

GALLUP®

October 20, 2020

China Methodology Report

Phase 1 Baseline Harmful Alcohol Use Survey



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Project Background

City	Population	% Mobile subscribers	Gross regional product - per capita	Per capita value added of primary industry	Per capita value added of secondary industry
Jiangshan	607,000	0.72	3.88	0.34	2.17
Lanxi	667,000	0.94	3.77	0.35	2.14

Research Objective

The research objective for the Baseline Harmful Alcohol Use Survey is to develop a Global Harmful Use of Alcohol Module and collect baseline data for AB InBev's initiative to reduce the harmful use of alcohol in pilot cities in seven countries. These seven countries include Belgium, Bolivia, Brazil, China, Mexico, South Africa and the U.S. Gallup selected control cities in each of the seven countries to allow for a comparison between program and control cities in each country. This technical report covers methodological details for the fieldwork conducted in Jiangshan and Lanxi (China) during the Phase 1 Baseline Harmful Alcohol Use Survey.

Research Impact

AB InBev aims to improve the health and well-being of its consumers and their communities by meaningfully reducing alcohol-related harm and its effects on individuals and society. The Global Harmful Use of Alcohol Module will assist AB InBev in achieving its Global Smart Drinking Goals, which include reducing the harmful use of alcohol in nine cities by 2020, creating global best practices by 2025, increasing alcohol health literacy by 2025 and creating social marketing campaigns by 2025. The Global Harmful Use of Alcohol Module will assist AB InBev in achieving its Global Smart Drinking Goals because it measures harmful alcohol use and knowledge about the harms of excessive alcohol use. As a result, AB InBev will be able to better target specific at-risk populations, along with their respective alcohol-related behaviors and attitudes, to design interventions that inform the public about harmful alcohol use and reduce the harmful use of alcohol in various cities around the world.

China Methodology

Program City: Jiangshan

Control City: Lanxi

Dates of Interviewing: Dec. 6–31, 2016

Mode of Interviewing: Face-to-face CAPI

Languages: Chinese

AB InBev selected the city of Jiangshan as its program area in China. Jiangshan is a county-level city in Quzhou prefecture, Zhejiang Province, with a population of about 600,000. Gallup collected secondary data from the 2015 annual government report on the 361 county-level cities in China that could potentially serve as a control city, including socio-demographic and economic factors such as electricity consumption, total value added across different sectors of the economy, number of broadband connections, etc. The city of Lanxi was selected as a control area. Lanxi has a similar population size and is equivalent to Jiangshan in all of the features examined. Both also have similar annual income levels, with about 35,000 RMB for Jiangshan and 32,177 RMB for Lanxi.

Sampling

The target population for this study was the civilian, non-institutionalized adult population living in Jiangshan and Lanxi. The population information for the sampling frame was derived from the National Bureau of Statistics¹.

The sample was stratified by city. Village committees were the local geographic units that served as ultimate clusters. Village committees in both cities were selected using simple random sample (SRS) by the following steps:

- Step 1 – The sampling frame is the full list of village committees in Jiangshan and Lanxi, which were obtained from the website of the National Bureau of Statistics.
- Step 2 – Each resident/village committee is entered into Excel and a random number is assigned to each one.
- Step 3 – The resident/village committees are then ranked according to the value of its random digits.
- Step 4 – The sampling selection interval is used to select the committees to survey using the random starting number.

Population Parameters and Number of Selected Clusters per City

	Jiangshan	Lanxi
Total population	606,900	663,300
Adult population (18+)	495,755	563,424
Total interviews needed	1500	1500
Total number of clusters available in the sampling frame	311	672
Number of interviews per resident/village committee	20	20
Number of selected clusters	75	75
Sampling interval	5	9
Random sampling start number	5	9

Starting Point and Household Selection

In this study, two starting points per PSU were identified so that 10 interviews can be conducted per starting point, totaling 20 interviews per PSU. One fixed starting point is always the office of the resident/village committee. Starting from the committee office, the interviewer moves to the right three households to find the first main household. Households per block were selected using a systematic random sampling method. Blocks were covered by walking clockwise and using Gallup's random route procedure for selecting households.

Respondent Selection

Once the interviewer has selected a household, he or she will ask whether there are members of the household who are aged 18 and older and permanently living in that household. If there is

¹ More information about population characteristics and the national census of 2010 is available here: <http://www.stats.gov.cn/english/statisticaldata/CensusData/>

more than one qualified respondent, the interviewer will list all qualified members of the household and the CAPI program will randomly select one respondent.

Only one person per household will be interviewed. In households with only one eligible respondent, random selection is not necessary. The lone eligible respondent will be automatically selected for the interview.

If the randomly selected household member is not at home or not available at the time of the interview, the interviewer should make two more attempts to contact him or her. Up to three attempts should be made at different times of the day, days of the week, and, if possible, on the weekend within the fieldwork period. In areas where the interviewer will not be able to return to the sampling point on a different day, the interviewer should make attempts with at least a two-hour gap between each attempt before substituting the household.

