Methodology for Developing the Health Policy Institute Index Measures of Oral Health Status, Oral Health Knowledge, and Attitude Toward Oral Health

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Background

In early 2015, the American Dental Association’s (ADA) Health Policy Institute (HPI), with input from the ADA Practice Institute and ADA Science Institute, developed a new comprehensive survey focused on measuring how Americans view their oral health and how they interact with the U.S. oral health care system. Survey items include questions regarding respondents' self-reported oral health status, knowledge and attitude toward oral health as well as how often they visit the dentist, their insurance status, source of insurance and potential issues accessing oral health services.

In this research brief, we summarize the methods for developing this new survey, collecting data, and analyzing survey responses. We focus specifically on the creation of three indices measuring Americans’ self-reported oral health status, knowledge and attitude toward oral health.

Questionnaire Development

The survey questions were developed by experts from the ADA’s Health Policy Institute, Practice Institute and Science Institute. For oral health status, we were specifically interested in understanding aspects of oral health such as pain and comfort, ability to chew and speak, satisfaction with mouth function and aesthetics and, at the most comprehensive level, any physical, emotional and psychological effects derived from the condition of one’s mouth.1
To develop survey questions regarding oral health status, we reviewed and adopted questions from established surveys. Specifically, we adopted a question from the 2008 National Health Interview Survey, a question from the 2007-2008 National Health and Nutrition Examination Survey, and several questions from the 2013 World Health Organization Oral Health Survey which drew on the Oral Impact on Daily Performance Index. We also developed a question, internally, regarding the impact of the appearance of one’s teeth on employment prospects.

It is important to emphasize that we were not interested in clinical measures of oral health, such as presence of dental diseases, number of missing teeth or number of restorations. We were interested in developing a measure that attempts to capture a much broader definition of oral health. In essence, we wanted to approach this from the population’s perspective with purely subjective, self-reported measures of mouth pain and discomfort (e.g. toothaches), mouth function (e.g. chewing and speaking) and mouth appearance (e.g. frequency that one avoids smiling). We were not interested in universal, objective, clinical measures as we feel such measures cannot adequately capture the contribution of mouth health to overall physical, social and emotional wellbeing from the perspective of the individual. Our focus, thus, is on individual-specific ratings of various aspects of oral health that, to our knowledge, are not measured in any great depth in any routine, large-scale, population-based national surveys in the United States.

For questions regarding oral health knowledge, our intent was to identify a narrow set of questions that assess the general public’s understanding of factors that impact oral health. A literature review yielded peer-reviewed publications that provide specific questions on oral health knowledge targeted toward dental patients. However, these surveys were either specific to certain populations (e.g. children) or specific to certain diseases (e.g. periodontitis). We adapted some of the items included in the literature and developed additional statements ourselves to test oral health knowledge among adults. These statements were written to be easily understood by the general public on topics that we believe ought to be familiar rather than referring to specialized subject areas. The oral health knowledge questions we chose focus on topics with sufficient scientific evidence supporting a correct answer and, in our view, are basic enough to be easily understood by the general public.

The final list of questions, the correct response and supporting evidence for the oral health knowledge assessment are summarized in Table 1.
### Table 1: Oral Health Knowledge Questions, Correct Response and Supporting Evidence

<table>
<thead>
<tr>
<th>Question</th>
<th>Correct Response</th>
</tr>
</thead>
<tbody>
<tr>
<td>Some medical conditions like diabetes affect the health of your mouth.</td>
<td>True (^9,10,11)</td>
</tr>
<tr>
<td>People who smoke are more likely to have cancer in their mouth.</td>
<td>True (^12,13)</td>
</tr>
<tr>
<td>Children do not need to see a dentist until they start school.</td>
<td>False (^14,15,16)</td>
</tr>
<tr>
<td>Because they do not stay in your child’s mouth very long, baby teeth are not that important.</td>
<td>False (^14,17,18)</td>
</tr>
<tr>
<td>Some medicines can affect the health of your mouth.</td>
<td>True (^19,20)</td>
</tr>
<tr>
<td>Blood on your toothbrush is a sign of gum disease.</td>
<td>True (^21,22)</td>
</tr>
<tr>
<td>If I am not having any pain in my mouth, then my mouth is disease free.</td>
<td>False (^23,24,25,26)</td>
</tr>
<tr>
<td>Sugary foods and drinks cause tooth decay.</td>
<td>True (^27,28)</td>
</tr>
</tbody>
</table>

**Source:** ADA Health Policy Institute. **Notes:** See endnotes for supporting evidence for each question

We developed questions to assess attitude toward oral health internally within the research team with the intent to capture the value that the general public places on various aspects of oral health and dental care. For this section, we focused on parameters that we felt captured priorities and preferences of the respondents. As there was minimal existing literature in this area, we did not have research articles to draw on.

