

Gaps in Care Among Adolescents and Young Adults in the U.S.



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Introduction: Adolescents and young adults face several challenges to their well-being as they move into adulthood and assume a larger role in navigating their health, health care, and health insurance. This study examines the gaps in care that may result in missed opportunities for health promotion and maintenance, early intervention, and acute and chronic care management.

Methods: This study used the 2022–2023 National Health Interview Survey data of individuals aged 10–25 years to understand which adolescent and young adult age groups (10–14, 15–18, and 19–25 years) experience gaps in care and which sociodemographic, health status, and healthcare access variables are associated with increased odds of care gaps. The analysis was conducted in 2025.

Results: More than 1 in 4 young adults experienced a gap in care of 1 or more years, a rate twice that of adolescents. Measures of healthcare access—namely, being uninsured and without a usual source of care—were predictive of gaps in care across all 3 age groups. The sociodemographic factors of citizenship, region, and poverty level were also associated with care gaps across all 3 age groups.

Conclusions: Policymakers, payers, public agencies, and healthcare providers can play an important role in adolescent and young adult health. There should be increased attention to identifying and assisting adolescents and young adults with (and at risk for) lapses in coverage and care, prioritizing those without a medical home, transitioning from pediatric to adult care, losing childhood Medicaid or Children's Health Insurance Program eligibility status, and residing in states not expanding Medicaid.

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INTRODUCTION

Adolescence and young adulthood are critical times in the life course when health needs increase substantially. This includes onset of mental health conditions and increased rates of injury, suicide, substance use, obesity, and other behavioral health risks.¹ Data reveal that health status of young adults (YAs) is worse than that of adolescents and adults in their late twenties and thirties.^{1,2} About half of YAs experience at least 1 chronic condition, with depression (22%), obesity (19%), and asthma (10%) most prevalent.³ Annual visits provide opportunities for healthcare providers (HCPs) to screen for these and other health and social needs, reinforce healthy lifestyles, and implement needed interventions.^{4,5}

Past studies on care gaps are dated and broadly group children with adolescents (e.g., ages 0–17 years; ages 9–21 years) and YAs with adults (e.g., ages 18–30 years).^{6–8} Grouping adolescents with children and YAs with older adults overlooks critical distinctions among

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the 2 populations and limits the assessment of care gaps. Other research has focused on adolescents and YAs (AYAs) with specific chronic conditions, studying loss to follow-up and predictors of care gaps during transition to adult care.^{9,10}

A scoping review using a socioecologic framework identified barriers associated with care gaps among adolescents. These included intrapersonal (limited knowledge, poor previous experiences with health care), interpersonal (cultural and linguistic barriers), organizational (confidentiality, availability of youth-friendly services), community (social stigma, transportation), and policy (health insurance) barriers.¹¹

The literature related to the transition from pediatric to adult health care found higher rates of care gaps among those without insurance.¹⁰ Although access to insurance increased for all AYAs after the Affordable Care Act (ACA) passage, YAs remained the most likely to be uninsured. Similarly, although access to care increased for all AYAs after ACA passage, an age gradient shows that each age group was incrementally less likely to have a doctor visit in the past year.¹⁰

This study uses nationally representative data to provide a current assessment of care gaps and associated factors affecting AYAs. The research questions are (1) which AYA age groups are more likely to experience care gaps of 1 year or more? (2) What sociodemographic, health status, and healthcare access characteristics are associated with increased odds of care gaps?

METHODS

Study Sample

The authors used pooled 2022–2023 data from the National Health Interview Survey (NHIS), an annual health survey of a nationally representative sample of the U.S. civilian, noninstitutionalized population produced by the National Center for Health Statistics.¹² The analysis used 2 years of pooled data to increase sample size for reliable estimates. Data were extracted from the IPUMS Health Surveys: NHIS, a harmonized version of NHIS public-use files.¹³ IRB approval was not required for this study. NHIS data collection methods in 2022 and 2023 were not impacted by the coronavirus disease 2019 (COVID-19) pandemic. The sample included 11,430 individuals aged 10–25 years and was divided into 3 age groups: younger adolescents (10–14 years), older adolescents (15–18 years), and YAs (19–25 years). The age range for YAs was based on the age cut offs used by public insurance in many states. Information about children aged 0–17 years was collected from a parent or other adult in the household knowledgeable about and responsible for the child's health care.¹²

Measures

Care gaps were defined as last having seen a doctor or other HCP more than 1 year since the time of interview. Respondents were asked how long it had been since they (the child) last saw a doctor or other HCP about their health, with response options being within the past year, 2 years, 3 years, 5 years, 10 years, >10 years ago, or never.

The analysis included 3 sets of independent variables. Sociodemographic variables included sex (defined as whether the person was male or female), race and ethnicity, citizenship status, income as a percentage of federal poverty level (FPL), and region. These characteristics are linked to resources, opportunities, and structures that pervade American society, economy, and policy.¹⁴ Health status characteristics included self-reported health status and having ever been diagnosed with asthma or diabetes, which were among the most common chronic conditions for these age groups³ and the only chronic conditions with data available across all 3 age groups. Healthcare access measures included having a usual source of care (USOC) (other than emergency department) and a primary source of health insurance coverage, if any.

Statistical Analysis

All analyses were based on weighted data and accounted for NHIS' complex survey design using the SVY command in Stata 19 software and the SUBPOP option to produce estimates within subpopulations.¹⁵ The survey weights were divided by 2 to account for pooled data years.

