



Adult Alcohol Survey

Cavalier County

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Adult Alcohol Survey: Cavalier County

The Cavalier Public Health District conducted a short survey in the spring of 2020 to 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. There were 212 who completed surveys before data cleaning.

Cavalier Public Health District asked WYSAC to clean the dataset and do a basic frequency and demographic analysis of the survey responses. WYSAC 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 182 participants, which was a loss of 13% 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 was mostly female (76.9%) and generally had more people in the age 25 to 54 age range than the general adult population of the county. Because the characteristics of the final survey respondents did not proportionally match the county's population, WYSAC adjusted the weighting of the individual respondents to match the proportions of these subgroups in the county. We did this using a technique called raking or rim weighting using SPSS v25.

Below are the tables 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 age?

	Weighted Frequency	Weighted Percent*	Unweighted Frequency	Unweighted Percent
Age 18-24	15	8.6%	14	7.8%
Age 25-34	22	12.2	32	17.9
Age 35-44	20	11.0	33	18.4
Age 45-54	25	13.7	37	20.7
Age 55-64	35	19.7	27	15.1
Age 65+	62	34.7	36	20.1
Valid Total	179	100.0	179	100.0

Note: *These percentages are balanced to match the US Census Bureau Vintage 2018 Population estimates for this age range (Age 18+) in Cavalier County using rake weighting based on age groups and gender.

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What is your gender?

	Weighted Frequency	Weighted Percent*	Unweighted Frequency	Unweighted Percent
Female	82	50.8	123	76.9
Male	78	48.6	36	22.5
Prefer not to say	1	0.5	1	0.6
Valid Total	161	100.0	160	100.0

Note: *These percentages are balanced to match the US Census Bureau Vintage 2018 Population estimates for this age range (Age 18+) in Cavalier County using rake weighting based on age groups and gender.

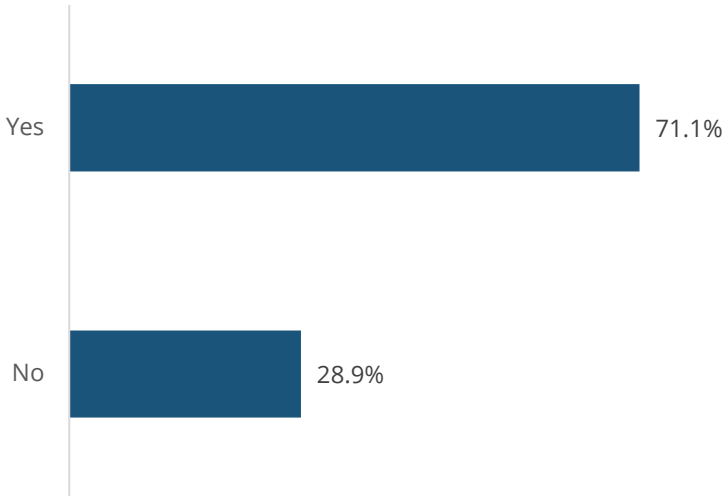
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Frequency Results

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 unweighted numbers. Participants who did not answer a question were marked as missing but were not included in the valid results.

Just over one in four adults in Cavalier County reported they did not drink alcohol in the past 30 days before the survey.

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

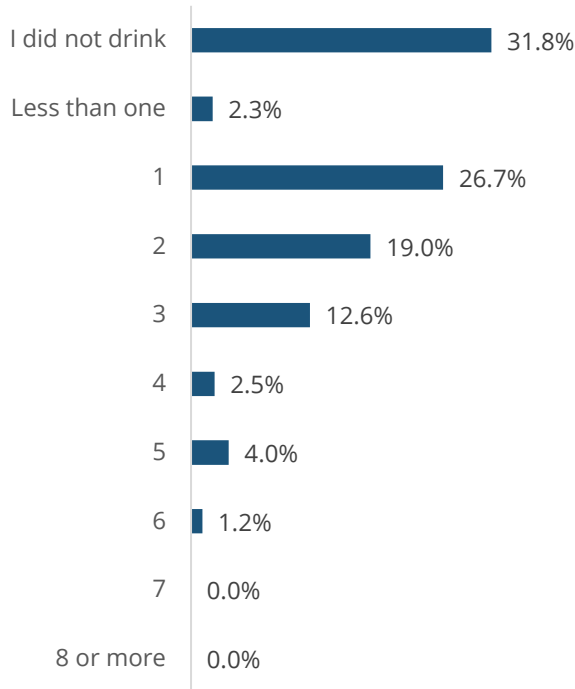


	Weighted Frequency	Weighted Percent	Unweighted Frequency	Unweighted Percent
Yes	129	71.1	124	68.1
No	53	28.9	58	31.9
Valid Total	182	100.0	182	100.0

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Most adults (80%) reported consuming two or fewer alcoholic beverages, if and when they consumed alcohol during the past 30 days.