We solicited input on our proposed measures of oral health status, knowledge and attitude from several international experts in academia who have published extensively on defining and measuring oral health based on self-reported indicators. The acknowledgements section has more details.

We included insurance status, source of insurance, access to dental services and oral health care utilization questions as part of the survey. These questions were adopted from a survey developed by the Health Policy Institute in 2014.\(^{29}\) Additionally, a variety of standard demographic questions such as age, education, household income and race/ethnicity were included in the survey.

Appendix A has the final questionnaire.

### Data Collection

Data were collected through an online survey administered by Harris Poll on behalf of the ADA Health Policy Institute from June 23, 2015 through August 7, 2015. Harris Poll collected data from a representative sample of 14,962 adults ages 18 and older, with sampling design that allows for state-level and national analysis by household income level.

Harris Poll conducted a pre-pilot, administering the survey using phone interviews between April 2, 2015 and April 13, 2015. Ten respondents read each survey question aloud and described any confusion or additional information that would be helpful in answering the question. Respondents were randomly selected and included both low-income and high-income adults. The respondents also answered each question via the web survey. Harris Poll provided us with the results of these interviews, including survey responses, notes regarding respondents’ understanding of each question, and any additional comments regarding the applicability or clarity of the question. Harris Poll also made suggestions, where appropriate, on how to modify the questions to make them more straightforward.
Harris Poll then fielded an online pilot survey in Montana and New York to gain a better understanding of how individuals would respond to the questions. We selected Montana and New York because they are two states of significantly different population sizes\textsuperscript{30,31} that have some level of adult Medicaid dental benefits.\textsuperscript{32} We purposefully oversampled Medicaid enrollees in these two states to ensure that we were able to collect data that accurately reflect the experiences of low-income adults in accessing and utilizing dental services. Eighty-six adults in Montana and 150 adults in New York completed the pilot survey from April 16, 2015 through April 30, 2015. We received these data from Harris Poll in May 2015. To validate these preliminary data, we reviewed frequency distributions for outliers, confirmed that responses to branched questions matched the intended patterns for branching, confirmed correlations between responses to questions that should be related (e.g., questions 4, 5, and 7 in the survey), and tested internal consistency among survey items intended to measure oral health status and attitude toward oral health (e.g., questions 7 and 9).

Harris Poll then fielded the online survey on a national scale from June 23, 2015 through August 7, 2015. We aimed to receive 300 completed surveys in each state, with 100 completed surveys in each of three income level categories: low-income individuals with household incomes at or below 138 percent of the federal poverty level (FPL), middle-income individuals with household incomes between 138 percent and 400 percent FPL, and high-income individuals with household incomes above 400 percent FPL. Survey respondents were randomly selected from a group of individuals who have agreed to participate in Harris Poll surveys.

We selected the lower household income cutoff of 138 percent FPL based on the Medicaid eligibility expansion guidelines outlined in the Affordable Care Act.\textsuperscript{33,34} We acknowledge that not all states chose to expand Medicaid eligibility to all adults with household incomes at or below 138 percent FPL. However, using this income cutoff allows us to compare survey results between states that have expanded Medicaid eligibility and states that have not. We selected the upper household income cutoff of 400 percent FPL based on health insurance marketplace premium tax credit eligibility as established in the Affordable Care Act.\textsuperscript{35} Harris Poll secured 300 responses in all but seven states and the District of Columbia.

In order to categorize respondents by income level, respondents were asked how many individuals reside in their household and what their 2014 income was either before or after taxes. Income information was collected by presenting respondents with income ranges, and Harris Poll created midpoint values for each income range. Harris Poll then used the 2014 federal poverty guidelines published by the U.S. Department of Health and Human Services\textsuperscript{36} to categorize each respondent as low-income, middle-income or high-income.

All responses were weighted in our analysis where necessary to bring them in line with the actual proportions of the population. A post-weight was created by Harris Poll to adjust for respondent characteristics at the state level. Propensity score weighting was used to adjust for respondents’ tendency to be online. The data were weighted to reflect the state and national composition of the adult population.

