

Cavalier County Health District

Adult Alcohol Survey

2021

The Cavalier Public Health District conducted the second iteration of a short survey in the spring of 2021 to monitor and learn about alcohol use, attitudes, and experiences. They solicited a convenience sample of people in the county through promoted posts on Facebook, advertisements in the newspaper, and radio, as well as having the survey available at their office. In 2021, there were 205 people who completed surveys before data cleaning.

Cavalier Public Health District asked Eric Canen, a data analyst who analyzed the past survey results to clean the dataset and do a basic frequency and demographic analysis of the survey responses. He also compared the results of the two years of the survey. He cleaned the data by removing respondents who indicated they did not live in North Dakota or Cavalier County. Further cleaning removed any respondents who indicated they were less than 18 years old and any who did not answer the survey beyond the first question. These steps resulted in a clean dataset of 174 participants, which was a loss of 15% of responses from the original dataset.

Demographics

After examining the demographics of survey participants in the analysis dataset, it was evident that they did not match the demographic characteristics of Cavalier County on age and sex. The analysis dataset for 2021 was mostly female (68.8%) and generally had more people in the age 35 to 64 years age ranges than the general adult population of the county. Because the characteristics of the final survey respondents did not proportionally match the county's population, the data analyst adjusted the weighting of the individual respondents to match the proportions of these subgroups in the county. He did this using a technique called raking or rim weighting using SPSS v27.

Tables 1 and 2 listing the frequency of the demographic survey items. The unweighted columns represent the survey dataset without the weighting adjustments. The weighted columns represent the results after applying the weights. Wherever possible, the weighted percentages should be used because they tend to be more representative than the unweighted results.

What is your gender?

	Unweighted %	Weighted % *	Unweighted Frequency
Female	68.8%	48.9%	117
Male	30.6%	50.5%	52
Prefer not to say	0.6%	0.6%	1
Valid Total			170
Missing			4
Total			174

Note: *These percentages are balanced to match the US Census Bureau Vintage 2019 Population estimates for this age range (Age 18+) in Cavalier County using rake weighting based on age groups and gender.

What is your age?

	Unweighted %	Weighted % *	Unweighted Frequency
18-24	4.1%	8.1%	7
25-34	12.8%	12.6%	22
35-44	13.4%	11.3%	23
45-54	17.4%	12.9%	30
55-64	29.7%	19.6%	51
65+	22.7%	35.5%	39
Valid Total			172
Missing			2
Total			174

Note: *These percentages are balanced to match the US Census Bureau Vintage 2019 Population estimates for this age range (Age 18+) in Cavalier County using rake weighting based on age groups and gender.

Frequency

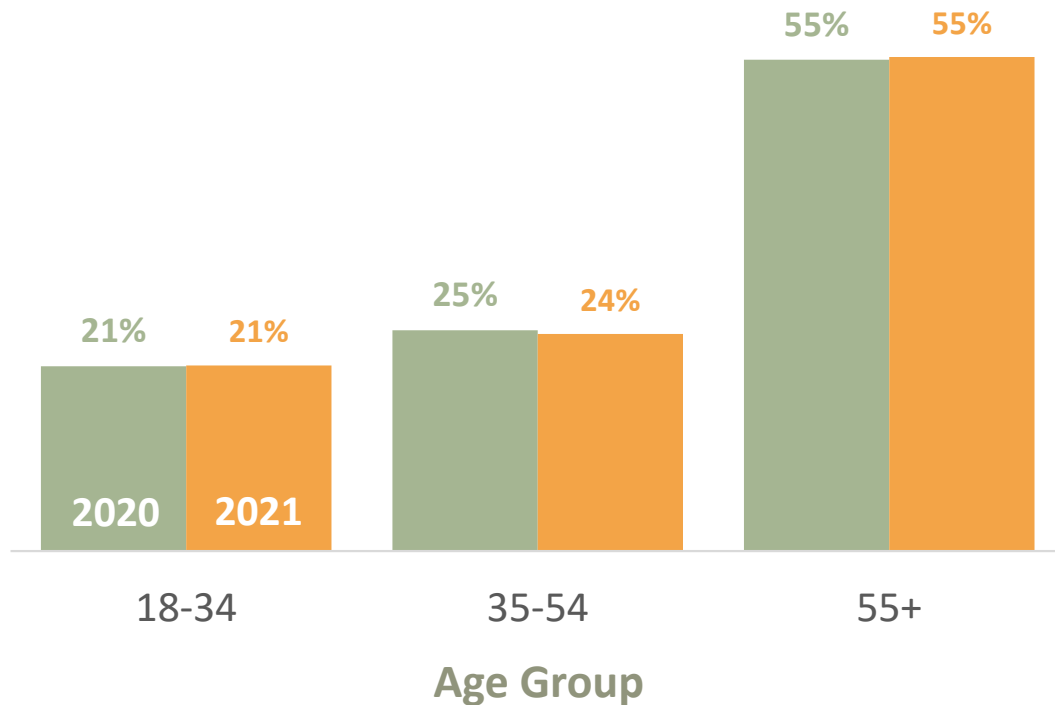
Results

The following graphs and tables present the frequency results for the content survey items. The charts present the weighted results, while the tables provide

