

# 2023 North Carolina Youth and Young Adult Substance Use Prevention Survey Results



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Wake Forest University  
School of Medicine

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## **Acknowledgments:**

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# Survey Background

## Purpose of the Survey

The North Carolina Youth and Young Adult Substance Use Prevention Survey was conducted to provide information for data-driven decision-making regarding substance use prevention in the state. Its objective was to gather information on substance use behaviors, and to understand important factors contributing to these behaviors, including how substances were accessed and their associated risk and protective factors.

## Participant Recruitment and Data Gathering

The survey took place between December 2022 and February 2023 via telephone interviews, with each interview averaging 29 minutes in length. A total of 15,000 youths and young adults aged 12 to 25 were surveyed across 25 geographic regions within North Carolina. These regions were selected in collaboration with the UNC Carolina Population Center to ensure representation of geographic and population density, while also factoring in commuting patterns, minority population proportions, median household income, unemployment rates, population growth trends, and the influence of shared institutions. Participants were recruited through Qualtrics, using databases that likely included the target demographic and/or their parents, aiming for 300 individuals aged 12-18 and 300 individuals aged 19-25 in each region. Screening, consent, and interviews were administered by trained interviewers via telephone. Participants received compensation for their time in the form of points valued at \$25, redeemable for qualified rewards through Qualtrics.

## Data Weighting and Analysis

The data were weighted to reflect the population of North Carolina's 1,935,361 young people aged 12-25, considering our quota sampling, survey non-response, and the demographic imbalance between the sample and the population. The specific variables used for weighting included: (1) age; (2) race and ethnicity; (3) sex and gender; (4) sexual orientation; (5) school enrollment status; (5) parental education (for those aged 12-18); and (6) household income (for those aged 19-25).

The report is structured into four main sections: 1) population characteristics; 2) substance use and risk and protective factors; 3) harm reduction and recovery; and 4) stress and mental health issues. For reporting purposes, scaled items were categorized into high and low values, as indicated by the measure labels.

Weighted frequencies are presented separately for those aged 12-20 (individuals under the legal age for purchasing alcohol, tobacco, and legal cannabis products) and those aged 21-25 (young adults who can legally purchase alcohol, tobacco, and legal cannabis products).

# Key Findings

## Substance Use Behaviors

Substance use among North Carolina youth and young adults shows distinct patterns that warrant attention.

**Alcohol and nicotine products** were the **most commonly used substances**, followed by medications, cannabis-related products, and other legally available substances. The persistent use of these substances necessitates continued action to prevent and delay their use.

**Emerging substances** of concern include **cannabis-related products**,

**kratom, and hallucinogens**. Use of these products may be affected by evolving state policies. Proactive monitoring of these substances is essential as changes in retail availability could impact youth use.

While the use of **cocaine, heroin and fentanyl, and methamphetamine** was infrequent, they remain of serious concern due to their strong association with **overdose**. Their continued surveillance is critical for guiding intervention efforts.

**Youth vs Young Adult Substance Use (Ever)**

Substance Type	Substance	Youth	Young Adult
Alcohol	Alcohol	15.5%	48.1%
Nicotine products	Cigarettes	16.7%	43.9%
	Nicotine vapes	11.5%	29.8%
	Smokeless tobacco	3.4%	9.0%
	Cigar products	2.4%	14.2%
	Oral nicotine products	1.8%	8.0%
Medications	Prescription medication misuse	4.3%	20.4%
	OTC Medications	18.6%	22.3%
Cannabis-related products	Cannabis (pot, weed)	4.3%	20.3%
	CBD	1.7%	8.6%
	Delta 8/10/P	0.9%	6.1%
	Synthetic Cannabis	0.6%	3.3%
Other legally available products	Kratom	7.2%	15.1%
	Inhalants	1.8%	6.2%
	Steroids	0.7%	2.6%
Other not legally available products	Hallucinogens	1.2%	7.0%
	Cocaine	0.9%	5.8%
	Heroin or Fentanyl	0.9%	3.3%
	Methamphetamines	0.5%	2.7%
Polysubstance use	Polysubstance use	4.8%	23.5%

## Access to Substances

Understanding how youth access substances is critical for making substance use prevention decisions.

Youth access to substances is primarily driven by **social sources**, with **friends** being the most common source for **alcohol, cigarettes, nicotine vapes, and cannabis**. Someone other than a friend or family member was the second most likely source for these substances. Youth who misused **prescription medications** were most likely to **use their own medication differently than told** or to be **given medications by a family member**. Additionally, **youth reported taking substances without permission**

**from homes**, particularly **alcohol, prescription medications, cigarettes, and nicotine vapes** —highlighting the need for increased awareness around secure storage and monitoring within households.

Although less frequent, youth also reported obtaining substances from **retail sources**, especially **nicotine vapes and cigarettes**, and to a lesser extent **alcohol**, suggesting gaps in retail enforcement of age of sale restrictions.

**Youth Access to Substances**

Type of Source	Source	Alcohol	Cigarettes	Nicotine vapes	Prescription Medications	Cannabis
Social Sources	A friend	76.9%	44.2%	46.2%	5.3%	77.3%
	A family member	2.8%	0.2%	0.3%	20.8%	2.0%
	Someone else	3.8%	35.2%	40.4%	3.1%	18.9%
	My own medication	--	--	--	62.4%	--
	Took it without permission from a friend, family member, or someone else, or a home	12.4%	8.1%	6.3%	8.4%	1.5%
Retail Sources	Bought it from a specialty store	2.9%	6.8%	6.3%	--	0.2%
	Bought from a supermarket, discount store, grocery store, or warehouse store	0.4%	2.6%	2.6%	--	--
	Bought from a convenience store or gas station	0.1%	2.6%	0.9%	--	--
	Bought from a restaurant, bar, or club or at public event	0.3%	0.2%	0.4%	--	--
	Took it without permission from a store or public event (or healthcare organization)	0.5%	0.20%	0.0%	0.0%	--

## Risk and Protective Factors

Perception of harm, social disapproval, and likelihood of being caught serve as key protective factors against use. In general, youth:

- Perceived substance use as harmful;
- Believed their friends, parents, and other adults disapprove of their using substances; and
- Expected they would be caught if they use substances.

Among youth, these protective perceptions were strongest for **cannabis** and **prescription medications**, and to a lesser extent **alcohol**. These protective perceptions were weakest for **nicotine vapes**, which stood out for notably lower perceived harms and disapproval, and to a lesser extent **cigarettes**.

In contrast, easy access to substances is a significant risk factor for substance use. Concernedly, many youth thought that **nicotine products**, **alcohol**, and even **prescription medications** would be easy to obtain.

Young adults showed similar patterns in risk and protective factors, however, they were much less likely than youth to perceive of substance use as harmful or as disapproved of by others.

These findings underscore the importance of prevention efforts that focus on reinforcing and sustaining the strong protective perceptions formed in childhood as young people transition into adolescence and also into early adulthood. In addition, prevention strategies should include efforts to secure and monitor substances at home, monitor and enforce school-based substance use policies, and strengthen compliance with retail age-of-sale laws.

**Risk and Protective Factors by Substance**

Risk and protective factors	Alcohol		Cigarettes		Nicotine Vapes		Prescription Medications		Cannabis	
	Youth	Young adults	Youth	Young adults	Youth	Young adults	Youth	Young adults	Youth	Young adults
Perceived Harmful	86.7%	69.6%	86.3%	76.4%	63.2%	50.5%	92.7%	88.4%	94.8%	85.3%
Friends Disapprove	71.4%	42.2%	56.6%	28.2%	43.3%	27.0%	79.5%	68.2%	86.6%	69.0%
Parents Disapprove	96.0%	83.1%	91.2%	75.3%	83.8%	63.3%	90.8%	89.2%	98.6%	97.3%
Adults Disapprove*	84.9%		71.6%		57.1%		83.0%		91.6%	
Parents Would Catch*	90.7%		75.1%		63.6%		74.7%		89.1%	
School Would Catch*	90.3%		73.4%		61.7%		66.0%		87.9%	
Police Would Catch*	90.9%		67.4%		55.5%		60.4%		89.5%	
Few/No Friends Use	63.1%	17.3%	58.0%	19.1%	60.2%	34.1%	88.5%	74.3%	92.6%	69.6%
Parents Rarely/Never Use	26.9%	25.2%	45.2%	41.7%	74.0%	67.9%	--	--	--	--
Difficult to Get	40.5%	2.9%	27.5%	1.3%	29.7%	5.0%	62.3%	26.5%	82.0%	37.5%





## Additional Analyses

As detailed shown, the results revealed informative patterns and divergences across substances by age, how substances were accessed, and by risk and protective factors that are important to consider in making prevention decisions. Additional analyses and data highlights are included in this report, as well as on the North Carolina Substance Use Prevention Data Dashboard, which includes data by prevention regions, prevention

provider areas, and coalitions. North Carolina Youth and Young Adult Substance Use Prevention Survey presentations, reports, manuscripts, and the North Carolina Substance Use Prevention Data Dashboard are available at: [school.wakehealth.edu/about-the-school/prevention-resource-repository](https://school.wakehealth.edu/about-the-school/prevention-resource-repository).

# Report Format

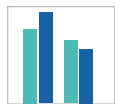
## The report is divided into four sections:

-  Population characteristics are in green;
-  Substance use behaviors and risk and protective factors, with youth in teal and young adults in blue;
-  Harm reduction and recovery, with youth in teal and young adults in orange; and
-  Mental health and stress, with youth in teal and young adults in purple.

## The report uses different types of graphics to indicate different populations and types of data:



Donut graphics describe population characteristics;



Column charts describe the population knowledge, attitudes, and behaviors;



Bar charts describe a subset of the population's knowledge, attitudes, and behaviors (these graphs are surrounded by a border, with light shading).

## The data is ordered for consistency and clarity:

Donut graphs start with the top left donut wedge, and begin with the lowest category for ordered data (i.e., age, parental education, household income, education level, and school enrollment) and the largest proportion of the population for non-ordered data; and

Column and bar charts are ordered within categories, and then from the highest to lowest prevalence for the youth population, (e.g., substance use is ordered by type of product, and then individual substances in that product type for youth).

## Important findings are emphasized in different ways for different types of data:



Population characteristics findings are at the bottom center of the page, in a gradient shaded box;



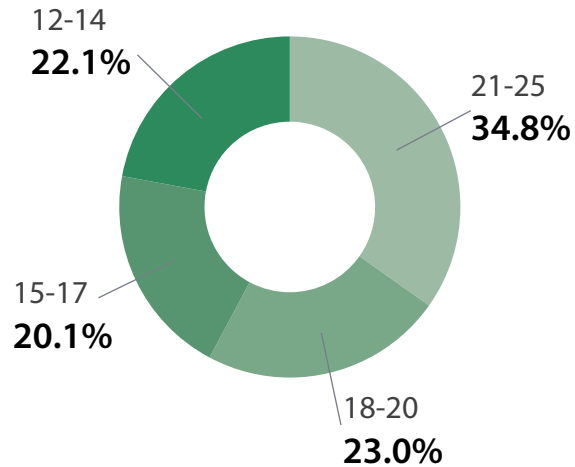
Population knowledge, attitudes, and behavior findings are in a shaded box between the chart title and the data, pointing to the relevant data; and



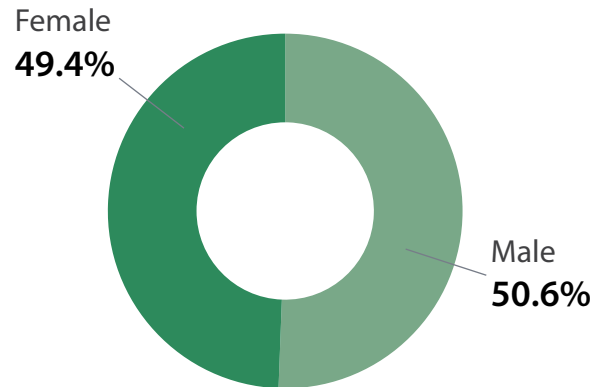
Findings for knowledge, attitudes, and behavior for a subset of the population are typically to the right of the data, inside an unshaded box and pointing to the relevant data.

# Demographics

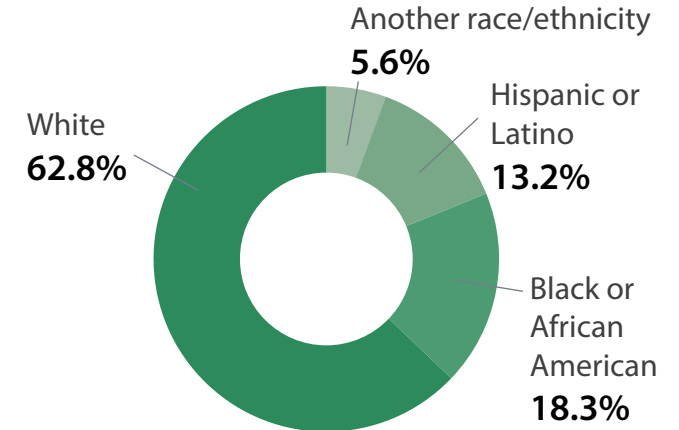
## Age



## Biological Sex

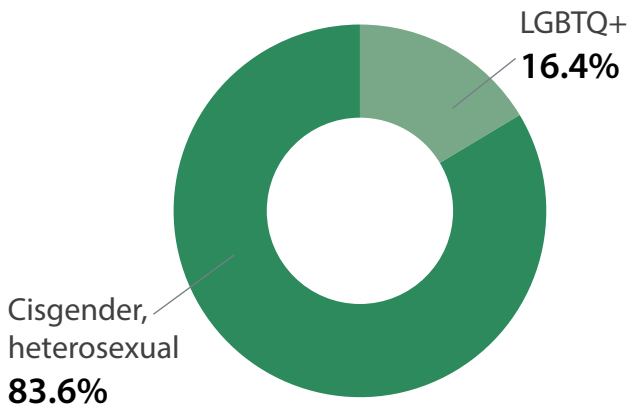


## Race/Ethnicity

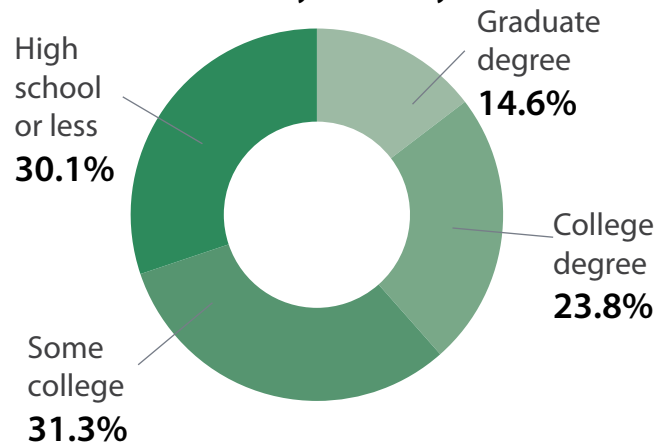


## Socioeconomic Status Proxies

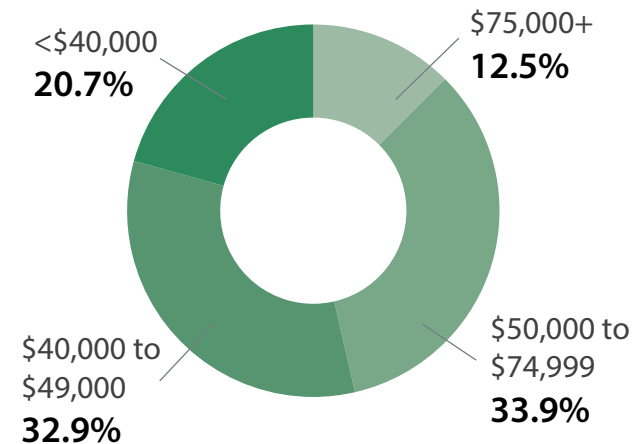
### Sexual or Gender Minorities



### Parental Education (12-18 years only)



### Household Income (19-25 years only)

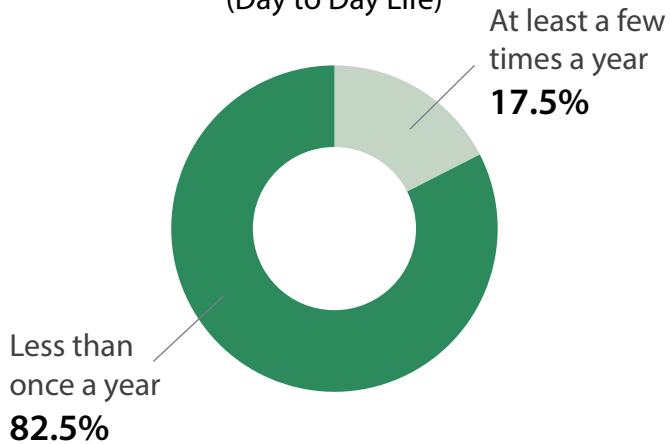


All data presented are weighted to reflect North Carolina's 1,935,361 youth and young adults aged 12-25.

