

# Trends In Youth Suicide, Anne Arundel County, 2017-2021

Anne Arundel County Department of Health  
Office of Assessment and Planning



Prepared By:

Isabel Damazo, MPH and Kate Schneider, MPH

[epiteam@aacounty.org](mailto:epiteam@aacounty.org)

# Introduction

Deaths by suicide and suicide attempts are an ever-present concern in communities across the United States. In 2021, over 48,000 individuals died by suicide in the United States, an average of 132 deaths by suicide per day.<sup>1</sup> Death by suicide is a leading cause of death among youth in the country; in 2021, it was the second leading cause of death among youth aged 10-24 years.<sup>2</sup> In 2021, the rate of death by suicide among Black youth aged 10-24 years increased by 37% compared to the 2018 rates.<sup>1</sup>

Across all U.S. states, Maryland had the fourth lowest suicide mortality rate in 2021.<sup>3</sup> However, suicide was still a leading cause of death among Marylanders aged 15-64 years.<sup>4</sup> The mortality rate for suicide in Maryland among all ages was 10.1 per 100,000 population, which was an increase from 9.6 per 100,000 in 2020.<sup>4</sup>

In Anne Arundel County in 2021, suicide was the ninth leading cause of death among all age groups.<sup>2</sup> From 2017-2021, 393 county residents died by suicide; 12% of these deaths were among youths aged 10-24 years (N=49). Though male youth were more than three times as likely to die by suicide compared to female youth, female youth were more than three times as likely as male youth to visit the emergency department for a suicide attempt.

Suicidal ideation is common among youth in the county. The 2021 Maryland Youth Risk Behavior Survey asked students if they had considered attempting suicide or planned a suicide attempt in the year prior to the survey. Nearly one in five high school students reported seriously considering suicide. Fifteen percent of high school students had planned a suicide attempt in the year prior to the survey. Suicidal ideation was also higher in lesbian, gay, bisexual and questioning high school students compared to heterosexual students.

This report analyzes data on youth suicide and suicide attempts. These data help to define the scope of the problem, identify at-risk populations and inform future programmatic decisions around suicide surveillance and intervention in the community.

Contact the 988 Suicide and Crisis Lifeline if you are experiencing mental health-related distress or are worried about a loved one who may need crisis support. **988 is confidential, free and available 24/7/365.**

Call or text 988,  
or chat at  
[988lifeline.org](https://988lifeline.org)

# Methodology

Mortality data were obtained from the 2017-2021 Anne Arundel County death certificate data files provided by the Maryland Department of Health (MDH), Vital Statistics Administration (VSA). Deaths by suicide were classified with the *International Statistical Classification of Diseases and Related Health Problems, Tenth Revision (ICD-10)* underlying cause-of-death codes for intentional self-harm (suicide): U03, X60-X84, Y87.0. Age-adjusted rates were obtained from the Vital Statistics Annual Reports.

Hospitalization and emergency department encounter data were obtained from the 2017-2021 inpatient and outpatient hospital discharge files from the Maryland Health Services Cost Review Commission (HSCRC) using the *International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM)* codes for medical coding and reimbursement purposes. A suicide attempt encounter was defined as either the primary discharge diagnosis, any of the 28 secondary diagnoses, or the E-code fields indicating one of the ICD-10 codes listed in Appendix A. Encounters with a code of non-suicidal self-harm (R45.88) was excluded from the analysis.

Hospital discharge data only provides information on Anne Arundel County residents with encounters or hospitalizations in Maryland hospitals. Therefore, residents, such as college-age students, with encounters or admissions for suicide attempts in other states or the District of Columbia were not included in these estimates.

When analyzing the method of suicide attempt, poisoning was defined as: intentional self-harm via poisoning by drugs, medications, and biological substances; and intentional self-harm via the toxic effects of nonmedicinal substances (e.g. alcohol, carbon monoxide).<sup>5</sup>

Data from police interactions were provided by the Anne Arundel County Police Department. Data on school health room interactions were provided by the Anne Arundel County Department of Health, Bureau of School Health Services. Youth risk behavior data were adapted from the 2021 Youth Risk Behavior Survey (YRBS). Population data was extracted from CDC WONDER and the American Community Survey five-year estimate tables.

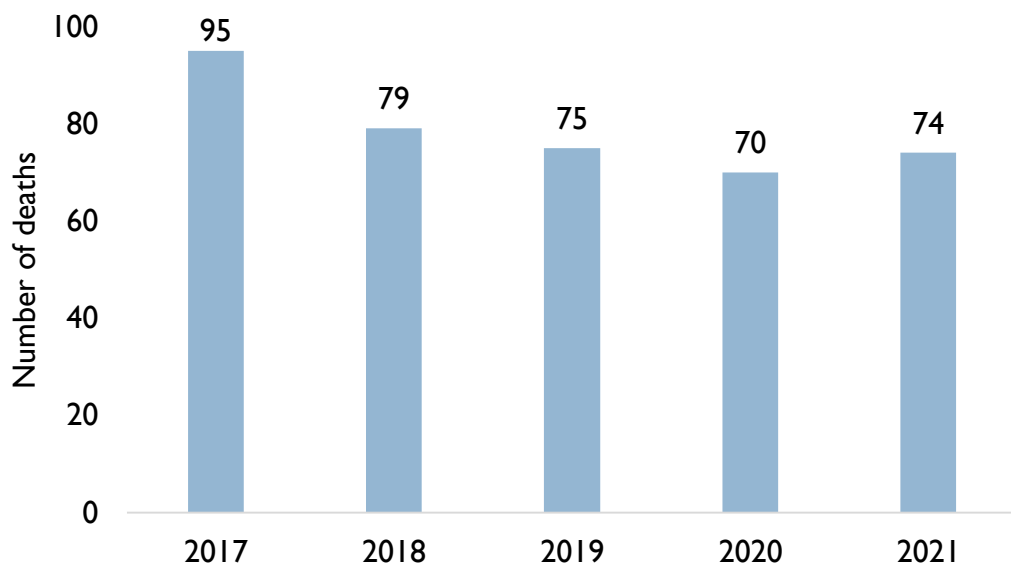
## Definitions:

- Youth: individuals ages 10 to 24 years residing in Anne Arundel County.
- Death by suicide: death caused by self-directed injurious behavior with any intent to die as a result of the behavior.
- Suicide attempt: a non-fatal, self-directed, potentially injurious behavior with intent to die as a result of the behavior. A suicide attempt might not result in injury.

# Suicide Among All Ages in Anne Arundel County

In 2021, suicide was the ninth leading cause of death in Anne Arundel County.<sup>2</sup> The number of deaths by suicide decreased each year from 2017 to 2020, but the number of deaths by suicide rose slightly from 2020 to 2021 (Figure 1).

Figure 1. Number of Deaths by Suicide Among All Ages, Anne Arundel County, 2017-2021



# Suicide Among All Ages in Anne Arundel County

Of counties in Maryland reporting at least 20 deaths by suicide in 2021, Anne Arundel County had the fourth-highest rate of deaths by suicide, below Carroll, Harford and Washington counties (Figure 2). The rate of death in Anne Arundel County is consistently higher than the state rate, but slightly lower than the national rate (Figure 3).

Figure 2. Rates of Deaths by Suicide per 100,000 by County, Maryland, 2021

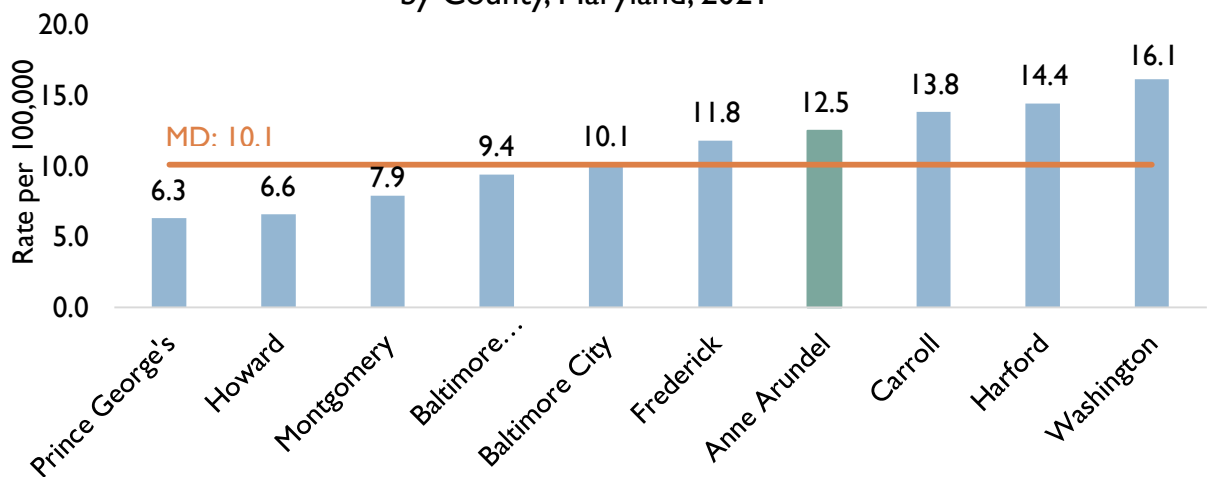
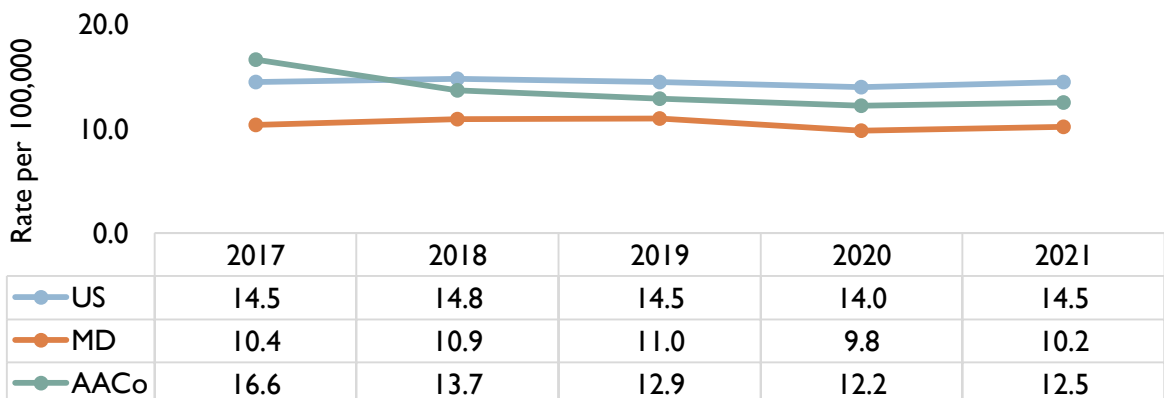


Figure 3. Rates of Deaths by Suicide per 100,000, 2017-2021



# Youth Demographics in Anne Arundel County

Youth aged 10-24 years accounted for 18.5% (N=109,435) of the population in Anne Arundel County in 2021 (Table 1). While the majority of youth in the county are white, non-Hispanic (58.9%), the Black, Hispanic and Asian youth population in the county grew between 2017 and 2021. Approximately one in five youth in the county are Black and one in ten are Hispanic.

