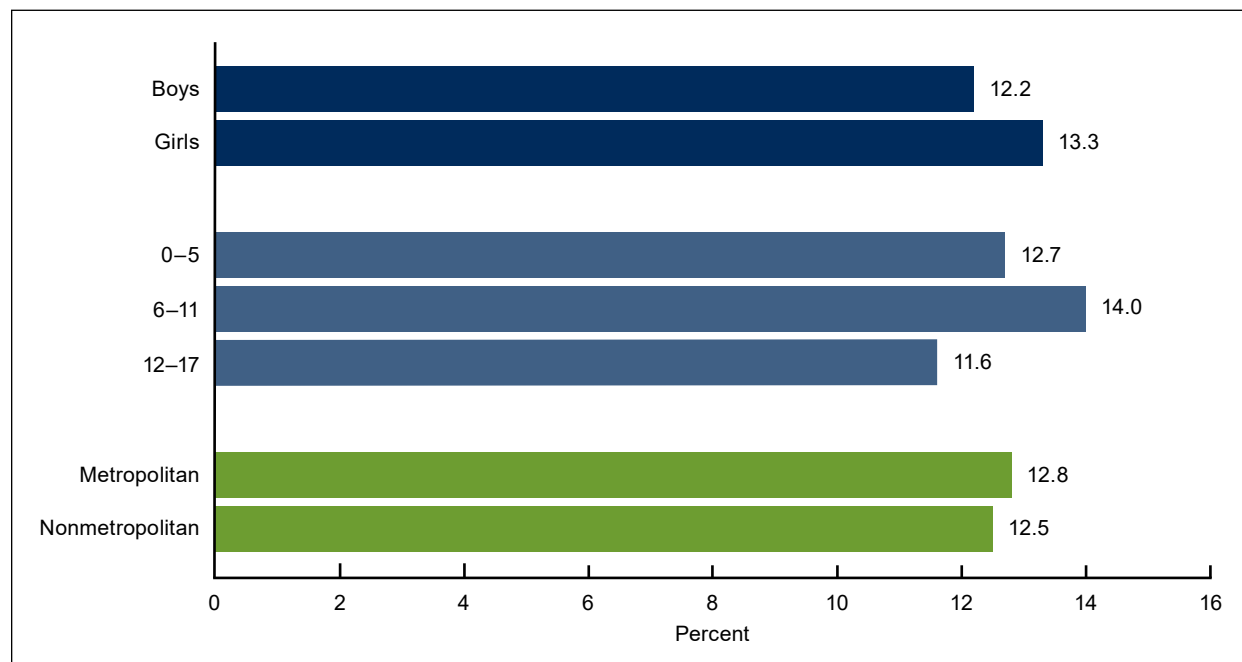
NOTE: Estimates are based on household interviews of a sample of the U.S. civilian noninstitutionalized population.

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

Diagnosed eczema

- The percentage of children with eczema was similar in girls (13.3%) and boys (12.2%) (Figure 3, Table 3).
- The observed differences in the percentages of children with eczema by age (12.7% in children ages 0–5, 14.0% in children 6–11, and 11.6% in children 12–17) were not significant.
- The percentage of children with eczema was similar between those living in metropolitan areas (12.8%) and those living in nonmetropolitan areas (12.5%).

Figure 3. Percentage of children ages 0–17 with diagnosed eczema, by sex, age, and urbanization level: United States, 2024