Bivariate analyses using chi-square significance tests were used to evaluate relationships between sociodemographic characteristics, measures of health and healthcare access, and care gaps within each age group. Multivariate logistic regression models were used to predict care gaps as a function of sociodemographic, health, and healthcare access characteristics stratified by age group. These models included a survey year-fixed effect to account for potential differences in patterns of care gaps across the 2 survey years. Model coefficients were reported as ORs ([Appendix Table 1](#), available online). Reference groups used the method described in Johfre and Freese to avoid using the dominant group (e.g., White) as the reference group.¹⁶

RESULTS

[Table 1](#) contains weighted sample characteristics by the 3 age groups for the pooled data years 2022–2023. Among sociodemographic characteristics, YAs were more likely to be without U.S. citizenship (7.1%; 95%

Table 1. Weighted Sample Characteristics by Age Group, 2022–2023

Measures	Young adolescents (ages 10–14 years), % (95% CI)	Older adolescents (ages 15–18 years), % (95% CI) <i>p</i> -value (t-test versus young adolescents)	Young adults (ages 19–25 years), % (95% CI) <i>p</i> -value (t-test versus young adolescents)	Chi-square test <i>p</i> -value
Unweighted count	4,140	3,469	3,821	
Weighted count	20,684,757	17,495,770	29,393,879	
Year				0.3492
2023	49.4% (47.5%, 51.4%)	50.0% (47.7%, 52.3%) 0.728	51.4% (49.4%, 53.3%) 0.177	
2022	50.6% (48.6%, 52.5%)	50.0% (47.7%, 52.3%) 0.728	48.6% (46.7%, 50.6%) 0.177	
SES factors				
Sex				0.4873
Male	51.2% (49.5%, 52.9%)	51.4% (49.3%, 53.4%) 0.906	49.9% (48.0%, 51.7%) 0.290	
Female	48.8% (47.1%, 50.5%)	48.6% (46.6%, 50.7%) 0.906	50.1% (48.3%, 52.0%) 0.290	
Race/ethnicity				0.3226
Hispanic	25.9% (23.7%, 28.2%)	26.0% (23.7%, 28.3%) 0.967	23.9% (21.9%, 26.0%) 0.195	
White, non-Hispanic	51.2% (48.9%, 53.6%)	52.2% (49.6%, 54.8%) 0.571	52.5% (50.2%, 54.7%) 0.461	
Black, non-Hispanic	12.6% (11.2%, 14.1%)	11.6% (10.1%, 13.2%) 0.353	13.1% (11.6%, 14.7%) 0.661	
Multiple races or any other race, non-Hispanic	10.3% (9.2%, 11.5%)	10.2% (9.0%, 11.6%) 0.948	10.6% (9.5%, 11.8%) 0.728	
Citizenship status				<0.001
U.S. citizen	95.8% (94.9%, 96.4%)	96.3% (95.5%, 97.1%) 0.286	92.9% (91.9%, 93.8%) <0.001	
Not U.S. citizen	4.2% (3.6%, 5.1%)	3.7% (2.9%, 4.5%) 0.286	7.1% (6.2%, 8.1%) <0.001	
Region				0.3157
Northeast ^a	15.3% (13.7%, 17.1%)	16.7% (14.8%, 18.9%) 0.303	17.3% (15.6%, 19.1%) 0.113	
Midwest ^b	20.1% (18.4%, 22.0%)	21.0% (18.8%, 23.2%) 0.568	19.8% (18.1%, 21.7%) 0.817	
South ^c	39.6% (37.1%, 42.1%)	38.3% (35.6%, 41.1%) 0.505	39.5% (37.1%, 41.9%) 0.963	
West ^d	25.0% (22.8%, 27.4%)	24.0% (21.7%, 26.5%) 0.568	23.4% (21.3%, 25.5%) 0.308	
Poverty level				0.0015
<100% FPL	15.3% (13.8%, 16.9%)	13.8% (12.2%, 15.5%) 0.186	14.7% (13.3%, 16.2%) 0.585	
101%–200% FPL	21.6% (20.0%, 23.2%)	20.1% (18.4%, 22.0%) 0.679	20.9% (19.4%, 22.4%) 0.505	

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Table 1. Weighted Sample Characteristics by Age Group, 2022–2023 (continued)

