



Global Smart Drinking Goal (GSDG) Program: Data Collection in Zacatecas

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Background

Gallup gathered survey data on harmful drinking in 6 cities in November and December 2016. This is a part of the baseline.

The data, in combination with existing data from the city, is intended to provide information to the City Steering Committees to be able to advance discussions on initial program activities.

HBSA, a supporting organization of Pacific Institute for Research and Evaluation (PIRE) was contracted to measure and evaluate the results of the ongoing Global Smart Drinking Goals Initiative. We refer to them as **the M&E team**.

HBSA has evaluated the survey instrument, and has begun designing the next survey, which is likely to be fielded annually. HBSA will work with cities to craft the design and additional program evaluation components.

In addition, this data serves as an input for **Ohio State University** who was contracted to provide customized toolkits and technical assistance to the cities to help select evidence-based interventions.

Goals

Primary:

This presentation is intended to help you understand what was found in the first part of the baseline data collection.

Secondary:

The findings will enable:

- 1) HBSA to work with you to craft future surveys and
- 2) Ohio State to begin to guide your program selection and implementation.

Data Collection in Pilot Cities



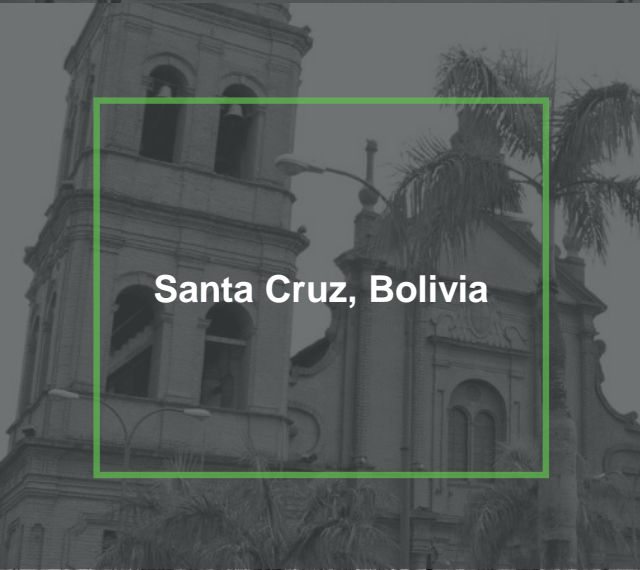
Leuven, Belgium



Columbus, Ohio



Jiangshan, China



Santa Cruz, Bolivia



**Zacatecas-Guadalupe,
Mexico**



Brasilia, Brazil

Methodology

Methodology Summary

- Target population: Age 18+
- Results based on probability sample of 1,500 adults in Zacatecas-Guadalupe and 1,500 adults in Aguascalientes
- Cognitive interviews conducted in Oct. 2016 to pilot test the module
- Fieldwork conducted Nov. 24, 2016 – Dec. 20, 2016

Location	Number of Interviews	Mode of Interviewing	Fieldwork Dates	Languages
Zacatecas-Guadalupe (program)	1,500	CAPI	Nov. 25 –Dec. 20, 2016	Spanish
Aguascalientes (comparison)	1,500		Nov. 24 –Dec. 20, 2016	

Limitations of the Data

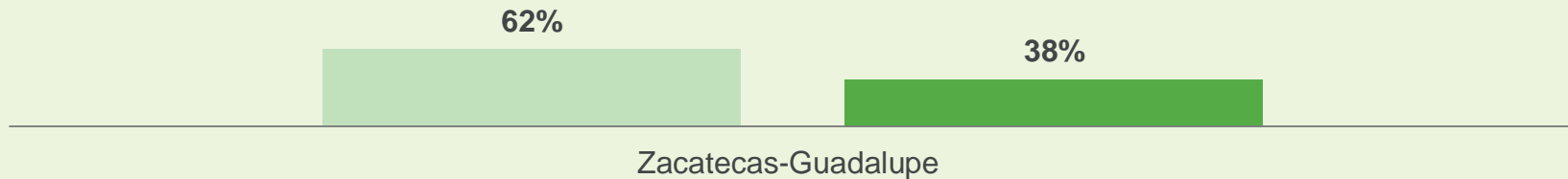
- All the survey data are **estimates** of the target population.
- The data are **self-reported**. There is evidence from other studies that individuals do a reliable job of stating whether they drank alcohol in the past month. However, they consistently understate how often & how much.
- **Consumption data** reported here is based exclusively on those who self-reported that they drank daily or weekly.

Alcohol Consumption Patterns

Frequency of Alcohol Consumption

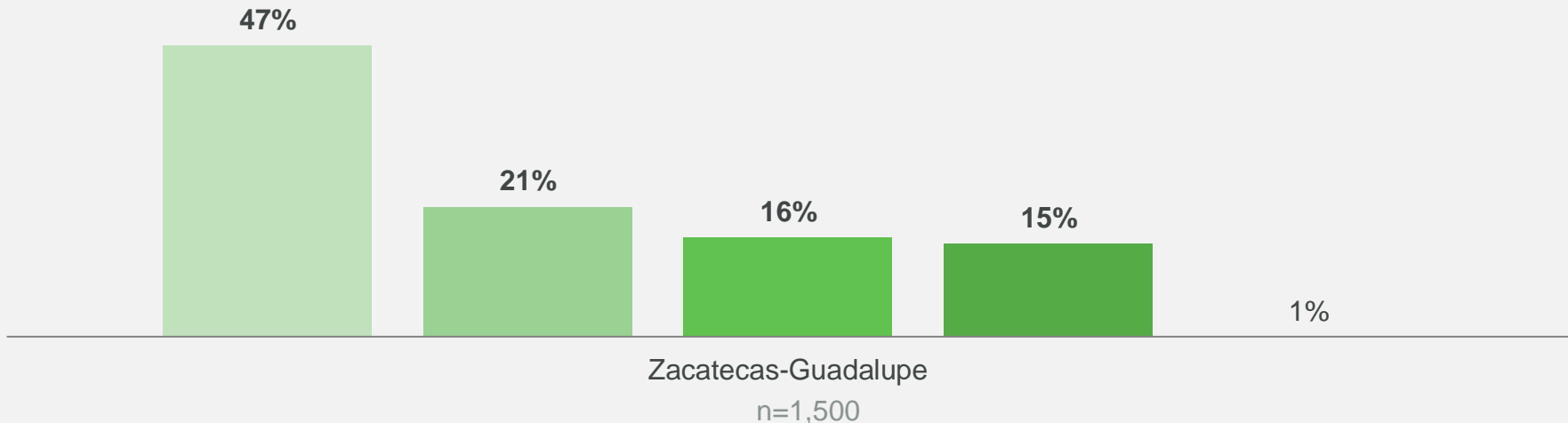
Have you, personally, EVER had a drink with alcohol in it, such as beer with alcohol, wine, liquor or spirits?

■ Yes ■ No



During the LAST 12 MONTHS, how often did you, personally, have a drink with alcohol in it, such as beer with alcohol, wine, liquor or spirits?

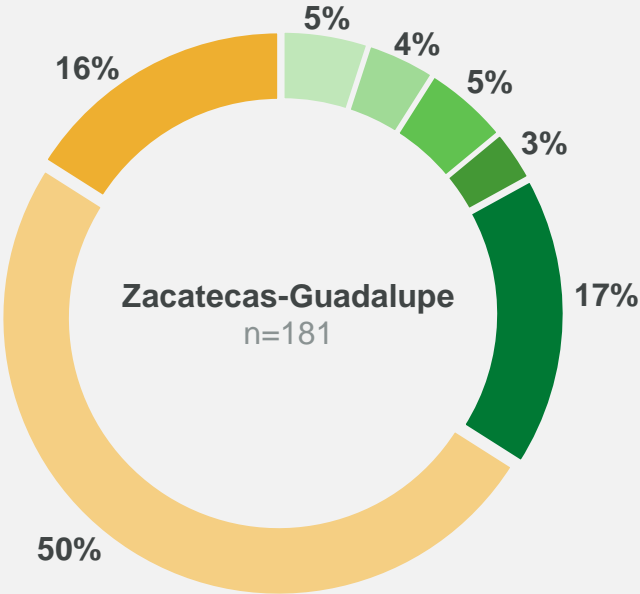
■ Never ■ Less than once a month ■ At least every month ■ At least every week ■ Don't know/Refused



Days of Consumption Among Weekly Drinkers

What day of the week was it the LAST time you drank alcohol?

Monday Tuesday Wednesday Thursday Friday Saturday Sunday



Average number of days consuming alcohol in last week

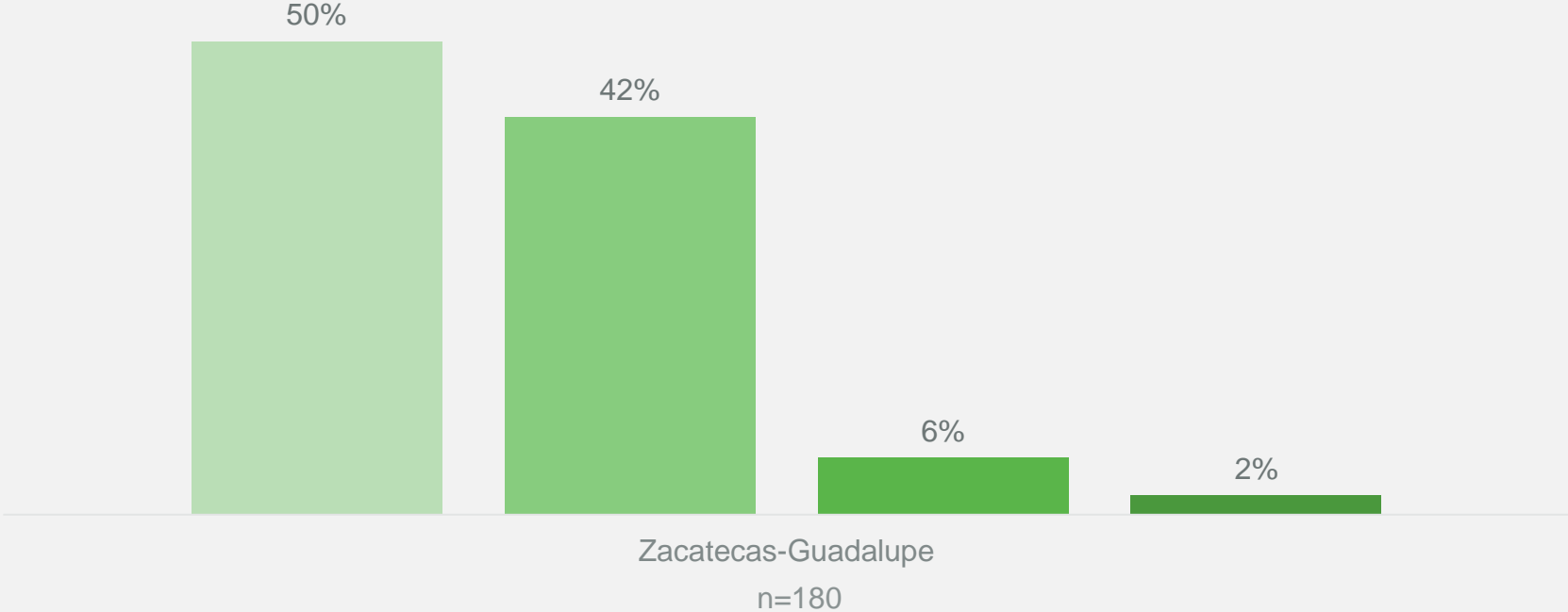
1.5

Base: Had an alcohol drink at least once a week during the last 12 months

Frequency of Consumption Among Weekly Drinkers

How often did you, personally, have a drink with alcohol in it during the LAST 7 DAYS?