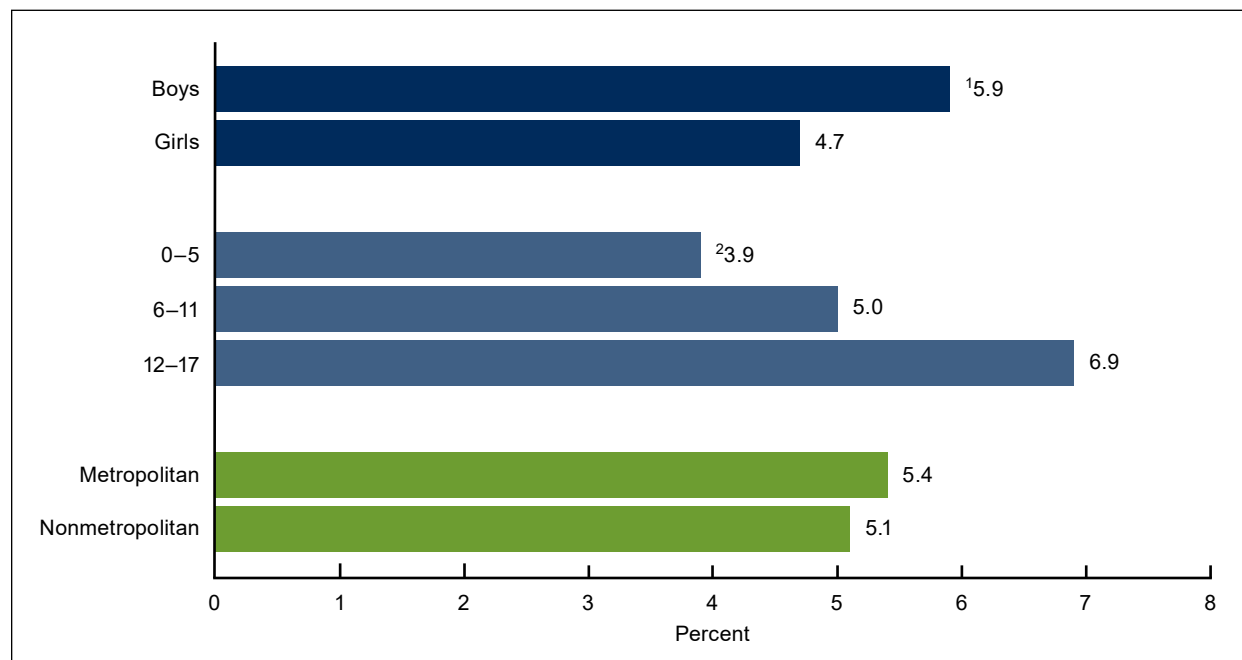


NOTE: Estimates are based on household interviews of a sample of the U.S. civilian noninstitutionalized population.
SOURCE: National Center for Health Statistics, National Health Interview Survey, 2024.

Diagnosed food allergy

- Boys were more likely to have a food allergy (5.9%) compared with girls (4.7%) ([Figure 4](#), [Table 4](#)).
- The percentage of children with a food allergy increased with age, from 3.9% in children ages 0–5 to 5.0% in children 6–11 to 6.9% in children 12–17.
- Children living in metropolitan areas had a similar likelihood of having a food allergy (5.4%) compared with children living in nonmetropolitan areas (5.1%).

Figure 4. Percentage of children ages 0–17 with a diagnosed food allergy, by sex, age, and urbanization level: United States, 2024



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

²Significant linear trend by age ($p < 0.05$).

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.

Summary

In 2024, 29.5% of all children had one or more of the three diagnosed allergic conditions examined in this report: seasonal allergy, eczema, and food allergy. The prevalence of seasonal allergy was highest among these conditions (20.6%), followed by eczema (12.7%), and food allergy (5.3%). Differences in the prevalence of seasonal allergy and food allergy varied by age group. No significant differences were observed by sex for seasonal allergy or eczema. The percentage of children with a seasonal allergy was significantly lower in metropolitan areas compared with nonmetropolitan areas. No differences by urbanization level were seen for the prevalence of eczema or food allergy.

Definitions

Any allergic condition: Children were considered to have any allergic condition if they were diagnosed with one or more of three selected conditions: seasonal allergy, eczema, or food allergy.

Eczema: Based on a positive response to both survey questions, “Does [Sample Child] get an itchy rash due to eczema or atopic dermatitis?” and “Have you ever been told by a doctor or other health professional that [Sample Child] had eczema or atopic dermatitis?”

Food allergy: Based on a positive response to both survey questions, “Does [Sample Child] have an allergy to one or more foods?” and “Have you ever been told by a doctor or other health professional that [Sample Child] had an allergy to one or more foods?”