Fieldwork

The original plan was for Gallup's local partner to conduct interviewing in China over telephone. However, after two weeks of fieldwork, the completion rate was approximately 200 completes per week. The phone interviewers reported a very high number of immediate refusals and hang-ups before interviewers asked screening questions. For example, interviewers reported more than 24,000 hard refusals during the first week of interviewing with only about 100 completes.

Following this, Gallup and AB InBev agreed to revise the mode of data collection and switch to face-to-face interviewing. The mode switch resulted in improved productivity in both cities, and interviewers completed the requested 3,000 interviews prior to the end of the calendar year.

All interviewers went through rigorous training which covered topics such as interview protocol, screening, probing, remaining neutral, expressing appreciation, and handling refusals appropriately.

Fieldwork Stats	
Average total interviews/interviewer	65
Number of interviewers	46
Number of days in the field	25
Min interviews/day	6
Max interviews/day	262
One attempt	1309
Two attempts	1135
Three or more attempts	556

Interviewers made at least three attempts to reach a person in each household, spread over different days and times of the day. When needed, interviewers made appointments for a return visit that fell within the survey data collection period. Fieldwork took place between December 6, 2016 and December 31, 2016.

Completed interviews by date

Date	Jiangshan	Lanxi	Total
12/6/2016	20	0	20
12/7/2016	70	0	70
12/8/2016	50	0	50
12/9/2016	60	10	70
12/10/2016	118	15	133
12/11/2016	98	31	129
12/12/2016	84	32	116
12/13/2016	65	29	94
12/14/2016	68	19	87
12/15/2016	66	78	144
12/16/2016	92	91	183
12/17/2016	108	119	227
12/18/2016	69	136	205
12/19/2016	93	121	214
12/20/2016	74	128	202
12/21/2016	70	172	242
12/22/2016	99	163	262
12/23/2016	113	84	197
12/24/2016	78	78	156
12/25/2016	2	59	61
12/26/2016	0	10	10
12/27/2016	1	58	59
12/28/2016	2	49	51
12/30/2016	0	6	6
12/31/2016	0	12	12
Total	1500	1500	3000

The average length of a completed interview was 17 minutes and 6 seconds in Jiangshan and 18 minutes and 3 seconds in Lanxi. Length of interview excludes the screening portion of the interview (respondent selection, obtaining respondent consent). Interview start time is recorded when an eligible respondent has been located and has consented to participate. Thus, the total length of the household visit may be slightly longer for each respondent.

Interviews in China took, on average, longer than in the remaining cities. For some rural respondents, it was difficult to understand proper Mandarin Chinese and in some cases interviewers had to read questions in the local dialect. This is permitted for interviewers to do in China, because the written form does not change, only the sounds change. Having to use both Mandarin and local dialect, however, extended the length of the interview compared to other countries.

Interview lengths per city

	Jiangshan	Lanxi
Mean	0:17:06	0:18:03
Median	0:16:00	0:18:00

Occurrences during fieldwork and interviewer feedback

Interviewers report the following occasional challenges during fieldwork:

- Some rural residents in the sample live in a remote mountain area with very limited transportation (bus only once a day) and no lodgings available.
- Many rural residents are not at home during most of the daytime.
- The farmers in villages are very suspicious of interviewers since very few new faces appear in their daily village life.
- Long distances between rural residents' homes.

Interviewers indicate that some respondents were sensitive with respect to questions on monthly household income. Additionally, it was sometimes difficult to estimate the total income because respondents' incomes were not always fixed or stable

Response Rates

The face-to-face response rate for this study is calculated according to the American Association of Public Opinion Research guidelines (AAPOR, 2000. Standard Definitions: Final Dispositions of Case Codes and Outcome Rates for Surveys. Lenexa, Kansas: AAPOR). This represents the number of completed interviews divided by the total number of eligible households. Ineligible households are removed from the calculation. Ineligible households include the following categories:

- No eligible respondent lives there
- The house/dwelling is not occupied.

$$\text{Response Rate: } RR = \frac{I}{(I + P) + (R + NC + O) + (UH + UO)}$$

Where:

I= Complete Interviews

P= Partial Interviews

R= Refusals

NC= Non-Contact

O= Other

UH= Unknown if household/occupied housing unit

UO= Unknown other

Final response rates per city, and the total response rate for China were as follows:

China Total	21%
Jiangshan	19%
Lanxi	22%

Weighting

To ensure that the two samples were representative of the adult population of the two cities, Jiangshan and Lanxi, Gallup staff prepared weights separately for each city based on available population demographics. The weighting process of the two-city sample was as follows:

- Gallup staff constructed base sampling weights to take household size into account. They capped the household size at four residents aged 18 and older. They used this step to adjust for unequal probability of selection as residents of relatively large households have a lower probability of selection for the survey.
- Gallup staff constructed post-stratification weights to correct for age and gender of each city due to non-response.

The population source used for constructing weights was the Statistics Bureau of Zhejiang 2013.

