



EVALUATING THE CALIFORNIA HEALTH
INTERVIEW SURVEY OF THE FUTURE:
RESULTS FROM A STATEWIDE PILOT OF AN
ADDRESS-BASED SAMPLING
MAIL PUSH-TO-WEB DATA COLLECTION



Prepared for
State of California
Department of Health Care Services

July 9, 2019

By Brian M. Wells; Todd Hughes; Royce Park; CHIS Redesign Working Group*;
Ninez Ponce, PhD

UCLA Center for Health Policy Research
10960 Wilshire Blvd, Suite 1550
Los Angeles, CA 90024

Executive Summary

The decline of random-digit-dialing (RDD) and computer-assisted telephone interviewing (CATI) data collection due to low response rates and cultural shifts in telephone use has driven the UCLA Center for Health Policy Research to consider a methodological redesign of the California Health Interview Survey (CHIS) in order to implement more cost-effective methods to replace RDD/CATI in future CHIS cycles.

A statewide mode experiment conducted in the fall of 2018 explored a new design for the CHIS which used an address-based sampling (ABS) frame with a mail push-to-web invitation and a CATI nonresponse follow-up. This study seeks to strengthen previous feasibility testing of this design by strengthening data collection efforts of children and adolescents. This test proposes to 1) conduct the test among a sample of households in all California counties, 2) explore methods to increase the data obtained for children age 0-11 by experimentally reversing the questionnaire sequence to ask questions first about the selected child followed by questions about the selected adult, 3) refine methods for obtaining interviews from adolescents age 12-17 through additional enhancements to paper mail materials that request their participation, and 4) add a Spanish version of the online questionnaire along with more Spanish language focused invitations to help increase participation among Spanish-speaking households which tend to have higher proportions of children.

This report details the full study design and the results of the imbedded experiments in comparison to 2017 production data in terms of response rates, cost, and impacts on key indicators.

Key findings from the experiment include:

Adult interviews

- Higher adult response rates compared to 2017 CHIS production (14.3% overall vs. 6.7%)
- Spanish surname listed sample was less effective than ABS sample (7.6% completion rate vs. 9.0%, respectively) and obtained less foreign-born, low English proficient Hispanics than desired
- More than 40% of CATI completes originated from inbound callers before CATI follow-up started
- Adding a within-household selection confirmation question significantly improves the accuracy of adult selection for all households (16% inaccuracy rate vs. 29% respectively), but significantly lowers the response rate compared no confirmation question (13.8% vs. 14.7%)
- Sending Spanish dominant materials to high density Hispanic communities resulted in slightly higher rates of Spanish web and CATI completes

Child interviews

- Having a parent complete the child survey before the adult survey results in a sharp increase in child completes (81.5% vs. 62.4% per adult complete) without reducing adult completes

Adolescent interviews

- Proposed permission procedure and contact strategy for teens resulted in a higher permission rates than production CHIS and resulted in similar, if not better, response rates for teens overall
- Offering a \$10 incentive for parental permission for a teen survey had no effect on permission rates and resulted in a large drop in permission for single parent and foreign-born households
- Permission refusal conversion mailings were most effective with a \$20 parental incentive over a \$10 parental incentive (15.6% increase vs. 4.9% increase, respectively)

Cost Analysis

- New design resulted in a 39% decrease in the cost per complete compared to production in the experimental design and at the time of the experiment.

Evaluation of Key Indicators

- Web/CATI obtain a different population compared to CATI alone: younger (and therefore healthier), better educated, fewer foreign born, and fewer non-English speakers
- CATI follow-up was key to adjusting our estimates by obtaining older, less healthy respondents

Overall, the proposed redesign provides encouraging results for adult and child data collection with a more cost-effective methodology. The revised teen methods overall increased teen response by increasing permission rates compared to production though teen cooperation continues to be a struggle. Further research is also needed to improve in-language efforts to better represent Latinos and non-English speaking participants.

Contents

Executive Summary..... i

Background 1

Methods..... 2

 Overall design 2

 Adult contact strategy..... 3

 Child survey..... 4

 Teen survey data collection plan 4

 Spanish dominant mailings..... 5

Results..... 6

 Adult response rates 6

 Within-household selection experiment 7

 Spanish dominant mail materials experiment..... 7

 Child response rates..... 7

 Child-first experiment 8

 Teen response rates..... 8

 Parental permission incentive experiment..... 9

 Cost analysis..... 10

 Evaluation of key indicators..... 10

Discussion and Conclusions 11

The CHIS Redesign Working Group..... 12

Acknowledgements..... 13

References 14

Figures..... 17

Tables 32

Appendix A – Recruitment Material Examples 44

Appendix B – Examples of Web Instrument Screens..... 64

Background

The California Health Interview Survey (CHIS) is the nation's largest state health survey and a collaborative public health initiative of the UCLA Center for Health Policy Research, the California Department of Public Health, and the California Department of Health Care Services. The CHIS is conducted with support from major sponsors like Kaiser Permanente and other foundations, in addition to funding from the state of California. The purpose of the survey is to collect information about the health status and access to healthcare of the state's diverse population for use by public health researchers, planners, and state and local health care officials. The mission of CHIS is to provide local estimates to counties and county-groups and provide statewide estimates for the state's major racial/ethnic groups. Major content areas for the survey include health-related behaviors, health status and conditions, health insurance coverage, and access to health care services. To capture the rich diversity of the California populations, interviews are conducted in six languages: English, Spanish, Chinese (Mandarin and Cantonese dialects), Korean, Tagalog, and Vietnamese.

CHIS has employed random-digit-dialing (RDD) sampling and computer-assisted telephone interviewing (CATI) data collection methods since its inception, but industry declines in RDD/CATI response rates and cultural shifts in telephone usage motivate exploring alternative sampling and data collection methodologies (Pew Research Center, 2012; Dutwin & Lavrakas, 2016; AAPOR, 2017; de Leeuw, 2018). These include, but are not limited to: sample selection through address-based sampling (ABS); utilizing mail, internet, or mixed mode data collection; incorporating medical, insurance claims, and other administrative records sources with traditional survey data; and other creative combinations of modes and data sources.

Due to the shift from landline to cell-phone only households, the coverage of landline RDD has sharply declined (Blumberg & Luke, 2018). Switching to ABS has huge potential for improving response rates while lowering survey costs (AAPOR, 2016; de Leeuw, 2005; Dillman, Smyth, & Christian, 2014; Hoebel, von der Lippe, Lange, & Ziese, 2014) especially with the increased difficulty with contacting cell-phone only households (AAPOR, 2017). The United States Postal Service (USPS) Computerized Delivery Sequence (CDS) file arguably has the best frames of households in the United States as it is regularly updated and has very high coverage, with coverage as high as 100% in some areas (AAPOR, 2016).

Many researchers are conducting mixed-mode designs with the ABS frame in an effort to alleviate high nonresponse and rising costs of RDD (de Leeuw, 2005; Johnson & Williams, 2010; AAPOR, 2016; de Leeuw, 2018). Mixed mode designs can refer to different modes for data collection as well as recruitment and collection (AAPOR, 2016).

Recently, ABS web-push (also known as push-to-web) has emerged in an effort improve response rates via the Internet (Battaglia et al., 2016; Dillman, 2017). This mixed mode strategy uses a mail invitation to encourage households to participate in a web survey. Web collection is generally considered the least expensive mode of data collection significantly reducing the cost per complete. The American Community Survey adopted this strategy in 2013 and many countries – including Japan, Canada, and Australia – have used web-push methods for recent censuses (Battaglia et al., 2016; Dillman, 2017). This method is being tested for a variety of surveys as a potential replacement for RDD CATI and/or in-person interviews across the world.

Self-administered methods have not proven very successful for non-English collection and significantly underrepresent low English proficient respondents (McGovern, 2004; Brick et al., 2012; Caporaso et al., 2013; Newsome et al., 2017). While providing recruitment materials in Spanish can improve response rates and even push respondents to complete in a desired mode (Brick et al., 2012; Newsome et al., 2017), these steps may not be sufficient to correct for nonresponse bias. Interviewer methods are much more effective at recruiting respondents who are minimally English proficient and may still be the most efficient way to obtain non-English interviews.

The primary emphasis of exploring a redesign of the CHIS is to focus on implementing methods that provide a more cost-effective means for achieving the mission of the CHIS to supplement or replace RDD/CATI in future CHIS cycles.

In 2017, the UCLA Center for Health Policy Research received a combined grant from the Kaiser Permanente Northern California Community Benefits Program, the Kaiser Foundation Hospitals, Southern California Region, and the Kaiser Foundation Health Plan's national program offices. This grant included funding for a field experiment exploring a revised design for the CHIS that was less dependent on telephone data collection and would better position the CHIS to efficiently collect accurate data in the current household survey environment, as the CHIS prepared for the 2019-2020 data collection cycle. That initial field test experiment was conducted in April – June 2018 in three California counties. Relevant results from that data are referred to in this document as the spring test¹.

The study design discussed in this report builds off of the design and results of the spring test and seeks to implement a pilot expansion of this new methodology while strengthening data collection efforts of children and adolescents. This second test proposes to 1) conduct the test among a sample of households in all California counties, 2) explore methods to increase the data obtained for children age 0-11 by experimentally reversing the questionnaire sequence to ask questions first about the selected child followed by questions about the selected adult, 3) refine methods for obtaining interviews from adolescents age 12-17 through additional enhancements to paper mail materials that request their participation, and 4) add a Spanish version of the online questionnaire along with more Spanish language focused invitations to help increase participation among Spanish-speaking households which tend to have higher proportions of children.

We discuss the results of this test in comparison to current production data collection in terms of response rates, costs, and impacts on historical trending of key estimates.

Methods

Overall design

For this pilot experiment, we proposed a multi-frame, mixed-mode survey design using an address-based sampling (ABS) frame with a web survey component to potentially replace the existing random digit dialing (RDD) and computer-assisted telephone interview (CATI) design. The proposed pilot primarily focused on a statewide ABS frame supplemented by a surname/language list frame. The purpose of the surname/language list frame was to help guarantee the inclusion of racial and ethnic

¹ The full details of the spring test can be found in *“Evaluating the California Health Interview Survey of the Future: Results from a Methodological Experiment to Test an Address-based Sampling Mail Push-to-Web Data Collection”* prepared by the UCLA Center for Health Policy Research for Kaiser Permanente (October 26, 2018).

minorities as well as more efficiently target participants who are nonnative English speakers. We included a Korean/Vietnamese surname list (consistent with production CHIS) as well as a Spanish surname list sample.

In relation to the mixed-mode design, the initial data collection mode was web. Selected adults were invited to participate in the web survey via mail invitations. After three mailings (detailed below), sample cases that could be matched to a phone number were contacted via CATI to complete a telephone interview. We anticipated that a large portion of the surname list sample would lead to telephone interviews given language needs (e.g., nonnative English speakers preferring to conduct the interview in a language other than English) and that phone numbers will be available for all of these cases. Sample households were able to call in and complete the survey over the phone from the beginning of data collection. A mail questionnaire was not considered for the experiment given the length and complex skip patterns of the CHIS survey, particularly the health insurance section. Due to schedule and budget constraints, the web survey was only offered in English and Spanish. A flowchart of the design is included in Figure 1.

A total of 28,000 addresses were sampled for the pilot with variable county-level targets set to obtain a minimum target of 2,000 completed interviews across the state. Targets by county were derived by taking 10% of the CHIS 2018 sample targets (see Table 1). The target completes were to be obtained over a 10 week data collection period during the fall of 2018 (see Figure 2).

Adult contact strategy

From the two sampling frames, all ABS and listed sample matched to an address were mailed an initial invitation packet. This packet contained:

- (1) an invitation to participate in the survey along with a unique, secure login
- (2) a \$2 bill pre-incentive
- (3) a multilingual information sheet providing details in the remaining CHIS languages about how to call-in to complete the survey in a non-English language
- (4) instructions for who is to complete the survey

Random selection of one adult in the household is a difficult but important step in self-administered surveys (Olson and Smyth, 2017). In order to better understand the success and impact of different within household selection methods in a web survey, the instructions noted in item (4) served as the first experimental condition for this field experiment. All sampled cases were randomly assigned to one of two experimental conditions detailed in the invitation letter:

- (1) Next-birthday method (current method)
- (2) Next-birthday method with a confirmation question² at beginning of web instrument

² The confirmation question design was adapted from Olson and Smyth (2017) which included a confirmation question on the front cover of a mail questionnaire. The authors found a confirmation improved the accuracy of the selection with a minor decline in response rates. This method was implemented in this experiment by using a confirmation question in the screener portion of the survey before the informed consent screen asking if the respondent was the randomly selected respondent (i.e., “Are you the adult 18 or older in your household who will have the next birthday?”). The confirmation question method was also tested in the spring test.

Approximately one week after the original invitation was sent, a pressure sealed postcard containing the secure login information was sent as a reminder to complete the survey online. This made the reminder more actionable than a standard postcard reminder without the secure login information.

Approximately two weeks after the reminder postcard was mailed, a second letter was mailed using Certified mail to the respondent encouraging them to complete the web survey. Certified mail used the standard business envelope like the First-class mailings, but included the green Certified label over the top of the envelope. Certified mail proved much more cost-efficient for the second letter in the spring test. Examples of these envelopes, and all the accompanying mail materials, are included in Appendix A.

At the end of the initial four-week period for web response, the remaining nonresponding cases assigned to web were telephone matched. Successfully matched cases were then transitioned to CATI interviewing receiving up to six call attempts to attempt a complete interview. For those nonresponding cases that could not be matched to a telephone number, no further contact attempts were made.

Child survey

The child survey was integrated as part of the adult web survey. Consent to provide information about an eligible child was integrated into the adult consent language to streamline the consent procedure for both adult and child interviews.

In an effort to obtain higher completion rates for the child survey, we experimentally tested a child-first scenario with a random half-sample of the fall pilot cases. Our assumption was that parents would be more likely to answer questions about their child before completing the detailed adult questions rather than after the adult questions (e.g., Groves, Presser, & Dipko, 2004; Dillman, Smyth, & Christian, 2014). In the child-first condition, adult respondents would answer questions about their spouse and children in the household following Section A (age, gender, race/ethnicity, and marital status). These spouse and children questions were taken from Section G. After determining the number of children under the age of 18, all children including teens were rostered. If the respondent had an eligible child (age 0 to 11), we then began asking question about one randomly selected child. After completing the child survey, the adult respondent would then be returned to begin Section B to complete the adult survey. A flowchart of the question ordering is detailed in Figure 3.

Teen survey data collection plan

During the adult web survey following the completion of the household roster, adults with eligible teens were asked to provide permission for CHIS to survey their teen. The permission language was adapted from the permission procedure currently implemented by CHIS over the phone. However, a new condition was added to the permission request offering a \$10 conditional incentive to the teen after completing the survey. Following an affirmative permission, respondents were asked to provide the teen's name. The parent was then asked for the best phone number in case their teen did not complete the survey online. We then verified if the number was the teen's personal cell phone number and, if so, asked for permission to text a reminder.

After receiving permission to survey a teen, we mailed a letter to the parent thanking them for providing permission and requesting them to provide an enclosed sealed envelope to their teen. The enclosed envelope contained an invitation letter addressed to the teen inviting them to participate and included consent language, the survey link, their unique secure access code, and discussed the promised

incentive for completing the survey. This enclosed envelope method was inspired by the success of the Science Education Tracker study in England (Matthews et al., 2017).

One week after the original invitation was sent, a second letter addressed directly to the teen was sent asking them again to participate. Two weeks later, interviewers attempted to complete a CATI interview with teens where the parents provided a phone number. If the parent provided permission to text a teen's cell phone, a reminder text was sent at least three days before the CATI follow-ups began.

As part of this pilot, we also introduced a permission refusal conversion follow-up for parents who initially refused to provide permission for their teens. Following the completion of the adult survey, the same double envelope was mailed to refusing households. The letter stressed the importance of their teen's participation in CHIS and asked them to reconsider. After reiterating the benefits as well as the teen incentive, we also offered the parent a \$10 post-completion incentive as well. If they now agreed to let their teen participate, they were instructed to provide the enclosed sealed envelope to their teen. No additional follow-up mailings were sent to households who initially refused permission.

One experimental condition we implemented for teen permission was the inclusion of a parental incentive during the initial permission request in addition to an increased parental incentive during the permission refusal conversion follow-up. For a random half-sample, we offered a \$10 check to the parent if they provided permission for their teen to participate and was not contingent on their teen completing the survey. This incentive was provided to the parent as part of the enclosed envelope invitation. If the parent refused permission, the incentive was increased to \$20 in the permission refusal conversion mailing but was now contingent on the teen completing the survey.

If the parent completed the interview by phone and had a sampled teen, CATI interviewers attempted to obtain a response from the sampled teen following the standard CATI protocols employed by CHIS. No attempt to invite the teen to complete the web survey was attempted for these cases. This choice is based on a desire to preserve the CATI protocols currently in place and not disrupt the broader data collection via CATI. The same permission refusal conversion follow-up mailing with the \$10 parental incentive was sent to parents who initially refused to give their teen permission to participate over the phone.

Figure 4 summarizes the various contact approaches and experimental conditions for teen permission and data collection.

Spanish dominant mailings

To encourage more Spanish completes on the web, we wanted to mail Spanish prominent materials to households likely to have native Spanish speakers. To test the effectiveness of Spanish dominant materials over standard English materials with a multilingual insert, we targeted sample in high density Latino communities defined as Census blocks with at least 70% Latinos. We divided that sample (n = 3,948) into two experimental conditions where one group would receive the standard English materials (i.e., English dominant) and the second group would receive Spanish dominant materials.

The Spanish dominant materials include an envelope with a bilingual Spanish/English greeting boxed prominently in the lower left hand corner which read:

Su salud y su opinión importan.
Responda hoy.

Your health and opinion matter.
Respond today.

The invitation letter was also bilingual with the Spanish and English letters and FAQs printed on an 11 x 17 sheet and folded as a booklet. The materials were printed and folded in a way so that the Spanish language materials would be displayed first upon opening the envelope. The Spanish dominant envelope and letter are included in Appendix A.

Overall experimental conditions

Given the multiple experiments being conducted during the pilot, we crossed the three main experiments (the within-household selection experiment, child-first experiment, and parental incentive experiment) resulting in 8 possible combinations with 3,500 sample cases in each experiment condition combination. Given the Spanish dominant experiment only applies to a subset of cases, that experimental condition was randomized across the eligible cases across the 8 possible condition combinations.

Results

Adult response rates

Statewide we achieved 2,467 completes – a completion rate of 8.8% – with 2,042 completed via web and 425 completed via CATI. The total weighted response rate was 14.3% (see Table 2). Across the 44 strata, response rates ranged from 5.0% in Imperial County to 39.1% in Sonoma County. If we compare pilot response rates to CHIS 2017 (see Figures 5 and 6), we see the largest improvement in the San Francisco Bay area. While there are definite improvements in response rates in the San Joaquin Valley and Southern California, they still represent the more difficult areas to obtain responses.