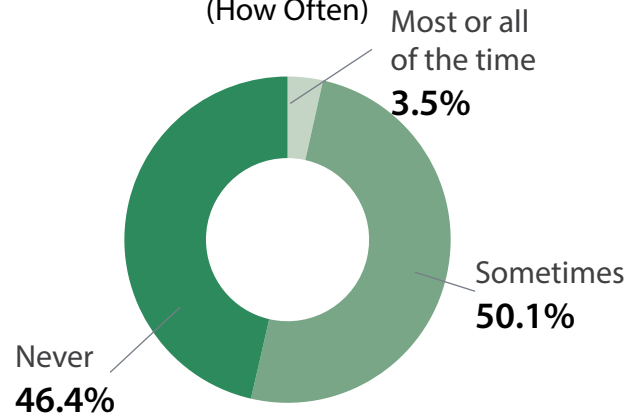
# Social Determinants of Health Experienced

## Experienced Over Time

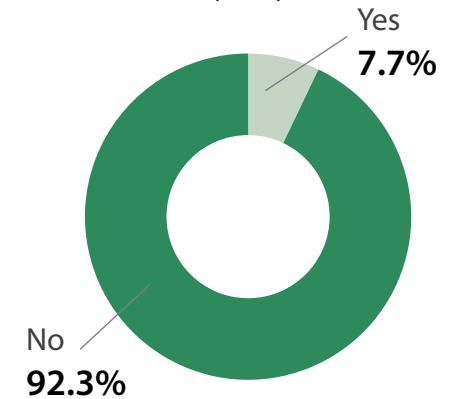
**Everyday Discrimination**  
(Day to Day Life)



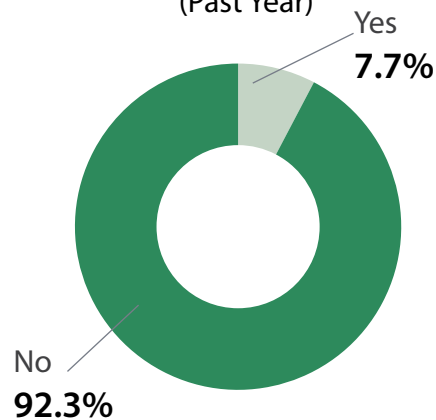
**Community ACES**  
(How Often)



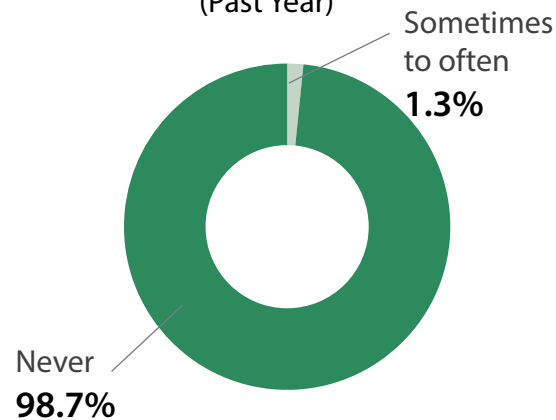
**Parental Separation**  
(Ever)



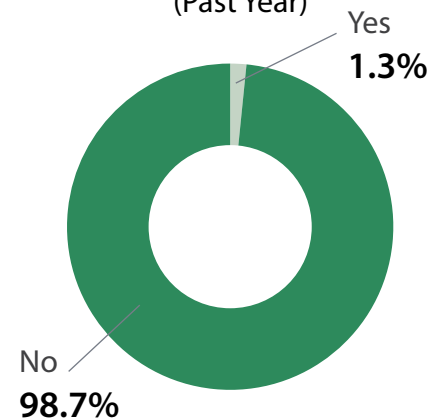
**Immigration Concerns**  
(Past Year)



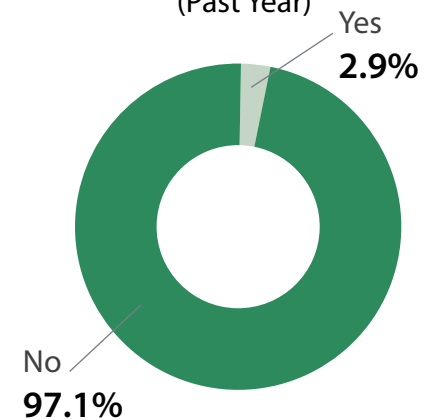
**Food Insecurity**  
(Past Year)



**Unhoused**  
(Past Year)



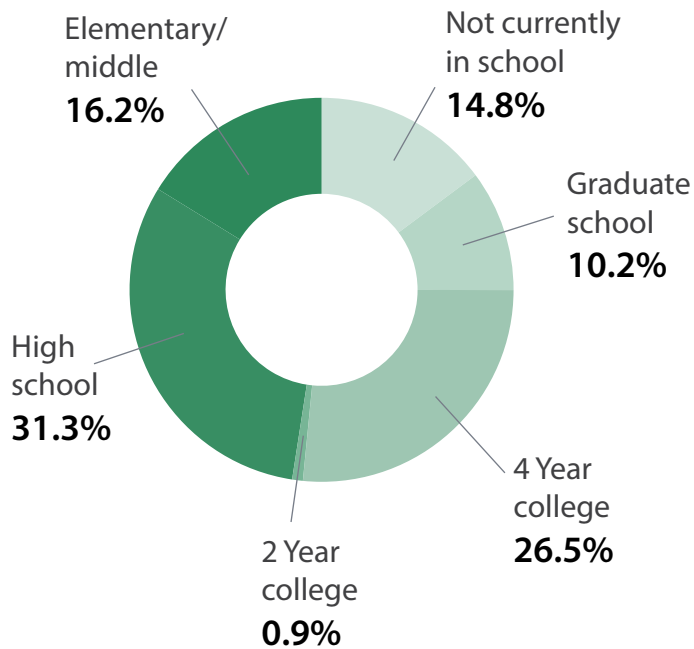
**Transportation Insecurity**  
(Past Year)



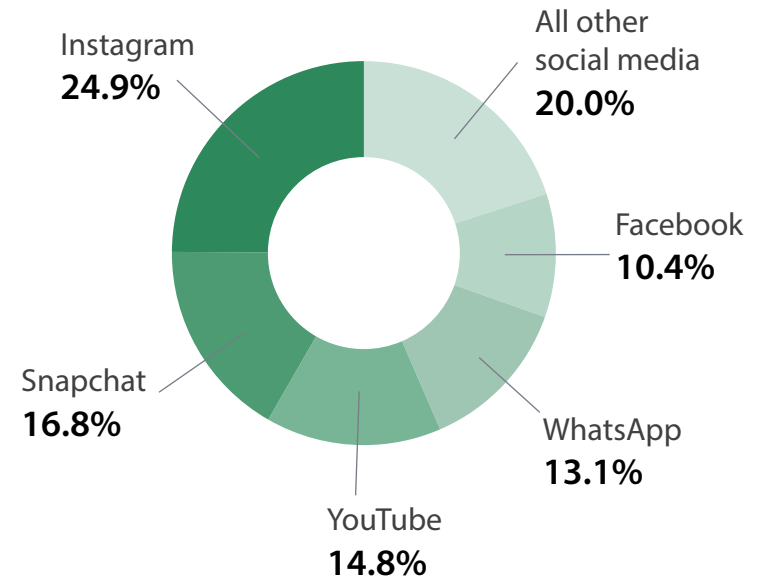
All measured social determinants of health were significantly related to substance use.

# Social Context

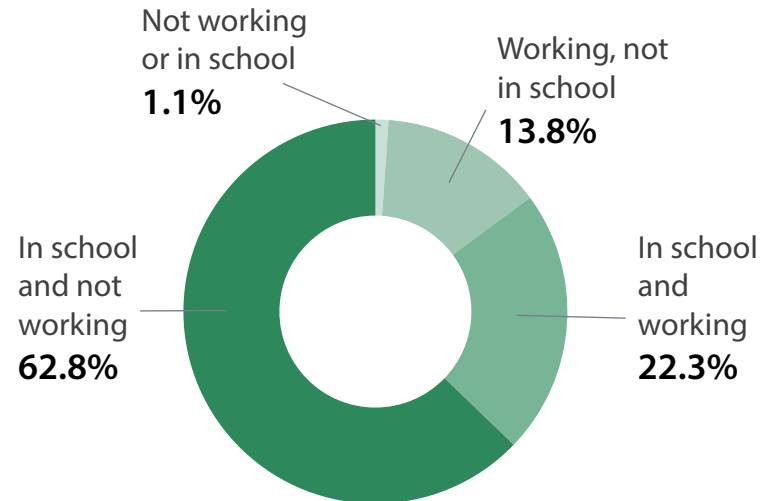
## School Enrollment



## Social Media Preferences



## Employment Status



Most youth and young adults are engaged in school and/or work.

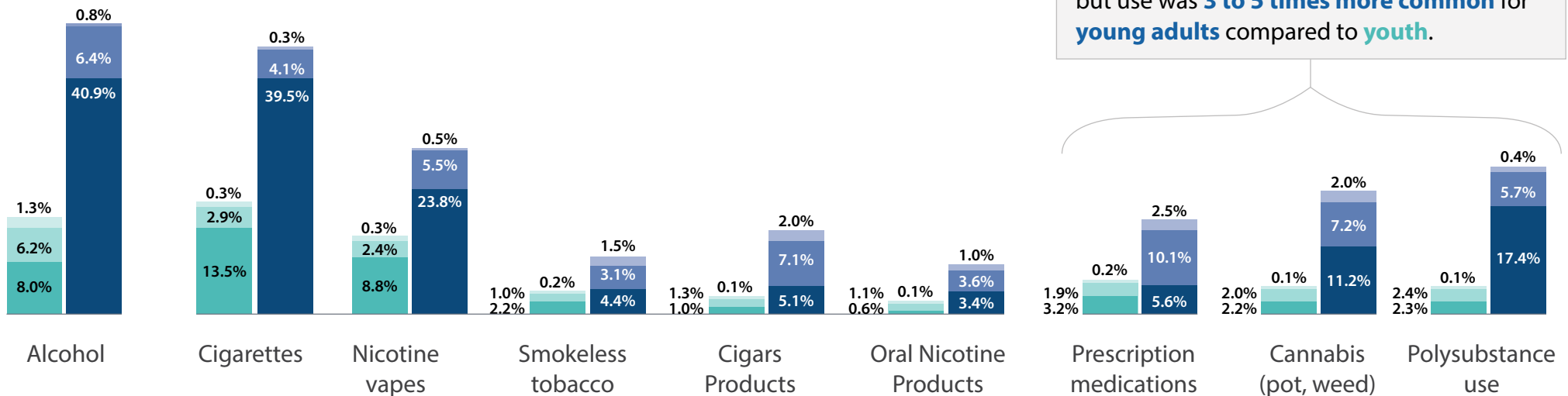
# Most Recent Substance Use

## Alcohol, Nicotine Products, Cannabis, Prescription Drugs, and Polysubstance Use

### Past 30 Day, Past Year, and Lifetime Substance Use

**Alcohol and nicotine** were the most used types of substances among both **youth** and **young adults**. **Young adults** were 3 to 6 times more likely to consume alcohol and nicotine products than **youth**.

Prescription medication misuse, cannabis use, and polysubstance use were not common, but use was **3 to 5 times more common** for **young adults** compared to **youth**.



