NEW JERSEY YOUNG ADULT SURVEY (YAS-NJ)

KEY FINDINGS FROM A PILOT STUDY

MARCH 2024

NEW JERSEY HUMAN SERVICES

DMHAS

Division of Mental Health and Addiction Services

Submitted to the New Jersey Department of Human Services,
Division of Mental Health and Addiction Services (DMHAS)

Submitted by the Center for Research and Evaluation on Education and Human Services (CREEHS),
Montclair State University

About CREEHS

Since 2011, the Center for Research and Evaluation on Education and Human Services (CREEHS) at Montclair State University has provided evaluation and applied research services to institutions of higher education, school districts, government agencies, community-based organizations, and foundations to assist them in meeting their accountability and program improvement needs. The *vision* of CREEHS is to partner with organizations and scholars to plan, strengthen, and sustain the services they provide for the well-being of communities. The *mission* of CREEHS is to partner with clients to collect and use data to strengthen their programs and services. We tailor our services to meet the unique needs of our clients and their stakeholders. We provide high quality program planning and evaluation services, applying innovative and collaborative techniques to bridge the gap between research and practice. This includes building capacity and providing hands-on training to individuals who serve the community.

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DIVERSITY and EQUITY: We value diversity of experience, expertise, worldview, and approach in our workforce and partnerships. We recognize the power of encouraging and embracing diverse perspectives to inform the work we do on behalf of partners and communities. We strive to create an environment that is equitable for all.

COMMUNICATION: We value meaningful and open communication and acknowledge that this starts with listening. We strive to be approachable and accessible, and do our best work when we are in continuous communication with our partners.

COLLABORATION: We value partnerships grounded in respect for each other's strengths, a shared vision, and a culture of learning. We strive to practice a community-centered approach and meet partners where they are by building trusting relationships and tailoring our approach to their readiness and goals.

ADAPTABILITY: We value responsiveness to changing needs and emerging challenges. We strive to adapt and think creatively to identify solutions when contexts shift, while remaining focused on meeting project goals.

COMMITMENT: We value deep commitment to our work and the work of our partners in strengthening communities. We are passionate and thoughtful about providing high-quality service that is relevant and useful toward driving change. We strive to help our partners make a meaningful difference in the lives of the people they serve.

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Executive Summary

Introduction

The NJ Department of Human Services, Division of Mental Health and Addiction Services (DMHAS) conducted the **New Jersey Young Adult Survey (YAS-NJ)** for the first time in fall 2023. The survey, administered to young adults living in NJ, assessed experiences and perceptions related to substance use, mental health, and social media. The purpose of this engagement was to design a survey instrument comparable to national surveys of substance use and demonstrate its utility for collecting data that could inform meaningful prevention programming targeting the young adult population. In so doing, we explored strategies for data collection on a hard-to-reach and thus under-reported population.

In partnership with DMHAS, the survey was developed and piloted by the Center for Research and Evaluation on Education and Human Services (CREEHS) at Montclair State University. Eligible survey participants were young adults between the ages of 18 and 25 years who lived in NJ for six or more months during the prior year. For the purpose of this short-term pilot initiative, participants were recruited using non-probability sampling methods, specifically convenience sampling. There were two main recruitment strategies: crowdsourcing platforms and email listservs. Survey information was posted to two crowdsourcing platforms (e.g., Prolific and Amazon Mechanical Turk via CloudResearch) and distributed by prevention partners, colleges and universities, young alumni associations, and trade schools to eligible participants through their existing listservs. The survey was made available via Qualtrics from September to December 2023.

More than 11,000 responses were received; however, more than 90% of these responses were flagged as ineligible and/or fraudulent. Extensive data cleaning was performed to determine which responses were eligible and valid, yielding 1,074 responses in the final analytic sample. Survey responses were summarized using descriptive statistics, including overall frequencies and cross-tabulations to disaggregate subsections of the respondent sample. See the technical appendix for more information about survey and analysis methodology.

Respondents in the final sample predominantly identified as white (69%), straight/heterosexual (84%), cisgender (97%), and older than 20 years (74%). Respondents from all 21 New Jersey counties were represented in the final sample. The majority of respondents reported having private insurance (55%), being employed part- or full-time (80%), and being either currently enrolled in or have completed some form of post-secondary education (84%). About half (48%) reported living with their family at the time of the survey.

Notably, over a quarter (28%) of YAS-NJ Survey respondents indicated that they have had a problem with their own drug or alcohol use in their lifetime. By comparison, only about 9% of 18- to 25-year-old respondents to the 2022 National Survey on Drug Use and Health (NSDUH) indicated the same. This suggests that frequent substance users may be overrepresented in this pilot sample. Because prevention partners aided with survey recruitment, it is possible that their efforts naturally reached more respondents who have had a problem with substance use and may be in some stage of recovery. Readers should take this potential bias into account.

This report presents key findings of the YAS-NJ Survey through a series of annotated tables of summarized survey responses. These tables have been organized into four areas: (1) Demographics, (2) Substance Use, (3) Mental Health, and (4) Social Media. An overview of key findings is also presented below.

Key Findings

Substance Use

- Higher rates of use for some substances in the YAS-NJ Survey relative to rates nationwide may be accounted for by a larger proportion of respondents reporting they have had a problem with drug or alcohol use in their lifetime, relative to national samples (28% of YAS-NJ respondents versus 9% of NSDUH).
- The most frequently reported substances used *(lifetime* or *past 30 days)* were alcohol, followed by tobacco (including cigarettes), marijuana, vapes (also known as e-cigarettes), and ecstasy.
- The majority of respondents reported first using alcohol (65%), tobacco (59%), and vapes (52%) before age 18. For all other substances listed, respondents most frequently reported first using between the ages of 18 and 20.
- The majority of respondents (78%) had not used any of the following substances in the past 30 days: prescription drugs (in a way not directed by a doctor), cocaine or crack, opiates or opioids, hallucinogens, methamphetamines, other club drugs, inhalants to get high, cough medicine to get high, "over-the-counter" sedatives (in a way not directed by a doctor or pharmacist), or anabolic steroids.
- When asked to consider the risks of personal harm, 77% of respondents reported daily binge drinking to be at least a *moderate risk*, while 39% reported monthly marijuana use to be at least a *moderate risk*.

Mental Health

- Almost half (46%) of all respondents reported having ever had a mental health problem.
- About four in 10 respondents felt nervous (45%), that everything was an effort (40%), and/or restless or fidgety (39%) *most of the time* or *always* within the past 30 days.

Social Media

- Three-quarters of respondents (75%) reported using social media apps or sites *several times per day* or *almost constantly*.
- Only 2% of respondents said they have not seen content on their social media related to alcohol, marijuana, or other drugs.
- Respondents reported that using social media potentially helps and harms people in a range of ways.
    - 60% of respondents reported that social media potentially helps people at least *somewhat* find trustworthy information.
    - 70% of respondents indicated that social media potentially harms people at least *somewhat* because it leads to exposure to misinformation.

The tables below display frequencies for all survey items along with brief descriptions of the key findings from responses to each item.

(1) Demographics

- Most respondents (74%) reported being 21 to 25 years old.

Table 1. What is your age? (n = 1,074)		
	n	%
18	36	3%
19	79	7%
20	165	15%
21	140	13%
22	156	15%
23	195	18%
24	189	18%
25	114	11%

- Respondents from all 21 New Jersey counties were represented in the final sample.
- The counties in which respondents most frequently reported residing were Essex (19%), Bergen (10%), and Atlantic (9%).

Table 2. In which NJ county did you live most over the last year? (n = 1,074)		
	n	%
Atlantic	101	9%
Bergen	109	10%
Burlington	42	4%
Camden	62	6%
Cape May	17	2%
Cumberland	27	3%
Essex	209	19%
Gloucester	17	2%
Hudson	64	6%
Hunterdon	14	1%
Mercer	38	4%
Middlesex	73	7%
Monmouth	37	3%
Morris	63	6%
Ocean	38	4%
Passaic	60	6%
Salem	7	<1%
Somerset	12	1%
Sussex	18	2%
Union	51	5%
Warren	15	1%

- There is almost an even split between respondents who reported identifying as male (50%) and female (48%), with 1% of respondents identifying as non-binary.