■ 1 time ■ 2 to 3 times ■ 4 to 5 times ■ 6 or more times



Base: Had an alcohol drink at least once a week during the last 12 months

Drinks Consumed by Weekly Drinkers

Now, please think about the LAST time you drank alcohol. Did you, personally, drink ANY of the following beverages that last time you drank alcohol?



Base: Had an alcohol drink at least once a week during the last 12 months

Measuring Alcohol Consumption

1 Identify types of drinks consumed

- Wine or champagne
- Beer with alcohol
- Liquor or spirits
- Pre-mixed drinks
- Homemade alcohol

2 For each type of drink (except homemade alcohol), identify locally relevant measures of volume preferred by respondents. For example, for beer...

- Cans
- Bottles
- Glasses
- Pints
- Pitchers

3 For each respondent-chosen measure of volume, ask about the number of units consumed.

“About how many cans of beer did you, personally, have the last time you drank alcohol?”

4 At the analysis stage, transform each measure using locally adapted equivalents of volume for each measure and alcohol content for each type of drink.

“One can of beer” = 330 ml * 5% ABV * 0.79 = 13 grams of pure alcohol.

Definitions

1 Binge-Drinking on the last occasion (WHO definition)

- 60 grams or more of pure alcohol on the last occasion

[http://www.who.int/substance_abuse/activities/gisah_indicatorbook.pdf?ua=.](http://www.who.int/substance_abuse/activities/gisah_indicatorbook.pdf?ua=)

2 Heavy Drinking in the last week (NIAAA definition)

- Males: 210 grams or more per week
- Females: 112 grams or more per week

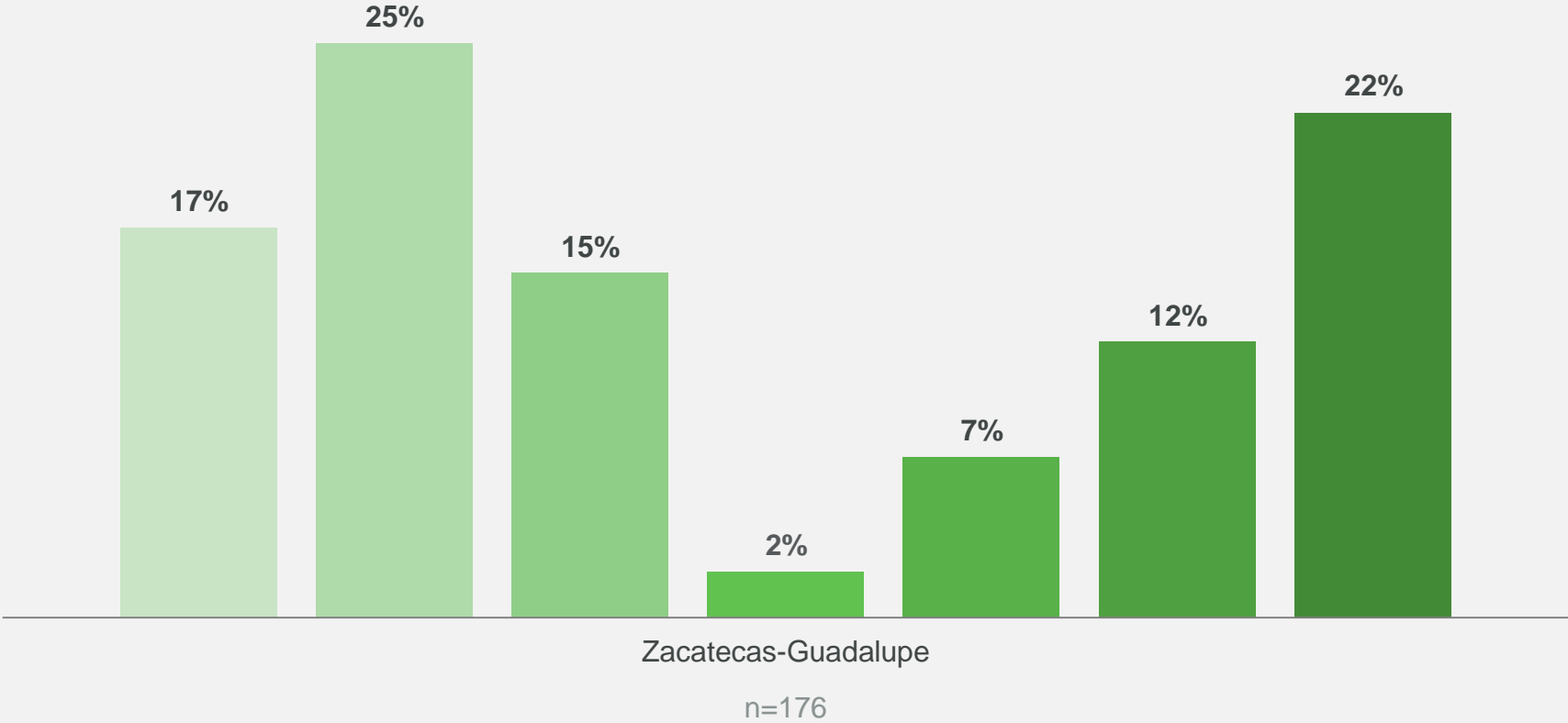
<https://www.rethinkingdrinking.niaaa.nih.gov/How-much-is-too-much/Is-your-drinking-pattern-risky/Whats-At-Risk-Or-Heavy-Drinking.aspx>

<https://www.rethinkingdrinking.niaaa.nih.gov/How-much-is-too-much/What-counts-as-a-drink/Whats-A-Standard-Drink.aspx>

Grams of Alcohol Consumed Among Weekly Drinkers

Grams of alcohol consumed in the last drinking occasion

0 to 29 g 30 to 59 g 60 to 89 g 90 to 119 g 120 to 149 g 150 to 179 g 180+ g

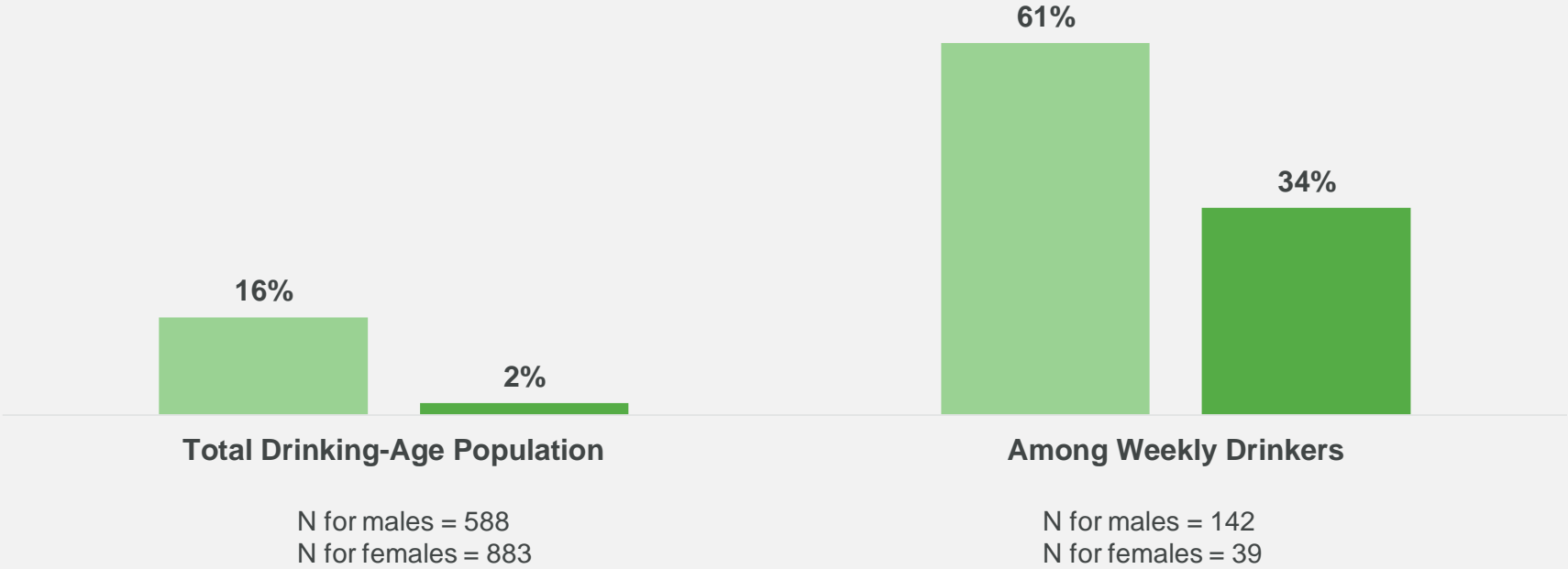


Base: Had an alcohol drink at least once a week during the last 12 months

Binge-Drinking Among Weekly Drinkers by Gender

60 or more grams of alcohol consumed in the last drinking occasion

■ % of Men ■ % of Women



Base: Had an alcohol drink at least once a week during the last 12 months

Patterns of Consumption — Population Typologies

A two-step cluster analysis of alcohol consumption in last week shows four clear typologies of drinkers that encapsulate the main patterns of consumption across all six pilot cities.

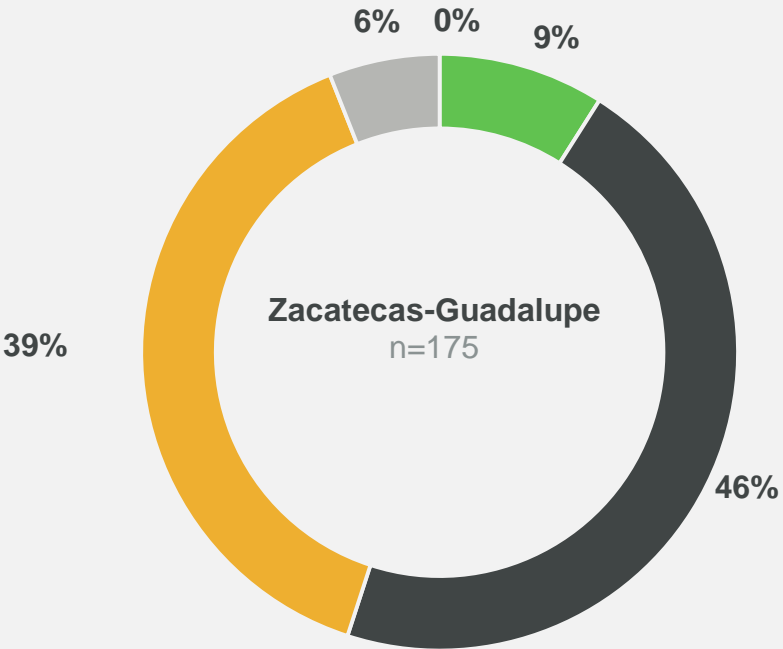


Base: Had an alcohol drink at least once a week during the last 12 months

Patterns of Consumption — Distribution by City

% of Weekly Drinkers That Belong to Each Cluster

- Wine drinkers
- Liquor drinkers
- Heavy multi-beverage drinkers
- Beer drinkers
- Outlier cluster



Outlier Cluster: Individuals differing from the four clear typologies.
Base: Had an alcohol drink at least once a week during the last 12 months

Summary – Alcohol Consumption Patterns

- Consumption patterns in **Zacatecas-Guadalupe** are characterized by high levels of abstinence among the general population, paired with binge-drinking during the weekend among the drinking population, primarily involving beer.
- Men are much more likely than women to binge-drink.

