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CHIS 2011-2012 Methodology Report Series

Report 2

Data Collection Methods

CALIFORNIA HEALTH INTERVIEW SURVEY

CHIS 2011-2012 METHODOLOGY SERIES

REPORT 2

DATA COLLECTION METHODS

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This report describes how data were collected for CHIS 2011-2012. It was a telephone survey using random digit dialing (RDD) samples of landline and cellular telephone numbers, as well as list samples to augment the yield for certain racial and ethnic groups and an area sample to assess nonresponse bias. All data were collected using a computer-assisted telephone interviewing (CATI) system. Activities included under "data collection" for purposes of this report include Westat involvement in developing and programming the survey instruments, recruiting and training interviewers to administer the survey in five languages, planning and implementing a strategy for release of the sample in the CATI automated scheduler, contacting respondents and conducting interviews, and implementing quality assurance procedures.

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The California Health Interview Survey is a collaborative project of the UCLA Center for Health Policy Research, the California Department of Public Health, and the Department of Health Care Services. Funding for CHIS 2011-2012 came from multiple sources: the Blue Shield of California Foundation, the California Department of Health Care Services, the California Department of Mental Health, the California Department of Public Health, the California Endowment, First 5 California, the California Office of the Patient Advocate, Kaiser Permanente, the NIH National Cancer Institute, NIH Office of Research on Women's Health, NIH Office of Behavioral and Social Sciences Research, San Diego County Health and Human Services Agency, United American Indian Involvement, Inc./CA Indian Health Service, Archstone Foundation, Susan B. Komen for the Cure, Centers for Disease Control and Prevention, NCI American Cancer Society, NIH RAND, and the California Wellness Foundation.

PREFACE

Data Collection Methods is the second in a series of methodological reports describing the 2011-2012 California Health Interview Survey (CHIS 2011-2012). The other reports are listed below. A similar set of reports is available for each previous CHIS cycle.

CHIS is a collaborative project of the University of California, Los Angeles (UCLA) Center for Health Policy Research, the California Department of Public Health, and the Department of Health Care Services. Westat was responsible for data collection and the preparation of five methodological reports from the 2011-2012 survey. The survey examines public health and health care access issues in California. The telephone survey is the largest state health survey ever undertaken in the United States.

Methodological Report Series for CHIS 2011-2012

The methodological reports for CHIS 2011-2012 are as follows:

- Report 1: Sample Design;
- Report 2: Data Collection Methods;
- Report 3: Data Processing Procedures;
- Report 4: Response Rates; and
- Report 5: Weighting and Variance Estimation.

The reports are interrelated and contain many references to each other. For ease of presentation, the references are simply labeled by the report numbers given above. After the Preface, each report includes an "Overview" chapter (Chapter 1) that is nearly identical across reports, followed by detailed technical documentation on the specific topic of the report.

Report 2: Data Collection Methods (this report) describes how data were collected for CHIS 2011-2012, a random digit dial (RDD) telephone survey of landline and cellular telephone numbers in California, supplemented with list samples to augment the yield for certain racial and ethnic groups. All data were collected using a computer-assisted telephone interviewing (CATI) system.

The purposes of this report are:

- To serve as a reference for researchers using CHIS 2011-2012 data;
- To document data collection procedures so that future iterations of CHIS, or other similar surveys, can replicate those procedures if desired;
- To describe lessons learned from the data collection experience and make recommendations for improving future surveys; and
- To evaluate the level of effort required for the various kinds of data collection undertaken.

Data collection activities in this report include Westat's involvement in:

- Developing and programming the survey instruments;
- Recruiting and training interviewers to administer the survey in five languages;
- Planning and implementing a strategy for release of the sample in the CATI automated scheduler;
- Contacting respondents and conducting interviews, and
- Implementing quality assurance procedures.

Special analyses using administrative data from the CATI system inform this report.

For further methodological details not covered in this report, refer to the other methodological reports in the series at http://healthpolicy.ucla.edu/chis/design/Pages/methodology.aspx. General information on CHIS data can be found on the California Health Interview Survey Web site at http://www.chis.ucla.edu or by contacting CHIS at CHIS@ucla.edu.

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1. CHIS 2011-2012 SAMPLE DESIGN AND METHODOLOGY SUMMARY

1.1 Overview

The California Health Interview Survey (CHIS) is a population-based telephone survey of California conducted every other year since 2001 and continually beginning in 2011. CHIS is the largest state health survey conducted and one of the largest health surveys in the nation. CHIS is conducted by the UCLA Center for Health Policy Research (UCLA-CHPR) in collaboration with the California Department of Public Health, the Department of Health Care Services, First 5 California, The California Endowment, the National Cancer Institute, and Kaiser Permanente. CHIS collects extensive information for all age groups on health status, health conditions, health-related behaviors, health insurance coverage, access to health care services, and other health and health related issues.