### Nicotine Products

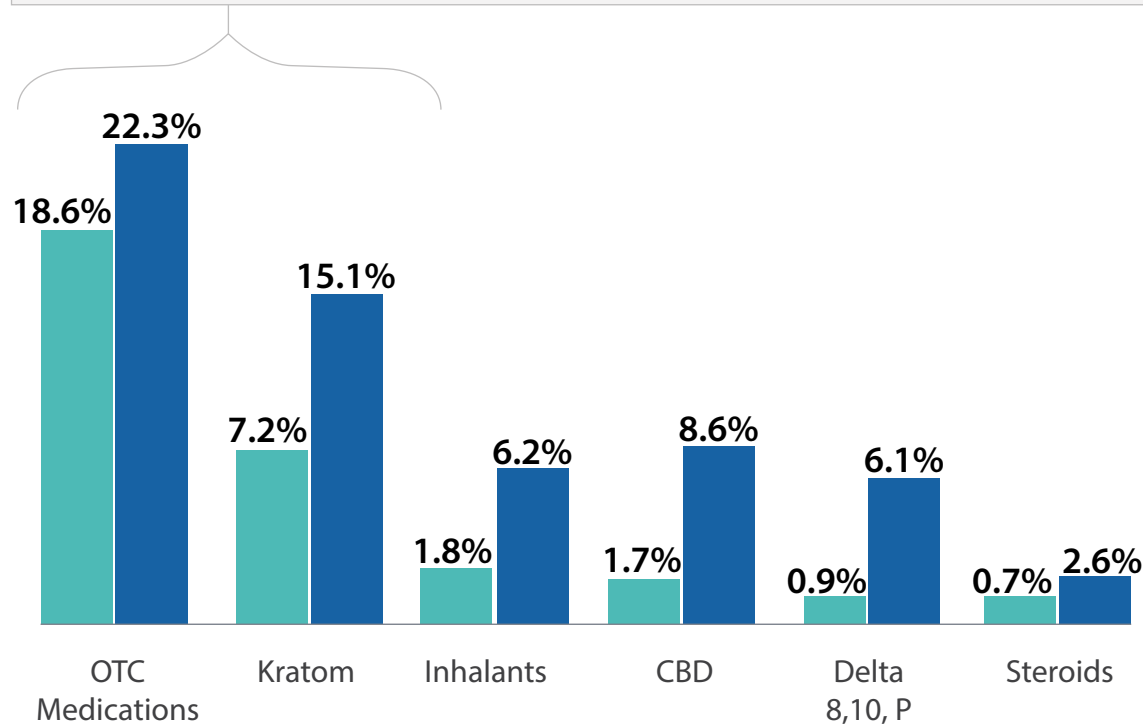
**Youth 12-20**   Last 30 Days   Past year, but more than 30 days   More than 12 months ago  
**Young adults 21-25**   Last 30 Days   Past year, but more than 30 days   More than 12 months ago

# Other Substance Use

## OTC Medications, Kratom, Inhalants, CBD, Delta 8/10/P, Steroids, and Other Drugs

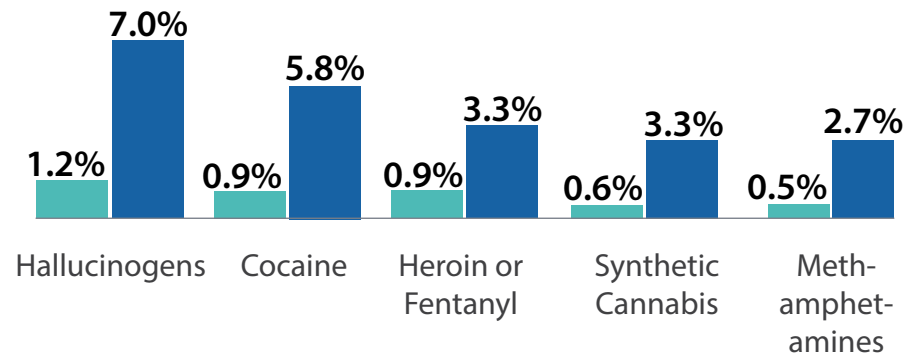
### Lifetime Use of Other Substances

OTC medications and kratom were the most used legally available substances.



Legally Available

Less than 2% of youth and 10% of young adults used substances that are not available legally.

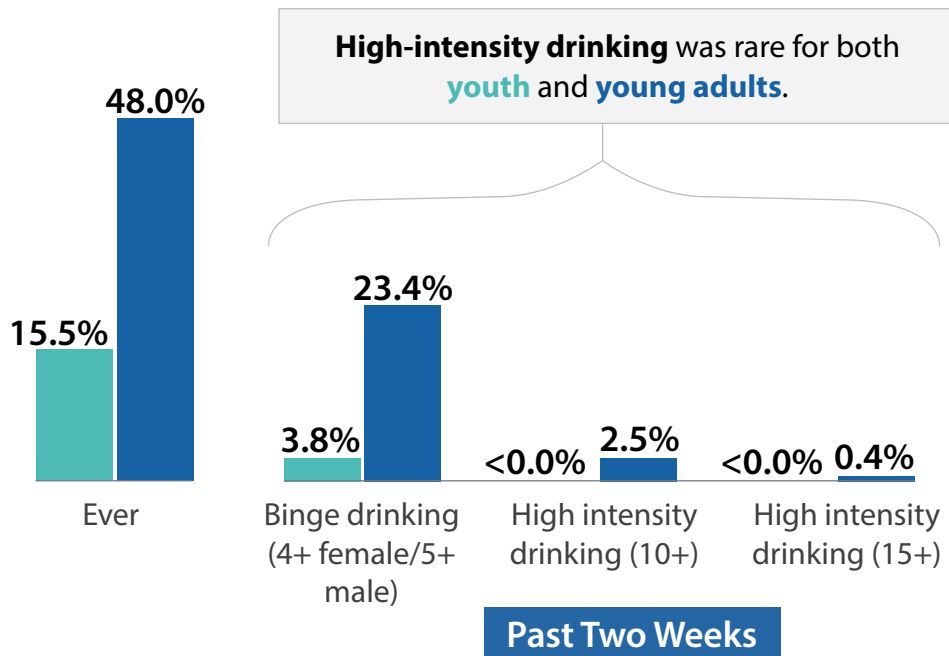


Not Available Legally

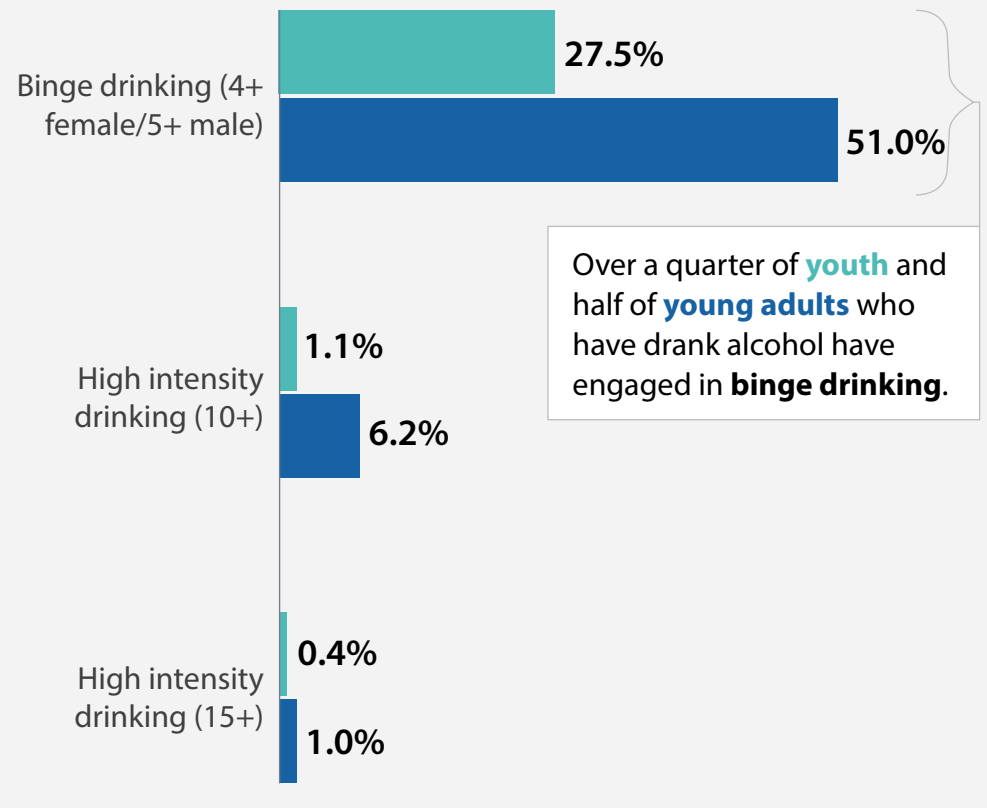
■ Youth 12-20 ■ Young adults 21-25

# Alcohol Use and Binge Drinking

Alcohol Consumption (Ever) and Binge Drinking (Past 2 Weeks)



