

Adverse Childhood Experiences (ACES)

Overview

Adverse Childhood Experiences (ACEs) are traumatic events or conditions, such as abuse, neglect, homelessness, etc., that have been associated with toxic stress, health risk behaviors, and lifelong impacts. The research indicates that youth who experience significant traumas are likely to experience poorer health outcomes throughout the lifespan, and even premature death. The number of ACEs an individual experiences have an agglomerate impact; a recent analysis indicates that individuals who experience six or more ACEs have a shorter life expectancy by up to 20 years. However, the presence of a supportive and caring adult has been associated with higher rates of resiliency among those who've experienced childhood trauma. In short, without intervention and support, children who experience traumatic events are likely to have increased health problems throughout their lives – lives which are likely to be shorter than the lives of others (CDC, n.d.).

In the original ACEs study, conducted in the mid-90s, more than 17,000 adults in an outpatient healthcare setting were asked to report on their childhood experiences regarding the following ten indicators:

- Emotional, Physical, Sexual Abuse
- Emotional and Physical Neglect
- Parental Divorce/Separation
- Living in a household with a person who has a mental illness
- Living in a household with a person who abuses substances
- Parental Incarceration
- Exposure to Domestic Violence

Nearly two out of three respondents reported experiencing one or more ACE, with one in eight participants experiencing four or more (Kaiser/CDC, n.d.). Since then, various researchers have examined additional indicators, such as bullying, discrimination, economic hardship, and violence within the

community (as distinct from domestic violence). The more ACEs an individual experiences, the greater the likelihood he or she will experience poorer health status ([Hussaini, K. et al., 2016](#)).

Delaware Context

In 2015, the Delaware Public Health Institute conducted the Delaware Household Health Survey, which asked respondents about their experiences with childhood trauma. When considering the original ten ACE indicators, half of adults in Delaware reported experiencing one or more ACE, with 13.8% reporting four or more. The most commonly identified ACEs were parental divorce or separation (31.7%), followed by living in a household with someone who had abused substances (20.6%). When factoring in being bullied and/or experiencing discrimination, two indicators added to the Delaware survey, 59% of adults reported having at least one ACE, with 16% reporting four or more (Public Health Management Corporation, 2016).

In an effort to assess the prevalence of ACEs among youth, the 2011-2012 National Survey of Children's Health also included a number of ACE indicators. However, the survey, administered to parents who report on the health of their children, did not include questions on abuse or neglect. Nonetheless, 48% of Delaware children were reported to have at least one ACE, most commonly economic hardship (25%), divorce/separation (21%), and exposure to neighborhood violence (12%, which is above the national average) (Fink, 2016).

The CDC Youth Risk Behavior Survey (YRBS), administered to Delaware middle school and high school students in odd-numbered years, includes a number of questions that address trauma, such as parental incarceration, being bullied, and exposure to various types of violence. Because the YRBS also includes questions regarding substance use and mental health, the data provides us an opportunity to explore the association between trauma and a spectrum of risk behaviors. Perhaps not surprisingly, youth who report experiencing trauma have higher rates of all substance use as well as symptoms of depression, including self-harm and suicide attempts. For example, high school students who experience homelessness were nearly twice as likely to be current alcohol drinkers (59%) than students who were not homeless (30%), and five times as likely to have abused prescription drugs within the previous

month. They were also almost twice as likely to have experienced symptoms of depression than those who had not (47% compared to 25%), and nearly five times as likely to have attempted suicide within the previous year. As illustrated by the following graphs, these patterns are extremely similar when we consider all types of trauma.

By examining these associations, policy analysts and practitioners can begin to consider how early interventions may improve lifelong health consequences and the associated costs for individuals, families, and society.

Reported Risk Behaviors for Students who have had Adverse Childhood Experiences:

Data Notation:

The data in the following section deals with small subcategories of Delaware public high school student sample population and because of that will not be weighted. Applying weights to small categories can lead to inaccuracies in analyses.

The following adverse childhood experiences have been shown to have a statistically significant relationship with both substance use and mental health. The significance is at $p < .05$.

ADVERSE CHILDHOOD EXPERIENCES...

...have lifelong consequences in regards to substance use and risk behavior. The Delaware Public Health Institute conducted a household survey of Delaware adults and found that over half of Delaware residents (n=2506) have experienced one or more ACE in their lifetime

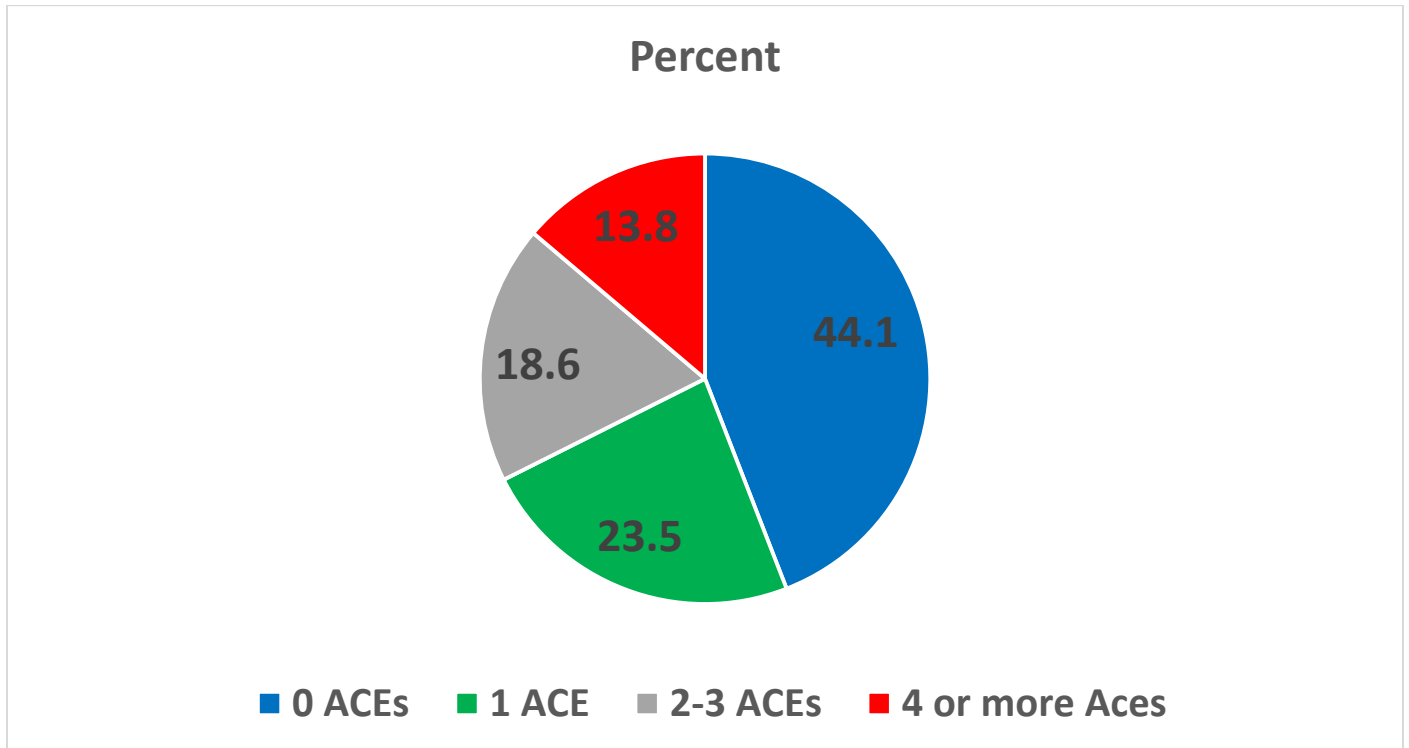


Figure 90 Adverse Childhood Experiences

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Source:

“2015 Delaware Household Health Survey (DHHS).” The Delaware Public Health Institute.