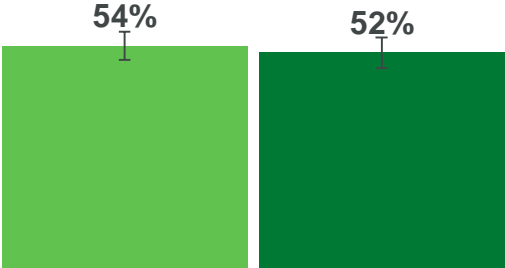
Comparisons with Aguascalientes

Demographics by City

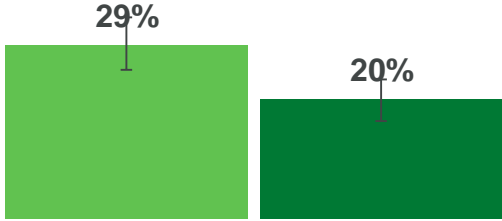
■ Zacatecas-Guadalupe

■ Aguascalientes

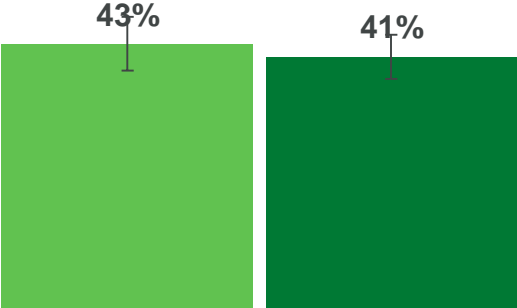
Gender (% Female)



Education (% College+)



Age (% 30 to 49)



Age (% 18 to 29)

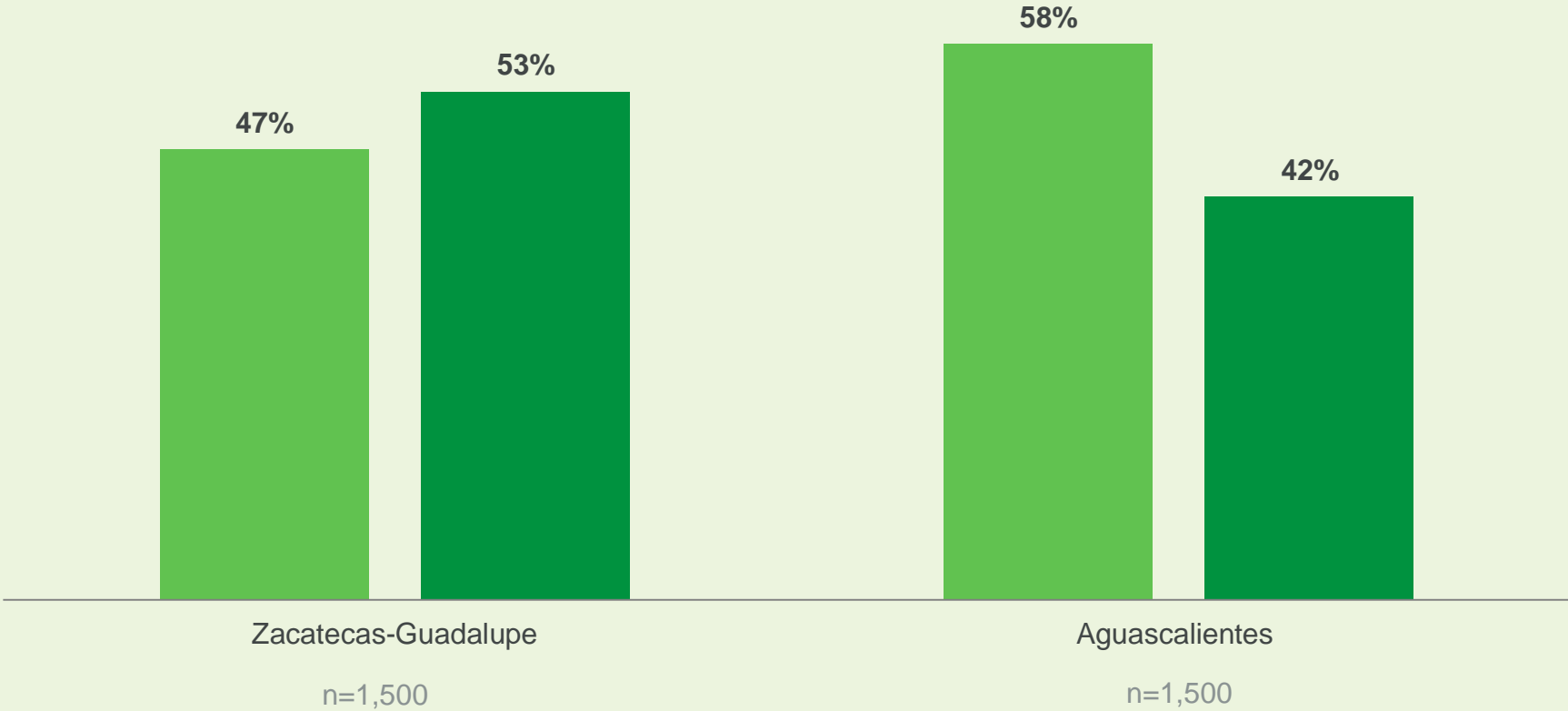


Error bars represent the 95% confidence interval

12 Months Abstainer of Alcohol

12 Months Abstainer of Alcohol

■ Yes ■ No/DK/Refused

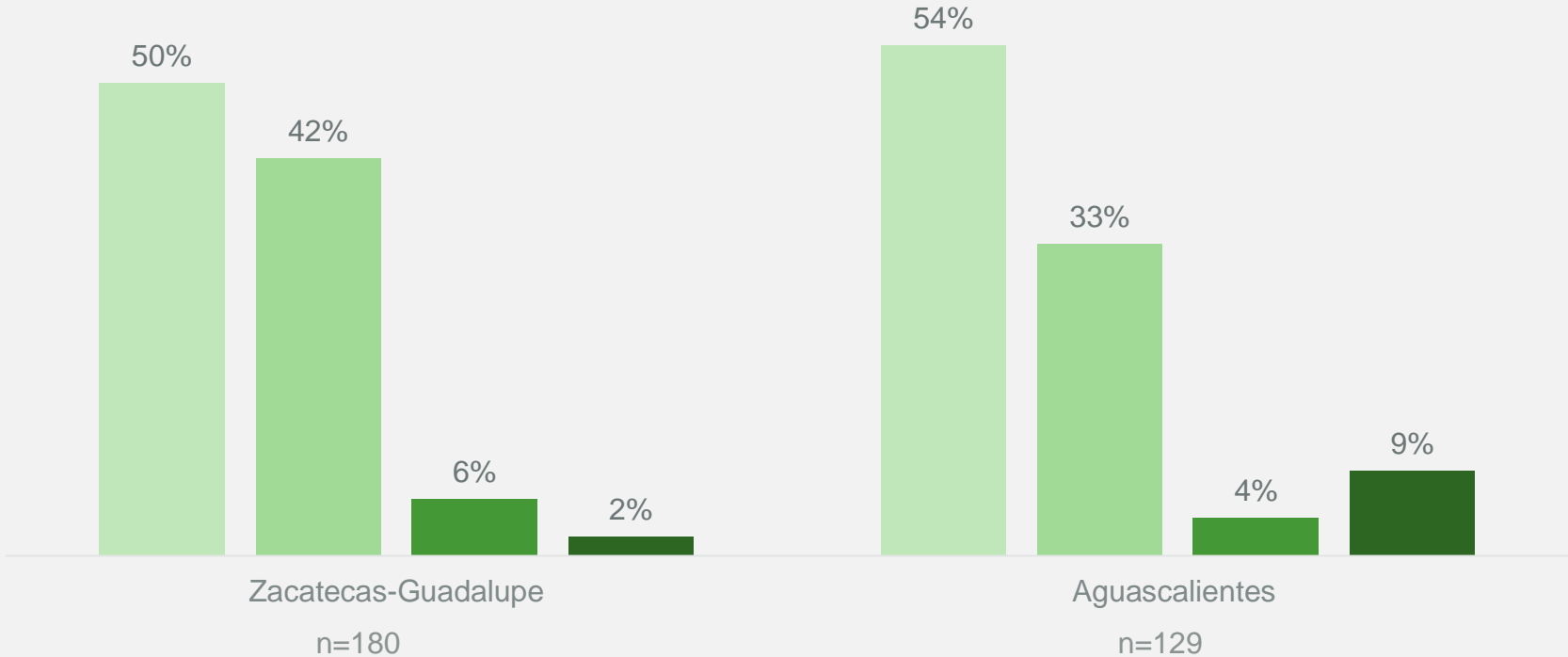


Base: All Adults

Frequency of Consumption Among Weekly Drinkers

How often did you, personally, have a drink with alcohol in it during the LAST 7 DAYS?

■ 1 time ■ 2 to 3 times ■ 4 to 5 times ■ 6 or more times

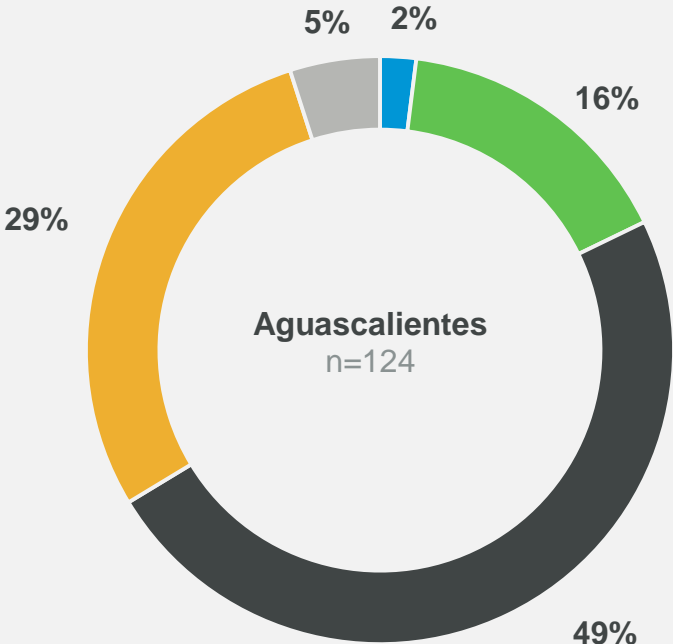
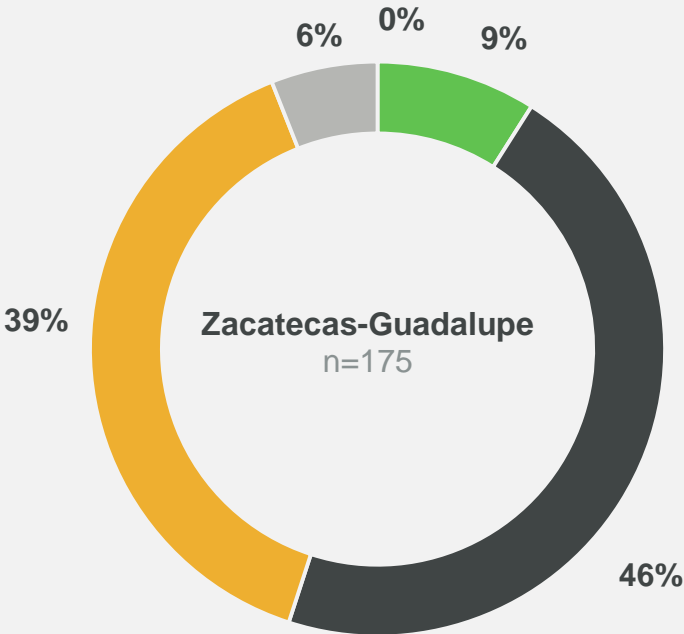