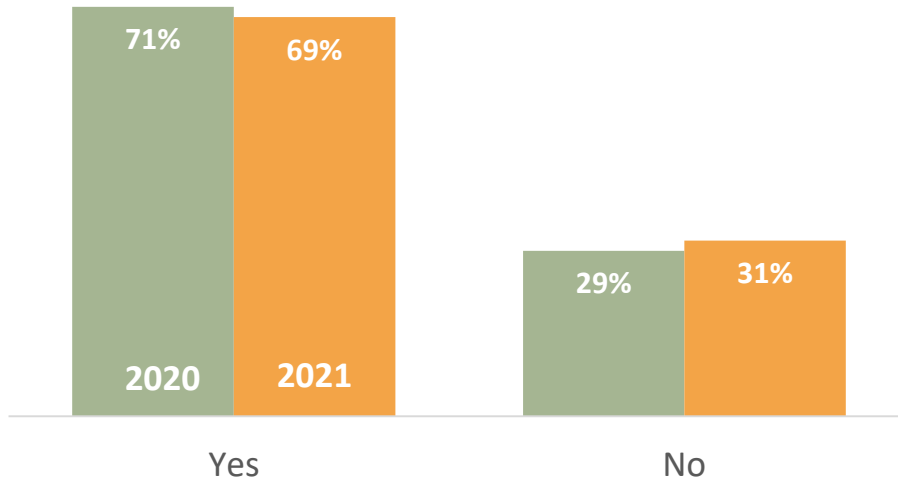
both the weighted and un-weighted numbers. Participants who did not answer a question were marked as missing but were not included in the valid results. Both 2020 and 2021 results are presented side by side for comparison purposes. Though these surveys were not a random sample, the analyst performed statistical significance tests to determine if changes year to year might be meaningfully different. Only one question met the standard statistical criteria for being statistically significant with p-values less than 0.05. For some graphs presented in this section the percentages within years, age groups, or by gender do not sum to 100% due to rounding error.

What is your age?

	2020					2021				
	Wtd Percentage	CI	Wtd Frequency	Unwtd Frequency	Wtd Percentage	CI	Wtd frequency	Unwtd Frequency		
18-24	8.4%	(4.7% - 14.6%)	15.0	14	8.1%	(3.8% - 16.5%)	13.9	7		
25-34	12.2%	(8.2% - 17.7%)	21.8	32	12.6%	(8.2% - 19.0%)	21.7	22		
35-44	11.0%	(7.4% - 16.0%)	19.7	33	11.3%	(7.3% - 17.1%)	19.4	23		
45-54	13.6%	(9.4% - 19.3%)	24.3	37	12.9%	(8.8% - 18.6%)	22.2	30		
55-64	19.7%	(13.2% - 28.4%)	35.3	27	19.6%	(14.5% - 25.9%)	33.7	51		
65+	35.1%	(26.2% - 45.2%)	62.8	36	35.5%	(27.1% - 44.9%)	61.1	39		



Did you drink any alcoholic beverages in the past 30 days?

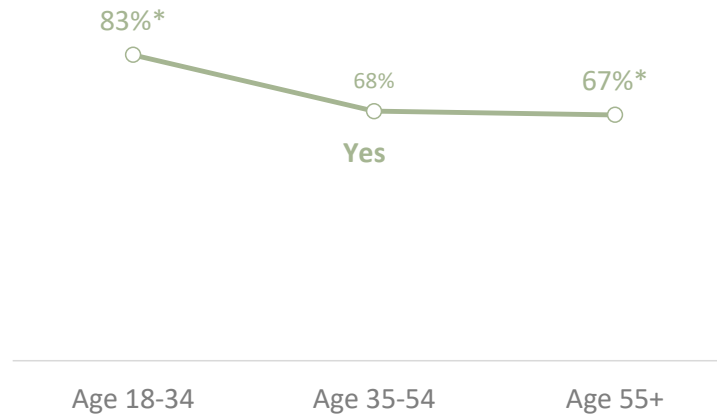


More than 2 out of 3 respondents said they used alcohol sometime in the past 30 days.

Did you drink any alcoholic beverages in the past 30 days?

	2020				2021			
	Wtd Percentage	CI	Wtd Frequency	Unwtd Frequency	Wtd Percentage	CI	Wtd frequency	Unwtd Frequency
Yes	71.2%	(62.6% - 78.5%)	129.7	124	69.4%	(60.8% - 76.9%)	120.8	122
No	28.8%	(21.5% - 37.4%)	52.3	58	30.6%	(23.1% - 39.2%)	53.2	52