The listed Korean/Vietnamese and Spanish surname samples (making up 10% of the total sample) yielded a slightly lower completion rate (8.2%) compared to ABS (9.0%). The Korean/Vietnamese surname/ethnic list frame (505 sample cases, or 18% of the listed sample) brought in 55 completes (10.9% completion rate) while the Spanish surname list frame (2,295 sample cases, of 82% of the listed sample) brought in 174 completes (7.6% completion rate). However, each list frame brought in slightly different groups of people. Among the Korean/Vietnamese sub-sample, approximately 95% completed the survey via web with a majority of them identifying as foreign-born (~65%), Asian (~90%), age 40 years or above (~85%), and have had some college education or more (~90%). Additionally, about 60% of the sample spoke English only or spoke English very well. For the Spanish surname sub-sample, 80% completed the survey online with similar distributions by age and education as the Korean/Vietnamese sample. However, only 60% identified as Hispanic, about 80% spoke English only or very well, and 30% of the sample is foreign born. This suggests strong differences in the types of individuals obtained by the two frames with the Korean/Vietnamese frame obtaining far more immigrants with low English proficiency than the Spanish frame, which consisted of more English proficient, US-born Latinos.

Over 17% of the completed interviews were obtained via CATI (see Figures 7 and 8). Nearly 42% of CATI completes were from inbound calls primarily occurring prior to the beginning of CATI data collection. Only 55 non-English interviews were completed. Of those 55 interviews, 51 were completed in Spanish with two-thirds completing over the web. In-language completes comprised only 4.9% of CATI completes (4.0% Spanish, 0.9% Asian), but only 2.2% of total completes (2.1% Spanish, 0.2% Asian),

which is a large drop from CATI production which saw 11.4% in the last full cycle (2015-2016) with 9.0% Spanish and 2.4% Asian.

In addition, adult web interviews (not including the screener) took 8 less minutes on average compared to CATI interviews in the experiment (31.7 minutes vs. 41.5 minutes, respectively). Child surveys took much shorter than historical CATI times (12.4 minutes vs. 19.3 minutes in CHIS 2017) as well as teen surveys (20.7 minutes vs. 24.7 minutes in CHIS 2017).

Within-household selection experiment

The total sample was equally divided into two within-household selection methods: (1) next birthday, and (2) next birthday with confirmation. The confirmation method obtained significantly less completes ($p < 0.05$) than without the confirmation question dropping from a 9.2% completion rate to 8.4% as well as a 14.7% weighted response rate down to 13.8% (see Table 3).

In order to assess the accuracy of both within-household selection methods, we used information from the adult household roster collected in Section G of the survey. However, this method is not without error as we did not force respondents to answer questions about all of their household members. This resulted in about 14% missing data across the two methods for at least one adult household member. In addition, we attempted to avoid asking for full birthdates opting for only birth month and year. This created a second problem where the accuracy of selection could not be determined due to either 1) two household members having the same birth month, or 2) at least one household member having a birth month during the interview month. This resulted in an additional 17% being unclassified.

When comparing within-household selection accuracy by number of adults in the household (excluding households that could not be classified), we found that the percentage of inaccurate cases and number of adults are positively correlated (see Table 4). The next birthday with confirmation method performed the best with only 16% households classified as inaccurate across all household sizes and 23% across all households with 2 or more persons. Conversely without the confirmation question, we see 29% across all households and 39% for 2+ person households. This difference in accuracy is statistically significant ($p < 0.0001$).

The best performer of the two selection methods in terms of accuracy of was definitely the next birthday with confirmation, but this improvement comes at the cost of lower response rates.

Spanish dominant mail materials experiment

Both the Spanish and English dominant conditions saw similar completion rates (4.1% and 4.4% respectively) regardless of survey language, but were less than half compared to the remainder (9.6%) (see Table 5). The Spanish dominant mailing resulted in 8 Spanish web completes (13.1% of web completes) with an additional 3 Spanish CATI completes resulting in 13.8% Spanish completes overall in the experimental condition. The English dominant mailing saw less Spanish web completes (5; 7.2% of web completes) and less Spanish completes overall (8.0% of web completes in the experimental condition). While there are more Spanish completes in the Spanish dominant condition, the difference is not statistically significant ($p > 0.20$).

Child response rates

During the experiment, there were 349 eligible children total (see Table 6). This resulted in a rate of 14.8% eligible child per adult complete, very similar to production CHIS. Of the 349 eligible children, 253

child surveys were completed all via the web with an additional 10 child surveys completed via CATI resulting in a completion rate of 72.1% overall. The total weighted response rate for child interviews was 75.1%. The combined child response rate for the CHIS 2017 cycle was 63.7%, which is significantly lower to the overall experiment response rate. This increase in response rate is due to the child-first experiment discussed below.

Child-first experiment

The child-first condition saw 184 eligible children and resulted in 148 web completes (150 completes overall) which translates to an 81.5% completion rate (see Table 7). This is a large and statistically significant ($p < 0.0001$) improvement over the adult-first condition which saw 194 eligible children, 105 web completes, and 113 completes overall resulting in a 58.2% completion rate. This translates to 40% more child completes. This results in the child-first condition having a 20 percentage point lead over the adult-first conditional response rate at 86.0% compared to 64.2%. The current CHIS design observed a 63.7% conditional response rate for child interviews in 2017.

Examining the adult completes, we see that those assigned to the adult-first condition had virtually the same number of completes as the child-first condition (1,231 and 1,236, respectively). Looking at adult survey breakoffs, there is no significant difference in the number of adult breakoffs for the two conditions. Breakoffs that happen earlier during spouse and child rostering at the end of Section A for the child-first conditions happen at a very similar rate when presented later in Section G for the adult-first condition.

Teen response rates

Statewide 297 teens were eligible to participate in the survey. The initial permission rate (before the refusal conversion follow-up) was 51.2% (151 teen permission) compared to 26.3% from CHIS 2017 (see Table 8a). Of the 151 teens we received permission to survey, 72 resulted in a completed interview (1 via CATI) averaging a 47.7% completion rate (see Table 8b). This resulted in a weighted response rate of 23.9% across the experiment, on par with the 23.4% response rate from CHIS 2017 production. So while the experiment saw a much higher permission rate than production, it also saw a much lower completion rate (cooperation rate in production) which resulted in comparable response rates. This trades the large historic permission problem from RDD/CATI for a more balanced problem between permission and cooperation.

Once including the permission refusal conversion follow-up for teens we gain an additional 13 interviews resulting in a total of 85 completed interviews (see Table 8c). This increases the final permission rate up to 55.2%, the completion up to 51.8%, and a weighted response rate of 27.8%. Additional insights on the parental incentive experiment are discussed below.

One key difference we found was the difference in the rate of eligibility, permission, and completion rates by survey mode (see Table 9). We do not account for permission refusal conversion responses in this analysis. Adult web respondents were much more likely to have an eligible teen over CATI respondents (13.1% vs. 6.6%), the former rate consistent with historical CHIS. The significantly reduced CATI eligibility in the pilot makes sense given the older, childless households obtained by CATI (for more details, see the following section evaluating key indicators). The permission rate for parents completing over CATI was much more in line with current CHIS numbers at 32.1% compared to the significantly higher 52.8% on the web ($p < 0.05$). The completion rate was also much lower with only a single teen

complete over the phone and a 50.0% completion rate via web recruitment ($p < 0.05$). Overall we were able to achieve an interview for 26.6% of the eligible teens found by web and only 3.6% found over the phone.

Overall these results show dramatic improvements in permission and cooperation over the spring test exhibiting a superior design moving forward.

Parental permission incentive experiment

The initial results of the parental permission incentive are null with similar permission rates and completion rates for both groups before the permission refusal conversion whether including or excluding the CATI responses (see Table 10). After accounting for the permission refusal conversion, there is a significant increase in teen response for the parental incentive condition now receiving \$20 for providing permission compared to those now receiving \$10 ($p < 0.05$ with and without CATI). However when included with the previous responses, there is still no significant difference in the two experimental conditions.

In order to more fully understand where the parental incentive might have been more effective, we conducted a logistic regression with web permission as the dependent variable. As part of the logistic regression model we included a number of parental, household, and teen characteristics. For the parents, we included age (25-39, 40-49, 50+), gender, race/ethnicity (Hispanic, non-Hispanic Asian, non-Hispanic other), whether or not their spouse or partner lived in the household, education (less than college, college graduate), and whether or not they were born in the United States. The single household characteristic was poverty level (0-199% FPL, $\geq 200\%$ FPL, refused). For teen characteristics, we included only age (12-14, 15-17) and gender which were obtained from the household child roster. Finally we included an indicator for the parental permission incentive condition. Given missing values, we were left with a sample size of 212.

Two models were conducted: a main effects model and an interaction model. For the latter model, we included a number of interactions with the experiment indicator and the adult characteristics. In addition, we included interactions of parent by child characteristics. Interactions with an overall marginally significant effect ($p < 0.10$) were retained in the final interaction model.

The main effects model confirmed that the permission incentive was not a significant predictor of permission (see Table 11). When included in the interactions model, parental incentive does become a significant predictor with positive effect (weighted OR = 6.45, $p < 0.05$), though direct interpretation is discouraged given interaction effects. However the interactions become very important here. The interaction of parental incentive and single parent home has a large negative effect (weighted OR = 0.04, $p < 0.05$). The interaction of parental incentive and foreign-born status also has a large negative effect (weighted OR = 0.13, $p < 0.05$) undoing the significant positive effect of the foreign-born main effect. This means that while US born and two parent households were positively influenced by the parental incentive, single-parent and immigrant households were significantly less likely to have a positive reaction to the parental incentive.

In addition to these findings, we also found that fathers are significantly less likely to give permission for younger teens (age 12-14) controlling for gender ($p < 0.001$) and that mothers are significantly more likely to give permission for younger teens (age 12-14) controlling for gender ($p < 0.001$) and for their daughters controlling for age ($p < 0.05$).

Cost analysis

When comparing data collection costs for the experiment to the production cost of CHIS 2017-2018, we found that we spent \$192.53 per complete on the experiment compared to \$313.23 per complete for production – a 39% decrease in cost per complete. The largest drop was in telephone labor, which fell almost 90% from production. This is a meaningful and sizable difference given CATI labor accounts for nearly 75% of our production data collection cost per complete. This tremendous gain is offset by the dramatic increase in postage and printing costs for the experiment, nearly 2.5 times that of production. However, postage and printing costs are less than 60% of the experiment cost per complete.

It should be noted that this cost benefit may erode over time if response rates continue to decline in future cycles. Unfortunately there are no good longitudinal data available on push-to-web response rates to estimate these declines. We expect general survey reluctance to continue to increase over time, but hopefully not at the same rate as CATI. These cost benefits may also lessen depending on future changes to the sample design if CHIS works on targeting key, hard-to-reach demographic populations in the sample.

Evaluation of key indicators

In order to evaluate the differences in key estimates between the experimental design and production, we conducted two analyses to measure the difference between (1) the experimental respondents and control production data, and (2) the web respondents and the CATI respondents within the experiment. Differences in mode can occur for a variety of reasons including the presence or absence of an interviewer, sampling frame differences, acquiescence, primacy versus recency effects, etc. (e.g., Christian et al., 2008; Ye et al., 2011; Pew Research Center, 2015; Sarracino et al., 2017). While this analysis does not intend to determine which is the causal factor, it is important to know how and where such sample design and mode effects are occurring.

A total of 26 measures were examined across multiple interest areas including socio-demographic (e.g., age, gender, marital status, poverty status), ethnicity and language (e.g., country of birth, English proficiency, citizenship status), health outcomes (diabetes, hypertension, psychological distress), health behaviors (smoking status, e-cigarette usage), and health care access (insurance status, delays in care). Due to the number of multiple comparisons, we recommend evaluating the significance of differences at a minimum of $\alpha = 0.001$.

Comparisons were conducted on both the unweighted and weighted estimates. Unweighted estimates allow us to better compare the raw populations between RDD/CATI and the ABS push-to-web design. Because we are comparing to CHIS 2017, it is important to remind the reader that there are significant lower rates of Asian in CHIS 2017 due to the delayed start of Asian in-language interviews. This may also have indirect impacts on raw distributions like citizenship. Weighted estimates provide insights into how trends may change from CHIS 2017-2018 to CHIS 2019-2020. Examining weighted estimates will hide some differences for variables that are used in weighting including gender, age, race, and education.

The first analysis compared the experimental estimates with the CHIS 2017 statewide production data³ (n = 21,153). Examining the unweighted estimates (see Table 12 and Figure 9), we see significant

³ Ideally we would have compared the experiment data to CHIS 2018. However, CHIS 2018 data, along with its associated weights, will not be available until the latter half of the year.

differences for all socio-demographic variables ($p < 0.0001$) with the exception of gender identity. A primary driver of those differences is the increase in middle aged respondents (age 40-64). The increased number of married respondents, those with children, college graduates, and those with $>300\%$ FPL all have a strong relationship with obtaining younger respondents. In addition, we see more of Asian descent and Asian-born, more English proficient, and more US-born citizens. Self-rated health and hypertension were the only health outcomes with significant differences ($p < 0.0001$). For health behaviors and health care, the experiment obtained less smokers, less users of e-cigarettes, and more insured compared to CHIS 2017 ($p < 0.0001$).

Once we include weighting, a number of the differences between the pilot and production go away (see Table 12 and Figure 10). Age, marital status, and racial differences are no longer significant, primarily in thanks to those variables being included as weighting dimensions. Poverty status comes much more in line with CHIS 2017. However, there continue to be fewer single person households, fewer individuals with less than a high school education, and fewer low English proficient. Differences in health outcomes, behaviors, and health care access all come more into line with historic estimates after weighting, though there is moderate evidence for more with psychological distress.

The second analysis compares the key indicators of web respondents to CATI respondents within the experimental data. As expected there are a number of differences in the unweighted estimates related to age, family type, education, poverty status, and race/ethnicity (see Table 13 and Figure 11). The large increases in those age 65+ (primarily from inbound calling) did a lot to help balance the age distribution for the pilot along with age correlated variables like marital status, presence of children in the home, and education. We also see differences in self-rated health, diabetes, and hypertension which are also highly correlated with age where the web over-represents ages 25-64. No other health estimates show significant differences between web and CATI respondents. Weighted estimates have similar patterns with more parity between modes in presence of children in the home, race/ethnicity, and poverty status (see Figure 12).

Discussion and Conclusions

Overall we consider the results of this experiment very encouraging. The ABS push-to-web with CATI follow-up design resulted in higher response rates across the state compared to production CHIS and resulted in significantly lower data collection costs per complete. While the web sample encouraged more response from younger and healthier respondents, we found that the inclusion of the CATI follow-up balanced the web sample by increasing response for older, less healthy adults. The inclusion of a confirmation question in the web screener greatly improved our ability to survey the selected adult in the household. Spanish dominant mailings to high density Latino communities resulted in a non-zero, but not a statistically significant, increase in Spanish completes.

The child-first ordering resulted in a higher number of child completes without compromising the number of adult completes. This experiment was a resounding success and should be implemented in future iterations of a CHIS push-to-web design. Projections suggest that CHIS could see nearly a 50% increase in child interviews for CHIS 2019-2020 compared to CHIS 2017-2018.

Regarding teens, the enclosed mailing approach with the \$10 conditional incentive teens was effective at obtaining teen completes and produced similar response rates to current production – a marked improvement from the spring test approach. However an incentive for parents was not very helpful at

increasing permission or completion rates for teens and may have had a reverse effect for foreign-born and single parent households. Permission refusal conversion mailings with a \$20 incentive for parents was much more effective to obtain additional teen completes compared to a \$10 incentive. Projections suggest this current design could result in at least a 25% increase in teen completes for CHIS 2019-2020 compared to CHIS 2017-2018. Additional improvements could strengthen that growth.

These pilot results are not without red flags for future implementation in CHIS 2019-2020. Based on these results, we believe further experimental testing is needed in a number of areas. The experiment revealed that using web and CATI seemed to obtain a slightly different population than CATI alone. As anticipated based on previous literature and research, our final sample had less foreign born, less non-English speaker, more highly educated, and more affluent respondents. Improved language capabilities (e.g., expanding to Chinese, Korean, and Vietnamese) for the web instrument may help to increase the representation for some of these groups. Foreign-born, non-English speaking Latinos continue to be a difficult and underrepresented group in CHIS which may be exacerbated by the transition to ABS push-to-web. Low literacy rates (both in English and Spanish) for this group make self-administered surveys difficult. In addition, Latinos have a higher ownership of cell phones, which are disproportionately excluded from telephone merging to ABS frames necessary for CATI nonresponse follow-up. New and innovative sampling and contact methods should be considered to help represent this group in future cycles.

The CHIS Redesign Working Group

The CHIS Redesign Working Group brought together several external survey methodology and subject matter experts to help evaluate where the CHIS could improve and innovate. The working group evaluated various frame and mode options to supplement or replace the existing data collection methodology. They were instrumental in helping to review and refine the field experiment plan and materials discussed here. The members of the CHIS Redesign Working Group include:

David Dutwin, PhD – Executive Vice President and Chief Methodologist at SSRS; President (2018-19) of the American Association for Public Opinion Research (AAPOR)

Jason Fields, PhD – Senior Researcher for the Survey of Income and Program Participation at the United States Census Bureau; formerly Survey Director of the National Survey of Children's Health (NSCH) at the United States Census Bureau

Timothy P. Johnson, PhD – Professor of Public Administration and Director of the University of Illinois at Chicago (UIC) Survey Research Laboratory; President (2017-18) of the American Association for Public Opinion Research (AAPOR)

Kristen Olson, PhD – Leland J. and Dorothy H. Olson Associate Professor and Vice Chair in the Department of Sociology at the University of Nebraska – Lincoln

Nathaniel Schenker, PhD – Retired Deputy Director of the National Center for Health Statistics (NCHS); President (2014) of the American Statistical Association (ASA)

Linette Scott, MD, MPH – Chief Medical Information Officer for the California Department of Health Care Services (DHCS)

David Takeuchi, PhD – Professor and Associate Dean for Research in the School of Social Work at Boston College

Andrew Zukerberg – Chief of the Cross-Sectional Surveys Branch at the National Center for Education Statistics (NCES)

Acknowledgements

SSRS was responsible for web instrument programming, data collection, and post-processing for this pilot experiment. SSRS is an independent research firm that specializes in innovative methodologies, optimized sample design, and reaching low-incidence populations, and was the data collection contractor for CHIS 2017-2018. CHIS would like to recognize Kathy Langdale, Susan Sherr, Darren Holden, Margie Engle-Bauer, Arina Goyle, and David Dutwin of SSRS for their hard work in making this experiment a reality.