Table 1. Demographics of Youth Population in Anne Arundel County, 2017-2021

Estimates	2017	2018	2019	2020	2021
Total County Population	571,359	575,641	579,895	588,769	590,336
Youth Population	106,214	106,345	106,651	109,475	109,435
Male Youth	53.1%	53.1%	53.0%	52.9%	52.9%
Female Youth	46.9%	46.9%	47.0%	47.1%	47.1%
<b>Race/Ethnicity</b>					
Non-Hispanic White Youth	62.7%	61.6%	60.6%	59.8%	58.9%
Non-Hispanic Black Youth	18.4%	18.6%	18.8%	18.9%	19.0%
Hispanic Youth	10.0%	10.6%	11.2%	11.8%	12.3%
Non-Hispanic Asian Youth	3.5%	3.6%	3.6%	3.7%	3.8%
<b>Age Groups</b>					
10-14 years	33.3%	33.7%	33.7%	34.8%	34.7%
15-19 years	32.1%	32.1%	32.1%	31.9%	32.0%
20-24 years	34.6%	34.2%	34.2%	33.3%	33.3%

# Youth Suicides in Anne Arundel County

From 2017-2021, 49 youths aged 10-24 in Anne Arundel County died by suicide; this accounted for 12% percent of all deaths by suicide among county residents. The rate of deaths by suicide among youth peaked at 11.0 deaths per 100,000 in 2017-2019, and has decreased since then to 7.1 deaths per 100,000 in 2019-2021 (Figure 4).

From 2017-2021, the death rate was higher among males and among youths aged 20-24 years (Figure 5). The rates of deaths by suicide in this period among non-Hispanic white youths was 11.3 deaths per 100,000 population, slightly higher than the overall rate (9.2 per 100,000) among youth.

Figure 4. Three-Year Rolling Rate of Deaths by Suicide Among Youth Ages 10-24 per 100,000 Youth, Anne Arundel County

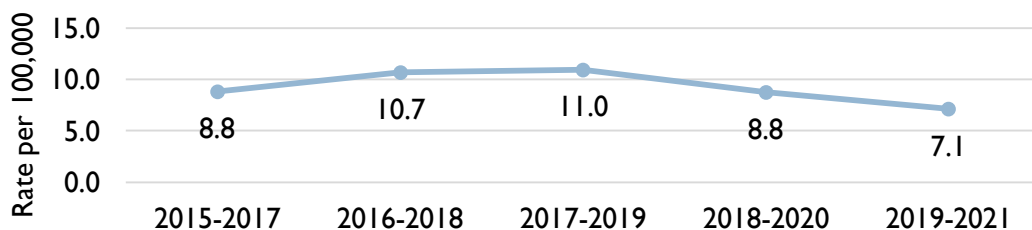
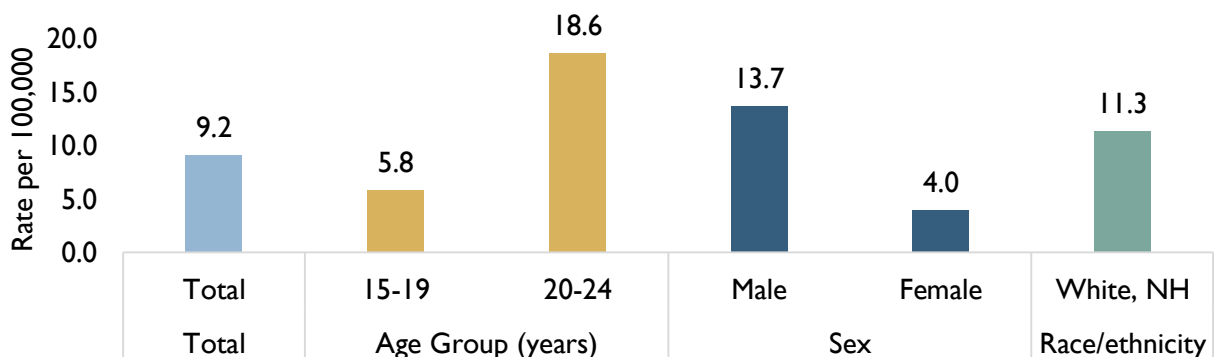


Figure 5. Rate of Deaths by Suicide Among Youth Ages 10-24 per 100,000 Youth by Demographics, Anne Arundel County, 2017-2021\*



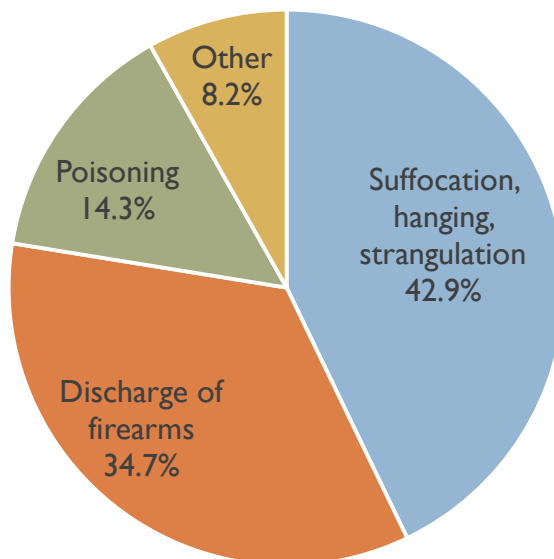
\*Rates based on numerators less than 10 are not presented due to instability.  
Data sources: MDH VSA Death Certificate Files, 2017-2021; CDC WONDER

# Youth Suicides in Anne Arundel County

Over two-thirds (71%) of deaths by suicide among youth in the county from 2017-2021 occurred in a residence, and 18% of deaths occurred in an open space.

The primary method of death by suicide among youth was suffocation, including hanging and strangulation (43%), followed by firearms (35%) (Figure 6). The proportion of deaths by suicide attributable to firearms increased slightly from the 2012-2016 period (33%). Deaths by suicide due to poisoning included drugs, alcohol, carbon monoxide and other gases, pesticides, and other chemicals.

Figure 6. Deaths by Suicide by Method Among Youth, 2017-2021, Anne Arundel County (N=49)

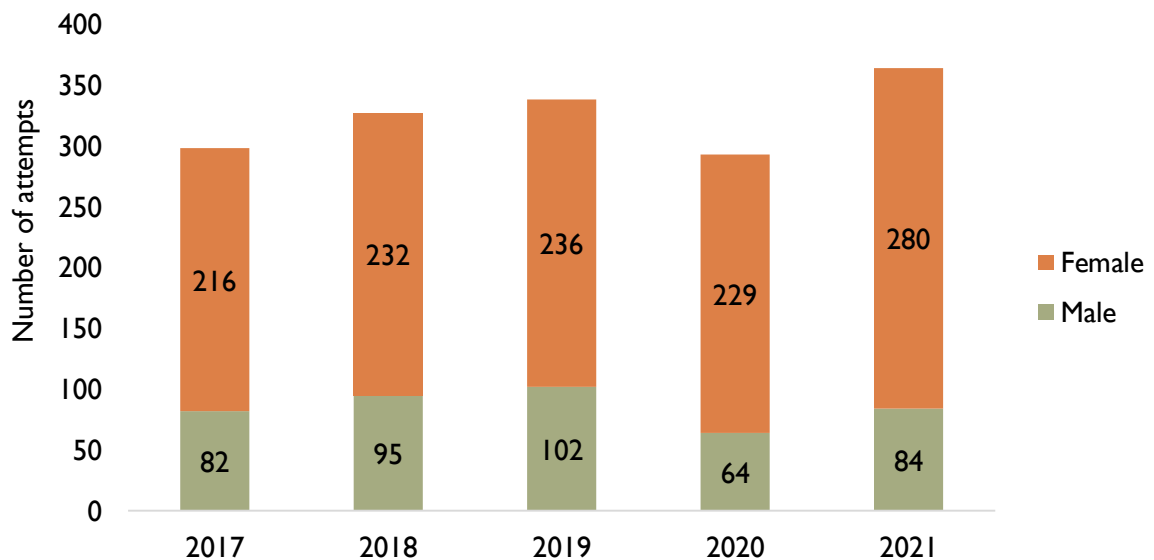




# Youth Suicide Attempts Emergency Department Visits

From 2017-2021, there were 1,620 emergency department (ED) visits in Maryland hospitals for suicide attempts by Anne Arundel County youth. The number of suicide-related ED visits among youth in the county in this period was highest in 2021, at 364 attempts (Figure 7). There were more suicide-related ED visits between 2017-2021 compared to the previous five-year period (1,306 visits from 2012-2016).