Base: Had an alcohol drink at least once a week during the last 12 months

Patterns of Consumption — Distribution by City

% of Weekly Drinkers That Belong to Each Cluster

- Wine drinkers
- Liquor drinkers
- Heavy multi-beverage drinkers
- Beer drinkers
- Outlier cluster

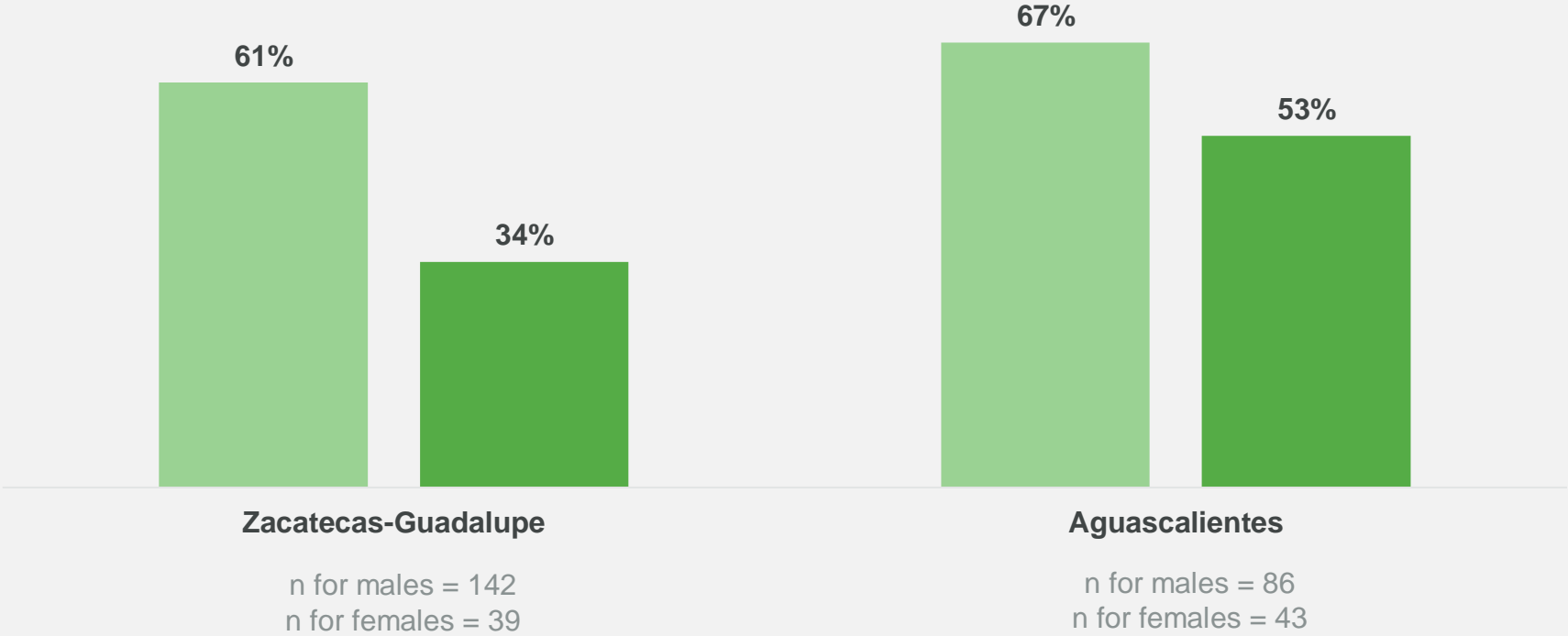


Outlier Cluster: Individuals differing from the four clear typologies.
 Base: Had an alcohol drink at least once a week during the last 12 months

Binge-Drinking by Gender

60 or more grams of alcohol consumed in the last drinking occasion

■ % of Men ■ % of Women



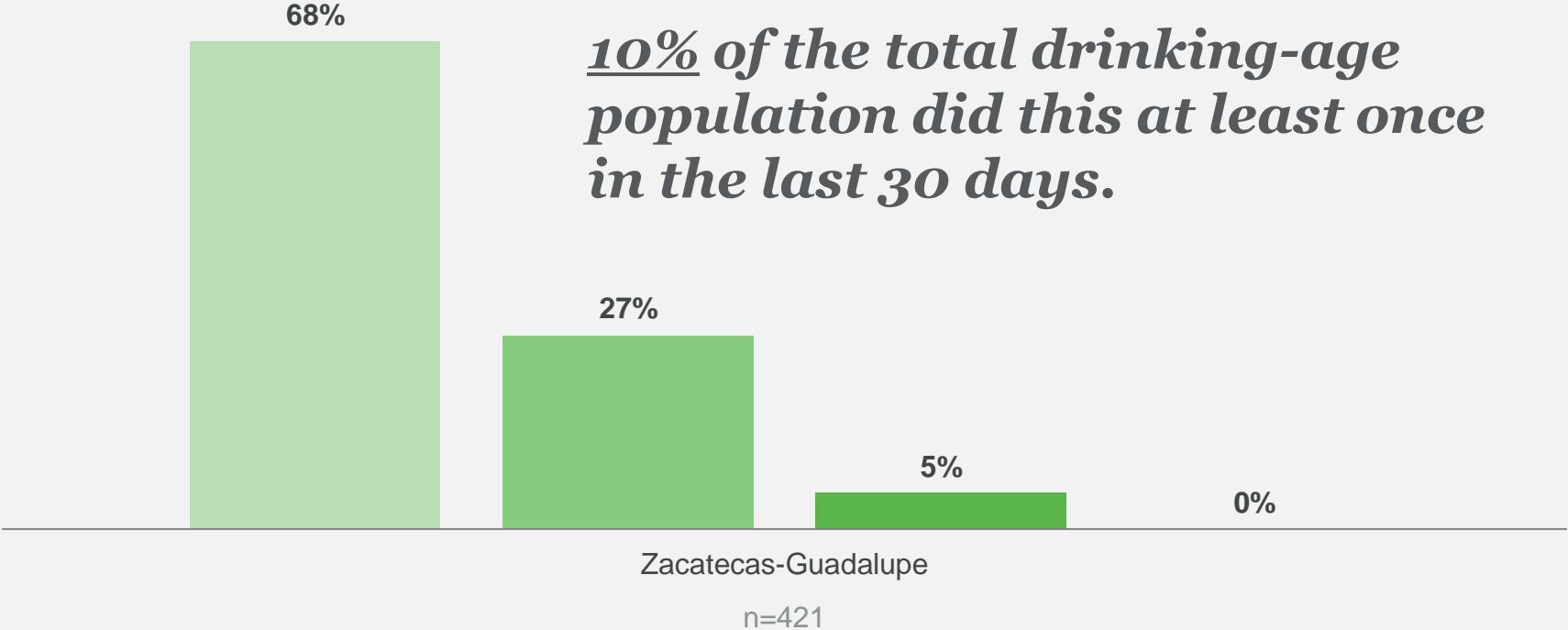
Base: Had an alcohol drink at least once a week during the last 12 months

Ramifications of Drinking Behaviors

Self-Reported Ramifications

During the LAST 30 DAYS, how many times did you feel sick, such as with nausea or vomiting, during or after drinking alcohol?

■ Never ■ Once or twice ■ 3 to 4 times ■ 5 or more times

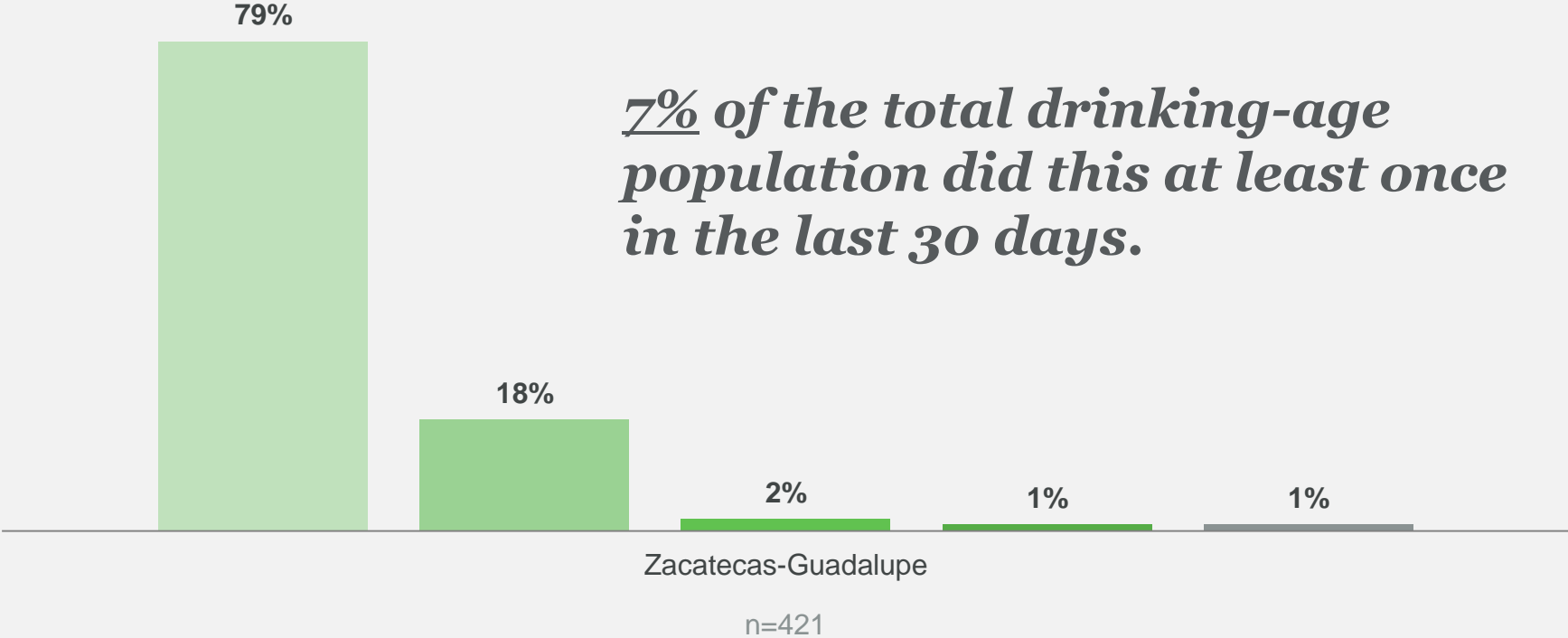


Base: Had an alcohol drink at least once a month during the last 12 months

Self-Reported Ramifications Cont'd.

During the LAST 30 DAYS, how many times did you forget where you were or what you did, during or after drinking alcohol?