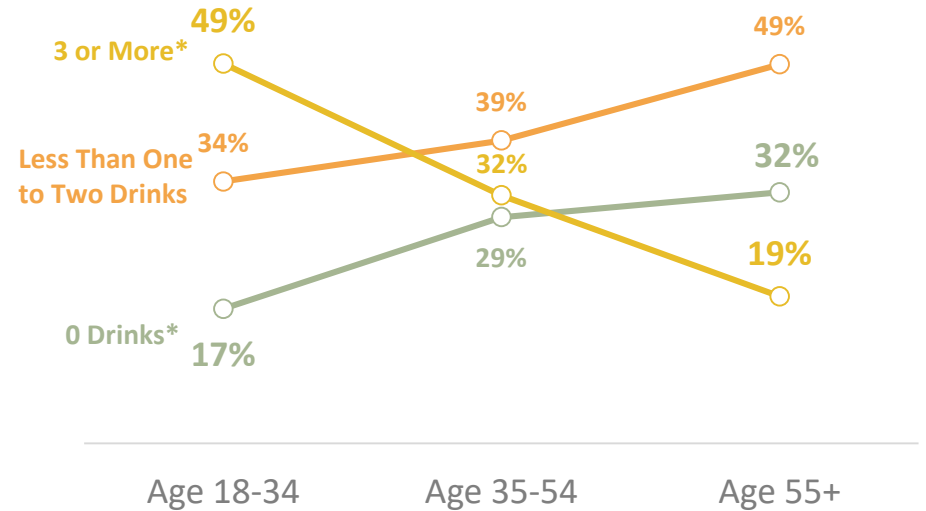
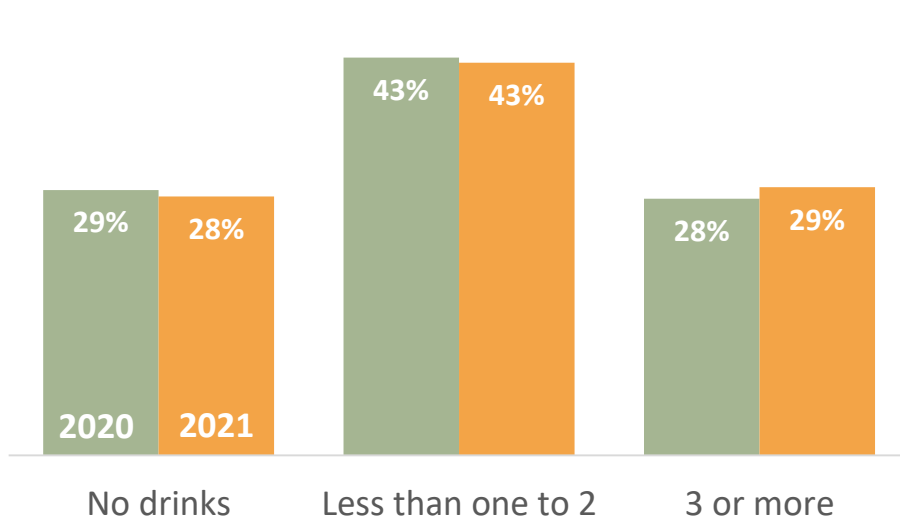
Respondents in the age 18 to 34 group were more likely to have used alcohol during the past month than those who were 55 or older



Note: For the age group comparisons, both survey years are combined.

* Significantly more of the age 18 to 34 group used alcohol than the age 55+ group.

During the past 30 days, on the days when you drank, about how many alcoholic beverages did you drink on average?



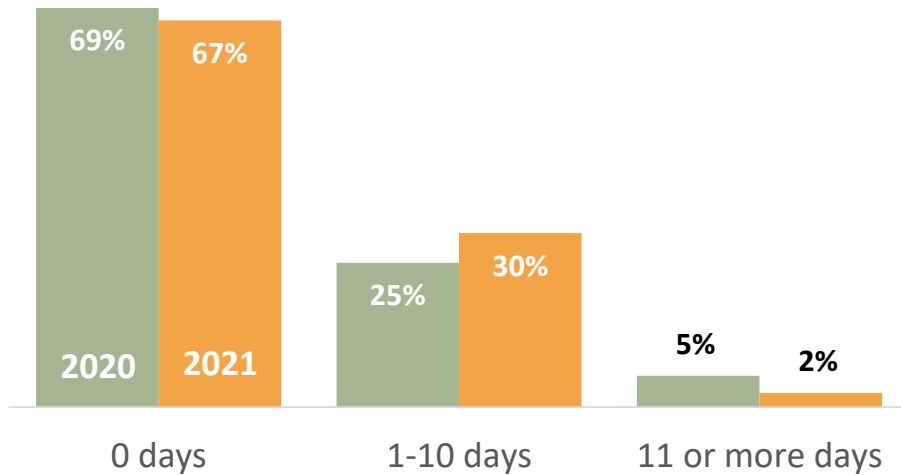
People age 18 to 34 were more than twice as likely to consume three or more drinks of alcohol on the days that they drank than the people age 55 or older.

Note: For the age group comparisons, both survey years are combined. * Significantly more of the age 18 to 34 group consumed three or more drinks on average than the age 55+ group; while significantly more of the age 55+ group consumed zero drinks on average than the age 18 to 34 group.

During the past 30 days, on the days when you drank, about how many alcoholic beverages did you drink on average? (3 Categories)

	2020				2021			
	Wtd Percentage	CI	Wtd Frequency	Unwtd Frequency	Wtd Percentage	CI	Wtd frequency	Unwtd Frequency
No drinks	28.9%	(21.5% - 37.6%)	51.4	57	28.1%	(21.0% - 36.6%)	49.0	49
Less than one to 2	43.2%	(34.4% - 52.5%)	77.1	70	42.7%	(34.4% - 51.4%)	74.3	75
3 or more	27.9%	(20.5% - 36.7%)	49.8	51	29.2%	(22.0% - 37.5%)	50.8	50

Considering all types of alcoholic beverages, on how many days, during the past 30 days, did you have 5 or more alcoholic beverages on an occasion?