The sample is designed to meet and optimize two objectives:

1) Provide estimates for large- and medium-sized counties in the state, and for groups of the smallest counties (based on population size), and

2) Provide statewide estimates for California's overall population, its major racial and ethnic groups, as well as several Asian and Latino ethnic subgroups.

The CHIS sample is representative of California's non-institutionalized population living in households. CHIS data and results are used extensively by federal and State agencies, local public health agencies and organizations, advocacy and community organizations, other local agencies, hospitals, community clinics, health plans, foundations, and researchers. These data are used for analyses and publications to assess public health and health care needs, to develop and advocate policies to meet those needs, and to plan and budget health care coverage and services. Many researchers throughout California and the nation use CHIS data files to further their understanding of a wide range of health-related issues (visit the CHIS Research Clearinghouse at http://healthpolicy.ucla.edu/chis/research/Pages/default.aspx for many examples of these studies).

This series of reports describes the methods used in collecting data for CHIS 2011-2012, the sixth CHIS data collection cycle, which was conducted between June 2011 and January 2013. The previous CHIS cycles (2001, 2003, 2005, 2007, and 2009) are described in similar series, available at http://healthpolicy.ucla.edu/chis/design/Pages/methodology.aspx.

1.2 Switch to a Continuous Survey

From the first CHIS cycle in 2001 through 2009, CHIS data collection was biennial, with data collected during a 7-9 month period every other year. Beginning in 2011, CHIS data are collected continually over each 2-year cycle. This change was driven by several factors including the ability to track and release information about health in California on a more frequent and timely basis and to eliminate potential seasonality in the biennial data.

The CHIS 2011-2012 data included in these files were collected between June 2011 and January 2012. Approximately half of the interviews were conducted during the 2011 calendar year and half during the 2012 calendar year. As in previous CHIS cycles, weights are included with the data files and are based on the State of California's Department of Finance population estimates and projections, adjusted to remove the population living in group quarters (such as nursing homes, prisons, etc. and not eligible to participate in CHIS). When the weights are applied to the data, the results represent California's residential population during that one year period for the age group corresponding to the data file in use (adult, adolescent, or child).

See what else is new in the 2011-2012 CHIS sampling and data collection here: http://healthpolicy.ucla.edu/chis/design/Documents/whats-new-chis-2011-2012.pdf

In order to provide CHIS data users with more complete and up-to-date information to facilitate analyses of CHIS data, additional information on how to use the CHIS sampling weights, including sample code, is available at: http://healthpolicy.ucla.edu/chis/analyze/Pages/sample-code.aspx

Additional documentation on constructing the CHIS sampling weights is available in CHIS 2011-2012 Methods Report #5—Weighting and Variance Estimation, available at: http://healthpolicy.ucla.edu/chis/design/Pages/methodology.aspx. Other helpful information for understanding the CHIS sample design and data collection processing can be found in the four other methodology reports for each CHIS cycle year, described in the Preface above.

1.3 Sample Design Objectives

The CHIS 2011-2012 sample was designed to meet two sampling objectives discussed above: (1) provide estimates for adults in most counties and groups of counties with small populations; and (2) provide estimates for California's overall population, major racial and ethnic groups, and for several smaller ethnic subgroups.

To achieve these objectives, CHIS employed a dual-frame, multi-stage sample design. The random-digit-dial (RDD) sample included telephone numbers assigned to both landline and cellular service. The random-digit-dial (RDD) sample was approximately 80% landline and 20% cellular phone numbers. For the landline RDD sample, the 58 counties in the state were grouped into 44 geographic sampling strata, and 14 sub-strata were created within two of the largest metropolitan areas in the state (Los Angeles and San Diego). The Los Angeles County stratum included 8 sub-strata for Service Planning Areas, and the San Diego County stratum included 6 sub-strata for Health Service Regions. Most of the strata (39 of 44) are made up of a single county with no sub-strata (counties 3-41 in Table 1-1), with three multi-county strata comprised of the 17 remaining counties (see Table 1-1). A sufficient number of adult interviews were allocated to each stratum and sub-stratum to support the first sample design objective—to provide health estimates for adults at the local level. The same geographic stratification of the state has been used since CHIS 2005. In the first two CHIS cycles (2001 and 2003) there were 47 total sampling strata, including 33 individual counties and one county with sub-strata (Los Angeles).