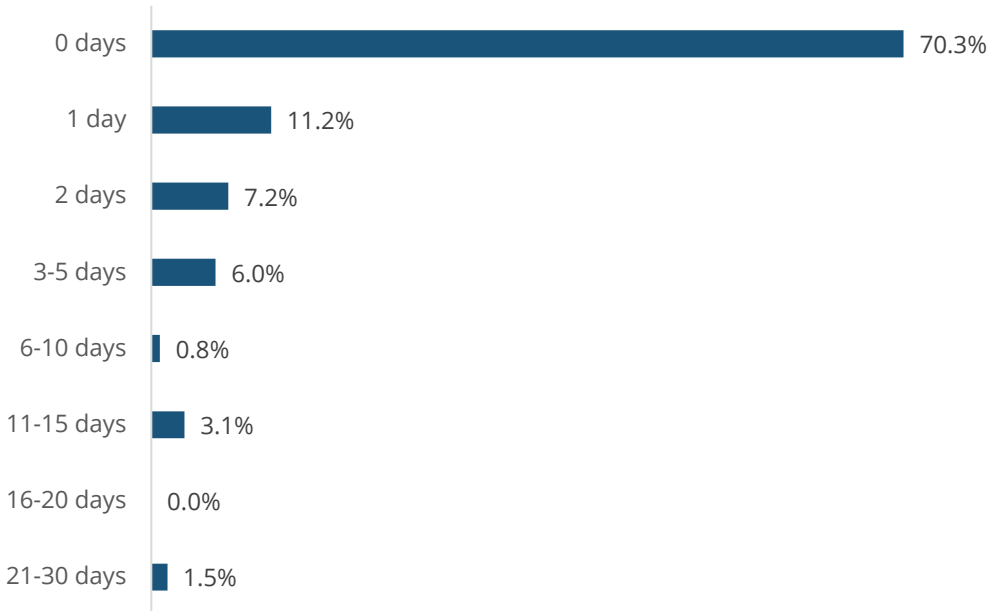
During the past 30 days, on the days when you drank, about how many alcoholic beverages did you drink on average?



	Weighted Frequency	Weighted Percent	Unweighted Frequency	Unweighted Percent
I did not drink	51	31.8%	56	34.4%
Less than one	4	2.3	4	2.5
1	43	26.7	37	22.7
2	30	19.0	29	17.8
3	20	12.6	20	12.3
4	4	2.5	6	3.7
5	6	4.0	7	4.3
6	2	1.2	4	2.5
7	0	0.0	0	0.0
8 or more	0	0.0	0	0.0
Valid Total	161	100.0	163	100.0

Binge drinking is often defined as consuming five or more alcoholic drinks in a single setting or occasion. The vast majority (70%) of adults in Cavalier county indicated that they did not binge drink during the last month.

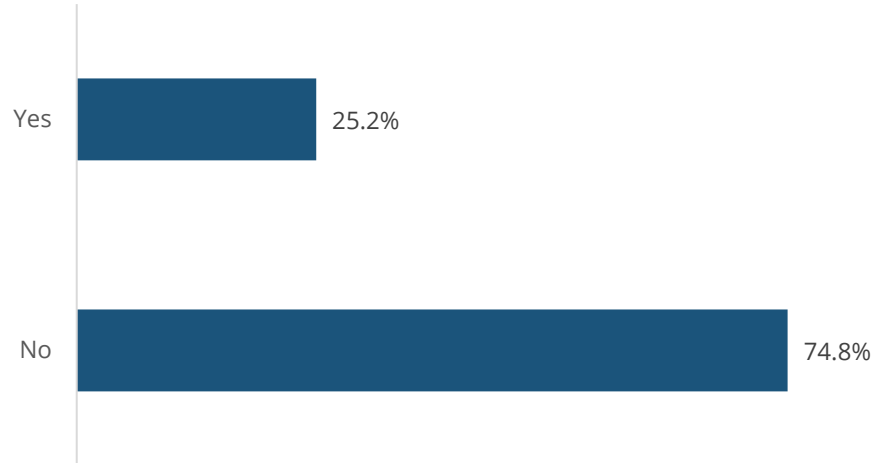
Considering all types of alcoholic beverages, on how many days, during the past 30 days, did you have 5 more alcoholic beverages on occasion?