References

- American Association for Public Opinion Research. (2016). Address-based Sampling. Report prepared for AAPOR Council by the Task Force on Address-based Sampling; R. Harter, Chair. Oakbrook Terrace, IL: AAPOR. <https://www.aapor.org/Education-Resources/Reports/Address-based-Sampling.aspx>.
- American Association for Public Opinion Research. (2017). The Future of U.S. General Population Telephone Survey Research. Report of the AAPOR Task Force on the Future of U.S. General Population Telephone Survey Research; P. Lavrakas, Chair. Oakbrook Terrace, IL: AAPOR. <https://www.aapor.org/Education-Resources/Reports/The-Future-Of-U-S-General-Population-Telephone-Sur.aspx>.
- Battaglia, M. P., Dillman, D. A., Frankel, M. R., Harter, R., Buskirk, T. D., Mcphee, C. B., . . . Yancey, T. (2016). Sampling, Data Collection, and Weighting Procedures for Address-Based Sample Surveys. *Journal of Survey Statistics and Methodology*, *4*(4), 476-500.
doi:10.1093/jssam/smw025
- Blumberg, S. & Luke, J. (2018). Wireless Substitution: Early Release of Estimates from the National Health Interview Survey, July–December 2017. Division of Health Interview Statistics, National Center for Health Statistics report. <https://www.cdc.gov/nchs/data/nhis/earlyrelease/wireless201806.pdf>
- Brick, J. M., Montaquila, J. M., Han, D., & Williams, D. (2012). Improving response rates for Spanish speakers in two-phase mail surveys. *Public Opinion Quarterly*, *76*(4), 721-732.
- Caporaso, A., Cantor, D., Maitland, A., & Hesse, B. (2013, May). *An experiment to improve Spanish language response rates to a mail questionnaire*. Poster presented at the 68th Annual Conference of the American Association for Public Opinion Research, Boston, MA.
- Christian, L.M., Dillman, D., & Smyth, J.D. (2008). The effects of mode and format on answers to scalar questions in telephone and web surveys. In *Advances in telephone survey methodology*. Edited by Lepkowski, J.M., Tucker, C., Brick, J.M., De Leeuw, E., Japiec, L., Lavrakas, P.J. Hoboken, NJ: Wiley: 250–275. 20.
- de Leeuw, E.D. (2005). To mix or not to mix data collection modes in surveys. *Journal of Official Statistics*, *21*(2), 233–255.

- de Leeuw, E.D. (2018). Mixed-mode: Past, present, and future. *Survey Research Methods*, 12(2), 75-89.
doi:10.18148/srm/2018.v12i2.7402
- Dillman, D. A. (2017). The promise and challenge of pushing respondents to the Web in mixed-mode surveys. *Survey Methodology*, 43(1), 3-30.
- Dillman, D., Smyth, J.D., & Christian, L.M. (2014). *Internet, phone, mail, and mixed-mode surveys: The tailored design method*. Hoboken, New Jersey: John Wiley & Sons, Inc.
- Dutwin, D. & Lavrakas, P. (2016). Trends in telephone outcomes, 2008-2015. *Survey Practice*, 9(3).
Available at <http://www.surveypractice.org/>.
- Groves, R. M., Presser, S., & Dipko, S. (2004). The role of topic interest in survey participation decisions. *Public Opinion Quarterly*, 68(1), 2-31.
- Hoebel, J., von der Lippe, E., Lange, C., & Ziese, T. (2014). Mode differences in a mixed-mode health interview survey among adults. *Archives of Public Health*, 72, 46. <http://doi.org/10.1186/2049-3258-72-46>
- Johnson, P. S., & Williams, D. (2010). Comparing ABS vs. Landline RDD Sampling Frames on the Phone Mode. *Survey Practice*, 3(3), 1-10. doi:10.29115/sp-2010-0012.
- Matthews, P., Fahliogullari, S., & Bell, E. (2017, July). *Successfully surveying young people online*. Paper presented at the 7th Conference of the European Survey Research Association, Lisbon, Portugal.
- McGovern, P. D. (2004). A quality assessment of data collected in the American Community Survey (ACS) from households with low English proficiency. Survey Methodology Series #2004-1. Washington, DC: U.S. Census Bureau.
- Newsome, J., McNulty, J. A., & Levin, K. (2017, May). *Reaching out to Spanish-speaking respondents in an IRS household survey*. Paper presented at the 72nd Annual Conference of the American Association for Public Opinion Research, New Orleans, LA.
- Olson, K. & Smyth, J. D. (2017). Within-household selection in mail surveys: Explicit questions are better than cover letter instructions. *Public Opinion Quarterly*, 81(3), p. 688-713.
- Pew Research Center. (2012, May 15). Assessing the representativeness of public opinion surveys. Retrieved September 28, 2018, from <http://www.people-press.org/2012/05/15/assessing-the-representativeness-of-public-opinion-surveys/>.

- Pew Research Center. (2015, May 13). From Telephone to the Web: The Challenge of Mode of Interview Effects in Public Opinion Polls. Retrieved September 16, 2018, from <http://www.pewresearch.org/2015/05/13/from-telephone-to-the-web-the-challenge-of-mode-of-interview-effects-in-public-opinion-polls/>
- Sarracino, F., Riillo, C. A. F., & Mikucka, M. (2017). Comparability of web and telephone surveys for the measurement of subjective well-being. *Survey Research Methods*, 11(2), 141-169.
- Wells, B. M. (2018, May). *When design changes don't pan out: The unexpected decline in child and adolescent interviews in the California Health Interview Survey*. Poster presented at the 73rd Annual Conference of the American Association for Public Opinion Research, Denver, CO.
- Ye, C., Fulton, J., & Tourangeau, R. (2011). More positive or more extreme? A meta-analysis of mode differences in response choice. *Public Opinion Quarterly*, 75(2), 349–365.

Figures

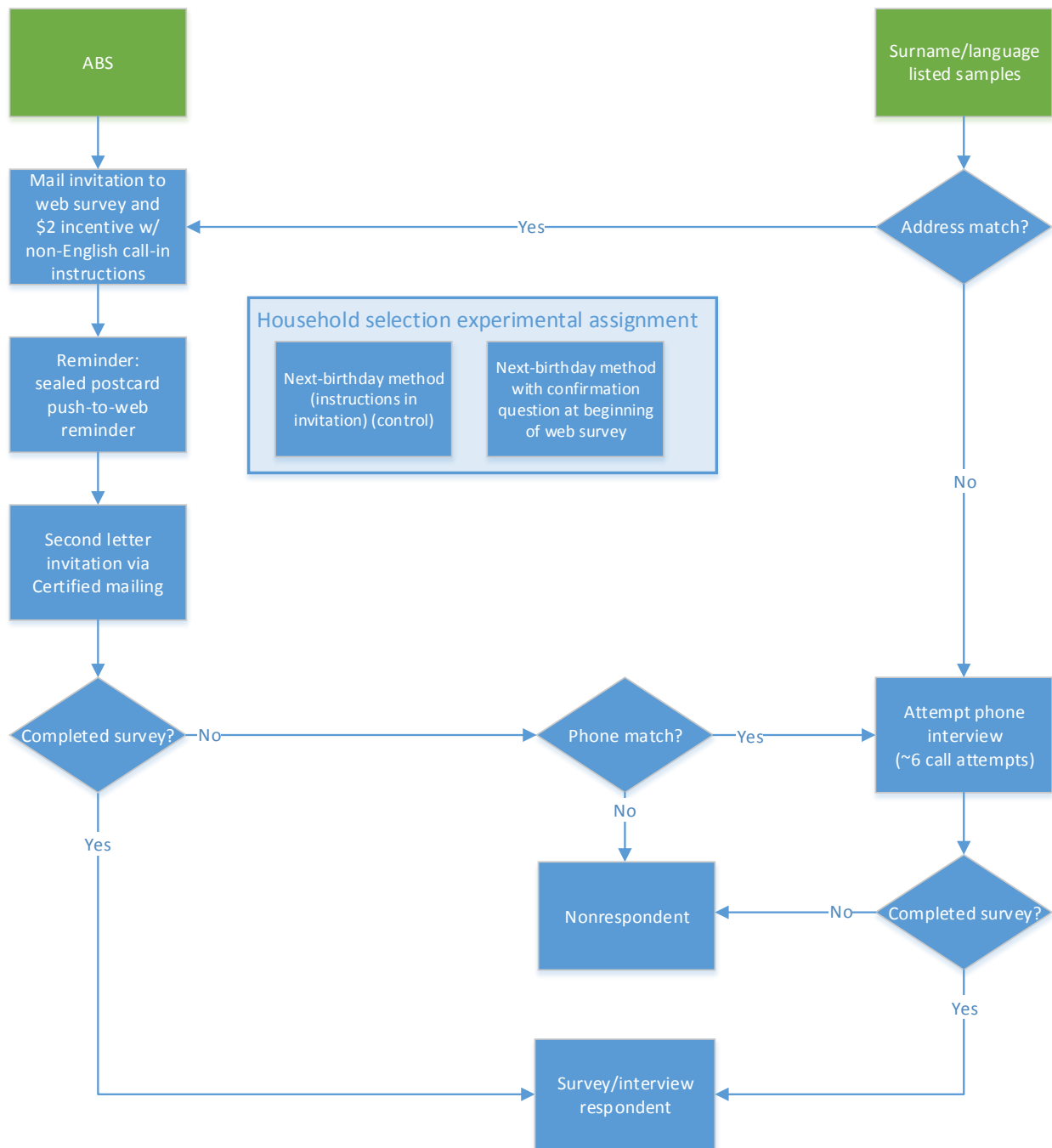


Figure 1. CHIS Fall 2018 ABS push-to-web pilot flowchart

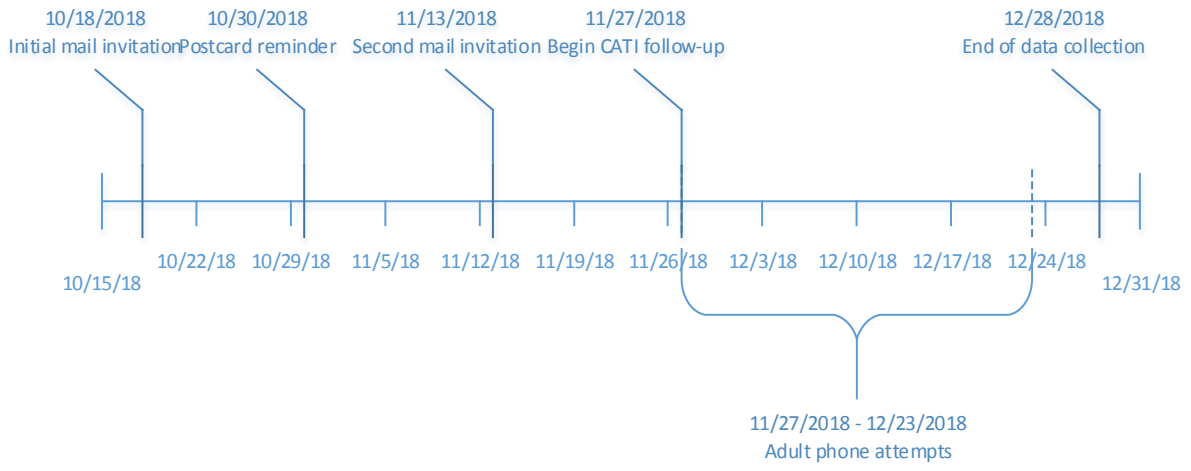


Figure 2. Final timeline for adult survey

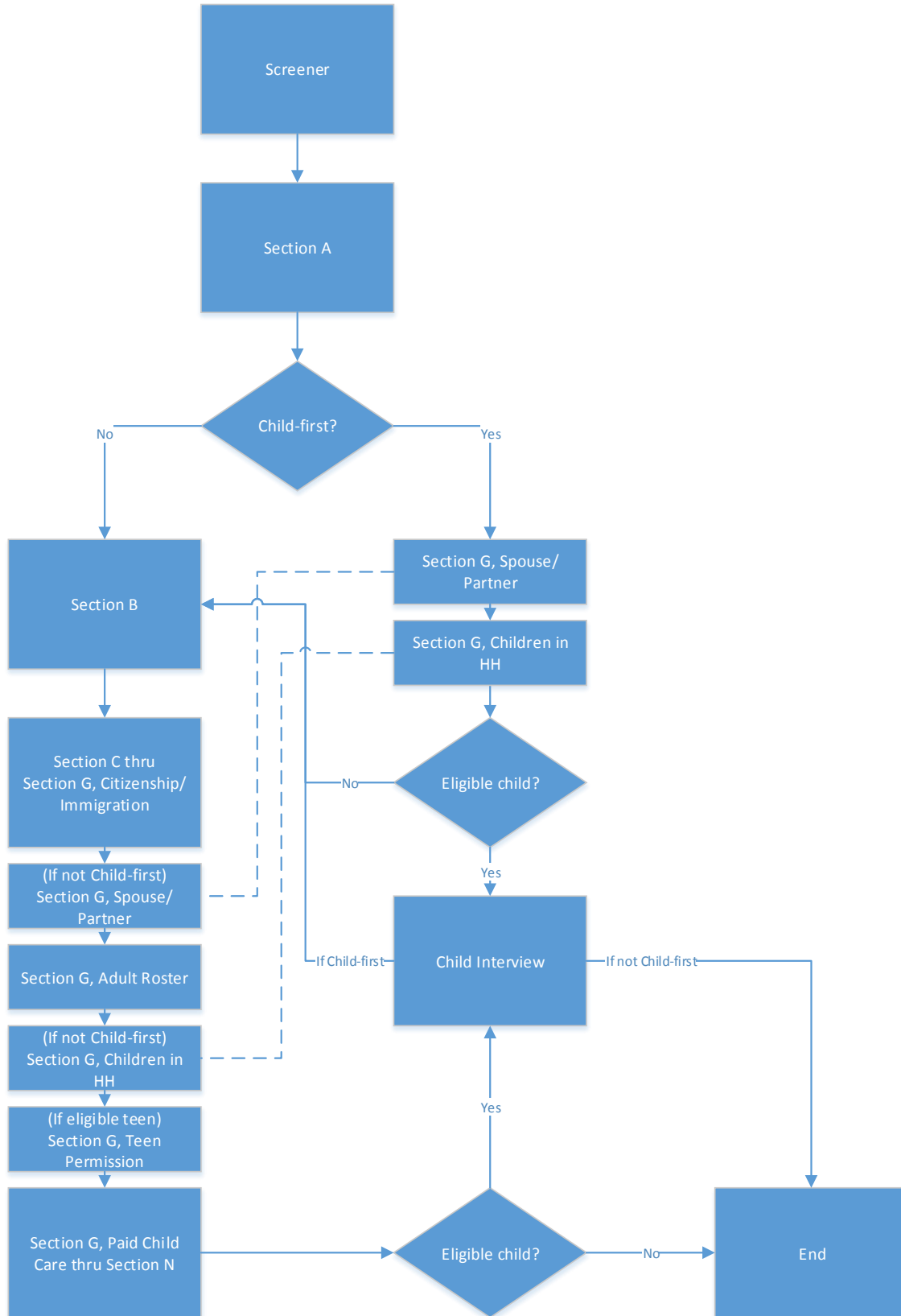


Figure 3. Child-first questionnaire flow



Figure 4. Proposed teen survey flow

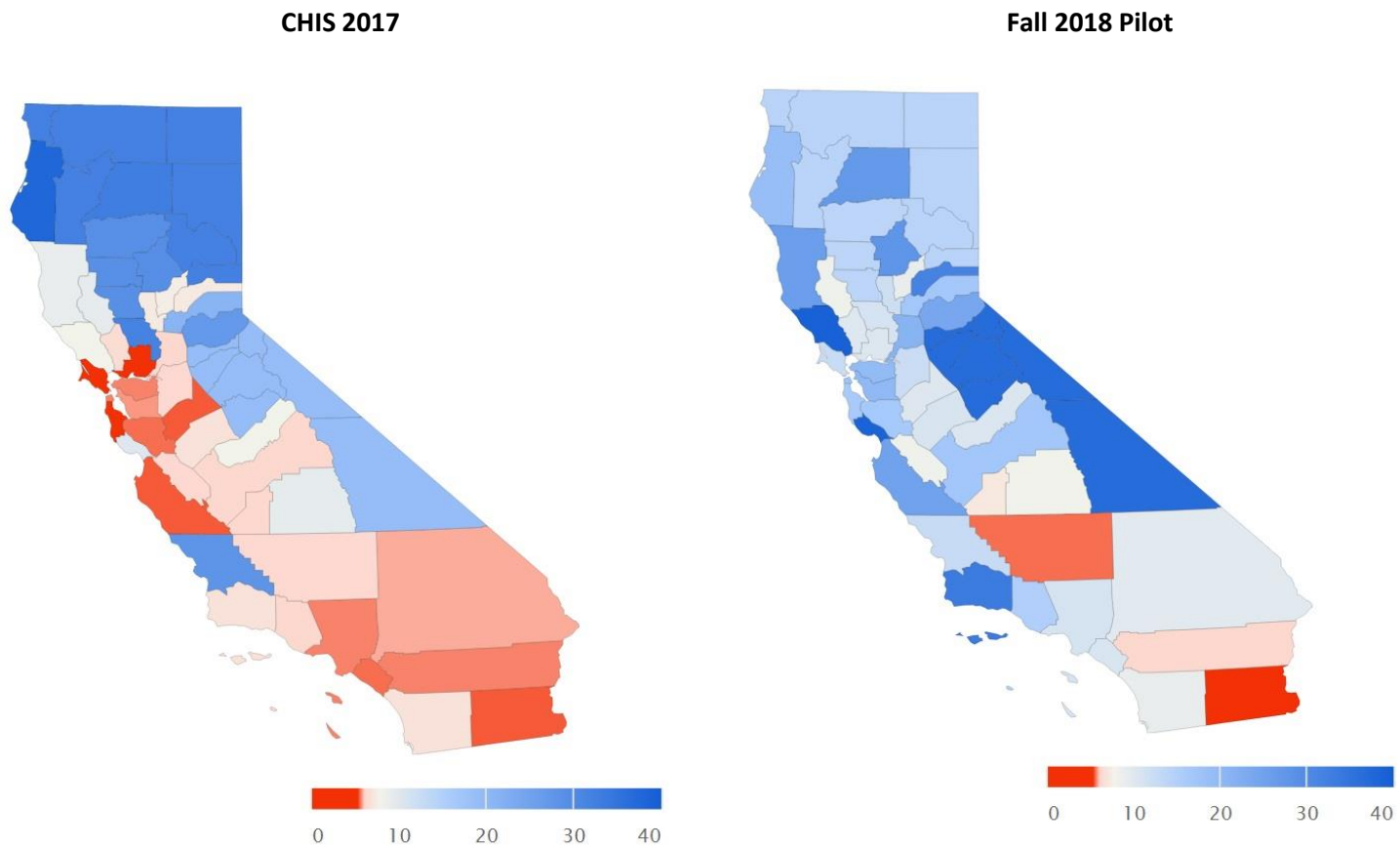


Figure 5. Map of California counties by weighted unconditional adult response rates (2017 scale). This comparison is to help illustrate improvement in response rates from the historic RDD/CATI methodology (CHIS 2017) to the ABS/push-to-web methodology (Fall 2018 Pilot). The white color represents the average response rate in CHIS 2017.