For more information about Harris Poll, please see Appendix B.
Data Validation and Cleaning

To validate the data, frequency distributions for all survey and demographic questions were reviewed for outliers by HPI staff. Responses for all survey questions were in range. Some outliers were identified for demographic questions but were retained in the final dataset with the intent to exclude these outliers from analyses as necessary.

Correlations between responses to questions that should be related were also examined. Expected relationships were confirmed. Specifically, respondents who reported better condition of the mouth (question 4) reported less frequency for both feeling that life in general was less satisfying because of problems with their mouth and teeth (question 5) and for having experienced oral health problems (question 7).

Additionally, responses from branched questions were confirmed to match the intended branching patterns. Specifically, for respondents who answered that they do not have health insurance (question 10), the response to the question of how they acquired health insurance (question 12) was coded as "N/A." For respondents who answered "no" that they do not have dental insurance (question 11), the response to the question of how they acquired dental insurance (question 12) was coded as "N/A."

Furthermore, a random selection of responses was used to replicate income category assignments based on the methodology used by Harris Poll. Using the weights provided by Harris Poll, HPI staff replicated the crosstabs by income category, age and gender provided by Harris Poll.

Index Creation

Based on survey responses, we created indices to summarize oral health status, oral health knowledge and oral health attitude among respondents. We wanted to develop a simple quantitative aggregate measure for each of the three outcomes of interest and chose to develop an index measure for each.

We reviewed the literature related to index measures for oral health. What constitutes an index can vary. For example, the Current Health Perceptions Index is a sum of weighted rating scale scores based on respondents’ own perceptions of their health, ranging from 0 to 100. The Oral Health Status Index measures actual oral health as a sum of weighted scores assigned to individual teeth and surrounding gums. In both cases, weights were determined using regression analyses. The Oral Health-Related Quality of Life Index (OHRQoL) is based on average subscale scores on items assessing the social, physical and psychological impacts of oral health on life quality; these scores range from 1 to 5. Attitude toward oral health has also been summarized as a sum of weighted scores, and oral health knowledge has been summarized as the number of items answered correctly in a given set of questions about oral health.

In addition to the health-related indices above, methodologies used to create more general indices were considered. For example, the Economic Confidence Index is a ratio developed to summarize dentists’ confidence in the economy based on positive and negative feelings toward various economic aspects of practicing dentistry. It was calculated by dividing the difference in the number of positive versus negative responses by the total number of responses and ranged from -100, indicating a negative perception of the economy, to +100, indicating a positive perception of the economy. We felt that a ratio of this
nature might be appropriate to capture oral health status, oral health knowledge and oral health attitude, as it is easy to interpret positive and negative values at a glance.

The methodologies behind the Oral Health Status Index, the OHRQoL Index, and the Economic Confidence Index were used as a basis to create several index options for oral health status, oral health knowledge and oral health attitude.

**Oral health status**

Oral health status was measured using respondents’ reported frequency experiencing 11 oral health issues or symptoms related to oral health (question 7). Scores on all 11 items were recoded using a 0 to 3 scale and reversed such that a higher rating would indicate less frequent oral health problems. In other words, a higher score is indicative of a better oral health status. A test of internal consistency ($\alpha = 0.92$, standardized) and results from factor analysis confirmed that it would be appropriate to combine these ratings into a single score for oral health status.

Correlations (excluding “don’t know” responses) between condition of the mouth (question 4) and frequencies of each oral health problem (question 7) were examined to identify any oral health problems with much stronger relationships to the overall indicator for condition of the mouth. Correlations (excluding “don’t know” responses) between time since last dental visit (question 16) and frequencies of each oral health problem (question 7) were examined to identify any oral health problems with much stronger relationships to the timing of one’s last dental visit. This was done to determine whether any oral health problem should be given more weight in calculating indices. Based on our findings, we did not observe any major outliers and decided that all 11 ratings for oral health status should be weighted equally in the index.