Measures	Young adolescents (ages 10–14 years), % (95% CI)	Older adolescents (ages 15–18 years), % (95% CI) <i>p</i> -value (<i>t</i> -test versus young adolescents)	Young adults (ages 19–25 years), % (95% CI) <i>p</i> -value (<i>t</i> -test versus young adolescents)	Chi-square test <i>p</i> -value
201%–300% FPL	18.6% (17.3%, 20.0%)	18.0% (16.3%, 19.8%) 0.585	19.9% (18.5%, 21.4%) 0.201	
301%–400% FPL	10.7% (9.7%, 11.8%)	11.3% (10.0%, 12.6%) 0.517	13.2% (12.0%, 14.4%) 0.003	
≥401% FPL	33.8% (31.8%, 35.8%)	36.9% (34.7%, 39.1%) 0.042	31.4% (29.5%, 33.3%) 0.085	
Health status factors				
Health status				<0.001
Very good/excellent	84.2% (82.8%, 85.4%)	81.2% (79.5%, 82.9%) 0.007	71.1% (69.3%, 72.8%) <0.001	
Good	13.3% (12.2%, 14.6%)	14.3% (12.9%, 15.8%) 0.322	22.3% (20.7%, 23.9%) <0.001	
Fair/poor	2.5% (2.0%, 3.1%)	4.5% (3.7%, 5.4%) <0.001	6.7% (5.8%, 7.6%) <0.001	
Ever been diagnosed with asthma or diabetes				<0.001
Yes	14.0% (12.9%, 15.2%)	16.5% (15.0%, 18.1%) 0.011	21.3% (19.8%, 22.8%) <0.001	
No	86.0% (84.8%, 87.1%)	83.5% (81.9%, 85.0%) 0.011	78.7% (77.2%, 80.2%) <0.001	
Health care access factors				
Health insurance coverage				<0.001
Private	58.1% (56.0%, 60.2%)	62.4% (60.0%, 64.6%) 0.008	64.6% (62.5%, 66.5%) <0.001	
Public	37.9% (35.8%, 39.9%)	32.1% (30.0%, 34.4%) <0.001	22.2% (20.4%, 24.0%) <0.001	
Uninsured	4.0% (3.4%, 4.8%)	5.5% (4.6%, 6.6%) 0.017	13.3% (12.0%, 14.7%) <0.001	
Has usual source of care other than ED				<0.001
Yes	96.5% (95.8%, 97.1%)	94.8% (93.7%, 95.8%) 0.008	79.1% (77.5%, 80.6%) <0.001	
No	3.5% (2.9%, 4.2%)	5.2% (4.2%, 6.3%) 0.008	20.9% (19.4%, 22.5%) <0.001	

Source: SHADAC analysis of 2022–2023 IPUMS NHIS.

Note: Boldface indicates statistical significance ($p < 0.05$).Universe: civilian noninstitutionalized population aged 10–25 years. The *p*-values below percentage estimates indicate a statistical significance of difference from young adolescent age group (2-sided *t*-test). The *p*-values in the chi-square test column indicate a statistical significance of relationship between the row variable (e.g., health status) and age groups.^aNortheast region: Connecticut, Maine, Massachusetts, New Hampshire, New Jersey, New York, Pennsylvania, Rhode Island, and Vermont.^bMidwest region: Iowa, Indiana, Illinois, Kansas, Michigan, Minnesota, Missouri, Nebraska, North Dakota, Ohio, South Dakota, and Wisconsin.^cSouth region: Alabama, Arkansas, District of Columbia, Delaware, Florida, Georgia, Kentucky, Los Angeles, Maryland, Mississippi, North Carolina, Oklahoma, South Dakota, Tennessee, Texas, Virginia, and West Virginia.^dWest region: Arizona, Alaska, California, Colorado, Hawaii, Idaho, Montana, New Mexico, Nevada, Oregon, Utah, Washington, and Wyoming.

ED, emergency department; FPL, federal poverty level; NHIS, National Health Interview Survey; SHADAC, State Health Access Data Assistance Center.

Table 2. Percentage With Gaps in Care by Gap Duration by Age, 2022–2023

Measures	Young adolescents (ages 10–14 years) % (95% CI)	Older adolescents (ages 15–18 years) % (95% CI)	Young adults (ages 19–25 years) % (95% CI)
Any gap of 1 year or greater	6.9% (6.0%, 8.0%)	8.7% (7.5%, 10.0%)	25.3% (23.7%, 26.9%)
Among those with any gap in care of 1 year or greater			
Gap of 1 year to <2 years	71.2% (64.3%, 77.2%)	67.7% (60.2%, 74.4%)	52.5% (48.9%, 56.1%)
Gap of 2 years or greater	28.8% (22.8%, 35.7%)	32.3% (25.6%, 39.8%)	47.5% (43.9%, 51.1%)

Source: SHADAC Analysis of 2022–2023 IPUMS NHIS.

Note: All gap durations of . . . or greater include those who report never having seen a doctor or other healthcare provider. Universe: Civilian noninstitutionalized population aged 10–25 years.

NHIS, National Health Interview Survey; SHADAC, State Health Access Data Assistance Center.

CI=6.2%, 8.1%; $p<0.001$) than their younger peers (young adolescents: 4.2%, 95% CI=3.6%, 5.1%; older adolescents: 3.7%, 95% CI=2.9%, 4.5%). By far, the greatest proportion of AYAs resided in the South (39.6%, 95% CI=37.1%, 42.1%; 38.3%, 95% CI=35.6%, 41.1%; and 39.5%, 95% CI=37.1%, 41.9%, from youngest to oldest).

Most AYAs rated their health as very good or excellent, yet this diminished with age (84.2%, 95% CI=82.8%, 85.4%; 81.2%, 95% CI=79.5%, 82.9%, $p=0.007$ and 71.1%, 95% CI=69.3%, 72.8%, $p<0.001$, from youngest to oldest). The percentage with asthma or diabetes increased with age (14.0%, 95% CI=12.9%, 15.2%; 16.5%, 95% CI=15.0%, 18.1%, $p=0.011$ and 21.3%, 95% CI=19.8%, 22.8%, $p<0.001$, from youngest to oldest).

