GALLUP

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United States Methodology Report

Phase 1 Baseline Harmful Alcohol Use Survey

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Project Background

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 Columbus and Indianapolis (United States) 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.

United States Methodology

Program City: Columbus
Control City: Indianapolis
Dates of Interviewing: Nov. 16–Dec. 28, 2016
Mode of Interviewing: Phone — CATI
Languages: English, Spanish

AB InBev selected the city of Columbus, Ohio as its program area in the U.S. Columbus is a prosperous medium-sized city with a population of 837,931, according to the U.S. Census, and a large college student population of about 136,000, representing nearly 16% of the total population. Gallup conducted secondary data collection for major cities in Ohio, including cities with a population greater than 100,000, as well as major metropolitan areas in the rest of the U.S. with a population similar to Columbus. Indianapolis (IN) was selected for a control city in consultation with AB InBev.

City name	Columbus city	Indianapolis city
State	OH	IN
Population size	837,931	849,052
Students	136,000	106,985

Median HH income	44,774	42,076
Median age	31.8	33.9
% Below poverty	22%	21%
% HS or higher	88%	85%
Unemployment	4.0	3.9

Based on the demographic statistics presented above, **Indianapolis** would represent an ideal control city for Columbus. However, there are also regulatory differences between the states of Ohio and Indiana. Indiana is a somewhat "drier" state, with alcohol sales prohibited on Sundays, except at local wineries, breweries and distilleries, and hours of sales on premises in Indiana extending from 7:00 to 3:00 a.m., compared with 5:30 to 2:30 a.m. in Ohio. Both states allow grocery store sales of alcohol, although Ohio allows this only for drinks under 21% ABV.

Sampling

In the United States, telephone interviewing is the traditional method of conducting survey research. Due to high mobile phone penetration researchers used a dual sampling frame — landline and mobile. According to the latest national estimates released by the National Center for Health Statistics[1], households with a landline telephone are for the first time a minority in the U.S. Results indicate that 50.8% of American homes did not have a landline telephone but did have at least one wireless telephone - an increase of 2.5 percentage points since the second 6 months of 2015. More than 70% of all adults aged 25-34 and of adults renting their homes were living in wireless-only households. The report also found variation in the prevalence rate of certain health-related behaviors. 30% of respondents from wireless-only households reported at least one heavy-drinking day in the past year, while 19% of respondents from landline households[2] reported the same.

The target population for the Baseline Harmful Alcohol Use Survey was the non-institutionalized adult population aged 21 and older living in the territory of Columbus, Ohio and Indianapolis, Indiana. All sampling was done at the city level – separate sample files were ordered and used for each cities. Random digit dialing (RDD) using a dual frame sample of list-assisted landline phone and mobile phone sample was used for this study. The landline sample was ordered by ZIP code and mapped onto the rate center[3]. A total of 26,773 phone numbers were used from the sample file – 14,572 in Columbus and 12,201 in Indianapolis. The range of zip codes used for each city was the following:

Columbus	Indianapolis
43085	46201
43201	46202
43202	46203
43203	46204

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[1] Fieldwork was conducted between July and December 2016. The full report is available here: https://www.cdc.gov/nchs/nhis/

[2] Includes both landline-only households and households that have both landline and mobile phone service.

[3] A rate center is a geographic area defined by the first 6 digits of a telephone number in the U.S. Numbering Plan.

43204	46205
43205	46206
43206	46207
43207	46208
43209	46209
43210	46210
43211	46211
43212	46213
43213	46214
43214	46216
43215	46217
43216	46218
43217	46219
43218	46220
43219	46221
43220	46222
43221	46224
43222	46225
43223	46226
43224	46227
43226	46228
43227	46229
43228	46230
43229	46231
43230	46234
43231	46235
43232	46236
43234	46237
43235	46239
43236	46240
43240	46241
43251	46242
43260	46244

43266	46247
43268	46249
43270	46250
43271	46251
43272	46253
43279	46254
43287	46255
43291	46256
	46259
	46260
	46262
	46266
	46268
	46274
	46275
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	46298

The mobile sample was also ordered by ZIP code and mapped onto the rate center. A total of 50026 numbers from the sample file were used – 26,246 in Columbus and 23,780 in Indianapolis. Survey Sampling International (SSI) provided the random digit dial (RDD) list assisted landline sample and the wireless phone sample for both cities.

The target distribution of interviews was approximately 50% completes in each frame. This was achieved during fieldwork as indicated in the table below.