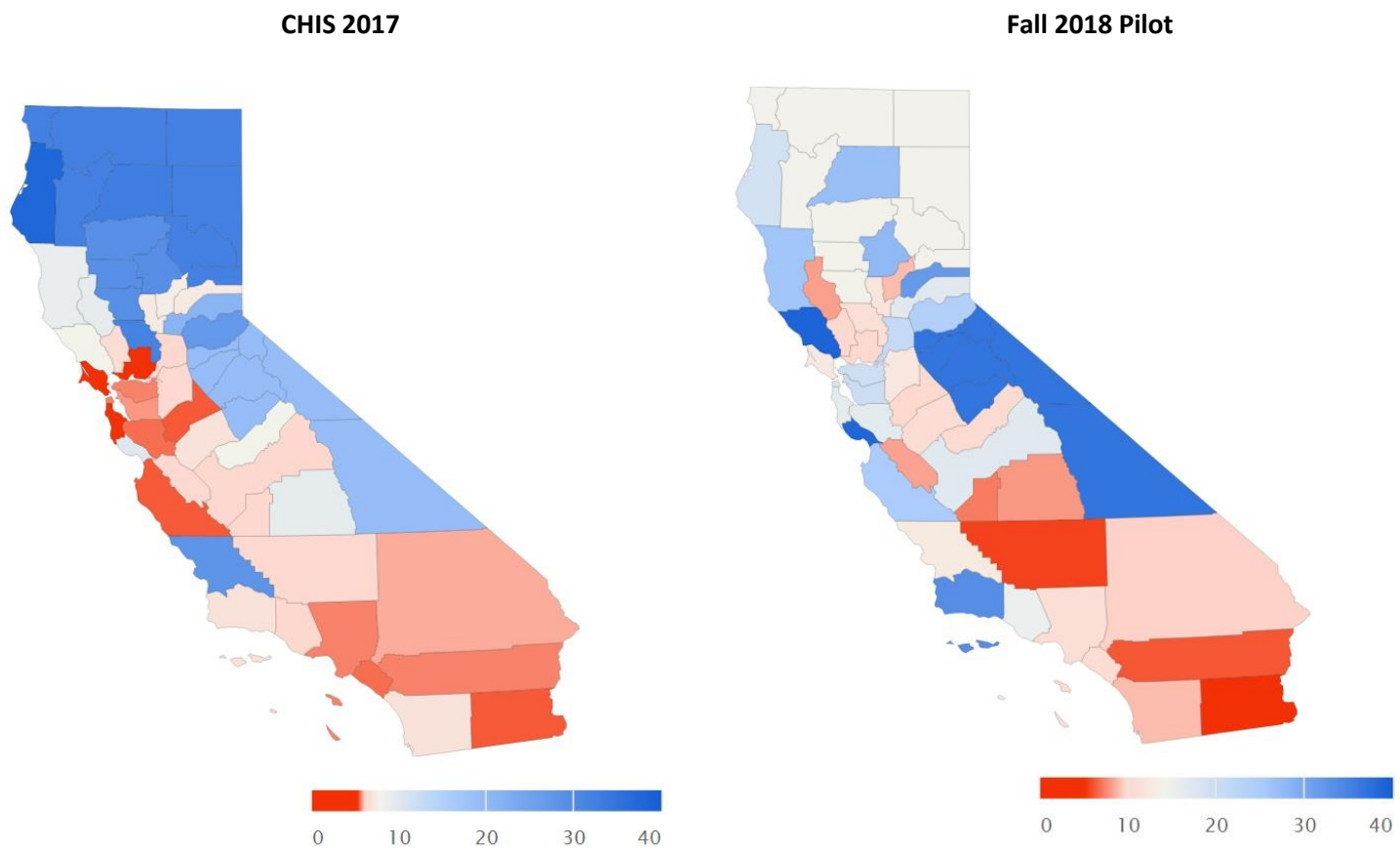


Figure 6. Map of California counties by weighted unconditional adult response rates (independent scales). This comparison is to help illustrate where the best and worst response rates are using the historic RDD/CATI methodology (CHIS 2017) and the ABS/push-to-web methodology (Fall 2018 Pilot). The white color represents the average response rate for each year/test.

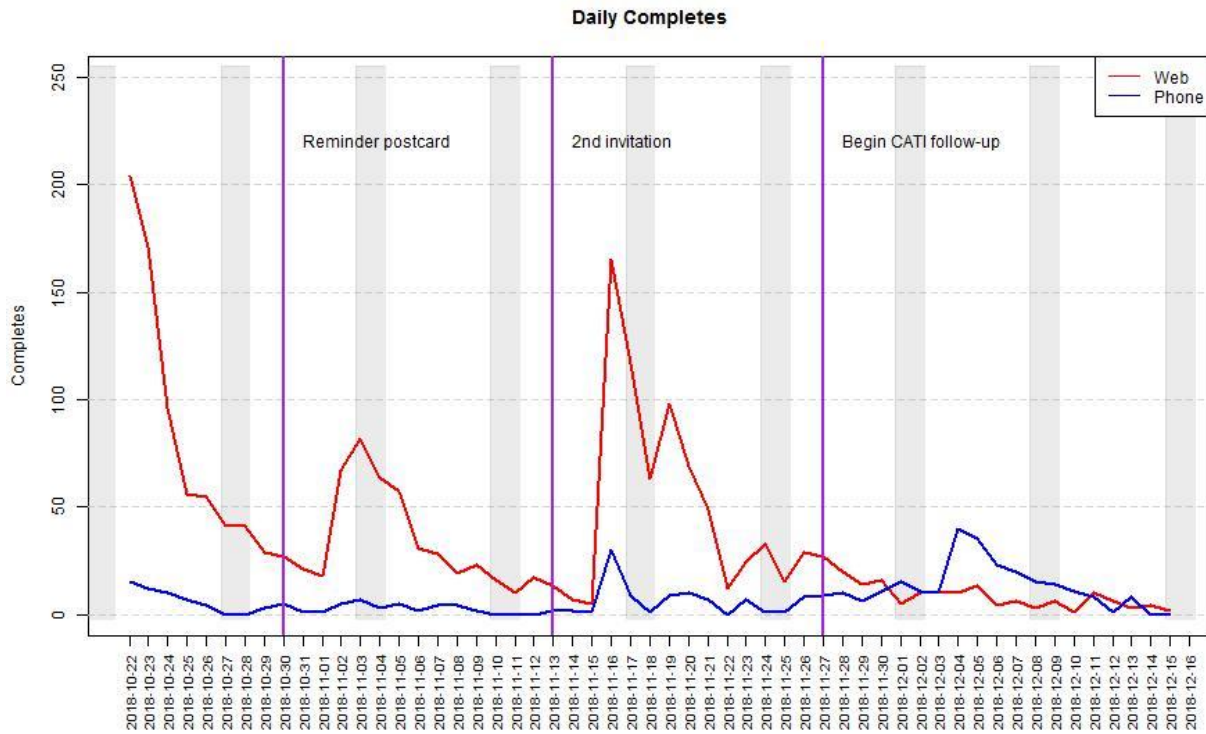


Figure 7. Daily total completes by mode

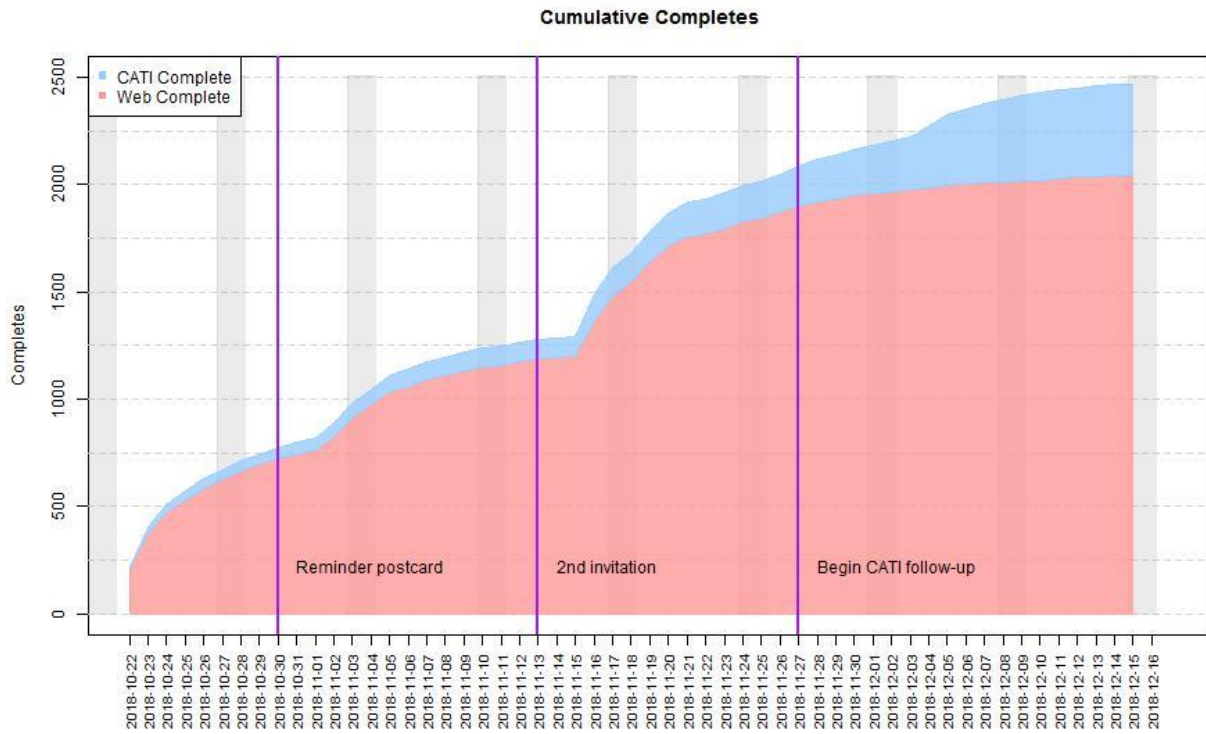


Figure 8. Cumulative total completes by mode

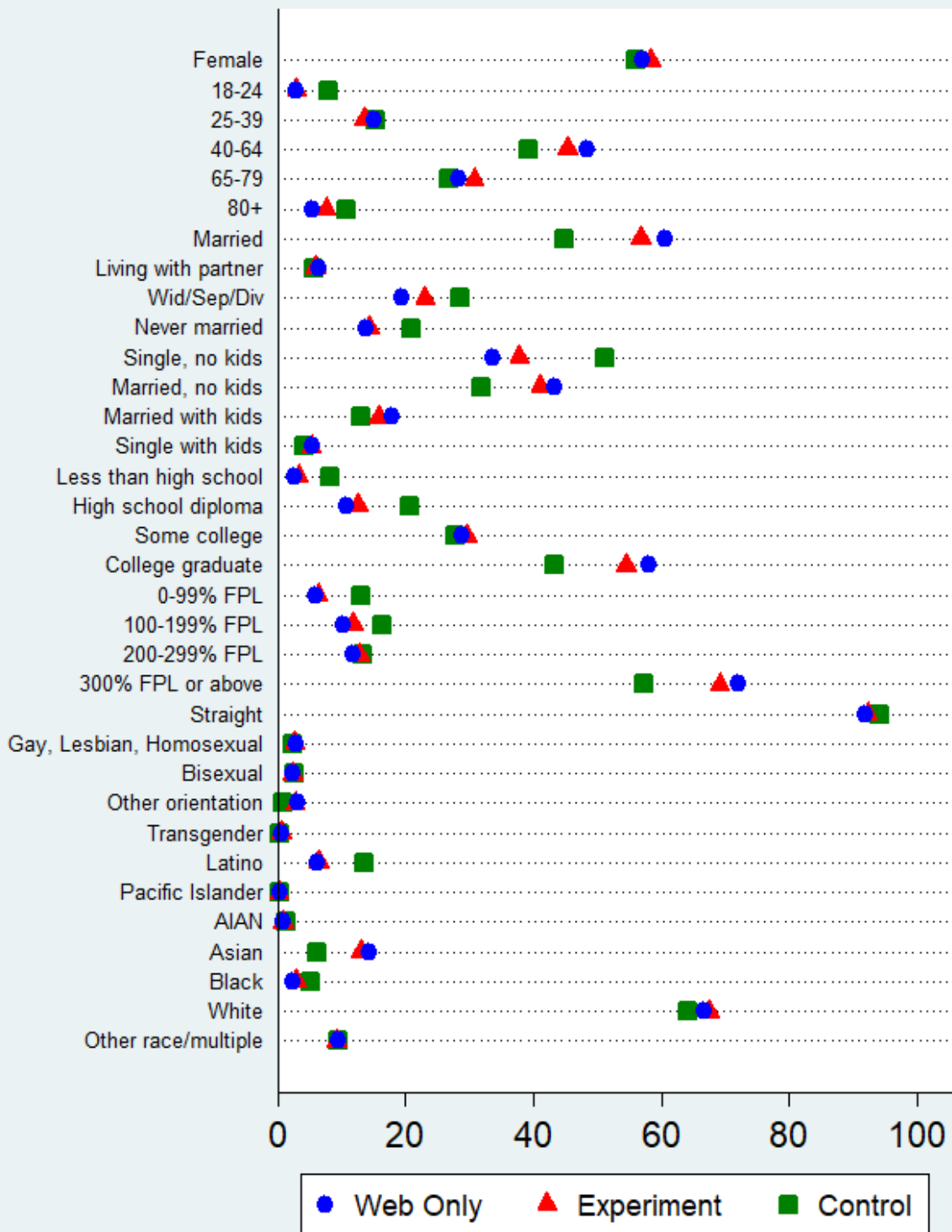


Figure 9a. Unweighted key indicator comparison for Fall web experiment

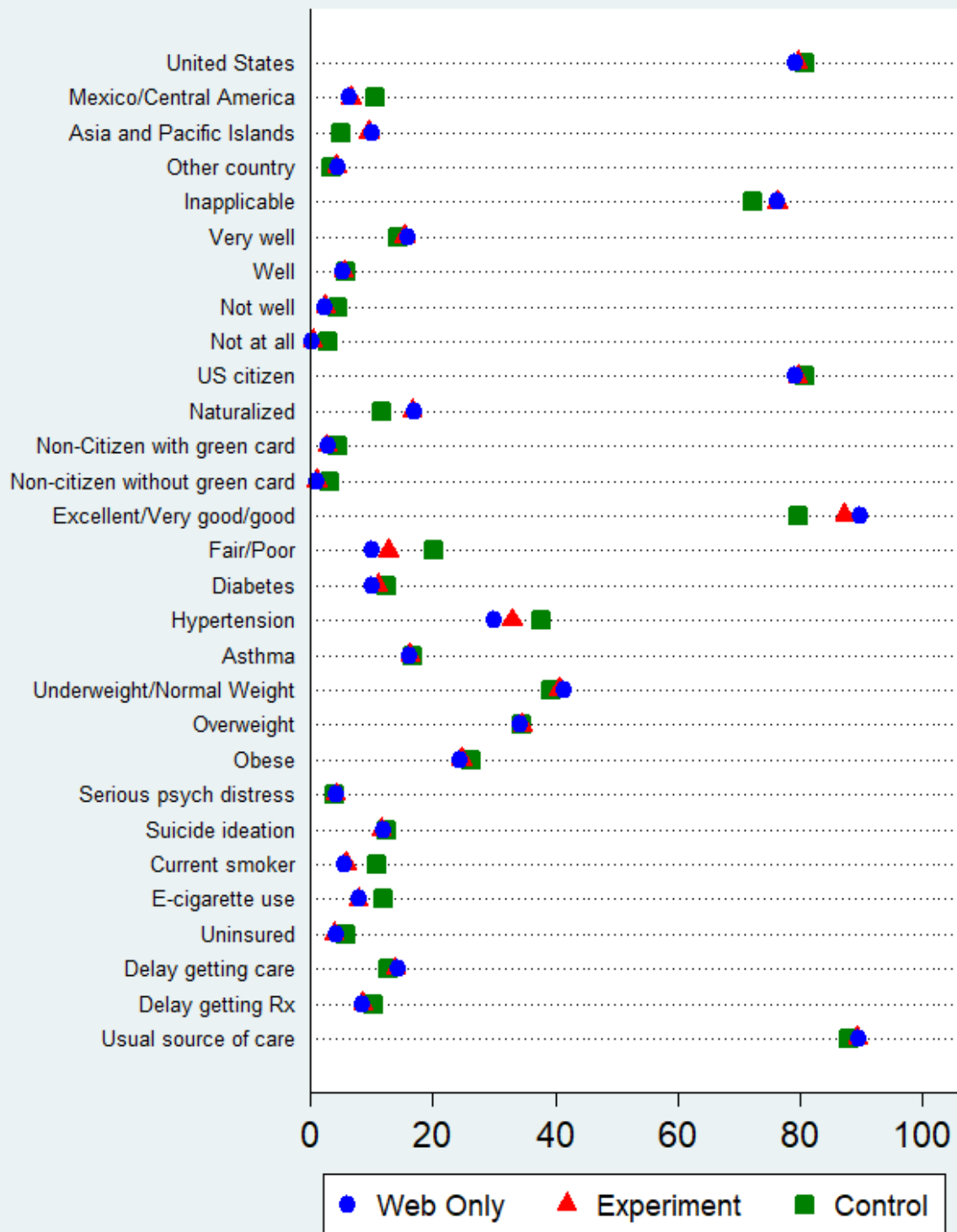


Figure 9b. Unweighted key indicator comparison for Fall web experiment (continued)