Table 3. Which of these best describes your current gender identity? (n = 1,074)		
	n	%
I identify as a woman	513	48%
I identify as a man	538	50%
I identify as non-binary	14	1%
I have another gender identity	5	<1%
Prefer not to say	4	<1%

- A small proportion (2%) of respondents reported identifying as transgender.

Table 4. Do you identify as transgender? (n = 1,074)		
	n	%
Yes	25	2%
No	1,044	97%
Prefer not to say	5	<1%

- Most respondents (84%) described their sexual orientation as straight or heterosexual.

Table 5. Which of these options best describes your sexual orientation? (n = 1,074)		
	n	%
Straight or heterosexual	903	84%
Gay or lesbian	63	6%
Bisexual, pansexual, or fluid	79	7%
Something else	4	<1%
I don't know	12	1%
Prefer not to say	13	1%

- Most reported identifying as White (69%), followed by Black (20%), Hispanic or Latino (11%), and Asian (5%).

Table 6. What is your race/ethnicity? Select all that apply. (n = 1,074)		
	n	%
White	741	69%
Black or African American	215	20%
Hispanic or Latino	119	11%
American Indian or Alaska Native	8	<1%
Asian	53	5%
Native Hawaiian or Other Pacific Islander	4	<1%
Some other race	7	<1%
Prefer not to say	7	<1%

- A quarter of respondents (25%) reported having a high school degree or less education.
- 42% of respondents reported being currently enrolled in some form of post-secondary education (e.g., 2-year or 4-year college or university, trade school or certificate program, graduate school).
- 42% of respondents reported having earned a post-secondary degree or certification.

Table 7. What is your current education status? Select all that apply. (n = 1,074)		
	n	%
Did not complete high school or equivalent (GED)	7	<1%
Completed high school or equivalent (GED)	260	24%
Currently enrolled in a 2-year college or university	126	12%
Completed a 2-year degree (Associate)	145	14%
Currently enrolled in a 4-year college or university	275	26%
Completed a 4-year degree (Bachelor's)	268	25%
Currently enrolled in trade school or a certificate program	7	<1%
Completed a trade or certificate program	16	1%
Currently enrolled in graduate school	42	4%
Completed a graduate degree (Master's, Doctorate, JD)	19	2%
Other (please specify)	3	<1%
Prefer not to say	2	<1%

- Most respondents (80%) reported working at least part time.

Table 8. What is your current employment status? Select all that apply. (n = 1,074)		
	n	%
Employed full time	391	36%
Employed part time	463	43%
Unemployed (not working)	146	14%
Seeking work currently	90	8%
Caregiver or Homemaker	6	<1%
Active military	1	<1%
Military veteran	1	<1%
Prefer not to say	8	<1%

- The majority of respondents (55%) reported having private insurance.
- One quarter (26%) reported being covered by Medicaid or NJ Family Care.
- A small portion of respondents (15%) reported being uninsured.

Table 9. Are you covered by any of the following types of health insurance or health coverage plans? Select all that apply. (n = 1,074)		
	n	%
Private insurance (through your job or a family member or the insurance marketplace)	587	55%
Medicaid or NJ Family Care	280	26%
Military or veterans health care (TRICARE)	13	1%
Any other type of health insurance or health coverage plan	55	5%
Uninsured	163	15%
Prefer not to say	14	1%

- Few respondents (5%) reported having a disability or other chronic health condition.

Table 10. Do you identify as disabled or a person with a disability or other chronic condition? (n = 1,074)		
	n	%
Yes	56	5%
No	1,003	93%
Prefer not to say	15	1%

- Nearly half of respondents (48%) reported living with family, 19% live alone in a home they own or rent, and 17% report living in a college dorm.

Table 11. What is your current living situation? (n = 1,074)		
	n	%
Live in a campus dorm	183	17%
Live with family	515	48%
Live with other people who are not family (roommates or friends) in a home not on a college campus	130	12%
Live alone in a home I own or rent	207	19%
Temporarily staying with a relative or friend	32	3%
Temporarily staying in a shelter or experiencing homelessness	1	<1%
Other	4	<1%
Prefer not to say	2	<1%

(2) Substance Use

Attention: Sample Note

More than a quarter (28%) of YAS-NJ Survey respondents reported that they have had a problem with their own drug or alcohol use in their lifetime, as compared to only 9% of 18- to 25-year-old NSDUH respondents who indicated the same. This likely accounts for the higher rates of use of some substances (e.g., tobacco, ecstasy) relative to national samples.

Lifetime, Age of First, and Past 30 Day Use

Lifetime Use

- The most frequently reported substances ever used by respondents are alcohol (84%), tobacco (65%), marijuana (52%), vapes (47%), and ecstasy (15%).
    - For each of the other substances, fewer than 10% of respondents indicated ever having used them.
    - About 5% did not report using any substances.

Other Surveys Found

Results from the 2022 National Survey on Drug Use and Health (NSDUH) showed that:

42% of 18 to 25 year olds used tobacco products in their lifetime (compared to 65% of YAS-NJ respondents).

8% of 18 to 25 year olds used ecstasy in their lifetime (compared to 15% of YAS-NJ respondents).

Table 12. Have you ever, even once, used any of the following substances? Select all that apply. (n = 1,074)	
	%
Alcohol (beer, wine, hard liquor, etc.)	84%
Cigarettes or other tobacco products (cigars, dip, hookah, etc.)	65%
Vape, e-cigarette, or other vaping device (vape pen, mod, etc.)	47%
Marijuana (pot, hash, weed, cannabis, THC, etc.)	52%
Prescription drugs (OxyContin, Adderall, Xanax, etc.) in a way not directed by a doctor	6%
Cocaine or crack	7%
Opiates or opioids (heroin, morphine, fentanyl, etc.)	6%
Hallucinogens (acid, LSD, PCP, etc.)	7%
I have never used any of these substances	5%

Table 13. Have you ever, even once, used any of the following substances? Select all that apply. (n = 1,057)	
	%
Methamphetamines (meth, speed, crank, crystal meth, etc.)	6%
Ecstasy (MDMA, Molly, etc.)	15%
Other club drugs (ketamine, GHB, Rohypnol, etc.)	3%
Inhalants (glue, gas, Whippits, nitrous, etc.) to get high	7%
Cough medicine to get high	8%
"Over-the-counter" sedatives (Benadryl, etc.) in a way not directed by a doctor or pharmacist	8%
Anabolic steroids	3%
I have never used any of these substances	71%

Age of First Use

- The majority of respondents reported first using alcohol (65%), tobacco (59%), and vapes (52%) before age 18. For all other substances listed, respondents most frequently reported first using between the ages of 18 and 20 years.
- Among the four most frequently used substances (i.e., alcohol, tobacco, marijuana, and vapes), some respondents reported using the drug for the first time as early as age 14 or younger (from 8% for marijuana to 29% for alcohol).

Why it Matters

When alcohol and drug use is initiated during adolescence, the chances of developing a substance use disorder significantly increase (Gray & Squeglia, 2017).

Table 14. How old were you (in years) the first time you used each of the following substances?

