Adverse Childhood Experiences and the Health of Ohio's Youth

November 2025

OMAS
Ohio Medicaid Assessment Survey

Ohio Department of Medicaid

medtapp
Medicaid Technical Assistance & Policy Program

OHIO COLLEGES OF MEDICINE
GOVERNMENT RESOURCE CENTER

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Executive Summary

Adverse Childhood Experiences (ACEs) represent traumas people may experience early in life that can have long-term effects on their health and well-being. Tracking trends and the differences in ACEs among key subpopulations can help inform efforts to protect the health of vulnerable young people.

Key Findings*:

ACEs are common: Over 40% of Ohio youth had experienced some ACEs, and 7.4% experienced 4 or more. Parental divorce/separation was the most common ACE (24.3%), followed by living with someone mentally ill (15.0%), living with someone who had a problem with alcohol or drugs (12.4%), and having a parent or guardian incarcerated (11.5%). The prevalence of ACEs among younger children (age 0 to 5) declined since 2019.

Medicaid serves many youth with multiple ACEs: Compared to other youth, those enrolled in Medicaid had a higher prevalence for experiencing 4 or more ACEs. ACEs prevalence was similar for males and females and across different county types (Appalachian, metropolitan, rural non-Appalachian, and suburban county types).

ACEs are associated with many health outcomes: ACEs were associated with youth's poor mental health, fair/poor dental health, needing prescription medication, and special therapy for ongoing conditions. ACEs were not strongly associated with overweight or obesity, except among older youth (age 12 to 18).

**Note: Observed group differences should not be used to draw conclusions about underlying causes - see slide 9 for more guidance.*

Visit grc.osu.edu/OMAS for additional information about OMAS, including public use files, codebooks, and methods

Contents

Background

The health of Ohio's youth is profoundly influenced by the circumstances in which they are born, live, learn, work, play, and age. Early intervention programs like Help Me Grow, for example, can be most useful if they account for the contextual factors that influence their effectiveness. The physical and mental health of Ohio's children and adolescents are of particular concern because traumas and poor health conditions during childhood and adolescence often persist and become compounded later in life.

One such set of traumas are known as Adverse Childhood Experiences (ACEs)—whether youth have ever experienced, for example, parental divorce or death, or residence with someone with a serious mental health impairment or substance abuse disorder (see slide 9).

Research shows that these experiences are associated with deleterious behavioral, cognitive, emotional, and physiological effects during childhood and adolescence, including delinquency,[1, 2] poor schooling outcomes,[3,4] and substance use.[5] Moreover, exposure to ACEs during childhood has been shown to predict poor health conditions in adulthood, including cancer,[6] heart disease,[7] respiratory disease,[8] poor mental health (e.g., depression),[8] suicidal behaviors,[9] as well as engagement in health risk behaviors (e.g., smoking, substance use, and other risk behaviors)[7, 8, 10] and early and nonmarital childbearing.[11]

Background, continued

Finally, research indicates that exposure to any one of these events may be less important than the cumulative burden of experiencing multiple ACEs, pointing to the importance of understanding not only which youths experience greater exposure to ACEs, but who are exposed to multiple adverse events over the course of childhood. Recent data from the National Survey of Children's Health found that Ohio is among five states with the highest rates of youth experiencing three or more ACEs (15%).[12]

Consequently, the Ohio Department of Medicaid and other agencies are interested in understanding the burden of ACEs because of their profound influence on child and adolescent well-being. Tracking trends and differences among key subpopulations can help state agencies to identify how interventions can protect the health of vulnerable young people.

Objectives

This chartbook documents the prevalence of Adverse Childhood Experiences (ACEs) and their relationship to parental characteristics and health outcomes among Ohio's youth in 2023, although trends from 2019-2023 are sometimes reported.

Specifically, in this chartbook we seek to:

1. Assess the prevalence of individual ACEs and the cumulative number of ACEs.

2. Assess the prevalence of categories of ACEs by key youth demographic variables, including youth age, Medicaid enrollment status, race/ethnicity, and county type.

3. Examine the association of ACEs with child health conditions, including mental health, emotional, developmental, or behavioral problems, and obesity, as well as conditions requiring ongoing treatment.

Methods

Data Sources: This chartbook uses data from the 2023 Ohio Medicaid Assessment Survey (OMAS), as well as earlier OMAS survey iterations from 2012 through 2021.

The 2023 OMAS: The OMAS is a repeated cross-sectional random probability survey of non-institutionalized Ohio adults 19 years of age and older and proxy interviews of children 18 years of age and younger. It provides health status and health system-related information about residential Ohioans at the state, regional, and county levels, with a concentration on Ohio's Medicaid, Medicaid-eligible, and non-Medicaid populations. The 2023 OMAS used a combination of an address-based sampling (ABS) frame and a list frame of Medicaid enrollees and collected surveys by phone, web, and paper. The most recent iteration, the 2023 OMAS, was fielded from September 2023 – January 2024. The survey had an overall sample size of 39,626 and an eligibility-adjusted response rate of 24.0%.

Represented Population: The target population for the 2023 OMAS was all residents of Ohio. To ensure estimates are representative of this population, the 2023 OMAS survey weights were adjusted to account for any potential non-response bias. Additionally, poststratification adjustments were made to ensure that the final weights align with population totals from the 2020 5-year American Communities Survey and 2023 Ohio Medicaid enrollment data. See the 2023 methodology report for full details (https://grc.osu.edu/OMAS/2023Survey).

Methods, continued

Demographic Information: To see additional demographic information and estimates for the Ohio population represented by the 2023 OMAS, please see the OMAS Series Dashboard at https://grcapps.osu.edu/app/omas. This interactive tool provides fast, real-time result for a data-driven view of Ohio's health and healthcare landscape.

Analysis: Descriptive statistics are reported in the figures and tables in the chartbook. No statistical testing was conducted. Estimates from OMAS are reported in this chartbook only when the data are sufficient for calculating and presenting reliable estimates. We define a reliable estimate as one where the size of the unweighted subpopulation of interest is greater than 30 individuals and the coefficient of variation for the estimate is less than 0.3. Estimates with low precision are either hidden from view or are replaced with N/A.

Interpretation: This chartbook is descriptive in nature, and any differences observed between groups should not be used to draw conclusions about underlying causes. The findings presented do not account for important factors that might influence any observed differences (e.g., income, education level, general health status etc.). Therefore, the findings in this chartbook cannot be used to conclude that group differences are due to group membership as there are many factors that may be driving these findings, and this analysis was not designed to be able to control for them.

For further details about the 2023 OMAS methodology, questionnaire, and access to the dashboard, please visit **https://grc.osu.edu/OMAS/2023Survey**.