Figure 10a. Weighted key indicator comparison for Fall web experiment

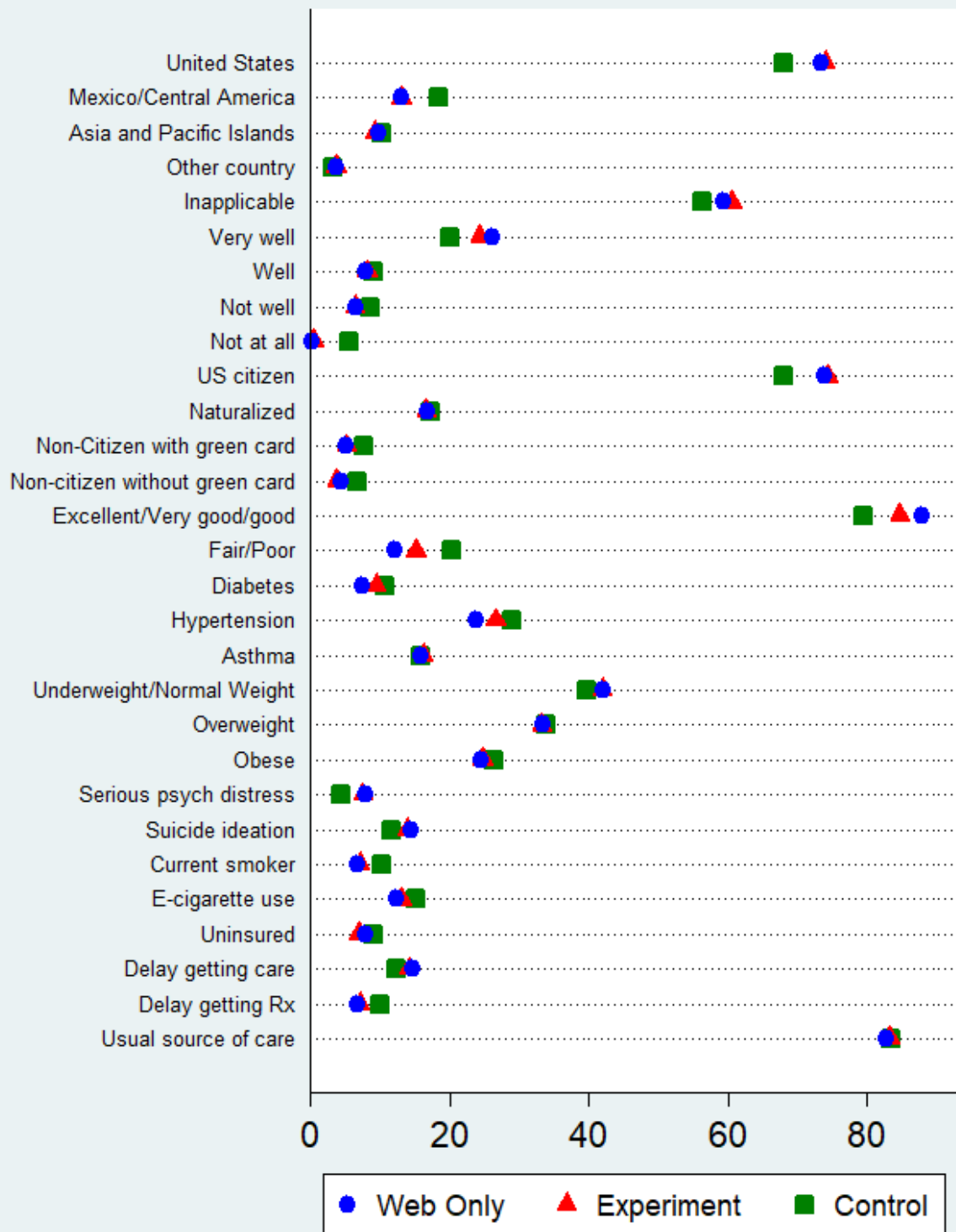


Figure 10b. Weighted key indicator comparison for Fall web experiment (continued)

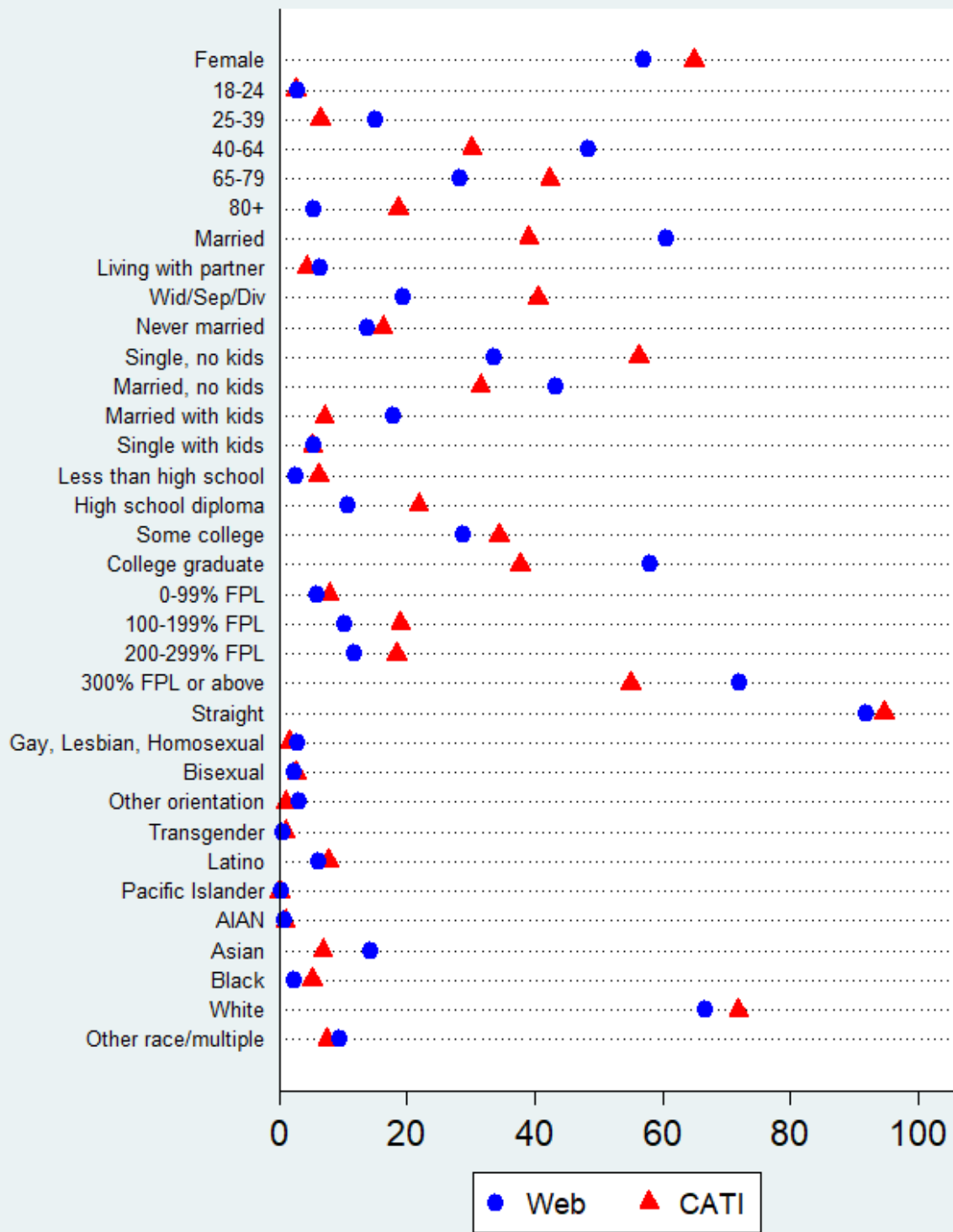


Figure 11a. Unweighted key indicator comparison by mode for experimental cases

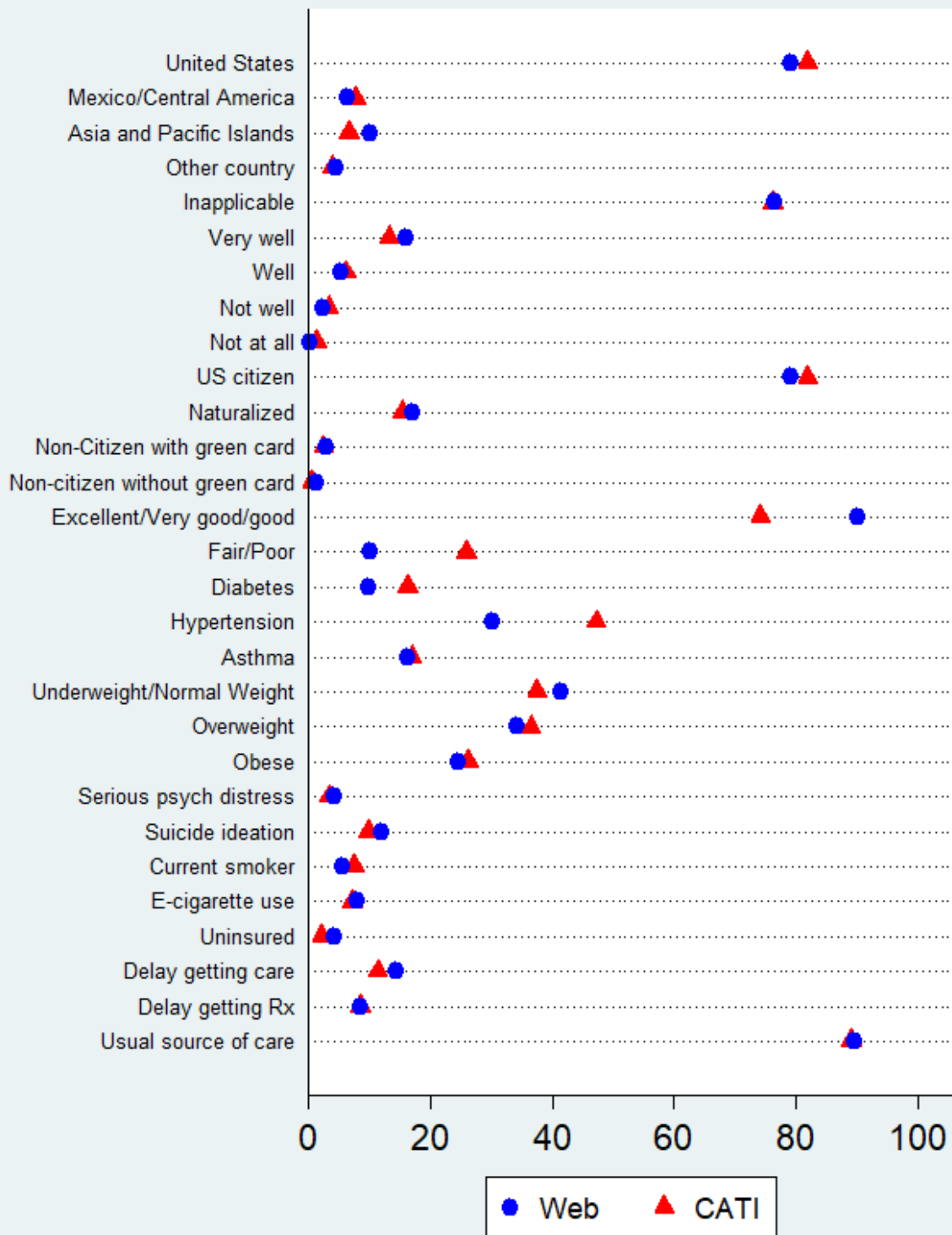


Figure 11b. Unweighted key indicator comparison by mode for experimental cases (continued)

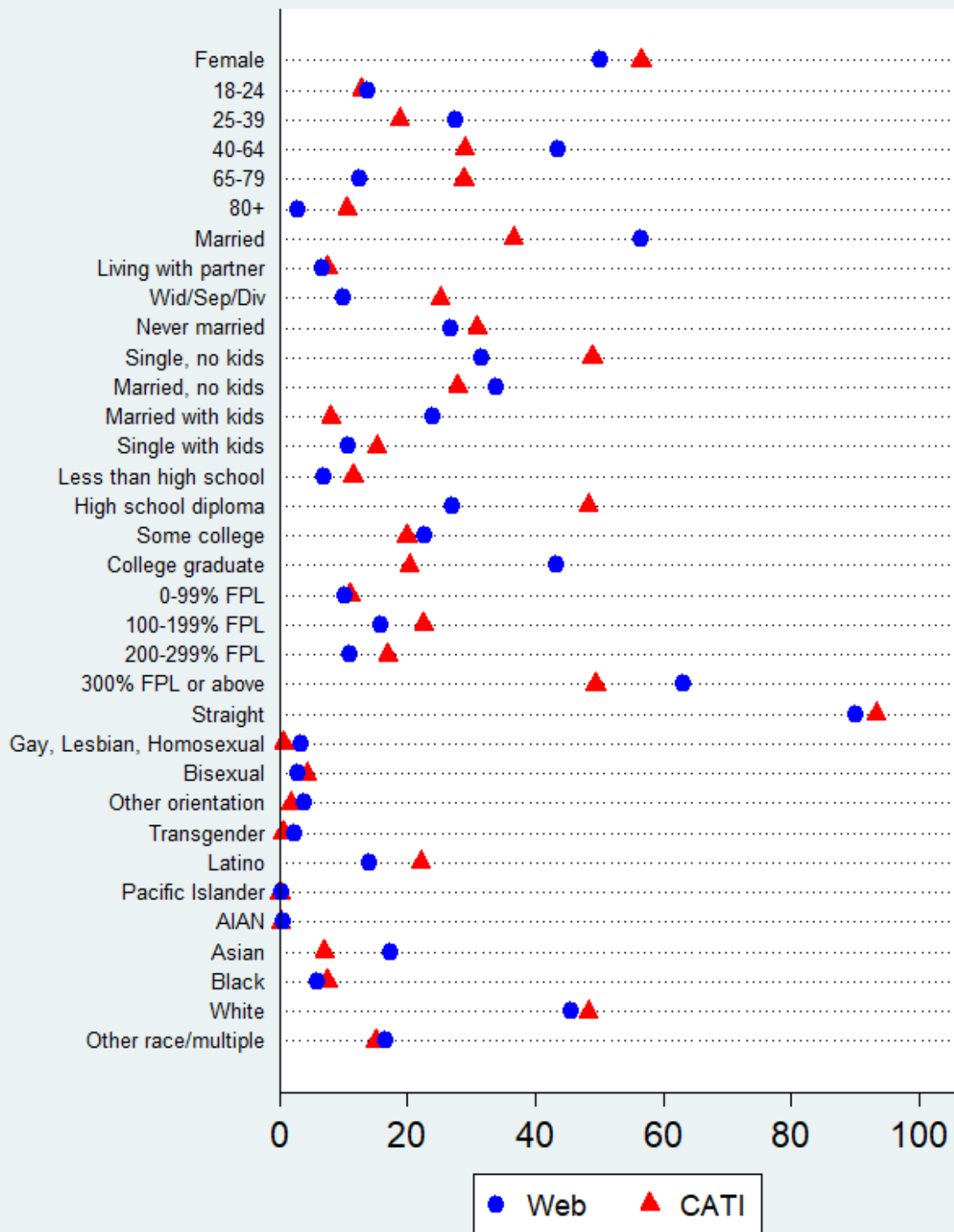


Figure 12a. Weighted key indicator comparison by mode for experimental cases

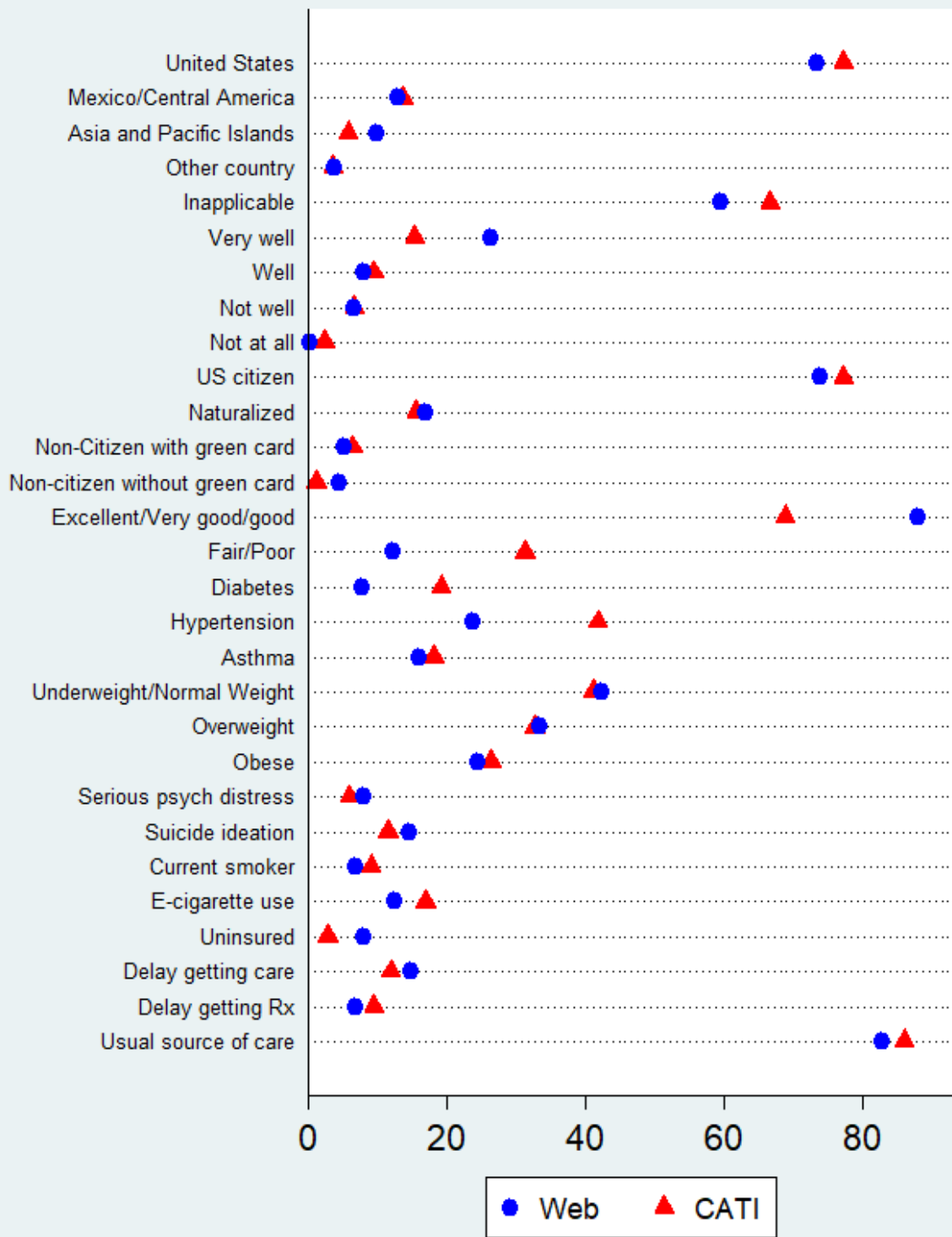


Figure 12b. Weighted key indicator comparison by mode for experimental cases (continued)

Tables

Table 1. Adult completion and response rates by county and county-group

County	Target	Web	Phone	Completes	Completion Rate	Weighted RR
ALL	2,000	2,042	425	2,467	8.8%	14.3%
1 - LOS ANGELES	402	312	69	381	6.8%	10.9%
2 - SAN DIEGO	137	131	18	149	7.8%	8.9%
3 - ORANGE	124	135	18	153	8.8%	10.6%
4 - SANTA CLARA	76	92	14	106	8.7%	16.3%
5 - SAN BERNARDINO	76	56	19	75	7.0%	9.5%
6 - RIVERSIDE	87	64	9	73	6.9%	6.1%
7 - ALAMEDA	69	80	12	92	9.5%	20.0%
8 - SACRAMENTO	64	71	18	89	9.9%	21.1%
9 - CONTRA COSTA	48	55	14	69	10.3%	19.6%
10 - FRESNO	37	26	3	29	5.6%	16.9%
11 - SAN FRANCISCO	44	41	6	47	10.5%	17.8%
12 - VENTURA	33	65	11	76	12.3%	15.1%
13 - SAN MATEO	32	36	7	43	9.3%	16.0%
14 - KERN	32	25	4	29	6.5%	5.5%
15 - SAN JOAQUIN	28	35	7	42	10.7%	12.2%
16 - SONOMA	25	30	5	35	10.0%	39.1%
17 - STANISLAUS	25	15	6	21	6.0%	10.1%
18 - SANTA BARBARA	25	26	4	30	8.6%	33.5%
19 - SOLANO	25	23	8	31	8.9%	10.1%
20 - TULARE	25	29	5	34	9.7%	7.9%
21 - SANTA CRUZ	25	29	2	31	8.9%	38.7%
22 - MARIN	25	40	5	45	12.9%	14.3%
23 - SAN LUIS OBISPO	25	38	12	50	14.3%	12.6%
24 - PLACER	25	41	10	51	14.6%	16.7%
25 - MERCED	25	23	4	27	7.7%	10.7%
26 - BUTTE	25	27	7	34	9.7%	27.6%
27 - SHASTA	25	34	6	40	11.4%	26.8%
28 - YOLO	25	36	6	42	12.0%	11.1%

County	Target	Web	Phone	Completes	Completion Rate	Weighted RR
29 - EL DORADO	25	45	15	60	17.1%	23.8%
30 - IMPERIAL	25	17	4	21	6.0%	5.0%
31 - NAPA	25	33	3	36	10.3%	10.0%
32 - KINGS	25	13	3	16	4.6%	7.1%
33 - MADERA	25	22	3	25	7.1%	10.3%
34 - MONTEREY	25	17	5	22	6.3%	24.9%
35 - HUMBOLDT	25	33	8	41	11.7%	18.9%
36 - NEVADA	25	43	16	59	16.9%	31.8%
37 - MENDOCINO	25	35	6	41	11.7%	25.9%
38 - SUTTER	25	12	7	19	5.4%	11.8%
39 - YUBA	25	20	7	27	7.7%	8.9%
40 - LAKE	25	21	8	29	8.3%	8.1%
41 - SAN BENITO	25	25	1	26	7.4%	8.2%
42 - TEHAMA, ETC	20	25	10	35	12.5%	13.9%
43 - DEL NORTE, ETC	20	31	8	39	13.9%	14.2%
44 - TUOLUMNE, ETC	20	40	12	52	18.6%	36.8%

Table 2. Adult completion and response rates

Experimental test	Total sample	Web	Phone	Completes	Completion Rate	Unweighted RR ¹	Weighted RR ¹	CHIS 2017 RR ²
Fall pilot (Statewide)	28,000	2,042	425	2,467	8.8%	14.1%	14.3%	6.7%
Spring test (3 counties)	9,000	667	125	792	8.8%	13.7%	14.0%	-

Note. ¹ Unconditional (or overall) response rates. ² CHIS 2017 unconditional RRs are weighted.