	Weighted Frequency	Weighted Percent	Unweighted Frequency	Unweighted Percent
0 days	117	70.3	116	69.9
1 day	19	11.2	18	10.8
2 days	12	7.2	13	7.8
3-5 days	10	6.0	11	6.6
6-10 days	1	0.8	2	1.2
11-15 days	5	3.1	3	1.8
16-20 days	0	0.0	0	0.0
21-30 days	2	1.5	3	1.8
Valid Total	167	100.0	166	100.0

About one in four adults who answered the question tried at some time during the past three months to reduce the amount they drank when they consumed alcohol. There were, however, a large number of people who did not provide an answer to this question.

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?

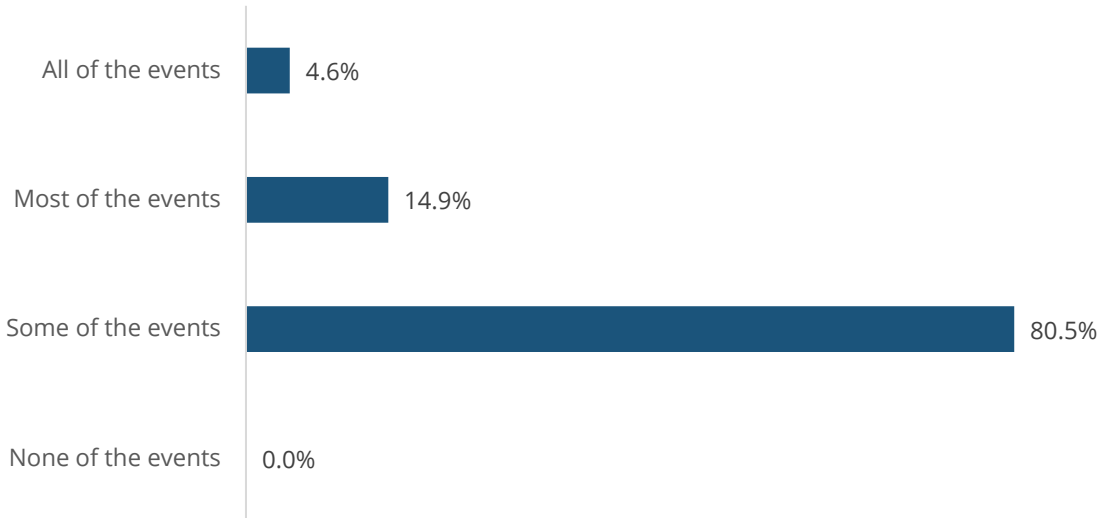


	Weighted Frequency	Weighted Percent	Unweighted Frequency	Unweighted Percent
Yes	29	25.2	30	27.3
No	87	74.8	80	72.7
Valid Total	116	100.0	110	100.0

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Of the people who answered this question, all of them attended events in the past year where they said people were drunk or intoxicated. There were, however, a large number of people who did not provide an answer to this question.