Figure 7. Total Number of Suicide-Related ED Visits Among Youth by Year and Sex, Anne Arundel County, 2017-2021



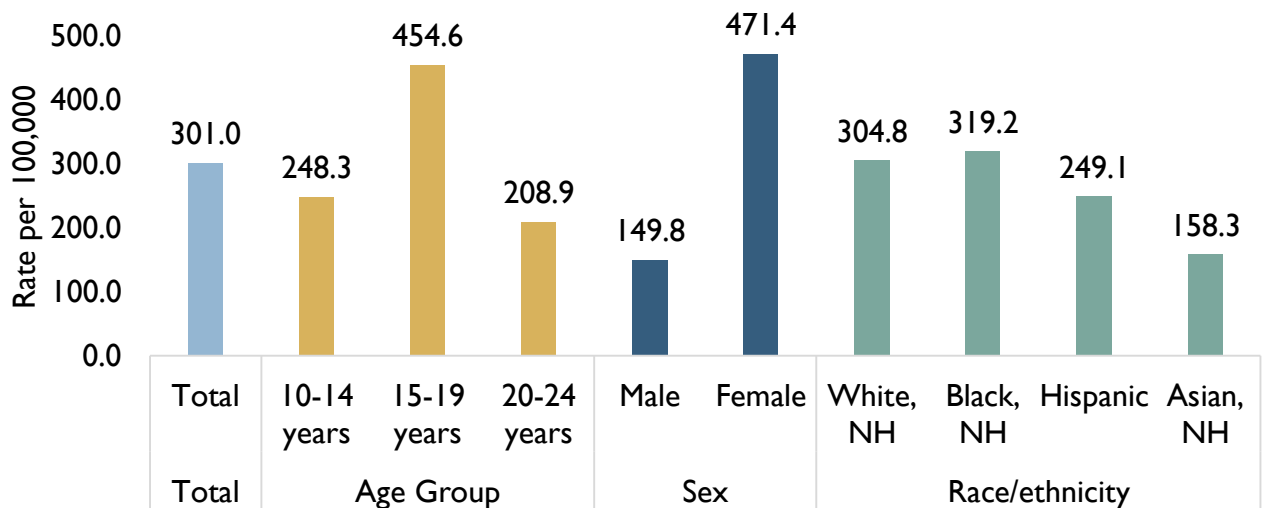
# Youth Suicide Attempts Emergency Department Visits

The overall rate of suicide-related ED visits from 2017-2021 among Anne Arundel County youth was 301.0 visits per 100,000 youth. Between 2017-2021, youth aged 15-19 had the highest rate of suicide-related ED visits compared to other youth age groups (454.6 visits per 100,000 population) (Figure 8). Females visited the ED at higher rates than males; females aged 15-19 years had an ED visit rate almost three times that of males in the same age group.

Female youth visited the ED for suicide attempts **three times more often** than male youth

Non-Hispanic (NH) Black youth had the highest suicide-related ED visit rate (319.2 per 100,000), followed by NH white youth (304.8 per 100,000) and Hispanic youth (249.1 per 100,000) (Figure 8). NH Asian youth had the lowest visit rate (158.3 per 100,000).

Figure 8. Rate of Suicide-Related ED Visits Among Youth Ages 10-24 per 100,000 Youth, Anne Arundel County, 2017-2021

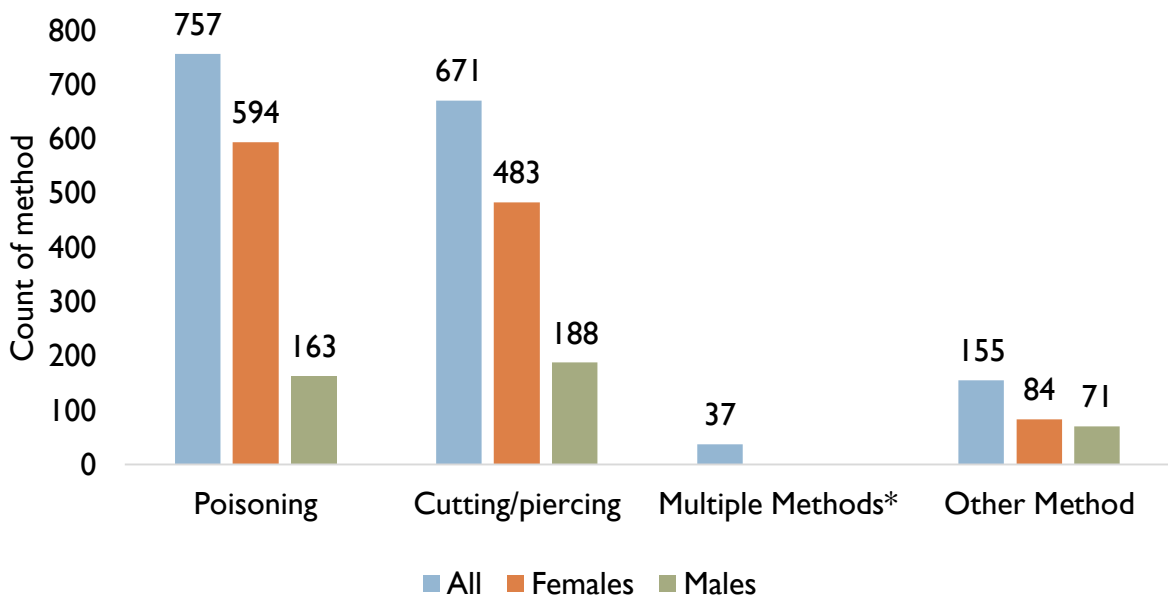


# Youth Suicide Attempts Emergency Department Visits

The primary methods of attempting suicide among youth did not change from the previous five-year period. Poisoning and cutting/piercing represented 88% of suicide-related ED visits from 2017-2021 (Figure 9). Among females, poisoning was the method most commonly used (594), while cutting/piercing was the primary method of among males (188). The ICD-10 codes used to define the methods are described in Appendix A. Counts of firearm injuries and suffocation injuries leading to ED visits could not be presented due to the small number of encounters.

Suffocation, including hanging and strangulation, and injuries from firearms were not frequently used methods involved in ED visits, even though they were the leading causes of deaths by suicide in this time period.

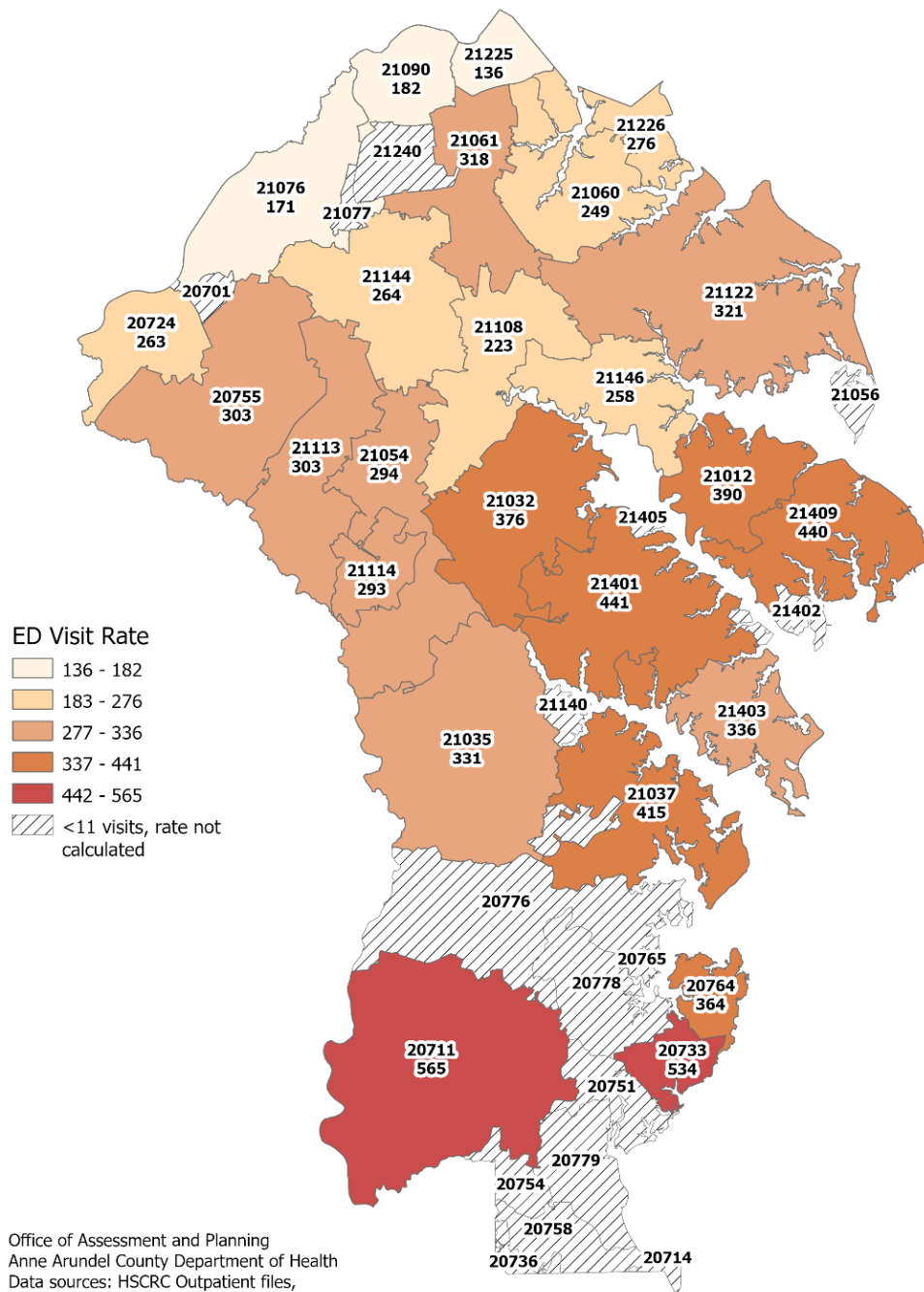
Figure 9. Suicide-Related ED Visits for Youth by Method and Sex, Anne Arundel County, 2017-2021



\*Counts of multiple methods are not presented for males and females due to data suppression requirements.  
Data source: HSCRC Outpatient Files, 2017-2021

# Suicide Emergency Department Visit Rates by ZIP Code

Figure 10. Rate per 100,000 of Suicide-Related ED Visits Among Youth Ages 10-24 by ZIP Code, Anne Arundel County, 2017-2021



The rate of suicide-related ED visits was highest among youth living in the Lothian (20711), Churchton (20733), Annapolis (21401 and 21409) and Edgewater (21037) ZIP Codes (Figure 10).