Methods, continued

Variable Definitions

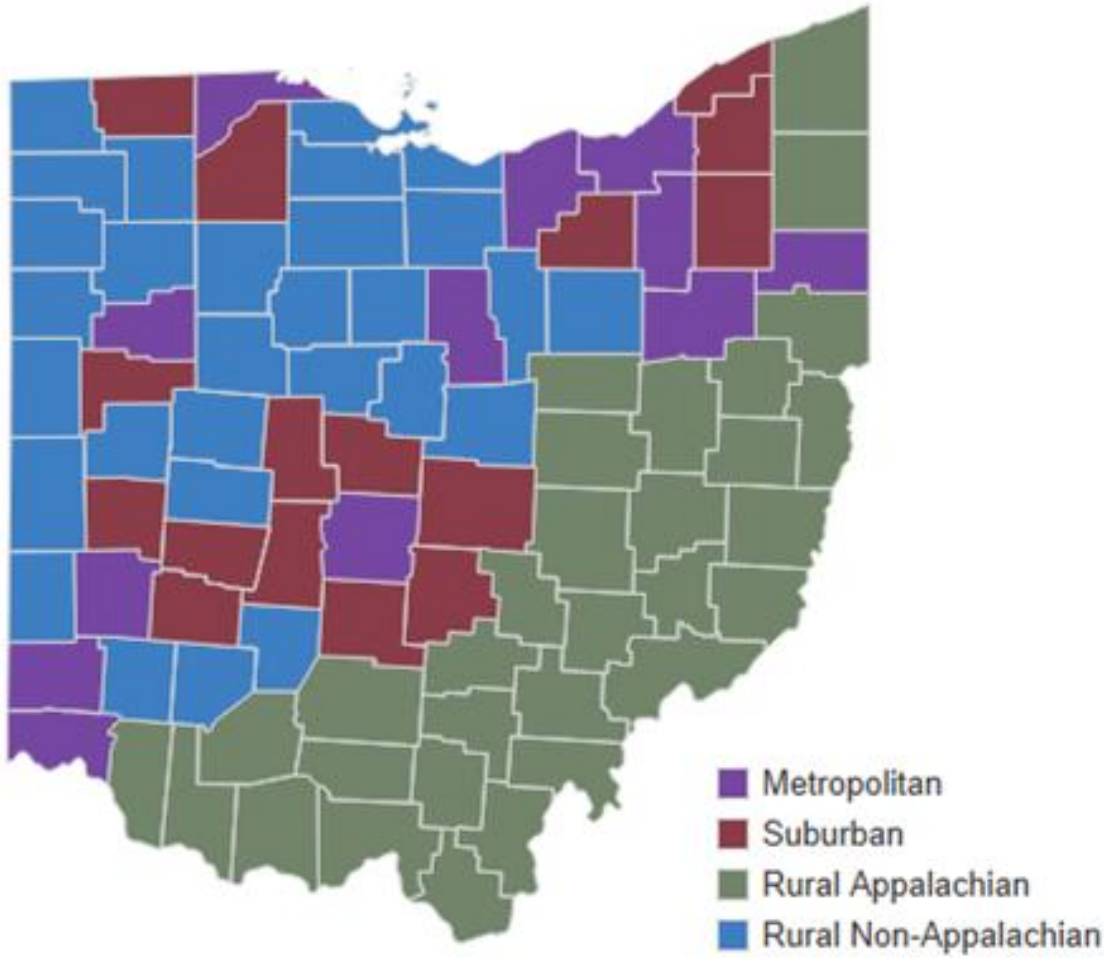
- *Youth:* 18 years old or younger as identified in OMAS.
- *Adverse Childhood Experiences (ACEs):* Measured via a proxy adult respondent, the vast majority of whom were either a parent or stepparent of the sampled child. Adult respondents were asked to indicate whether or not the child had experienced (1) a divorce or separation of a parent or guardian, (2) the death of a parent or guardian, (3) the incarceration of a parent or guardian, (4) parents or adults slapping, hitting, kicking or punching one another in the home, (5) being a victim of or witness to violence in the neighborhood, (6) living with anyone who was mentally ill, suicidal or severely depressed, (7) living with anyone who had a problem with alcohol or drugs, and (8) being treated or judged unfairly because of their race or ethnic group.
- *Mental health impairment (MHI):* For youth aged 6 and older, at least 14 days in the past 30 days where a mental health condition or emotional problem kept the child from participating in school, social relationships with friends or other usual activities.
- *Emotional, developmental, and behavioral problems:* Measured via a question asking, “does the child have any kind of emotional, developmental or behavioral problem for which they need or get treatment or counseling?”

Methods, continued

Variable Definitions

- *Prescription for ongoing condition:* This is an indicator for currently needing prescription medication due to a condition lasting 12 or more months.
- *Therapy for ongoing condition:* This is an indicator for currently needing therapy due to a condition lasting 12 or more months.
- *Overweight and obese BMI:* The adult respondent indicated the age, sex, height, and weight of youth aged 6 and older, from which the research team calculated BMI and growth percentile using the United States Centers for Disease Control and Prevention Growth Charts. Given the child's sex and age, BMIs between the 85th and 95th percentile were classified as "overweight" and BMIs greater than or equal to the 95th percentile were classified as "obese".
- *Fair/poor self-rated dental health:* Indicates that a respondent answered "Fair" or "Poor" to the question: "Thinking about the child's teeth and gums, would you say the child's dental health is excellent, very good, good, fair, or poor?"
- *Fair/poor general health:* Indicates that a child had a value of "Fair" or "Poor" for the question: "In general, how would you describe the child's health? Would you say their health is excellent, very good, good, fair, or poor?"

OMAS County Types



OMAS assigns counties to one of four mutually exclusive county types – **rural Appalachian, rural non-Appalachian, metropolitan, and suburban**. OMAS defines these county types in accordance with federal definitions, as follows: (1) rural Appalachian is defined using the Appalachian Regional Commission (ARC) standard; (2) metropolitan is defined using US Census Bureau definitions incorporating urban areas and urban cluster parameters; (3) rural non-Appalachian is defined by the Federal Office of Rural Health Policy at the Health Resources and Services Administration (HRSA), excluding Appalachian counties; (4) suburban is defined by the US Census Bureau and is characterized as a mixed-use or predominantly residential area within commuting distance of a city or metropolitan area.