Of those who indicated using the following substances…	% of respondents who selected each response option				
	12 or younger	13 to 14	15 to 17	18 to 20	21 to 25
Alcohol (beer, wine, hard liquor, etc.) (n = 903)	11%	18%	36%	29%	6%
Cigarettes or other tobacco products (cigars, dip, hookah, etc.) (n = 694)	5%	17%	37%	35%	6%
Vape, e-cigarette, or other vaping device (vape pen, mod, etc.) (n = 501)	*	13%	37%	42%	6%
Marijuana (pot, hash, weed, cannabis, THC, etc.) (n = 555)	*	7%	36%	41%	14%
Prescription drugs (OxyContin, Adderall, Xanax, etc.) in a way not directed by a doctor (n = 69)	*	*	23%	59%	*
Cocaine or crack (n = 75)	0%	*	24%	51%	19%
Opiates or opioids (heroin, morphine, fentanyl, etc.) (n = 68)	0%	*	44%	46%	*
Hallucinogens (acid, LSD, PCP, etc.) (n = 79)	0%	*	19%	58%	22%
Methamphetamines (meth, speed, crank, crystal meth, etc.) (n = 64)	0%	*	31%	55%	*
Ecstasy (MDMA, Molly, etc.) (n = 157)	0%	*	20%	52%	25%
Other club drugs (ketamine, GHB, Rohypnol, etc.) (n = 27)	0%	0%	*	56%	*
Inhalants (glue, gas, Whippits, nitrous, etc.) to get high (n = 69)	*	*	*	64%	14%
Cough medicine to get high (n = 88)	0%	*	34%	47%	14%
"Over-the-counter" sedatives (Benadryl, etc.) in a way not directed by a doctor or pharmacist (n = 83)	0%	*	29%	54%	14%
Anabolic steroids (n = 30)	0%	*	*	50%	33%

** = fewer than 10 respondents selected this option. Entries of 0% indicate that zero respondents selected this option.*

A Closer Look: Age of First Alcohol Use

Age of First Alcohol Use x Past 30 Day Use

- Current use of tobacco, vapes, and marijuana appears to be related to age of first alcohol use.
- Respondents who reported never having used alcohol also less frequently reported recent use of tobacco, vapes, and marijuana in the past 30 days as compared to their alcohol-using counterparts.
- Respondents who first used alcohol at 18 years or older less frequently reported recent use of alcohol, tobacco, vapes, and marijuana in the past 30 days as compared to respondents who first used alcohol earlier than the age of 18.
    - 50% of those who first used alcohol at ages 18 or older reported having used cigarettes in the past 30 days compared to 69% of respondents who first used alcohol earlier than the age of 18.

Table 15. Used Substance At Least Once in Past 30 Days by Age of First Alcohol Use (n = 1,072)

	% Used Substance		
	First Use Under 18 (n = 584)	First Use 18 and Over (n = 319)	Never Used Alcohol (n = 169)
Alcohol (beer, wine, hard liquor, etc.)	90%	88%	0%
Cigarettes or other tobacco products (cigars, dip, hookah, etc.)	69%	50%	38%
Vape, e-cigarette, or other vaping device (vape pen, mod, etc.)	43%	33%	30%
Marijuana (pot, hash, weed, cannabis, THC, etc.)	48%	40%	22%

Age of First Alcohol Use x Substance and Mental Health Problems

- Reported substance use or mental health problems appear not to be related to age of first use of alcohol, but does appear to be related to having ever used alcohol.
- Respondents who reported never having used alcohol less frequently reported having had substance use or mental health problems in their lifetime (11% and 35%, respectively) than their alcohol-using counterparts (31% and 48%, respectively), regardless of age of the first alcohol use.

Table 16. Substance Use and Mental Health Problems by Age of First Alcohol Use (n = 1,072)

	% Ever Had Problem		
	First Use Under 18 (n = 584)	First Use 18 and Over (n = 319)	Never Used Alcohol (n = 169)
Ever had a problem with [their] own drug or alcohol use	31%	32%	11%
Ever had a problem with [their] own mental health	44%	56%	35%

Past 30 Day Use

- The substances most frequently reported by respondents as used in the past 30 days included alcohol (75%), tobacco (58%), marijuana (41%), vapes (38%), and ecstasy (13%).
- Fewer than 10% of respondents indicated having used each of the other substances listed over the past 30 days.

Other Surveys Found

Results from the 2022 NSDUH show that about 50% of 18 to 25 year olds used alcohol and about 15% used tobacco products in the past month, as compared to 75% and 58% of YAS-NJ respondents, respectively.

Results from the 2022 Behavioral Risk Factor Surveillance System (BRFSS) show that of 18 to 24 year olds who are current e-cigarette users (14%), about 7% use some days and about 8% use every day (compared to 18% and 7% of YAS-NJ respondents, respectively).

Table 17. During the past 30 days, how often did you use each of the following substances?

	% of respondents who selected each response option			
	Never	Some days	Most days	Every day
Alcohol (beer, wine, hard liquor, etc.)	25%	45%	27%	4%
Cigarettes or other tobacco products (cigars, dip, hookah, etc.)	42%	20%	22%	16%
Vape, e-cigarette, or other vaping device (vape pen, mod, etc.)	62%	18%	13%	7%
Marijuana (pot, hash, weed, cannabis, THC, etc.)	59%	27%	11%	3%
Prescription drugs (OxyContin, Adderall, Xanax, etc.) in a way not directed by a doctor	96%	1%	2%	*
Cocaine or crack	95%	4%	1%	0%
Opiates or opioids (heroin, morphine, fentanyl, etc.)	96%	3%	1%	0%
Hallucinogens (acid, LSD, PCP, etc.)	97%	3%	*	0%
Methamphetamines (meth, speed, crank, crystal meth, etc.)	95%	4%	1%	0%
Ecstasy (MDMA, Molly, etc.)	87%	10%	3%	*
Other club drugs (ketamine, GHB, Rohypnol, etc.)	98%	1%	*	0%
Inhalants (glue, gas, Whippits, nitrous, etc.) to get high	95%	4%	1%	0%
Cough medicine to get high	94%	3%	2%	*
"Over-the-counter" sedatives (Benadryl, etc.) in a way not directed by a doctor or pharmacist	94%	4%	2%	*
Anabolic steroids	99%	1%	0%	0%

** = fewer than 10 respondents selected this option. Entries of 0% indicate that zero respondents selected this option.*
Note: Item-specific sample sizes vary from 1,055 to 1,071 respondents due to item-specific non-response.

A Closer Look: Past 30 Day Use

Past 30 Day Use x Age Group

- Past 30 day use of alcohol and tobacco appears to be related to age group.
- Respondents who are 21 years and older more frequently reported using alcohol (82%) and tobacco (60%) at least once in the past 30 days as compared to their underage counterparts (57% and 53%, respectively).
- Respondents who are under 21 years old more frequently reported using marijuana (44%) as compared to those who are able to obtain it legally (40%).

Why it Matters

Enacted in 1992, the Synar amendment requires all states to institute and impose laws prohibiting the distribution or sale of tobacco products to youth under 18 years old. In 2019, the minimum age for tobacco sales was increased from 18 to 21 years old (About Synar, 2023).

Table 18. Used Substance At Least Once in Past 30 Days by Respondent Age (n = 1,074)

	% Used Substance	
	21 years and over (n = 794)	Under 21 years (n = 280)
Alcohol (beer, wine, hard liquor, etc.)	82%	57%
Cigarettes or other tobacco products (cigars, dip, hookah, etc.)	60%	53%
Vape, e-cigarette, or other vaping device (vape pen, mod, etc.)	38%	36%
Marijuana (pot, hash, weed, cannabis, THC, etc.)	40%	44%

Past 30 Day Use x Queer Status

- Past 30 day use appears to be related to queer status.
- Queer (i.e., those who indicated being genderqueer or non-heterosexual) respondents less frequently reported using substances in the past 30 days as compared to their non-queer counterparts, except in the case of marijuana where queer respondents more frequently reported use than their non-queer counterparts (49% and 40%, respectively).