To generate a single metric for oral health status, five indices were considered. Two of these indices were based on a sum score. The first was a sum of the ratings which resulted in a score ranging from 0 to 33, with higher scores indicating better oral health status. The second was this sum converted to a 10-point scale by dividing the sum score by 33 (the highest sum score possible) and multiplying by 10 to result in scores ranging from 0 to 10. Three ratios were considered: a ratio of the number of “never” responses to all other responses, a ratio of the number of “never” or “rarely” responses to the number of “occasionally” or “very often” responses, and a ratio of the number of “never” or “rarely” or “occasionally” responses to the number of “very often” responses. Each ratio was calculated by taking the difference in the number of responses (e.g., the number of “never” responses minus the number of “rarely,” “occasionally,” and “very often” responses) divided by the total number of responses. Each ratio was multiplied by 10, resulting in scores ranging from -10 to +10. Negative scores indicated more frequent oral health problems (worse status), zero indicated an equal number of less frequent versus more frequent oral health problems (neutral status), and positive scores indicated less frequent oral health problems (better status).

We opted to use the sum score converted to a 10-point scale as our measure. While the ratio scores offered a larger range, combining categories in the calculation of these ratios masked variability in responses. Thus, the ratio scores were ruled out as indices for oral health status. The sum score preserved the variability in responses. Using the sum score converted to a 0 to 10 scale shifted scores for oral health status into a range familiar and easily interpretable to a variety of audiences. The final calculation of the oral health status index excludes respondents who answered “don’t know” for at least one of the 11 items (n=464).
Oral health knowledge was measured using eight true-false items (question 8). Responses to these items were recoded as correct or incorrect for the purpose of creating an oral health knowledge index (see Table 1).

To summarize oral health knowledge, four indices were considered. The first was calculated as the percentage of items answered correctly by summing the number of correct responses and dividing by the number of total responses; these scores ranged from 0 to 100. The second was this percentage converted to a 10-point scale, by dividing by 10, to create scores ranging from 0 to 10. The third was an indicator for whether respondents answered all eight questions correctly. The fourth was a ratio of the number of correct responses versus the number of incorrect responses, calculated by taking the number of correct responses minus the number of incorrect responses and dividing by the total number of responses. This ratio was multiplied by 10, resulting in scores ranging from -10 to +10. Negative scores indicated that more responses were incorrect than correct, zero indicated an equal number of correct and incorrect responses, and positive scores indicated that more responses were correct than incorrect.

We chose to use the indicator for whether respondents answered all eight questions correctly as our measure of oral health knowledge. The average score across all respondents was 50.3 percent, meaning just over half of respondents answered all eight items correctly. Using the percentage of respondents who answered all items correctly preserves the variability in oral health knowledge and allows for group comparisons.

Attitude toward oral health was measured using ratings on five items presenting statements about oral health, tooth loss, appearance, and dental visits (question 9). Scores for the item labeled “As I grow old, I accept that I will lose some of my teeth” were reversed such that a higher rating would indicate more agreement with positive statements about this oral health attitude item. In other words, higher scores indicate a more positive attitude toward oral health. A test of internal consistency ($\alpha = 0.61$, standardized) and results from factor analysis confirmed that it would be appropriate to combine these five ratings into a single score for oral health attitude.

Correlations between condition of the mouth (question 4) and ratings on each attitude item (question 9) were examined to identify any attitude items with much stronger relationships to reported condition of the mouth, relative to other attitude items. Correlations (excluding “don’t know” responses) between time since last dental visit (question 16) and ratings on each attitude item (question 9) were examined to identify any attitude items with much stronger relationships to timing of last dental visit, relative to other attitude items. This was done to determine whether any attitude item should be given more weight in calculating indices. Based on these findings, all five ratings for attitude toward oral health were weighted equally.

To summarize attitude toward oral health, four indices were considered. The first index was calculated as the percentage of items answered affirmatively by summing the number of “strongly agree” and “somewhat agree” responses and dividing by the number of total responses; these scores ranged from 0 to 100 and reflected the total percentage of agreement. The second was this percentage converted to a 10-point scale to create scores ranging from 0 to 10.
The third was a ratio calculated by taking the number of “strongly agree” or “somewhat agree” responses minus the number of “strongly disagree” or “somewhat disagree” responses and dividing by the total number of responses. The ratio was multiplied by 10 to result in scores ranging from -10 to +10. Negative scores indicated disagreement (or negative attitude), zero indicated neutral feelings (or neutral attitude), and positive scores indicated agreement (or positive attitude).