Within each geographic stratum, residential telephone numbers were selected, and within each household, one adult respondent (age 18 and over) was randomly selected. In those households with adolescents (ages 12-17) and/or children (under age 12), one adolescent and one child were randomly selected; the adolescent was interviewed directly, and the adult most knowledgeable about the child's health completed the child interview.

The RDD CHIS sample is of sufficient size to accomplish the second objective (produce estimates for the state's major racial/ethnic groups, as well as many ethnic subgroups). To increase the precision of estimates for Koreans and Vietnamese, areas with relatively high concentrations of these groups were sampled at higher rates. These geographically targeted oversamples were supplemented by telephone numbers associated with group-specific surnames drawn from listed telephone directories to further increase the sample size for Koreans and Vietnamese.

Table 1-1. California county and county group strata used in the CHIS 2011-2012 sample design

1. Los Angeles	7. Alameda	27. Shasta
1.1 Antelope Valley	8. Sacramento	28. Yolo
1.2 San Fernando Valley	9. Contra Costa	29. El Dorado
1.3 San Gabriel Valley	10. Fresno	30. Imperial
1.4 Metro	11. San Francisco	31. Napa
1.5 West	12. Ventura	32. Kings
1.6 South	13. San Mateo	33. Madera
1.7 East	14. Kern	34. Monterey
1.8 South Bay	15. San Joaquin	35. Humboldt
2. San Diego	16. Sonoma	36. Nevada
2.1 N. Coastal	17. Stanislaus	37. Mendocino
2.2 N. Central	18. Santa Barbara	38. Sutter
2.3 Central	19. Solano	39. Yuba
2.4 South	20. Tulare	40. Lake
2.5 East	21. Santa Cruz	41. San Benito
2.6 N. Inland	22. Marin	42. Colusa, Glen, Tehama
3. Orange	23. San Luis Obispo	43. Plumas, Sierra, Siskiyou,
4. Santa Clara	24. Placer	Lassen, Modoc, Trinity, Del Norte
5. San Bernardino	25. Merced	44. Mariposa, Mono, Tuolumne,
6. Riverside	26. Butte	Alpine, Amador, Calaveras, Inyo

Source: UCLA Center for Health Policy Research, 2011-2012 California Health Interview Survey.

To help compensate for the increasing number of households without landline telephone service, a separate RDD sample was drawn of telephone numbers assigned to cellular service. In CHIS 2011-2012, the goal was to complete approximately 8,000 interviews (20% of all RDD interviews statewide) with adults from the cell phone sample. Telephone numbers assigned to cellular service cannot be geographically stratified at the county level with sufficient precision, so the cell RDD sample was geographically stratified into 28 strata using 7 CHIS regions and telephone area codes. If a sampled cell number was shared by two or more adult members of a household, one household member was selected for the adult interview. Otherwise, the adult owner of the sampled number was selected. Cell numbers used exclusively by children under 18 were considered ineligible. About 550 teen interviews and 1,500 child interviews were completed from the cell phone sample in CHIS 2011-2012.

The CHIS 2011-2012 and 2009 cell phone sampling method differed from that used in CHIS 2007 in two significant ways. First, in CHIS 2011-2012, all cell phone sample numbers used for non-business purposes by adults living in California were eligible for the extended interview, while in 2007 only cell numbers belonging to adults in cell-only households were eligible. Thus, adults in households with landlines who had their own cell phones or shared one with another adult household member could

have been selected through either the cell or landline sample. The second change to the cell phone sample was the inclusion of child and adolescent extended interviews.

Unlike both CHIS 2007 and CHIS 2009, where the cell phone sample quotas were treated separately from the landline sample, the CHIS 2011-2012 cell sample respondents were included in the overall and county specific target sample sizes. Twenty-eight cell phone sampling strata were created using CHIS 2007 and 2009 cell phone respondents' data and their pre-assigned FIPS county code, supplied by the sampling vendor. The statewide target of 8,000 adult cell phone interviews was also supplemented with an oversample to yield approximately 1,150 adult cell phone interviews. The oversample focused on six counties; Los Angeles, Orange, Santa Clara, Alameda, San Francisco, and San Mateo.

Finally, the CHIS 2011-2012 sample included an American Indian/Alaska Native (AIAN) oversample. This oversample was sponsored by Urban American Indian Involvement, Inc., and California Indian Health Services. The purpose of this oversample was to increase the number of AIAN participants and improve the statistical stability and precision of estimates for this group. The oversample was conducted using a list provided by Indian Health Services.