Completed interviews per sample frame

City	Landline Frame	Mobile Frame	Total
Columbus	751	752	1503
Indianapolis	758	754	1512
	1509	1506	3015

After sample selection and dialing the selected phone number, interviewers performed random selection of the respondent by using the next birthday method. Because mobile phones are personal devices, the person answering the phone is the interviewee (pending meeting age and residency requirements). Once the randomly selected respondent is on the phone, they were asked to confirm their age. Only respondents over 21 years of age were eligible to participate in the survey.[4] For both the landline and the mobile phone samples, interviewers also screened respondents to confirm they live in the ZIP codes associated with Indianapolis or Columbus. Respondents that do not live in these zip codes were terminated from the sample.

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 callbacks that fall within the survey data collection period. Fieldwork took place over 6 weeks between November 16, 2016 and December 28, 2016.

Distribution of completed interviews by date

Date	Columbus	Indianapolis	Total
11/16/2016	36	45	81
11/17/2016	80	70	150
11/18/2016	55	59	114
11/19/2016	2	2	4
11/20/2016	21	34	55
11/21/2016	51	42	93
11/22/2016	42	41	83
11/23/2016	29	24	53
11/25/2016	7	14	21
11/27/2016	26	16	42
11/28/2016	15	16	31
11/29/2016	12	14	26
11/30/2016	27	23	50
12/1/2016	39	35	74
12/2/2016	39	42	81
12/3/2016	7	17	24
12/4/2016	82	88	170
12/5/2016	41	53	94
12/6/2016	41	38	79

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[4] In the U.S. the age and gender of respondents aged 18 to 20 were also collected, but the interview was then terminated and no further questions were asked of these respondents. Researchers used this additional screener information to construct proper weighting targets and match those to available population parameters.

12/7/2016	65	74	139
12/8/2016	38	25	63
12/11/2016	45	46	91
12/12/2016	25	17	42
12/13/2016	28	30	58
12/14/2016	49	49	98
12/15/2016	83	83	166
12/16/2016	94	59	153
12/17/2016	62	90	152
12/18/2016	60	58	118
12/19/2016	58	58	116
12/20/2016	46	48	94
12/21/2016	58	51	109
12/22/2016	42	46	88
12/26/2016	11	12	23
12/27/2016	42	42	84
12/28/2016	45	51	96
	1503	1512	3015

Distribution of completed interviews by zip code

Zip Code	Columbus	Indianapolis	Total
43085	81	1	82
43201	31	1	32
43202	37	0	37
43203	15	0	15
43204	91	0	91
43205	19	0	19
43206	42	0	42
43207	84	0	84
43209	89	1	90
43210	3	0	3
43211	36	0	36
43212	52	1	53
43213	43	0	43
43214	88	1	89
43215	31	0	31
43216	1	0	1
43217	2	0	2
43218	1	0	1
43219	47	0	47
43220	87	0	87
43221	70	0	70

43222	12	0	12
43223	39	0	39
43224	74	1	75
43227	43	0	43
43228	71	0	71
43229	65	0	65
43230	103	0	103
43231	14	0	14
43232	40	0	40
43235	79	0	79
43236	1	0	1
43240	8	0	8
46201	0	55	55
46202	0	24	24
46203	0	43	43
46204	0	10	10
46205	0	58	58
46206	0	1	1
46207	0	2	2
46208	0	44	44
46209	0	1	1
46210	0	1	1
46214	1	34	35
46216	0	5	5
46217	0	42	42
46218	0	50	50
46219	0	79	79
46220	1	72	73
46221	1	42	43
46222	0	57	57
46224	0	50	50
46225	0	13	13
46226	1	72	73
46227	0	80	80
46228	0	25	25
46229	0	55	55
46230	0	1	1
46231	0	12	12
46234	0	35	35
46235	0	42	42
46236	0	43	43
46237	0	39	39
46239	0	32	32

46240	0	49	49
46241	0	51	51
46250	0	29	29
46254	0	53	53
46256	0	36	36
46259	0	27	27
46260	0	64	64
46266	0	3	3
46268	0	44	44
46274	0	1	1
46278	0	25	25
46280	0	5	5
	1503	1512	3015

Fieldwork

Interviewers fluent in both English and Spanish were available. Ultimately, the majority of interviews in each city were conducted in English. The average length of a completed interview was 10 minutes and 51 seconds in Columbus; 10 minutes and 40 seconds in Indianapolis. Length of interview provided by the phone interviewing center excludes the screening portion of the interview (random selection of respondent for landline calls, age and city residence verification, obtaining respondent consent) – each interview start time is recorded when an eligible respondent has been located and has consented to participate. Thus, the total length of the phone call may be slightly longer for each respondent.