Seasonal allergy: Based on a positive response to both survey questions, “Does [Sample Child] get symptoms such as sneezing, runny nose, or itchy or watery eyes due to hay fever, seasonal, or year-round allergies?” and “Have you ever been told by a doctor or other health professional that [Sample Child] had hay fever, seasonal or year-round allergies?”

Urbanization level: Urbanization level was divided into two categories using the 2023 NCHS Urban–Rural Classification Scheme for Counties (7): metropolitan (large central metropolitan, large fringe metropolitan, and medium and small metropolitan counties) and nonmetropolitan (counties in micropolitan statistical areas and nonmetropolitan counties).

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 initiated face-to-face in respondents’ homes with follow-ups conducted by telephone as needed (8). For more information on the survey, visit the NHIS website: <https://www.cdc.gov/nchs/nhis/index.htm>.

Point estimates and corresponding confidence intervals for this analysis were calculated using SAS-callable SUDAAN software (9) to account for the complex sample design of NHIS. All estimates are based on self-report and meet NCHS data presentation standards for proportions (10). Differences between percentages were evaluated using two-sided significance tests at the 0.05 level. Linear and quadratic trends by age were evaluated using orthogonal polynomials.

About the authors

Amanda E. Ng, Abhigya Giri, and Lauren Bottoms-McClain 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 0–17 with a diagnosed seasonal allergy, eczema, food allergy, or any of these allergic conditions: United States, 2024

Characteristic	Percent (95% confidence interval)	Standard error
Any allergic condition	29.5 (28.4–30.7)	0.60
Seasonal allergy	20.6 (19.5–21.6)	0.53
Eczema	12.7 (11.9–13.6)	0.44
Food allergy	5.3 (4.8–5.9)	0.28

NOTES: Children were considered to have any allergic condition if they were diagnosed with one or more of three selected conditions: seasonal allergy, eczema, or food allergy. Categories for each allergic condition were not mutually exclusive. 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.

Data table for Figure 2. Percentage of children ages 0–17 with a diagnosed seasonal allergy, by sex, age, and urbanization level: United States, 2024

Characteristic	Percent (95% confidence interval)	Standard error
Sex:		
Boys	21.3 (19.9–22.8)	0.73
Girls	19.8 (18.4–21.2)	0.73
Age group (years):		
0–5	¹ 11.6 (10.2–13.2)	0.73
6–11	25.0 (23.1–27.0)	1.00
12–17	24.0 (22.3–25.7)	0.88
Urbanization level:		
Metropolitan	² 19.8 (18.7–20.9)	0.57
Nonmetropolitan	25.6 (22.5–28.8)	1.57

¹Significant quadratic trend by age ($p < 0.05$).
²Significantly different from children living in nonmetropolitan areas ($p < 0.05$).
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.

Data table for Figure 3. Percentage of children ages 0–17 with diagnosed eczema, by sex, age, and urbanization level: United States, 2024

Characteristic	Percent (95% confidence interval)	Standard error
Sex:		
Boys	12.2 (11.1–13.3)	0.56
Girls	13.3 (12.1–14.7)	0.65
Age group (years):		
0–5	12.7 (11.2–14.4)	0.80
6–11	14.0 (12.4–15.6)	0.81
12–17	11.6 (10.3–12.9)	0.66
Urbanization level:		
Metropolitan	12.8 (11.8–13.7)	0.48
Nonmetropolitan	12.5 (10.5–14.9)	1.10

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.

Data table for Figure 4. Percentage of children ages 0–17 with a diagnosed food allergy, by sex, age, and urbanization level: United States, 2024

Characteristic	Percent (95% confidence interval)	Standard error
Sex:		
Boys	¹ 5.9 (5.1–6.8)	0.41
Girls	4.7 (4.0–5.5)	0.38
Age group (years):		
0–5	² 3.9 (3.0–4.8)	0.45
6–11	5.0 (4.2–6.0)	0.46
12–17	6.9 (5.9–8.0)	0.53
Urbanization level:		
Metropolitan	5.4 (4.8–6.0)	0.31
Nonmetropolitan	5.1 (3.9–6.6)	0.65
¹ Significantly different from girls ($p < 0.05$). ² Significant linear trend by age ($p < 0.05$). 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.		

Suggested citation

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