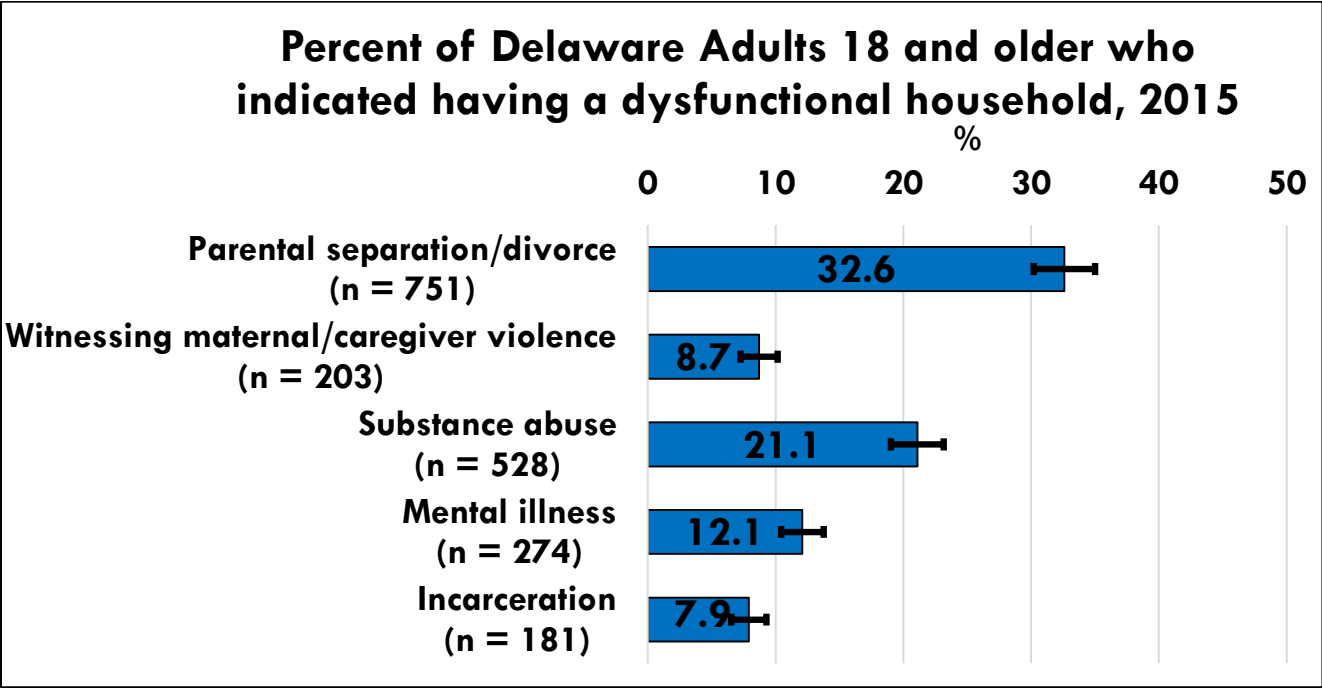


Figure 91 Delaware Adults who indicated having a dysfunctional household, 2015

Source:
 “2015 Delaware Household Health Survey (DHHS).” The Delaware Public Health Institute.

ADVERSE CHILDHOOD EXPERIENCES AND HEALTH

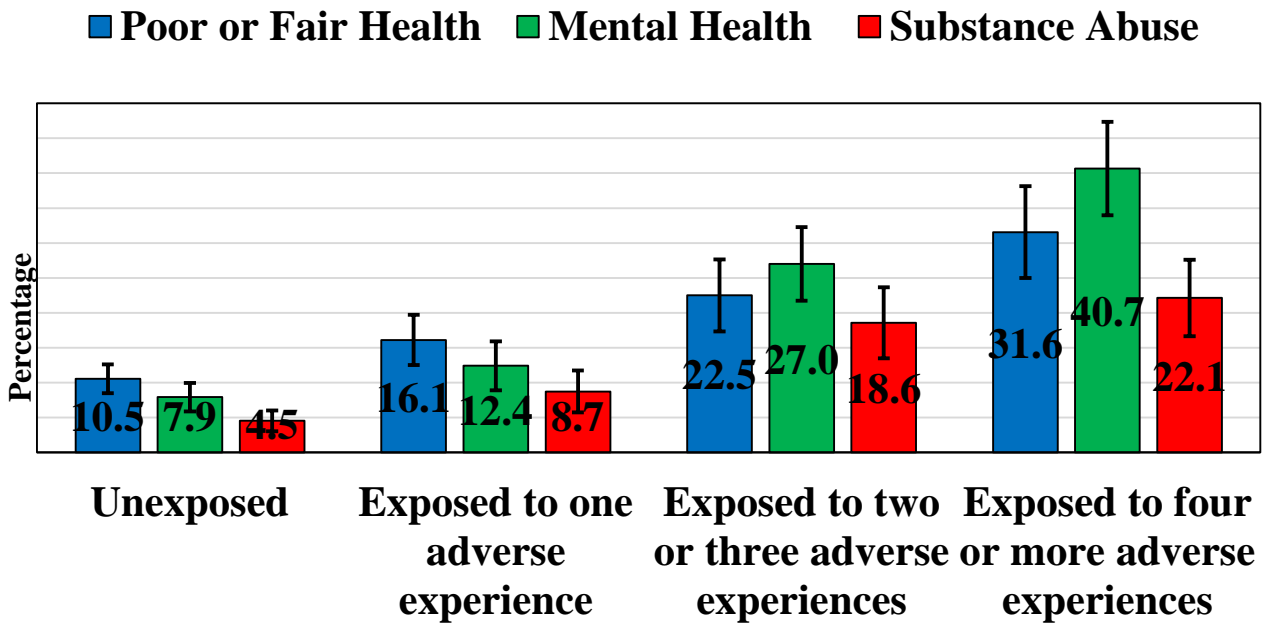


Figure 92 Breakdown of Adverse Childhood Experience

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Sources:

“2015 Delaware Household Health Survey (DHHS).” The Delaware Public Health Institute.

[The Impact of Adverse Childhood Experiences \(ACE\) on Health-related Quality of Life, Mental Health, and Hospitalizations in Delaware](#) Khaleel S. Hussaini, Ph.D.1, 2, Tabatha-Offutt Powell, Dr.P.H.1 , Mathew Christensen, Ph.D.1 , Leah Woodall, M.P.A.2 2016. Delaware Journal of Public Health. Volume 2 Issue 5.

2015 HIGH SCHOOL YOUTH RISK BEHAVIOR SURVEY

Homelessness: Where do you typically sleep at night? (in percentages)