Private health insurance was the most common source of coverage among all 3 groups, covering the majority and increasing in prevalence by age (58.1%, 95% CI=56.0%, 60.2%; 62.4%, 95% CI=60.0%, 64.6%, $p=0.008$ and 64.6%, 95% CI=62.5%, 66.5%, $p<0.001$, from youngest to oldest). Public coverage was more prevalent among both adolescent age groups (37.9%, 95% CI=35.8%, 39.9%, $p<0.001$ and 32.1%, 95% CI=30.0%, 34.4%, $p<0.001$, for young and older adolescents, respectively) than the YA group (22.2%, 95% CI=20.4%, 24.0%). The percentage uninsured increased with age (4.0%, 95% CI=3.4%, 4.8%; 5.5%, 95% CI=4.6%, 6.6%, $p=0.017$, and 13.3%, 95% CI=12.0%, 14.7%, $p<0.001$, from youngest to oldest). A large majority reported having a USOC, although adolescents (96.5%, 95% CI=95.8%, 97.1%, $p<0.001$ for young adolescents and 94.8%, 95% CI=93.7%, 95.8%, $p=0.008$ for older adolescents) were much more likely to report a USOC than YAs (79.1%, 95% CI=77.5%, 80.6%).

Table 2 shows the percentage of each age group with a care gap by duration. A 1-year-or-greater gap was the most common duration among all 3 age groups (6.9%,

95% CI=6.0%, 8.0%; 8.7%, 95% CI=7.5%, 10.0%; and 25.3%, 95% CI=23.7%, 26.9%, from youngest to oldest), and care gaps of 2 years or greater were far less common. Among those with a care gap, gaps of 2 years or greater became far more prevalent in YAs (28.8%, 95% CI=22.8%, 35.7%; 32.3%, 95% CI=25.6%, 39.8%; and 47.5%, 95% CI=43.9%, 51.1%, from youngest to oldest).

Table 3 shows the percentage of AYAs with a care gap of more than 1 year by sociodemographic and health characteristics. YAs were more than twice as likely to have a care gap than those in the 2 adolescent age groups (25.3%, 95% CI=23.7%, 26.9% for YAs vs 6.9%, 95% CI=6.0%, 8.0% and 8.7%, 95% CI=7.5%, 10.0% for young and older adolescents, respectively; $p<0.001$).

The sociodemographic factors of citizenship status ($p=0.002$, $p=0.001$, and $p<0.001$), region ($p=0.020$, $p=0.015$, and $p<0.001$), and poverty level ($p=0.001$, $p=0.001$, and $p=0.044$) were significantly associated with care gaps across all 3 age groups. Race and ethnicity were significantly associated with care gaps among older adolescents and YAs ($p=0.001$ and $p<0.001$). Hispanic young adolescents, older adolescents, and YAs (8.3%, 95% CI=6.7%, 10.2%, $p=0.030$; 12.6%, 95% CI=10.1%, 15.6%, $p=0.011$; and 31.3%, 95% CI=28.1%, 34.7%, $p<0.001$, from youngest to oldest) were more likely to have a care gap than their non-Hispanic Black peers who had rates of care gaps of 5.1% (95% CI=3.2%, 8.0%), 7.2% (95% CI=4.6%, 11.0%), and 21.3% (95% CI=17.3%, 26.1%), respectively. Across all age groups, AYAs without U.S. citizenship were significantly more likely to have a care gap than those with U.S. citizenship (14.0%, 95% CI=8.8%, 21.6% vs 6.7%, 95% CI=5.7%, 7.7%, $p=0.002$; 17.8%, 95% CI=11.7%, 26.0% vs 8.4%, 95% CI=7.2%, 9.8%, $p=0.001$; and 38.7%, 95% CI=32.4%, 45.4% vs 24.7%, 95% CI=23.0%, 26.5%, $p<0.001$, from youngest to oldest). Across all age groups, those in the West were more likely to have care gaps