Table 19. Used Substance At Least Once in Past 30 Days by Queer Status (n = 1,059)

	% Used Substance	
	Queer (n = 164)	Not queer (n = 895)
Alcohol (beer, wine, hard liquor, etc.)	62%	78%
Cigarettes or other tobacco products (cigars, dip, hookah, etc.)	30%	64%
Vape, e-cigarette, or other vaping device (vape pen, mod, etc.)	36%	39%
Marijuana (pot, hash, weed, cannabis, THC, etc.)	49%	40%

Note: Respondents are considered queer if they indicated any of the following: gender is neither male nor female, or sexual orientation is not straight or heterosexual, or respondent is transgender. Respondents are considered not queer if they indicated that they are male or female, straight or heterosexual, and not transgender. All other respondents are excluded from the queer-specific analyses.

Past 30 Day Use x College Student Status

- Past 30 day use of alcohol and tobacco appears to be related to current post-secondary enrollment.
- Respondents who reported being currently enrolled in post-secondary education less frequently reported using alcohol (64%) and tobacco (49%) in the past 30 days as compared to their non-enrolled counterparts (82% and 64%, respectively).
- Rates of vaping and marijuana use are comparable across currently enrolled respondents and their non-enrolled counterparts (~40%).

Table 20. Used Substance At Least Once in Past 30 Days by College Student Status (n = 1,074)

	% Used Substance	
	College student (n = 407)	Not college student (n = 667)
Alcohol (beer, wine, hard liquor, etc.)	64%	82%
Cigarettes or other tobacco products (cigars, dip, hookah, etc.)	49%	64%
Vape, e-cigarette, or other vaping device (vape pen, mod, etc.)	39%	37%
Marijuana (pot, hash, weed, cannabis, THC, etc.)	43%	41%

Note: Respondents are considered college students if they indicate that they are currently enrolled in a two-year college, four-year college, or trade school.

Methods, Contents, and Types of Substances

Alcohol

- Among respondents who reported having used alcohol in the past 30 days, a quarter (26%) reported having had five or more drinks in a row.

Table 21. During the past 30 days, what is the largest number of alcoholic drinks you had in a row, that is, at the same time or within a couple of hours? (n = 807)	
Of those who indicated using alcohol in the past 30 days…	%
1 to 3 drinks	43%
4 drinks	31%
5 or more drinks	26%

Why it Matters

Excessive use of alcohol, including binge and heavy drinking, has several negative short term (e.g., injuries, alcohol poisoning, violence) and long term (e.g., health issues, mental health issues, alcohol use disorders) effects (Drinking too much alcohol can harm your health, 2023).

Marijuana

- Among respondents who reported having used marijuana in the past 30 days, most (85%) reported consuming marijuana by smoking, followed by vaping (43%), and eating or drinking edibles (23%).

Table 22. During the past 30 days, in which of the following ways did you use marijuana (pot, hash, weed, cannabis, THC, etc.)? Select all that apply. (n = 441)	
Of those who indicated using marijuana in the past 30 days…	%
Smoking	85%
Vaping	43%
Dabbing waxes, shatter, or concentrates	8%
Eating or drinking (edibles)	23%
Putting drops, strips, lozenges, or sprays in your mouth or under your tongue	12%
Applying lotion, cream, or patches to your skin	4%
Taking pills	10%
Some other way	*

** = fewer than 10 respondents selected this option.*

Why it Matters

In February 2021, Governor Murphy signed three bills into law that (1) legalized and regulated cannabis possession and use for individuals 21 years and older, (2) decriminalized marijuana and hashish possession, and (3) outlined penalties for those under 21 years old who use or possess marijuana and cannabis (State of NJ, 2021).

Tobacco

- Among respondents who reported having used tobacco products in the past 30 days, the vast majority (95%) reported smoking cigarettes.
- Fewer than 25% of respondents reported using smokeless tobacco, smoking cigars, or other tobacco products.

Table 23. During the past 30 days, in which of the following ways did you use cigarettes or other tobacco products (cigars, dip, hookah, etc.)? Select all that apply. (n = 622)	
Of those who indicated using tobacco in the past 30 days…	%
Cigarettes	95%
Smokeless tobacco (chewing tobacco, snuff, dip, snus, dissolvable tobacco products, etc.)	23%
Cigars (little cigars or cigarillos, etc.)	17%
Other tobacco products (shisha or hookah, pipe, heated tobacco, nicotine pouches, etc.)	15%

Other Surveys Found

Results from the 2022 BRFSS show that:

Of those who are current e-cigarette users (14%), about 7% use some days and about 8% use every day (compared to 18% and 20% of YAS-NJ respondents, respectively).

About 98% of 18 to 24 year olds in NJ are not currently using smokeless tobacco (chewing tobacco, snuff, or snus).

Vaping

- Among respondents who reported having used a vape in the past 30 days, most (73%) reported using them to consume nicotine, followed by marijuana (37%), and artificial flavoring (36%).

Table 24. During the past 30 days, with which of the following substances did you use a vape, e-cigarette, or other vaping device (vape pen, mod, etc.)? Select all that apply. (n = 401)	
Of those who indicated vaping in the past 30 days…	%
Nicotine	73%
Flavoring	36%
CBD or CBD oils	22%
Marijuana (THC, THC oils, hash oil, waxes, etc.)	37%
Synthetic marijuana	20%
Something else not included above	*

Prescription Drugs

- Among respondents who reported having used prescription drugs not directed by a doctor in the past 30 days, most reported using tranquilizers (58%), followed by pain relievers (47%), and stimulants (39%).

Table 25. During the past 30 days, which of the following prescription drugs did you use in a way not directed by a doctor? (n = 38)	
Of those who indicated using prescription drugs in the past 30 days…	%
Pain relievers (OxyContin, Percocet, Vicodin, etc.)	47%
Stimulants (Ritalin, Adderall, Concerta, etc.)	39%
Tranquilizers (Xanax, Klonopin, Valium, Ativan, etc.)	58%
Sedatives or barbiturates (Ambien, Zolpidem, Lunesta, etc.)	*

Note: These results should be interpreted with caution due to small sample size.

** = fewer than 10 respondents selected this option.*

Common Sources

Sources of Alcohol

- Most respondents (68%) indicated that they purchased their alcohol from a store, gas station, restaurant, or bar, while many other respondents indicated that they got their alcohol from someone else (51%) or at a party or event (49%).

Table 26. During the past 30 days, how did you get or buy alcohol (beer, wine, hard liquor, etc.)? Select all that apply. (n = 805)

Of those who indicated using alcohol in the past 30 days…	%
From someone else (friend, classmate, family member, etc.)	51%
From a store, gas station, restaurant, or bar	68%
At a party or event (concert, sporting event, etc.)	49%
On the Internet (eBay, Facebook Marketplace, etc.)	8%
I got it some other way	4%

Sources of Marijuana

- Respondents most frequently reported getting their marijuana from a licensed marijuana/cannabis dispensary (56%), followed by someone else (45%), and at a party or event (39%).

Table 27. During the past 30 days, how did you get or buy marijuana (pot, hash, weed, cannabis, THC, etc.)? Select all that apply. (n = 440)

Of those who indicated using marijuana in the past 30 days…	%
From a licensed marijuana/cannabis dispensary	56%
From a store, gas station, restaurant, or bar	29%
At a party or event (concert, sporting event, etc.)	39%
On the Internet (eBay, Facebook Marketplace, etc.)	15%
From someone else (friend, classmate, family member, etc.)	45%
I got it some other way	4%

Sources of Vapes

- Respondents most frequently reported getting their vapes from someone else (64%); at a party or event (47%); or from a store, gas station, restaurant, or bar (44%).
- One-third (34%) of respondents reported purchasing vapes from a vape or tobacco shop.

Table 28. During the past 30 days, how did you get or buy a vape, e-cigarette, or other vaping device (vape pen, mod, etc.)? Select all that apply. (n = 400)

Of those who indicated vaping in the past 30 days…	%
From someone else (friend, classmate, family member, etc.)	64%
From a store, gas station, restaurant, or bar	44%
At a party or event (concert, sporting event, etc.)	47%
On the Internet (eBay, Facebook Marketplace, etc.)	16%
From a vape shop or tobacco shop	34%
I got it some other way	4%

Sources of Prescription Drugs

- Respondents most frequently reported getting their prescription drugs from somebody else (87%) or at a party or event (53%).