For further details about the OMAS county types, please visit **https://grc.osu.edu/OMAS/2023Survey.**

RESULTS: ACES IN 2023 AND CHANGE OVER TIME

Findings on the prevalence of individual ACEs and number of ACEs

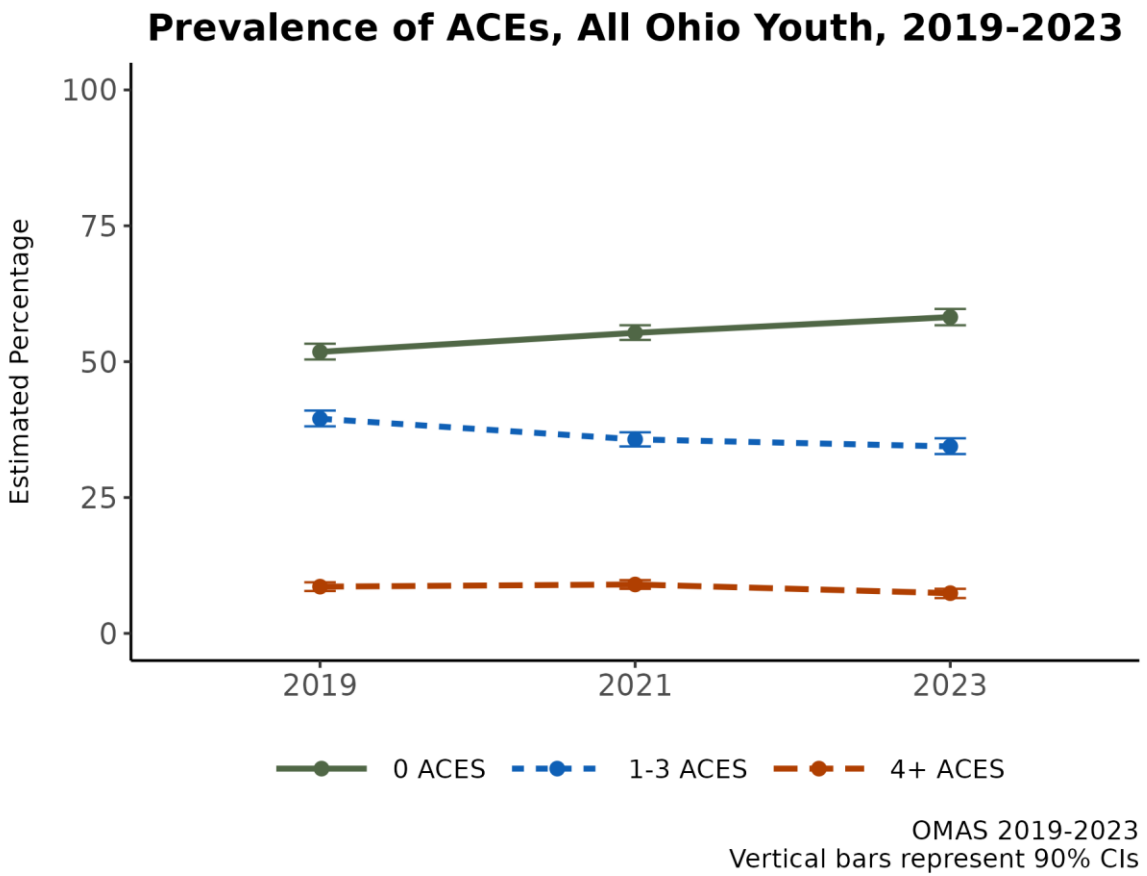
The most common ACEs in 2023 were divorce/separation, family mental health/drug problems, and parental incarceration

Adverse Childhood Experiences (ACEs)	Percent	90% C.I.	
Experienced parents or guardians going through a divorce or separation	**24.3%**	23.0%	25.7%
Lived with anyone who was mentally ill, suicidal, or severely depressed	**15.0%**	13.8%	16.2%
Lived with anyone who had a problem with alcohol or drugs	**12.4%**	11.4%	13.5%
Experienced a parent or guardian serving time in jail after the youth was born	**11.5%**	10.6%	12.4%
Seen or heard parents or adults slap, hit, kick, punch one another in the home	**8.8%**	7.9%	9.8%
Been the victim of violence or witnessed violence in their neighborhood	**8.3%**	7.4%	9.2%
Experienced the death of a parent or guardian	**5.3%**	4.7%	5.9%
Been treated or judged unfairly because of their race or ethnic group	**4.8%**	4.2%	5.4%

Parental divorce or separation was the most common ACE (24.3%), followed by living with someone mentally ill (15.0%), living with someone who had a problem with alcohol or drugs (12.4%), and having a parent or guardian incarcerated (11.5%). Witnessing domestic violence and neighborhood violence were the next most common.

Note: Observed group differences should not be used to draw conclusions about underlying causes - see slide 9 for more guidance.

Most Ohio youth experienced no ACEs in 2023, while over 40% experienced at least one ACE



- In 2023, over one-third (34.4%) of Ohio youth had experienced 1-3 ACEs, representing a decline from 39.5% in 2019.
- In 2023, 7.4% of Ohio youth had experienced 4 or more ACEs, down from 8.6% in 2019.
- Overall, the percentage of youth experiencing no ACEs increased from 51.8% in 2019 to 58.2% in 2023.

<u>Additional Insights (Results Not Shown)</u>

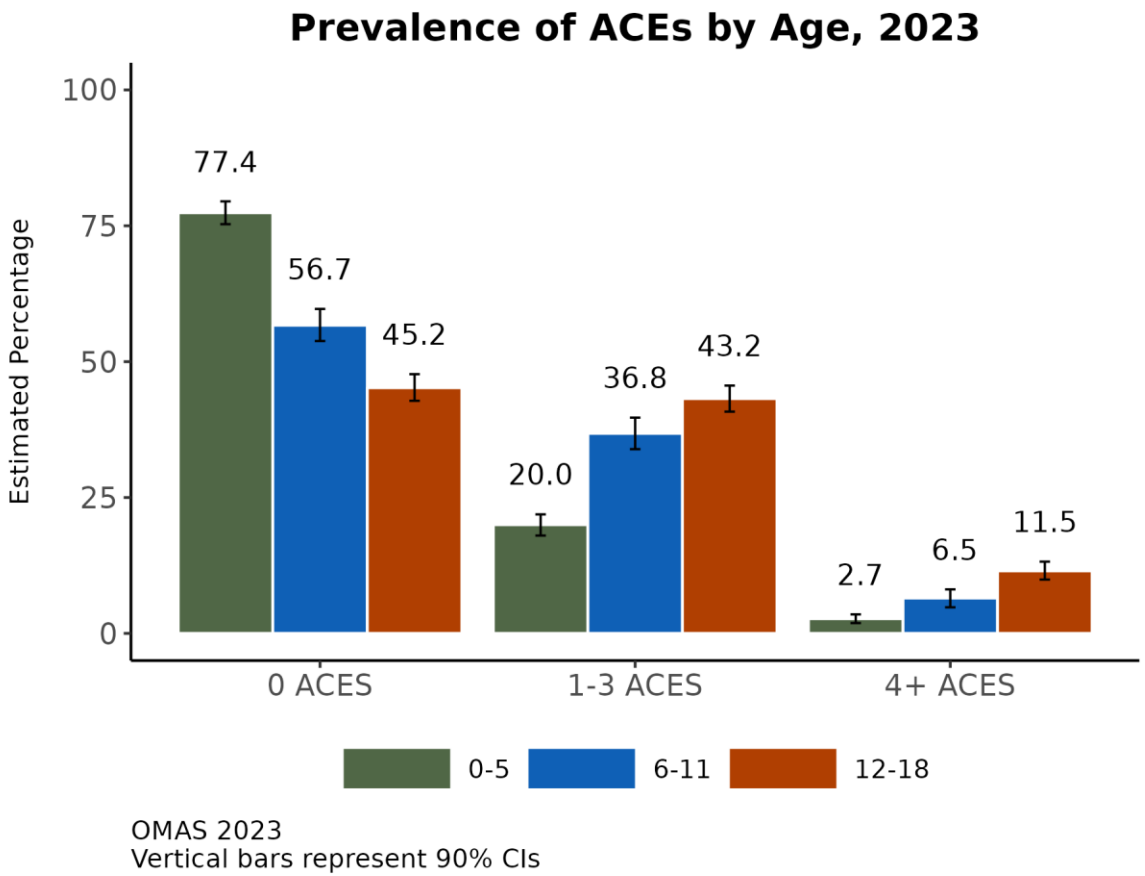
- In 2023, the ACE with the largest decline in prevalence was parental divorce/separation (from 32.1% [90% CI: 30.8% - 33.5%] in 2019 to 24.3% [90% CI: 23.0% - 25.7%] in 2023) and experiencing a parent or guardian serving time in jail (from 15.8% [90% CI: 14.8% - 16.8%] in 2019 to 11.5% [90% CI: 10.6% - 12.4%] in 2023). These trends varied by age group (slide 17).