Table 3. Within-household selection response rates

Household selection method	Total sample	Web	Phone	Completes	Completion Rate	Unweighted RR ¹	Weighted RR ¹
Next birthday	14,000	1,076	217	1,293	9.2%	14.4%	14.7%
Next birthday w/ confirmation	14,000	966	208	1,174	8.4%	13.8%	13.8%

Note. ¹ Unconditional (or overall) response rates.

Table 4. Within-household selection accuracy

Next-birthday method			Next-birthday method w/ confirmation		
# of adults	Completed roster	Inaccurate cases	# of adults	Completed roster	Inaccurate cases
1	198	0%	1	213	0%
2	403	32%	2	330	19%
3	99	51%	3	88	27%
4+	61	64%	4+	41	49%
Total	761	29%	Total	672	16%
2+	563	39%	2+	459	23%

Note. Table includes cases where we could confidently assert the accuracy of the selection. Table excludes cases where the respondent refused to provide birthdate information about adult household members as well as households where multiple household members share birth months or have a birthday during the data collection month. Percentages are unweighted.

Table 5a. Spanish dominant experiment response rates

Spanish dominant condition	Total sample	Web	Web Completion Rate	Completes	Completion Rate	Unweighted RR ¹	Weighted RR ¹
Spanish dominant	1,972	61	3.1%	80	4.1%	6.3%	6.0%
English dominant	1,972	69	3.5%	87	4.4%	7.3%	6.0%
Remainder	24,056	1,912	7.9%	2,300	9.6%	15.3%	15.6%

Note. ¹ Unconditional (or overall) response rates.

Table 5b. Spanish dominant experiment response rates

Spanish dominant condition	Spanish Web	% Spanish Web	Spanish Phone	Total Spanish	% Total Spanish
Spanish dominant	8	13.1%	3	11	13.8%
English dominant	5	7.2%	2	7	8.0%
Remainder	21	1.1%	12	33	1.4%

Table 6. Child completion and response rates

Experimental test	Eligible Child	Web	Phone	Completes	Completion Rate	Unweighted RR ¹	Weighted RR ¹	CHIS 2017 RR ²
Fall pilot (Statewide)	365	253	10	263	72.1%	73.5%	75.0%	63.7%
Spring test (3 counties)	136	79	0	79	58.1%	63.2%	64.9%	-

Note. ¹ Conditional response rates. ² CHIS 2017 conditional RRs are weighted.

Table 7. Child-first experiment response rates

Child-first condition	Total eligible sample	Web	Phone	Completes	Completion Rate	Unweighted RR ¹	Weighted RR ¹
Adult-first (control)	181	105	8	113	62.4%	62.8%	64.2%
Child-first	184	148	2	150	81.5%	84.3%	86.0%

Note. ¹ Conditional response rates.

Table 8a. Teen permission rates before permission refusal conversion

Experimental test	Eligible Teen	Permission Received	Permission Rate	CHIS 15-16 Permission Rate ^{1,2}	CHIS 2017 Permission Rate ¹
Fall pilot (Statewide)	295	151	51.2%	49.6%	26.3%
Spring test (3 counties)	125	38	30.4%	-	-

Note. ¹ CHIS 2015-2016 and CHIS 2017 permission rates are unweighted. ² The permission rate reported here is adjusted from the reported value in the 2015-2016 methodology report to more accurately reflect the historic definition of an eligible teen (Wells, 2018).

Table 8b. Teen response rates before permission refusal conversion

Experimental test	Permission Received	Web	Phone	Completes	Completion Rate	Unweighted RR ¹	Weighted RR ¹	CHIS 2017 RR ²
Fall pilot (Statewide)	151	71	1	72	47.7%	24.1%	23.9%	23.4%
Spring test (3 counties)	38	11	1	12	31.6%	9.6%	14.0%	-

Note. ¹ Conditional response rates. ² CHIS 2017 conditional RRs are weighted.

Table 8c. Teen permission and response rates before and after permission refusal conversion

Experimental test	Permission Received	Web	Phone	Completes	Permission Rate	Completion Rate	Unweighted RR ¹	Weighted RR ¹	CHIS 2017 RR ²
Pre-NRFU	151	71	1	72	51.2%	47.7%	24.4%	23.9%	-
Post-NRFU	164	84	1	85	55.6%	51.8%	27.3%	27.8%	23.4%
Spring test (3 counties)	38	11	1	12	30.4%	31.6%	9.6%	14.0%	-

Note. ¹ Conditional response rates. ² CHIS 2017 conditional RRs are weighted.

Table 9a. Mode differences in teen eligibility, permission, and completes before permission refusal conversion

Mode	Adult Completes	Eligible Teens	Permission	Completes	Eligibility Rate	Permission Rate	Completion Rate	Completes/ Eligible
Web	2,042	267	142	71	13.1%	53.2%	50.0%	26.6%
CATI	425	28	9	1	6.6%	32.1%	11.1%	3.6%

Table 9b. Mode differences in teen eligibility, permission, and completes with permission refusal conversion

Mode	Adult Completes	Eligible Teens	Permission	Completes	Eligibility Rate	Permission Rate	Completion Rate	Completes/ Eligible
Web	2,042	267	155	84	13.1%	58.1%	54.2%	31.5%
CATI	425	28	9	1	6.6%	32.1%	11.1%	3.6%

Table 10a. Parental permission incentive experiment (web only)

Parental permission incentive ¹	Eligible Teens	Permission	Completes	Permission Rate	Completion Rate	Completes/Eligible	Conversion Completes	Conversion Completes/No Permission
No incentive/\$10 refusal conversion	130	69	33	53.1%	47.8%	25.4%	3	4.9%
\$10 incentive/\$20 refusal conversion	137	73	38	53.3%	52.1%	27.7%	10	15.6%

Note. ¹ Excludes CATI completes.

Table 10b. Parental permission experiment (web only)

Parental permission incentive ¹	Total Permission	Total Completes	Final Permission Rate	Final Completion Rate	Final Completes/Eligible
No incentive/\$10 refusal conversion	72	36	55.4%	50.0%	27.7%
\$10 incentive/\$20 refusal conversion	83	48	60.6%	57.8%	35.0%

Note. ¹ Excludes CATI completes.

Table 10c. Parental permission incentive experiment (web + CATI)

Parental permission incentive ¹	Eligible Teens	Permission	Completes	Permission Rate	Completion Rate	Unweighted RR ²	Conversion Completes	Conversion Completes/ No Permission
No incentive/\$10 refusal conversion	147	71	34	48.3%	47.9%	22.7%	3	4.9%
\$10 incentive/\$20 refusal conversion	148	80	38	54.1%	47.5%	25.6%	10	15.6%

Note. ¹ Based on household assignment of experimental condition. Parents who completed via CATI, though they were not offered a \$10 parental incentive, are still included with their originally assigned experimental condition. ² Conditional response rates.

Table 10d. Parental permission experiment (web + CATI)

Parental permission incentive ¹	Total Permission	Total Completes	Final Permission Rate	Final Completion Rate	Final Unweighted RR ²	Final Weighted RR ²
No incentive/\$10 refusal conversion	74	37	50.3%	50.0%	24.2%	23.3%
\$10 incentive/\$20 refusal conversion	90	48	60.8%	53.3%	30.2%	32.1%

Note. ¹ Based on household assignment of experimental condition. Parents who completed via CATI, though they were not offered a \$10 parental incentive, are still included with their originally assigned experimental condition. ² Conditional response rates.

Table 11a. Unweighted logistic regression of web permission for teens

	Main effects model		Interaction effects model ¹	
	Coefficient	Odds ratio	Coefficient	Odds ratio
Parent characteristics				
Age				
25-39	0.957	2.60*	0.877	2.40†
50+	0.633	1.88†	0.513	1.67
Female	0.671	1.96*	-0.512	0.60
Asian	-0.489	0.61	-0.421	0.66
Hispanic	0.071	1.07	-0.052	0.95
No spouse/partner	-0.312	0.73	1.203	3.33†
Less than college	-0.606	0.55†	-0.644	0.53†
Foreign-born	0.163	1.18	0.962	2.62
Poverty				
0-199% FPL	-0.228	0.80	-0.608	0.54
Refused income	-1.012	0.36*	-0.169	0.84
Teen characteristics ²				
Age 12-14	-0.348	0.71	-1.280	0.28*
Female	0.146	1.16	-0.498	0.61
Parent/Teen Interactions				
Mother of young teens			1.522	4.58*
Mother / Daughter			1.337	3.81†
Experimental conditions				
Parental permission incentive	0.063	1.07	1.176	3.24*
Incentive * No spouse/partner			-2.755	0.06**
Incentive * Foreign-born			-1.487	0.23*
Incentive * 0-199% FPL			0.909	2.48
Incentive * Refused Income			-1.392	0.25
Intercept	0.228		0.386	

Note. N = 212. Web respondents only. Intercept interpreted as a married male age 40-49, US-born non-Hispanic other, college graduate with >200% FPL, with a male teen age 15-17.

¹ Interaction effects were only included for 1) parent and teen gender and age interactions, and 2) interactions with the parental permission condition. Interactions were only kept in the model if the analysis of effects with p-value less than 0.10.

² Only includes teens with valid age and gender responses from parent. 24 cases removed due to missing teen age or gender.

† p < 0.10; * p < 0.05; ** p < 0.01; *** p < 0.001

Table 11b. Weighted logistic regression of web permission for teens

	Main effects model		Interaction effects model ¹	
	Coefficient	Odds ratio	Coefficient	Odds ratio
Parent characteristics				
Age				
25-39	0.997	2.71	0.530	1.70
50+	-0.029	0.97	0.027	1.03
Female	1.107	3.03*	-1.221	0.29
Asian	-0.546	0.58	-0.191	0.83
Hispanic	-0.206	0.81	-0.378	0.69
No spouse/partner	-0.623	0.54	0.432	1.54
Less than college	-1.051	0.35*	-1.062	0.35†
Foreign-born	1.066	2.90*	1.951	7.04*
Poverty				
0-199% FPL	0.189	1.21	0.224	1.25
Refused income	-0.541	0.58	1.193	3.30
Teen characteristics ²				
Age 12-14	-0.581	0.56	-3.548	0.03***
Female	0.275	1.32	-1.115	0.33
Parent/Teen Interactions				
Mother of young teens			4.439	84.66***
Mother / Daughter			2.425	11.30*
Experimental conditions				
Parental permission incentive	0.303	1.35	1.864	6.45*
Incentive * No spouse/partner			-3.268	0.04*
Incentive * Foreign-born			-2.074	0.13*
Incentive * 0-199% FPL			1.003	2.73
Incentive * Refused Income			-2.647	0.07†
Intercept	-0.175		0.529	

Note. N = 212. Web respondents only. Intercept interpreted as a married male age 40-49, US-born non-Hispanic other, college graduate with >200% FPL, with a male teen age 15-17.

¹ Interaction effects were only included for 1) parent and teen gender and age interactions, and 2) interactions with the parental permission condition. Interactions were only kept in the model if the analysis of effects with p-value less than 0.10.

² Only includes teens with valid age and gender responses from parent. 24 cases removed due to missing teen age or gender.

† p < 0.10; * p < 0.05; ** p < 0.01; *** p < 0.001

Table 12. Summary of key indicator comparisons between CHIS 2018 web pilot and CHIS 2017

Variable	Unweighted	Finding	Weighted	Finding
Sociodemographic				
Gender ¹	*	EXP had more females		
Age ¹	****	EXP had more 40-64		
Marital status	****	EXP had more married		
Family type	****	EXP had less single, no kids	****	EXP had less single, no kids
Presence of children	****	EXP had more kids	**	EXP had more kids
Education ¹	****	EXP had more college grads	****	EXP had more HS grads
Poverty status	****	EXP had more >300% FPL	*	EXP had more >300% FPL
Sexual orientation†	****	EXP had more other	****	EXP had more other
Transgender				
Racial group ¹ (OMB)	****	EXP had more Asian		
Country of birth	****	EXP had more Asian born	**	EXP had more US born
English proficiency	****	EXP had less “Not well”/”Not at all”	****	EXP had less “Not well”/”Not at all”
Citizenship	****	EXP had less non-citizen	**	EXP had less non-citizen
Health Outcomes				
Self-rated health	****	EXP had more E/VG/G	**	EXP had more E/VG/G
Diabetes				
Hypertension†	****	EXP had less HBP		
Asthma				
BMI classification				
Psychological distress			**	EXP had more SPD
Suicidal thoughts				
Health Behaviors				
Current smoker	****	EXP had less smokers	*	EXP had less smokers
E-cigarette use	****	EXP had less e-cig use		
Health Care and Access				
Have insurance	****	EXP had more insured		
Delay getting Rx	**	EXP had less delayed Rx	**	EXP had less delayed Rx
Delay getting care				
Usual source of care	*	EXP has more w/ USOC		

Note. Given multiple comparisons, we recommend using $\alpha = 0.001$ (i.e., *** or ****). ¹Weighting dimension. † Differences may be due to changes in the response options.

* $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$; **** $p < 0.0001$

Table 13. Summary of key indicator comparisons between CHIS 2018 fall pilot web and CATI respondents

Variable	Unweighted	Finding	Weighted	Finding
Sociodemographic				
Gender	**	WEB had more males		
Age	****	WEB had more 25-64	****	WEB had more 25-64
Marital status	****	WEB had more married	****	WEB had more Wid/Sep/Div
Family type	****	WEB had less single, no kids	***	WEB had more married w/ kids
Presence of children	****	WEB had more kids		
Education	****	WEB had more college grads	****	WEB had more college grads
Poverty status	****	WEB had more >300% FPL		
Sexual orientation	*	WEB had more other		
Transgender				
Racial group (OMB)	****	WEB had more Asian	*	WEB had more Asian
Country of birth				
English proficiency	*	WEB had less “Not well”/“Not at all”	**	WEB had more “Very well”
Citizenship				
Health Outcomes				
Self-rated health	****	WEB had more E/VG/G	****	WEB had more E/VG/G
Diabetes	***	WEB had less w/ diabetes	****	WEB had less w/ diabetes
Hypertension†	****	WEB had less HBP	****	WEB had less HBP
Asthma				
BMI classification				
Psychological distress				
Suicidal thoughts				
Health Behaviors				
Current smoker				
E-cigarette use				
Health Care and Access				
Have insurance	*	WEB had more uninsured	*	WEB had more uninsured
Delay getting Rx				
Delay getting care				
Usual source of care				

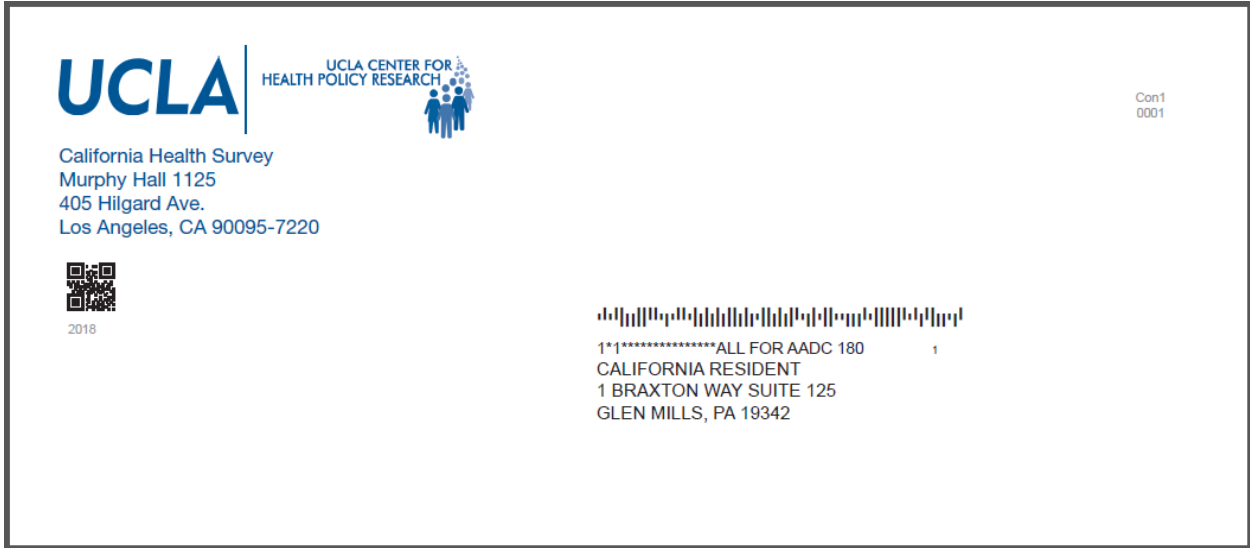
Note. Given multiple comparisons, we recommend using $\alpha = 0.001$ (i.e., *** or ****). † Differences may be due to changes in the response options.