	At home with your parents or guardian	Other
Male	96	4
Female	97	3
Total	96	4

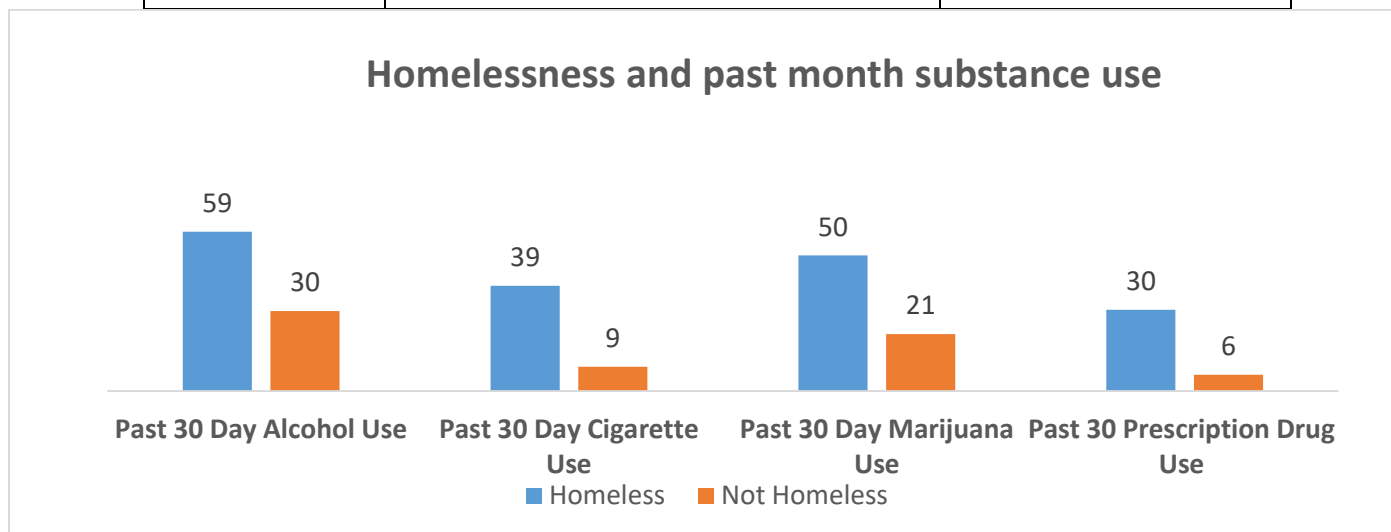


Figure 93 Homelessness and substance use

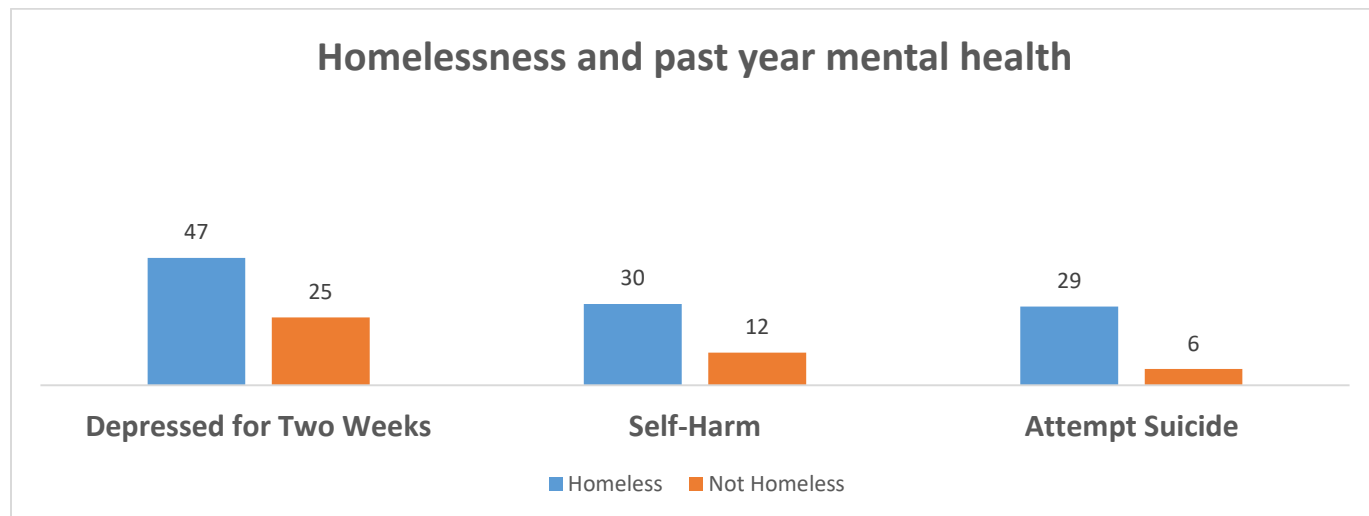


Figure 94 Homelessness and mental health

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Note:

Unweighted data

Source ["2015 Delaware Youth Risk Behavior Survey \(YRBS\)." Centers for Disease Control and Prevention \(Administered by the Center for Drug and Health Studies, University of Delaware\).](#)

2015 HIGH SCHOOL YOUTH RISK BEHAVIOR SURVEY

**Incarceration: In the past year has either your mother or father been incarcerated?
(in percentages)**

	No	Yes
Male	91	9
Female	91	9
Total	91	9

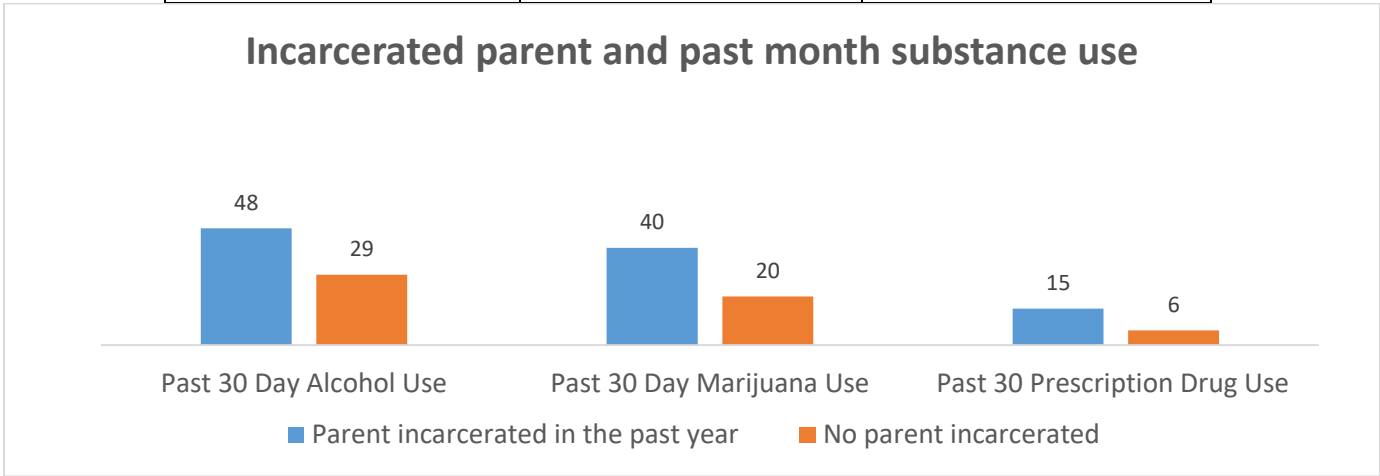


Figure 95 Parental incarceration and substance use

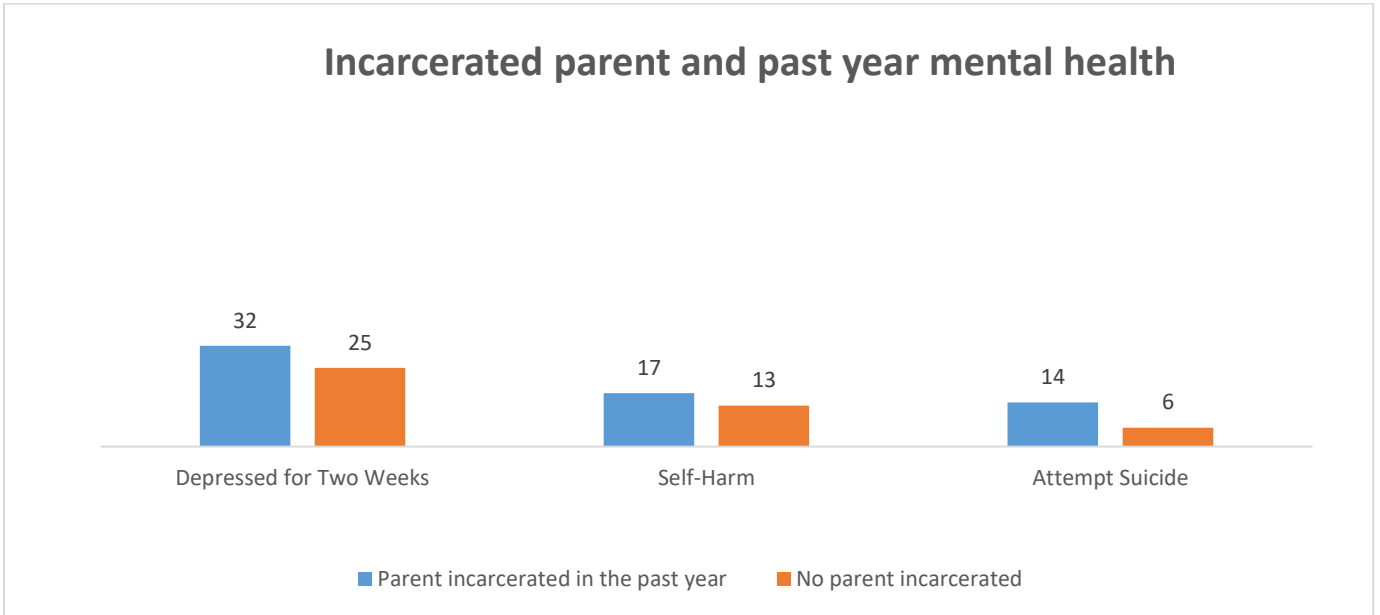


Figure 96 Parental Incarnation and mental health

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Note: Unweighted data

Source: [“2015 Delaware Youth Risk Behavior Survey \(YRBS\).” Centers for Disease Control and Prevention \(Administered by the Center for Drug and Health Studies, University of Delaware\).](#)

2015 HIGH SCHOOL YOUTH RISK BEHAVIOR SURVEY

Exposure to Violence Indicators (in percentages)

	I have been in a fight in the past year	I have been threatened or injured you with a weapon on school property in the past 12 months	I have been bullied on school property in the past year
Male	25	8	14
Female	16	4	19
Total	21	6	16