Note: Observed group differences should not be used to draw conclusions about underlying causes - see slide 9 for more guidance.

RESULTS: ACES IN 2023 BY DEMOGRAPHIC GROUPS

Prevalence of ACEs by age, Medicaid status, race/ethnicity, and county type

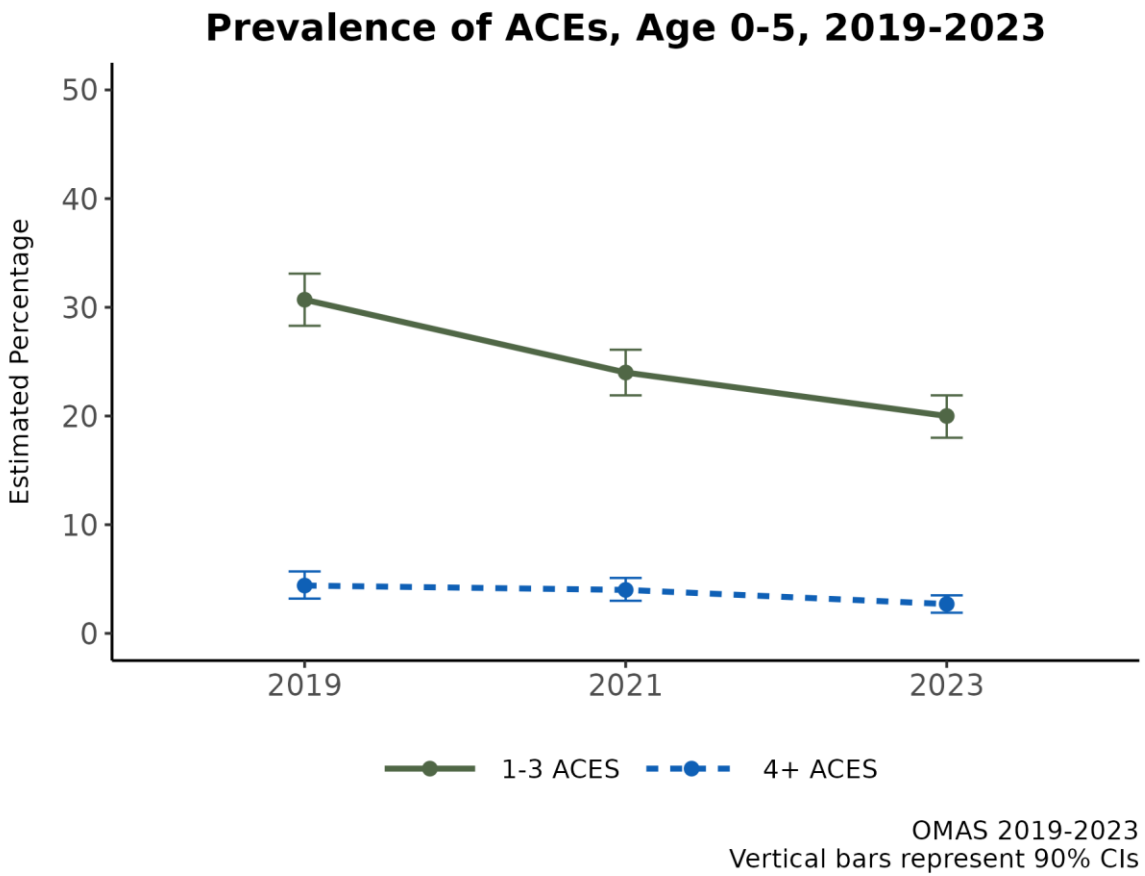
Older youth experienced more ACEs



- Compared to their younger peers, older Ohio youth had more ACEs. For instance, 43.2% of youth aged 12-18 had experienced 1-3 ACEs, compared to just 20.0% of those aged 0-5. About 11.5% of youth aged 12-18 had experienced 4 or more ACEs, compared to only 2.7% of 0-5-year-olds.
- These figures are unsurprising because ACEs assess lifetime prevalence—something a child has *ever* experienced. The older a youth is, the more time they have had to experience ACEs.
- It is important to keep in mind the correlation between age and ACEs when considering the association of other outcomes (e.g., mental health impairment) that are also correlated with age.

Note: Observed group differences should not be used to draw conclusions about underlying causes - see slide 9 for more guidance.