The fourth index option considered for attitude toward oral health was a sum score of the ratings. In order to create a sum score capturing the same range as the ratio, scores on all five items were recorded on a -2 to +2 scale. Thus, a sum of the ratings resulted in scores ranging from -10 to +10, with higher scores indicating a more positive attitude toward oral health. We opted to use the sum score as our measure of oral health attitude, as it retains variability of the four response categories while also representing the nature of the attitude; intuitively, negative scores indicate a negative attitude while positive scores indicate a positive attitude. The final calculations of this oral health attitude index include respondents who answered “don’t know” for at least one of the five items (n=1,579). For these respondents, answers of “don’t know” were recoded as 0 to indicate a neutral attitude.

**Acknowledgments**

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Appendix A: Survey Questions

Q1. In what country or region do you currently reside?
   [Several Options, but all respondents chose “United States”]

Q2. In what year were you born?
   [Response range: 1906-1997]

Q3. What is your zip code?
   [Keyed response]

Q4. How would you describe the condition of your mouth and teeth?
   [Poor, Fair, Good, Very Good, Don’t Know]

Q5. How often during the past 12 months have you felt that life in general was less satisfying because of problems with your mouth and teeth?
   [Never, Rarely, Occasionally, Very Often, Don’t Know]

Q6. Have you ever felt that the appearance of your mouth and teeth affected your ability to interview for a job?
   [Yes, No, Don't Know]

Q7. How often have you experienced each of the following problems related to your mouth and teeth during the past 12 months?
   [Never, Rarely, Occasionally, Very Often, Don’t Know]
   - Difficulty when biting or chewing foods
   - Difficulty with speech or trouble pronouncing words
   - Dry mouth
   - Felt anxiety
   - Felt embarrassment
   - Avoided smiling
   - Took days off work because of pain or discomfort
   - Difficulty doing usual activities
   - Reduced participation in social activities
   - Problems sleeping
   - Experienced pain

Q8. Are the following statements true or false? If you are not sure, please make your best guess.
   [True, False]
   - Some medical conditions like diabetes affect the health of your mouth.
   - People who smoke are more likely to have cancer in their mouth.
   - Children do not need to see a dentist until they start school.
   - Because they do not stay in your child’s mouth very long, baby teeth are not that important.
   - Some medicines can affect the health of your mouth.
   - Blood on your toothbrush is a sign of gum disease.
   - If I am not having any pain in my mouth, then my mouth is disease free.
   - Sugary foods and drinks cause tooth decay.
Q9. How strongly do you agree or disagree with the following statements about how you perceive the health of your mouth?

[Strongly Disagree, Somewhat Disagree, Somewhat Agree, Strongly Agree, Don’t Know]

- I value keeping my mouth healthy.
- Regular visits to the dentist will help keep me healthy.
- As I grow old I accept that I will lose some of my teeth.
- I need to see the dentist twice a year.
- It is easier to get ahead in life if I have straight bright teeth.

Q10. Do you currently have health insurance for 2015?
[Yes, No, Don’t Know]

Q11. Do you currently have dental insurance for 2015?
[Yes, Know, Don’t Know]

Q12. How did you obtain your own individual health insurance for 2015? Please select all that apply.

- Employer (mine or my spouse/partner’s)
- Through the new health insurance marketplace
- Directly from the insurance company, not through the marketplace
- Medicaid
- Medicare
- Through a government program other than Medicaid/Medicare (e.g., VA, TRICARE, SSI)
- Other
- Don’t know
- N/A- I do not have health insurance for 2015

Q13. How did you obtain your own individual dental insurance for 2015? Please select all that apply.

- Employer (mine or my spouse/partner’s)
- Through the new health insurance marketplace
- Directly from the insurance company, not through the marketplace
- Medicaid
- Medicare
- Through a government program other than Medicaid/Medicare (e.g., VA, TRICARE, SSI)
- Other
- Don’t know
- N/A- I do not have health insurance for 2015

Q14. Ask if respondent does have dental insurance: How easy or difficult is it for you to find a dentist that accepts your dental insurance?