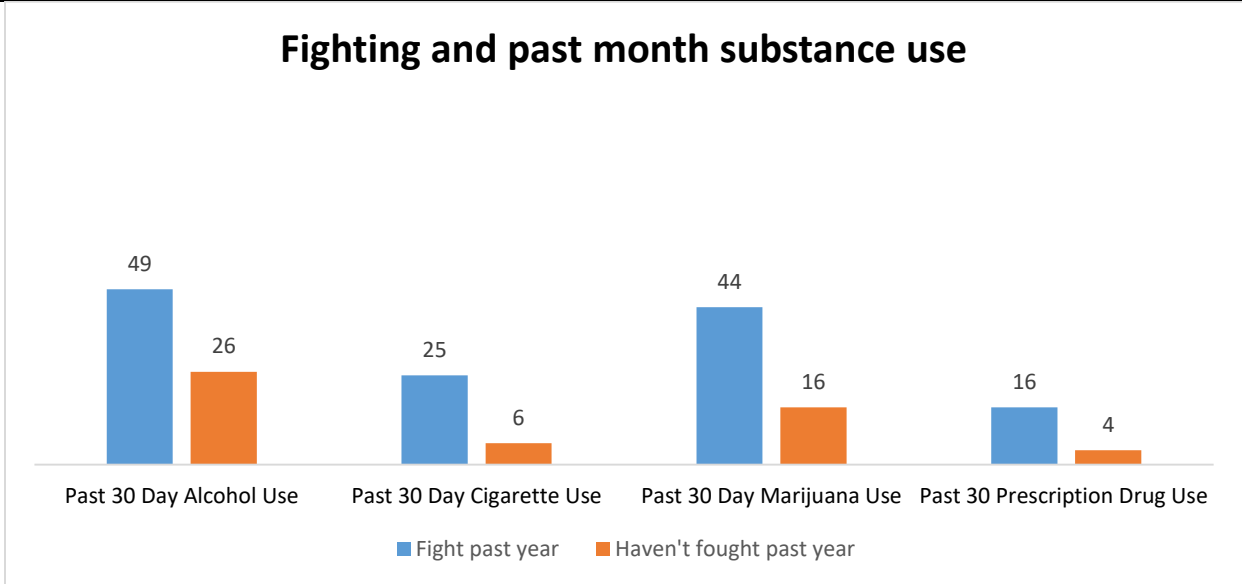


Figure 97 Fighting and substance use

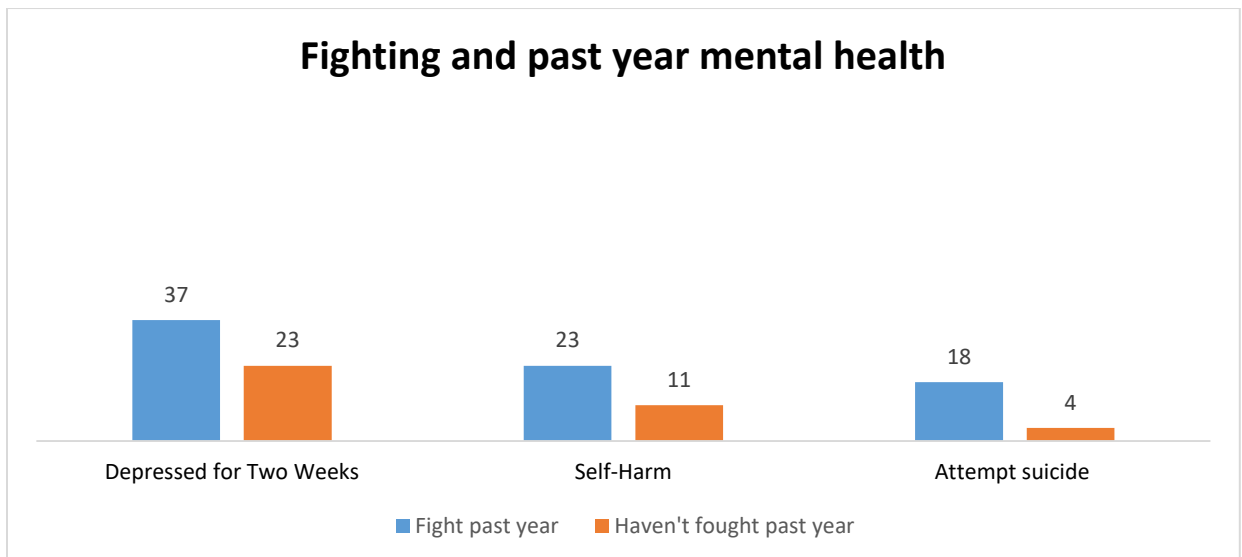


Figure 98 Fighting and mental health

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Notes: Unweighted data

Source: ["2015 Delaware Youth Risk Behavior Survey \(YRBS\)." Centers for Disease Control and Prevention \(Administered by the Center for Drug and Health Studies, University of Delaware\).](#)

Threatened at school and past month substance use

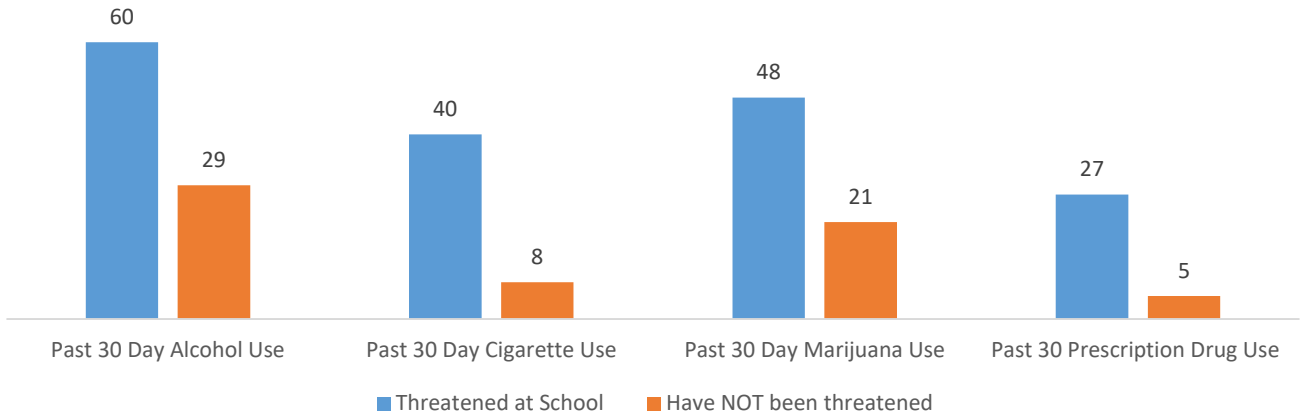


Figure 99 Threatened at school and substance use

Threatened at school and past year mental health

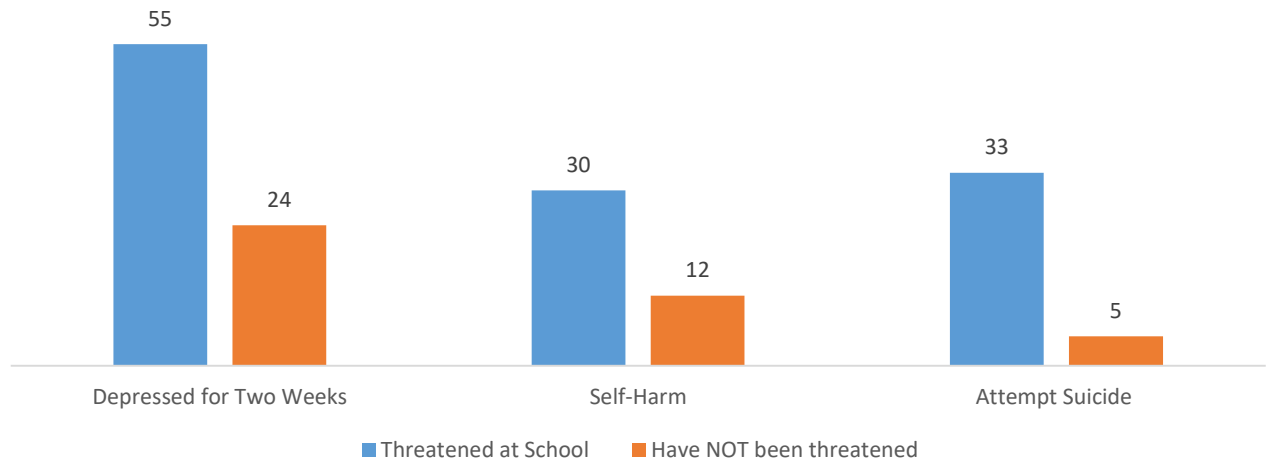


Figure 100 Threatened and mental health

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Notes: Unweighted data

Source:

[“2015 Delaware Youth Risk Behavior Survey \(YRBS\).” Centers for Disease Control and Prevention \(Administered by the Center for Drug and Health Studies, University of Delaware\).](#)