Table 29. During the past 30 days, how did you get or buy prescription drugs (OxyContin, Adderall, Xanax, etc.) to use in a way not directed by a doctor? Select all that apply. (n = 38)

Of those who indicated using prescription drugs in the past 30 days…	%
From someone else (friend, classmate, family member, etc.)	87%
From a store, gas station, restaurant, or bar	*
At a party or event (concert, sporting event, etc.)	53%
On the Internet (eBay, Facebook Marketplace, etc.)	*
Faked a health problem and got it from a doctor	*
I got it some other way	*

Note: These results should be interpreted with caution due to small sample size.

** = fewer than 10 respondents selected this option.*

A Closer Look: Common Sources

Common Sources x Age Group

- How and where substances are obtained appears to be related to age group.
- Underage respondents (i.e., those aged 18 to 20) most frequently reported getting alcohol, vapes, and marijuana from someone else (50%, 55% and 48%, respectively).
- Respondents who are 21 years and older most frequently reported getting alcohol from a store, gas station, restaurant, or bar (74%); vapes from someone else (67%); and marijuana from a licensed marijuana/cannabis dispensary (66%) than those 20 years and under.

Table 30. Sources of Alcohol in Past 30 Days by Respondent Age (n = 805)

	% of Respondents who Selected Each Source	
	21 years and over (n = 647)	Under 21 years (n = 158)
From someone else (friend, classmate, family member, etc.)	51%	50%
From a store, gas station, restaurant, or bar	74%	44%
At a party or event (concert, sporting event, etc.)	50%	47%
On the Internet (eBay, Facebook Marketplace, etc.)	8%	*
I got it some other way	5%	*

Table 31. Sources of Vape, E-cigarette, or other Vaping Device in Past 30 Days by Respondent Age (n = 400)

	% of Respondents who Selected Each Source	
	21 years and over (n = 300)	Under 21 years (n = 100)
From someone else (friend, classmate, family member, etc.)	67%	55%
From a store, gas station, restaurant, or bar	46%	38%
At a party or event (concert, sporting event, etc.)	48%	44%
On the Internet (eBay, Facebook Marketplace, etc.)	18%	10%
From a vape shop or tobacco shop	40%	15%
I got it some other way	5%	*

Table 32. Sources of Marijuana in Past 30 Days by Respondent Age (n = 440)

	% of Respondents who Selected Each Source	
	21 years and over (n = 316)	Under 21 years (n = 124)
From a licensed marijuana/cannabis dispensary	66%	30%
From a store, gas station, restaurant, or bar	30%	27%
At a party or event (concert, sporting event, etc.)	41%	34%
On the Internet (eBay, Facebook Marketplace, etc.)	18%	*
From someone else (friend, classmate, family member, etc.)	44%	48%
I got it some other way	4%	*

** = fewer than 10 respondents selected this option.*

Perceptions

Problems with Substance Use

- Over a quarter of respondents (28%) reported ever having had a problem with drug or alcohol use.

Other Surveys Found

Results from the 2022 NSDUH show that about 9% of 18 to 25 year olds perceive themselves as ever having a substance use problem.

Table 33. Do you think you've ever had a problem with your own drug or alcohol use? (n = 1,073)	
	%
Yes	28%
No	72%

- Of those who reported having had a problem with substance use in their lifetime, 64% reported being in recovery or recovered at the time of the survey.

Table 34. At this time do you consider yourself to be in recovery or recovered from your own problem with drugs or alcohol use? (n = 295)	
Of those who indicated ever having had a problem…	%
Yes	64%
No	36%

Risk of Harm

- When asked to consider the extent to which a set of activities risks personal harm, about three-quarters of respondents indicated that having four or five drinks of an alcoholic beverage (e.g., binge drinking) *nearly every day* or smoking one or more packs of cigarettes *per day* is at least *moderately risky* (77% and 76%, respectively).
- Fewer respondents (~60%) reported four or five drinks of alcohol or one or more packs of cigarettes to be at least a *moderate risk* when use is reduced to *once or twice a week*.
- Respondents reported similar perceptions of risk for weekly marijuana use and weekly binge drinking (i.e., 58% reported marijuana use once or twice a week as a *moderate* or *great risk* to personal harm compared to 57% reporting drinking five or more alcoholic drinks once or twice a week as a *moderate* or *great risk* to personal harm).

Why it Matters

The extent to which individuals think substance use could cause them harm can influence whether or not they will use substances (SAMHSA, 2023).

Other Surveys Found

Results from the 2022 NSDUH show that of those aged 18 to 25, 66% believe that having four or five drinks nearly every day and 63% believe that smoking one or more packs of cigarettes per day is a great risk of harm.

Table 35. How much do people risk harming themselves physically and in other ways when they...				
	% of respondents who selected each response option			
	No risk	Slight risk	Moderate risk	Great risk
Have four or five drinks of an alcoholic beverage nearly every day	5%	18%	27%	50%
Have five or more drinks of an alcoholic beverage once or twice a week	10%	33%	42%	15%
Smoke one or more packs of cigarettes per day	7%	17%	23%	52%
Smoke one or more packs of cigarettes once or twice a week	11%	27%	39%	23%
Use marijuana once a month	25%	36%	20%	19%
Use marijuana once or twice a week	15%	27%	33%	25%
Use prescription drugs in a way not directed by a doctor once a month	10%	24%	37%	29%
Use prescription drugs in a way not directed by a doctor once or twice a week	8%	24%	25%	42%

Note: Item-specific sample sizes vary from 1,071 to 1,074 respondents due to item-specific non-response.

Consequences

- Respondents most frequently reported having a hangover (66%), nausea or vomiting (62%), being late to or missed work or a class (50%), and being criticized by someone (50%) at least once as a consequence of drinking or drug use.
- Additional consequences frequently experienced at least *one to two times* due to drinking or drug use included having an argument or fight (48%), performing poorly on a test (46%), doing something that is later regretted (46%), and being hurt or injured (42%).
- Fewer than 20% of respondents reported having damaged property (19%), driven a car while under the influence (19%), or being arrested for a DUI (12%) because of drinking or drug use.

Table 36. During the last year, how often have you experienced the following due to your drinking or drug use…					
Of those who indicated ever having used any substance...	% of respondents who selected each response option				
	Never	1-2 times	3-5 times	6-9 times	10 or more times
Had a hangover	30%	34%	23%	8%	4%
Performed poorly on a test or important project	52%	29%	14%	5%	*
Been in trouble with police or other authorities	77%	15%	6%	3%	*
Damaged property, pulled fire alarm, etc.	80%	12%	6%	2%	*
Got into an argument or fight	50%	29%	14%	5%	1%
Got nauseated or vomited	35%	29%	23%	9%	4%
Driven a car while under the influence	80%	11%	6%	2%	*
Rode in a car while the driver was under the influence	77%	13%	7%	3%	*
Missed or was late to work or a class	47%	23%	18%	9%	3%
Been criticized by someone you know	48%	26%	16%	7%	3%
Thought you might have a drinking or other drug problem	65%	19%	10%	5%	1%
Had a memory loss	61%	22%	11%	5%	1%
Done something you later regretted	52%	25%	15%	6%	2%
Been arrested for DWI/DUI	87%	5%	5%	3%	*
Tried unsuccessfully to stop using	63%	24%	9%	3%	1%
Been hurt or injured	56%	27%	10%	5%	1%

Note: Item-specific sample sizes vary from 1,015 to 1,025 respondents due to item-specific non-response.

** = fewer than 10 respondents selected this option.*

(3) Mental Health

Problems with Mental Health

- Nearly half (46%) of respondents reported having had a mental health problem in their lifetime.