* $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$; **** $p < 0.0001$

Appendix A – Recruitment Material Examples

- First Invitation – Envelope
- First Invitation – Invitation letter
- First Invitation – Multilingual Letter
- First Invitation – Spanish dominant envelope
- First Invitation – Spanish dominant invitation letter
- Reminder Postcard (outside)
- Reminder postcard (inside)
- Second Invitation – Certified mail
- Second Invitation letter
- Parent Thank You Letter – no parental incentive
- Parent Thank You Letter – parental incentive
- Parent Permission Refusal Conversion Letter – no original parental incentive
- Parent Permission Refusal Conversion Letter – original parental incentive
- Teen Invitation Letter
- Teen Reminder Letter
- Teen Text Message Reminder

First Invitation – Envelope





California Resident
1 Braxton Way Suite 125
Glen Mills, PA 19342

April 3, 2018

Dear California Resident,

Your household has been randomly selected for this year's **California Health Survey**.

This important survey is conducted by UCLA and collects information on the health of people in California and about issues they have getting health care. The results may help people and families in your community. Your household has been selected to represent many other households like yours.

Step 1: Identify who should complete the survey

Please have the adult, age 18 years of age or older, in your household who has the **next birthday** complete the survey.

If you are not the selected adult, please share this information with the selected adult and ask them to complete the survey by going to the website listed below.

Step 2: Respond now!

www.cahealthsurvey.com

Your secure access code is: **12121212**

We are not selling anything or asking for money. To thank you in advance, we are enclosing a \$2 bill. This small gift is for you to keep whether or not you decide to participate (this money is not from State or local taxes).

If you do not have access to the internet or would prefer to complete the survey over the phone, please call 1-888-978-4645.

Your help is very important to this study's success. Thank you for your cooperation.

Sincerely,

A handwritten signature in black ink, appearing to read "Ninez Ponce".

Dr. Ninez Ponce
Principal Investigator, California Health Survey

10960 Wilshire Boulevard, Suite 1550, Los Angeles, CA 90024

Con1
88888888

Frequently Asked Questions

What is the California Health Survey?

The California Health Survey is an annual health survey of 20,000 households in California. The information collected during the survey gives researchers, community members, and public agencies a clear picture of the current health and health needs for counties across the state. This survey was first conducted in 2001. The information may improve health programs where they are needed most.

How did you get my address?

Your address was randomly chosen from all the addresses in your area. This is a scientific process to choose survey participants like yourself.

Why can't anyone in my household answer the survey?

Scientific studies like the California Health Survey depend on a randomly chosen individual for each household to ensure we talk to a diverse group of people. We select this person following the instructions on the front of this letter so the results will not be biased and will reflect the opinions and needs of all Californians.

How do I know you will keep my information confidential?

Keeping your information confidential is our top priority. We process all your contact information and survey answers so that responses cannot be connected with an individual person or address after the data collection is complete. Everyone working on this study is required to protect the confidentiality and rights of the people who participate, according to the strict rules of the UCLA Office for Protection of Research Subjects, and the State of California's Committee for the Protection of Human Subjects. As required by the Privacy Act, the legislative authority for this survey is 42 USC 285.

How long will the survey take?

The California Health Survey takes approximately 30 minutes to complete depending on your specific situation. If you have a child, we may ask you additional questions about your child. If you have a teenager (ages 12-17), we may ask to interview one teen after receiving permission from a parent.

Am I required to complete this survey?

Participation is voluntary and there is no penalty if you choose not to participate. You can answer as many or as few questions as you want. Keep in mind that your household was randomly selected as part of a scientific sample, and you cannot be replaced with another household. Your cooperation is extremely important to help ensure the completeness and accuracy of the results.

Who provides the funding for the California Health Survey?

Major funders of this survey include the California Department of Health Care Services (DHCS), DHCS Mental Health Services Division, California Department of Public Health, California Health Benefit Exchange, First 5 California, The California Endowment, California HealthCare Foundation, and Kaiser Permanente.

How can I obtain more information?

For additional information, please visit our website at www.californiahealthsurvey.org.

First Invitation – Multilingual Letter (front: Spanish and Chinese)



Estimado/a residente de California:

Su hogar fue seleccionado al azar para participar en la **Encuesta de Salud de California** de este año.

Esta importante encuesta que realiza la Universidad de California en Los Ángeles (UCLA) recopila información sobre la salud de los californianos respecto a los problemas que enfrentan para obtener atención médica. Los resultados pueden ayudar a personas y familias de su comunidad. Su hogar fue seleccionado para representar a muchos otros parecidos al suyo.

El adulto que vive en su casa, que tiene entre 18 años o más y que **cumplirá años más pronto** debe completar la encuesta en www.cahealthsurvey.com/espanol

Si no tiene acceso a Internet o prefiere completar la encuesta por teléfono, llámenos al 1-888-978-4645.

No le venderemos nada ni le pediremos dinero. Como agradecimiento por su participación, incluimos \$2. Este pequeño regalo es para usted sin importar si decide participar en la encuesta o no (cabe aclarar que este dinero no proviene de los recursos del estado ni de los impuestos locales).

Para obtener más información, visite nuestro sitio web www.cahealthsurvey.com/spfaq.

Su ayuda es muy importante para el éxito del estudio. Gracias por su colaboración.

Atentamente,

Dra. Ninez Ponce

Investigadora principal de la Encuesta de Salud de California

尊敬的加州居民：

您的家庭已被隨機選中參加今年的加州健康調查。

本重要的電話調查由洛杉磯加大（UCLA）進行，收集關於加州人健康及加州人保健服務享用事宜的資訊。結果可助您社區內的人士及家庭。您的家庭被選中，作為許多其他與您的家庭狀況類似的家庭代表。

如果您方便以英文完成調查，請按照隨附的英文信函中的說明進行網上回應。

如果您不方便以英文完成調查，請致電 1-866-315-3969，通過能講中文的訪問員完成調查。

我們不會向您銷售任何產品或向您募款。為了提前感謝您，我們隨信附上兩美元。無論您是否決定參加，請您收下這份小禮物（這筆錢並非來自州稅或地方稅）。

有關加州健康問卷調查的更多信息，請訪問 www.californiahealthsurvey.org。

您的幫助對這項研究的成功是非常重要的。謝謝您的合作。

順致敬意！

Ninez Ponce 博士

加州健康問卷調查首席研究負責人

First Invitation – Multilingual Letter (back: Korean, Vietnamese, Tagalog)



캘리포니아 주민께,

귀 가정이 올해 실시되는 거주 건강 설문조사 대상으로 부작위로 선정되었습니다.

이 중요한 전화 설문조사는 UCLA에서 실시하며 캘리포니아 주민들의 건강과 주민들이 받고 있는 의료 문제에 대한 정보를 수집합니다. 설문 결과는 캘리포니아 지역사회 주민과 가족에게 도움이 될 수 있습니다. 귀 가정은 귀택과 같은 수많은 다른 가구들을 대표하기 위해 선정되었습니다.

본 설문조사를 영어로 작성하는 데 문제가 없으신 경우에는 등봉된 영어 시신의 안내에 따라 온라인으로 응답해 주십시오.

본 설문조사를 영어로 작성하는 데 어려움이 있으신 경우에는 1-866-315-3969 번으로 전화를 걸어 한국어를 구사하는 설문 진행자와 함께 전화로 설문조사를 완료해 주십시오.

지회는 부엌을 팔려고 하거나 기부를 부탁하는 것이 아닙니다. 참여해 주신 것에 대한 감사의 표시로 미리 \$2 를 함께 보냅니다. 이 돈은 귀하의 설문조사 참여 여부와 상관없이 드리는 작은 선물입니다. (주 정부나 지역 정부의 자금으로 마련된 것이 아닙니다.)

캘리포니아주 보건 설문조사에 관한 자세한 정보를 원하시면 www.californiahealthsurvey.org 를 방문해 주십시오.

이 연구를 성공적으로 수행하기 위해서: 귀하의 참여가 무엇보다도 중요합니다. 협조해 주셔서 감사합니다.

캘리포니아 보건 설문 조사 연구 총 책임자

니네즈 폰스 (Ninez Ponce) 박사 드림

Kính Gửi Cư Dân California,

Gia đình của quý vị được chọn ngẫu nhiên để trả lời Khảo Sát Sức Khỏe Tiểu Bang California trong năm nay.

Đây là khảo sát qua điện thoại quan trọng được thực hiện bởi UCLA và thu thập thông tin về sức khỏe của người dân tại California và về những vấn đề mà họ gặp phải khi được chăm sóc sức khỏe. Kết quả có thể giúp ích cho người dân và gia đình trong cộng đồng ở vùng của quý vị. Gia đình của quý vị đã được chọn để đại diện cho nhiều gia đình khác giống như trường hợp của quý vị.

Nếu quý vị cảm thấy thoải mái khi tham gia khảo sát bằng tiếng Anh, vui lòng thực hiện theo các hướng dẫn trên bức thư bằng tiếng Anh đính kèm để trả lời trực tuyến.

Nếu quý vị cảm thấy không thoải mái khi tham gia khảo sát bằng tiếng Anh, vui lòng gọi số 1-866-315-3969 để tham gia khảo sát qua điện thoại với một người phỏng vấn nói bằng Tiếng Việt.

Chúng tôi không bán gì cả và cũng không xin quyền tiền. Để cảm ơn quý vị trước, chúng tôi xin gửi kèm theo đây \$2. Đây là một món quà nhỏ dành cho quý vị cho dù quý vị có quyết định tham gia hay không (món tiền này không phải lấy từ tiền thuế của tiểu bang hay của địa phương).

Để biết thêm thông tin về Khảo Sát Sức Khỏe Tiểu Bang California, vui lòng truy cập www.californiahealthsurvey.org.

Sự tham gia của quý vị vô cùng quan trọng cho thành công của nghiên cứu này. Xin cảm ơn sự tham gia của quý vị.

Trân trọng.

Dr. Ninez Ponce

Trưởng ban Khảo sát, Khảo Sát Sức Khỏe Tiểu Bang California

Mahal na Residente ng California,

Ang inyong sambahayan ay napili nang random (o hindi sinadya ang pagpili) para sa California Health Survey (Survey Tungkol sa Kalusugan sa California) para sa taon na ito.

Ang mahalagang survey na ito sa telepono ay isinasagawa ng UCLA at nangongolekta sila ng impormasyon tungkol sa kalusugan ng mga taga-California at tungkol sa mga isyu sa pagkuha ng pangangalaga sa kalusugan. Ang mga resulta ay maaaring makatulong sa mga tao at pamilya ng inyong komunidad. Ang inyong sambahayan ay napili bilang isang representatibo sa iba pang maraming sambahayan tulad ng inyo.

Kung kumportable kayong kumpletuhin ang survey sa Ingles, sundan lamang ang mga tagubilin na nakalakip sa liham na nakasulat sa Ingles upang makasagot nang online.

Kung hindi kayo kumportable na kumpletuhin ang survey sa Ingles, tumawag lamang sa 1-866-315-3969 upang makumpleto ang survey gamit ang telepono sa tulong ng isang taga-interbyu na nagsasalita ng Tagalog.

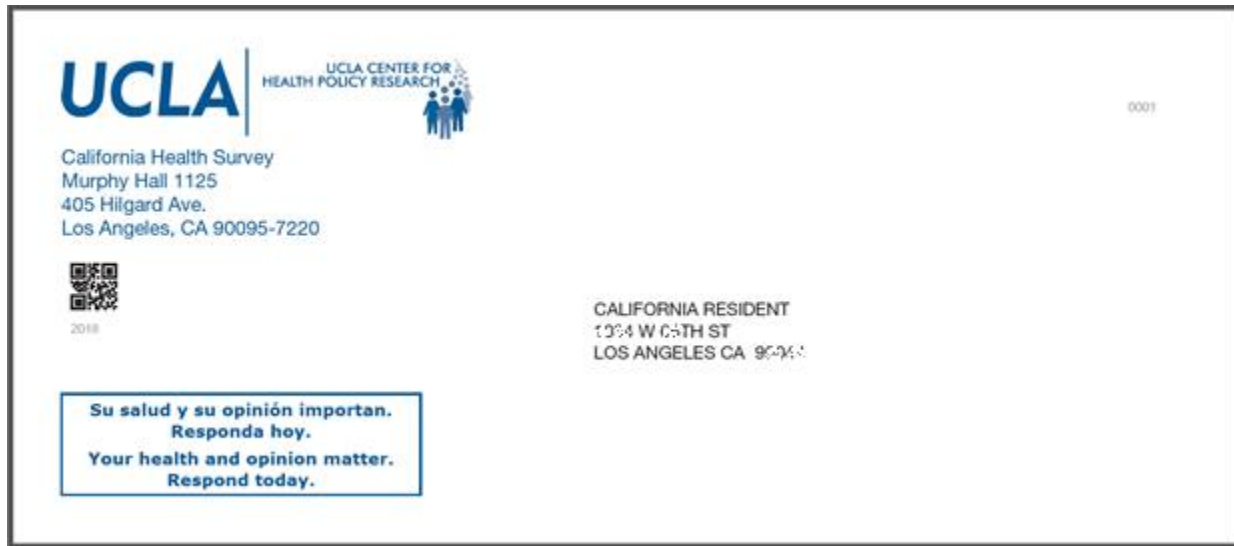
Hindi po kami nagbebenta ng anumang nanghingi ng pera. Bilang paunang pasasalamat, naglalakip kami ng \$2. Ang munting regalang ito ay para sa inyo, magpasya man kayong lumahok o hindi (hindi nagmula ang perang ito sa buwis ng Estado o sa lokal na buwis).

Para sa karagdagan pang impormasyon tungkol sa California Health Survey (Survey Tungkol sa Kalusugan sa California), pumunta lamang sa www.californiahealthsurvey.org.

Napakamahalaga ang inyong tulong sa tagumpay ng pagsusuring ito. Salamat sa inyong pakikipagtulungan.

Taos-puso,

First invitation – Spanish dominant envelope





Residente de California
1004 W 8th St
Los Angeles CA 90044

16 de octubre del 2018

Estimado/a residente de California:

Su hogar fue seleccionado al azar para participar en la **Encuesta de Salud de California** de este año.

Esta importante encuesta que realiza la Universidad de California en Los Ángeles (UCLA) recopila información sobre la salud de los californianos respecto a los problemas que enfrentan para obtener atención médica. Los resultados pueden ayudar a personas y familias de su comunidad. Su hogar fue seleccionado para representar a muchos otros parecidos al suyo.

Paso 1: Identifique quién debe responder la encuesta

El adulto que vive en su casa, que tiene entre 18 años o más y que **cumplirá años más pronto** debe completar la encuesta.

Si usted no es el adulto seleccionado, comparta esta información con la persona correcta y pídale que complete la encuesta en el sitio web que aparece a continuación.

Paso 2: ¡Responda la encuesta ahora!

www.cahealthsurvey.com/espanol

Su código de acceso es: **12345678**

No le venderemos nada ni le pediremos dinero. Como agradecimiento por su participación, incluimos \$2. Este pequeño regalo es para usted sin importar si decide participar en la encuesta o no (cabe aclarar que este dinero no proviene de los recursos del estado ni de los impuestos locales).

Si no tiene acceso a Internet o prefiere completar la encuesta por teléfono, llámenos al 1-888-978-4645.

Su ayuda es muy importante para el éxito del estudio. Gracias por su colaboración.

Atentamente,



Dra. Ninez Ponce
Investigadora principal de la Encuesta de Salud de California

Reminder Postcard (outside)

SEE OTHER SIDE FOR OPENING INSTRUCTIONS

UCLA | UCLA CENTER FOR HEALTH POLICY RESEARCH


California Health Survey
10960 Wilshire Blvd., Suite 1550
Los Angeles, CA 90024



1*1*****ALL FOR AADC 180
CALIFORNIA RESIDENT
1 BRAXTON WAY SUITE 125
GLEN MILLS, PA 19342

Con1

REMOVE THESE EDGES FIRST
FOLD, CREASE AND TEAR ALONG PERFORATION



REMOVE SIDE EDGES FIRST
THEN FOLD AND TEAR THIS STUB ALONG PERFORATION


REMOVE THESE EDGES FIRST
FOLD, CREASE AND TEAR ALONG PERFORATION

Reminder Postcard (inside)

E

1/2"

UCLA | **UCLA CENTER FOR HEALTH POLICY RESEARCH**



Dear California Resident,

Last week, we mailed you a letter asking for your help with the **California Health Survey**, a study about the health of people in California and issues they have getting health care.

If you or someone in your household has already completed the questionnaire, please accept our sincere thanks. If you have not already responded, please have the adult, age 18 years or older, with the **next birthday** go to the website listed below to complete the survey.

Respond now at www.cahealthsurvey.com
Your secure access code is: **12121212**

If you do not have access to the internet or would prefer to complete the survey over the phone, please call 1-888-978-4645.

Thank you.

5-1/2"

Estimado(a) residente de California,

Hemos tratado de comunicarnos con usted sobre su participación en la Encuesta de Salud de California, pero aún no hemos recibido su respuesta.

Esta importante encuesta es su oportunidad para hacerse oír con respecto a temas de salud.

Si desea realizar la encuesta en inglés, siga las instrucciones que aparecen arriba para responderla en línea.

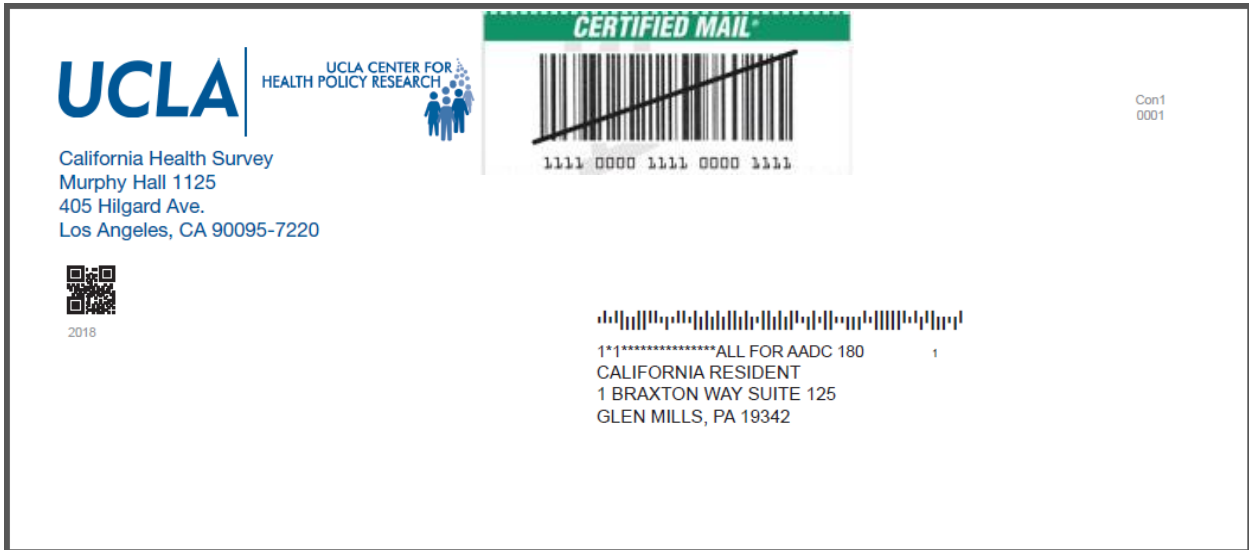
Si no desea realizar la encuesta en inglés, llame al 1-844-628-1521 para responderla por teléfono con un encuestador que hable en español.