Languages used per city

	English	Spanish	Total
Columbus	1493	10	1503
Indianapolis	1479	33	1512
	2972	43	3015

Interview lengths per city

	Mean	Median
Columbus	0:10:51	0:10:29
Indianapolis	0:10:40	0:10:11

Interviewers reported that a few respondents gave a spontaneous "None/zero" response to WP19395 and WP19396. They explained that even though some weeks/months they drink non-alcoholic beer more often, this past week/month they did not. In future iterations of the survey, adding a (None) category that is not read by the interviewer but available as an option on the CATI screen may be helpful.

Response Rates

Gallup calculates response rates according to the most recent AAPOR guidelines. The *Ninth Edition of* Standard *Definitions*: *Final Dispositions of Case Codes and Outcome Rates*[5] *for Surveys* clearly distinguishes between the response rate and the cooperation rate, covers household, telephone, mail, and Internet modes of administration, discusses the criteria for ineligibility, and specifies methods for calculating refusal and noncontact rates.

As per AAPOR guidelines, Gallup uses the following formula to calculate response rates for dual-frame studies (landline and mobile):

Combined response rate = $[(RR_{LL}*K_{LL}) + (RR_{CP}*(1-K_{LL}))]/100$

Where RR_{LL} is the landline response rate, K_{LL} is the proportion of the total number of completed interviews coming from the landline frame, and RR_{CP} is the cell phone response rate. The landline and cell phone response rates are calculated as follows :

$$RR3_{LL} = \frac{I}{(I + P) + (R + NR + O) + [(UH)e_2]\,e1 + [(UO)e_1]}$$

$$RR3_{CP} = \frac{I}{(I + P) + (R + NR + O) + [(UH)e_2]\,e1 + [(UO)e_1]}$$

Where: e_1 = Estimated Percentage of Screener Eligibility (i.e., the proportion of households known to be eligible at the household-level that are estimated to have an eligible respondent residing there) and e_2 = Estimated Percentage of Household Eligibility (i.e., the proportion of cases that are of unknown eligibility at the household-level and it is unknown if an eligible respondent resides there) In short, e_2 is for all known units (i.e., all known households / [all known households + all known non-households]) and e_1 is for all known households whose eligibility status at the household-level is known (all known households eligible to do the full survey / [all known households eligible to do the full survey plus all known households not eligible to do the survey]). The final response rates for Columbus and Indianapolis were very similar:

City	Landline	Mobile	Combined
Columbus	11.7%	15.4%	13.6%
Indianapolis	12.7%	16.1%	14.4%

Weighting

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

- The first step was to calculate selection probabilities of the sampled telephone numbers from two separate frames, landline and cellphone.
- Gallup staff carried out non-response rate adjustment of each sampling stratum.

[5] The most recent Standard Definitions Report is available here: http://www.aapor.org/Standards-Ethics/Standard-Definitions-(1).aspx

- Due to the overlap segment of the dual frames (landline and cell frames), Gallup staff calculated adjustment factors for respondents who have access to both landline and cellphone.
- Gallup staff then considered household size. They capped household size at three 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, gender, race, Hispanic ethnicity and phone usage status (cellphone only, dual user-mostly cellphone, dual user-other and landline only).
- For underage respondents (18 to 20 years old), only age and gender data were collected for the purposes of constructing weighting targets and matching them to available population targets (available population targets were for the 18 and older population only). Following the weighting process, researchers dropped underage respondents from the sample.

Population sources used for constructing weights were as follows:

- Age, gender, education, race, Hispanic ethnicity (Source: 2016 Nielsen Demographic Estimates)
- Telephone usage status (Source: 2014 State Estimates, NHIS Early Release Program 2/2016)

Columbus, Ohio

Age	Sample %	Population %	Weighted %
18 to 20	4	7	7
21 to 29	10	20	20
30 to 44	16	28	28
45 to 54	17	15	15
55 to 64	22	15	15
65+	32	16	16

Gender	Sample %	Population %	Weighted %
Male	47	48	48
Female	52	52	52

Education	Sample %	Population %	Weighted %
Less than high school	7	13	13
High school graduate	21	26	26

	Sample %	Population %	Weighted %
Some college	27	31	31
College graduate or higher	45	31	31