**Binge and High Intensity Drinking, Past 2 Weeks**  
(Among Those Who Have Tried Alcohol)



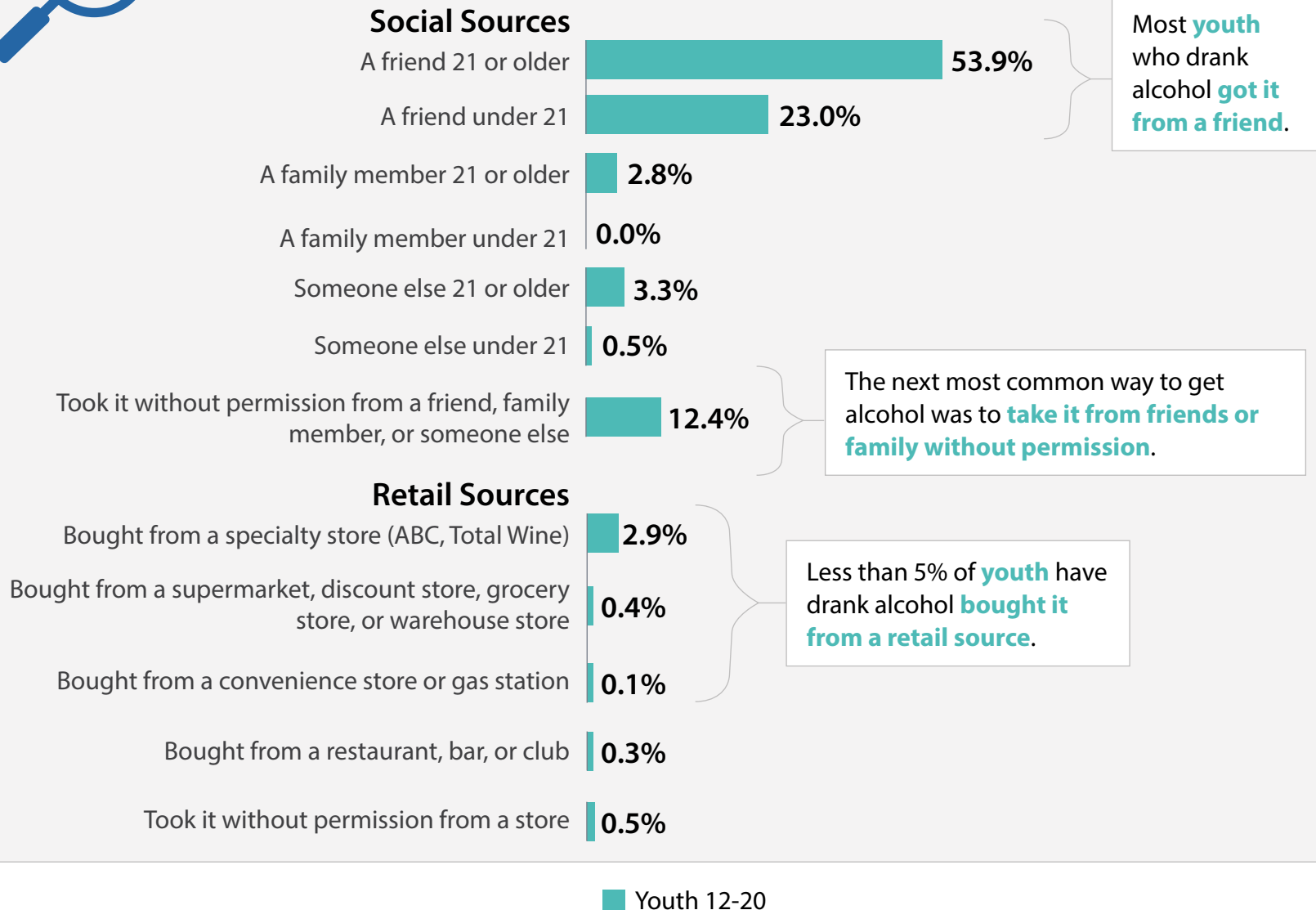
■ Youth 12-20

■ Young adults 21-25

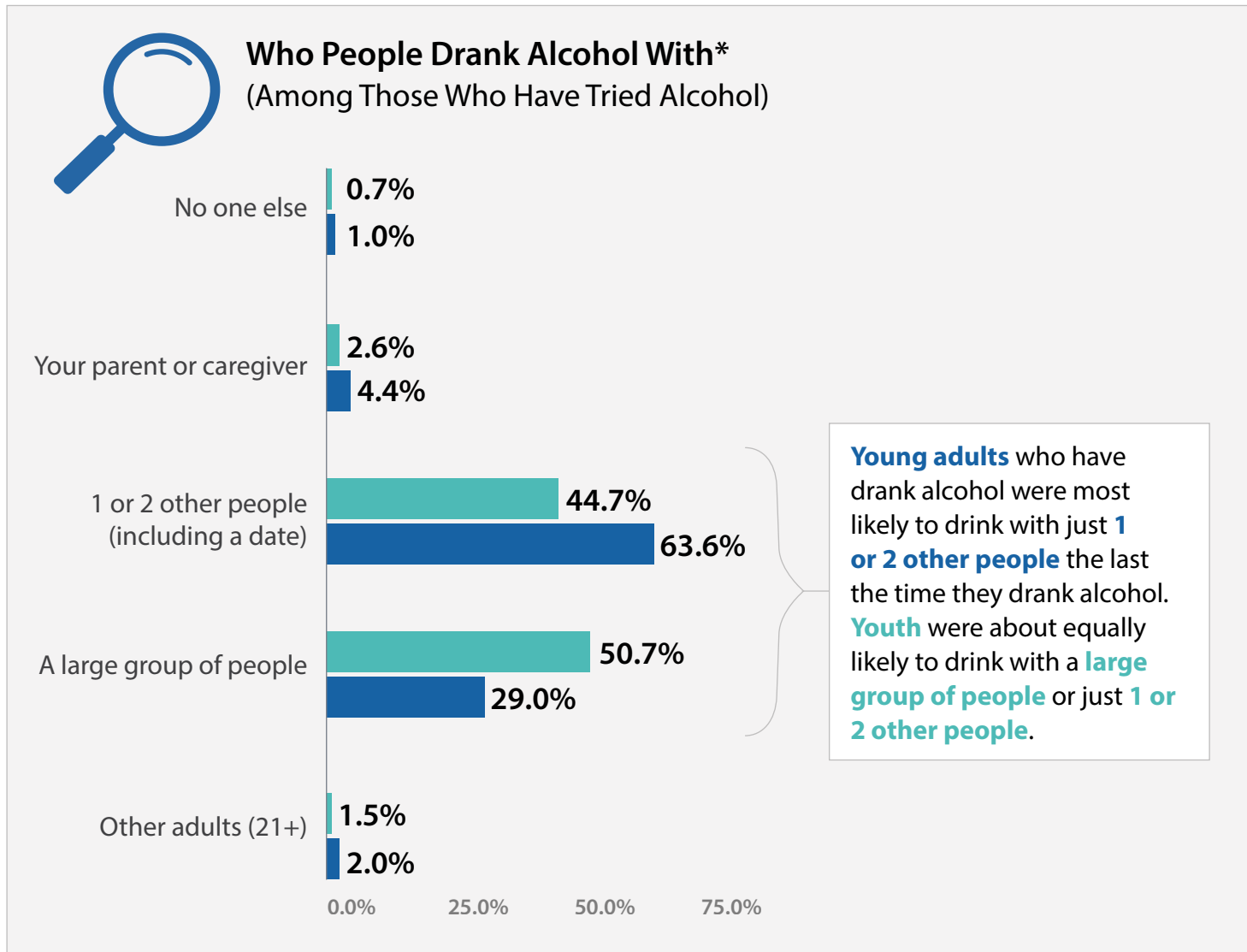
# Underage Alcohol Access



## How Youth Got the Alcohol They Consumed (Among Those Who Have Tried Alcohol)



# Social Context of Alcohol Use

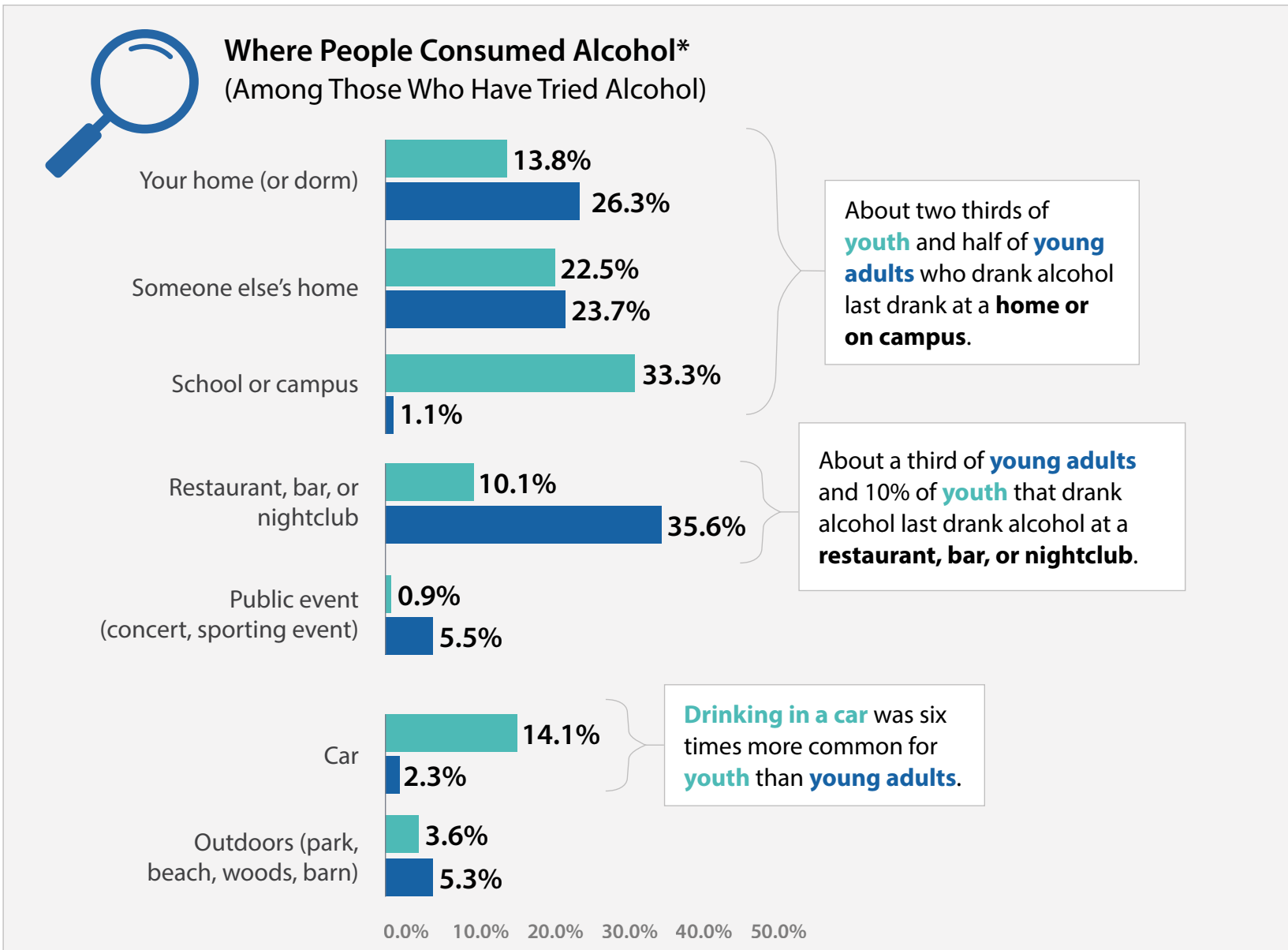


\*This may add up to more than 100%.

■ Youth 12-20

■ Young adults 21-25

# Physical Context of Alcohol Use



\*This may add up to more than 100%.

■ Youth 12-20

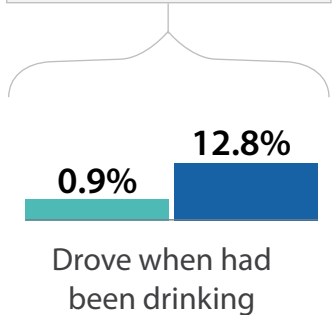
■ Young adults 21-25

# Drinking and Driving

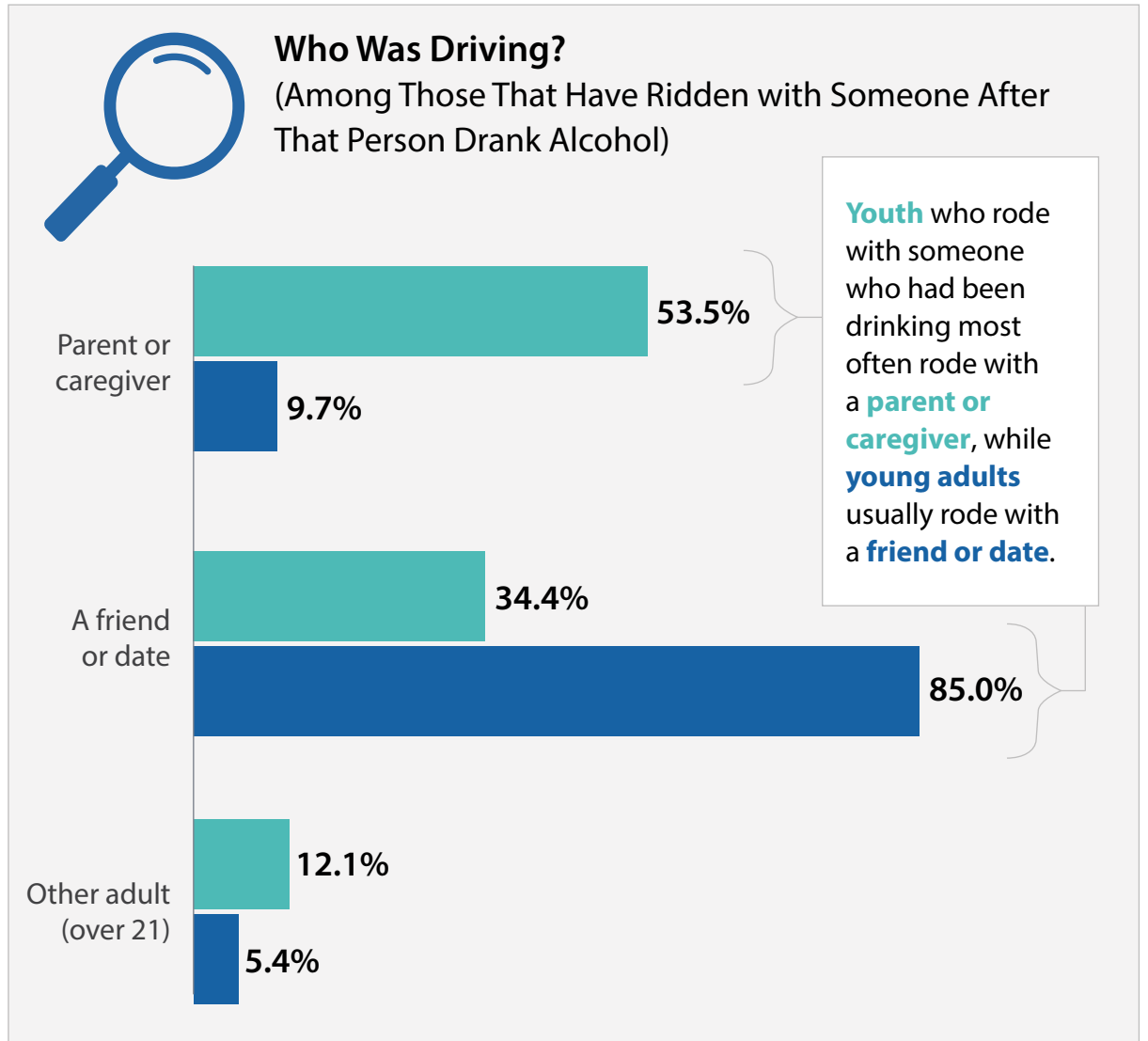
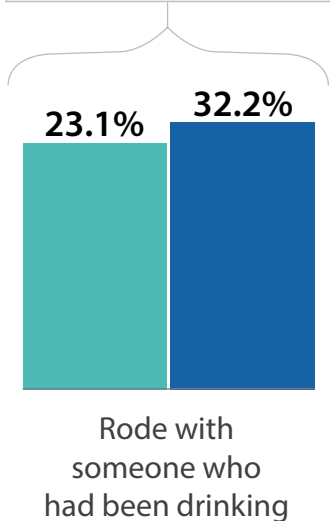
## Past 30 Days

### Past 30 Day Drinking and Driving

More than 10% of **young adults drove after drinking.**



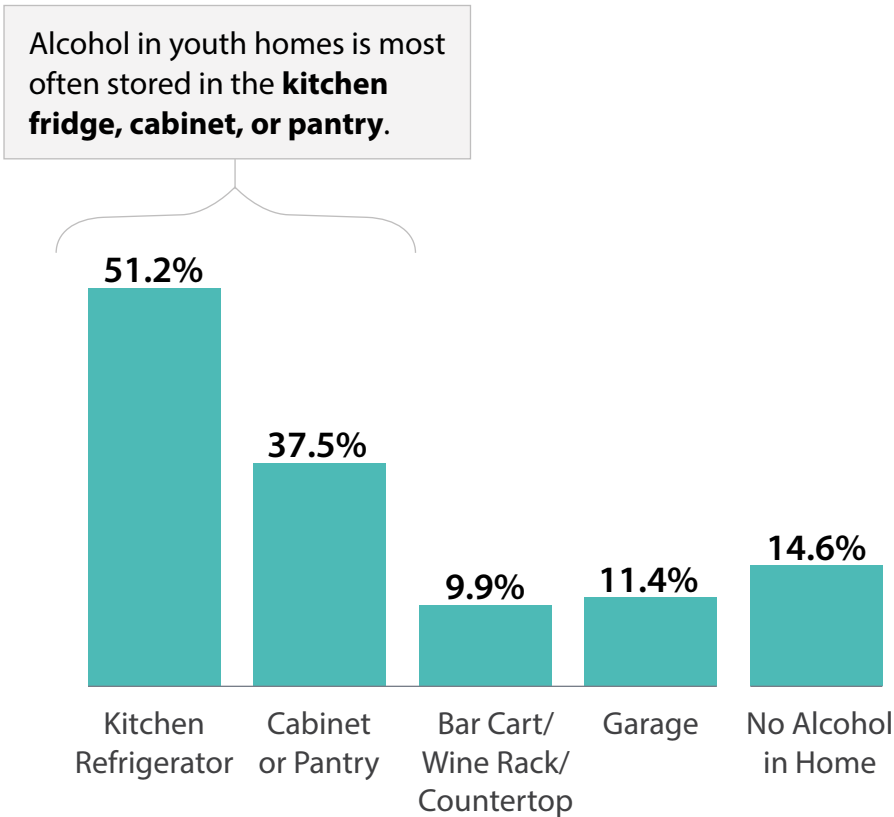
Nearly one fourth of **youth** and one third of **young adults** rode with **someone who had been drinking alcohol.**



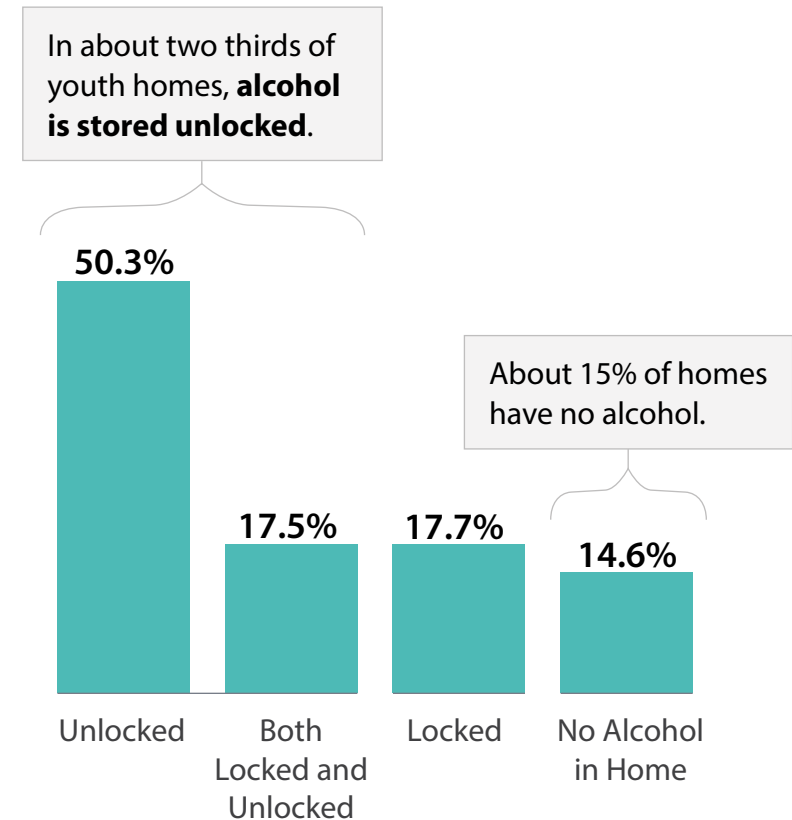
■ Youth 12-20    ■ Young adults 21-25

# Alcohol Storage

Alcohol Storage in the Home\*



Locked vs Unlocked Alcohol Storage in the Home

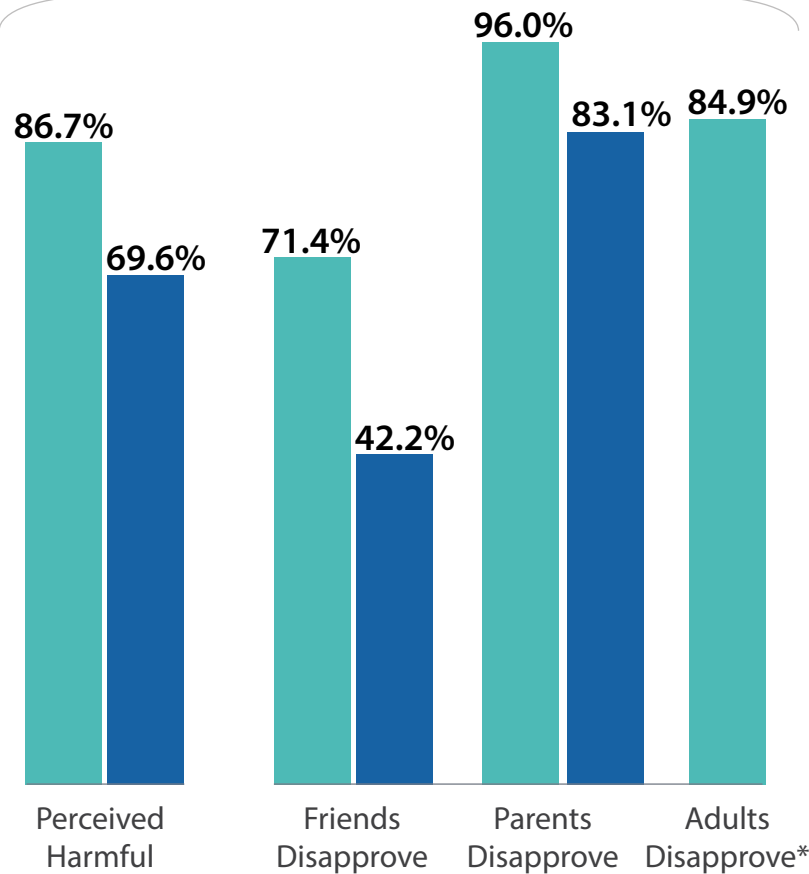


\*Items only asked among youth 12-18 years old.