The youngest Ohioans are experiencing fewer ACEs



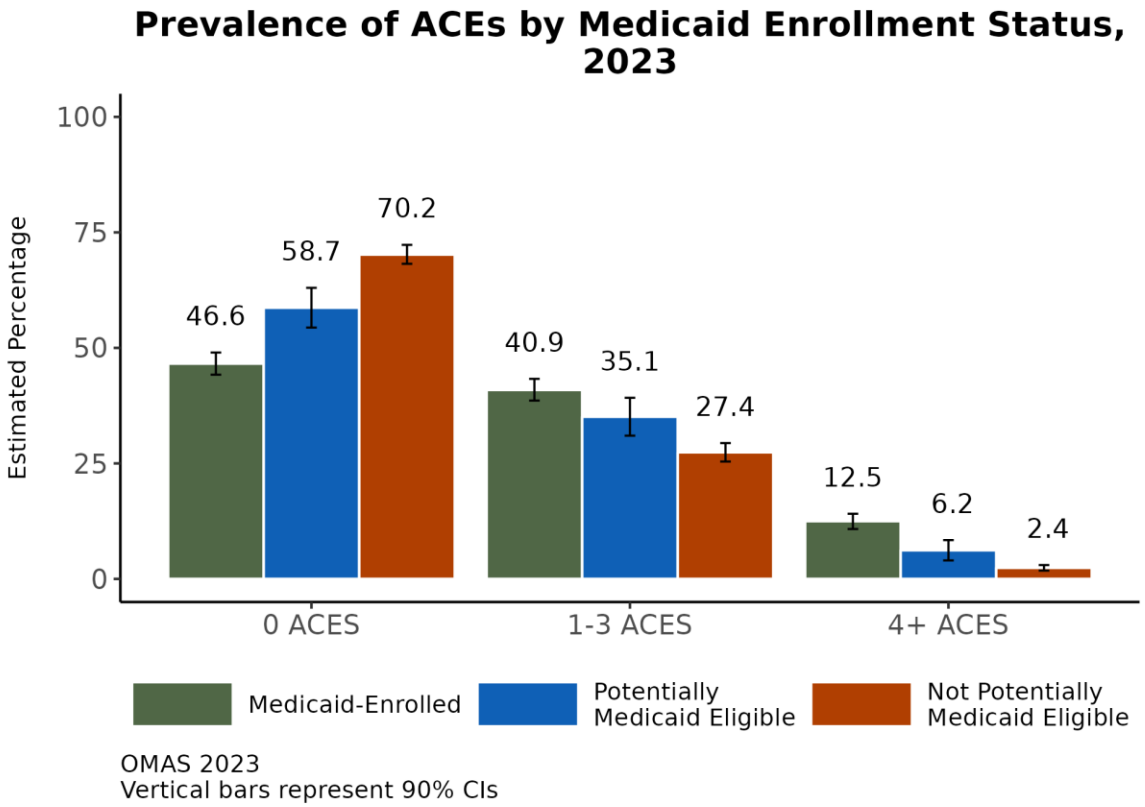
- Among Ohio youth 0-5 years old, the prevalence of ACEs has declined since 2019.
- In 2019, 30.7% of youth aged 0-5 had experienced 1-3 ACEs and 4.4% had experienced 4 or more. By 2023, the corresponding figures for this group were 20.0% and 2.7%, respectively.

Additional Insights (Results Not Shown)

- In 2023, the ACE with the largest decline for youth aged 0-5 was parental divorce/separation, from 21.0% (90% CI: 18.8% - 23.3%) in 2019 to 10.3% (90% CI: 8.8% - 11.8%) in 2023.
- In 2023, for youth aged 6-11, there was a smaller decline in exposure to ACEs, and among older youth (age 12-18), analyses did not find any changes.

Note: Observed group differences should not be used to draw conclusions about underlying causes - see slide 9 for more guidance.

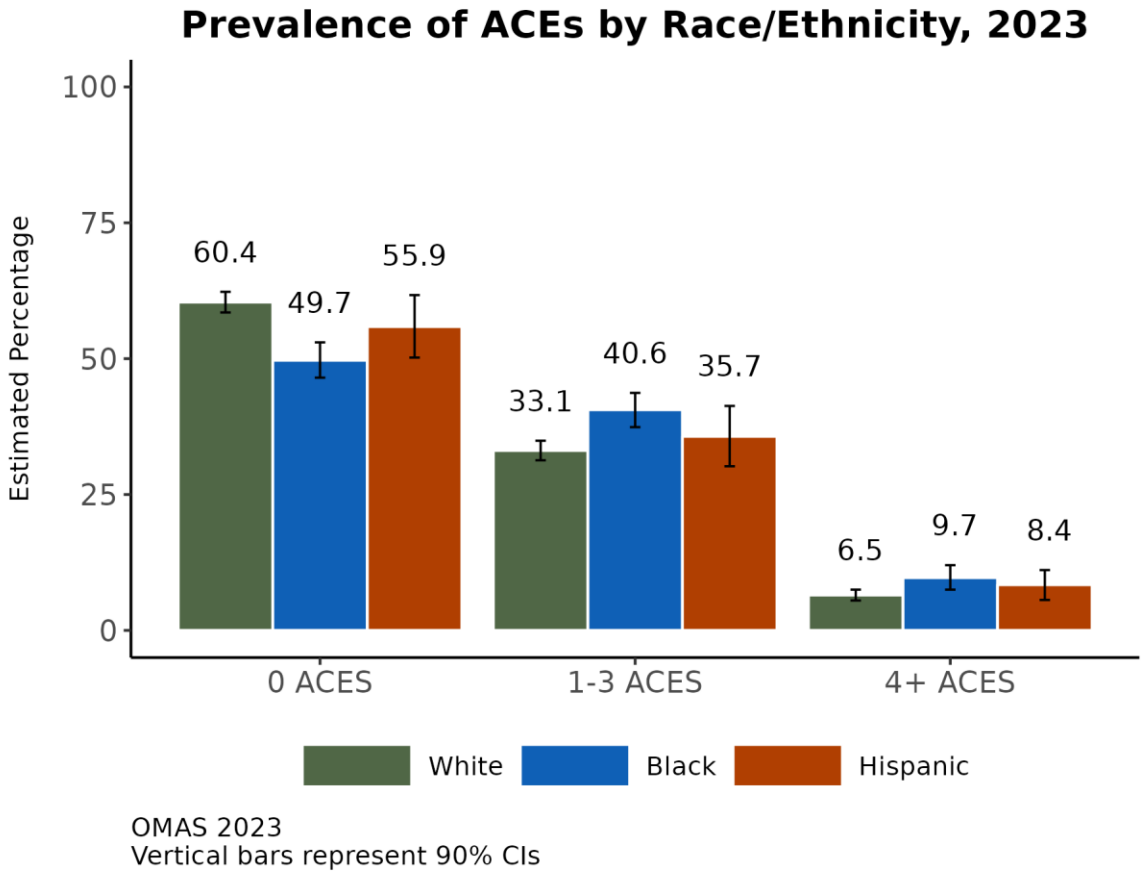
Youth enrolled in Medicaid have more ACEs than non-enrolled youth



- Over half of Ohio youth enrolled in Medicaid had some ACEs, with 40.9% having 1-3 ACEs and 12.5% having 4 or more.
- Over two-thirds (70.2%) of higher-income youth (i.e., those who were not potentially Medicaid eligible) have no ACEs and only 2.4% have 4 or more.
- Other youth from lower-income families (0-206% FPL) (i.e., those potentially Medicaid eligible) had a lower prevalence of ACEs.
- Hence, even among all lower-income youth, those enrolled in Medicaid have more ACEs. This illustrates how Medicaid serves a particularly high-need population.

Note: Observed group differences should not be used to draw conclusions about underlying causes - see slide 9 for more guidance.