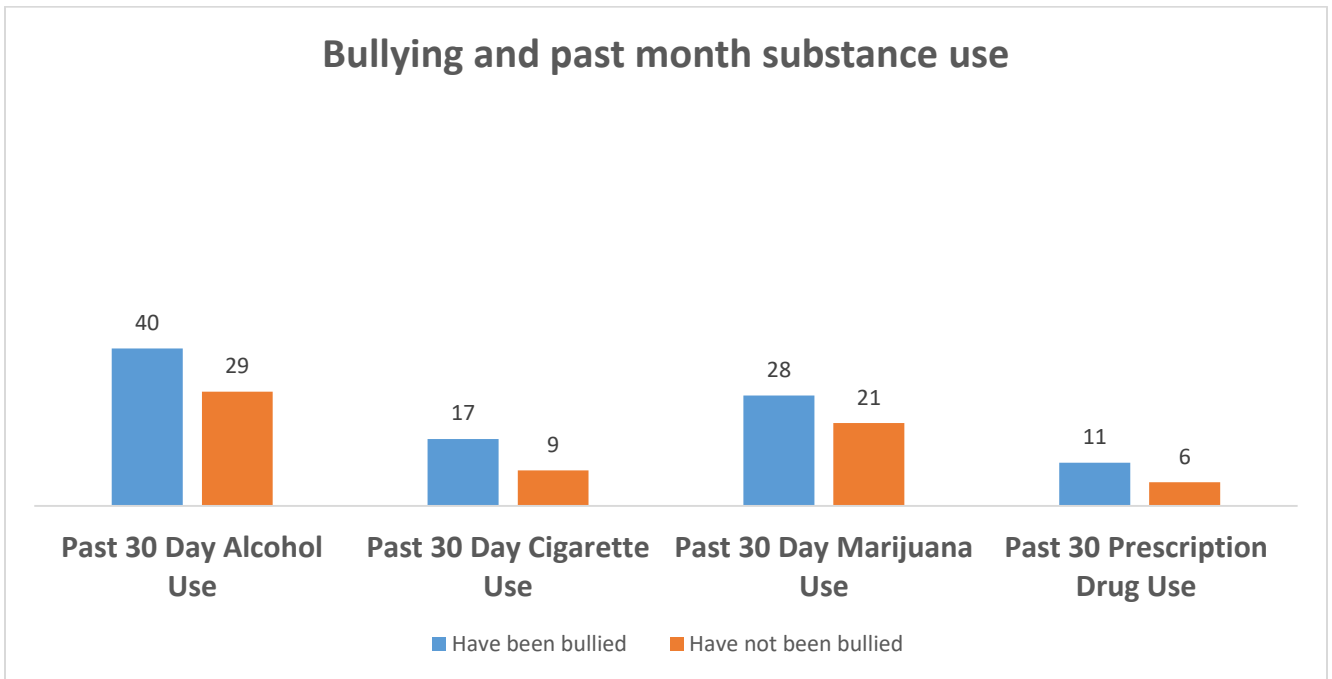


Figure 101 Bullying and substance use

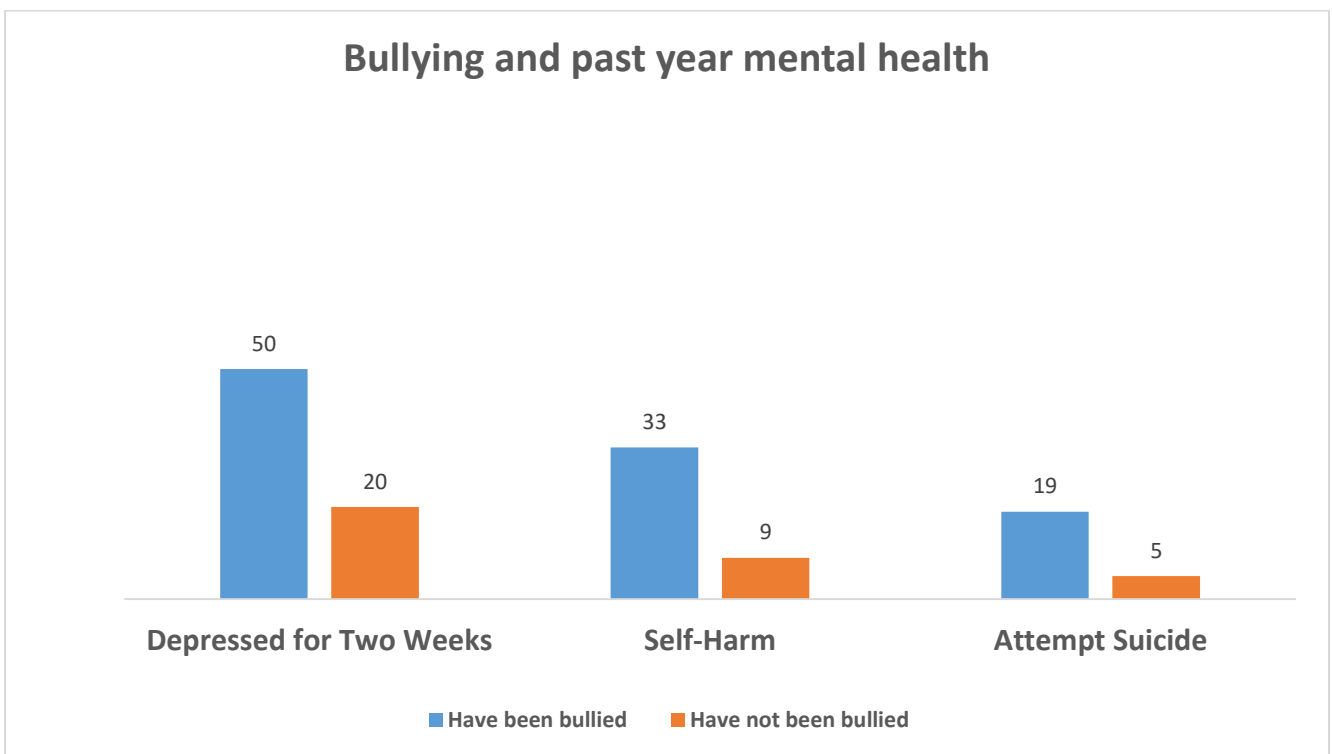


Figure 102 Bullying and mental health

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Notes:

Unweighted data

Source:

[“2015 Delaware Youth Risk Behavior Survey \(YRBS\).” Centers for Disease Control and Prevention \(Administered by the Center for Drug and Health Studies, University of Delaware\).](#)

2015 Youth Risk Behavior Survey

Teen Dating Violence (TDV) and Sexual Violence Indicators (in percentages)

	Did someone you were dating or going out with say things to you or say things to other people about you to purposely hurt you? (Emotional TDV)	Did someone you were dating or going out with physically hurt you on purpose? (Physical TDV)	Did someone you were dating or going out with force you to do sexual thing you did not want to do? (Sexual TDV)	Have you ever been physically forced to have sexual intercourse when you did not want to?
Male	10	5	4	4
Female	20	7	7	9
Total	15	6	6	7

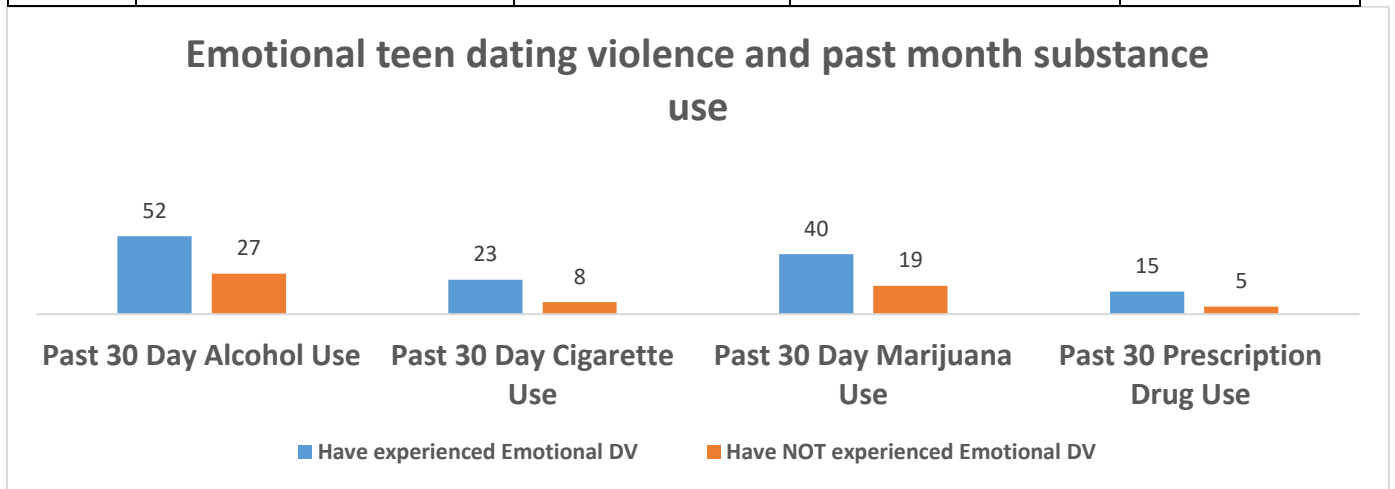


Figure 103 Emotional teen dating violence and substance use

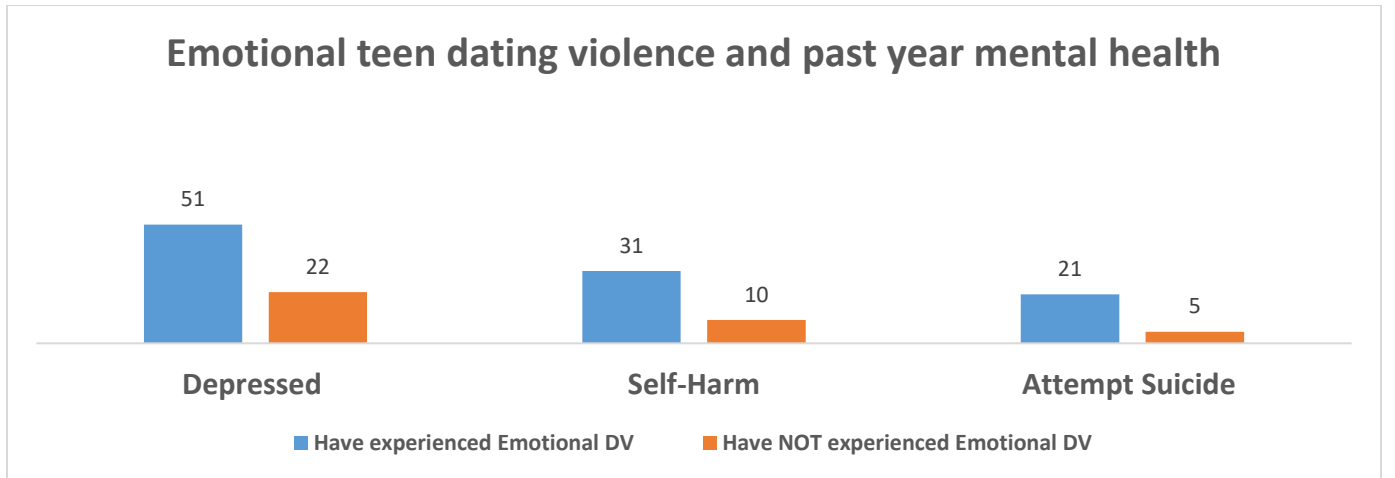


Figure 104 Emotional teen dating violence and mental health

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Notes: Unweighted data

Source: ["2015 Delaware Youth Risk Behavior Survey \(YRBS\)." Centers for Disease Control and Prevention \(Administered by the Center for Drug and Health Studies, University of Delaware\).](#)