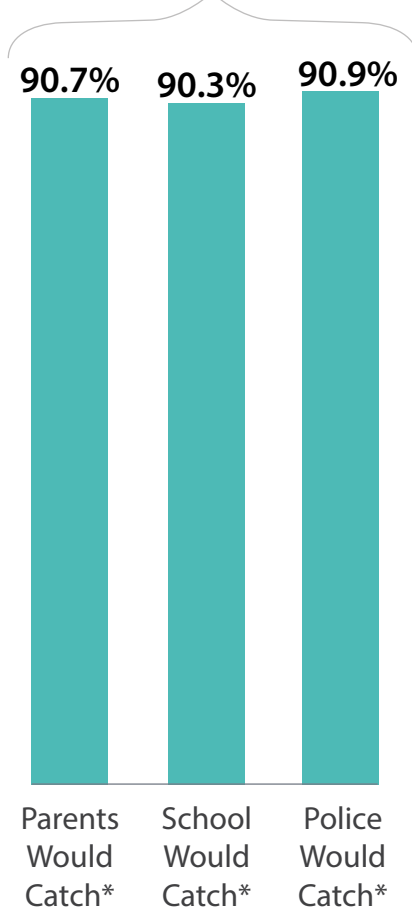
■ Youth 12-20

# Alcohol-Related Risk and Protective Factors

More **youth** perceived **alcohol-related harms and disapproval** than **young adults**.



Most **youth** thought they would be caught if they drank alcohol.



63.1%

Few/No Friends Drink Alcohol

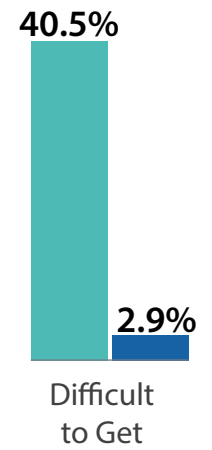
17.3%

Parents Rarely/ Never Drink Alcohol

26.9%

25.2%

Less than half of **youth** thought alcohol was hard to get.



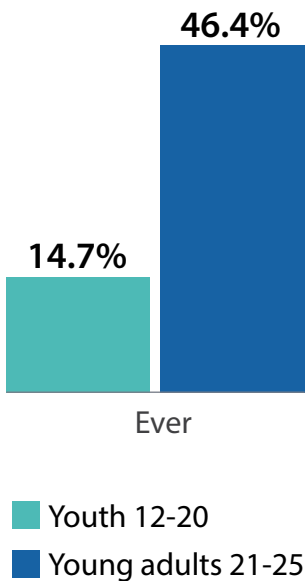
\*Items only asked among youth 12-18 years old.

■ Youth 12-20

■ Young adults 21-25

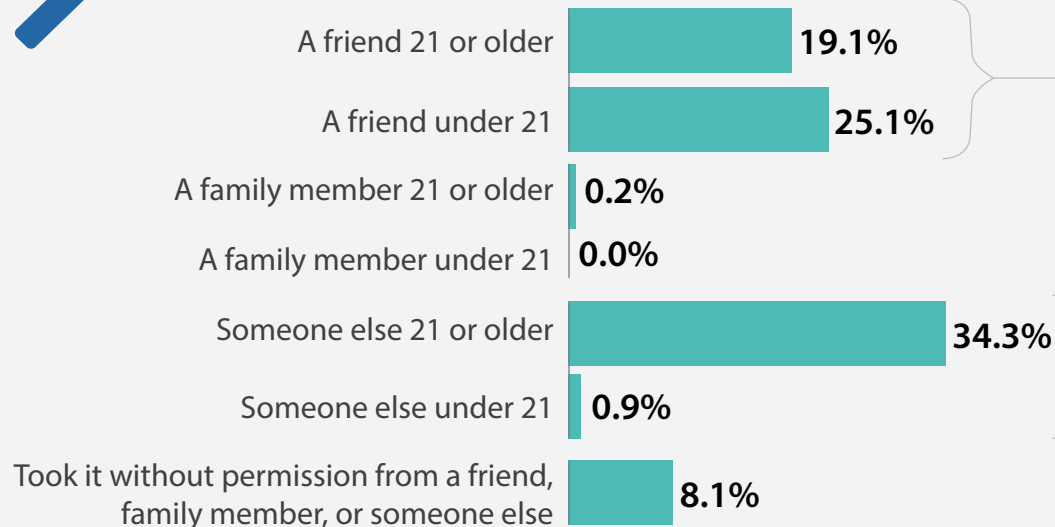
# Cigarette Smoking and Underage Access

## Cigarette Smoking (Ever)



## How Youth Got Cigarettes They Smoked (Among Those Who Have Smoked Cigarettes)

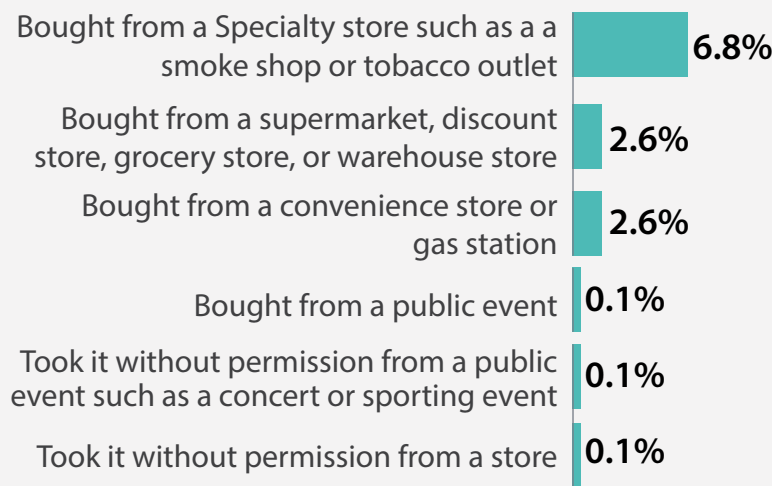
### Social Sources



Almost half of **youth** who smoked cigarettes **got cigarettes from a friend**.

About a third of **youth** who smoked cigarettes got cigarettes from **someone other than a friend or family member**.

### Retail Sources



About 12% of **youth** who smoked cigarettes **bought cigarettes from a retail source**. This was 3 times more often than youth bought alcohol from a retail source.

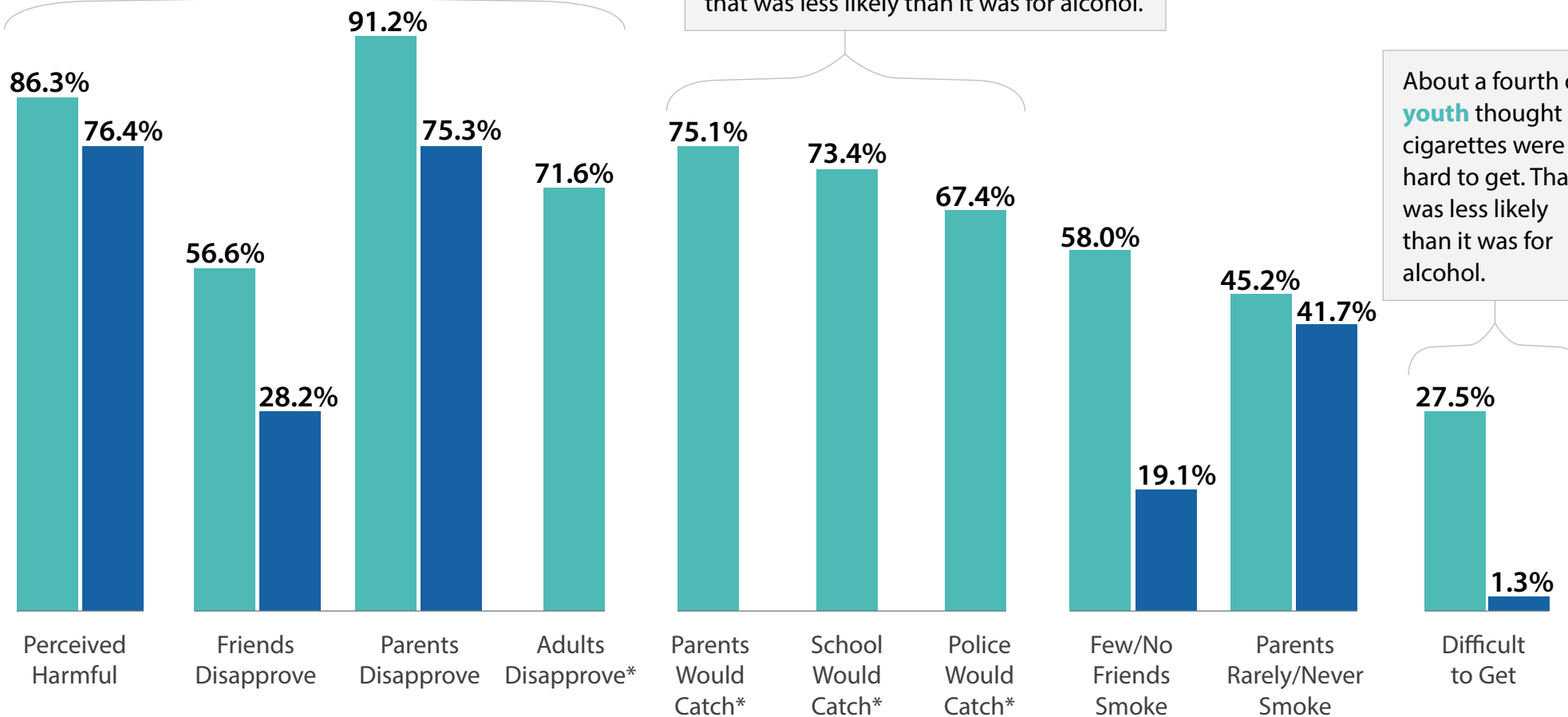
0.0% 10.0% 20.0% 30.0% 40.0% 50.0%

# Cigarette Smoking-Related Risk and Protective Factors

More **youth** perceived **alcohol-related harms and disapproval** than **young adults**. But fewer **youth** perceived disapproval for smoking cigarettes compared to alcohol.

Most **youth** thought they would be **caught if they smoked cigarettes**, but that was less likely than it was for alcohol.

About a fourth of **youth** thought cigarettes were hard to get. That was less likely than it was for alcohol.



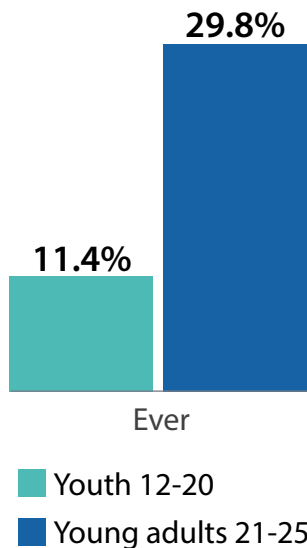
\*Items only asked among youth 12-18 years old.

■ Youth 12-20

■ Young adults 21-25

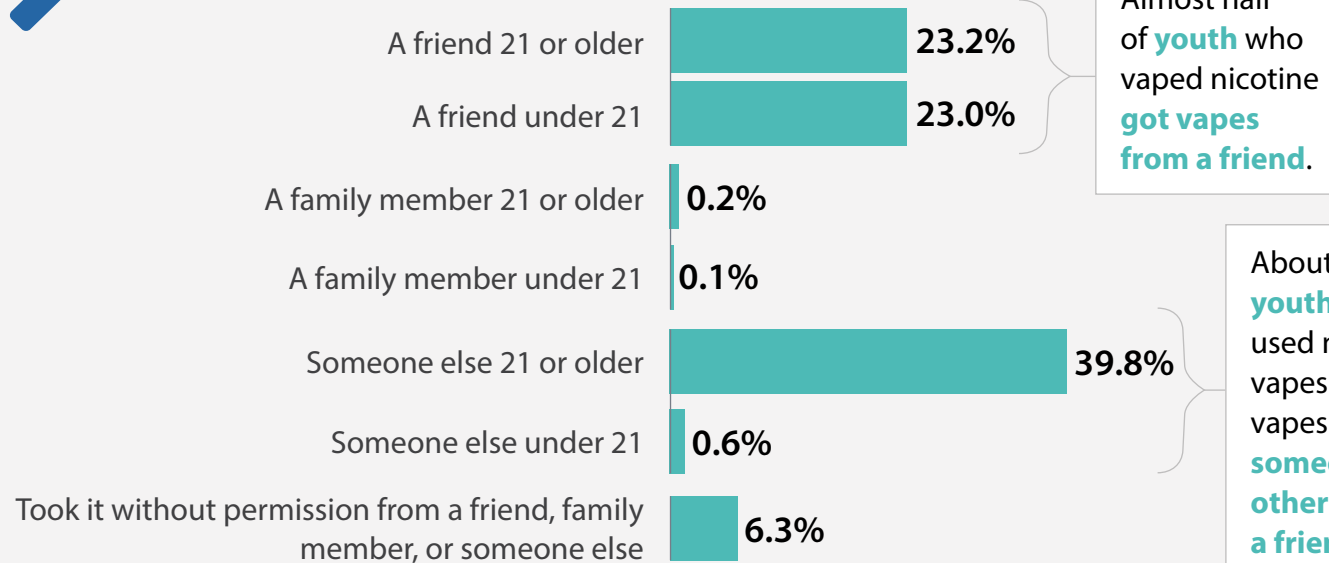
# Nicotine Vape Use and Underage Access

Nicotine Vape Use (Ever)



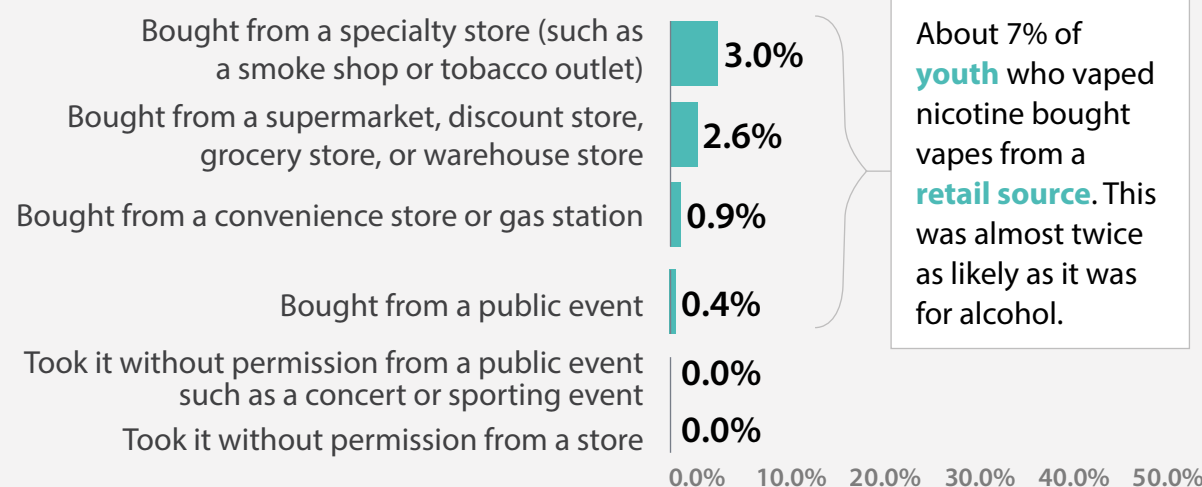
## How Youth got Nicotine Vapes they Used (Among Those Who Have Vaped Nicotine)

### Social Sources



About 40% of youth who used nicotine vapes got vapes from someone other than a friend or family member.