Table 37. Do you think you've ever had a problem with your own mental health? (n = 1,072)	
	%
Yes	46%
No	54%

- Among respondents who reported ever having had a mental health problem, 60% indicated being in recovery or recovered at the time of the survey.

Table 38. At this time do you consider yourself to be in recovery or recovered from your own mental health problem? (n = 493)	
Of those who indicated ever having had a problem…	%
Yes	60%
No	40%

Why it Matters

Substance use disorders and mental health challenges are often co-occurring issues resulting from shared risk factors, mental health problems that lead to substance use, or substance use that leads to mental health problems (Mental Health and Substance Use Co-Occurring Disorders, 2023; NIDA, 2021).

Other Surveys Found

Similarly, results from the 2022 NSDUH show that:

41% of 18 to 25 year olds perceived themselves as having ever had a mental health problem.

63% of 18 to 25 year-olds who perceived themselves as having had a mental health problem also considered themselves to either be in recovery or to have recovered.

A Closer Look: Mental Health Problems

Substance and Mental Health Problems x Queer Status

- Queer respondents more frequently reported experiencing mental health problems (72%) than their non-queer counterparts (42%).

Table 39. Substance Use and Mental Health Problems by Queer Status (n = 1,061)		
	% Ever Had Problem	
	Queer (n = 164)	Not queer (n = 897)
Ever had a problem with [their] own drug or alcohol use	27%	28%
Ever had a problem with [their] own mental health	72%	42%

Feelings of Anxiety and Depression

- Most respondents indicated that, in the past 30 days, they at least *some of the time* felt nervous (90%) or restless or fidgety (85%). About four in 10 reported feeling this way *most of the time* or *always* (45% nervous, 39% restless).
- Most respondents also reported that they felt so sad or depressed that nothing could cheer them up (74%), hopeless (70%), down on themselves (70%), or that everything was an effort (82%) at least *some of the time* in the past 30 days. More than a quarter reported feeling this way *most of the time* or *always* (28% hopeless, 32% depressed, 32% down on themselves, 40% that everything was an effort).

Table 40. During the past 30 days, how often did you feel…

	% of respondents who selected each response option			
	Always	Most of the time	Some of the time	Never
Nervous	10%	35%	46%	10%
Hopeless	10%	18%	42%	30%
Restless or fidgety	11%	28%	45%	15%
So sad or depressed that nothing could cheer you up	8%	25%	41%	26%
That everything was an effort	11%	29%	42%	18%
Down on yourself, no good, or worthless	10%	22%	38%	30%

Note: Item-specific sample sizes vary from 1,066 to 1,071 respondents due to item-specific non-response.

A Closer Look: Feelings of Anxiety and Depression

Anxiety and Depression x Queer Status

- Queer respondents more frequently reported feeling nervous (97%) and restless or fidgety (90%) at least *some of the time* as compared to their non-queer counterparts (89% and 84%, respectively).
- Queer respondents also reported feeling hopeless (82%), down on themselves (82%), and that everything was an effort (88%) at least *some of the time* as compared to their non-queer counterparts (67%, 68%, and 81%, respectively).

Table 41. Felt at Least Some of the Time in Past 30 Days by Queer Status (n = 1,059)

	% At Least Some of the Time	
	Queer (n = 163)	Not queer (n = 896)
Nervous	97%	89%
Hopeless	82%	67%
Restless or fidgety	90%	84%
So sad or depressed that nothing could cheer you up	76%	73%
That everything was an effort	88%	81%
Down on yourself, no good, or worthless	82%	68%

(4) Social Media

Rates of Use

- Social media use was prevalent among respondents with the majority (75%) reporting that they use social media apps or sites at least *several times per day*. One in five (21%) uses social media *almost constantly*.

Why it Matters

Daily use of social media has been demonstrated to be positively associated with more frequent drug use, alcohol consumption, and problematic drinking for 18 to 22 year olds (Ohannessian et al., 2017).

Table 42. How often do you use any of the following apps or sites: Instagram, TikTok, Snapchat, Facebook, Twitter, YouTube, Tumblr, Reddit, Twitch, BeReal? (n = 1,071)	
	%
Never or almost never	*
About once per week	6%
Several times per week	9%
About once per day	11%
Several times per day	54%
Almost constantly	21%

** = fewer than 10 respondents selected this option.*

Sources of Content

- Respondents most frequently reported that the people who usually post content about alcohol, marijuana, or other drugs on social media are celebrities or influencers (52%), people they know in real life (48%), online friends they have not met in real life (43%), and substance brands or sellers (43%).
- Only 2% of respondents reported they have not seen any content related to alcohol, marijuana, or other drugs on their social media.

Table 43. On your social media, who usually posts content related to alcohol, marijuana, or other drugs? Select all that apply. (n = 1,063)	
Of those who indicated using any of the listed social media apps or sites…	%
People I know in real life	48%
Online friends I have not met in real life	43%
Celebrities or social media influencers	52%
Alcohol, tobacco, or e-cigarette brands or sellers	43%
Online news articles	22%
Public health campaigns (Truth Initiative, Real Cost, etc.)	17%
Other (please specify)	1%
I do not see content related to alcohol, marijuana, or other drugs on my social media	2%

Engagement with Substance Related Content

- The substances that respondents most frequently reported seeing, posting, and liking on social media were alcohol, vapes, and marijuana.
- Respondents more frequently reported seeing content related to substance use on social media than they did posting pictures or videos of themselves or someone else using substances or liking and commenting on related posts they had seen.
    - For example, 64% of respondents reported seeing posts about alcohol, 49% reported posting pictures or videos of themself or someone else using alcohol, and 53% reported liking, commenting, or sharing on related posts about alcohol.
- Fewer than 20% of respondents reported seeing, posting, or liking posts on social media about prescription drugs or "over-the-counter" sedatives.

Other Surveys Found

Of the middle and high school students who reported using social media on the 2021 National Youth Tobacco Survey, about 74% had ever seen content related to e-cigarettes, as compared to 65% of YAS-NJ respondents (Gentzke et al., 2021).

Table 44. When you use social media, for which substances have you… Select all that apply.

Of those who indicated using any of the listed social media apps or sites…	Seen related posts or content (pictures, videos, text, etc.) (n = 1,026)	Posted pictures or videos of yourself or someone else using (n = 756)	Liked, commented, or shared related posts or content (pictures, videos, text, etc.) (n = 888)
Alcohol	64%	49%	53%
Vape, e-cigarette, or other vaping device	65%	50%	48%
Marijuana	45%	29%	38%
Prescription drugs used in a way not directed by a doctor	18%	13%	18%
"Over-the-counter" sedatives in a way not directed by a doctor or pharmacist	17%	12%	8%

Benefits and Drawbacks

- Respondents agreed that using social media potentially helps and harms people in a range of ways.
- Respondents most frequently reported that social media potentially helps people at least *some* to be more connected to what's going on in their friends' lives (78%) and to find space for self-expression (75%).
- Conversely, respondents most frequently indicated that social media potentially harms people at least *some* because it leads to poor sleep (76%) and because it can expose users to explicit content (70%), misinformation (70%), and online harassment (69%).
- Many respondents also indicated that using social media can at least *some* lead to feelings of depression and/or anxiety (69%), poor body image and/or self-esteem (67%), and problems with attention or focus (68%).

Table 45. How much do you think using social media potentially helps people your age in each of the following ways?				
	% of respondents who selected each response option			
	Not at all	Only a little	Some	A lot
Be more connected to what is going on in friends' lives	2%	20%	45%	33%
Form meaningful social connections and find support	7%	26%	44%	24%
Find space for self-expression	3%	22%	43%	32%
Find different points of view	3%	25%	40%	32%
Find trustworthy information	7%	33%	42%	19%
Show support for causes or issues	4%	26%	44%	25%

Note: Item-specific sample sizes vary from 1,063 to 1,066 respondents due to item-specific non-response.