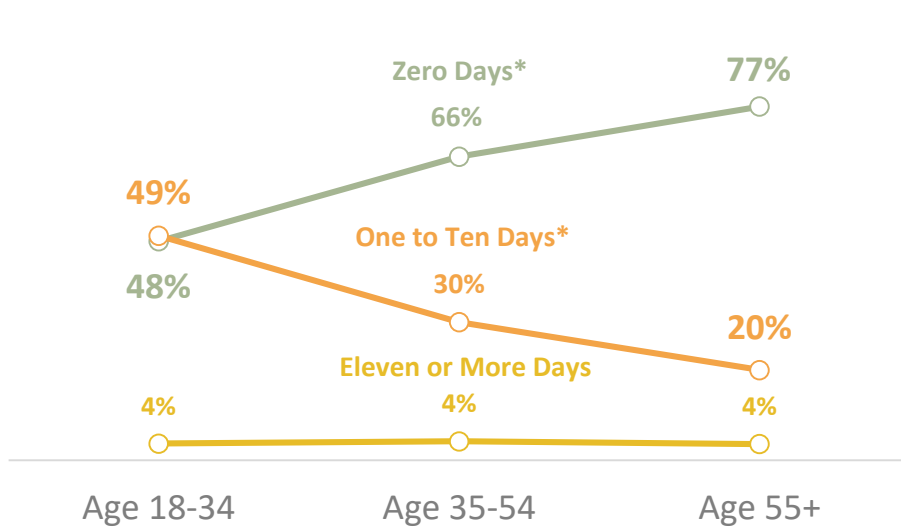
This question addresses how many days the respondents binge drank during the last month. Typically binge drinking is defined as consuming five or more drinks during a single setting or occasion.

The next page presents significant age-group and gender differences that were found for binge drinking behavior.

Considering all types of alcoholic beverages, on how many days, during the past 30 days, did you have 5 or more alcoholic beverages on an occasion? (3 Categories)

	2020				2021			
	Wtd Percentage	CI	Wtd Frequency	Unwtd Frequency	Wtd Percentage	CI	Wtd frequency	Unwtd Frequency
0 days	69.4%	(60.1% - 77.4%)	115.7	116	67.3%	(58.6% - 74.9%)	115.7	119
1-10 days	25.1%	(17.8% - 34.1%)	41.8	44	30.3%	(22.8% - 38.9%)	52.0	48
11 or more days	5.5%	(2.4% - 12.0%)	9.1	7	2.4%	(1.0% - 5.9%)	4.2	5

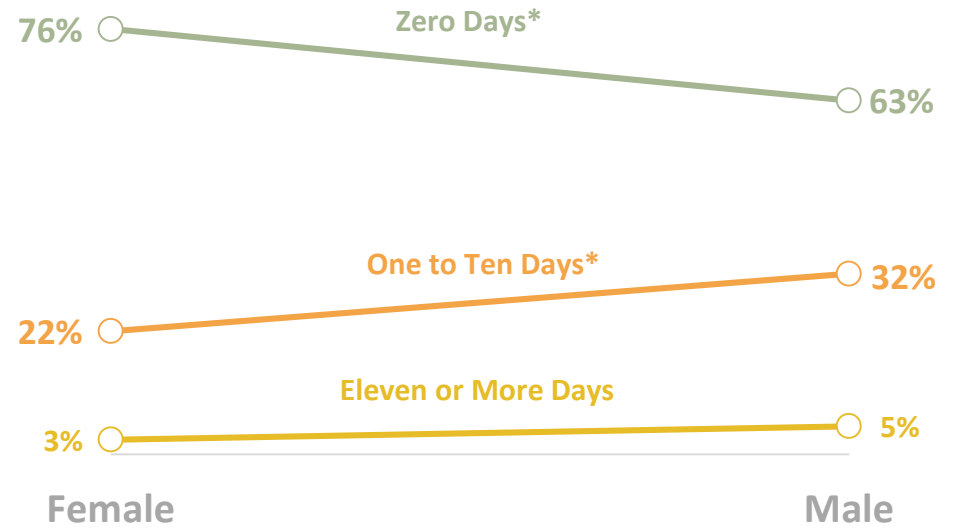
Days Binge Drank by Age Group



Note: For the age group comparisons, both survey years are combined. Age group percentages do not sum to 100% due to rounding error. * Significantly more of the age 18 to 34 group binge drank one to ten days during the month than did the age 55+ group; while significantly more of the age 55+ group did not binge drink at all during the past 30 days than did the age 18 to 34 group.

More than **half (52%)** of people age **18 to 34** binge drank on more days during the month, while less than **one in four (23%)** people age **55 or older** report that same behavior.