■ Never ■ Once or twice ■ 3 to 4 times ■ 5 or more times ■ Don't Know/Refused

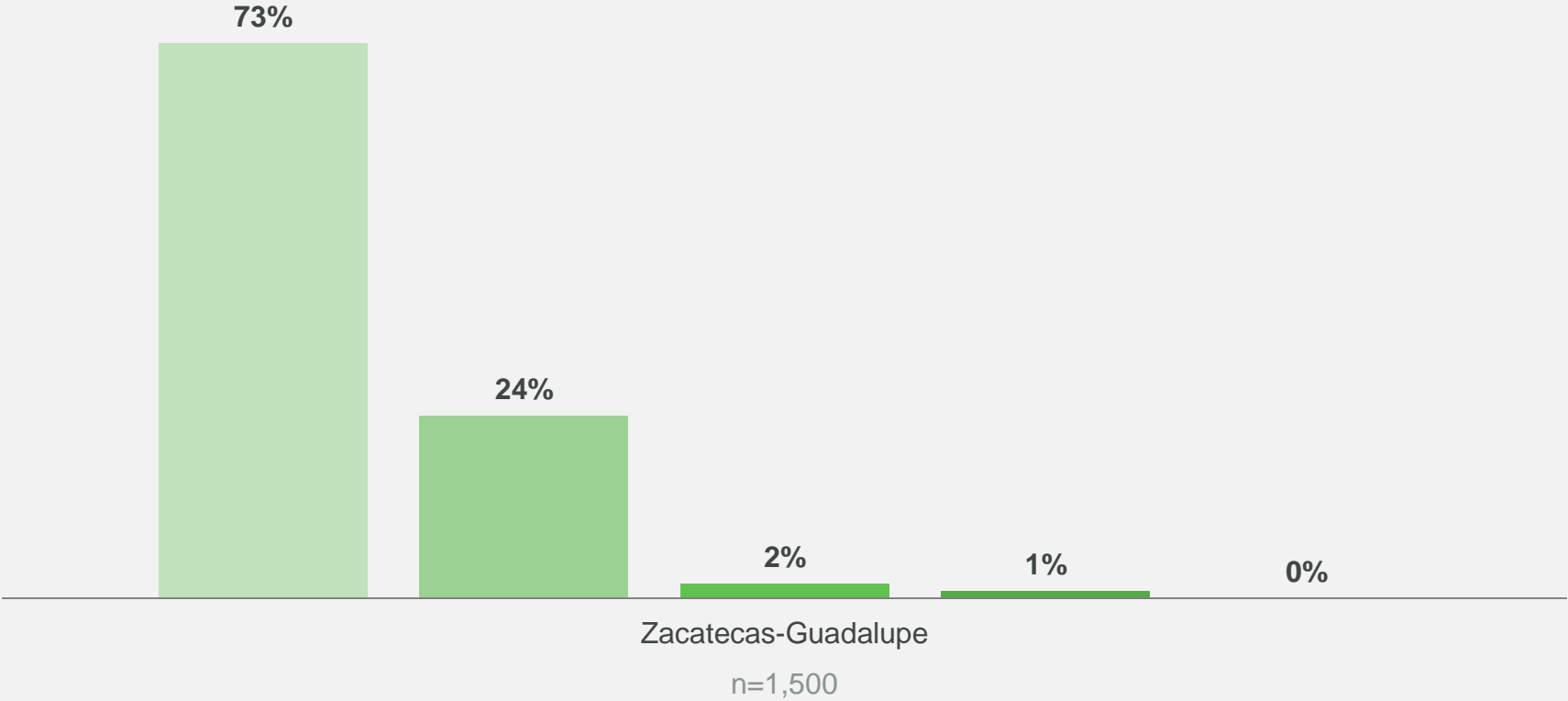


Base: Had an alcohol drink at least once a month during the last 12 months

Self-Reported Ramifications Cont'd.

During the LAST 30 DAYS, how many times did you take a ride with a driver of a motor vehicle who had been drinking alcohol?

■ Never ■ Once or twice ■ 3 to 4 times ■ 5 or more times ■ Don't Know/Refused

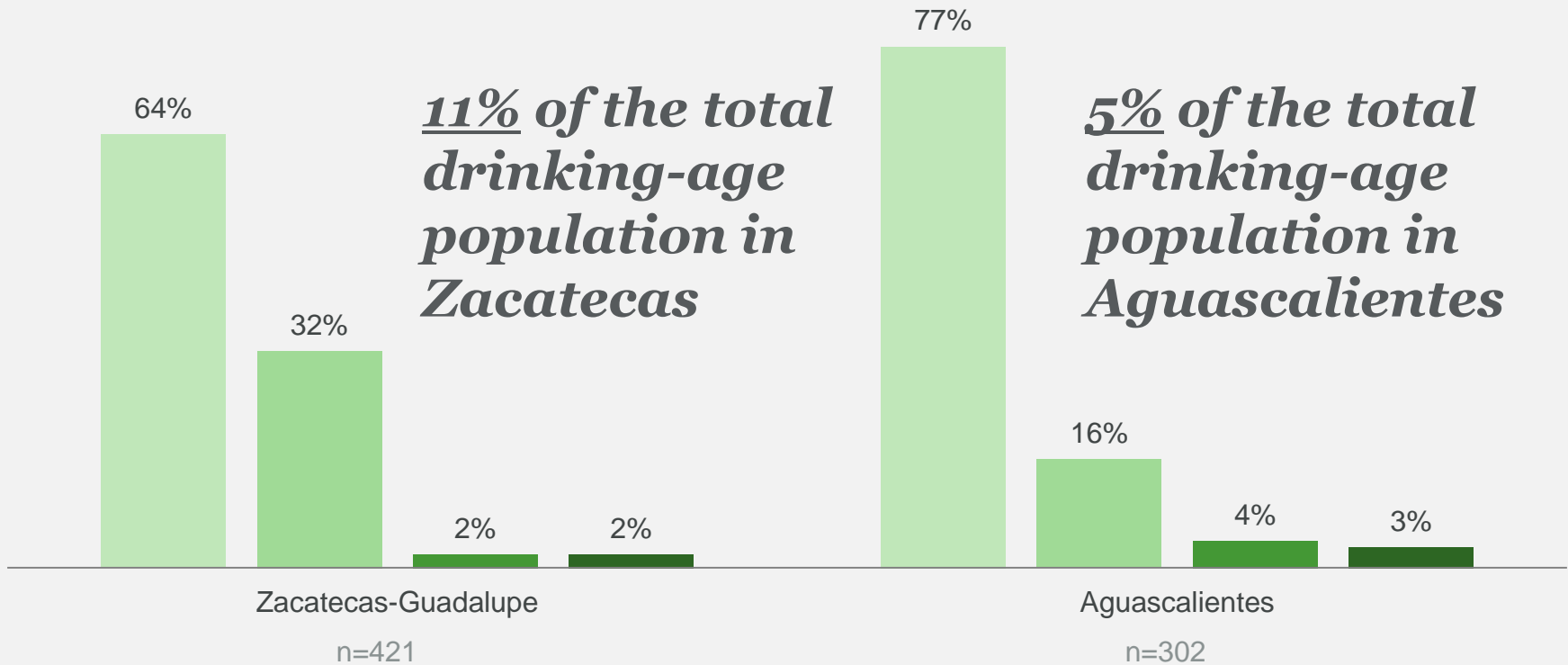


Base: All Adults

Self-Reported Ramifications Cont'd.

Sometimes people will drive a motor vehicle after drinking alcohol. During the LAST 30 DAYS, how many times did you drive a motor vehicle after drinking alcohol?

■ Never ■ Once or twice ■ 3 to 4 times ■ 5 or more times



Base: Had an alcohol drink at least once a month during the last 12 months

Alcohol-Associated Concerns (AAC)

The AAC metric identifies the percent of individuals who report at least one of these:

1 Binge-Drinking on the last occasion (WHO definition)

- 60 grams or more of pure alcohol on the last occasion

[http://www.who.int/substance_abuse/activities/gisah_indicatorbook.pdf?ua=.](http://www.who.int/substance_abuse/activities/gisah_indicatorbook.pdf?ua=)

2 Heavy Drinking (HD) in the last week (NIAAA definition)

- Males: 210 grams or more per week
- Females: 112 grams or more per week

<https://www.rethinkingdrinking.niaaa.nih.gov/How-much-is-too-much/Is-your-drinking-pattern-risky/Whats-At-Risk-Or-Heavy-Drinking.aspx>

<https://www.rethinkingdrinking.niaaa.nih.gov/How-much-is-too-much/What-counts-as-a-drink/Whats-A-Standard-Drink.aspx>

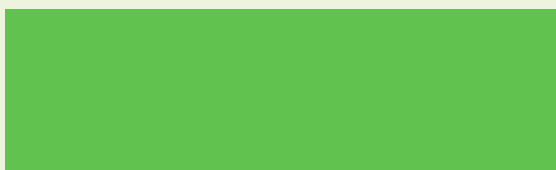
3 Self-reported markers of harmful drinking in the last 30 days

- Sickness after drinking
- Memory loss after drinking

Alcohol-Associated Concerns — Prevalence

Alcohol-Associated Concerns

14%



Zacatecas-Guadalupe

n=1,497

Components of Alcohol-Associated Concerns

■ % Binge-Drinking ■ % HD ■ % Sickness ■ % Memory Loss

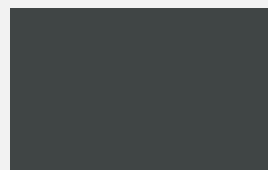
8%



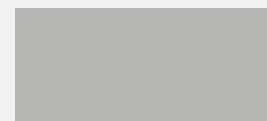
5%



10%



7%



Zacatecas-Guadalupe

n=1,471 to 1,498

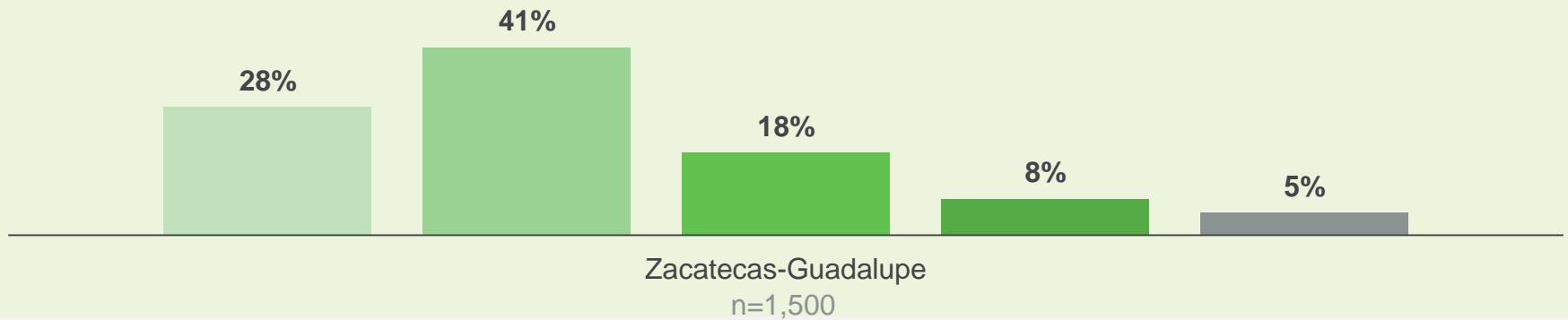
Base: All adults

Alcohol-Related Social Norms

Alcohol-Related Social Norms

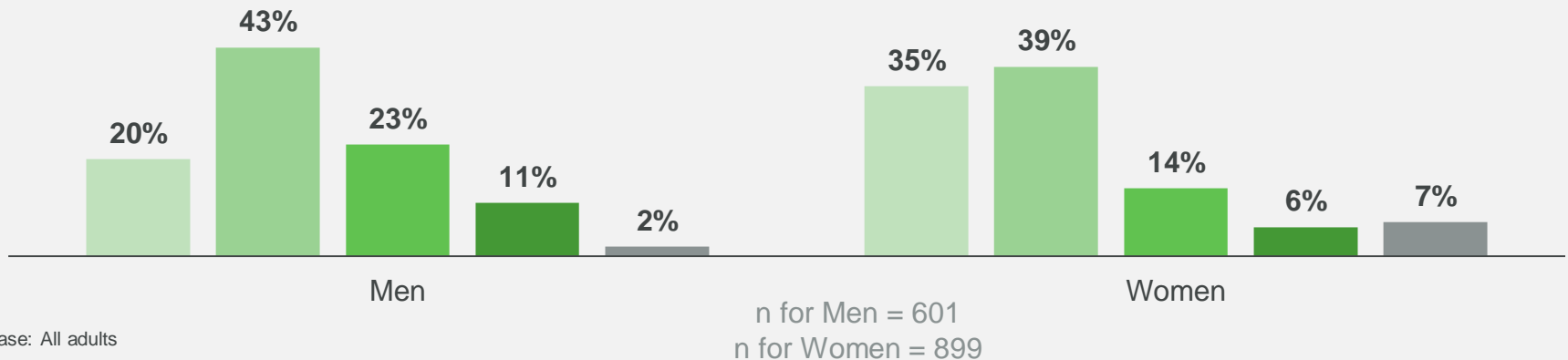
Among your close friends, how many alcohol drinks would be considered acceptable to regularly drink in a DAY?