1.4 Data Collection

To capture the rich diversity of the California population, interviews were conducted in five languages: English, Spanish, Chinese (Mandarin and Cantonese dialects), Vietnamese, and Korean. These languages were chosen based on analysis of 2000 Census data to identify the languages that would cover the largest number of Californians in the CHIS sample that either did not speak English or did not speak English well enough to otherwise participate.

Westat, a private firm that specializes in statistical research and large-scale sample surveys, conducted CHIS 2011-2012 data collection under contract with the UCLA Center for Health Policy Research. For all samples, Westat staff interviewed one randomly selected adult in each sampled household, and sampled one adolescent and one child if they were present in the household and the sampled adult was the parent or legal guardian. Thus, up to three interviews could have been completed in each household. In landline sample households with children where the sampled adult was not the screener respondent, children and adolescents could be sampled as part of the screening interview, and the extended child (and adolescent) interviews could be completed before the adult interview. This "child-first" procedure was new for CHIS 2005 and has been continued in subsequent CHIS cycles; this

procedure substantially increases the yield of child interviews. While numerous subsequent attempts were made to complete the adult interview for child-first cases, there are completed child and/or adolescent interviews in households for which an adult interview was not completed. Table 1-2 shows the number of completed adult, child, and adolescent interviews in CHIS 2011-2012 by the type of sample (landline RDD, surname list, cell RDD, and American Indian/Alaska Native list).

Table 1-2. Number of completed CHIS 2011-2012 interviews by type of sample and instrument

Type of sample	Adult	Child	Adolescent
Total all samples	42,935[1]	7,334	2,799
Landline RDD	32,692	5,600	2,164
Surname list	825	161	57
Cell RDD	9,151	1,523	557
American Indian/Alaska Native list	267	50	21

Source: UCLA Center for Health Policy Research, 2011-2012 California Health Interview Survey.

Interviews in all languages were administered using Westat's computer-assisted telephone interviewing (CATI) system. The average adult interview took about 35 minutes to complete. The average child and adolescent interviews took about 15 minutes and 23 minutes, respectively. For "child-first" interviews, additional household information asked as part of the child interview averaged about 9 minutes. Interviews in non-English languages generally took longer to complete. More than 14 percent of the adult interviews were completed in a language other than English, as were about 27 percent of all child (parent proxy) interviews and 7 percent of all adolescent interviews.

Table 1-3 shows the major topic areas for each of the three survey instruments (adult, child, and adolescent).

1.5 Response Rates

The overall response rate for CHIS 2011-2012 is a composite of the screener response rate (i.e., success in introducing the survey to a household and randomly selecting an adult to be interviewed) and the extended interview response rate (i.e., success in getting one or more selected persons to complete the extended interview). To maximize the response rate, especially at the screener stage, an advance letter in five languages was mailed to all landline sampled telephone numbers for which an address could be obtained from reverse directory services. An advance letter was mailed for 48.3 percent of the landline RDD sample telephone numbers not identified by the sample vendor as business or nonworking numbers,

[1]Numbers in this table represent the data publically released and available through our Data Access Center. Total sample sizes may differ for specific calculations within the five methodology reports, or for specific analyses based on CHIS data.

Table 1-3. CHIS 2011-2012 survey topic areas by instrument

Health status	**Adult**	**Teen**	**Child**
General health status	✓	✓	✓
Days missed from school due to health problems	✓	✓	✓
Health-related quality of life (HRQOL)		✓	
Health conditions	**Adult**	**Teen**	**Child**
Asthma	✓	✓	✓
Diabetes, gestational diabetes, pre- /borderline diabetes	✓		
Heart disease, high blood pressure, stroke	✓		
Arthritis, physical disability	✓		
Epilepsy		✓	
Physical, behavioral, and/or mental conditions			✓
Mental health	**Adult**	**Teen**	**Child**
Mental health status	✓	✓	
Perceived need, access and utilization of mental health services	✓	✓	
Functional impairment, stigma	✓		
Suicide ideation and attempts	✓		
Health behaviors	**Adult**	**Teen**	**Child**
Dietary intake, fast food	✓	✓	✓
Physical activity and exercise, commute from school to home		✓	✓
Walking for transportation and leisure	✓		
Doctor discussed nutrition/physical activity		✓	✓
Flu Shot	✓		✓
Alcohol and cigarette use	✓	✓	
Illegal drug use		✓	
Sexual behavior	✓	✓	
HIV/STI testing		✓	
Elderly falls	✓		
Women's health	**Adult**	**Teen**	**Child**
Mammography screening	✓		
Pregnancy	✓	✓	
Dental health	**Adult**	**Teen**	**Child**
Last dental visit, main reason haven't visited dentist		✓	✓
Neighborhood and housing	Adult	**Teen**	**Child**
Safety, social cohesion	✓	✓	✓
Homeownership, length of time at current residence	✓		
Park use		✓	✓
Civic engagement	✓	✓	