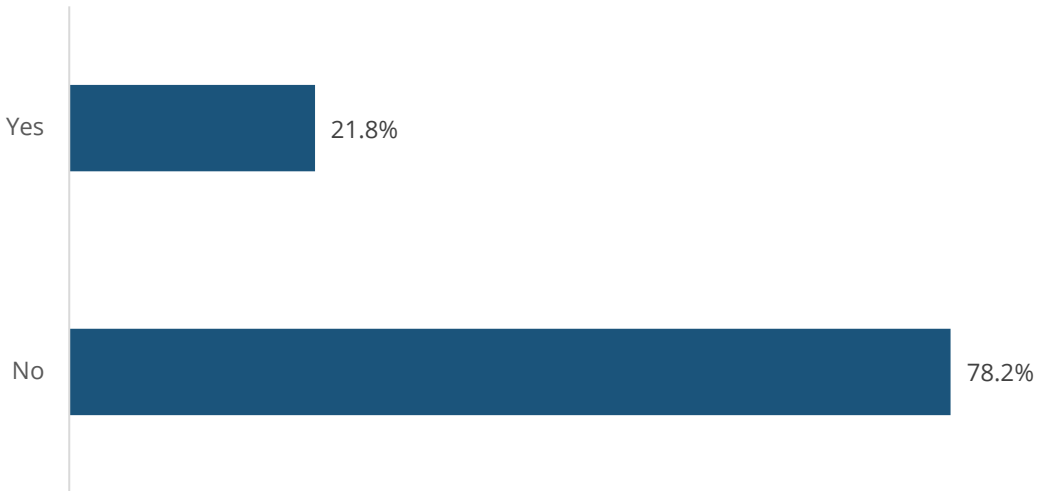
In the past 12 months, how often have you attended events where you saw one or more people be drunk or intoxicated?



	Weighted Frequency	Weighted Percent	Unweighted Frequency	Unweighted Percent
All of the events	5	4.6	8	6.5
Most of the events	18	14.9	19	15.3
Some of the events	95	80.5	97	78.2
None of the events	0	0.0	0	0.0
Valid Total	118	100.0	124	100.0

About one in five adults indicated that they drank more than they wanted or intended when they attended events with open bars or unlimited drinking tickets. There was a large number of survey respondents who did not answer this question.

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)?



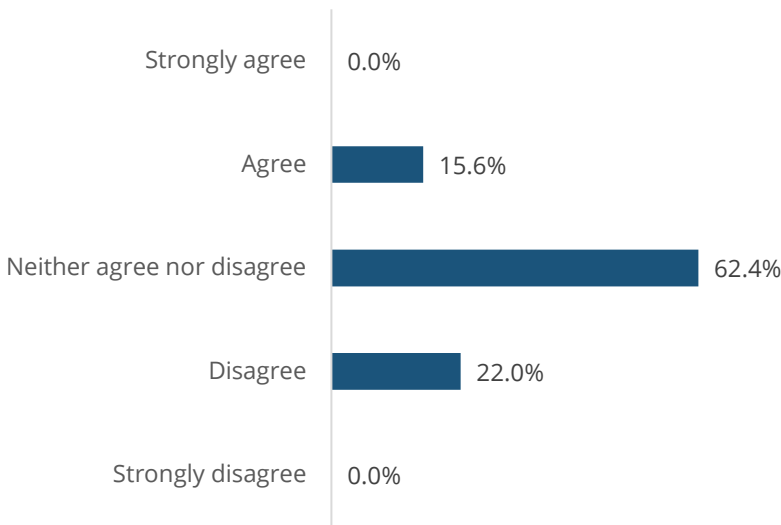
	Weighted Frequency	Weighted Percent	Unweighted Frequency	Unweighted Percent
Yes	27	21.8	30	24.4
No	97	78.2	93	75.6
Valid Total	124	100.0	123	100.0

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The next few questions asked the respondents how much they agree or disagree with the following statements.

The majority of adults who answered the survey were neutral about whether they were frustrated that there were so few community events that were alcohol-free.

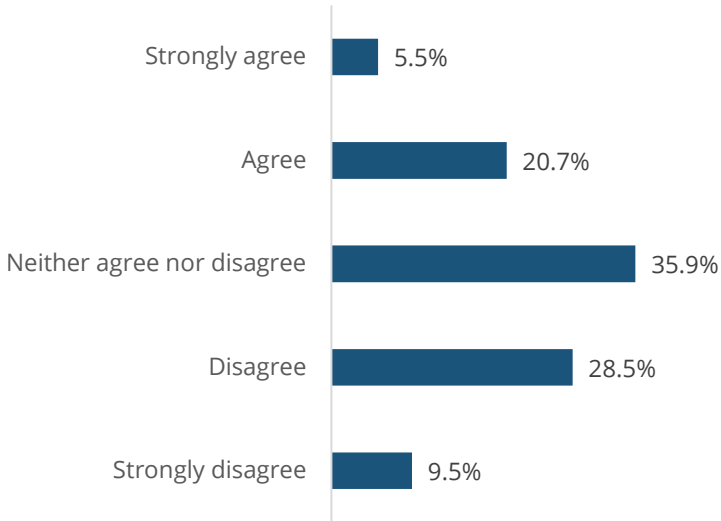
I am frustrated that there are so few community events that are alcohol free.