Physical teen dating violence and past month substance use

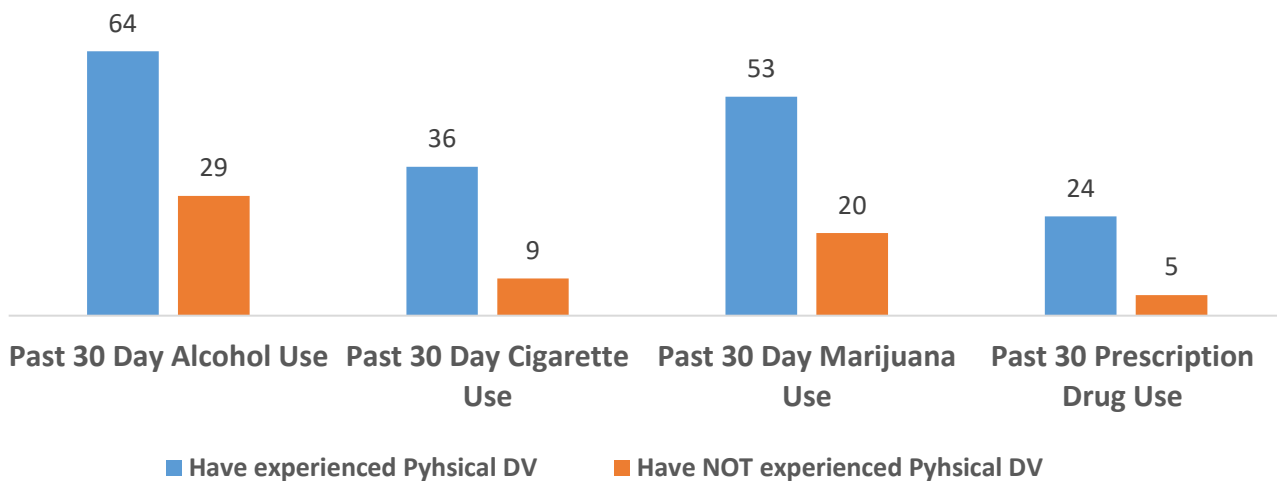


Figure 105 Physical teen dating violence and substance use

Physical teen dating violence and past year mental health

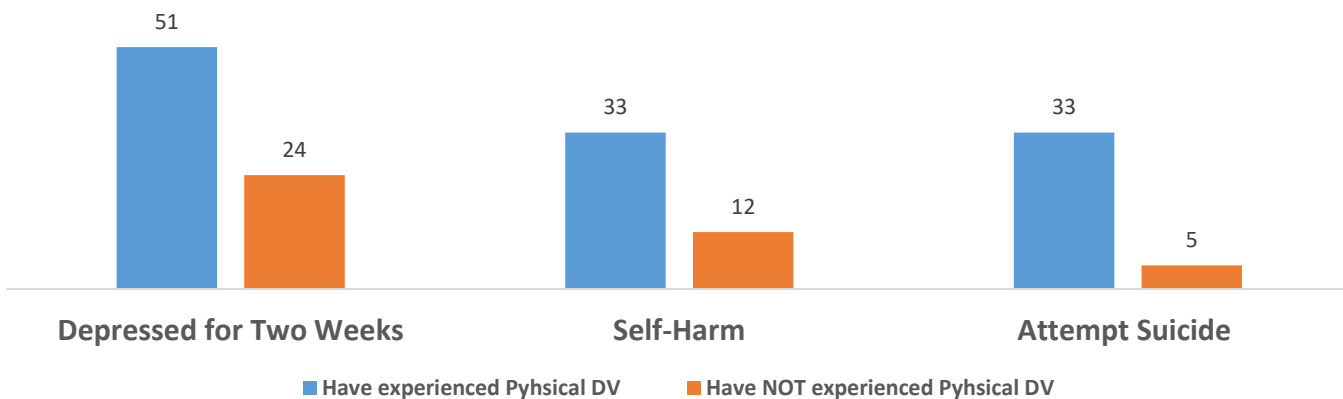


Figure 106 Physical teen dating violence and mental health

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Note: Unweighted data

Source: [“2015 Delaware Youth Risk Behavior Survey \(YRBS\).” Centers for Disease Control and Prevention \(Administered by the Center for Drug and Health Studies, University of Delaware\).](#)