Table 1-3. CHIS 2011-2012 survey topic areas by instrument (continued)

Access to and use of health care	**Adult**	**Teen**	**Child**
Usual source of care, visits to medical doctor	✓	✓	✓
Emergency room visits	✓	✓	✓
Delays in getting care (prescriptions and medical care)	✓	✓	✓
Medical home, timely appointments, hospitalizations	✓	✓	✓
Communication problems with doctor	✓		✓
Internet use for health information	✓		✓
Food environment	**Adult**	**Teen**	**Child**
Access to fresh and affordable foods	✓		
Where teen/child eats breakfast/lunch, fast food at school		✓	✓
Availability of food in household over past 12 months	✓		
Health insurance	**Adult**	**Teen**	**Child**
Current insurance coverage, spouse's coverage, who pays for coverage	✓	✓	✓
Health plan enrollment, characteristics and plan assessment	✓	✓	✓
Whether employer offers coverage, respondent/spouse eligibility	✓		
Coverage over past 12 months, reasons for lack of insurance	✓	✓	✓
Difficulty finding private health insurance	✓		
High deductible health plans	✓	✓	✓
Partial scope Medi-Cal	✓		
Public program eligibility	**Adult**	**Teen**	**Child**
Household poverty level	✓		
Program participation (CalWORKs, Food Stamps, SSI, SSDI, WIC, TANF)	✓	✓	✓
Assets, alimony/child support, social security/pension	✓		
Medi-Cal and Healthy Families eligibility	✓	✓	✓
Reason for Medi-Cal non-participation among potential beneficiaries	✓	✓	✓
Bullying and interpersonal violence	**Adult**	**Teen**	**Child**
Bullying, personal safety, interpersonal violence		✓	
Parental involvement/adult supervision	**Adult**	**Teen**	**Child**
Adult presence after school, role models, resiliency		✓	
Parental involvement			✓
Child care and school attendance	**Adult**	**Teen**	**Child**
Current child care arrangements			✓
Paid child care	✓		
First 5 California: Kit for New Parents			✓
Preschool/school attendance, name of school		✓	✓
Preschool quality			✓
School instability		✓	

Table 1-3. CHIS 2011-2012 survey topic areas by instrument (continued)

Employment	**Adult**	**Teen**	**Child**
Employment status, spouse's employment status	✓		
Hours worked at all jobs	✓		
Income	**Adult**	**Teen**	**Child**
Respondent's and spouse's earnings last month before taxes	✓		
Household income , number of persons supported by household income	✓		
Respondent characteristics	**Adult**	**Teen**	**Child**
Race and ethnicity, age, gender, height, weight	✓	✓	✓
Veteran status	✓		
Marital status, registered domestic partner status (same-sex couples)	✓		
Sexual orientation	✓		
Language spoken with peers, language of TV, radio, newspaper used	✓		
Education, English language proficiency	✓		
Citizenship, immigration status, country of birth, length of time in U.S., languages spoken at home	✓	✓	✓

Source: UCLA Center for Health Policy Research, 2011-2012 California Health Interview Survey.

81.1 percent of surname list sample numbers, and 94.3 percent of the AIAN list with landline numbers after removing nonworking and business numbers. Addresses were not available for the cell sample. As in all CHIS cycles since CHIS 2005, a $2 bill was included with the CHIS 2011-2012 advance letter to encourage cooperation.

The CHIS 2011-2012 screener response rate for the landline sample was 31.6 percent, and was higher for households that were sent the advance letter. For the cell phone sample, the screener response rate was 33.0 percent in all households. The extended interview response rate for the landline sample varied across the adult (47.4 percent), child (73.2 percent) and adolescent (42.7 percent) interviews. The adolescent rate includes getting permission from a parent or guardian. The adult interview response rate for the cell sample was 53.8 percent, the child rate was 73.4 percent, and the adolescent rate 42.6 percent. Multiplying the screener and extended rates gives an overall response rate for each type of interview. The percentage of households completing one or more of the extended interviews (adult, child, and/or adolescent) is a useful summary of the overall performance of the landline sample. For CHIS 2011-2012, the landline/list sample household response rate was 17.0 percent (the product of the screener response rate and the extended interview response rate at the household level of 53.9 percent). The cell sample household response rate was 18.3 percent, incorporating a household-level extended interview response

rate of 55.5 percent. All of the household and person level response rates vary by sampling stratum. For more information about the CHIS 2011-2012 response rates please see *CHIS 2011-2012 Methodology Series: Report 4 – Response Rates*.