Table 3. Percentage With a Gap in Care of 1 Year or Greater by Age, 2022–2023

Measures	Young adolescents (ages 10–14 years)		Older adolescents (ages 15–18 years)		Young adults (ages 19–25 years)	
	% 95% CI	p-value	% 95% CI	p-value	% 95% CI	p-value
Total	6.9% (6.0%, 8.0%)		8.7% (7.5%, 10.0%)		25.3% (23.7%, 26.9%)	
Year		0.011		0.352		0.441
2023	5.8% (4.7%, 7.0%)		9.2% (7.7%, 11.1%)		24.6% (22.3%, 27.0%)	
2022	8.1% (6.7%, 9.8%)		8.1% (6.5%, 10.0%)		26.0% (23.7%, 28.4%)	
SES factors						
Sex		0.426		0.015		<0.001
Male	6.6% (5.4%, 8.0%)		10.1% (8.4%, 12.1%)		32.2% (29.8%, 34.7%)	
Female	7.3% (6.0%, 8.9%)		7.2% (5.8%, 8.9%)		18.4% (16.4%, 20.5%)	
Race/ethnicity		0.146		0.001		<0.001
Hispanic	8.3% (6.7%, 10.2%)	0.030	12.6% (10.1%, 15.6%)	0.011	31.3% (28.1%, 34.7%)	<0.001
White, non-Hispanic	7.0% (5.7%, 8.6%)	0.163	7.3% (5.8%, 9.1%)	0.978	23.4% (21.3%, 25.6%)	0.405
Black, non-Hispanic	5.1% (3.2%, 8.0%)	ref	7.2% (4.6%, 11.0%)	ref	21.3% (17.3%, 26.1%)	ref
Multiple races or any other race, non-Hispanic	5.5% (3.6%, 8.4%)	0.774	7.5% (5.0%, 11.1%)	0.898	25.7% (21.3%, 30.8%)	0.183
Citizenship status		0.002		0.001		<0.001
U.S. citizen	6.7% (5.7%, 7.7%)		8.4% (7.2%, 9.8%)		24.7% (23.0%, 26.5%)	
Not U.S. citizen	14.0% (8.8%, 21.6%)		17.8% (11.7%, 26.0%)		38.7% (32.4%, 45.4%)	
Region		0.020		0.015		<0.001
Northeast ^a	4.0% (2.3%, 7.0%)	ref	6.3% (4.1%, 9.5%)	ref	14.8% (11.8%, 18.3%)	ref
Midwest ^b	7.9% (5.7%, 10.9%)	0.024	6.7% (4.7%, 9.5%)	0.827	24.4% (21.3%, 27.7%)	<0.001
South ^c	6.3% (5.0%, 7.9%)	0.084	8.8% (7.0%, 11.0%)	0.131	27.7% (25.1%, 30.6%)	<0.001
West ^d	9.0% (7.2%, 11.2%)	0.001	11.8% (9.1%, 15.3%)	0.007	29.7% (26.3%, 33.2%)	<0.001
Poverty level		0.001		0.001		0.044
<100% FPL	7.1% (4.9%, 10.2%)	0.090	13.8% (10.0%, 18.9%)	<0.001	26.6% (22.8%, 30.8%)	0.153
101%–200% FPL	6.9% (5.3%, 9.0%)	0.042	10.7% (8.1%, 14.0%)	0.002	27.7% (24.4%, 31.4%)	0.040
201%–300% FPL	10.7% (8.2%, 13.7%)	<0.001	9.5% (7.0%, 12.9%)	0.013	27.7% (24.2%, 31.6%)	0.049
301%–400% FPL	7.9% (5.3%, 11.7%)	0.053	8.2% (5.4%, 12.4%)	0.129	21.5% (17.7%, 25.7%)	0.530
≥401% FPL	4.6% (3.4%, 6.0%)	ref	5.3% (3.9%, 7.2%)	ref	23.0% (20.3%, 26.0%)	ref
Health status factors						
Health status		0.606		0.321		0.103
Very good/excellent	7.1% (6.1%, 8.2%)	0.226	9.1% (7.7%, 10.7%)	0.204	25.8% (23.9%, 27.7%)	0.020
Good	6.6% (4.5%, 9.6%)	0.352	7.1% (4.8%, 10.4%)	0.642	25.6% (22.3%, 29.2%)	0.044

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Table 3. Percentage With a Gap in Care of 1 Year or Greater by Age, 2022–2023 (continued)

Measures	Young adolescents (ages 10–14 years)		Older adolescents (ages 15–18 years)		Young adults (ages 19–25 years)	
	% 95% CI	p-value	% 95% CI	p-value	% 95% CI	p-value
Fair/poor	4.1% ^e (1.3%, 12.4%)	ref	5.7% ^e (2.4%, 13.3%)	ref	18.7% (13.7%, 25.0%)	
Ever been diagnosed with asthma or diabetes		0.045		0.192		<0.001
Yes	4.7% (3.1%, 7.1%)		6.8% (4.4%, 10.2%)		19.4% (16.6%, 22.6%)	
No	7.3% (6.3%, 8.5%)		9.0% (7.8%, 10.5%)		26.9% (25.1%, 28.7%)	
Healthcare access factors						
Health insurance coverage		<0.001		<0.001		<0.001
Private	6.3% (5.1%, 7.6%)	0.568	6.4% (5.2%, 7.8%)	0.131	21.2% (19.4%, 23.2%)	0.833
Public	5.7% (4.5%, 7.2%)	ref	8.4% (6.4%, 11.1%)	ref	20.8% (17.7%, 24.3%)	ref
Uninsured	27.8% (20.2%, 36.8%)	<0.001	34.8% (27.0%, 43.4%)	<0.001	51.5% (46.5%, 56.4%)	<0.001
Has usual source of care other than ED		<0.001		<0.001		<0.001
Yes	5.9% (5.0%, 6.9%)		7.3% (6.2%, 8.5%)		18.5% (16.9%, 20.2%)	
No	35.9% (27.6%, 45.2%)		34.4% (25.5%, 44.5%)		51.2% (47.5%, 54.8%)	

Source: SHADAC analysis of 2021–2022 IPUMS NHIS.

Note: Boldface indicates statistical significance ($p < 0.05$).Universe: civilian noninstitutionalized population aged 10–25 years. ref indicates the reference category. The p -values in gray rows indicate statistical significance of the bivariate relationship between the row variable (e.g., sex) and having a gap in care within age group (chi-square test). For row variables with more than 2 categories, the p -values in white rows indicate the statistical significance of the difference between subgroups in likelihood of a gap in care within age group (2-sided t -test).^aNortheast region: Connecticut, Maine, Massachusetts, New Hampshire, New Jersey, New York, Pennsylvania, Rhode Island, and Vermont.^bMidwest region: Iowa, Indiana, Illinois, Kansas, Michigan, Minnesota, Missouri, Nebraska, North Dakota, Ohio, South Dakota, and Wisconsin.^cSouth region: Alabama, Arkansas, District of Columbia, Delaware, Florida, Georgia, Kentucky, Los Angeles, Maryland, Mississippi, North Carolina, Oklahoma, South Dakota, Tennessee, Texas, Virginia, and West Virginia.^dWest region: Iowa, Indiana, Illinois, Kansas, Michigan, Minnesota, Missouri, Nebraska, North Dakota, Ohio, South Dakota, and Wisconsin.^eEstimate has relative SE >30% and may not be statistically reliable.