# Suicide Emergency Department Visit Counts and Rates by ZIP Code

Table 2. Counts and Rates of Suicide-Related ED Visits Among Youth Ages 10-24 by ZIP Code, Anne Arundel County, 2017-2021

ZIP Code	Name	Suicide Attempts	Rate per 100,000 Youth
20711	Lothian	41	564.7
20733	Churchton	11	534.2
21401	Annapolis	110	441.3
21409	Annapolis	85	439.5
21037	Edgewater	80	414.6
21012	Arnold	84	389.5
21032	Crownsville	20	376.1
20764	Shady Side	14	363.8
21403	Eastport	81	336.0
21035	Davidsonville	29	330.9
21122	Pasadena	181	321.3
21061	Glen Burnie	168	317.8
20755	Fort George G Meade	46	303.1
21113	Odenton	91	303.1
21054	Gambrills	31	294.4
21114	Crofton	75	292.5
21226	Curtis Bay	15	276.0
21144	Severn	90	264.5
20724	Laurel	48	262.9
21146	Severna Park	71	258.3
21060	Glen Burnie	76	248.9
21108	Millersville	42	223.2
21090	Linthicum Heights	16	181.9
21076	Hanover	25	170.7
21225	Brooklyn	46	136.2
20701	Annapolis Junction	<11	Suppressed
20714	North Beach	<11	Suppressed
20736	Owings	<11	Suppressed
20751	Deale	<11	Suppressed
20754	Dunkirk	<11	Suppressed
20758	Friendship	<11	Suppressed
20765	Galesville	<11	Suppressed
20776	Harwood	<11	Suppressed
20778	West River	<11	Suppressed
20779	Tracys Landing	<11	Suppressed
20794	Jessup	<11	Suppressed
21056	Gibson Island	<11	Suppressed
21077	Harmans	<11	Suppressed
21140	Riva	<11	Suppressed
21240	BWI Airport	<11	Suppressed
21402	Naval Academy	<11	Suppressed

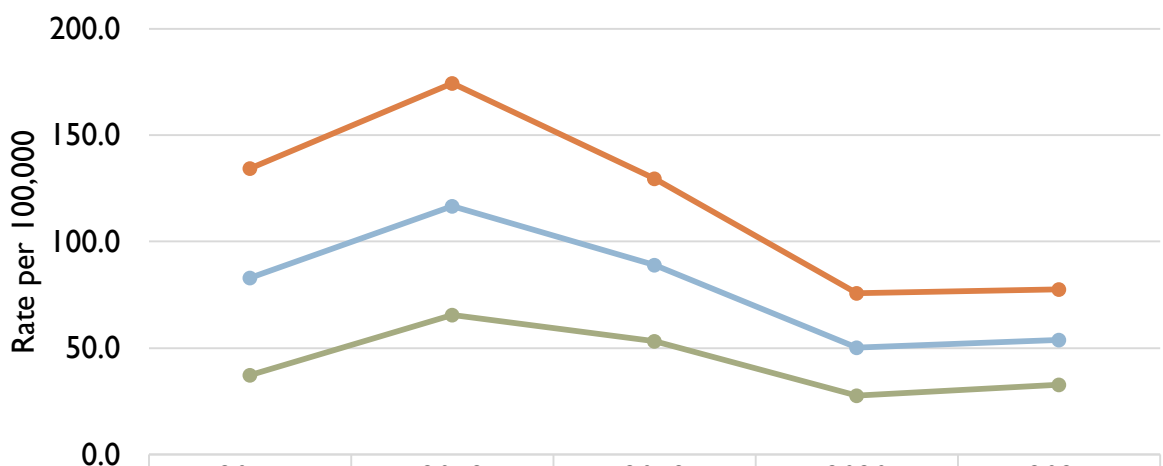
# Youth Suicide Inpatient Hospitalizations

From 2017-2021, the overall rate of youth suicide inpatient hospitalizations was 78.2 per 100,00. It was almost three times higher among females compared to males.

From 2017-2021, there were 421 suicide attempts by youths residing in Anne Arundel County that led to inpatient hospitalizations. A rate of 78.2 hospitalizations per 100,000 youth. In each year, females had higher rates of inpatient hospitalizations compared to males (Figure 11). The rate of hospitalizations due to suicide attempts in this period was lowest for both males and females in 2020.

From 2017-2021, non-Hispanic Black youth were hospitalized for suicide attempts at a higher rate (103.1 per 100,000) compared to non-Hispanic white (75.9 per 100,000) and Hispanic youth (59.8 per 100,000).

Figure 11. Youth Suicide Inpatient Hospitalizations per 100,000 Youth, Anne Arundel County, 2017-2021

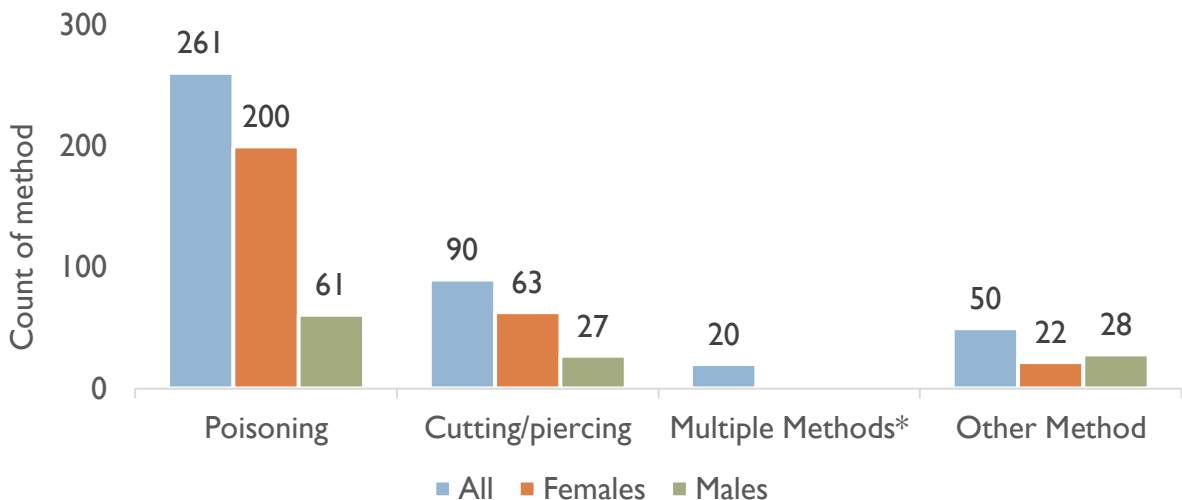


	2017	2018	2019	2020	2021
Total rate	82.9	116.6	89.1	50.2	53.9
Female	134.4	174.3	129.6	75.6	77.5
Male	37.3	65.6	53.1	27.6	32.8

# Youth Suicide Attempts Leading to Inpatient Hospitalizations

Similar to the methods of suicide attempts among ED visits, poisoning and cutting/piercing were the primary methods of suicide attempt leading to inpatient hospitalizations among youth in the county. (Figure 12). From 2012-2016, poisoning comprised 60% of suicide attempts. Poisoning made up a similar proportion of hospitalizations (62%) from 2017-2021. Poisoning was the most common method of suicide attempt reported among both males and females. Other methods, such as suffocation and firearm injuries, cannot be individually displayed due to the small number of related hospitalizations.

Figure 12. Suicide Attempts Leading to Hospitalizations Among Youth by Method and Sex, Anne Arundel County, 2017-2021 (N=421)



\*Counts of multiple methods are not presented for males and females due to data suppression requirements.  
Data source: HSCRC Inpatient Files, 2017-2021

# School Health Room Visits for Crisis Interventions in Anne Arundel County Public Schools (Grades K-12)

School nurses in the Anne Arundel County Public School (AACPS) system perform crisis interventions for students with social/emotional problems and students making suicidal threats. Crisis interventions for suicidal threats peaked in the 2018-2019 school year with 142 encounters (Figure 13). The number of crisis interventions for social/emotional problems peaked in the 2022-2023 school year, with 5,326 encounters (Figure 14). The data includes interventions in all elementary, middle and high schools in the county.

\*Data for the 2019-2020 and 2020-2021 school years are limited due to the onset of the COVID-19 pandemic and related school closures. AACPS closed on March 9, 2020, and did not reopen to in-person learning until March 2021. Schools had a staggered reopening and approximately 30% of students returned to in-person classrooms.

Figure 13. Crisis Interventions for Suicidal Threats, AACPS, Grades K-12, 2013-2023

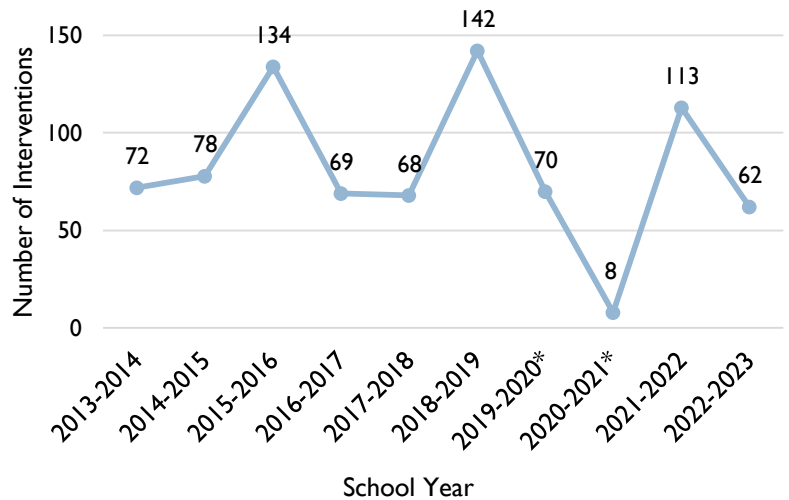
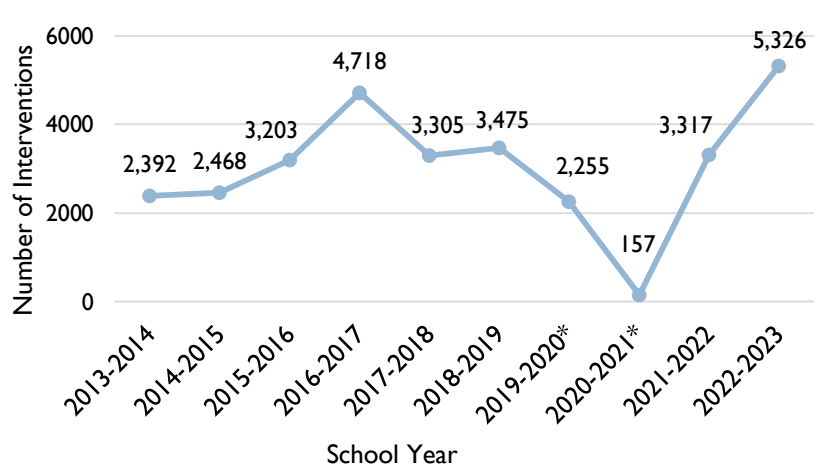