Historically, the CHIS response rates are comparable to response rates of other scientific telephone surveys in California, such as the California Behavioral Risk Factor Surveillance System (BRFSS) Survey. However, comparing the CHIS and BRFSS response rates requires recomputing the CHIS response rates so they match the BRFSS response rate calculation methods. The 2011 California BRFSS landline response rate is 37.4 percent, the cell phone response rate is 20.4 percent, and the combined landline and cell phone rate is 35.4 percent.[2] In contrast, the CHIS 2011-2012 landline response rate is 39.5, cell phone response rate is 32.1 percent, and the combined landline and cell phone response rate is 35.1 percent, all these computed using the BRFSS methodology. California as a whole and the state's urban areas in particular are among the most difficult parts of the nation in which to conduct telephone interviews. The 2011 BRFSS, for example, shows the refusal rate for California (31.4%) is the highest in the nation and twice the national median (16.0%). Survey response rates tend to be lower in California than nationally, and over the past decade response rates have been declining both nationally and in California.

Further information about CHIS data quality and nonresponse bias is available at http://healthpolicy.ucla.edu/chis/design/Pages/data-quality.aspx.

After all follow-up attempts to complete the full questionnaire were exhausted, adults who completed at least approximately 80 percent of the questionnaire (i.e., through Section K which covers employment, income, poverty status, and food security), were counted as "complete." At least some responses in the employment and income series, or public program eligibility and food insecurity series were missing from those cases that did not complete the entire interview. They were imputed to enhance the analytic utility of the data.

Proxy interviews were conducted for frail and ill persons over the age of 65 who were unable to complete the extended adult interview in order to avoid biases for health estimates of elderly persons that might otherwise result. Eligible selected persons were re-contacted and offered a proxy option. For 283 elderly adults, a proxy interview was completed by either a spouse/partner or adult child. A reduced questionnaire, with questions identified as appropriate for a proxy respondent, was administered.

[2] As reported in the Behavioral Risk Factor Surveillance System 2011 Summary Data Quality Report (Version #5--Revised: 2/04/2013 , available online at http://www.cdc.gov/brfss/pdf/2011_Summary_Data_Quality_Report.pdf.

1.6 Weighting the Sample

To produce population estimates from CHIS data, weights are applied to the sample data to compensate for the probability of selection and a variety of other factors, some directly resulting from the design and administration of the survey. The sample is weighted to represent the non-institutionalized population for each sampling stratum and statewide. The weighting procedures used for CHIS 2011-2012 accomplish the following objectives:

- Compensate for differential probabilities of selection for households and persons;
- Reduce biases occurring because non-respondents may have different characteristics than respondents;
- Adjust, to the extent possible, for under-coverage in the sampling frames and in the conduct of the survey; and
- Reduce the variance of the estimates by using auxiliary information.

As part of the weighting process, a household weight was created for all households that completed the screener interview. This household weight is the product of the "base weight" (the inverse of the probability of selection of the telephone number) and a variety of adjustment factors. The household weight is used to compute a person-level weight, which includes adjustments for the within-household sampling of persons and nonresponse. The final step is to adjust the person-level weight using an iterative proportional fitting method or raking, as it is commonly called, so that the CHIS estimates are consistent with the marginal population control totals. This iterative procedure forces the CHIS weights to sum to known population control totals from an independent data source (see below). The procedure requires iteration to make sure all the control totals, or raking dimensions, are simultaneously satisfied within a pre-specified tolerance.

Population control totals of the number of persons by age, race, and sex at the stratum level for CHIS 2011-2012 were created primarily from the California Department of Finance's (DOF) 2012 Population Estimates and 2012 Population Projections. The raking procedure used 12 raking dimensions, which are combinations of demographic variables (age, sex, race, and ethnicity), geographic variables (county, Service Planning Area in Los Angeles County, and Health Region in San Diego County), household composition (presence of children and adolescents in the household), and socio-economic variables (home ownership and education). The socio-economic variables are included to reduce biases associated with excluding households without landline telephones from the sample frame. One limitation of using Department of Finance (DOF) data is that it includes about 2.4 percent of the population of

California who live in "group quarters" (i.e., persons living with nine or more unrelated persons and includes, for example nursing homes, prisons, dormitories, etc.). These persons were excluded from the CHIS target population and, as a result, the number of persons living in group quarters was estimated and removed from the Department of Finance control totals prior to raking.