Teen sexual dating violence and past month substance use

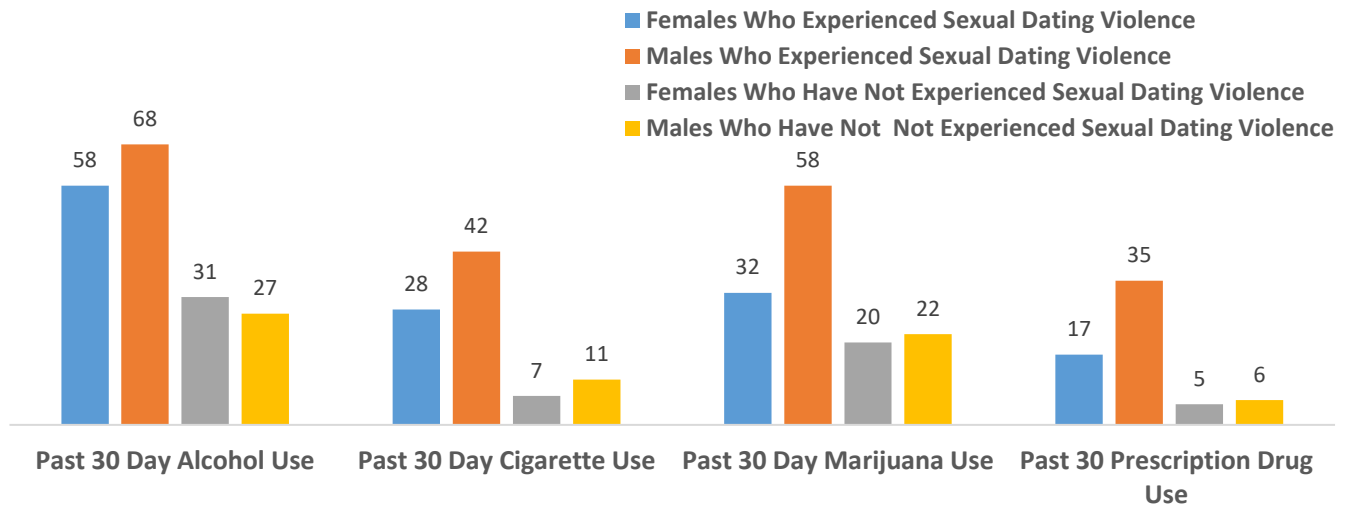


Figure 107 Sexual teen dating violence and substance use

Teen sexual dating violence and past year mental health

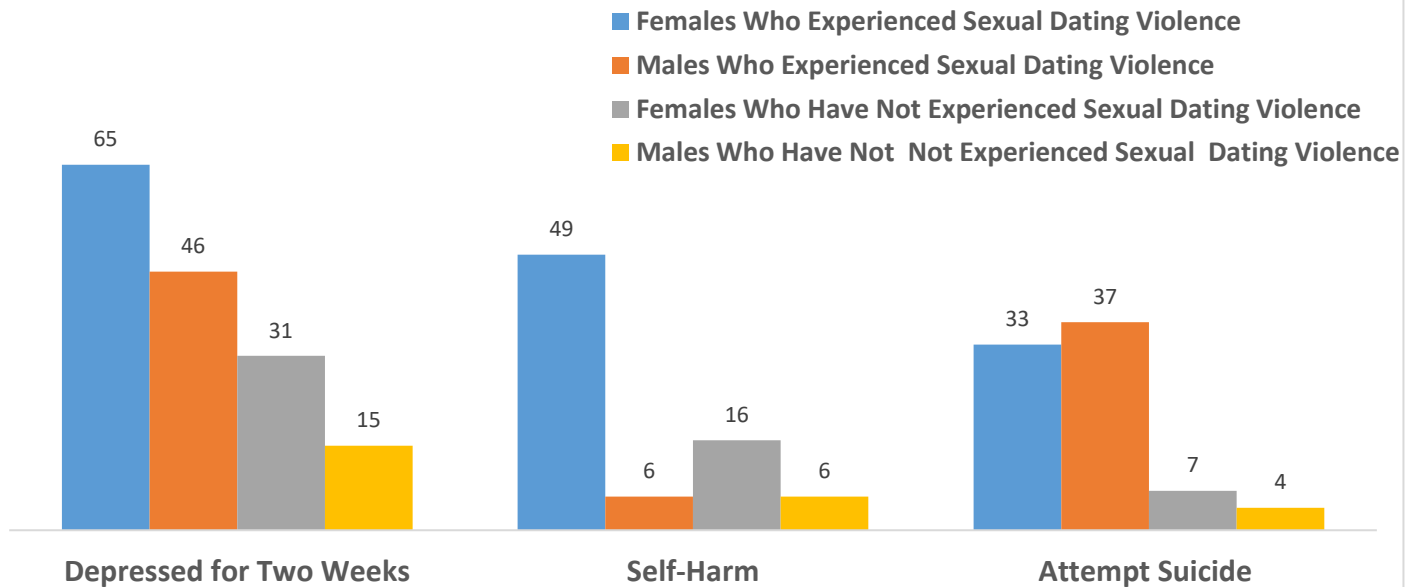


Figure 108 Sexual teen dating violence and mental health

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Note:

Unweighted data

Source:

["2015 Delaware Youth Risk Behavior Survey \(YRBS\)." Centers for Disease Control and Prevention \(Administered by the Center for Drug and Health Studies, University of Delaware\).](#)

Forced sexual intercourse and past month substance use

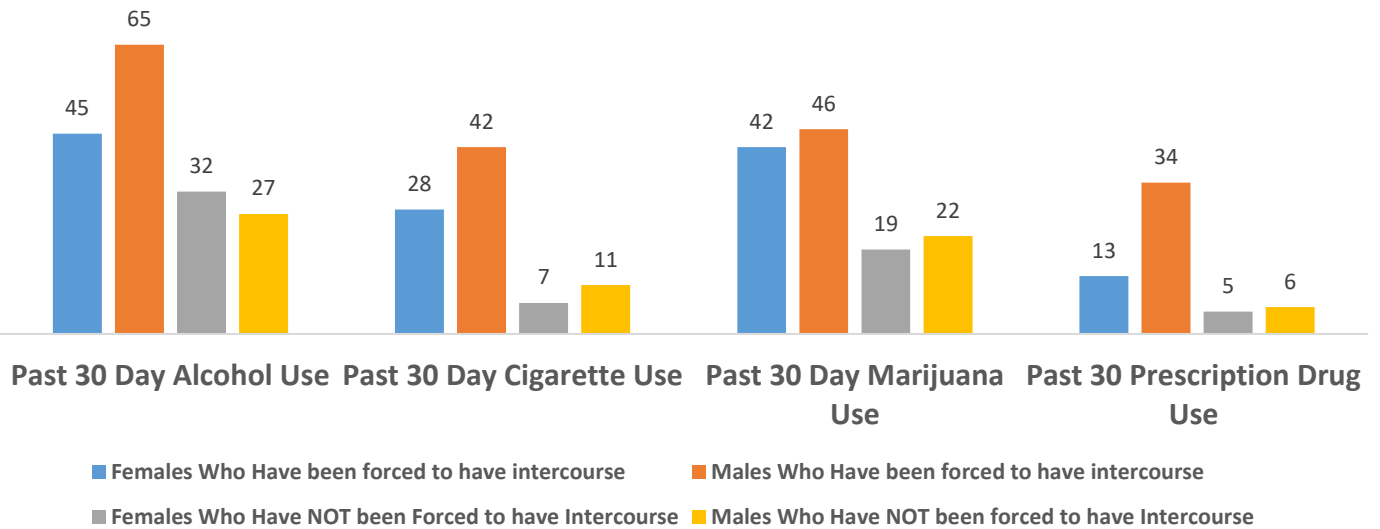


Figure 109 Forced intercourse and substance use

Forced intercourse and past year mental health

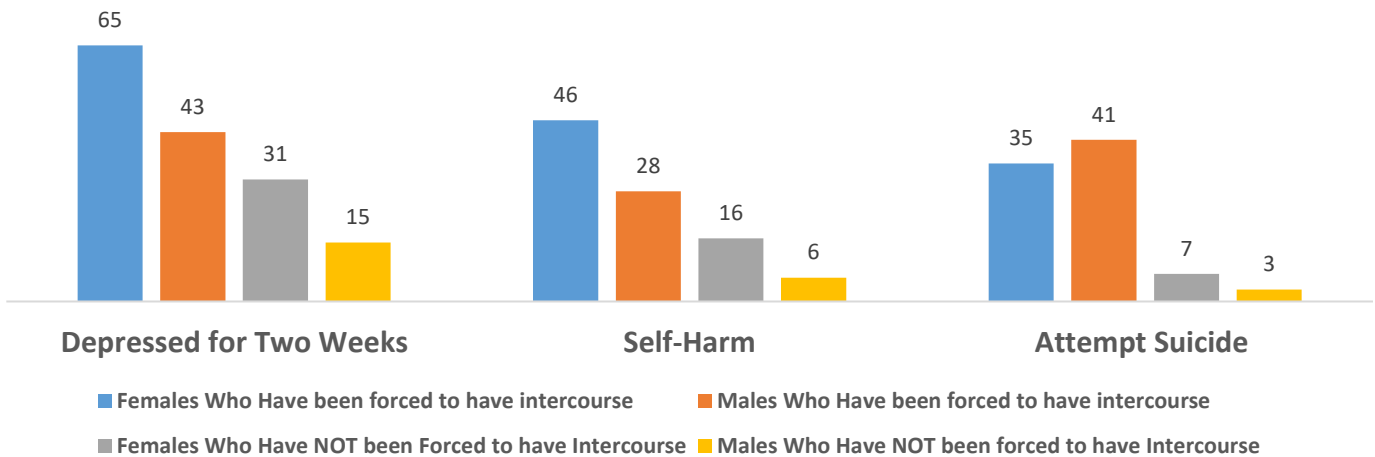


Figure 110 Forced Intercourse and mental health

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Note: Unweighted data

Source: ["2015 Delaware Youth Risk Behavior Survey \(YRBS\)." Centers for Disease Control and Prevention \(Administered by the Center for Drug and Health Studies, University of Delaware\).](#)

2015 Youth Risk Behavior Survey

Aggregated Adverse Childhood Experiences (ACEs*) (in percentages)

	0 Aces	1 ACE	2 or more
Statewide	55	24	21
Males	57	25	18
Females	53	24	23
New Castle	57	25	19
Males	61	24	16
Females	54	25	21
Kent	54	23	23
Males	54	25	21
Females	54	20	26
Sussex	52	26	23
Males	52	27	22
Females	52	24	24

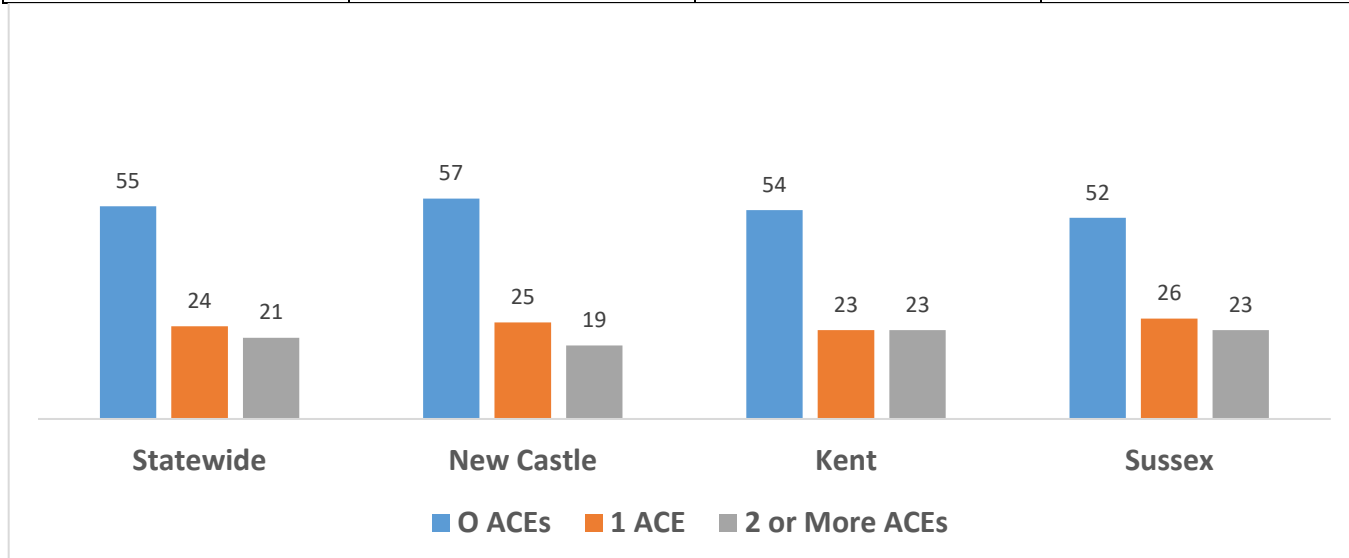


Figure 111 Aggregated adverse childhood experiences

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Notes: Unweighted data

*Students who confirmed experiencing any of the events above such as homelessness, incarcerated parent, fighting, being threatened, being bullied, or experience teen dating violence or sexual violence, were placed in either “1 ACE” or “2 or More ACEs” category depending on the number of different experiences they reported.