0 drinks 1 to 2 drinks 3 to 4 drinks 5 or more drinks Don't Know/Refused



Men report higher acceptable number of drinks in a day

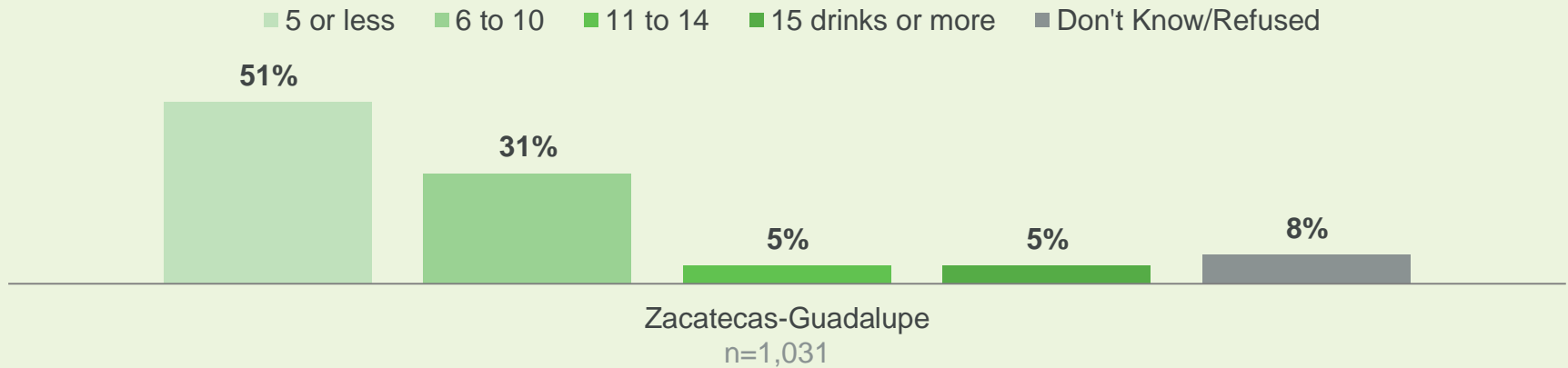
0 drinks 1 to 2 drinks 3 to 4 drinks 5 or more drinks Don't know/Refused



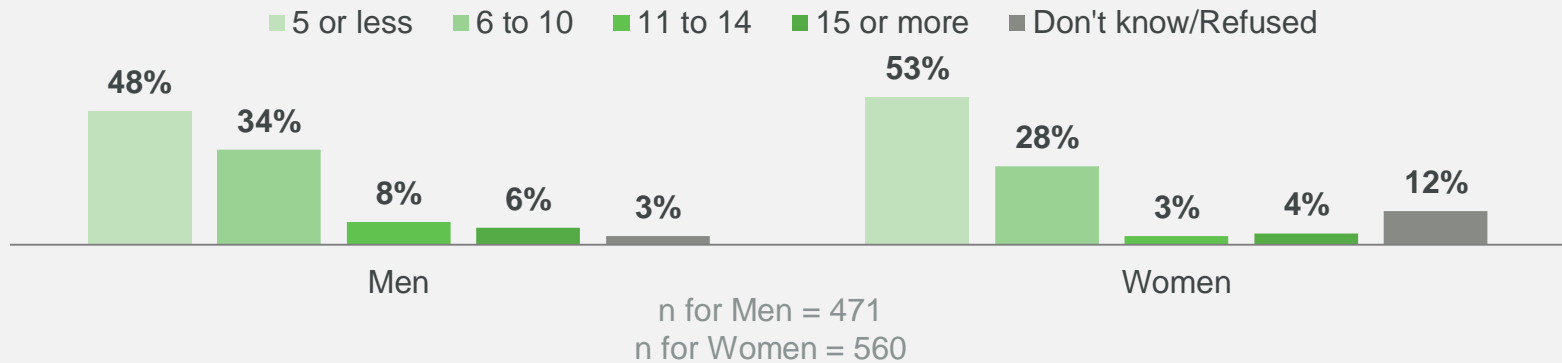
Base: All adults

Alcohol-Related Social Norms

Among your close friends, how many alcohol drinks would be considered acceptable to regularly drink over the course of a WEEK?

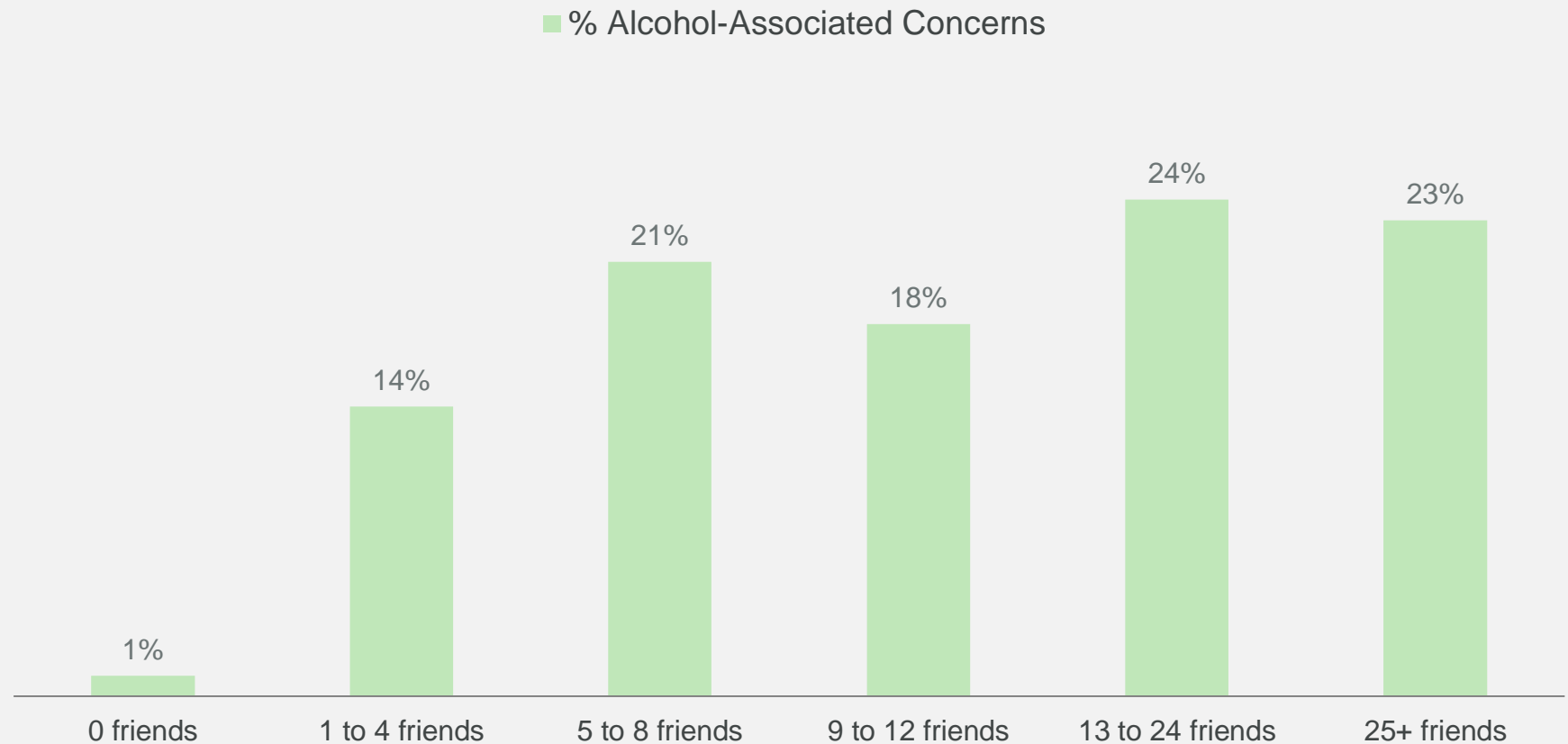


Men report higher acceptable number of drinks in a week



Base: All adults, except those who responded "None" to "how many alcohol drinks would be considered acceptable to regularly drink over the course of a DAY."

Prevalence of Alcohol-Associated Concerns Higher Among Those With More Friend Interactions



Question Text for Friend Interactions: In a typical week (7 days), how many friends do you interact with? This can be in person, on the phone, through a computer, or any other way.

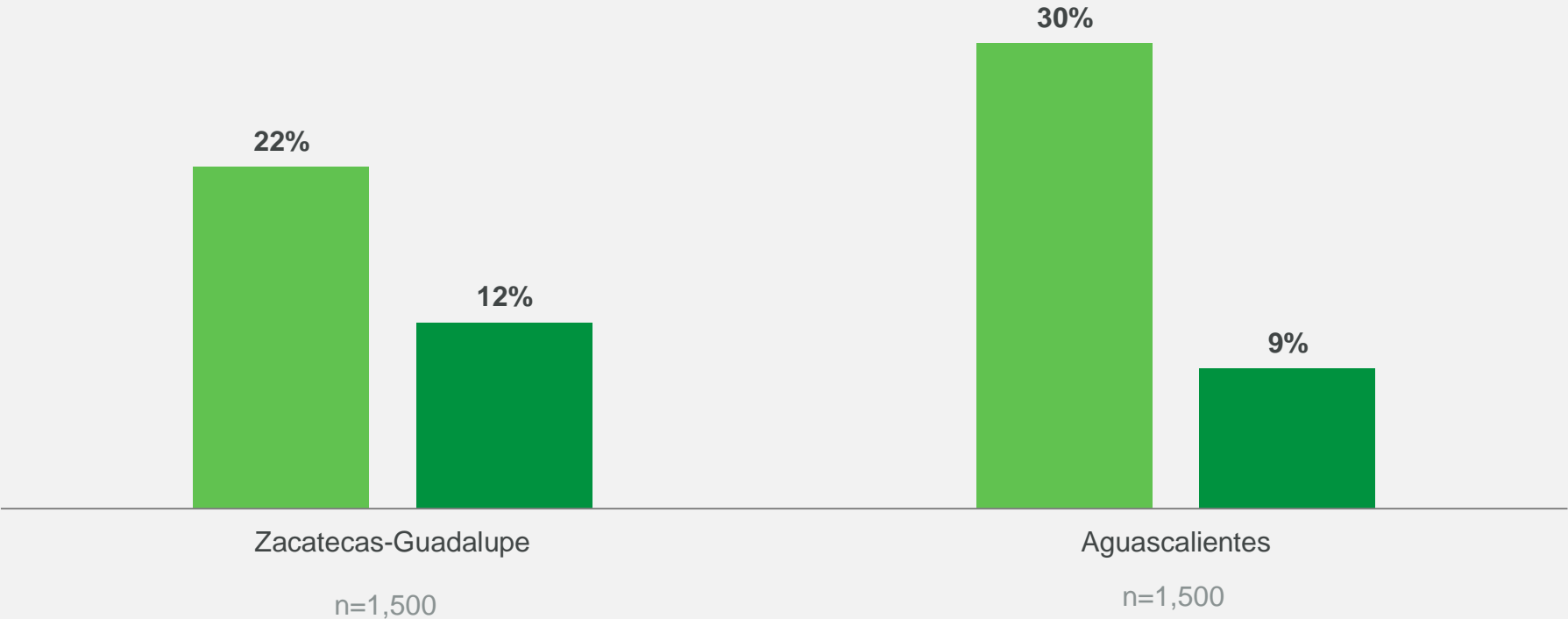
Base: All adults

Interaction with Health Care Providers

Interaction with Health Care Providers

During the LAST 12 MONTHS, did any doctor or other health care worker...