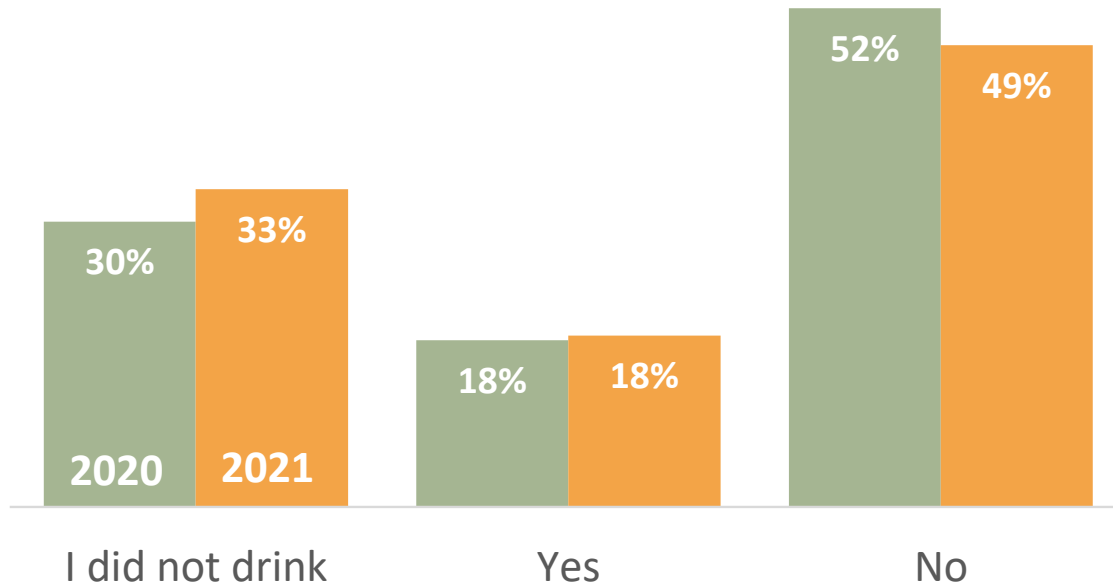
Days Binge Drank by Gender



Note: For the gender comparisons, both survey years are combined. Total percentages do not sum to 100% due to rounding error. * A greater percentage of the males indicated they consumed 5+ drinks on an occasion for one to ten days during the past month than did females; while the opposite pattern was seen for zero days of the same behavior.

Across both survey years combined, **3 out of 4 female** respondents (76%) indicated they did not binge drink during the month, but only about **2 out of 3 males (63%)** reported the same.

In the past 3 months, have you had a time where you tried to reduce your alcohol use such that you did not consume as many alcoholic beverages when you did drink?

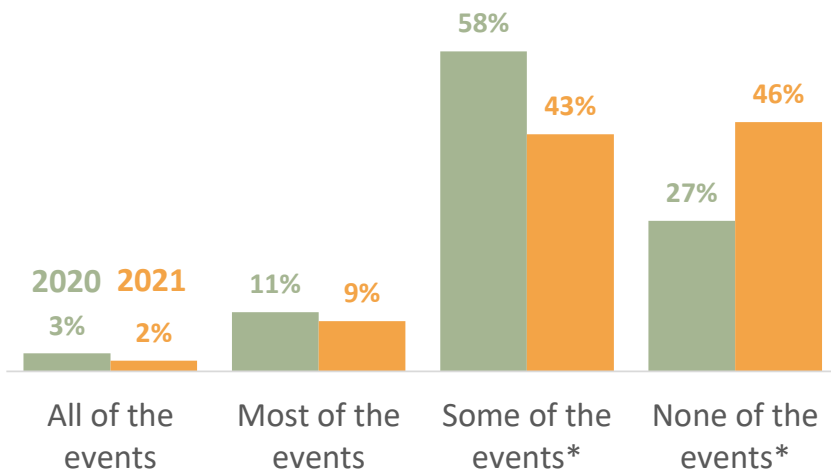


In both 2020 and 2021, about **1 in 5** people (18%) said that they tried to reduce their alcohol use sometime in the past three months.

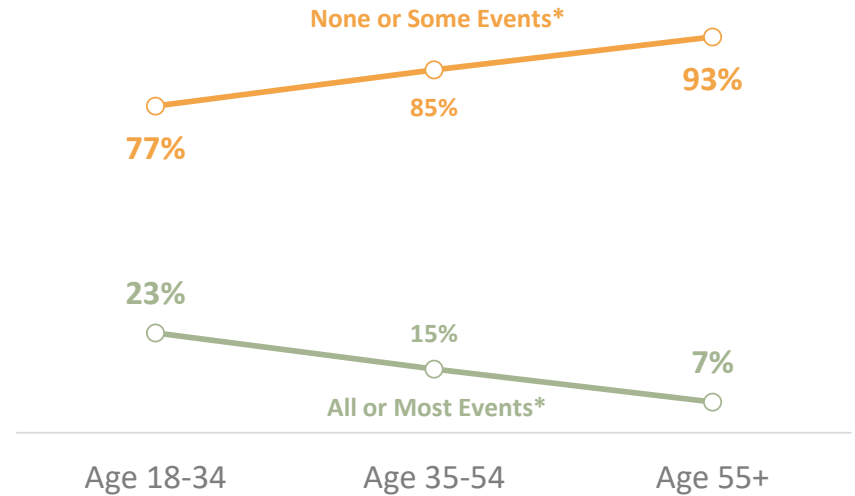
In the past 3 months, have you had a time where you tried to reduce your alcohol use such that you did not consume as many alcoholic beverages when you did drink?

	2020				2021			
	Wtd Percentage	CI	Wtd Frequency	Unwtd Frequency	Wtd Percentage	CI	Wtd frequency	Unwtd Frequency
I did not drink	30.0%	(22.4% - 39.0%)	49.7	56	33.4%	(25.5% - 42.4%)	57.1	52
Yes	17.5%	(11.2% - 26.3%)	29.0	30	18.0%	(12.2% - 25.7%)	30.8	31
No	52.5%	(42.9% - 61.8%)	86.8	80	48.6%	(40.0% - 57.2%)	83.0	88

In the past 12 months, how often have you attended events where you saw one or more people be drunk or intoxicated?



Note: * Differences between 2020 and 2021 for these two categories were significantly different.