ED, emergency department; FPL, federal poverty level; NHIS, National Health Interview Survey; SHADAC, State Health Access Data Assistance Center.

(9.0%, 95% CI=7.2%, 11.2%, $p=0.001$; 11.8%, 95% CI=9.1%, 15.3%, $p=0.007$; and 29.7%, 95% CI=26.3%, 33.2%, $p<0.001$, from youngest to oldest), whereas those in the Northeast were the least likely (4.0%, 95% CI=2.3%, 7.0%; 6.3%, 95% CI=4.1%, 9.5%; and 14.8%, 95% CI=11.8%, 18.3%, from youngest to oldest). In all age groups, those with the highest incomes (301%–400% FPL and >400% FPL) were the least likely to have care gaps. Sex was significantly associated with care gaps among older adolescents and YAs, with males significantly more likely to report care gaps than females (10.1%, 95% CI=8.4%, 12.1% vs 7.2%, 95% CI=5.8%, 8.9%, $p=0.015$, and 32.2%, 95% CI=29.8%, 34.7% vs 18.4%, 95% CI=16.4%, 20.5%, $p<0.001$, respectively). Among measured health characteristics, never having been diagnosed with asthma or diabetes was significantly associated with a higher likelihood of a care gap among

young adolescents (7.3%, 95% CI=6.3%, 8.5% vs 4.7%, 95% CI=3.1%, 7.1%, $p=0.045$) and YAs (26.9%, 95% CI=25.1%, 28.7% vs 19.4%, 95% CI=16.6%, 22.6%, $p<0.001$).

Healthcare access characteristics were consistent predictors of care gaps among all 3 age groups. AYAs without insurance were more likely to have a care gap than those with public coverage (27.8%, 95% CI=20.2%, 36.8%, $p<0.001$; 34.8%, 95% CI=27.0%, 43.4%, $p<0.001$; and 51.5%, 95% CI=46.5%, 56.4%, $p<0.001$, from youngest to oldest), and the percentage uninsured increased with age. Care gaps were similar between those with public and private coverage. Across all age groups, those without a USOC were far more likely to have a gap than those with a USOC at (35.9%, 95% CI=27.6%, 45.2% vs 5.9%, 95% CI=5.0%, 6.9%, $p<0.001$; 34.4%, 95% CI=25.5%, 44.5% vs 7.3%, 95% CI=6.2%, 8.5%, $p<0.001$;

and 51.2%, 95% CI=47.5%, 54.8% vs 18.5%, 95% CI=16.9%, 20.2%, $p<0.001$; from youngest to oldest).

Among all measured groups, 3 subgroups had a care gap rate significantly greater than 30% (2-sided t -test): YAs without insurance (51.5%, 95% CI=46.5%, 56.4%, $p<0.001$), YAs with no USOC (51.2%, 95% CI=47.5%, 54.8%, $p<0.001$), and YAs without U.S. citizenship (38.7%, 95% CI=32.4%, 45.4%, $p=0.009$).

Table 4 shows the ORs of the probability of having a care gap by age group, holding constant all other measured factors. Access to care variables and region of residence were the only factors consistently related to care gaps across all 3 age groups. Those without a USOC had 6.7 times (95% CI=4.0, 11.1; $p<0.001$), 4.6 times (95% CI=2.7, 7.8; $p<0.001$), and 3.7 times (95% CI=3.0, 4.5; $p<0.001$) the odds of having a care gap as those with a USOC, from youngest to oldest. AYAs without insurance had 4.6 times (95% CI=2.3, 8.9; $p<0.001$), 5.3 times (95% CI=3.1, 9.2; $p<0.001$), and 2.5 times (95% CI=1.8, 3.5; $p<0.001$) the odds of having a care gap as those with public coverage, from youngest to oldest. By region, those who lived in the West had 2.1 times (95% CI=1.1, 4.1; $p=0.022$), 1.8 times (95% CI=1.0, 3.3; $p=0.040$), and 2.2 times (95% CI=1.6, 3.1; $p<0.001$) the odds of having a care gap as those who lived in the Northeast, from youngest to oldest.

Other sociodemographic and health status factors that were independently associated with care gaps varied by age group. Among younger adolescents, factors associated with increased odds of having a care gap were having an income between 101% and 200% FPL (OR=1.6, 95% CI=1.0, 2.7; $p=0.050$) or between 201% and 300% FPL (OR=2.3, 95% CI=1.5, 3.7; $p<0.001$) compared with an income $>400\%$ FPL. The only other factor associated with lower odds of having a care gap was being sampled in 2023 (OR=0.7, 95% CI=0.5, 0.9; $p=0.015$) compared with being sampled in 2022.

Among older adolescents, the only additional sociodemographic and health status factors associated with increased odds of care gaps were being male (OR=1.4, 95% CI=1.0, 2.0; $p=0.030$) compared with being female and having an income below 100% FPL (OR=2.6, 95% CI=1.4, 4.7; $p=0.002$) and between 101% and 200% FPL (OR=1.8, 95% CI=1.0, 2.9; $p=0.033$) compared with income $>400\%$ FPL. Having an income below 100% FPL was not associated with care gaps among other age groups.