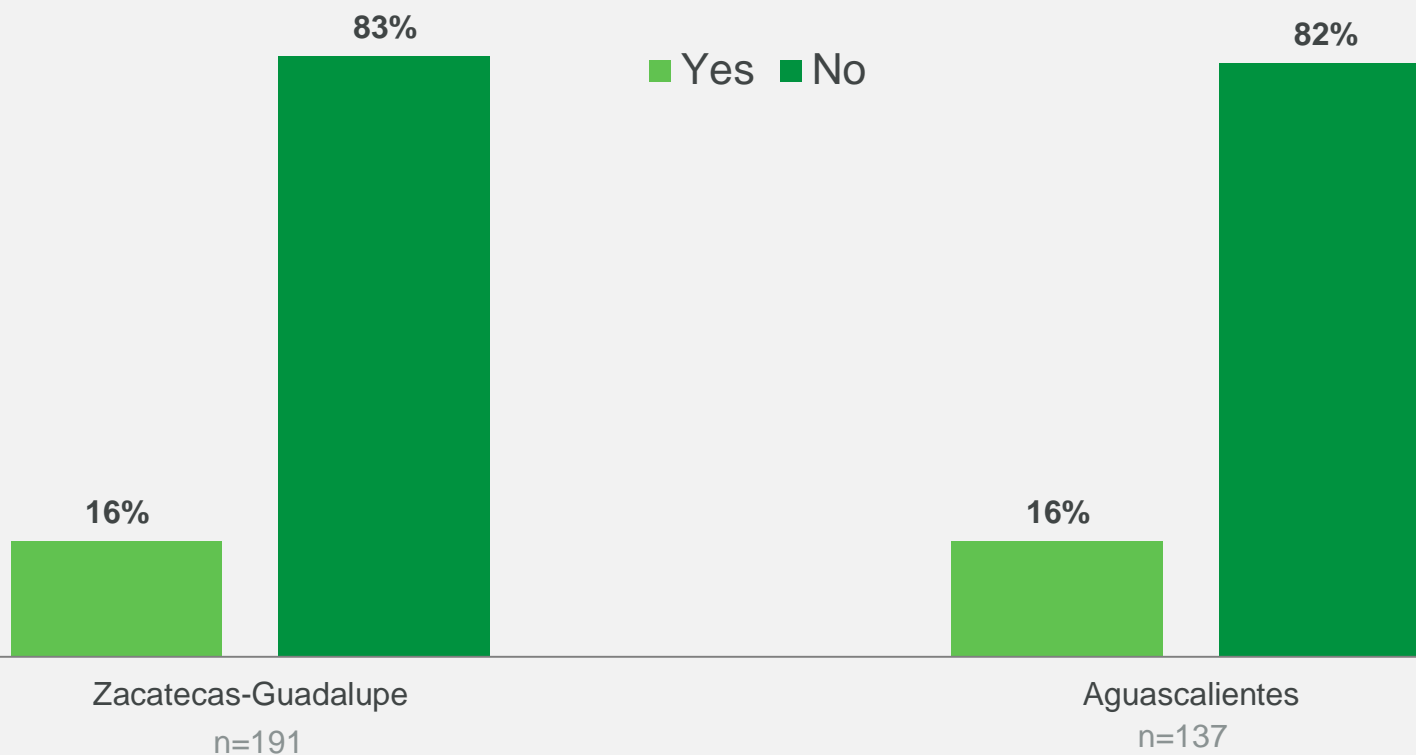
- Asked you about how much alcohol you drink?
- Advised you to reduce or stop drinking alcohol?



Base: All adults

Alcohol-Associated Concerns and Provider Advice

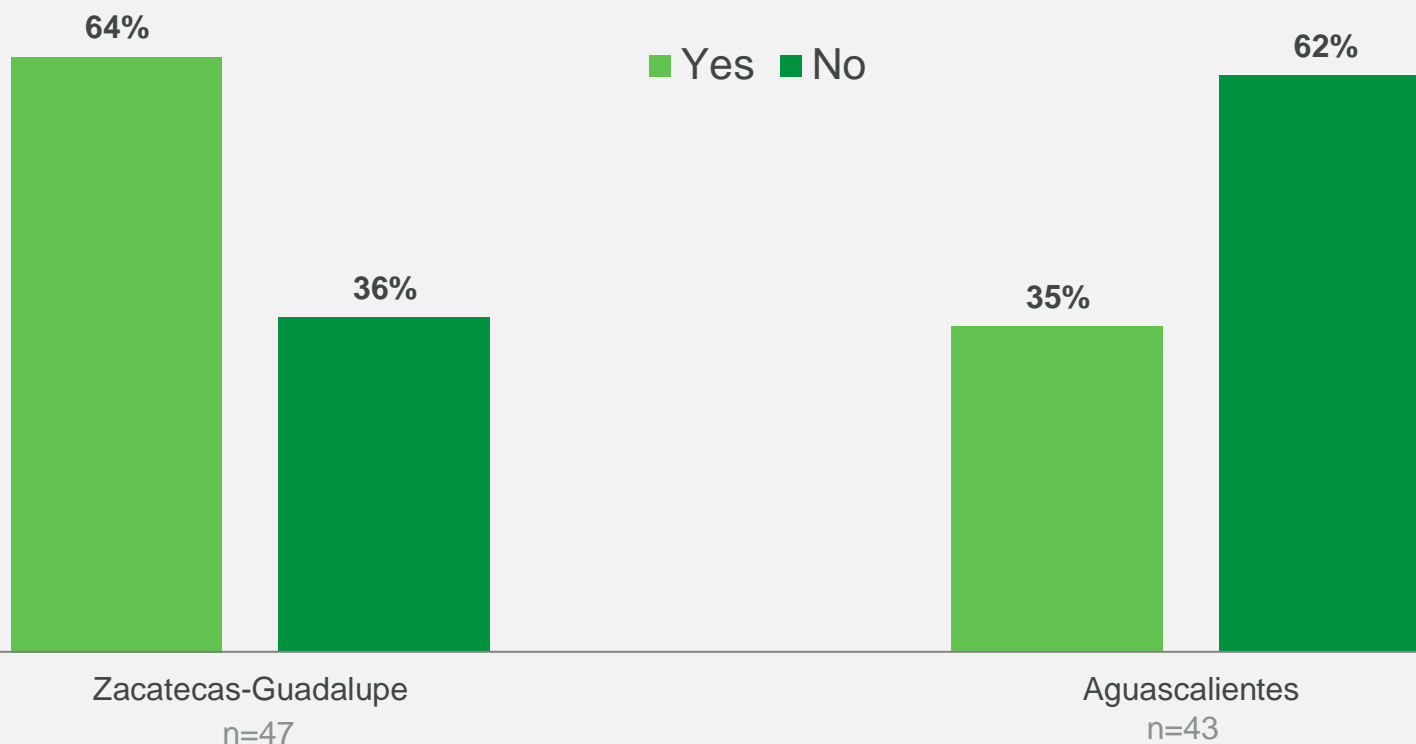
During the LAST 12 MONTHS, did any doctor or other health care worker advise you to reduce or stop drinking alcohol? *(Among those with at least one alcohol-associated concern)*



Base: Among those with at least one alcohol-associated concern

Alcohol-Associated Concerns and Provider Advice

During the LAST 12 MONTHS, did any doctor or other health care worker advise you to reduce or stop drinking alcohol? *(Among those with at least one alcohol-associated concern AND had a doctor ask how much they drank)*

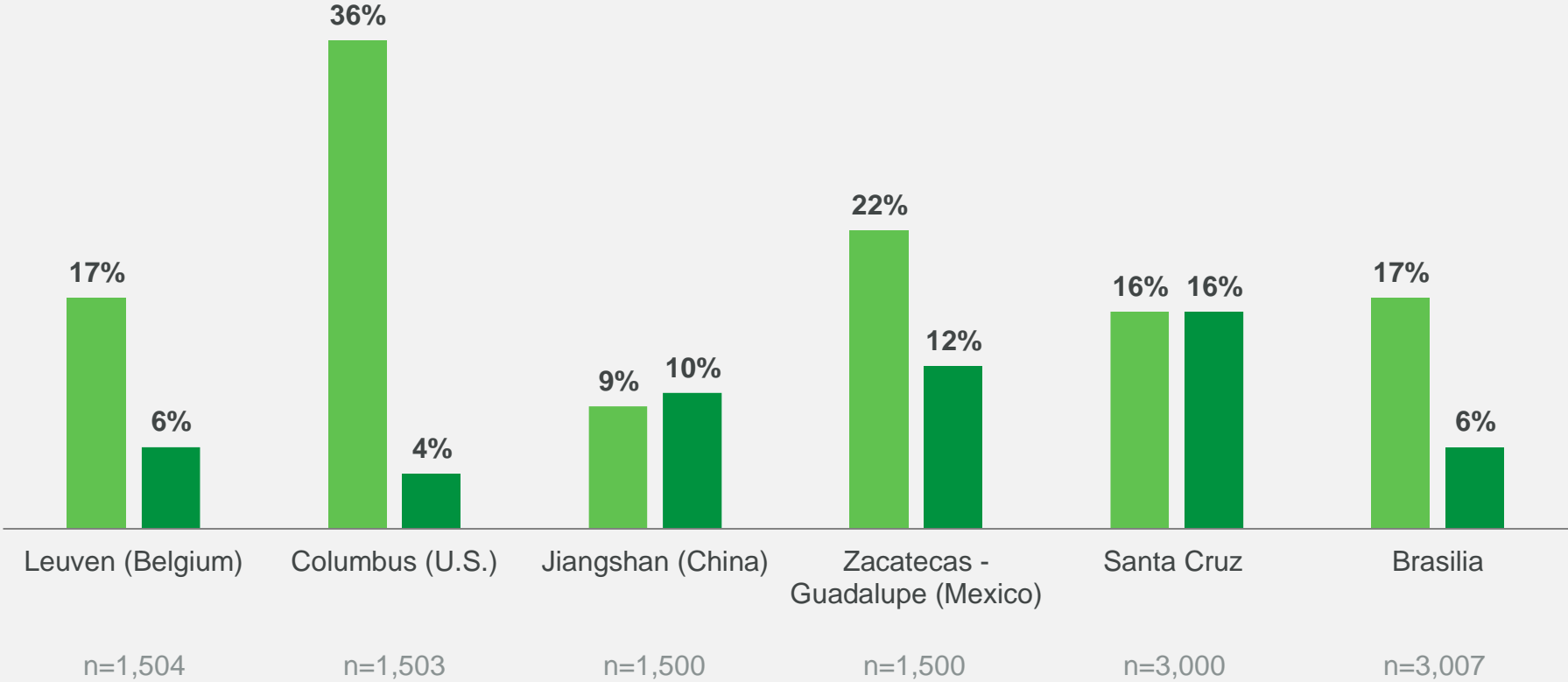


Base: Among those with at least one alcohol-associated concern AND had a doctor ask how much they drank

Interaction with Health Care Providers

During the LAST 12 MONTHS, did any doctor or other health care worker...