Figure 14. Crisis Interventions for Social/Emotional Problems, AACPS, Grades K-12, 2013-2023





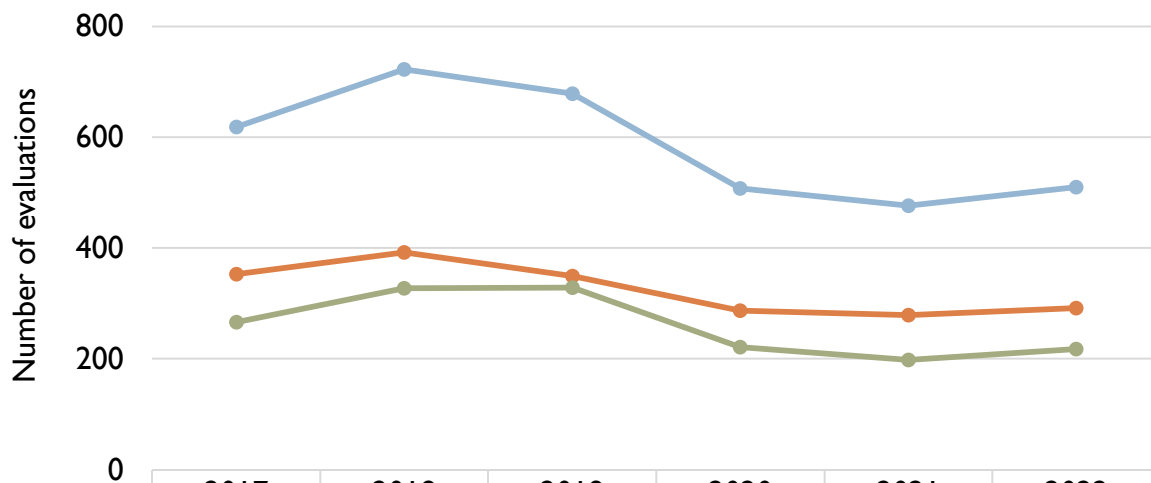
# Emergency Evaluations Reported by Anne Arundel County Police

Anne Arundel County Police perform emergency evaluations for youth aged 17 years and younger exhibiting suicidal or out of control behavior. The number of emergency evaluations performed from 2017-2022 peaked in 2018, with 722 total evaluations (Figure 15). For each year in this period, more emergency evaluations were performed for females than males. Overall, 56% of the evaluations performed in this time period were for females.

From 2017-2022, 63% of the juveniles evaluated were white, and 29% were Black.

The data do not capture the ethnicity of the individuals being evaluated, and does not include emergency evaluations performed by the Annapolis Police Department.

Figure 15. Emergency Evaluations by Anne Arundel County Police for Juvenile Suicidal or Out of Control Behavior, 2017-2022



# Maryland Youth Risk Behavior Survey

The Maryland Youth Risk Behavior Survey (YRBS) was administered in the fall of the 2021-2022 school year to high school and middle school students in the state. In Anne Arundel County Public Schools (AACPS), YRBS surveyed 1,335 high school students and 1,109 middle school students. The responses related to suicide and bullying are not directly comparable between middle and high school students since there are differences in the questions; for example, middle school students were asked if they ever had experienced these behaviors, while high school students were asked if they had experienced these behaviors in the 12 months prior to the survey.

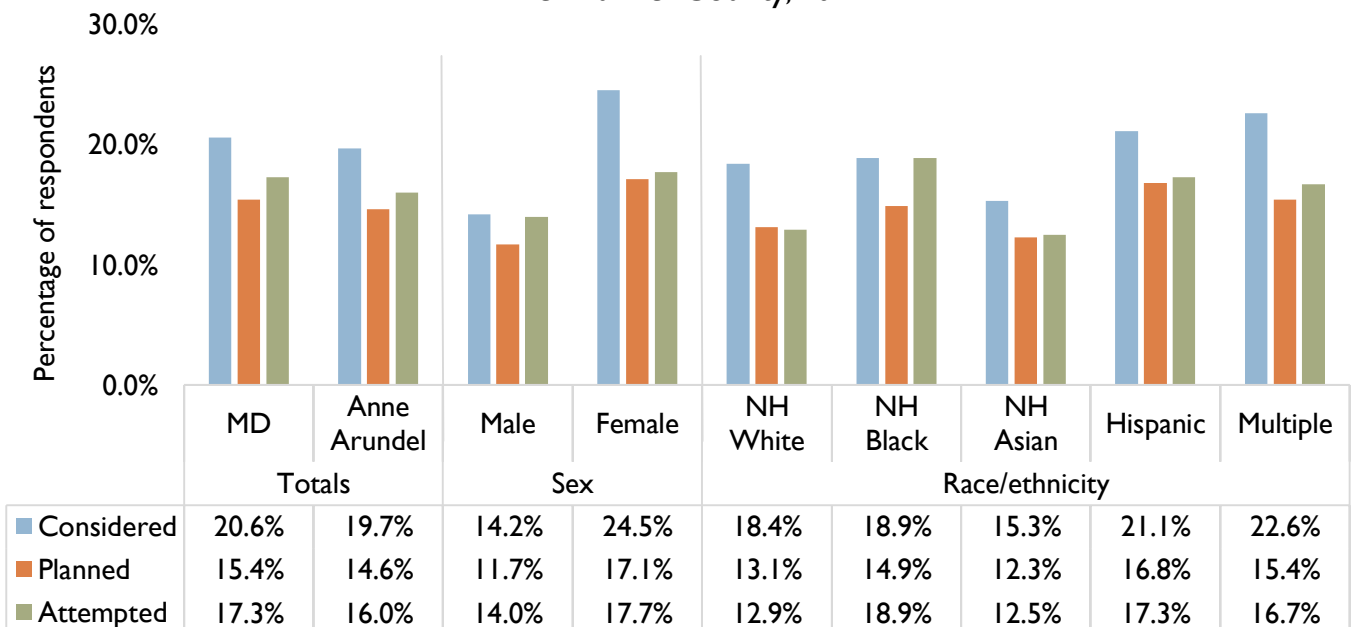
Topic	Questions for middle school students	Questions for high school students
Depression and suicide	<ul style="list-style-type: none"> <li>• During the past 12 months, did you ever feel so sad or hopeless almost every day for two weeks or more in a row that you stopped doing some usual activities?</li> <li>• Have you ever seriously thought about killing yourself?</li> <li>• Have you ever made a plan about how you would kill yourself?</li> <li>• Have you ever tried to kill yourself?</li> </ul>	<ul style="list-style-type: none"> <li>• During the past 12 months, did you ever feel so sad or hopeless almost every day for two weeks or more in a row that you stopped doing some usual activities?</li> <li>• During the past 12 months, did you ever seriously consider attempting suicide?</li> <li>• During the past 12 months, did you make a plan about how you would attempt suicide?</li> <li>• During the past 12 months, how many times did you actually attempt suicide?</li> </ul>
Bullying	<ul style="list-style-type: none"> <li>• Have you ever been bullied on school property?</li> <li>• Have you ever been electronically bullied?</li> </ul>	<ul style="list-style-type: none"> <li>• During the past 12 months, have you ever been bullied on school property?</li> <li>• During the past 12 months, have you ever been electronically bullied?</li> </ul>

# Maryland Youth Risk Behavior Survey: Suicide-Related Behaviors Among High School Students

In 2021, 37.5% of AACPS high school respondents reported feeling so sad or hopeless almost every day for two weeks or more in a row that they stopped doing some usual activities in the 12 months before the survey. Nearly 20% of high school respondents seriously considered attempting suicide in the 12 months before the survey, and 16% reported they attempted suicide (Figure 16), similar to Maryland students overall. Almost one in four female high school students in Anne Arundel County reported they had seriously considered attempting suicide.

Among high school students, thoughts of seriously considering suicide by race and ethnicity were highest among students of multiple races (22.6%) and Hispanic students (21.2%), followed by non-Hispanic (NH) Black (18.9%) and NH white students (18.4%) (Figure 16). However, NH Black students were more likely to report attempting suicide than Hispanic and NH white students (18.9% compared to 17.3% and 12.9%, respectively).