Among YAs, the additional sociodemographic factors associated with care gaps were being male (OR=1.9, 95% CI=1.6, 2.3; $p<0.001$) compared with being female, having never been diagnosed with asthma or diabetes (OR=1.4, 95% CI=1.1, 1.8; $p=0.002$) compared with ever having been diagnosed with these conditions, and living

in the Midwest (OR=1.8, 95% CI=1.3, 2.6; $p=0.001$) or the South (OR=1.8, 95% CI=1.3, 2.5; $p<0.001$) compared with living in the Northeast.

DISCUSSION

More than 1 in 5 YAs aged 19–25 years experienced a care gap of 1 or more years—a rate more than 3 times higher than that of younger adolescents aged 10–14 years and more than 2 times higher than that of older adolescents aged 15–18 years. While controlling for multiple sociodemographic and health status characteristics, only healthcare access measures (i.e., lack of insurance and not having a USOC) and residing in the West versus in the Northeast were consistently associated with care gaps across all 3 age groups.

Lack of insurance and absence of a USOC were highest among YAs, underscoring the vulnerability for gaps in care among YAs compared with that among adolescents. Healthcare services during adolescence and early adulthood can address important health-related needs and habits for all AYAs, including diet, exercise, and sexual and reproductive health that impact longer-term health, in addition to screenings for other health risks and behaviors that are strongly associated with health status in adulthood.¹⁷ Financial barriers can impact access to healthcare services, thus making continuity of coverage a critical issue to address as adolescence age into adulthood.

A transition that occurs in the age group of 19–25 years is the dramatic decrease in Medicaid coverage.¹⁸ Many YAs aged between 19 and 21 years lose childhood Medicaid and Children's Health Insurance Program eligibility status and face more restrictive adult income eligibility criteria. Currently, as of May 2025, there are limited public coverage options in the 10 states that have not expanded Medicaid (Alabama, Florida, Georgia, Kansas, Mississippi, South Carolina, Tennessee, Texas, Wisconsin, and Wyoming).^{19,20} The current non-expansion states are disproportionately located in the South, which is home to about 39% of AYAs. In these states, many YAs with incomes $<100\%$ FPL are exposed to a coverage gap because they are ineligible for Medicaid and do not qualify for ACA Marketplace premium subsidies, which require a household income of 100%–400% FPL. For AYAs without U.S. citizenship, the options for accessing coverage are even more scarce.²¹ Compared with those without U.S. citizenship, AYAs with U.S. citizenship have been found to be 5–15 times as likely to have any insurance as adolescents and emerging adults.²² These represent major threats to the health and financial well-being of YAs. Public agencies, health systems, and advocacy groups should provide guidance

Table 4. Probability of a 1-Year or Greater Gap in Care by Age, ORs

Measures	Young adolescents (ages 10–14 years) OR (95% CI) p-value	Older adolescents (age 15–18 years) OR (95% CI) p-value	Young adults (age 19–25 years) OR (95% CI) p-value
Year-fixed effect: 2023 (versus Year 2022)	0.683 (0.503, 0.928) 0.015	1.068 (0.765, 1.491) 0.698	0.954 (0.777, 1.172) 0.656
SES factors			
Male (versus female)	0.910 (0.667, 1.240) 0.548	1.430 (1.036, 1.973) 0.030	1.899 (1.556, 2.317) <0.001
Hispanic (versus Black, non-Hispanic)	1.186 (0.668, 2.106) 0.559	1.421 (0.820, 2.463) 0.210	1.225 (0.866, 1.733) 0.250
White, non-Hispanic (versus Black, non-Hispanic)	1.325 (0.744, 2.360) 0.339	1.271 (0.742, 2.176) 0.382	1.098 (0.780, 1.544) 0.592
Other/multiple, non-Hispanic (versus Black, non-Hispanic)	1.009 (0.552, 1.846) 0.977	1.143 (0.564, 2.317) 0.709	1.234 (0.817, 1.863) 0.317
U.S. citizen (versus not U.S. citizen)	0.997 (0.426, 2.331) 0.994	1.685 (0.784, 3.621) 0.181	1.094 (0.787, 1.521) 0.593
Midwest ^a (versus Northeast ^b)	1.854 (0.916, 3.754) 0.086	1.192 (0.649, 2.190) 0.570	1.841 (1.305, 2.597) 0.001
South ^c (versus Northeast)	1.314 (0.691, 2.497) 0.405	1.150 (0.654, 2.022) 0.627	1.809 (1.301, 2.515) <0.001
West ^d (versus Northeast)	2.146 (1.116, 4.128) 0.022	1.832 (1.028, 3.263) 0.040	2.221 (1.575, 3.134) <0.001
<100% FPL (versus ≥401% FPL)	1.522 (0.778, 2.974) 0.219	2.562 (1.396, 4.702) 0.002	0.881 (0.650, 1.194) 0.414
101%–200% FPL (versus ≥401% FPL)	1.647 (1.001, 2.709) 0.050	1.754 (1.046, 2.940) 0.033	0.915 (0.680, 1.231) 0.555
201%–300% FPL (versus ≥401% FPL)	2.328 (1.482, 3.656) <0.001	1.563 (0.953, 2.562) 0.077	1.034 (0.783, 1.364) 0.813
301%–400% FPL (versus ≥401% FPL)	1.607 (0.917, 2.816) 0.097	1.351 (0.754, 2.419) 0.311	0.800 (0.587, 1.090) 0.158
Health status factors			
Health status good/very good/excellent (versus fair/poor)	1.564 (0.543, 4.502) 0.407	2.051 (0.899, 4.676) 0.088	1.478 (0.991, 2.205) 0.055
Never diagnosed with asthma or diabetes (versus ever diagnosed with asthma or diabetes)	1.438 (0.866, 2.388) 0.161	1.224 (0.742, 2.019) 0.428	1.436 (1.139, 1.811) 0.002
Healthcare access factors			
Private coverage (versus public coverage)	1.261 (0.863, 1.842) 0.230	1.197 (0.785, 1.825) 0.403	0.889 (0.680, 1.163) 0.391
Uninsured (versus public coverage)	4.562 (2.344, 8.881) <0.001	5.313 (3.054, 9.246) <0.001	2.512 (1.808, 3.489) <0.001