Source: [“2015 Delaware Youth Risk Behavior Survey \(YRBS\).” Centers for Disease Control and Prevention \(Administered by the Center for Drug and Health Studies, University of Delaware\).](#)

2015 Youth Risk Behavior Survey

ACEs* and past month substance use (in percentages)

Number of ACEs	Past 30 Day Cigarette Use	Past 30 Day Alcohol use*	Past 30 Day Marijuana Use*	Past 30 day prescription drug use
0 ACEs	4	20	13	3
1 ACE	10	36	27	7
2 or more ACEs	26	52	42	16

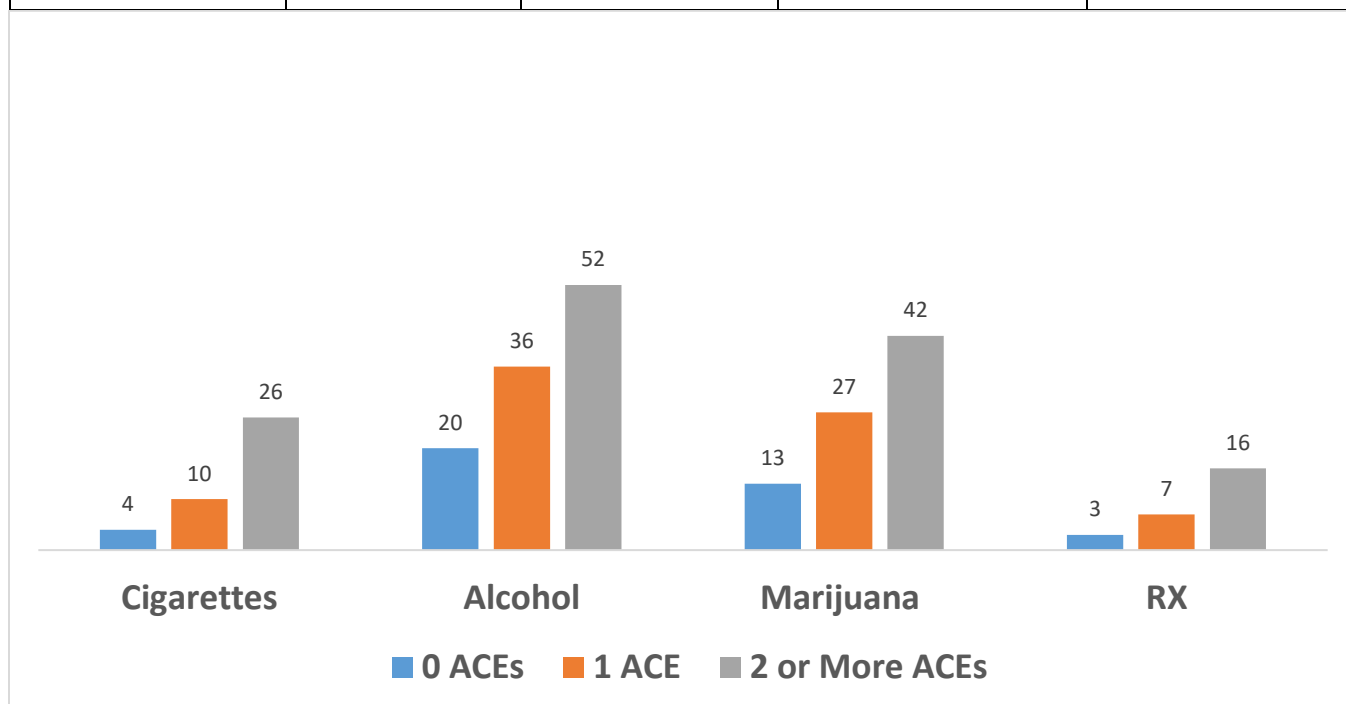


Figure 112 Aggregated adverse childhood experiences and substance use

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Note:

Unweighted data

*Students who confirmed experiencing any of the events above such as homelessness, fighting, being threatened, being bullied, or experience teen dating violence or sexual violence, were placed in either “1 ACE” or “2 or More ACEs” category depending on the number of different experiences they reported.

Source:

[“2015 Delaware Youth Risk Behavior Survey \(YRBS\).” Centers for Disease Control and Prevention \(Administered by the Center for Drug and Health Studies, University of Delaware\).](#)

2015 Youth Risk Behavior Survey

ACEs and past year mental health – self-report (in percentages)

Number of ACEs	Depressed for Two Weeks	Self-Harm	Attempt Suicide
0 ACEs	15	5	2
1 ACE	29	15	7
2 or more ACEs	50	31	22

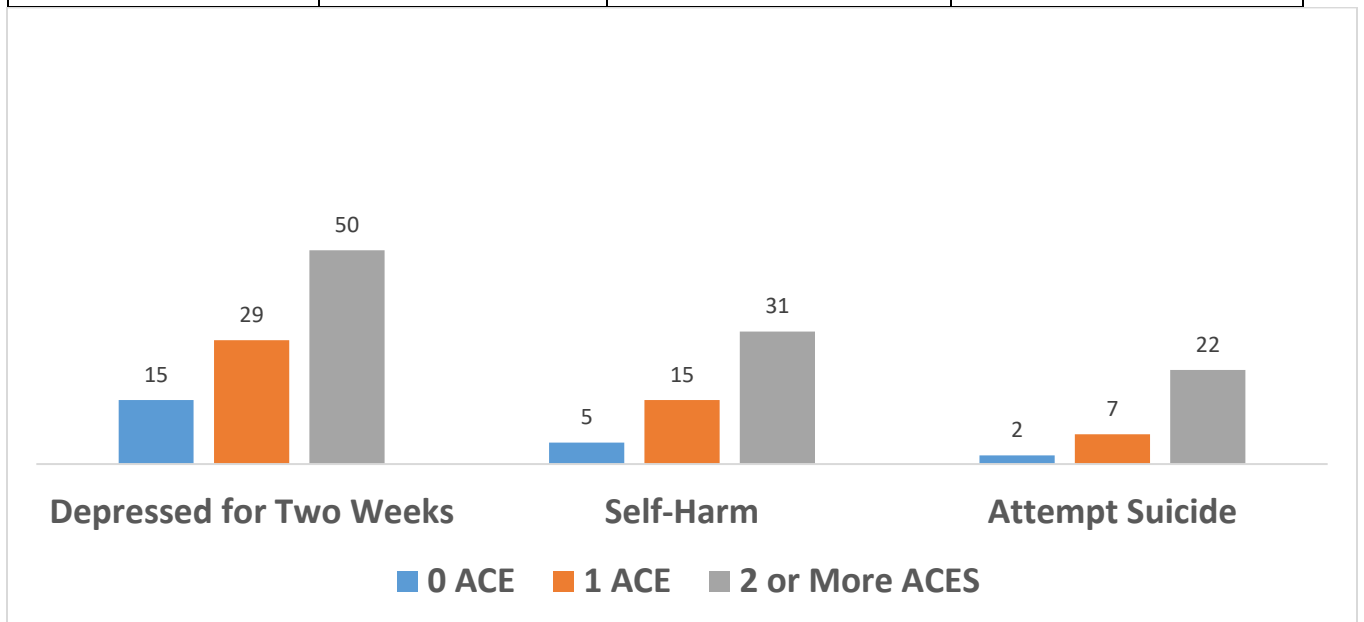


Figure 113 Aggregated adverse childhood experiences and mental health mental health
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Notes:

Unweighted data

*Students who confirmed experiencing any of the events above such as homelessness, fighting, being threatened, being bullied, or experience teen dating violence or sexual violence, were placed in either “1 ACE” or “2 or More ACEs” category depending on the number of different experiences they reported.

Source:

[“2015 Delaware Youth Risk Behavior Survey \(YRBS\).” Centers for Disease Control and Prevention \(Administered by the Center for Drug and Health Studies, University of Delaware\).](#)

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