DOF control totals used to create the CHIS 2011-2012 weights are based on 2010 Census counts, while those in previous CHIS cycles were based on Census 2000 counts (with adjustments made by the Department of Finance). Please pay close attention when comparing estimates using CHIS 2011-2012 data with estimates using data from previous CHIS cycles. The most accurate California population figures are available when the US population count is conducted (every 10 years). Population-based surveys like CHIS must use estimates and projections based on the decennial population count data between Censuses. For example, population control totals for CHIS 2009 were based on DOF estimates and projections, which were based on Census 2000 counts with adjustments for demographic changes within the state between 2000 and 2009. These estimates become less accurate and more dependent on the models underlying the adjustments over time. Using the most recent Census population count information to create control totals for weighting produces the most statistically accurate population estimates for the current cycle, but it may produce unexpected increases or decreases in some survey estimates when comparing survey cycles that use 2000 Census-based information and 2010 Census-based information. See *CHIS 2011-2012 Methodology Series: Report 5 – Weighting and Variance Estimation* for more information on the weighting process.

1.7 Imputation Methods

Missing values in the CHIS data files were replaced through imputation for nearly every variable. This was a massive task designed to enhance the analytic utility of the files. Westat imputed missing values for those variables used in the weighting process and UCLA-CHPR staff imputed values for nearly all other variables.

Two different imputation procedures were used by Westat to fill in missing responses for items essential for weighting the data. The first imputation technique was a completely random selection from the observed distribution of respondents. This method was used only for a few variables when the percentage of the items missing was very small. The second technique was hot deck imputation without replacement. The hot deck approach is one of the most commonly used method for assigning values for missing responses. With a hot deck, a value reported by a respondent for a particular item is assigned or donated to a "similar" person who did not respond to that item. The characteristics defining "similar" vary

for different variables. To carry out hot deck imputation, the respondents who answer a survey item form a pool of donors, while the item non-respondents are a group of recipients. A recipient is matched to the subset pool of donors based on household and individual characteristics. A value for the recipient is then randomly imputed from one of the donors in the pool. Once a donor is used, it is removed from the pool of donors for that variable. Hot deck imputation was used to impute the same items in CHIS 2003, CHIS 2005, CHIS 2007, CHIS 2009, and CHIS 2011-2012 (i.e., race, ethnicity, home ownership, and education).

UCLA-CHPR imputed missing values for nearly every variable in the data files other than those imputed by Westat and some sensitive variables in which nonresponse had its own meaning. Overall, item nonresponse rates in CHIS 2011-2012 were low, with most variables missing valid responses for less than 2% of the sample. However, there were a few exceptions where item nonresponse rate was greater than 20%, such as household income.

The imputation process conducted by UCLA-CHPR started with data editing, sometimes referred to as logical or relational imputation: for any missing value, a valid replacement value was sought based on known values of other variables of the same respondent or other sample(s) from the same household. For the remaining missing values, model-based hot-deck imputation with donor replacement was used. This method replaces a missing value for one respondent using a valid response from another respondent with similar characteristics as defined by a generalized linear model with a set of control variables (predictors). The link function of the model corresponds to the nature of the variable being imputed (e.g., linear regression for continuous variables, logistic regression for binary variables, etc.). Donors and recipients are grouped based on their predicted values from the model.

Control variables (predictors) used in the model to form donor pools for hot-decking always included the following: gender, age group, race/ethnicity, poverty level (based on household income), educational attainment, and region. Other control variables were also used depending on the nature of the imputed variable. Among the control variables, gender, age, race/ethnicity and regions were imputed by Westat. UCLA-CHPR then imputed household income and educational attainment in order to impute other variables. Household income, for example, was imputed using the hot-deck method within ranges from a set of auxiliary variables such as income range and/or poverty level.

The imputation order of the other variables followed the questionnaire. After all imputation procedures were complete, every step in the data quality control process is performed once again to ensure consistency between the imputed and non-imputed values on a case-by-case basis.

1.8 Methodology Report Series

A series of five methodology reports is available with more detail about the methods used in CHIS 2011-12:

- Report 1 – Sample Design;
- Report 2 – Data Collection Methods;
- Report 3 – Data Processing Procedures;
- Report 4 – Response Rates; and
- Report 5 – Weighting and Variance Estimation.

For further information on CHIS data and the methods used in the survey, visit the California Health Interview Survey Web site at http://www.chis.ucla.edu or contact CHIS at CHIS@ucla.edu.