Figure 16. Suicide-Related Behaviors Among High School Students, Anne Arundel County, 2021



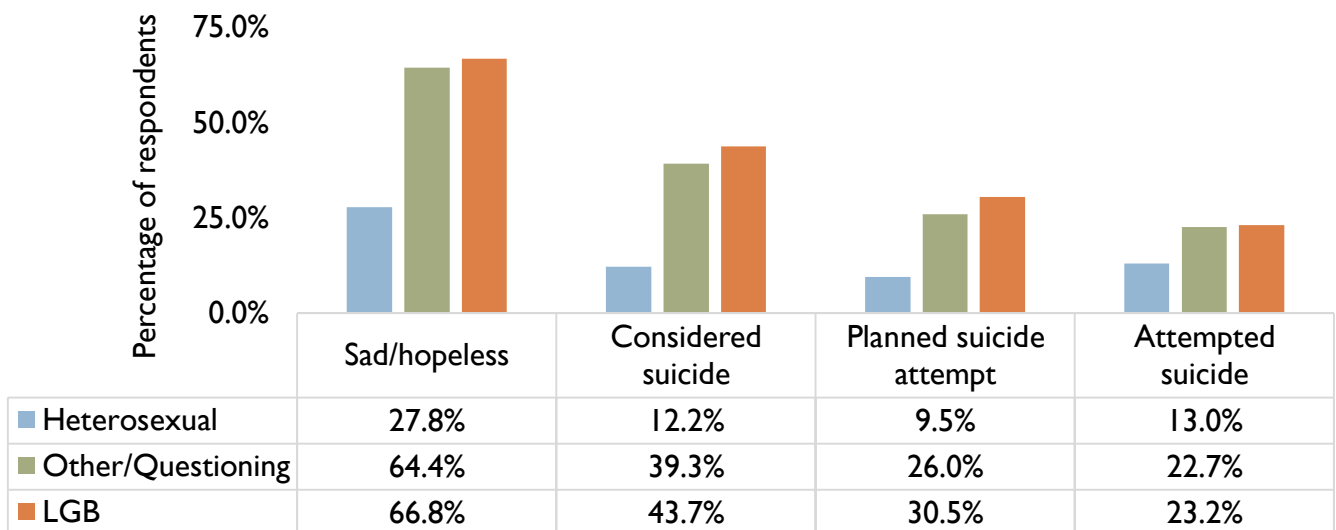
# Maryland Youth Risk Behavior Survey: Sexual Identity and Suicide-Related Behaviors Among High School Students

In 2021, 937 (73%) of AACPS high school students described themselves as heterosexual, 189 (15%) as lesbian, gay, bisexual (LGB), and 152 (12%) as other/questioning. Due to a small sample size (n=48), analysis of suicide-related behavior among transgender students was not possible. Questions related to sexual and gender identity were not asked in the middle school survey.

In 2021, 66.8% of LGB students and 64.4% of other/questioning students felt so sad or hopeless almost every day for two or more weeks in a row so that they stopped doing some usual activities during the 12 months before the survey, compared to 27.8% of heterosexual students (Figure 17).

Compared to heterosexual high school students, LGB students were more than three times as likely to seriously consider attempting suicide in the 12 months before the survey (43.7% of LGB students compared to 12.2% of heterosexual students). LGB students were three times as likely to plan a suicide attempt and nearly twice as likely to attempt suicide as heterosexual students.

Figure 17. Suicide-Related Behaviors in LGB, Questioning, and Heterosexual High School Students in Anne Arundel County, 2021



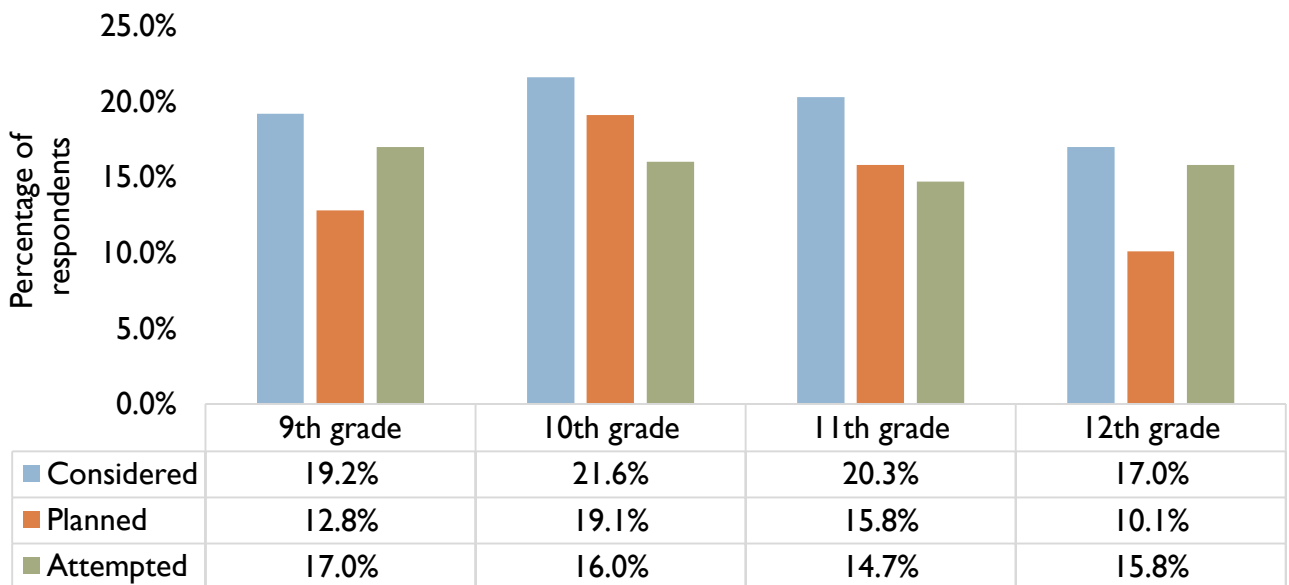
# Maryland Youth Risk Behavior Survey: Suicide-Related Behaviors Among High School Students by Grade

Suicide-related behaviors differed between respondents of different grade levels. Students in the 10th grade reported that they seriously considered attempting suicide slightly more than students of other grades in the 12 months prior to the survey (Figure 18).

The proportion of students who reported planning a suicide attempt varied between grade levels, as 19.1% of 10th grade students reporting planning a suicide attempt in the last year compared to only 10.1% of 12th grade students.

The proportion of students reporting a suicide attempt in the last 12 months was steady between grade levels, with only a difference 1.2 percentage points between the highest reported proportion (9th grade, 17.0%) and the lowest proportion (11th grade, 15.8%).

Figure 18. Suicide-Related Behaviors Among High School Students by Grade Level, Anne Arundel County, 2021



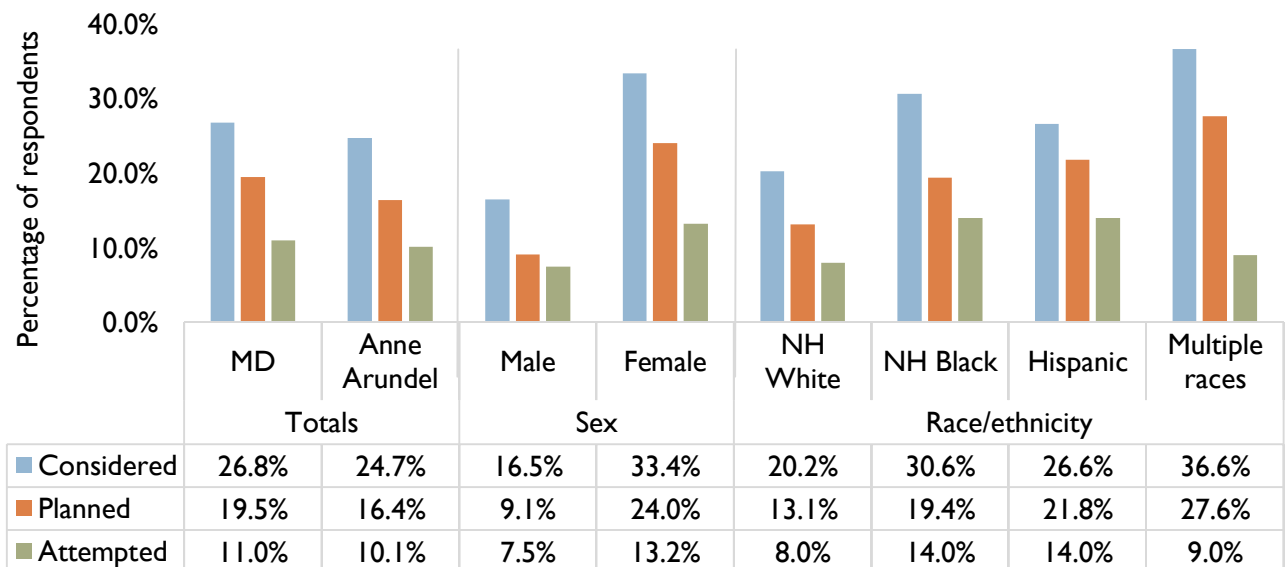
# Maryland Youth Risk Behavior Survey: Suicide-Related Behaviors Among Middle School Students

In 2021, 34% of AACPS middle school respondents reported feeling so sad or hopeless almost every day for two weeks or more in a row that they stopped doing some usual activities in the 12 months before the survey.

Middle school students were asked if they had ever exhibited suicide-related behaviors. Nearly 25% of middle school respondents reported ever seriously considered attempting suicide, and 10.1% had ever attempted suicide (Figure 19), similar to Maryland overall. One in three female middle school respondents in Anne Arundel County reported that they had ever seriously considered attempting suicide.

Among middle school students, ever having thoughts of seriously considering attempting suicide by race and ethnicity were highest among students of multiple races (36.6%) and non-Hispanic (NH) Black students (30.6%) (Figure 19). NH Black and Hispanic students were more likely to have ever attempted suicide than NH white students (14.0% and 14.0% compared to 8.0%).