Table 46. How much do you think using social media potentially harms people your age in each of the following ways?				
	% of respondents who selected each response option			
	Not at all	Only a little	Some	A lot
Leads to poor sleep	4%	20%	42%	34%
Leads to feelings of depression and/or anxiety	8%	23%	38%	31%
Leads to poor body image and/or self-esteem	8%	24%	33%	35%
Leads to problems with attention or focus	7%	25%	35%	33%
Exposure to online harassment	7%	24%	43%	27%
Exposure to explicit content	6%	24%	39%	31%
Exposure to misinformation	5%	25%	40%	30%

Note: Item-specific sample sizes vary from 1,065 to 1,068 respondents due to item-specific non-response.

Conclusion

The New Jersey Young Adult Survey (YAS-NJ) asks young adults living in NJ about their experiences and perceptions related to substance use, mental health, and social media. Recruited via crowdsourcing platforms and email listservs, 1,074 valid responses were collected from September through December 2023. Descriptive analyses were conducted, including overall frequencies as well as cross-tabulations, to disaggregate and compare subsections of the respondent sample.

Key findings from the YAS-NJ Survey show that alcohol, tobacco, marijuana, vapes, and ecstasy were the most prevalently used substances in respondents' lifetimes and within the past 30 days. Other substances (e.g., prescription drugs, methamphetamines, "over-the-counter" sedatives) have each *never* been tried by the majority of respondents. Almost half of the sample reported having ever had a problem with their mental health, with most respondents reporting feelings of anxiety and depression at least *some of the time* within the last 30 days. The majority of respondents reported using social media at least *several times per day*, with more than half of respondents reporting that they perceive social media to be both *somewhat* helpful and harmful in a multitude of ways.

Several rates of use reported by respondents to the YAS-NJ Survey are notably higher than those reported by national surveys, including the 2022 National Survey on Drug Use and Health (NSDUH) and the 2022 Behavioral Risk Factor Surveillance System (BRFSS). For instance, only 9% of 18- to 25-year-old respondents to the 2022 NSDUH indicated they have had a problem with their own drug or alcohol use in their lifetime, while more than a quarter (28%) of YAS-NJ Survey respondents indicated the same. Only 8% of 18- to 25-year-olds reported using ecstasy in their lifetime on the 2022 NSDUH, as compared to 15% of the YAS-NJ sample. Of 18- to 24-year-olds in NJ who are current e-cigarette users, about 7% use some days according to the BRFSS, which is lower than the 18% of YAS-NJ respondents who use *some days*.

It is important to note that the results of the pilot YAS-NJ Survey do not reflect a statistically representative sample; comparisons to national and local surveys should take into account any potential biases resulting from recruitment. Indeed, several NJ prevention agencies were active partners in the recruitment of respondents to this survey and it is possible that their recruitment efforts naturally reached more respondents who have had a problem with substance use and may be in some stage of recovery.

Overall, the information gleaned from this pilot survey can be used to inform future research as well as funding and programming for NJ prevention efforts that aim to reduce substance use amongst this age group. These findings also may be helpful to report as rationale in applications for federally funded prevention grants. Future efforts to survey this young adult population should consider lessons learned from this pilot related to effective recruitment, sufficient planning and coordination time, and open online data collection.

Technical Appendix
YAS-NJ

Sampling

Target Sample

The target participant group for the New Jersey Young Adult Survey (YAS-NJ) was the general population of young adults living in NJ. Eligible participants were 18- to 25-year-old young adults who have lived in NJ for six or more months during the prior year. Prospective participants were screened using three questions at the start of the survey to confirm they met this eligibility criteria: which state/territory they lived in, their age, and for how many months they lived in NJ. Since the survey was available in English only, it was limited to those who could read and understand English.

Recruitment

Participants were selected using non-probability sampling methods, specifically convenience sampling. Two main recruitment strategies were used: crowdsourcing platforms and email listservs. All recruitment efforts were made between September and November 2023. The survey was posted to two crowdsourcing platforms, Prolific and Amazon Mechanical Turk (MTurk) via CloudResearch, to target eligible participants. Recruitment materials also were shared with prevention partners, colleges and universities, young alumni associations, and trade schools so they could pass the information along to their eligible members. Some recipients forwarded the materials along to other agencies and organizations. Follow-up calls and emails were made to encourage these groups to share the materials.

Survey Instrument

The YAS-NJ Survey collected data from young adults about their behaviors, feelings, and perceptions related to substance use, mental health, and social media. Questions asked about their use of different substances (e.g., alcohol, marijuana, prescription drugs), the methods used to consume them, sources for obtaining them, and other behavior and perception questions related to substance use. The survey also included questions about feelings of depression and anxiety and use of and perceptions about social media.

The questions were adapted from existing national and local survey instruments, including the National Survey on Drug Use and Health (NSDUH), Youth Risk Behavior Surveillance System (YRBS), the New Jersey Middle School Risk and Protective Factors Survey (NJRPFS), the National Youth Tobacco Survey (NYTS), the Pew Research Center, the Vermont Young Adult Survey, and the College Relationships and Experiences Survey-Long Form. The questions were selected and tailored by CREEHS with recommendations from DMHAS and other prevention stakeholders, and informed by a literature review and survey best practices. In total, the survey instrument had 36 questions and was designed to take approximately 10 minutes to complete. The instrument included skip logic pathways programmed such that most respondents did not see all 36 questions.

In order to combat potentially fraudulent or duplicate responses, extensive bot prevention and detection were programmed into the survey, including two “honey pot" questions, or questions coded into the survey that are only visible to bots. Thus, any response to these questions disqualified their entry. Additionally, honesty checks were programmed into the survey to see if participants were responding both honestly (e.g., whether or not they had used a fake drug called “phenoxydine”) and consistently across their provided responses (e.g., they marked that they had never used alcohol, then marked their age of first alcohol use was 15 years old). Prospective participants who failed these checks were redirected to the end of the survey and not eligible to receive an incentive for participating.

Data Collection

Survey Administration

A test version of the YAS-NJ Survey was made available from July to September 2023 on MTurk via CloudResearch and Prolific. After testing was completed, the survey was made available via Qualtrics for approximately three months from September to December 2023. During that time, 11,047 responses were submitted from the crowdsourcing platforms, prevention partners, colleges and universities, young alumni associations, and trade schools. However, 9,973 of those responses failed the checks programmed into the survey. Extensive data cleaning was needed to extract only the valid and eligible responses, yielding 1,074 valid responses. Among those valid responses, participants took 16 minutes on average to complete the survey, with times ranging from three minutes to over an hour.

Incentives

Participants who completed the survey were provided with a gift card incentive based on the mode and phase of survey recruitment, as well as when they received the invitation to participate in the survey. Participants who completed the survey through a crowd-sourcing platform were provided with $5 through the platform itself. Initially, participants who completed the survey via email listserv were provided with a $10 e-gift card from Giftogram. After receiving multiple duplicate and potentially fraudulent entries to receive the gift card, the incentive was changed to a $100 raffled e-gift card from Giftogram. This raffled gift card was only given after the winner provided a photo of their government- or school-issued ID to authenticate eligibility.

Analysis Strategy

Data Cleaning

As noted above, a set of exclusion criteria was determined to remove ineligible cases based on the fraudulent detection and honesty checks programmed into the survey. This criteria included removing cases that were flagged by Qualtrics as fraudulent or duplicate, failed the three screening questions (i.e., answered that they had not primarily lived in NJ, were not between the ages of 18 and 25, and/or had not lived in NJ for six or more months in the past year), failed the honesty checks (e.g., used “phenoxydine”), or answered the honey pot questions. Additionally, those who took less than 155 seconds (about two and a half minutes), who completed less than 80% of the survey items, and/or had duplicate short answer responses were also excluded.

The analytic dataset was created by merging data from multiple survey response datasets (i.e., representing different recruitment strategies and organizations) and cleaning the dataset using the predetermined exclusion

criteria described above. Cases were removed sequentially in the order presented in the table below. See below for how many responses were dropped based on each exclusion criteria following this process.