Ethnicity	Sample %	Population %	Weighted %
Hispanic	3	5	5
Not Hispanic	97	95	96

Race	Sample %	Population %	Weighted %
White	71	67	67
Black	17	24	24
Other	12	9	9

Telephone Usage	Sample %	Population %	Weighted %
Landline only	11	6	6
Dual-user other	32	30	30
Dual-user cell mostly	23	16	16
Cell only	34	47	47

Indianapolis, Indiana

Age	Sample %	Population %	Weighted %
18 to 20	5	6	6
21 to 29	9	17	17
30 to 44	18	28	28
45 to 54	17	17	17
55 to 64	21	16	16
65+	31	16	16

Gender	Sample %	Population %	Weighted %
Male	47	47	47
Female	53	53	53

Education	Sample %	Population %	Weighted %
Less than high school	9	15	15
High school graduate	23	28	28
Some college	29	31	31
College graduate or higher	38	26	26

Ethnicity	Sample %	Population %	Weighted %
Hispanic	5	8	8
Not Hispanic	95	92	92

Race	Sample %	Population %	Weighted %
White	67	65	65
Black	20	26	26
Other	13	10	10

Telephone Usage	Sample %	Population %	Weighted %
Landline only	12	10	10
Dual-user other	31	27	27
Dual-user cell mostly	22	15	15
Cell only	35	49	49

Margin of Error

The design effect calculation reflects the influence of data weighting and includes the effect of stratification and clustering.

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 city appear below.

The first table shows the weighted percentage estimates for each demographic variable by city, 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.

			Columbus	Indianapolis
Gender	Male	Estimate	48.5%	47.2%
		Lower	45.4%	44.1%
		Upper	51.6%	50.2%
Age	18 to 29	Estimate	20.5%	17.7%
		Lower	17.8%	15.2%
		Upper	23.5%	20.6%
	30 to 49	Estimate	35.8%	38.1%
		Lower	32.8%	35.1%
		Upper	39.0%	41.2%
	50 to 64	Estimate	26.1%	26.6%
		Lower	23.8%	24.2%
		Upper	28.6%	29.1%
	65+	Estimate	17.6%	17.5%
		Lower	16.0%	15.9%
		Upper	19.3%	19.3%
Years of Education	0 to 8 years	Estimate	1.4%	4.1%
		Lower	0.8%	2.9%
		Upper	2.5%	5.7%
	9 to 15 years	Estimate	63.4%	66.2%
		Lower	60.5%	63.5%
		Upper	66.2%	68.9%
	16+ years	Estimate	34.4%	28.6%
		Lower	31.7%	26.1%
		Upper	37.2%	31.1%
Wealth Quintiles	Poorest 20%	Estimate	19.2%	20.8%
		Lower	16.5%	18.1%
		Upper	22.1%	23.7%
	Second 20%	Estimate	19.7%	20.3%
		Lower	17.1%	17.8%

			Columbus	Indianapolis
		Upper	22.4%	23.0%
	Middle 20%	Estimate	19.6%	20.4%
		Lower	17.3%	18.1%
		Upper	22.1%	23.1%
	Fourth 20%	Estimate	20.4%	19.7%
		Lower	18.1%	17.5%
		Upper	22.9%	22.0%
	Richest 20%	Estimate	21.2%	18.8%
		Lower	19.0%	16.8%
		Upper	23.6%	21.1%
	Single/Never married	Estimate	37.1%	33.9%
		Lower	34.0%	30.9%
		Upper	40.3%	36.9%
	Married/ Domestic partner	Estimate	43.9%	49.1%
Marital Status		Lower	40.9%	46.0%
		Upper	47.1%	52.2%
	Separated/ Divorced/ Widowed	Estimate	19.0%	17.0%
		Lower	16.8%	15.1%
		Upper	21.3%	19.2%

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

		Columbus	Indianapolis
Gender	Male	1.54	1.47
	18 to 29	1.97	2.01
Age	30 to 49	1.66	1.56
	50 to 64	1.19	1.21
	65+	0.74	0.76
Years of Education	0 to 8 years	1.93	1.97
	9 to 15 years	1.35	1.30
	16+ years	1.30	1.18
Income Quintile	Poorest 20%	1.95	1.83
	Second 20%	1.75	1.60
	Middle 20%	1.48	1.51

		Columbus	Indianapolis
	Fourth 20%	1.37	1.26
	Richest 20%	1.25	1.21
Marital Status	Single/Never married	1.65	1.59
	Married/Domestic partner	1.51	1.49
	Separated/Divorced/Widowed	1.27	1.17
Average DEFF		1.49	1.45