Figure 19. Suicide-Related Behaviors Among Middle School Students, Anne Arundel County, 2021

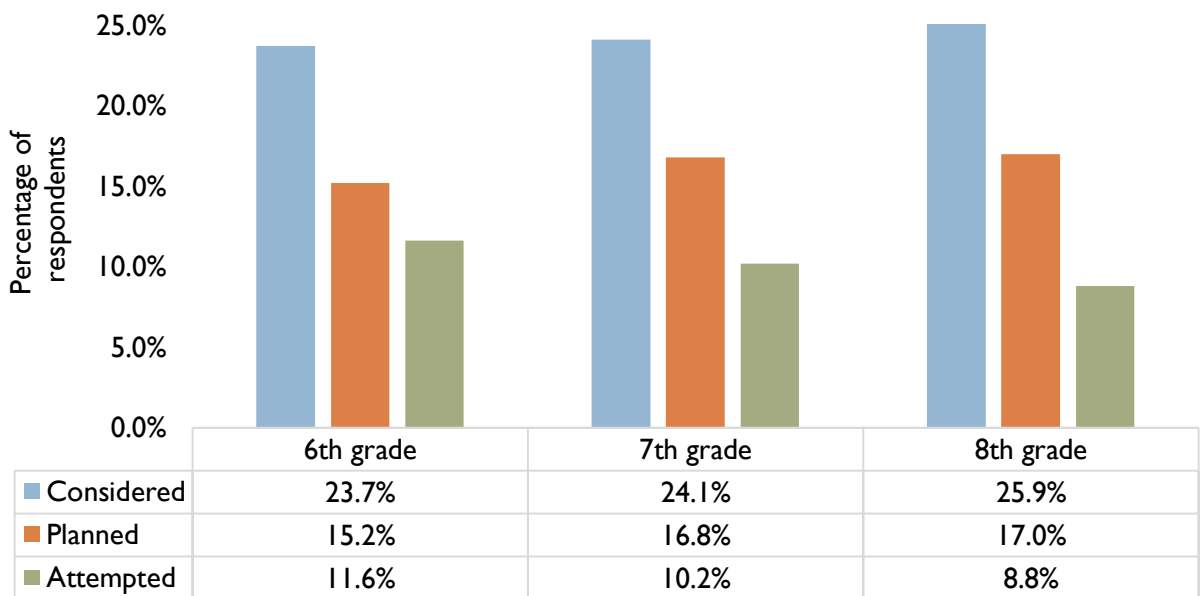


# Maryland Youth Risk Behavior Survey: Suicide-Related Behaviors Among Middle School Students by Grade

Reported suicide-related behaviors slightly changed between different grade levels. Middle school respondents were asked if they had ever experienced these behaviors. There was a slight increase by grade among the proportion of respondents who had ever considered or planned a suicide attempt (Figure 20).

Among 6th grade students, 23.7% reported that they had ever seriously considered a suicide attempt, and 25.9% of 8th grade students reported the same. While the proportion of respondents who had ever considered or planned a suicide attempt increased for each grade level, the proportion of students who reported ever actually attempted suicide decreased for each grade level, from 11.6% of 6th grade students to 8.8% of 8th grade students (Figure 20).

Figure 20. Suicide-Related Behaviors Among Middle School Students by Grade Level, Anne Arundel County, 2021



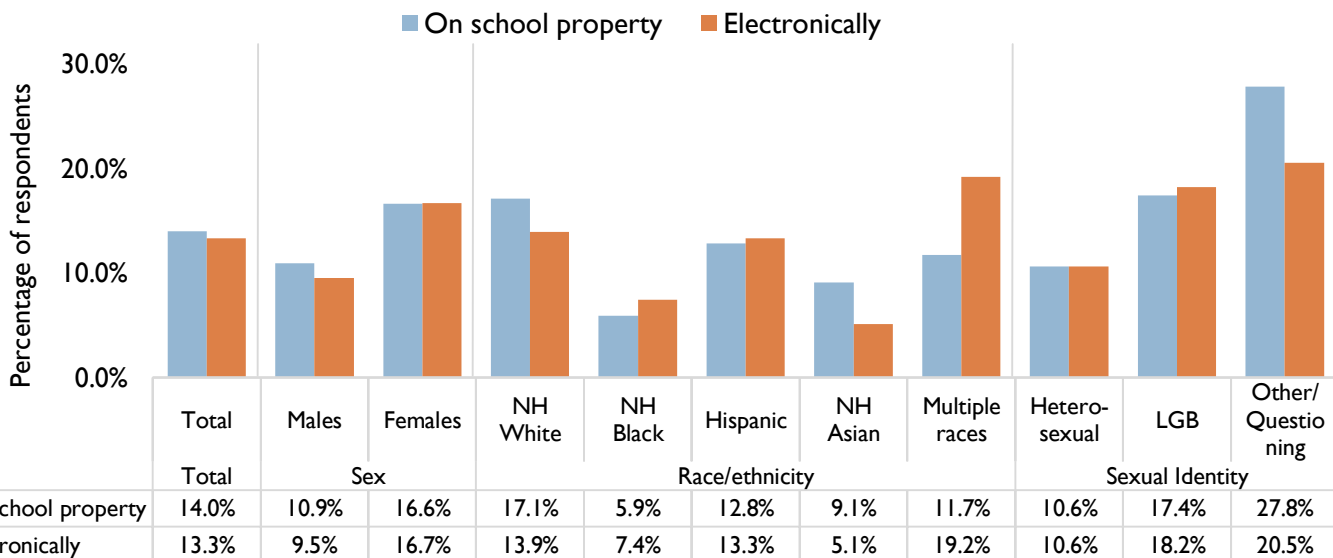
# Maryland Youth Risk Behavior Survey: Bullying Among High School Students

Involvement in bullying, even as a witness, can have long-lasting negative consequences for youth.<sup>6</sup> The chance of a young person engaging in suicide-related behaviors increases if they are involved in bullying (as a perpetrator, victim or both) along with other risk factors.<sup>6</sup>

In the YRBS survey, bullying is defined as, “when one or more students tease, threaten, spread rumors about, hit, shove or hurt another student over and over again. It is not bullying when two students of about the same strength or power argue or fight or tease each other in a friendly way.”<sup>7</sup> Many AACPS high school students reported being bullied at school and/or electronically during the 12 months prior to the survey. Among high school students, 14% were bullied at school, and 13.3% were bullied electronically in the year prior to the survey (Figure 21).

When broken down by sex, female high school students experienced bullying more often than male students: 16.6% were bullied at school and 16.7% were bullied electronically. Non-Hispanic (NH) white students, Hispanic students and students identifying with multiple races reported experiencing bullying at higher rates than NH Black and Asian students. Lesbian, gay, and bisexual (LGB) students and students questioning their sexuality experienced bullying at school and online more frequently than heterosexual students.

Figure 21. High School Students Who Reported Being Bullied, Anne Arundel County, 2021