Jiangshan Sample

Gender	Sample %	Population %	Weighted %
Male	54	52	51
Female	46	48	49
Age	Sample %	Population %	Weighted %
18 to 35	12	26	25
36 to 60	50	52	52
61+	38	22	23

Lanxi Sample

Age	Sample %	Population %	Weighted %
18 to 35	23	26	25
36 to 60	54	50	50
61+	23	24	24
Gender			

Male	52	52	52
Female	48	48	48

Margin of Error

The design effect calculation reflects the influence of data weighting and includes the effect of stratification and, in the face-to-face interviewing countries, the cluster selection methodology. In all face-to-face interviewing countries, the sampling design is a single-stage cluster sampling. Each Primary Sampling Unit (PSU) in the current face-to-face samples represents a cluster of individuals sampled at the first stage of selection² whose responses may be correlated with each other on some outcome variables. Taking the clustered sampling design into account when calculating variance estimates, researchers used intraclass correlation coefficients (ICC).

The margins of error (MOEs) presented in this report are calculated based on reported proportions for each program/control area, assuming a 95% confidence level. The MOE also includes the approximate design effect (DEFF) due to weighting for the total program/control sample. The DEFF is a measure that compares the ratios of sampling variance from the actual survey sample to a simple random sample of the same overall sample size. For example, a DEFF of two (2) indicates that the survey estimate has twice as much sampling variance as a simple random sample (SRS) of the same size. Since MOEs and design effects are different for different variables and depend on the level of clustering (ICC) exhibited by each variable, the MOEs and DEFFs for key demographic variables by area appear below.

The first table shows the weighted percentage estimates for each demographic variable by area, along with the design-adjusted 95% confidence interval for the estimate. The MOE shows the range around which the estimate can be expected to vary from the true value in the population, taking into account the standard error. Researchers compute the MOE by adding and subtracting twice the standard error (for 95% level of confidence) to the indicator estimate.

			Jiangshan	Lanxi
Gender	Male	Estimate	51.3%	52.1%
		Lower	48.1%	49.2%
		Upper	54.5%	55.0%
Age	18 to 29	Estimate	12.5%	15.8%
		Lower	9.1%	12.6%
		Upper	16.9%	19.7%
	30 to 49	Estimate	37.6%	33.4%
		Lower	33.7%	29.0%
		Upper	41.6%	38.2%
	50 to 64	Estimate	31.9%	33.8%
		Lower	28.3%	29.5%

² In all six countries, this was also the only stage of selection.

			Jiangshan	Lanxi
Years of Education	65+	Upper	35.7%	38.3%
		Estimate	18.1%	17.0%
		Lower	15.4%	13.7%
	0 to 8 years	Upper	21.1%	20.9%
		Estimate	82.3%	49.0%
		Lower	77.9%	42.9%
	9 to 15 years	Upper	86.0%	55.1%
		Estimate	15.3%	42.9%
		Lower	12.2%	37.9%
	16+ years	Upper	19.0%	48.1%
		Estimate	2.0%	8.1%
		Lower	1.0%	6.2%
Wealth Quintiles	Poorest 20%	Upper	3.7%	10.6%
		Estimate	33.1%	6.8%
		Lower	29.5%	5.2%
	Second 20%	Upper	36.8%	8.8%
		Estimate	29.5%	10.6%
		Lower	26.5%	8.5%
	Middle 20%	Upper	32.8%	13.2%
		Estimate	19.8%	20.2%
		Lower	17.1%	17.6%
	Fourth 20%	Upper	22.7%	23.2%
		Estimate	11.9%	28.1%
		Lower	9.8%	24.3%
Richest 20%	Upper	14.2%	32.3%	
	Estimate	5.8%	34.3%	
	Lower	4.4%	29.5%	
Marital Status	Single/Never married	Upper	7.6%	39.4%
		Estimate	8.7%	21.1%
		Lower	5.6%	17.0%
	Married/ Domestic partner	Upper	13.1%	25.9%
		Estimate	88.4%	76.2%
		Lower	84.2%	71.2%
	Upper	91.7%	80.6%	
	Estimate	2.9%	2.7%	
	Lower	2.2%	1.8%	

		Jiangshan	Lanxi
Separated/ Divorced/ Widowed	Upper	3.8%	4.0%

The second table shows the DEFFs for each variable by area, along with the average. Researchers calculate the average DEFF over the 16 values presented for each area.

		Jiangshan	Lanxi
Gender	Male	1.61	1.32
Age	18 to 29	5.36	3.71
	30 to 49	2.65	3.76
	50 to 64	2.51	3.36
	65+	2.09	3.60
Years of Education	0 to 8 years	4.32	5.86
	9 to 15 years	3.55	4.17
	16+ years	3.32	2.47
Income Quintile	Poorest 20%	2.32	2.03
	Second 20%	1.85	2.16
	Middle 20%	1.96	1.85
	Fourth 20%	1.80	3.09
	Richest 20%	1.89	4.31
Marital Status	Single/Never married	6.75	4.59
	Married/Domestic partner	5.30	4.74
	Separated/Divorced/Widowed	0.79	1.71
Average DEFF		3.00	3.29