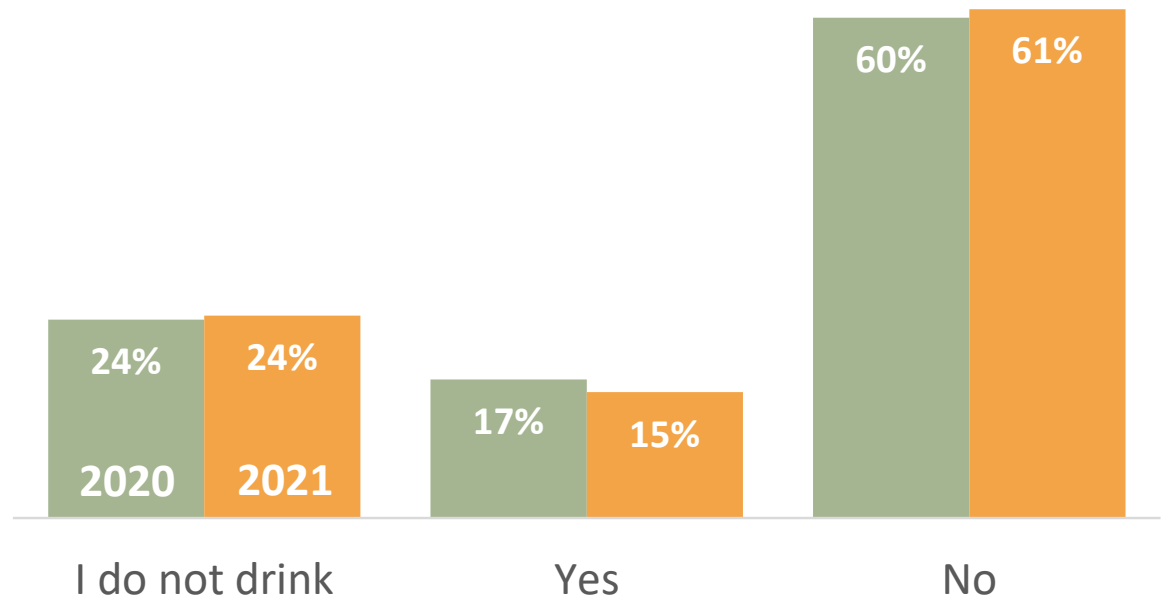
Note: For the age group comparisons, both survey years are combined. * A greater percentage of the age 18 to 24 group than the age 55+ group said that they saw intoxicate people at all or most of the events they attended.

In the past 12 months, how often have you attended events where you saw one or more people be drunk or intoxicated?

	2020				2021			
	Wtd Percentage	CI	Wtd Frequency	Unwtd Frequency	Wtd Percentage	CI	Wtd frequency	Unwtd Frequency
All of the events	3.3%	(1.5% - 6.9%)	5.2	8	1.9%	(0.3% - 10.1%)	3.3	1
Most of the events	10.8%	(6.4% - 17.7%)	17.3	19	9.2%	(5.6% - 14.7%)	15.8	18
Some of the events	58.5%	(48.6% - 67.7%)	93.7	97	43.3%	(35.0% - 52.0%)	74.5	77
None of the events	27.5%	(19.3% - 37.5%)	44.0	37	45.6%	(37.1% - 54.3%)	78.4	76

Do you find yourself drinking more than you wanted or intended when you attend events that have an open bar or unlimited drinking ticket (e.g. fundraisers, weddings)?

Regardless of survey year, about 75% of people said they either did not drink or did not drink more than they intended when they attended open bar or unlimited ticket events



Do you find yourself drinking more than you wanted or intended when you attend events that have an open bar or unlimited drinking ticket (e.g. fundraisers, weddings)?

	2020				2021			
	Wtd Percentage	CI	Wtd Frequency	Unwtd Frequency	Wtd Percentage	CI	Wtd frequency	Unwtd Frequency
I do not drink	23.7%	(16.4% - 32.9%)	38.2	39	24.2%	(17.3% - 32.7%)	41.6	39
Yes	16.6%	(10.6% - 24.8%)	26.7	30	15.0%	(9.9% - 22.1%)	25.8	28
No	59.8%	(50.0% - 68.8%)	96.3	93	60.8%	(52.0% - 69.0%)	104.6	105

Alcohol Use at Community Events

Strongly
Agree

Agree

Neither Agree
nor Disagree

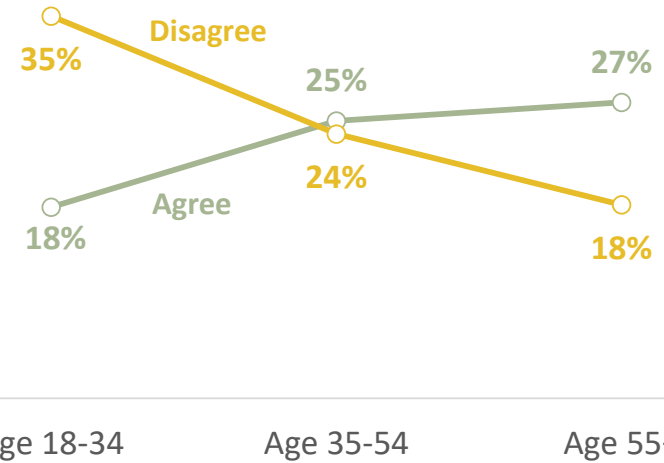
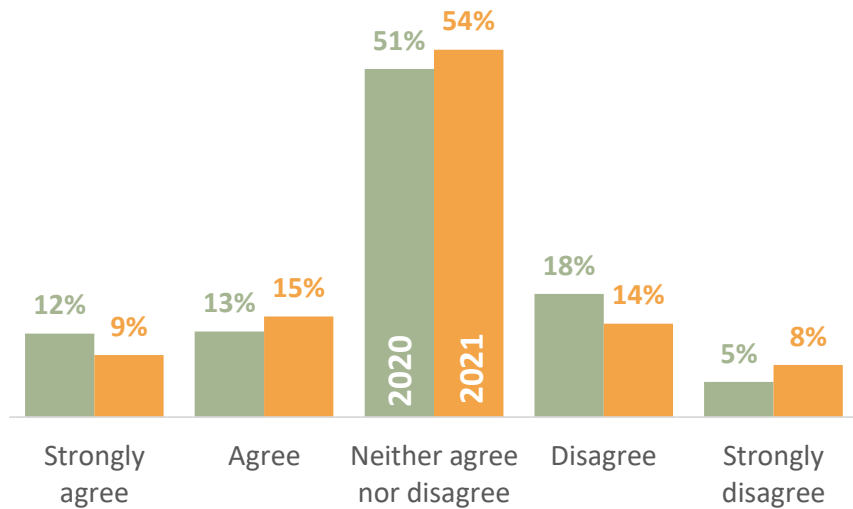
Disagree