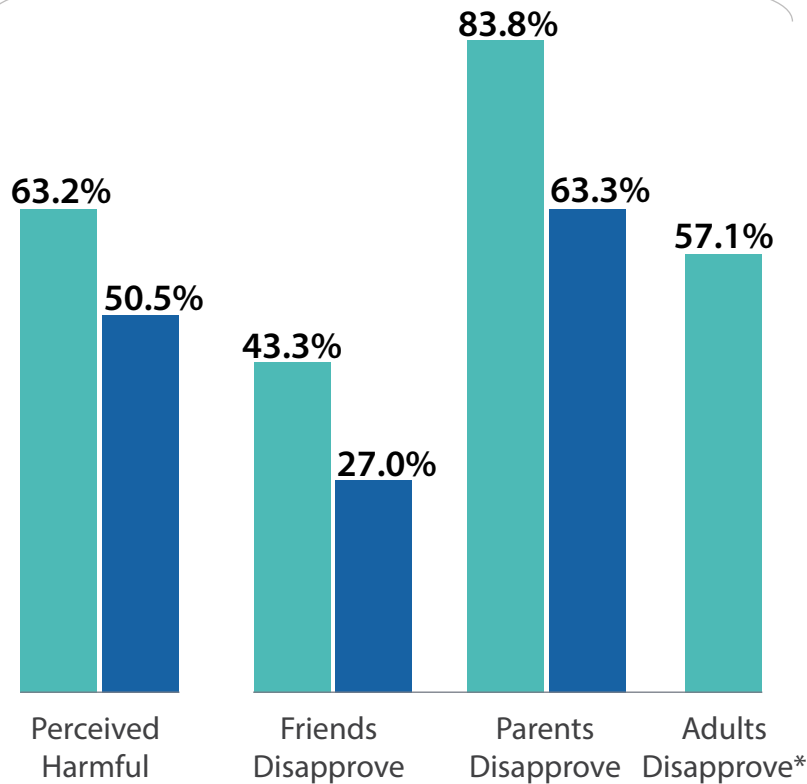
### Retail Sources



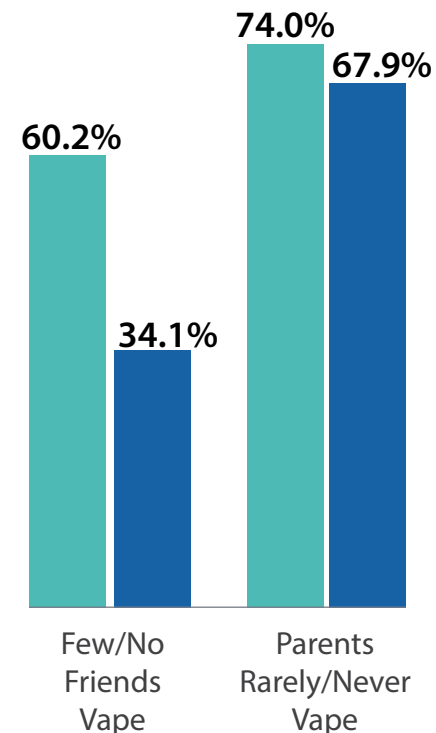
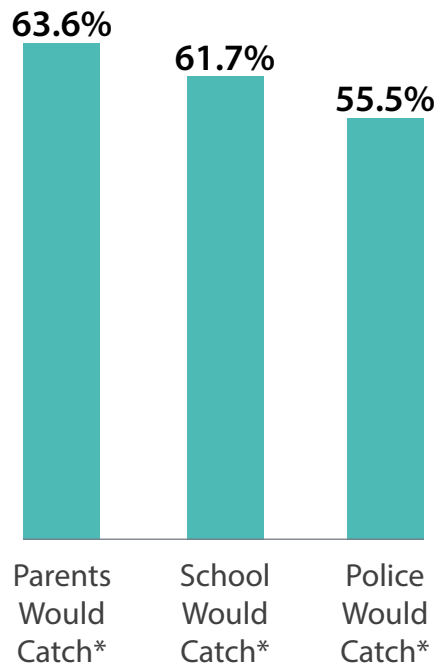
About 7% of youth who vaped nicotine bought vapes from a retail source. This was almost twice as likely as it was for alcohol.

# Nicotine Vape-Related Risk & Protective Factors

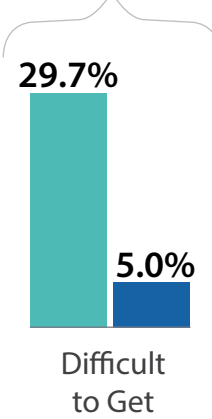
More **youth** perceived **nicotine vape-related harms and disapproval** than **young adults**. But fewer **youth** perceived harms and disapproval for nicotine vapes compared to alcohol or cigarettes.



Most **youth** thought they would be caught if they **vaped nicotine**, but that was less likely than it was for alcohol or cigarettes.



About a third of **youth** thought nicotine vapes were hard to get. That was less likely than it was for alcohol.



\*Items only asked among youth 12-18 years old.

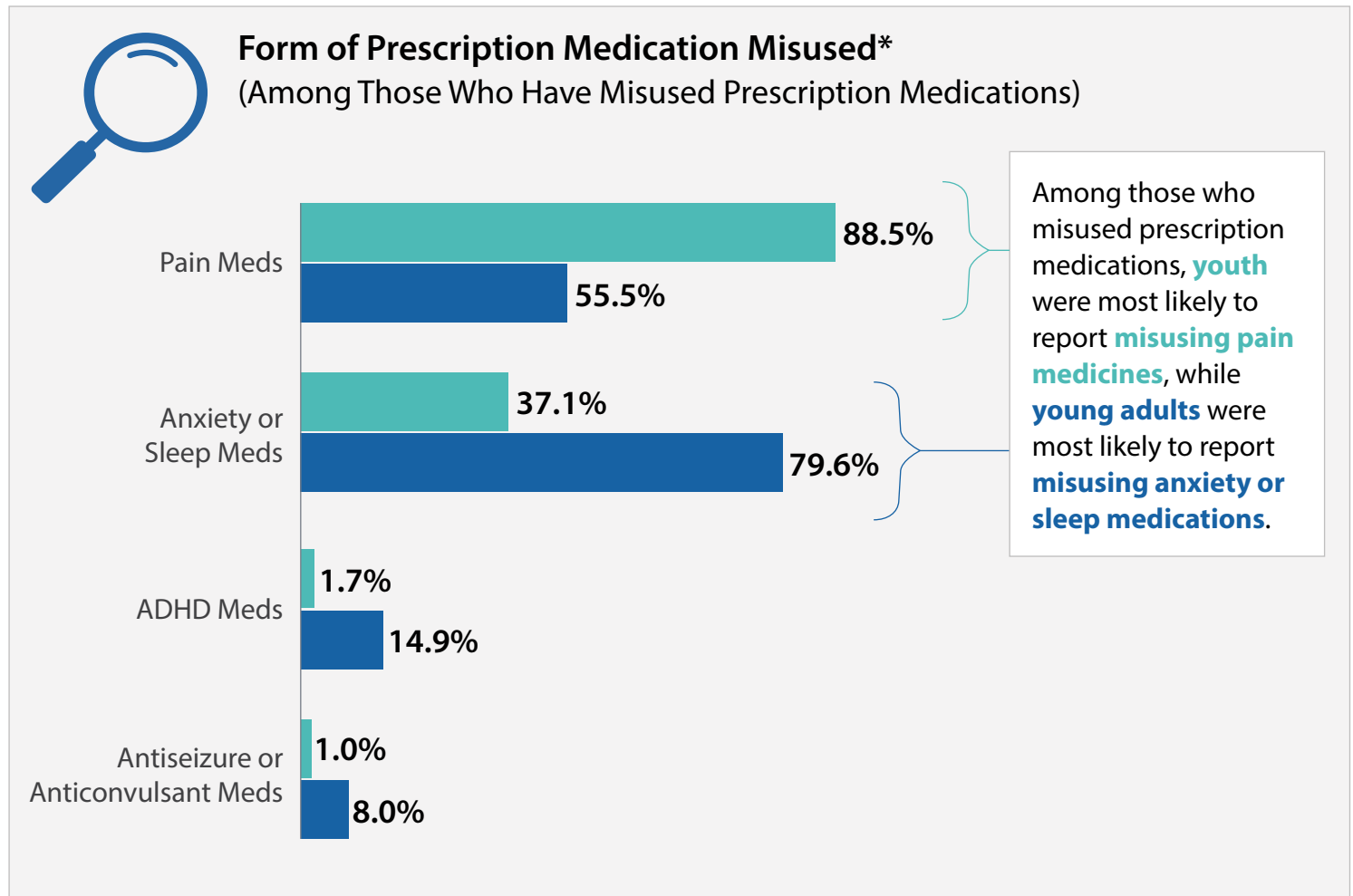
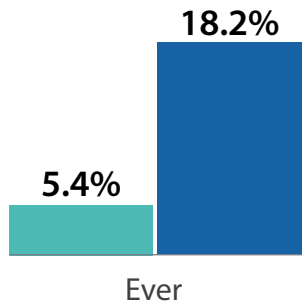
■ Youth 12-20

■ Young adults 21-25

# Prescription Medication Misuse

Use Without a Doctor's Prescription or Used Differently Than How a Doctor Told to Use

## Prescription Medication Misuse (Ever)



\*Respondents could select more than one type of prescription medication.

■ Youth 12-20

■ Young adults 21-25

# Access to Prescription Medications



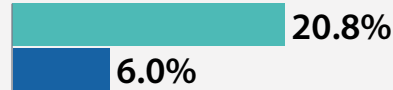
## How People Got the Prescription Medications They Misused (Among Those Who Have Misused Prescription Medications)

### Social Sources

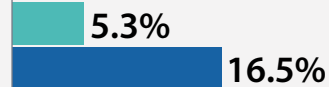
I got them from my own prescription (but did not use in the way the doctor directed)



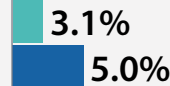
A family member



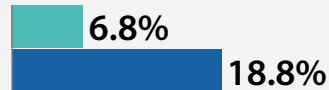
A friend



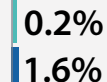
Someone else



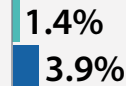
Took them from my home



Took them from another family member's home



Took them from someone else's home



### Retail Source

Took them from a doctor's office, clinic, hospital, or pharmacy



Most people who misused prescription medications **got them from their own prescription.** This was slightly more likely for **youth.**

Slightly over a fourth of people who misused prescription medications got them someone they knew. Most **youth** said this was a **family member.** Most **young adults** said this was a **friend.**

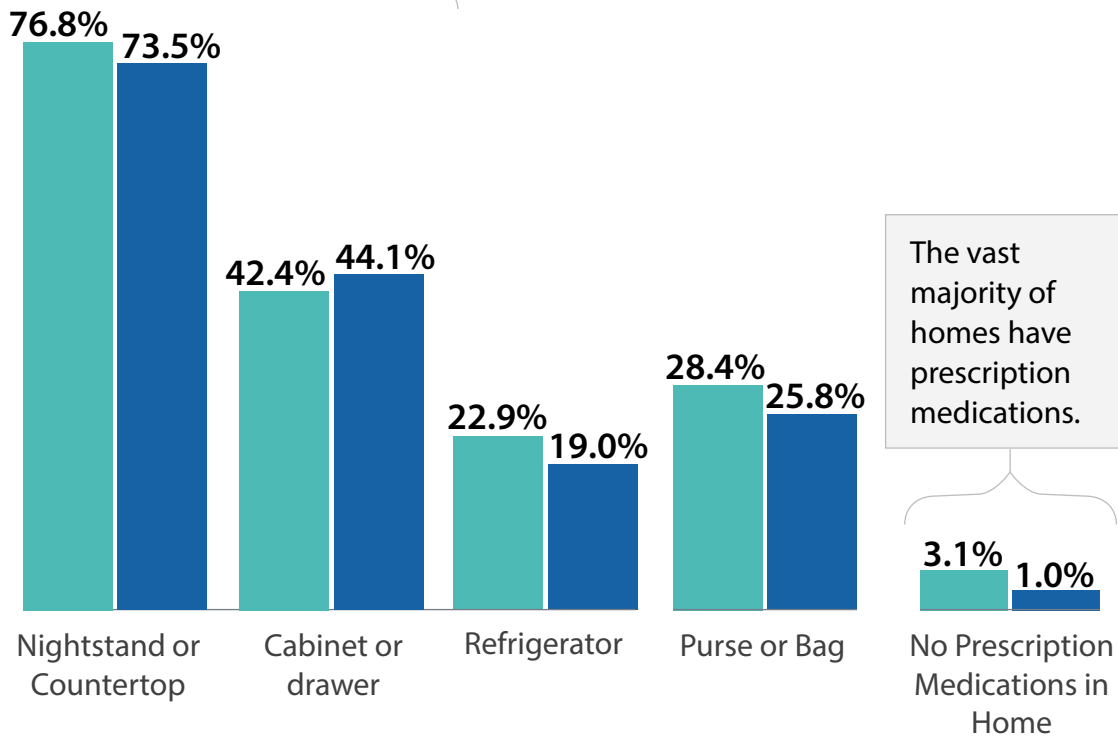
Almost 10% of **youth** and a fourth of **young adults** said they **took the prescription medications they misused from a home,** most often their own home.