	Weighted Frequency	Weighted Percent	Unweighted Frequency	Unweighted Percent
Strongly agree	0	0.0	0	0.0
Agree	20	15.6	23	17.6
Neither agree nor disagree	82	62.4	81	61.8
Disagree	29	22.0	27	20.6
Strongly disagree	0	0.0	0	0.0
Valid Total	131	100.0	131	100.0

Just over 1 in 3 Cavalier County adults disagreed that alcohol was an important part of the social functions that they attend.

Alcohol is an important part of the social functions I attend

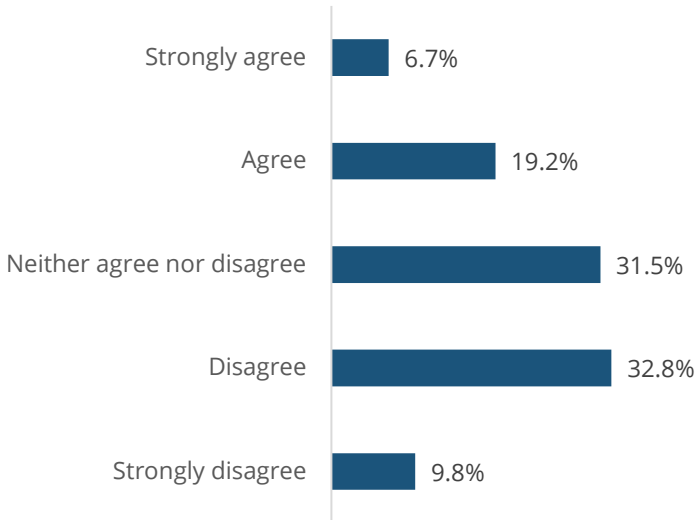


	Weighted Frequency	Weighted Percent	Unweighted Frequency	Unweighted Percent
Strongly agree	9	5.5	6	3.7
Agree	34	20.7	35	21.7
Neither agree nor disagree	58	35.9	57	35.4
Disagree	46	28.5	46	28.6
Strongly disagree	15	9.5	17	10.6
Valid Total	162	100.0	161	100.0

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About one in four adults (25.9%) in Cavalier County indicated they agreed with the statement that they choose not to go to some community events because there is too much alcohol use.

I choose not to go to some community events because there is too much alcohol use



	Weighted Frequency	Weighted Percent	Unweighted Frequency	Unweighted Percent
Strongly agree	11	6.7	13	8.1
Agree	31	19.2	30	18.8
Neither agree nor disagree	51	31.5	45	28.1
Disagree	53	32.8	57	35.6
Strongly disagree	16	9.8	15	9.4
Valid Total	161	100.0	160	100.0

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Notable Demographic Differences

WYSAC looked at subgroup differences on the content variables based on age group and gender. Despite this study being a convenience sample, rather than a random or systematic sample, WYSAC used statistical tests to help narrow the results to those differences that were more likely to be meaningful and important. Using these statistical tests accounted for the smaller number of respondents in the different subgroups. It also provided a relatively standardized way of identifying when there seem to be notable or meaningful differences between the subgroups. It does not account for potential bias of the sampling method, nor does it account for the possible additional variation that using weighted data might introduce.