Strongly
Disagree

To better understand the respondent's viewpoints about how alcohol use is viewed at community events, people who took the survey were asked to indicate how much they agreed or disagreed with three statements

1. "I am frustrated that there are so few community events that are alcohol free."
2. "Alcohol is an important part of the social functions I attend."
3. "I choose not to go to some community events

Agree or Disagree: "I am frustrated that there are so few community events that are alcohol free."



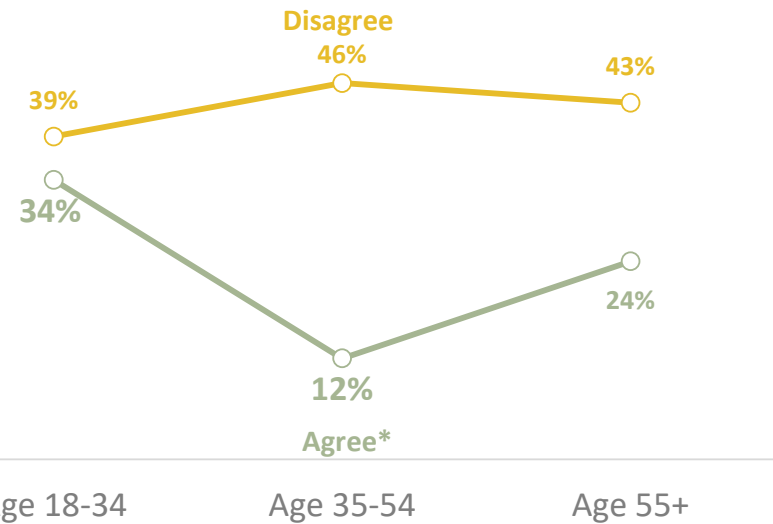
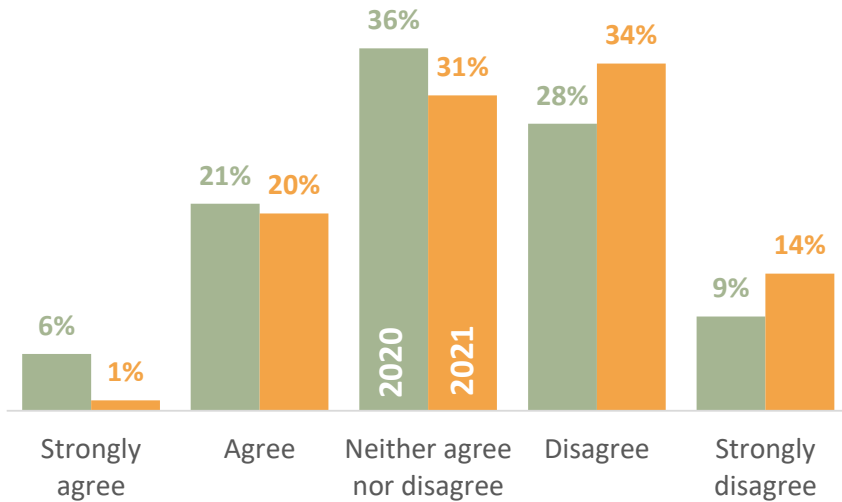
Most people indicated they did not have a strong opinion—they neither agreed nor disagreed about this statement. Those that had an opinion were generally evenly divided.

Note: For the age group comparisons, both survey years are combined. The percentage that indicated they "neither agreed nor disagreed" with the statement was 48% (age 18 to 24), 50% (age 35 to 54), and 55% (age 55+). Overall the differences between age groups was not significantly different.

Agree or Disagree: "I am frustrated that there are so few community events that are alcohol free."

	2020				2021			
	Wtd Percentage	CI	Wtd Frequency	Unwtd Frequency	Wtd Percentage	CI	Wtd frequency	Unwtd Frequency
Strongly agree	12.4%	(7.3% - 20.1%)	19.4	18	9.2%	(4.9% - 16.5%)	15.7	13
Agree	12.7%	(7.8% - 19.8%)	19.9	23	14.9%	(10.0% - 21.6%)	25.5	28
Neither agree nor	51.5%	(41.7% - 61.1%)	80.9	81	54.3%	(45.6% - 62.8%)	92.9	89
Disagree	18.2%	(11.7% - 27.3%)	28.6	27	13.8%	(9.2% - 20.3%)	23.7	27
Strongly disagree	5.2%	(2.5% - 10.7%)	8.2	11	7.7%	(4.5% - 13.1%)	13.2	14

Agree or Disagree: "Alcohol is an important part of the social functions I attend."