Table 47. Responses dropped by exclusion criteria, in sequence	Number dropped	Number remaining
Response Type = "Spam"	974	10,073
BallotBoxStuffing = "True"	0	10,073
RelevantIDDuplicate = 1	2,121	7,952
RecaptchaScore <= .5	4,815	3,137
RelevantIDDuplicateScore >=75	104	3,033
RelevantIDFraudScore >=30	673	2,360
Not resident of NJ	399	1,961
Out of age range	222	1,739
Resident of NJ less than 6 months	70	1,669
Duplicates in terms of open-ended response and start and end date, at least 4 words and end date, and at least 8 words	69	1,600
Selected fake drug "Phenoxydine"	96	1,504
Responded to "Honey Pot" question	32	1,472
Respondent did not answer any of the risk questions (i.e., Q26s)	337	1,135
Progress <80%	2	1,133
Duration <155 seconds	8	1,125
Reported county outside of NJ	51	1,074

Final Analytic Sample

While the final analytic sample is not statistically representative of NJ young adults, there is still demographic diversity amongst the respondents. Three-quarters of the sample is between 21 and 25 years old, while a quarter are under 21 years old. Every county in NJ is represented by at least seven responses; the most represented counties are Essex, Bergen, and Atlantic. There is almost an even split between male and female respondents, with some non-binary representation. While the majority of the sample identifies as straight or heterosexual, a subset identifies as queer (i.e., gender is neither male nor female, sexual orientation is not straight or heterosexual, they are transgender). The majority of the sample is white, but responses were received from Black, Hispanic, and Asian young adults.

Additionally, a quarter of respondents have a high school degree or less education. Nearly half report being currently enrolled in some form of post-secondary education and the same proportion report having earned some sort of post-secondary degree. Most respondents reported working at least part time, while some are unemployed. A little over half have private insurance, while about a quarter have Medicaid or NJ Family Care, and some are uninsured. About half live with family, while some live alone in a home they own or rent and some live in a campus dorm.

Analyzing and Summarizing Data

Once survey data were cleaned and validated, responses were summarized using descriptive statistics. These statistics included overall frequency analyses as well as cross-tabulations to disaggregate and compare subsets of the respondent sample. Of note, no tests of statistical significance were performed on these data. Any indication of apparent differences between subgroups of respondents is based on visual inspection of cross-tabulated frequencies and not verified by any significance testing.

Challenges and Limitations

Recruitment

CREEHS conducted key informant interviews with representatives from four other states who conduct similar substance use focused surveys on this young adult population in order to gain from their lessons learned with regard to instrument selection and recruitment strategy. These representatives shared that their primary recruitment strategy had been through social media. However, all states shared that this strategy proved difficult in recruiting eligible participants, even when paying for targeted, boosted advertisements on social media platforms. It also allowed for potentially fraudulent respondents or bots to access the survey. As a result, CREEHS opted to focus recruitment efforts on two main strategies: crowdsourcing platforms and email listservs.

The survey was posted to two crowdsourcing platforms, Prolific and MTurk via CloudResearch, in order to share the survey with their eligible approved users. Although Amazon MTurk verifies and authenticates the identity of their workers using multiple systems to ensure they are unique and validated, data integrity is still threatened by fraudulent workers and bots, as well as workers who misreport their location and other demographic characteristics. The choice was made to utilize CloudResearch's MTurk Toolkit to post the survey to their "CloudResearch-Approved Participants." However, this participant list contained fewer than 10 participants who met the state and age requirements.

Finally, CREEHS reached out to more than 110 institutions and organizations to request the recruitment materials be shared with their members through their email listservs. When reaching out to colleges and universities, the two most prevalent reasons for refusal were concurrent surveys and the need for internal institutional review board (IRB) approval. Although CREEHS received approval from Montclair State University's IRB, several colleges replied that they needed approval from their own institution's IRB. Additionally, several other colleges shared that they were already conducting similar surveys with their undergraduate students and did not want to cause survey fatigue and detract from either effort to receive a good response. Some trade schools lacked the ability to share the survey with all of their enrolled students.

Online Data Collection

Bad actors and bots proved to be the biggest challenge with regards to online data collection. All of the key informants from other states that CREEHS spoke with also faced this difficulty and shared their best practices for combating and addressing the issue during their interviews. CREEHS continued to learn other strategies to both prevent and detect fraudulent responses, and worked to improve these protections as the survey was administered.

As noted above, a $10 gift card incentive was offered to respondents for completing the survey. As a result, several duplicate and other potentially fraudulent email addresses were submitted by participants seeking to

fraudulently receive a gift card. In order to better validate the authenticity of the gift card respondents, CREEHS changed the incentive to a $100 gift card raffled for every 100 respondents. This raffled gift card was awarded only after winners provided a photo of their government- or school-issued ID to authenticate eligibility.

For Consideration

This survey represented a piloted effort to systematically gather data about substance use among young adults in New Jersey. Future efforts to survey this population should consider lessons learned related to recruitment competition, such as allowing for a longer planning period to allow avoidance of concurrent surveys. Future research should also address the pitfalls of collecting data from the general population through publicly accessible online surveys by, for example, employing novel and emerging strategies for minimizing fraudulent responses.

References

About the Synar Amendment and Program. (2023, October). SAMHSA. https://www.samhsa.gov/synar/about-synar

Center for Behavioral Health Statistics and Quality. (2023). *Results from the 2022 National Survey on Drug Use and Health: Detailed tables. Substance Abuse and Mental Health Services Administration.* https://www.samhsa.gov/data/report/2022-nsduh-detailed-tables

Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, Division of Population Health. *BRFSS Prevalence & Trends Data. 2015.* https://www.cdc.gov/brfss/brfssprevalence/

Drinking too much alcohol can harm your health. Learn the facts. (2023, March). CDC. https://www.cdc.gov/alcohol/fact-sheets/alcohol-use.htm

Gentzke, A. S., Wang, T. W., Cornelius, M., Park-Lee, E., Ren, C., Sawdey, M. D., Cullen, K. A., Loretan, C., Jamal, A., & Homa, D. M. (2022). Tobacco Product Use and Associated Factors Among Middle and High School Students—National Youth Tobacco Survey, United States, 2021. *Morbidity and Mortality Weekly Report. Surveillance Summaries (Washington, D.C. : 2002)*, *71*(5), 1–29. https://doi.org/10.15585/mmwr.ss7105a1

Governor Murphy Signs Historic Adult-Use Cannabis Reform Bills Into Law. (2021, February). State of New Jersey. https://www.nj.gov/governor/news/news/562021/20210222a.shtml

Gray, K. M. & Squeglia, L. M. (2018). Research Review: What have we learned about adolescent substance use? *Journal of Child Psychology and Psychiatry*, *59*(6), 618–627.

Mental Health and Substance Use Co-Occurring Disorders. (2023, April). SAMHSA. https://www.samhsa.gov/mental-health/mental-health-substance-use-co-occurring-disorders

NIDA. (2021, April). Why is there comorbidity between substance use disorders and mental illnesses? Retrieved from https://nida.nih.gov/publications/research-reports/common-comorbidities-substance-use-disorders/why-there-comorbidity-between-substance-use-disorders-mental-illnesses

Ohannessian, C. M., Vannucci, A., Flannery, K. M., & Khan, S. (2017). Social Media Use and Substance Use During Emerging Adulthood. *Emerging Adulthood*, *5*(5), 364–370. https://doi.org/10.1177/2167696816685232

Substance Abuse and Mental Health Services Administration. (2023). *Key substance use and mental health indicators in the United States: Results from the 2022 National Survey on Drug Use and Health* (HHS Publication No. PEP23-07-01-006, NSDUH Series H-58). Center for Behavioral Health Statistics and Quality, Substance Abuse and Mental Health Services Administration. https://www.samhsa.gov/data/report/2022-nsduh-annual-national-report