Overall, Black youth had more ACEs than White youth



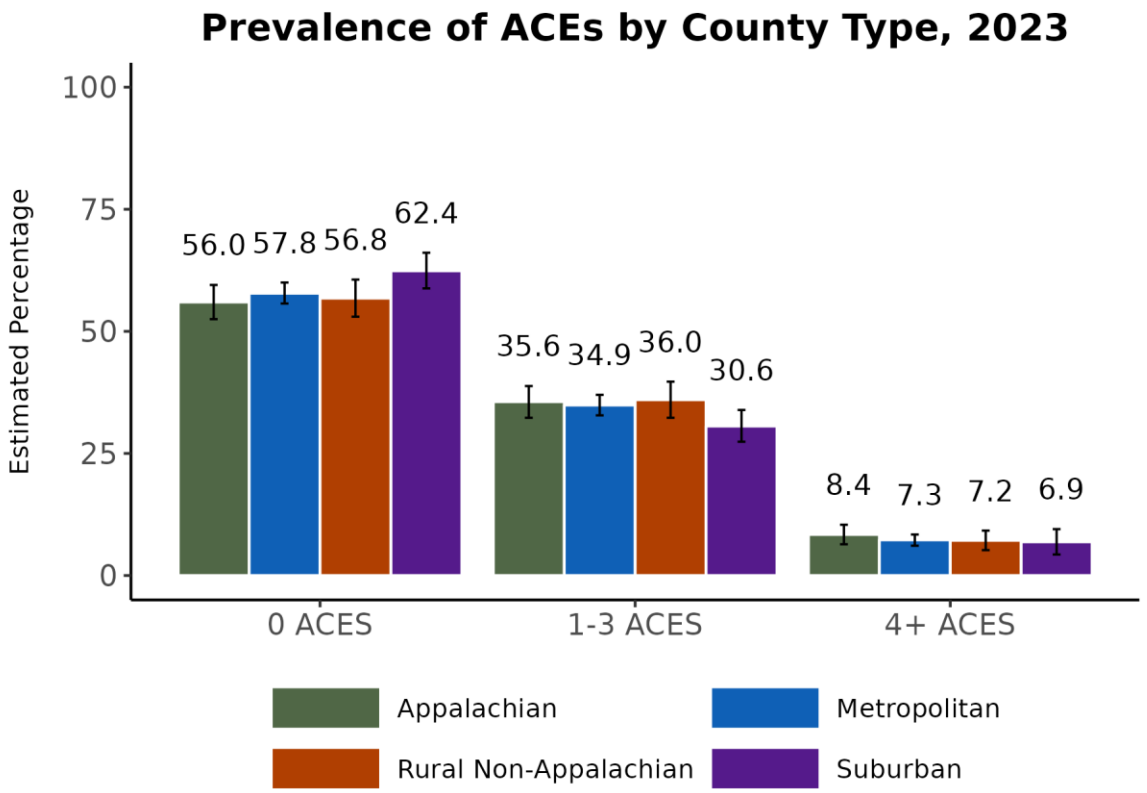
- Not considering potential differences by insurance coverage:
  - 60.4% of White youth had no ACEs, compared to 49.7% of Black youth;
  - 33.1% of White youth had 1-3 ACEs, compared to 40.6% of Black youth; and
  - 6.5% of White youth had 4 or more ACEs, compared to 9.7% of Black youth.
- Prevalences for Hispanic youth were in between these two groups.

Additional Insights (Results Not Shown)

- In 2023, among lower-income youth (0-206% FPL), racial/ethnic differences were substantially lower, with 10-11% (90% CIs 7.0% to 15.3%) of youth from all three racial/ethnic groups experiencing 4 or more ACEs.
- Black/White differences in ACEs were more pronounced among higher-income families, indicating that income explains much of the overall difference.

Note: Observed group differences should not be used to draw conclusions about underlying causes - see slide 9 for more guidance.

ACEs prevalence was similar across different county types



OMAS 2023
Vertical bars represent 90% CIs

- Overall, the prevalence of ACEs was similar across county types, although slightly lower in suburban counties.
- In suburban counties, 30.6% of youth had 1-3 ACEs, whereas figures ranged from 34.9% to 36.0% for youth living in other types of counties.
- Correspondingly, suburban youth had a higher prevalence of experiencing 0 ACEs (62.4%) as compared to their peers in other county types.

<u>Additional Insights (Results Not Shown)</u>

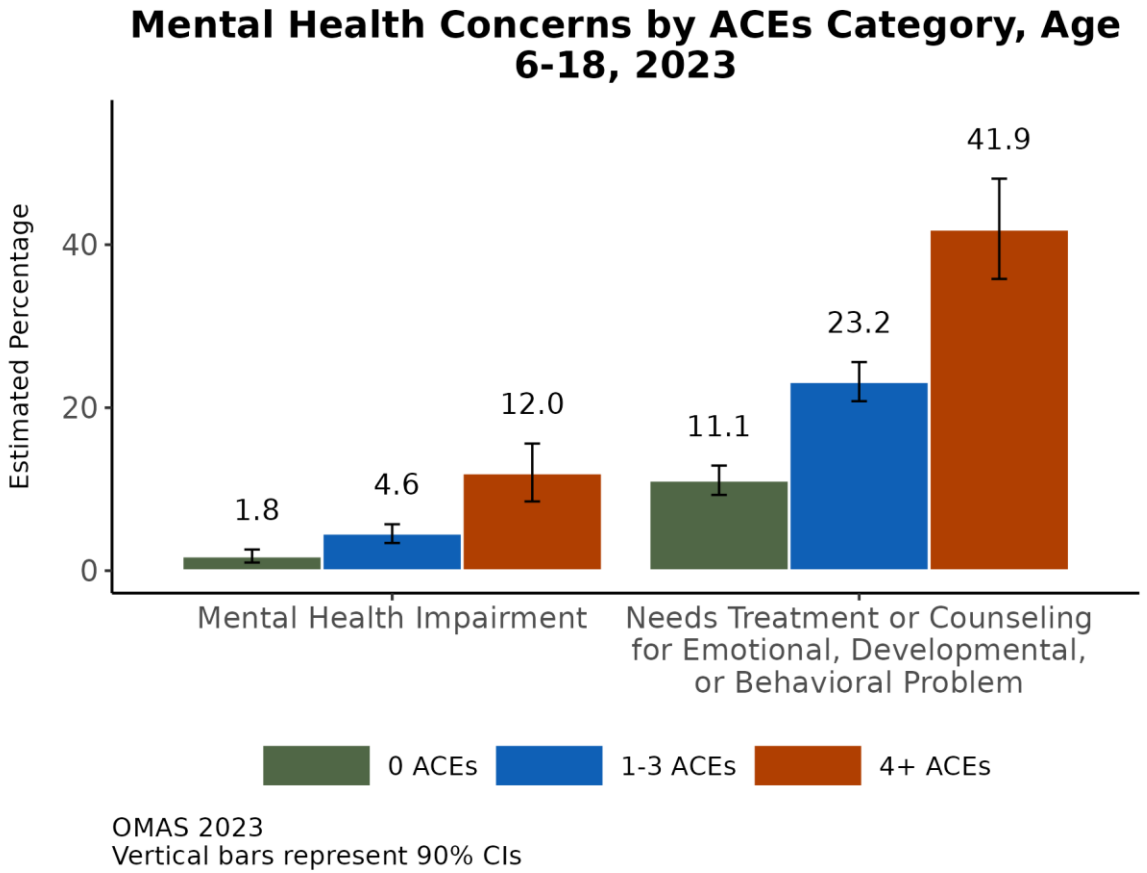
- In 2023, these differences persisted across age groups, income levels, and genders.

Note: Observed group differences should not be used to draw conclusions about underlying causes - see slide 9 for more guidance.