[Very Difficult, Somewhat Difficult, Somewhat Easy, Very Easy]

Q15. Do you have a single dentist or dental office that is your usual source of dental care?
[Yes, No]
Q16. How long since you last had a dental visit?
   - Less than 12 months
   - 1 to 2 years
   - 3 to 5 years
   - More than 5 years
   - N/A – I've never been to a dentist

Q17. Do you plan to visit the dentist in the next 12 months?
   [Yes, No, I am not sure]

Q18. Ask if last dental visit was more than 12 months: Why did you not visit the dentist more frequently? Please select all that apply.
   - My mouth is healthy so I do not need to visit the dentist.
   - I do not know where to go to receive dental services.
   - I cannot afford to go to the dentist.
   - It is too hard to find a dentist that accepts my dental plan or Medicaid.
   - I cannot find the time to get to a dentist (e.g., cannot get the time off from work, dentist does not have convenient office hours).
   - Many services are not covered by my dental plan or Medicaid, so I end up having to pay with my own money.
   - I cannot travel to a dentist easily (e.g., do not have transportation, located too far away).
   - I do not any of my original teeth (i.e. I have no teeth, or I have dentures).
   - I am afraid of going to the dentist.
   - Other
   - No reason

Q19. Including yourself, how many people age 18 or older live in your household?
   [Keyed response]

Q20. How many people under the age of 18 live in your household?
   [Keyed response]

Q21. Are you currently receiving any Medicaid benefits?
   [Yes, No, Don't Know]

Q22. Are you male or female?
   [Male, Female]
Q23. Which one of the following best describes your employment status?

- Employed full time
- Employed part time
- Self-employed
- Not employed, but looking for work
- Not employed and not looking for work
- Retired
- Not employed, unable to work due to a disability or illness
- Student
- Stay-at-home spouse or partner
- Unknown

Q24. Which of the following income categories best describes your total 2014 household income before/after taxes?

- Less than $15,000
- $15,000 to $24,999
- $25,000 to $34,999
- $35,000 to $49,999
- $50,000 to $74,999
- $75,000 to $99,999
- $100,000 to $124,999
- $125,000 to $149,999
- $150,000 to $199,999
- $200,000 to $249,999
- $250,000 or more

Q25. In what state, province or territory do you currently reside?

- Alabama
- Alaska
- Arizona
- Arkansas
- California
- Colorado
- Connecticut
- Delaware
- District of Columbia
- Florida
- Georgia
- Hawaii
- Idaho
- Illinois
- Indiana
- Iowa
- Kansas
- Kentucky
- Louisiana
- Maine
- Maryland
- Massachusetts
- Michigan
- Minnesota
- Mississippi
- Missouri
- Montana
- Nebraska
- Nevada
- New Hampshire
- New Jersey
- New Mexico
- New York
- North Carolina
- North Dakota
- Ohio
- Oklahoma
- Oregon
- Pennsylvania
- Rhode Island
- South Carolina
- South Dakota
- Tennessee
- Texas
- Utah
- Vermont
- Virginia
- Washington
- West Virginia
- Wisconsin
- Wyoming
Q26. How many hours per week do you typically spend on the Internet or World Wide Web?
[Keyed response]

Q27. What is your marital status?
- Never married
- Married or civil union
- Divorced
- Separated
- Widow/Widower
- Living with partner
- Unknown
- Decline to answer

Q28. What is the highest level of education you have completed or the highest degree you have received?
- Less than high school
- Completed some high school
- Completed high school
- Completed some college
- Completed College
- Completed some graduate school
- Completed graduate school
- Associate Degree
- Job-specific training program(s) after high school
- Some college, but no degree
- College (such as B.A., B.S.)
- Some graduate school, but no degree
- Graduate degree (such as MBA, MS, M.D., Ph.D.)
- MA, MS, MFA
- MBA
- Ph.D., Psy.D. or other academic doctorate
- J.D.
- M.D.
- Other graduate or professional degree

Q29. What is your race/ethnicity?
- White
- Black
- Asian or Pacific Islander
- Native American or Alaskan Native
- Mixed Race
- Some other race
- Hispanic
- African American
- First Nation/Native Canadian
- South Asian
- Chinese
- Korean
- Japanese
- Other Southeast Asian
- Filipino
- Arab/West Asian
- Decline to Answer
- Unknown
Appendix B: About the Harris Poll

Over the last five decades, Harris Polls have become media staples. With comprehensive experience and precise technique in public opinion polling, along with a proven track record of uncovering consumers’ motivations and behaviors, the Harris Poll has gained strong brand recognition around the world. The Harris Poll offers a diverse portfolio of proprietary client solutions to transform relevant insights into actionable foresight for a wide range of industries including health care, technology, public affairs, energy, telecommunications, financial services, insurance, media, retail, restaurant, and consumer-packaged goods.
References


Suggested Citation