Gracias por su cooperación.

1/2"

PSEMPV610

Second Invitation – Certified mail



Second Invitation



i

California Resident
1 Braxton Way Suite 125
Glen Mills, PA 19342

Dear California Resident,

Now is the time to respond

The UCLA Center for Health Policy Research has sent you requests over the last couple of weeks to complete the **California Health Survey**. To the best of our knowledge, we have not yet received your responses.

If you do not have access to the internet or want to complete the survey over the phone, please call 1-888-978-4645.

Why your response is important

The California Health Survey is used by multiple State and local agencies and departments to understand and improve the health of Californians in your community. We are writing again because of the importance that your responses has for helping to get accurate results.

Who should complete the survey

To ensure our results are not biased, we are asking for one specific adult, 18 years of age or older, from your household to respond. Please have the adult who has the **next birthday** be the one to complete the survey.

Respond now at www.cahealthsurvey.com
Your secure access code is: **12121212**

If you do not respond soon, an interviewer may contact you by phone to complete the survey.

Thank you for your prompt response.

Sincerely,

A handwritten signature in black ink, appearing to read 'Ninez Ponce', written over a light blue horizontal line.

Dr. Ninez Ponce
Principal Investigator, California Health Survey

10960 Wilshire Boulevard, Suite 1550, Los Angeles, CA 90024

2Con1
88888888

Parent Thank You Letter – no parental incentive



1aM-<<SEQ>>

<<name/California resident>>
<<address1>>
<<address2>>
<<city>>, <<state>> <<zip>>

November 1, 2018

Dear <<name/California resident>>,

I want to thank you for recently completing the California Health Survey. During your survey, we also selected one male adolescent, age <<age>> to be interviewed. Thank you for giving us permission to interview your teenager.

So your teen can complete his survey and receive his \$10 gift card, please provide your male teen, age <<age>> the sealed envelope included with this letter. Inside the envelope is a letter that will explain the study to your teen and provide him a secure access code for him to complete the survey online.

The information your teen will provide will be kept confidential and will help us better understand health issues currently facing teens. The study results will then help in designing policies and programs that can help teens in your community and across the state of California. When your teen completes the survey, we will send him a \$10 gift card in appreciation.

If you have any questions, you may call toll-free at 1-866-275-2447. If you want to learn more about this survey, you can visit our website at www.californiahealthsurvey.org.

Your help is very important to this study's success. Thank you for your cooperation.

Sincerely,

Dr. Ninez Ponce
Principal Investigator, California Health Survey

10960 Wilshire Boulevard, Suite 1550, Los Angeles, CA 90024

<<SSRS MATCH CODE>>

Parent Thank You Letter – parental incentive



1bM-**<<SEQ>>**

<<name/California resident>>
<<address1>>
<<address2>>
<<city>>, <<state>> <<zip>>-<<zip4>>

November 1, 2018

Dear **<<name/California resident>>**,

I want to thank you for recently completing the California Health Survey. During your survey, we also selected one male adolescent, age **<<age>>** to be interviewed. Thank you for giving us permission to interview your teenager.

As a token of our appreciation, please accept this \$10 check.

So your teen can complete his survey and receive his \$10 gift card, please provide your male teen, age **<<age>>** the sealed envelope included with this letter. Inside the envelope is a letter that will explain the study to your teen and provide him a secure access code for him to complete the survey online.

The information your teen will provide will be kept confidential and will help us better understand health issues currently facing teens. The study results will then help in designing policies and programs that can help teens in your community and across the state of California. When your teen completes the survey, we will send him a \$10 gift card in appreciation.

If you have any questions, you may call toll-free at 1-866-275-2447. If you want to learn more about this survey, you can visit our website at www.californiahealthsurvey.org.

Your help is very important to this study's success. Thank you for your cooperation.

Sincerely,

A handwritten signature in black ink, appearing to read "Ninez Ponce".

Dr. Ninez Ponce
Principal Investigator, California Health Survey

10960 Wilshire Boulevard, Suite 1550, Los Angeles, CA 90024

<<SSRS MATCH CODE>>

Teen Permission Refusal Conversion Letter – no original parental incentive



2aM-<<SEQ>>5

<<name/California Resident>>
<<address1>>
<<address2>>
<<city>>, <<state>> <<zip>>-<<zip4>>

November 1, 2018

Dear <<name/Parent or Guardian>>,

<< I want to thank you for recently completing the California Health Survey. / We recently did a web survey with an adult in your household. I want to thank that person for his or her time. >>
As we explained in the online survey, we also selected one male adolescent, age <<age>> to be interviewed. However, we did not receive permission in the online survey to interview that teenager. We respect that decision and will not interview anyone under 18 years old without permission.

I want to ask the parent or guardian of this teen to please reconsider. The information your teen will provide will be kept confidential and will help us better understand health issues currently facing teens. The study results will then help in designing policies and programs that can help teens in your community and across the state of California. Your child's responses are important because they are part of a scientific sample representing many other similar young people. His answers cannot be replaced.

When your teen completes the survey, we will send him a \$10 gift card in appreciation.

As an additional token of our appreciation for allowing your teen to complete our survey, **we will also send you a \$10 gift card after your teen completes the survey.**

If you give your teen permission to complete the survey, please provide your male teen, age <<age>> the sealed envelope included with this letter. Inside the envelope is a letter that will explain the study to your teen and provide them a secure access code for him to complete the survey online.

If you have any questions, you may call toll-free at 1-888-275-2447. If you want to learn more about this survey, you can visit our website at www.californiahealthsurvey.org.

Your help is very important to this study's success. Thank you for your cooperation.

Sincerely,

A handwritten signature in black ink, appearing to read "Ninez Ponce".

Dr. Ninez Ponce
Principal Investigator, California Health Survey

10960 Wilshire Boulevard, Suite 1550, Los Angeles, CA 90024

<<SSRS MATCH CODE>>

Teen Permission Refusal Conversion Letter – original parental incentive



2bM-<<SEQ>>

<<name/California Resident>>
<<address1>>
<<address2>>
<<city>>, <<state>> <<zip>>-<<zip4>>

November 1, 2018

Dear <<name/Parent or Guardian>>,

<< I want to thank you for recently completing the California Health Survey. / We recently did a web survey with an adult in your household. I want to thank that person for his or her time. >> As we explained in the online survey, we also selected one male adolescent, age <<age>> to be interviewed. However, we did not receive permission in the online survey to interview that teenager. We respect that decision and will not interview anyone under 18 years old without permission.

I want to ask the parent or guardian of this teen to please reconsider. The information your teen will provide will be kept confidential and will help us better understand health issues currently facing teens. The study results will then help in designing policies and programs that can help teens in your community and across the state of California. Your child's responses are important because they are part of a scientific sample representing many other similar young people. His answers cannot be replaced.

When your teen completes the survey, we will send him a \$10 gift card in appreciation.

As an additional token of our appreciation for allowing your teen to complete our survey, **we will now send you a \$20 gift card after your teen completes the survey.**

If you give your teen permission to complete the survey, please provide your male teen, age <<age>> the sealed envelope included with this letter. Inside the envelope is a letter that will explain the study to your teen and provide them a secure access code for him to complete the survey online.

If you have any questions, you may call toll-free at 1-888-275-2447. If you want to learn more about this survey, you can visit our website at www.californiahealthsurvey.org.

Your help is very important to this study's success. Thank you for your cooperation.

Sincerely,

A handwritten signature in black ink, appearing to read 'Ninez Ponce', written over a white background.

Dr. Ninez Ponce
Principal Investigator, California Health Survey

10960 Wilshire Boulevard, Suite 1550, Los Angeles, CA 90024

<<SSRS MATCH CODE>>

Teen invitation letter



3-<<SEQ>>

<<adolescent's first name/California teen>>
<<address1>>
<<address2>>
<<city>>, <<state>> <<zip>>

November 1, 2018

Dear <<adolescent's first name/California teen>>,

You have been randomly selected to participate in this year's California Health Survey.

This important survey is conducted by UCLA and collects information on the health of teens in California. Your answers may help other teens like you across California.

We recently spoke with one of your parents or guardians about their health. They have given us permission to contact you and ask you to participate in this important survey.

As a token of our appreciation, we will send you a \$10 gift card to thank you for your help with this important survey.

Respond now at www.cahealthsurvey.com/teen
Your secure access code is: <<PASSWORD>>

This survey will only take 15 minutes. Your participation is completely voluntary and confidential. You can skip any question and can stop at any time.

Your help is very important to this study's success. Thank you.

Sincerely,

A handwritten signature in black ink, appearing to read "Ninez Ponce".

Dr. Ninez Ponce
Principal Investigator, California Health Survey

10960 Wilshire Boulevard, Suite 1550, Los Angeles, CA 90024

<<SSRS MATCH CODE>>

Teen reminder letter



4-<<SEQ>>

<<adolescent's first name/California teen>>
<<address1>>
<<address2>>
<<city>>, <<state>> <<zip>>

November 1, 2018

Dear <<adolescent's first name/California teen>>,

Now is the time to respond

Over the last couple of weeks, we have tried contacting you to complete the California Health Survey. Our records show that we do not have your response yet.

Why your response is important

This statewide study collects information on the health and experiences of teens across California. Your answers may help state organizations better help other teens like you.

Why we need you

You were randomly selected out of all the teens in California to participate in this study. Without your responses, our results will not accurately reflect the needs and challenges of California's youth.

www.cahealthsurvey.com/teen

Your secure access code is: <<PASSWORD>>

As a token of our appreciation, we will send you a \$10 gift card to thank you for your help with this important survey.

If you do not respond soon, an interviewer may contact you by phone to complete the survey.

Thank you for your quick response.

Sincerely,

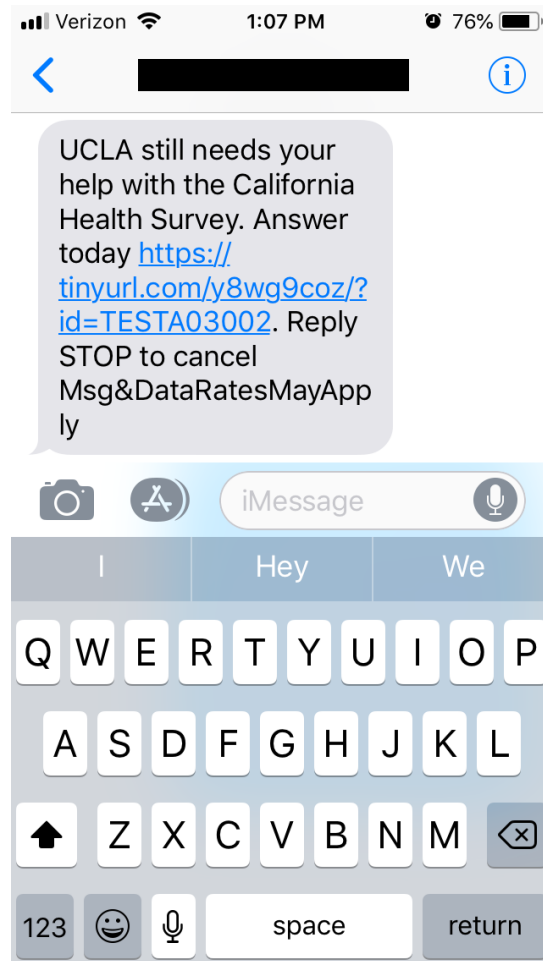
A handwritten signature in black ink, appearing to read "Ninez Ponce".

Dr. Ninez Ponce
Principal Investigator, California Health Survey

10960 Wilshire Boulevard, Suite 1550, Los Angeles, CA 90024

<<SSRS MATCH CODE>>

Teen Text Message Reminder



Appendix B – Examples of Web Instrument Screens

- Welcome Screen
- Consent Script
- Security Setup Screens
- Assorted Question Screens
- Teen Permission Screens

Welcome Screen

Welcome to the California Health Survey. You will need the materials we mailed to you to start the survey. All the information that you provide will remain completely confidential.

UCLA



Please enter the 7 digit Secure Access Code found on the materials we mailed you.

Secure Access Code:

Start

Any information you enter into this system may be used by UCLA for statistical purposes, including but not limited to improving the efficiency of our data collection programs. Use of this system indicates consent to the collection, monitoring, recording, and use of information provided inside this system.

If you have any questions, please contact Support by e-mail at support@youropinplease.com.
If you have any technical trouble with this survey, please contact us at support@youropinplease.com.

Consent Script

UCLA



The California Health Survey

This survey is voluntary and confidential. You can skip any question, and you can stop at any time.

The survey takes about 30 minutes on average. There are questions about your health, diet and exercise, sexual behaviors, violence, suicide, emotional health and treatment for mental health problems, and your healthcare and insurance. If you have an eligible child selected for this study, we will ask you some questions about their health, diet, exercise, and health care. This section of the survey takes about 10 minutes.

The University of California at Los Angeles (UCLA) has very strict safeguards to protect your confidentiality.

We make every effort to protect your identity. Your address will be kept in a secure data center for research to better understand how health is related to where people live. Other information that could identify you, like your name and contact information will be erased after the study is completed. Your other answers will be combined with the answers of other participants and shared with researchers to better understand the health of Californians. Your address will be erased after conversion into latitude and longitude for research purposes.

For more information about the rights of research subjects, please contact the Office for the Protection of Research Subjects at 1-310-825-8714.

If you have questions, please refer to the Frequently Asked Questions [here](#).

If you have further questions, please contact Dr. Ninez Ponce who can be reached toll-free at 1-866-275-2447.

By clicking 'Next' you understand and agree to participate in the California Health Survey.

Please click 'NEXT' to continue

Back

Next

Español

Security Setup Screens



The California Health Survey

If you need to stop taking the survey for any reason, you will need the Secure Access Code provided in the letter to return to the survey as well as a password you create below. Please make note of it.

Please create a password below. It must be 10 characters, and can be any combination of letters and numbers.

Password:

Back

Next

Español

Questions? support@youropinionease.com
If you have any technical trouble with this survey, please contact us at support@youropinionease.com
For additional instructions on how to complete this survey, [Please click here](#)

[Exit Survey](#)



The California Health Survey

For added security, please select a security question to answer.

Please select a security question to answer. ▾

Please enter your response here.

Back

Next

Questions? support@youropinionease.com
If you have any technical trouble with this survey, please contact us at support@youropinionease.com
For additional instructions on how to complete this survey, [Please click here](#)

[Exit Survey](#)



The California Health Survey

For added security, please select a security question to answer.

Please select a security question to answer. ▾

Please select a security question to answer.

- Your favorite pet?
- Your mother's maiden name?
- Your favorite color?

Back

Next

Questions? support@youropinionease.com
If you have any technical trouble with this survey, please contact us at support@youropinionease.com
For additional instructions on how to complete this survey, [Please click here](#)

[Exit Survey](#)

Assorted Question Screens



The California Health Survey

AA5A. Please tell me which one or more of the following you would use to describe yourself. Would you describe yourself as ...?

Check all that apply.

- Native Hawaiian
- Other Pacific Islander
- American Indian or Alaska Native
- Asian
- Black or African American
- White
- Other (Specify)

Back

Next



The California Health Survey

Now think about the foods you ate or drank during the past month that is, the past 30 days, including meals and snacks. During the past month, how many times did you eat fruit? Do not count juices. Please enter if this is per day, per week, or per month.

Your best guess is fine.

Number of times

- Per day
- Per week
- Per month

Back

Next

Español

Questions? support@youropinionplease.com
If you have any technical trouble with this survey, please contact us at support@youropinionplease.com
For additional instructions on how to complete this survey, [Please click here](#)

Exit Survey

The California Health Survey

The following questions ask about how you have been feeling during the past 30 days. For each question, please mark the category that best describes how often you had this feeling.

About how often during the past 30 days did you feel...	All of the time	Most of the time	Some of the time	A little of the time	None of the time
...nervous?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
...hopeless?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
...restless or fidgety?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
...so depressed that nothing could cheer you up?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
...that everything was an effort?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
...worthless?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Back

Next

Español

Questions? support@youropinionplease.com
 If you have any technical trouble with this survey, please contact us at support@youropinionplease.com
 For additional instructions on how to complete this survey, [Please click here](#) Exit Survey

The California Health Survey

AH57. Do you pay any or all of the premium or cost for this health plan? Do not include the cost of any co-pays or deductibles you or your family may have had to pay.

What is a premium, a co-pay, or a deductible?

- Yes
- No

Copays are the partial payments you make for your health care each time you see a doctor or use the health care system, while someone else pays for your main health care coverage.

A **deductible** is the amount you pay for medical care before your health plan starts paying.

Premium is the monthly charge for the cost of your health insurance plan.

Back

Next

Questions? support@youropinionplease.com
 If you have any technical trouble with this survey, please contact us at support@youropinionplease.com
 For additional instructions on how to complete this survey, [Please click here](#) Exit Survey

Teen Permission Screens



The California Health Survey

Earlier you mentioned you had at least one adolescent age 12 to 17 in your household. We would also like to interview who is 16 years old and male for our study. It's a web survey and should take him about 15 minutes to complete. Your teen's answers may help other teens in your community and across California.

As a token of our appreciation, we will send your teen a \$10 gift card for completing the survey.

We will mail the survey information to your home with instructions on how your teen can complete the survey.

Do we have your permission to contact him and ask if he will participate in the survey?

Click [here](#) to see the types of questions we will ask.

Click [here](#) to learn about how we intend to contact your teen.

Click [here](#) for our privacy protection policy.

- Yes
 No

Back

Next

Español



The California Health Survey

Thank you. Your teen's answers may help other teens in your community and across California. Before we proceed, there is some text we are required to show you.

Questions in the teen survey are a lot like the ones you are answering, but it is much shorter. It covers a range of health issues including general health, diet, exercise, and other healthy and unhealthy habits like smoking and drinking alcohol, and using drugs. There are also some questions about bullying, violence, and sexual behavior. There are a few questions about suicide thoughts or attempts because it is such a serious health concern. We provide counseling and support information for any teen in need.

can skip any questions he wants or stop the survey at any time. Like your answers, his answers are kept strictly confidential and are combined with the answers of other teenagers for research purposes only. His name is never connected with those answers. His name and any contact information we have will be erased from our records after the study is complete.

For more information about the rights of research subjects, please contact the Office for the Protection of Research Subjects at 1-310-825-8714.

To confirm, do we have your permission to contact him and ask him to participate in the survey?

- Yes
 No

Back

Next

Español