RESULTS: ACES AND CHILD HEALTH

Association of ACEs with child health conditions

ACEs were strongly associated with poor mental health



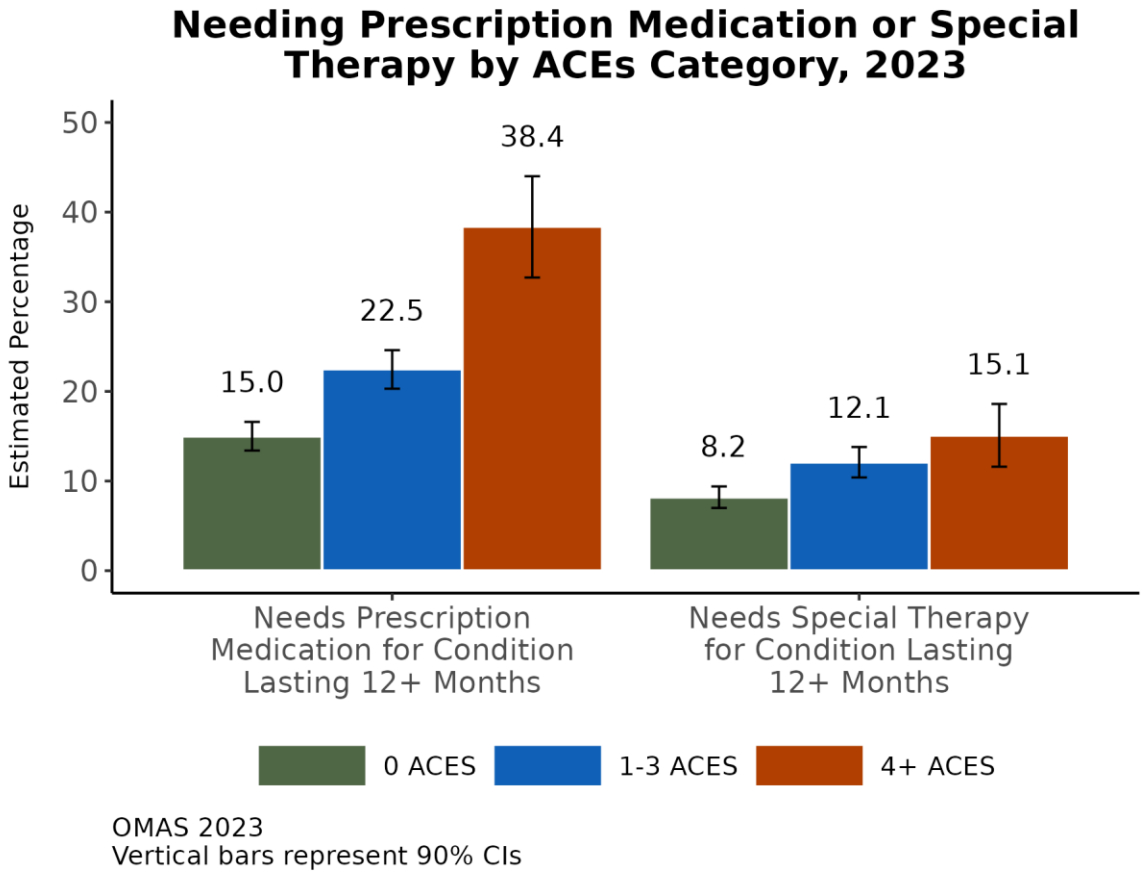
Note: Observed group differences should not be used to draw conclusions about underlying causes - see slide 9 for more guidance.

- Only 1.8% of youth ages 6-18 with no ACEs experienced mental health impairment (having 14+ days of mental distress out of the past 30 days) compared to 12.0% of youth with 4 or more ACEs.
- Over 40% of youth ages 6-18 with 4 or more ACEs needed treatment or counseling for emotional, developmental or behavioral problems, compared to just 11.1% for youth with no ACEs.

Additional insights for 2023:

- These general patterns persisted for different age groups, income levels, and genders.
- These findings highlight the importance and challenge of providing mental health services to Ohio's youth, since many begin such care with a longstanding history of multiple ACEs.

ACEs were associated with needing prescription medication and special therapy



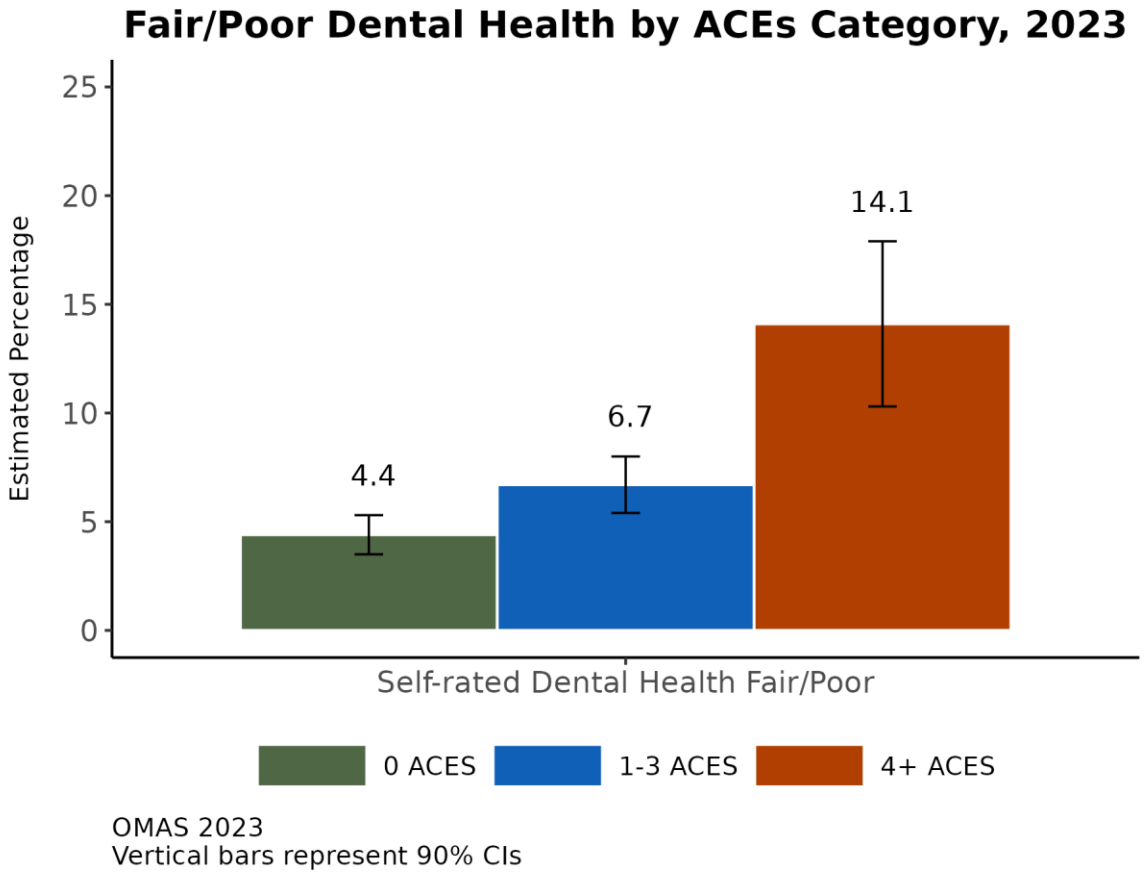
Note: Observed group differences should not be used to draw conclusions about underlying causes - see slide 9 for more guidance.