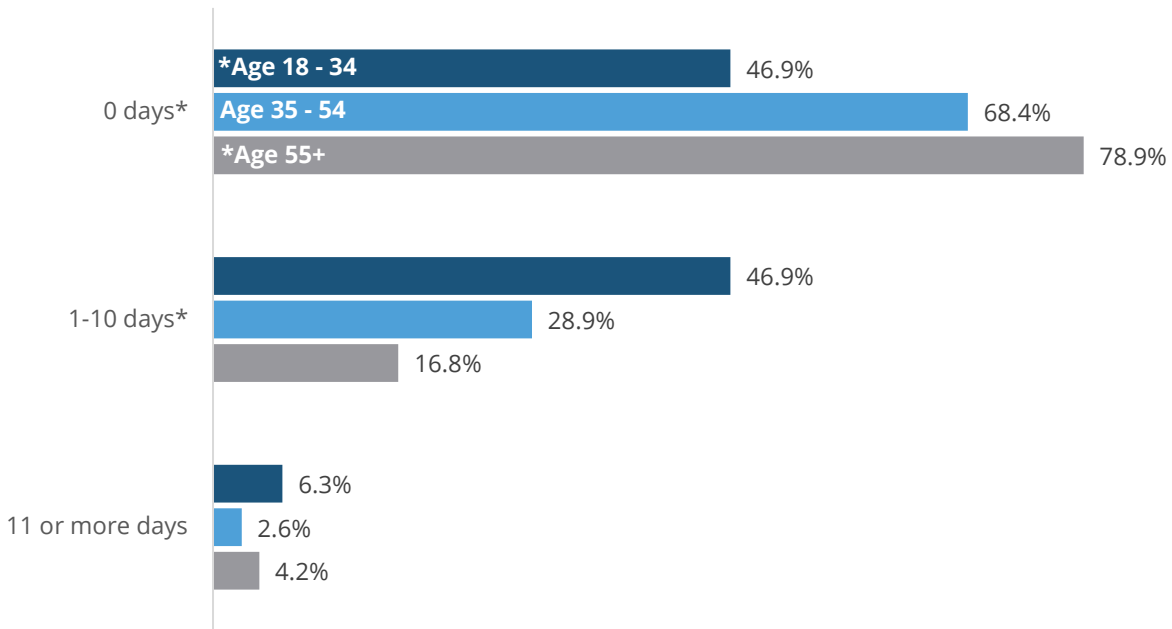
WYSAC created a contingency table (or cross-tabulation) between each survey item and the different demographic variables (age groups or gender). WYSAC used the Likelihood Ratio (LR) test statistic and its associated p-value to identify when there were substantial differences between the subgroups. Relationships that had p-values associated with the LR test statistic of less than 0.05 were identified as being of potential interest. WYSAC also performed the difference of proportions tests between the subgroup results with a Bonferroni correction to account for the multiple comparisons.

To meet the assumptions of this analysis and to make the results more interpretable, WYSAC collapsed the response choices into smaller numbers of categories on many questions. This included the age-group question, which the researcher collapsed into three groups (age 18-34, age 35-54, and age 55 or older).

Based on this methodology, the WYSAC found no statistically significant differences between self-identified male and female participants on any of the survey questions. However, there were three survey items where the age groups seemed to differ. Specifically, younger adults had different drinking behaviors than older adults and reported not avoiding events because of alcohol. The following figures present those results. Please note that the graphs that follow present the weighted survey results.

The difference in binge drinking behaviors between older adults—age 55 or older—in Cavalier County and the youngest age group (18-34) was statistically significant. In the oldest age group, over three out of four (79%) respondents said they did not binge drink during the last 30 days. A little less than half (47%) of the 18-to-34-year-old respondents reported the same.

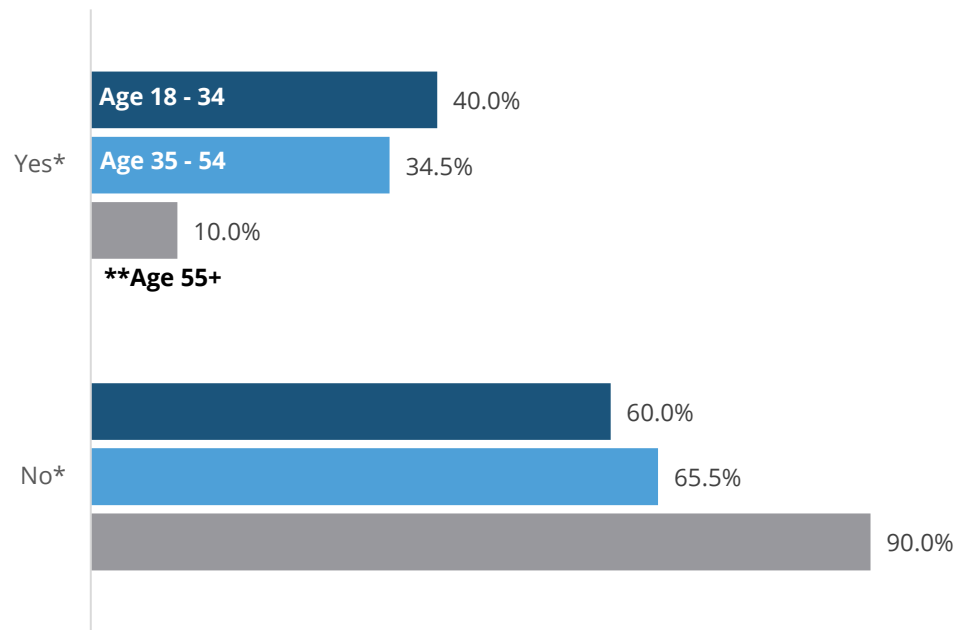
Age group differences- Considering all types of alcoholic beverages, on how many days, during the past 30 days, did you have 5 more alcoholic beverages on occasion?