■ Asked you about how much alcohol you drink? ■ Advised you to reduce or stop drinking alcohol?

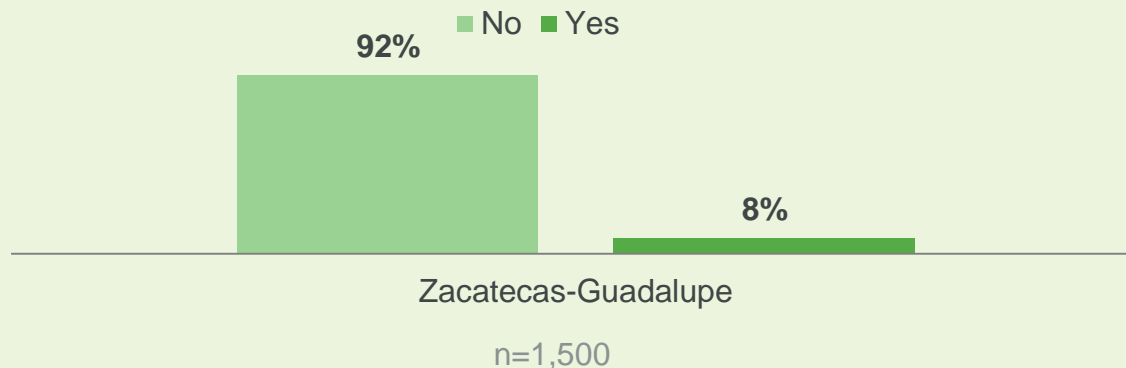


Base: All adults

No Alcohol/Low Alcohol Beer Consumption

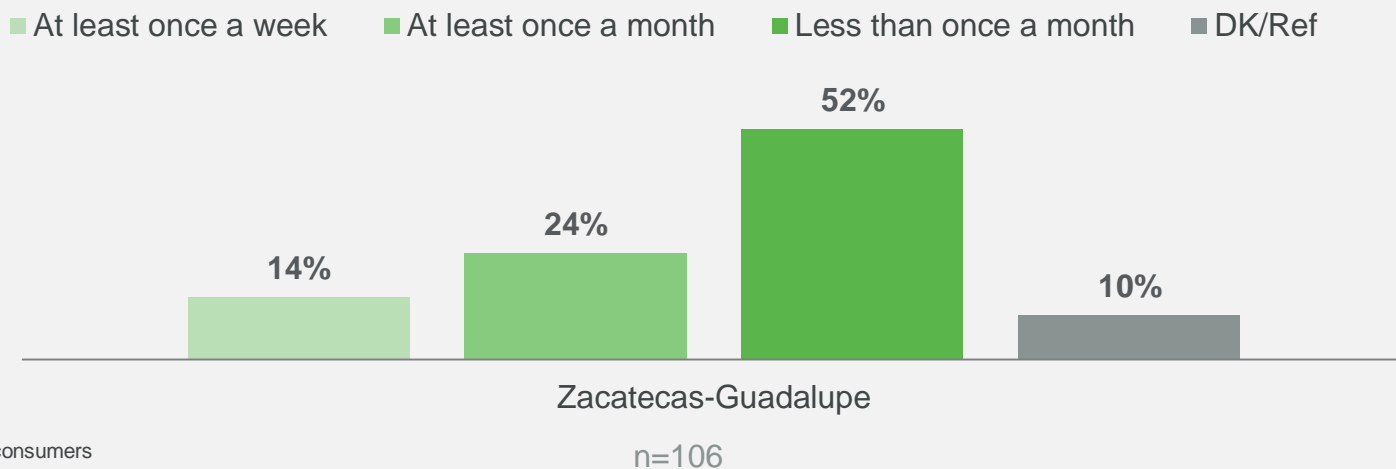
NABLAB Consumption

In the LAST 12 MONTHS, have you, personally, had a beer with NO alcohol in it, such as Corona Cero, Sol Cero, or O'Doul's?



Base: All adults

How often did you, personally, drink NON-alcohol beer in the LAST 12 MONTHS?



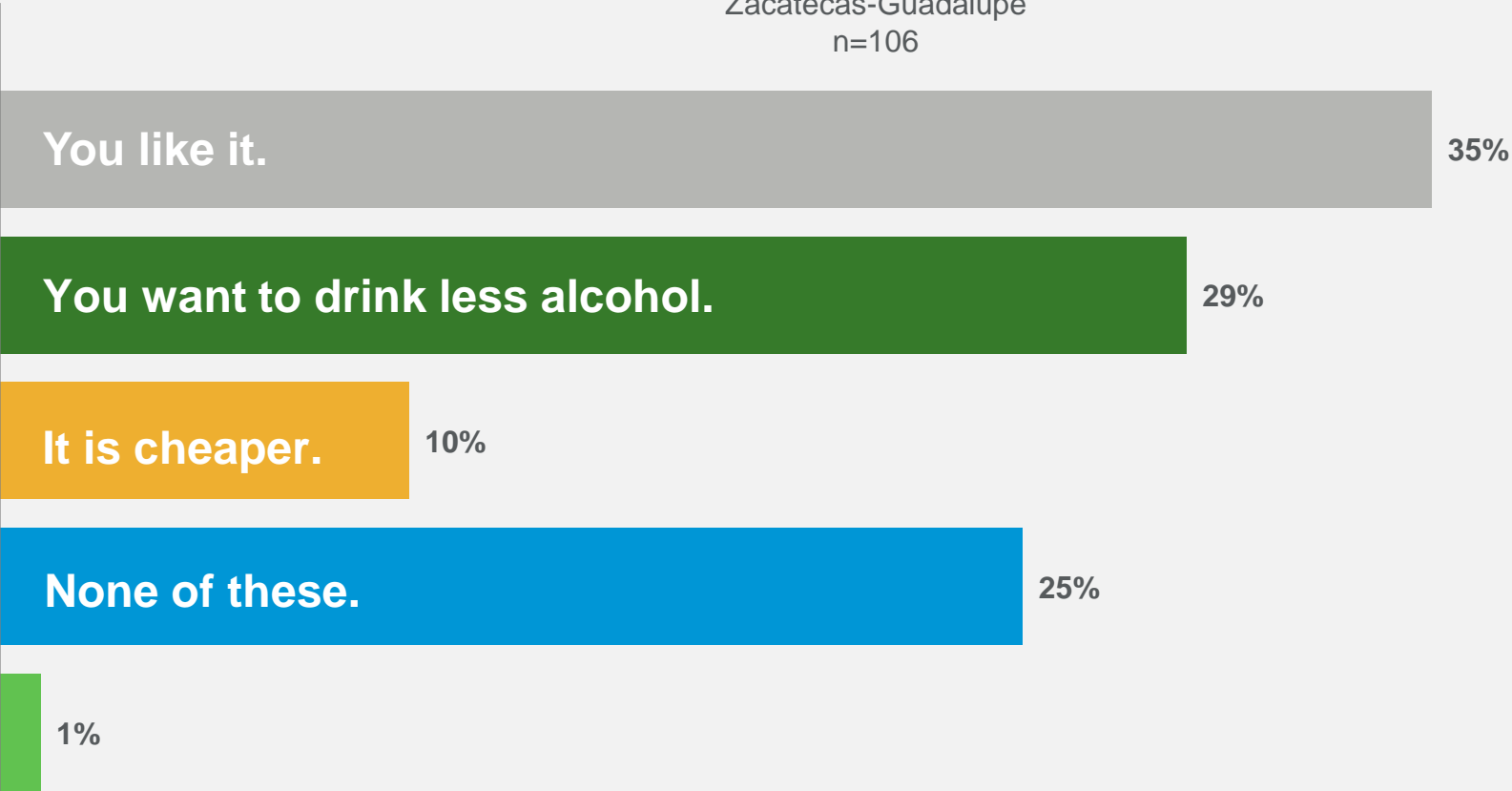
Base: Annual NABLAB consumers

*Results omitted - n<50

Reasons for NABLAB Consumption

Which of the following BEST describes why you drink NON-alcohol beer...

Zacatecas-Guadalupe
n=106



Base: Annual NABLAB consumers
*Results omitted – n<50

Interim Conclusions

Conclusions

Priority Areas:

Binge-drinking and driving after drinking are the main areas of concern identified in both cities.

ABI global interventions may be important tools to reduce harmful use of alcohol:

- Social norms [and number of friend interactions] appear to be positively associated with harmful drinking behaviors, suggesting that interventions that target aspects of social norms may impact harmful drinking behaviors and should be explored further.
- Alcohol monitoring and provision of health guidance are generally low in all pilot cities and have room for improvement (ranging from a low of 9% in Jiangshan to a high of 36% in Columbus who are asked about how much alcohol they drink).
- NABLAB consumption is still relatively infrequent in the pilot cities, and may require significant growth to reach the 2025 GSDG target, particularly in the Americas and China. Among those who drink NABLAB products, there is more research that could be done to determine what currently motivates people to drink them.

Next Steps:

HBSA and the Ohio State University (OSU) team will visit each of the cities to meet local teams and better understand ongoing and planned activities. They will be working closely together to ensure that the evaluation tracks with the initiatives.

- HBSA wants to understand local data collection needs to shape the next phase of data collection and overarching evaluation design.
- OSU wants to better understand the drinking context, previous and ongoing activities, and local partners. This will enable them to provide ongoing guidance to the Steering Committee on most appropriate, evidence-based intervention selections and implementation.

Appendix

Grams of Pure Alcohol Consumed — Methodology

- 1 Recode non-standard units into local **volumetric** equivalents in mls:
 - e.g., one bottle of wine = 750 ml
- 2 Assign **ABVs** to each type of drink based on local equivalents:
 - e.g., wine = 13%
- 3 Compute grams consumed in last occasion for each type of drink as:
 - e.g., $\text{total_gr_beer} = \text{beer_ml} * \text{num_beer} * \text{ABV_beer} * 0.78924$
- 4 Impute missing values for each type of drink using hot deck imputation
- 5 Sum grams consumed in last occasion for each type of drink:
 - $\text{total_gr_alcohol} = \text{total_gr_wine_imp} + \text{total_gr_beer_imp} + \text{total_gr_liquor_imp} + \text{total_gr_premix_imp}$
- 6 Compute grams consumed in last week based on frequency of consumption in the last seven days:
 - $\text{total_gr_alcohol_week1} = \text{total_gr_alcohol} * \text{occasions}$
 - $\text{total_gr_alcohol_week2} = \text{total_gr_alcohol} * \text{days}$