# Prescription Medication Storage

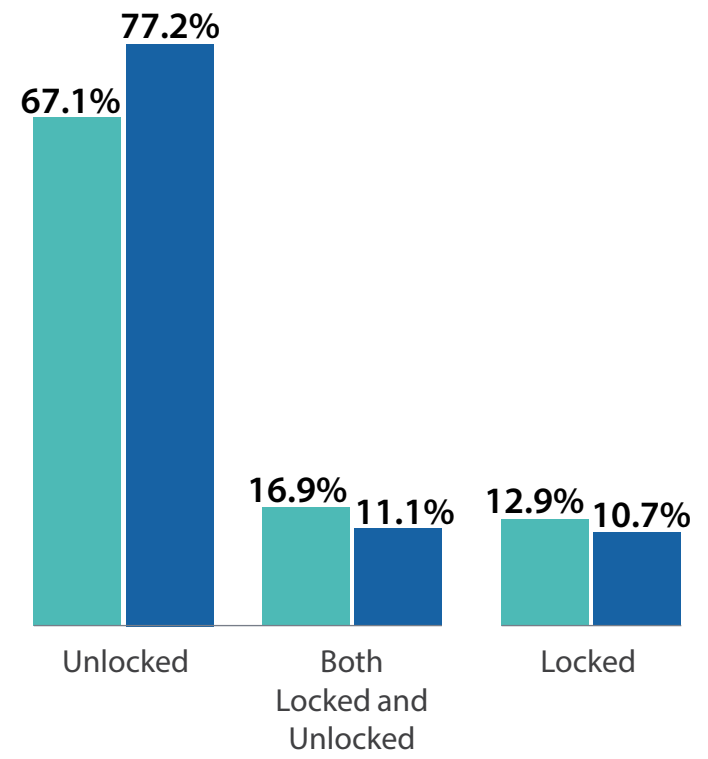
## Prescription Medication Storage Location in the Home\*

Prescription medications are stored in multiple places in the home, most often a **nightstand or countertop**, or a **cabinet or drawer**.



## Locked vs Unlocked Prescription Medication Storage

Most homes have prescription medications stored **unlocked**.



\*Prescription medication storage location numbers may add up to more than 100%

■ Youth 12-20

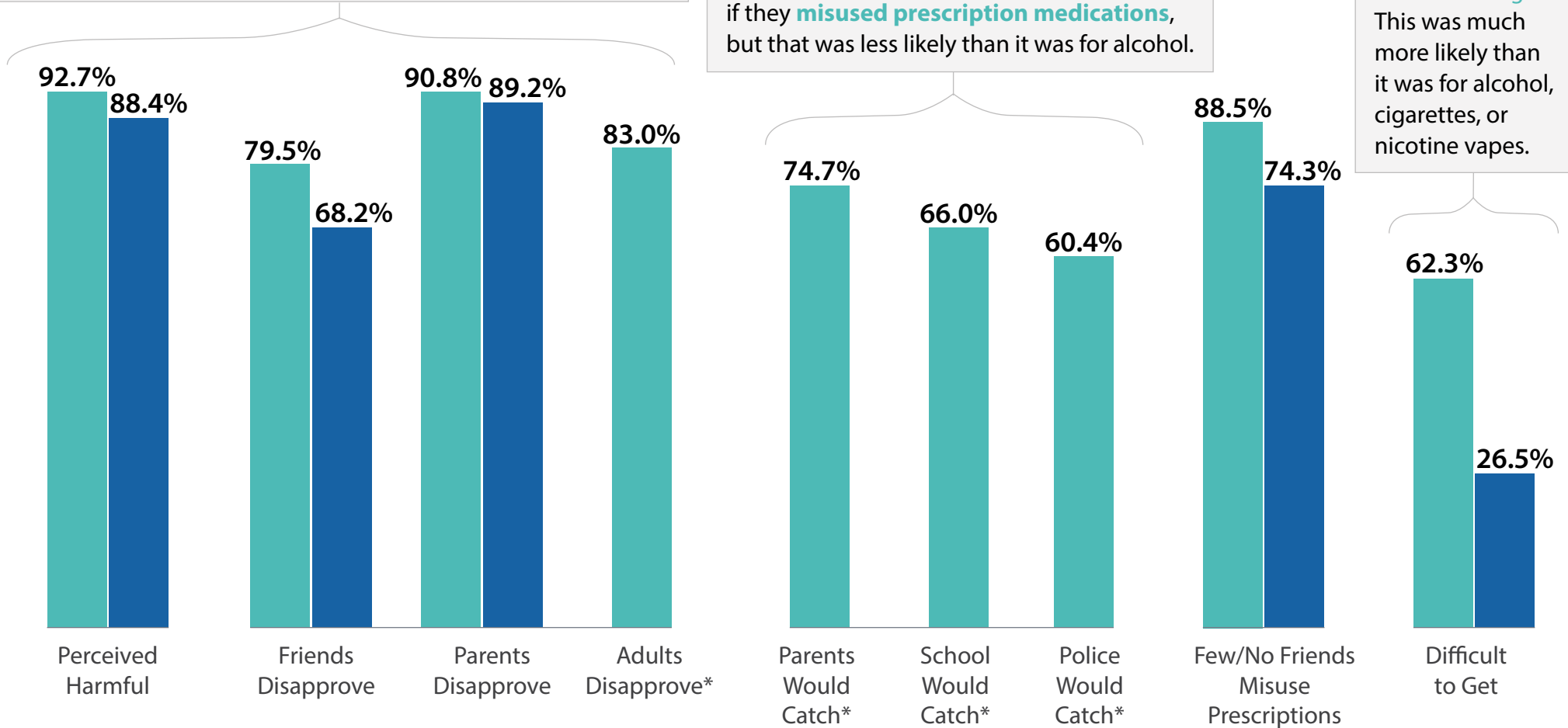
■ Young adults 21-25

# Prescription Medication Misuse-Related Risk and Protective Factors

More **youth** perceived **prescription medication misuse-related harms and disapproval** than **young adults**, but this difference was much less pronounced than it was for alcohol, cigarettes, or nicotine vapes.

Most **youth** thought they would be caught if they **misused prescription medications**, but that was less likely than it was for alcohol.

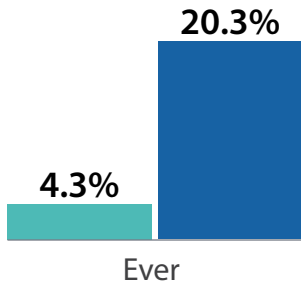
Almost two thirds of **youth** thought prescription medications were **hard to get**. This was much more likely than it was for alcohol, cigarettes, or nicotine vapes.



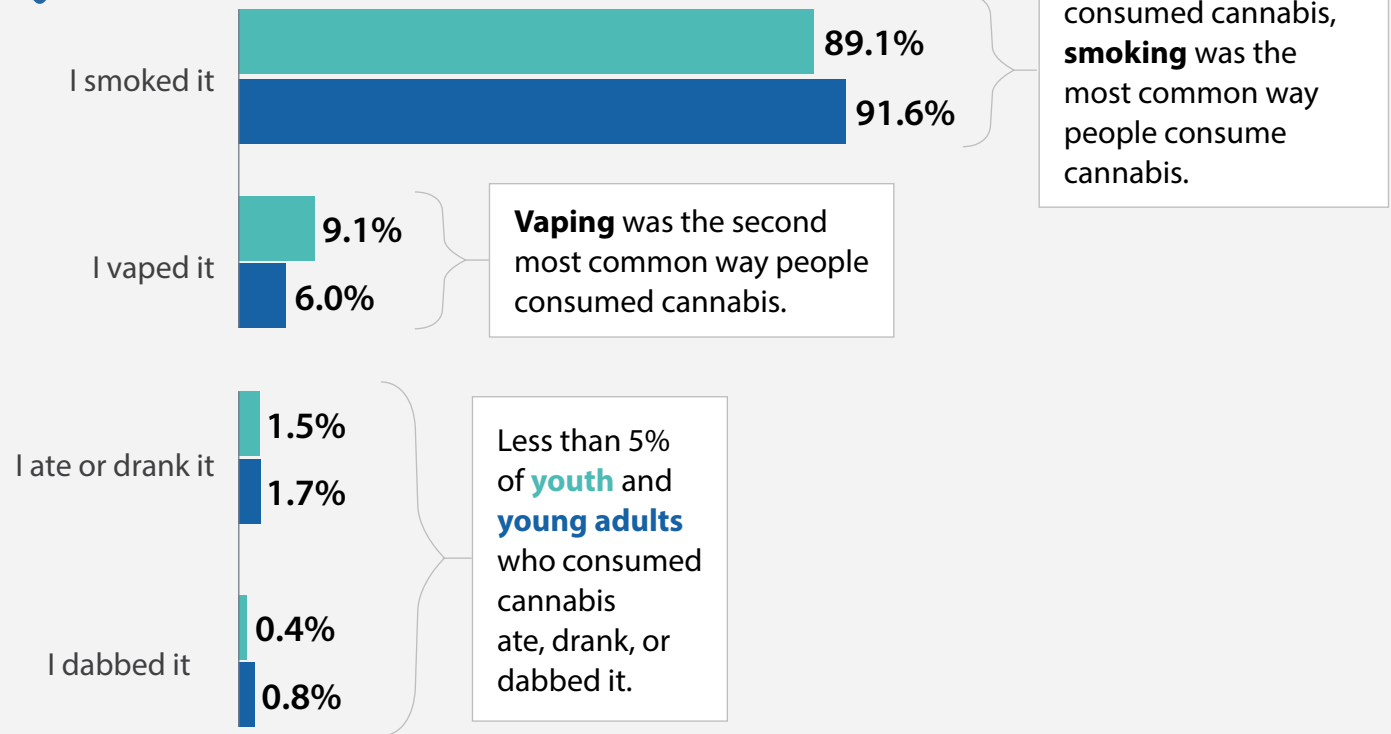
\*Items only asked among youth 12-18 years old. ■ Youth 12-20 ■ Young adults 21-25