* Percentage in age group 18-34 is meaningfully different from age group 55+ for both the 0 days and the 1-10 days responses. Overall LR = 12.289, df = 4, p-value = 0.015

Compared to the younger age groups, a smaller percentage of people (10%) in Cavalier County who were age 55 or older indicated that they consumed more alcohol than they wanted or intended to when they went to events with open bars or unlimited drinking tickets. Among the two younger age groups, about one third or more reported consuming more alcohol than they wanted or intended at these types of events. The difference between those aged 55 and older and those under 55 was statistically significant.

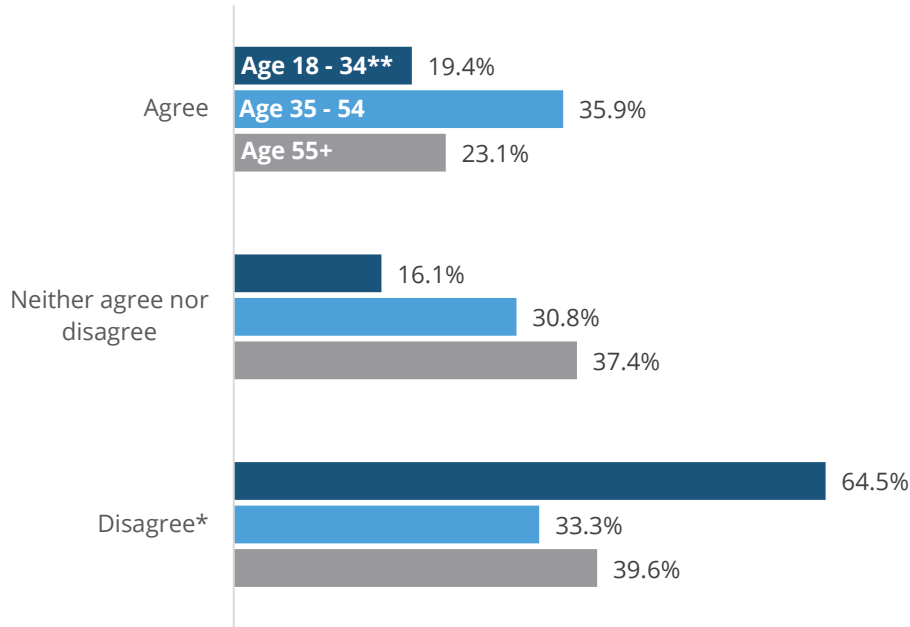
Age group differences- Do you find yourself drinking more than you wanted or intended when you attend events that have an open bar or unlimited drinking ticket (e.g., fundraisers, weddings)?



* These response choice categories had statistically different rates for some of the subgroups. **The age 55+ group is statistically different from the other two age groups for both response choices. Overall LR = 13.436, df = 2, p-value = 0.001

Adults aged 18-34 were statistically more likely than adults over 35 to report not avoiding community events because there was too much alcohol use. Over half (64.5%) of those adults under 35 disagreed that they avoided community events with alcohol compared to one-third of those 35-54, and 40% of those 55 and older.

Age group differences- I choose not to go to some community events because there is too much alcohol use



** The age 18-34 group is statistically different from the other two age groups for the *Disagree/Strongly disagree* category. Overall LR = 10.026, df = 4, p-value = 0.040