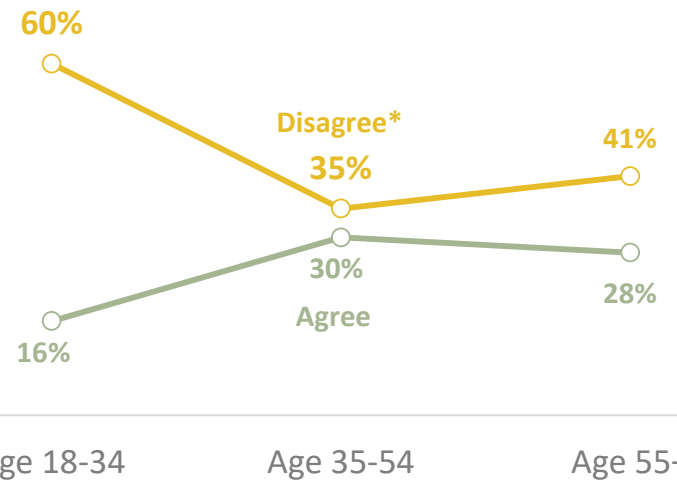
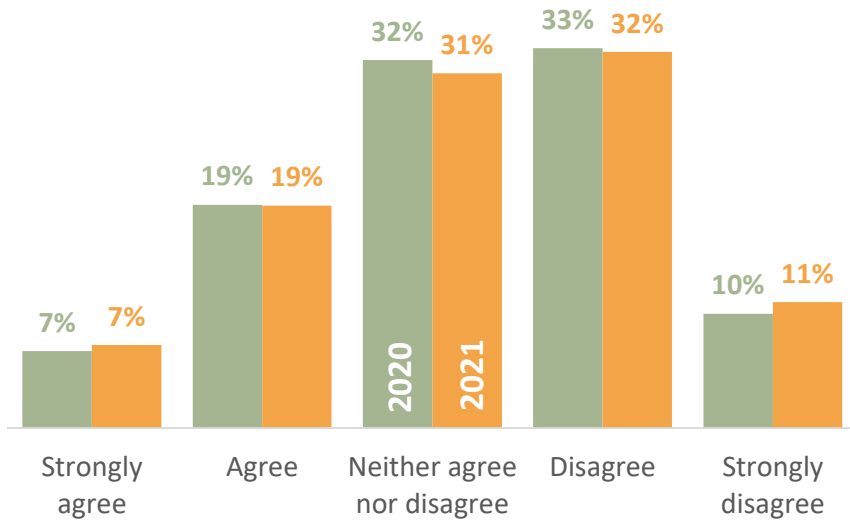
Most commonly people disagreed with this statement in both 2020 (38%) and 2021 (48%); however people in the 18-34 age group were more like to agree that alcohol is important part of their social functions, than the age 35-54 group.

Note: For the age group comparisons, both survey years are combined. The percentage that indicated they "neither agreed nor disagreed" with the statement was 27% (age 18 to 24), 42% (age 35 to 54), and 33% (age 55+). * A greater percentage of the age 18 to 24 group than the age 35 to 54 group indicated they agreed with statement.

Agree or Disagree: "Alcohol is an important part of the social functions I attend."

	2020				2021			
	Wtd Percentage	CI	Wtd Frequency	Unwtd Frequency	Wtd Percentage	CI	Wtd frequency	Unwtd Frequency
Strongly agree	5.6%	(2.3% - 13.3%)	9.0	6	1.0%	(0.2% - 4.2%)	1.8	2
Agree	20.5%	(14.0% - 29.2%)	32.9	35	19.6%	(13.4% - 27.6%)	33.4	31
Neither agree nor	36.0%	(27.1% - 45.9%)	57.6	57	31.3%	(23.8% - 40.0%)	53.4	54
Disagree	28.5%	(20.3% - 38.3%)	45.6	46	34.5%	(26.6% - 43.2%)	58.8	58
Strongly disagree	9.4%	(5.4% - 15.7%)	15.0	17	13.6%	(8.8% - 20.4%)	23.2	25

Agree or Disagree: "I choose not to go to some community events because there is too much alcohol use."



Consistently over the two years, about **1 in 4** people indicated they agreed with the statement.

Note: For the age group comparisons, both survey years are combined. The percentage that indicated they "neither agreed nor disagreed" with the statement was 24% (age 18 to 24), 35% (age 35 to 54), and 32% (age 55+). * A greater percentage of the age 18 to 24 group than the age 35 to 54 group indicated they disagreed with statement.

Agree or Disagree: "I choose not to go to some community events because there is too much alcohol use."

	2020				2021			
	Wtd Percentage	CI	Wtd Frequency	Unwtd Frequency	Wtd Percentage	CI	Wtd frequency	Unwtd Frequency
Strongly agree	6.6%	(3.5% - 12.3%)	10.5	13	7.1%	(3.7% - 13.5%)	12.0	12
Agree	19.2%	(12.7% - 27.9%)	30.4	30	19.1%	(13.1% - 27.1%)	32.1	31
Neither agree nor	31.7%	(23.1% - 41.7%)	50.1	45	30.5%	(23.0% - 39.2%)	51.2	51
Disagree	32.7%	(24.1% - 42.5%)	51.7	57	32.4%	(24.7% - 41.1%)	54.3	53
Strongly disagree	9.8%	(5.4% - 17.3%)	15.6	15	10.8%	(6.8% - 16.9%)	18.2	22