(continued on next page)

Table 4. Probability of a 1-Year or Greater Gap in Care by Age, ORs (*continued*)

Measures	Young adolescents (ages 10–14 years) OR (95% CI) <i>p</i> -value	Older adolescents (age 15–18 years) OR (95% CI) <i>p</i> -value	Young adults (age 19–25 years) OR (95% CI) <i>p</i> -value
No usual source of care (versus has usual source of care)	6.678 (4.030, 11.066) <0.001	4.580 (2.703, 7.759) <0.001	3.668 (2.989, 4.502) <0.001
Constant	0.010 (0.002, 0.048) <0.001	0.005 (0.001, 0.020) <0.001	0.042 (0.021, 0.086) <0.001
Observations	4,072	3,378	3,640

Source: SHADAC Analysis of 2022–2023 IPUMS NHIS.

Note: Boldface indicates statistical significance ($p < 0.05$).

Universe: civilian noninstitutionalized population aged 10–25 years.

^aMidwest region: Iowa, Indiana, Illinois, Kansas, Michigan, Minnesota, Missouri, Nebraska, North Dakota, Ohio, South Dakota, and Wisconsin.^bNortheast region: Connecticut, Maine, Massachusetts, New Hampshire, New Jersey, New York, Pennsylvania, Rhode Island, and Vermont.^cSouth region: Alabama, Arkansas, District of Columbia, Delaware, Florida, Georgia, Kentucky, Los Angeles, Maryland, Mississippi, North Carolina, Oklahoma, South Dakota, Tennessee, Texas, Virginia, and West Virginia.^dWest region: Iowa, Indiana, Illinois, Kansas, Michigan, Minnesota, Missouri, Nebraska, North Dakota, Ohio, South Dakota, and Wisconsin.

FPL, federal poverty level; NHIS, National Health Interview Survey; SHADAC, State Health Access Data Assistance Center.

and outreach to AYAs and their caregivers 12–24 months before they lose their childhood eligibility, including options for other Medicaid or Marketplace coverage.²⁰

With respect to having a USOC, most AYAs leave their pediatric HCPs between ages 18 and 21 years.²³ This often occurs without any transition preparation. More than 4 of 5 adolescents aged 12–17 years have not received transition preparation guidance from their HCPs.²⁴ Systematic reviews show that a structured process for planning, transfer, and integration into adult care²⁵ improves outcomes.^{26,27} Without transition preparation, continuity of care can be disrupted when health-care needs are heightening.²⁷ Remaining connected to care is especially important because preventive care visits include screenings and referrals for behavioral, emotional, and social needs. Population health efforts need to anticipate and reduce care gaps, recognizing that those with a history of care gaps in pediatric care are likely to continue experiencing care gaps going into adult care.^{28,29} Connecting AYAs to federally qualified health centers is important. States should consider increasing the coordination between school-based health and mental health programs and local federally qualified health centers to ensure access to adult primary care after high school.

HCPs have a key role in supporting AYAs to remain engaged with their care during transition.²⁵ Although most states in the West have expanded Medicaid, this study revealed that AYAs living in the West have higher odds of care gaps than those living in the Northeast. One potential contributing factor could be regional

physician shortage ratios, which are forecasted to be the greatest in the West by 2030.³⁰ Policymakers should consider providing greater support directed toward the national shortage³¹ of primary care workforce to address care gaps.^{32,33}

Limitations

This study was limited by several factors. Care gap measures are based on self-reported data; it is possible that respondents may inaccurately recall the date of their (or their child's) last HCP visit. In addition, the survey respondent changes from parent to self for those aged ≥18 years, which could lead to different responses for adolescents versus YAs. In addition, broader analysis by conditions across all 3 age groups was not possible because these questions are not asked of those aged <18 years. Expanding the NHIS chronic condition questions for children and adults and providing more detailed and consistent YA age groupings in published articles and government reports would help to shed light on care gaps. The care gap measures cannot distinguish between the type of visit or setting or whether the gap represents delayed or foregone care. Finally, the NHIS does not measure health behaviors or attitudes and values related to health care. These factors, along with other unmeasured family and sociodemographic factors, may influence the likelihood of AYAs experiencing a care gap.

CONCLUSIONS

This analysis identified systemic access barriers—lack of insurance and not having a USOC—as the main

determinants of care gaps among AYAs. Policymakers, payers, and clinicians should increase their attention to AYAs with or at risk of lapses in coverage and care, including those who are without a medical home, transitioning from pediatric to adult care, losing childhood Medicaid or Children's Health Insurance Program eligibility status, and residing in states not expanding Medicaid.

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SUPPLEMENTAL MATERIAL

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