# Cannabis (Weed, Pot)

## Cannabis Use (Ever)



## Route of Ingestion (Among Those Who Have Consumed Cannabis)

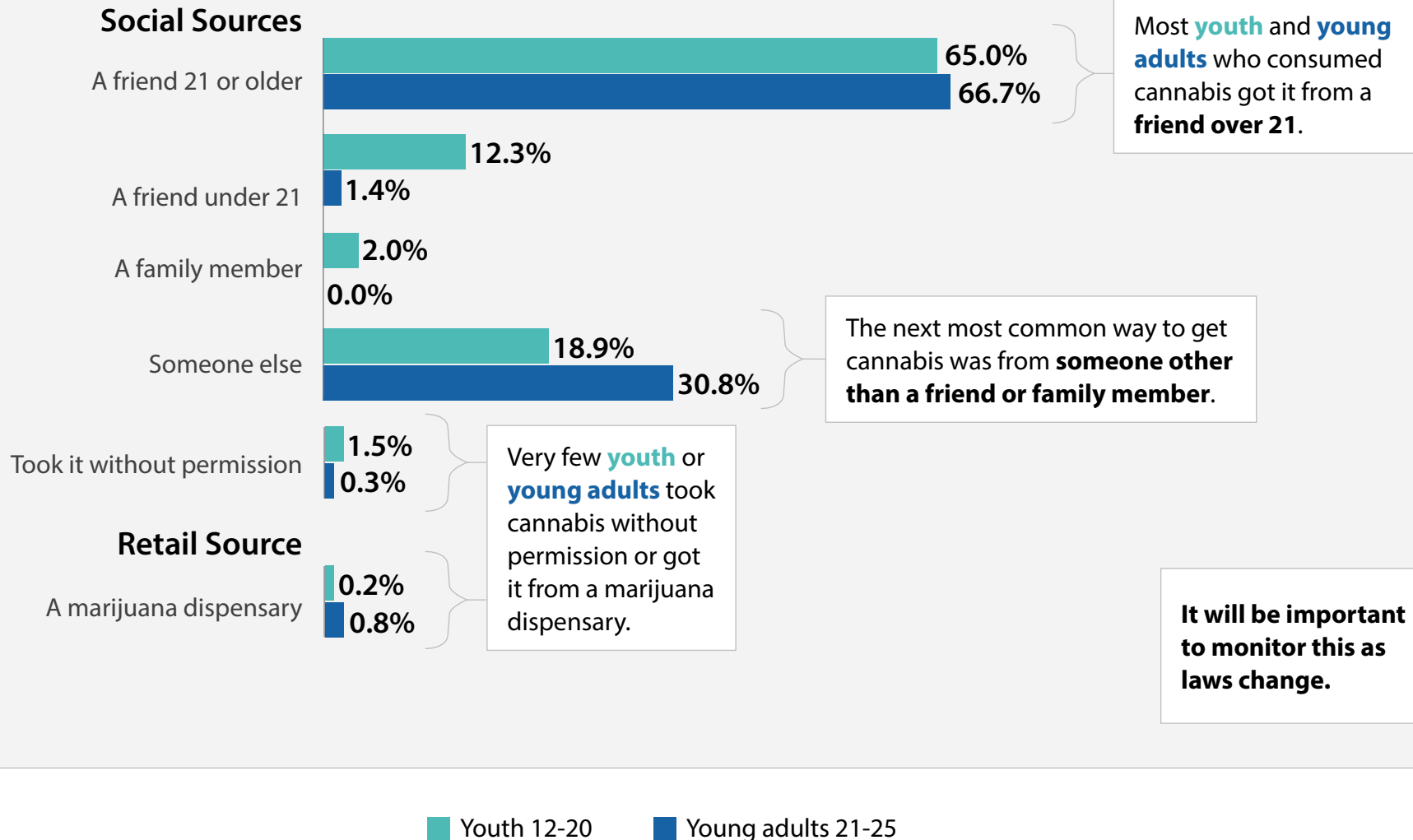


■ Youth 12-20    ■ Young adults 21-25

# Cannabis Underage Access



## How Youth Got the Cannabis They Used (Among Those Who Have Consumed Cannabis)

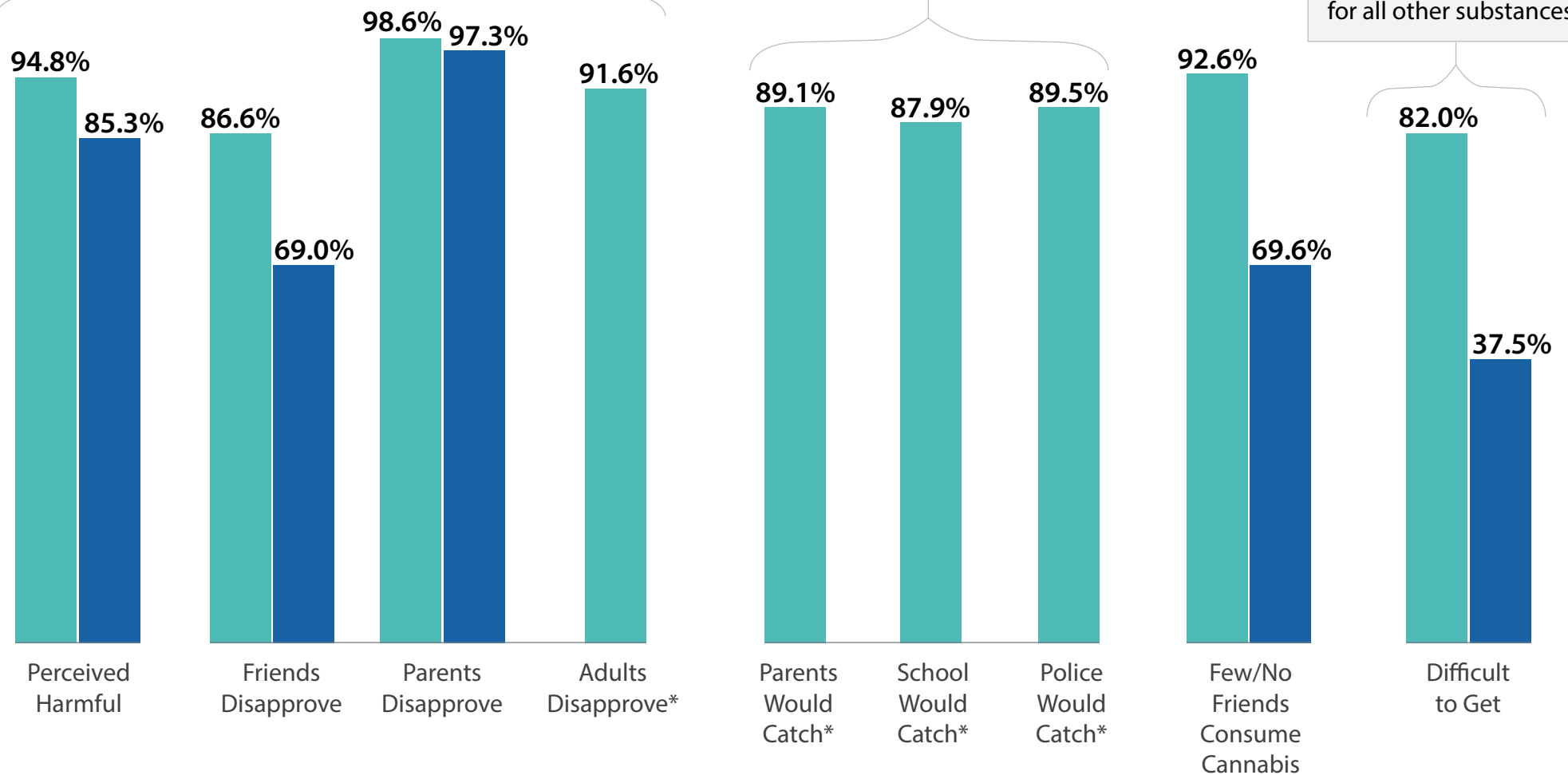


# Cannabis-Related Risk and Protective Factors

More **youth** perceived **cannabis-related harms and disapproval** than **young adults**, but this difference was much less pronounced than it was for alcohol, cigarettes, or nicotine vapes.

Most **youth** thought they would be caught if they used cannabis.

More than 80% of **youth** thought **cannabis was hard to get**. This was much more likely than it was for all other substances.



\*Items only asked among youth 12-18 years old.

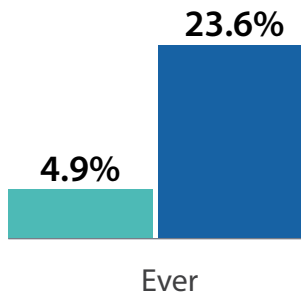
■ Youth 12-20

■ Young adults 21-25

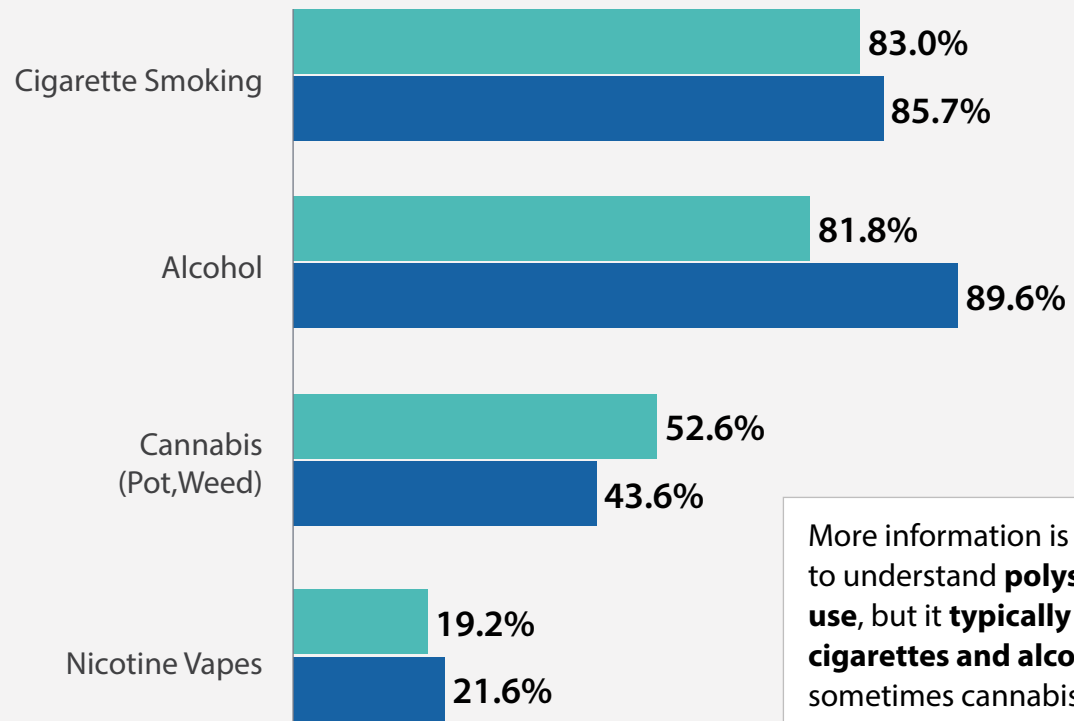
# Polysubstance Use

Used Multiple Substances at the Same Time, Such That the Effects Overlapped

Consumed 2+ Substances at the Same Time



Substances Consumed by at Least 20% of People at Their Most Recent Polysubstance Use Event (Among Those Who Have Used Two+ Substances at the Same Time)



More information is needed to understand **polysubstance use**, but it **typically involves cigarettes and alcohol**, and sometimes cannabis and nicotine vapes.

■ Youth 12-20 ■ Young adults 21-25

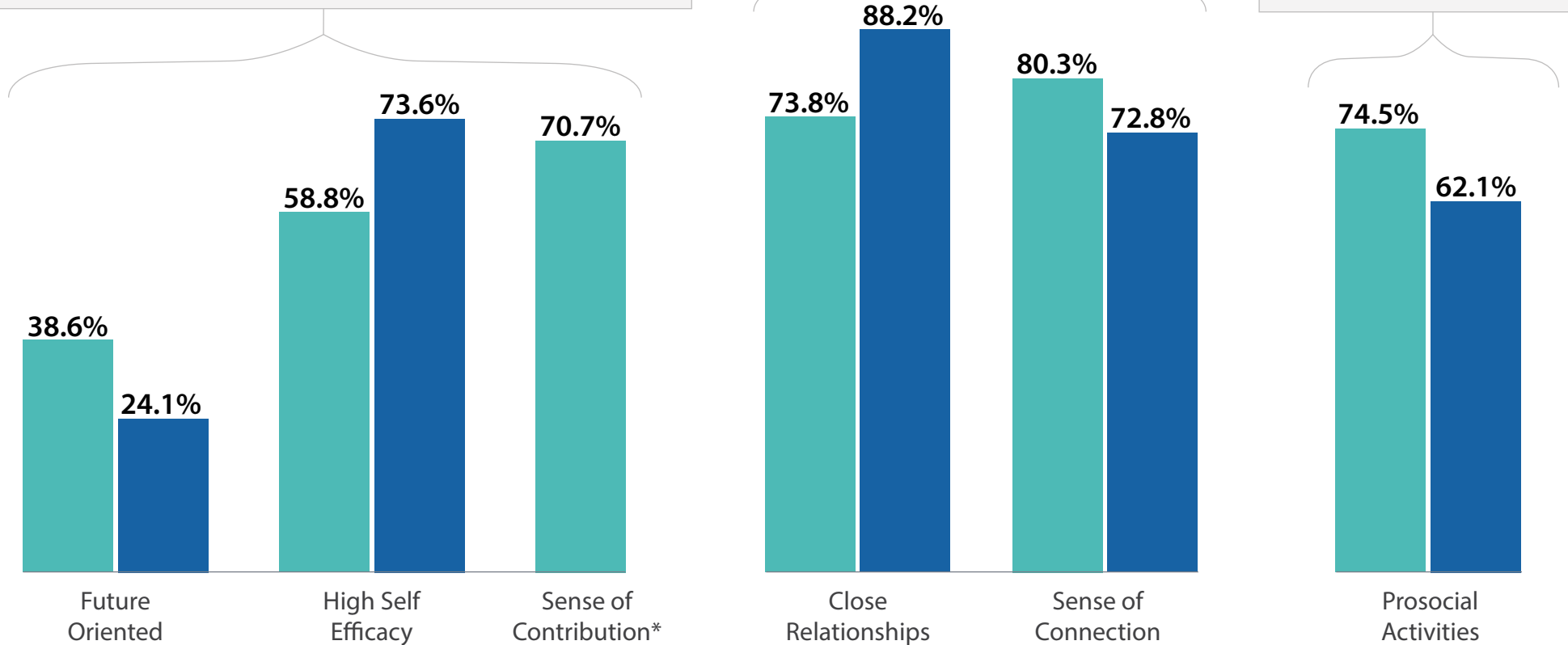
# Risk and Protective Factors

## Not Substance Specific

Most **youth** thought they could make a difference and that they could solve the challenges that come up in life. They were less likely to feel hopeful about their future. **Young adults** were even less likely to be hopeful for their future, but were more likely to believe they could solve the challenges that came up in life.

Most **youth** and **young adults** felt they had close relationships with others and that they were connected to important others in their life.

**Youth** were more likely than **young adults** to report being involved in organized activities, sports, or clubs.



\*Items only asked among youth 12-18 years old.

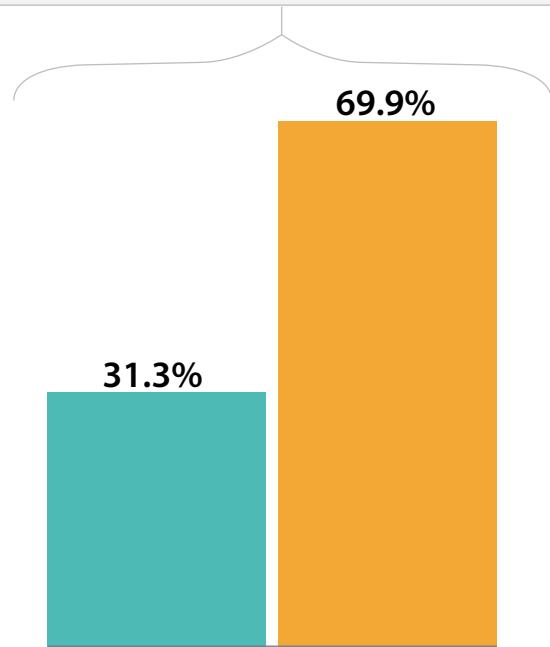
■ Youth 12-20

■ Young adults 21-25

# Harm Reduction and Recovery

## Knowledge of Harm Reduction

The Good Samaritan Law helps people seek help in emergencies, but only if they are aware of it. Only about a third of **youth** were aware of the Good Samaritan Law, compared to about two thirds of **young adults**.

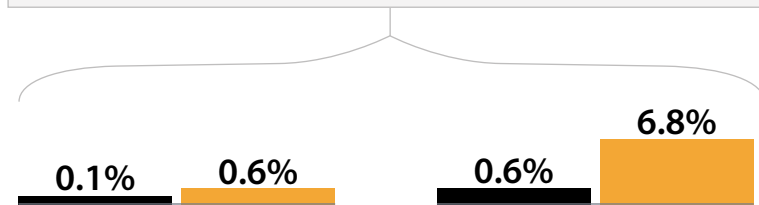


Good Samaritan Law

■ Youth 12-20   ■ Young adults 21-25

## In Recovery (19-25 year olds)

A small but notable proportion of **young adults** report being in recovery.



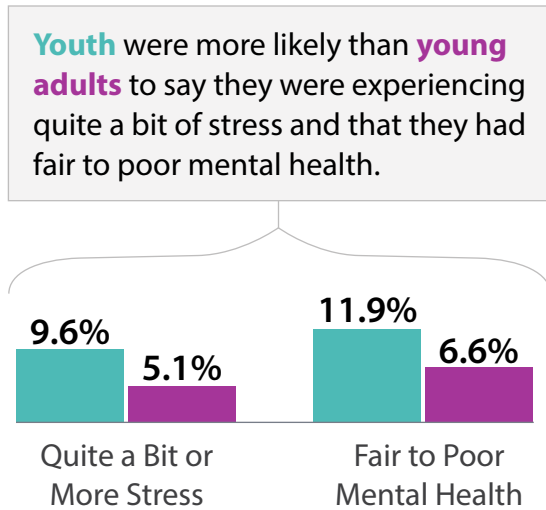
Recovery for Alcohol

Recovery for Other Substances

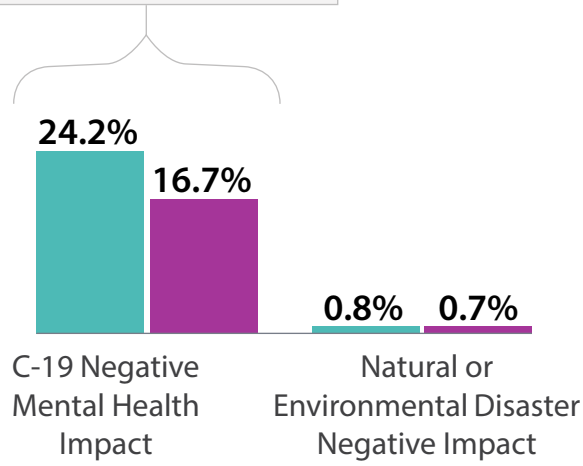
■ Youth 19-20   ■ Young adults 21-25

# Mental Health and Stress

## Perceived Stress and Mental Health



About a fourth of youth and almost a fifth of young adults said they had experienced negative mental health impacts from the Covid-19 pandemic.



## Access to Services

Only about half of youth and young adults had access to mental health treatment.



■ Youth 12-20    ■ Young adults 21-25

# Thank You!

Wake Forest University School of Medicine would like to acknowledge and thank the youth and young adults who participated in the North Carolina Youth and Young Adult Substance Use Prevention Survey.

## Resource List

Resource websites for surveys are available in English and Spanish

### English

- [school.wakehealth.edu/departments/public-health-sciences/research-studies/north-carolina-statewide-prevention-survey](https://school.wakehealth.edu/departments/public-health-sciences/research-studies/north-carolina-statewide-prevention-survey)

### Spanish

- [school.wakehealth.edu/departments/public-health-sciences/research-studies/encuesta-estatal-de-prevencion-de-carolina-del-norte](https://school.wakehealth.edu/departments/public-health-sciences/research-studies/encuesta-estatal-de-prevencion-de-carolina-del-norte)