- Nearly 40% of youth with four or more ACEs needed prescription medication for an ongoing mental or physical health challenge, compared to just 15% of youth with no ACEs.
- Needing special therapy was less strongly associated with ACEs; however, youth with four or more ACEs had nearly twice the prevalence of youth with no ACEs to need such therapy (15.1% vs. 8.2%, respectively).

Additional Insights (Results Not Shown)

- In 2023, patterns of needing special therapy differed by gender. For males, 10.1% (90% CI: 8.2%-12.0%) with no ACEs needed special therapy, compared to about 15% (90% CI: 10.2%-19.5%) in the two ACEs groups. For females, only 6.2% (90% CI: 4.8%-7.6%) of those with no ACEs needed special therapy, compared to 9.4% (90% CI: 7.3%-11.6%) of those with 1-3 ACEs and 16.4% (90% CI: 10.1%-20.6%) in the 4+ group.

ACEs were associated with fair/poor dental health



OMAS 2023
Vertical bars represent 90% CIs

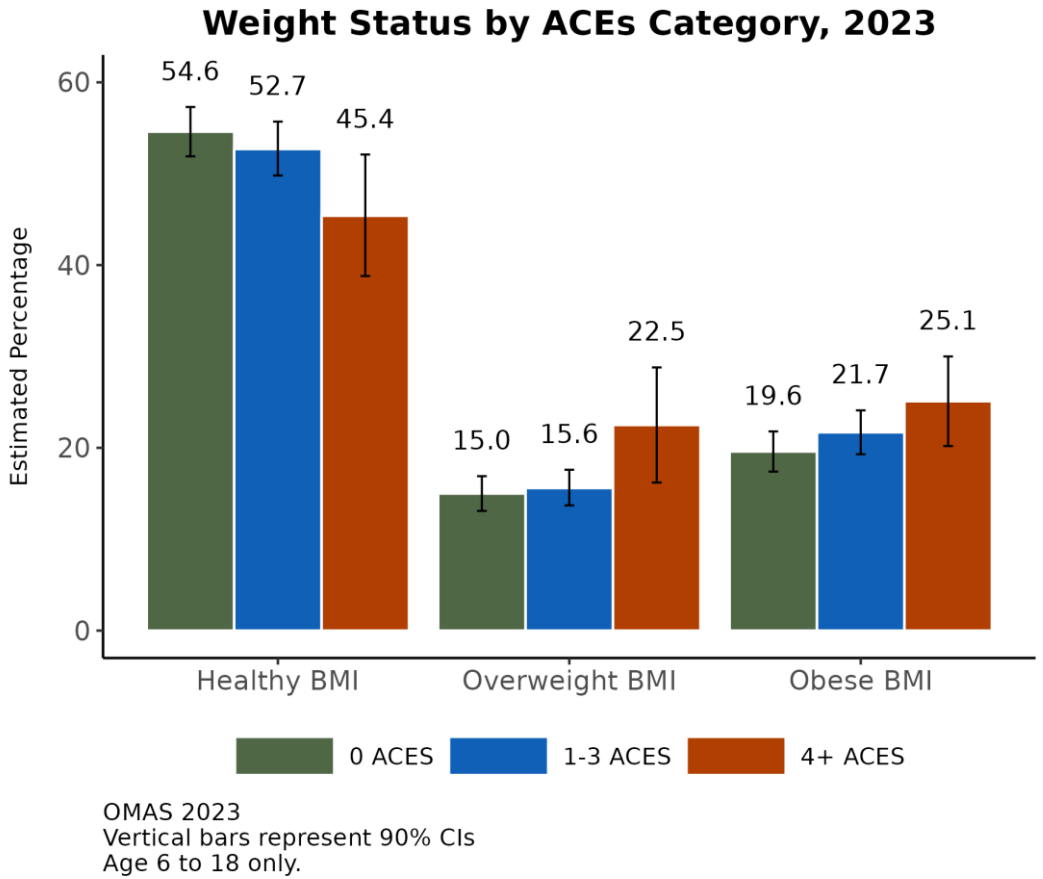
- Overall, ACEs were associated with child's dental health being "fair" or "poor."
- Only 4.4% of children with 0 ACEs had "fair" or "poor" dental health, whereas the figure was 14.1% for youth with 4 or more ACEs.

Additional Insights (Results Not Shown)

- In 2023, this pattern persisted across different age groups, income levels and genders.
- There was a very slight relationship with a similar measure of general health, although the prevalence of fair/poor general health was low among all youth.

Note: Observed group differences should not be used to draw conclusions about underlying causes - see slide 9 for more guidance.

ACEs were not strongly associated with obesity, except among older youth



Note: Observed group differences should not be used to draw conclusions about underlying causes - see slide 9 for more guidance.

- Overall, ACEs were not strongly associated with obesity among youth. Although youth with four or more ACEs had a lower prevalence of having a healthy BMI and a higher prevalence of being overweight or obese, the wide confidence intervals make these findings tentative.

Additional Insights (Results Not Shown)

- In 2023, obesity was associated with ACEs for older youth (12 to 18). Among all such youth, 23.6% (90% CI: 18.0% - 29.3%) of those with four or more ACEs were classified as obese, compared to 13.3% (90% CI: 10.7% - 15.9%) of youth with no ACEs.
- This finding was more pronounced among higher-income youth (> 206% FPL), as 23.3% (90% CI: 13.6% - 32.9%) of youth with four or more ACEs were obese compared to just 8.2% (90% CI: 5.8% - 10.6%) of higher-income youth with no ACEs.

Summary of Results

ACEs were common: Over 40% of Ohio youth had experienced some ACEs and 7.4% experienced 4 or more. Parental divorce/separation was the most common ACE (24.3%), followed by living with someone with mental health issues (15.0%), living with someone who had a problem with alcohol or drugs (12.4%), and having a parent or guardian incarcerated (11.5%).

ACEs were associated with many health outcomes: ACEs were associated with youth's poor mental health, fair/poor dental health, and needing prescription medication and/or special therapy for ongoing conditions. ACEs were not strongly associated with overweight or obesity, except among older youth (age 12 to 18).

Medicaid serves many youth with multiple ACEs: Comparatively, youth enrolled in Medicaid had a higher percentage for having experienced 4 or more ACEs. ACEs prevalence was similar for males and females and across different county types.

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Acknowledgments

Commission on Minority Health

Department of Medicaid

Department of Health

Department of Mental Health & Addiction Services

Department of Developmental Disabilities

Department of Aging