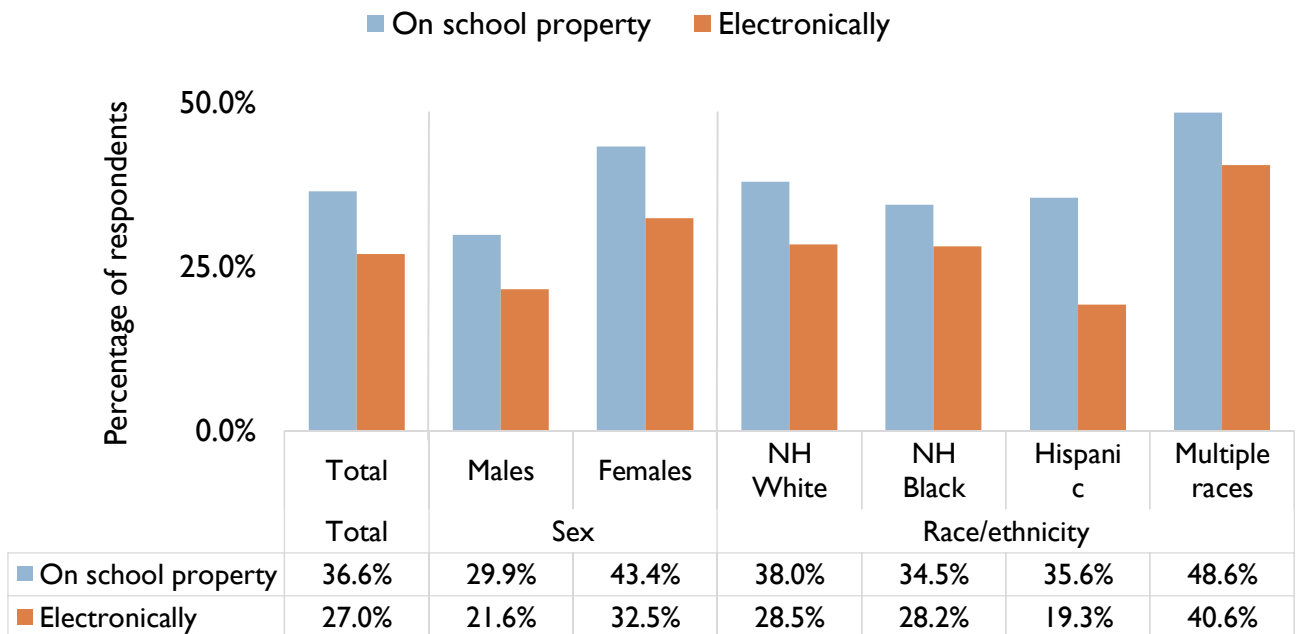


# Maryland Youth Risk Behavior Survey: Bullying Among Middle School Students

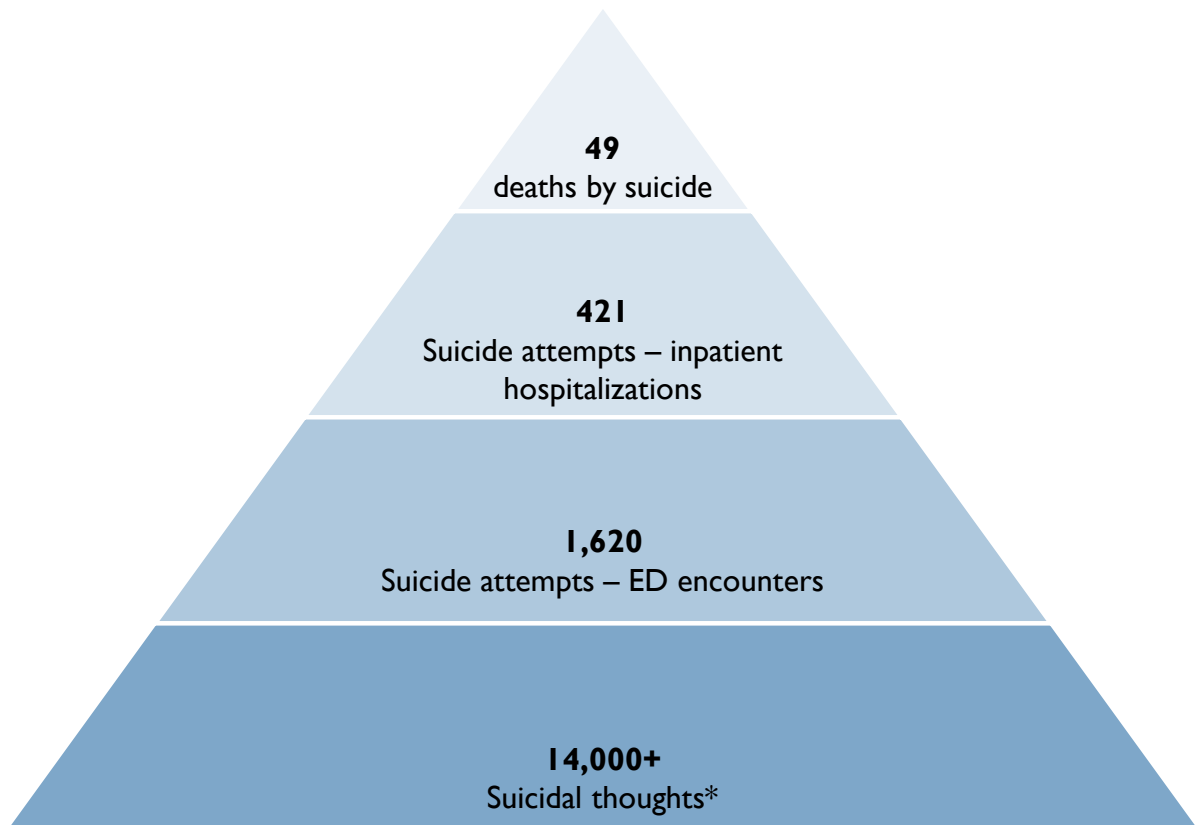
Many AACPS middle school students reported having ever been bullied at school and/or electronically. Among middle school students, 37% reported ever being bullied at school, and 27.0% reported ever being bullied electronically (Figure 22).

Female middle school students experienced bullying more than males, with 43.4% bullied at school and 32.5% were bullied electronically. The highest rates of bullying were reported among students who identified with multiple races, with about half reporting being bullied on school property.

Figure 22. Experiences of Bullying Among Middle School Students, Anne Arundel County, 2021



# Public Health Burden of Youth Suicides, 2017-2021



The public health burden of youth suicide is more than just deaths by suicide. For each death by suicide, there are dozens of nonfatal suicide attempts, and likely thousands of instances in which young people in the county are contemplating or planning a suicide attempt. Suicide prevention efforts must include each aspect of this public health burden in order to address the mental health crises that lead an individual to plan, attempt and die by suicide.

\*This value was estimated based on the youth population of the county and the YRBS survey percentages of students who seriously considered suicide ever (middle school) or in the last 12 months (high school).

Data sources: MDH VSA Death Files, 2017-2021; HSCRC Outpatient and Inpatient Files, 2017-2021; MD YRBS 2021; CDC WONDER

# Summary

From 2017-2021, 49 young people aged 10-24 years took their own life in Anne Arundel County, and county youth required a hospital visit for a suicide attempt more than 1,600 times. There were 301 Emergency Department (ED) visits per 100,000 youth during this period for suicide attempts.

Many measures related to youth suicide worsened when comparing 2012-2016 and 2017-2021. The number of deaths by suicide among youth, the rate of ED visits, and the percentage of high school students seriously considering suicide all increased (Table 3).

Hanging, strangulation, and suffocation, and the discharge of firearms were the two leading methods for suicide deaths among youth. However, poisoning and cutting/piercing were the two leading methods involved in nonfatal suicide attempts. Reducing access to lethal methods of suicide can prevent deaths by suicide.<sup>8</sup>

The Department of Health's Suicide Prevention Program (SPP) develops, coordinates and implements suicide prevention activities throughout the county. SPP promotes evidence-based suicide prevention through education, awareness and community partnerships with the goal of reducing overall numbers of suicides in Anne Arundel County.

Table 3. Comparison of youth suicide measures from 2012-2016 and 2017-2021

Measure	2012-2016	2017-2021	Change
Number of deaths by suicide among youth	42	49	<b>+7</b>
Deaths by suicide among youth (rate per 100,000)	7.9	9.2	<b>+1.3</b>
Suicide-related ED visits among youth (rate per 100,000)	245.7	301.0	<b>+55.3</b>
Suicide-related inpatient hospitalizations among youth (rate per 100,000)	86.4	78.2	<b>-8.2</b>
% High school students who seriously considered attempting suicide	17%	20%	<b>+3%</b>

# Resources

## **Crisis Text/Hotlines (all 24 hours, 7 days a week):**

- National 988 Suicide and Crisis Lifeline
  - Call or text 988
  - Chat at [988lifeline.org](https://988lifeline.org)
- Anne Arundel County Crisis Response System: 1-410-768-5522
- Anne Arundel County Public Schools Student Safety Hotline: 1-877-676-9854
- National Veteran's Crisis Line: 1-800-273-8255, Press 1, or text to 838255

## **County Resources**

- Anne Arundel County Network of Care for Behavioral Health: [annearundel.md.networkofcare.org/mh/index.aspx](https://annearundel.md.networkofcare.org/mh/index.aspx)
- Chesapeake Life Center: [hospicechesapeake.org/family-support](https://hospicechesapeake.org/family-support)
- AACDOH Suicide by Firearm Prevention Toolkit: [aahealth.org/suicide-prevention-toolkit](https://aahealth.org/suicide-prevention-toolkit)

## **General Information:**

American Foundation for Suicide Prevention (AFSP): [afsp.org/maryland](https://afsp.org/maryland)

## **LGBTQ-Specific Information:**

- LGBT Youth Crisis and Support Lifeline: [thetrevorproject.org](https://thetrevorproject.org)
- Gay, Lesbian and Straight Education Network (GLSEN): [glsen.org](https://glsen.org)

# References

1. Stone DM, Mack KA, Qualters J. Notes from the Field: Recent Changes in Suicide Rates, by Race and Ethnicity and Age Group — United States, 2021. *MMWR Morb Mortal Wkly Rep* 2023; 72:160–162. DOI: [dx.doi.org/10.15585/mmwr.mm7206a4](https://doi.org/10.15585/mmwr.mm7206a4)
2. Centers for Disease Control and Prevention, National Center for Health Statistics. National Vital Statistics System, Mortality 2018-2021 on CDC WONDER Online Database, released in 2021. Data are from the Multiple Cause of Death Files, 2018-2021, as compiled from data provided by the 57 vital statistics jurisdictions through the Vital Statistics Cooperative Program. Accessed at [wonder.cdc.gov/ucd-icd10-expanded.html](https://wonder.cdc.gov/ucd-icd10-expanded.html)
3. Stats of the State - Suicide Mortality. (2023, February 15). [cdc.gov/nchs/pressroom/sosmap/suicide-mortality/suicide.htm](https://cdc.gov/nchs/pressroom/sosmap/suicide-mortality/suicide.htm)
4. Maryland Vital Statistics Annual Report 2021. In the Maryland Department of Health. Retrieved October 25, 2023, from [health.maryland.gov/vsa/Documents/Reports%20and%20Data/Annual%20Reports/2021AnnualReport\\_Final\\_v1023.pdf](https://health.maryland.gov/vsa/Documents/Reports%20and%20Data/Annual%20Reports/2021AnnualReport_Final_v1023.pdf)
5. Hedegaard H, Schoenbaum M, Claassen C, Crosby A, Holland K, Proescholdbell S. Issues in developing a surveillance case definition for nonfatal suicide attempt and intentional self-harm using International Classification of Diseases, Tenth Revision, Clinical Modification (ICD–10–CM) coded data. *National Health Statistics Reports*; no 108. Hyattsville, MD: National Center for Health Statistics. 2018.
6. The Relationship Between Bullying and Suicide: What We Know and What it Means for Schools. National Center for Injury Prevention and Control, Division of Violence Prevention. CDC. April 2014. [cdc.gov/violenceprevention/pdf/yv/bullying-suicide-translation-final-a.pdf](https://cdc.gov/violenceprevention/pdf/yv/bullying-suicide-translation-final-a.pdf)
7. 2021 Standard High School Questionnaire. Youth Risk Behavior Surveillance System, Division of Adolescent and School Health (DASH), CDC. [cdc.gov/healthyyouth/data/yrbs/pdf/2021/2021-YRBS-Standard-HS-Questionnaire.pdf](https://cdc.gov/healthyyouth/data/yrbs/pdf/2021/2021-YRBS-Standard-HS-Questionnaire.pdf)
8. Harvard T. Chan School of Public Health, Means Matter. [hsph.harvard.edu/means-matter/means-matter/saves-lives](https://hsph.harvard.edu/means-matter/means-matter/saves-lives)

# Appendix A: ICD-10 Codes Used to Define Emergency Department and Inpatient Suicide-Related Visits<sup>5</sup>

ICD-10-CM Codes	Definition
T14.91	Injury of unspecified body region, suicide attempt
X71-X83	Intentional self-harm due to drowning/submersion, firearm, explosive material, fire/flame, hot vapors/objects, sharp object, blunt object, jumping from high place, jumping or lying in front of moving object, crashing of motor vehicle, and other specified means
T36-T50, with the 6th character of the code = 2 (except for T36.9, T37.9, T39.9, T41.4, T42.7, T43.9, T45.9, T47.9, and T49.9, which are included if the 5th character of the code = 2)	Intentional self-harm due to poisoning by drugs, medications and biological substances
T51-T65, with the 6th character of the code = 2 (except for T51.9, T52.9, T53.9, T54.9, T56.9, T57.9, T58.0, T58.1, T58.9, T59.9, T60.9, T61.0, T61.1, T61.9, T62.9, T63.9, T64.0, T64.8, and T65.9, which are included if the 5th character of the code = 2)	Intentional self-harm due to toxic effects of nonmedicinal substances
T71, with the 6th character of the code = 2	Asphyxiation, suffocation, hanging