2. SCREENING INTERVIEW AND CATI INSTRUMENT STRUCTURE

For a given household, CHIS 2011-2012 interviews could include, up to three substantive interviews: one adult, one child, and one adolescent extended interview. In addition to the substantive survey content, the CATI instruments performed sampling and administrative functions, including identifying eligible individuals and selecting sample members from among them, identifying appropriate respondents for the various questionnaires, and sequencing the activities within a household. All of these functions were programmed into the CATI instrument and are described in this chapter.

As described in Chapter 1, four distinct sampling frames were used for CHIS 2011-2012. The landline RDD (referred to as "landline"), cellular RDD (referred to as "cell"), and surname list were part of CHIS 2009. CHIS 2011-12 also included a list sample to increase the number of American Indian and Alaska Native (AIAN) respondents. The administrative functions varied slightly across samples, but the content of the extended interview questionnaires was virtually identical for each sample.

2.1 Initial Screening Interview for the Landline and Surname List Samples

The CHIS 2011-2012 sample was composed of telephone numbers selected as described in *CHIS 2011-2012 Methodology Series: Report 1 – Sample Design*. On first contact with a sampled landline telephone number, interviewers:

- identified a household member 18 years of age or older to act as informant (i.e., screener respondent);
- determined whether the telephone number was associated with a residence; and
- asked how many persons 18 or older live in the household, and selected one for the extended interview.

These basic elements were scripted into the initial screening interview for the landline sample. As in other CHIS cycles since 2003, the initial screener usually did not include an enumeration of adults in the household. Rather, the sample selection algorithm described by Rizzo et al. (2004) was based on the number of adults reported as follows:

- If one adult in the household, that adult was selected;
- If two adults in the household, either the screener respondent or the other adult was randomly selected with probability equal to 0.5 for each; or
- If three or more adults in the household,
  - the screener respondent was randomly selected with probability equal to one over the number of adults, or
  - the other adult with the most recent birthday was selected, or
  - if the screener respondent did not know the birthdays of one or more of the other adults, the interviewer then enumerated all the other adults, and one was randomly selected.

The following elements were included in the initial landline screener to assist in sample selection and developing survey weights:

- Number of children under 12 years of age living in the household[3];
- Number of adolescents between 12 and 17 years of age living in the household; and
- Number and use (home, business) of telephone numbers ringing into the household[4].

Starting with CHIS 2005, the landline screening interview included enumeration and sampling of children and adolescents once an adult was sampled for the extended interview if the following circumstances applied:

- The household included one or more children age 11 or under;
- The sampled adult was the parent or legal guardian of one or more of those children; and
- The sampled adult was the spouse of the screener respondent.

This change was implemented to increase the number of completed child interviews. Once a child was selected, the child interview could be completed before the adult interview if the most knowledgeable adult (MKA) was not the sampled adult[5]. This "child-first" protocol is described further in the next

[3] See *CHIS 2011-2012 Methodology Series: Report 5 – Weighting and Variance Estimation*, Section 3.7.

[4] See *CHIS 2011-2012 Methodology Series: Report 5 – Weighting and Variance Estimation*, Section 3.8.

[5] If an adolescent was also sampled in the screener, an adolescent interview could be completed before the adult interview if the screener respondent cold give permission.

section. If the above conditions were not met, children and adolescents were enumerated as part of the adult extended interview as in CHIS cycles before 2005.

For telephone numbers in the surname list samples, the initial screening interview was very similar to that for the landline sample. It included an additional question to determine whether a household included one or more individuals of the target ethnic groups:

> **Do any of these adults who live in your household consider themselves to be Korean or Vietnamese or of Korean or Vietnamese descent?**

If the answer to this question was "No," the sampled number was considered to be ineligible, and the screening interview was terminated. A similar screening question was included for the AIAN sample, worded:

> **Do any of these adults who live in your household consider themselves to be American Indian or Alaska Native or of American Indian or Alaska Native descent?**

2.2 Screening Interview for the Cell Sample

The goals of the screening interview for the cell sample were similar to those of the landline screener: to determine whether the telephone was associated with a household and to identify an eligible adult respondent. One important difference from the landline design is that most cell phones are linked with a single individual rather than a household. For that reason, the owner of the sampled phone number was selected with certainty for the adult interview if he/she (1) was 18 years of age or older; (2) was a California resident; and (3) did not share the phone with other adults in the household. If the phone was shared, then the phone number was treated as belonging to a household, and the adult selection rules were the same as for the landline sample.

2.3 Overall Structure of CHIS 2011-2012 Interviews

Given the number of different instruments and the rules for who could respond to each, one household could potentially have several individuals acting as respondents, including:

- the screener respondent,

- a sampled adult who answers questions in the adult interview[6],
- an adult who could give permission for the adolescent interview (e.g., "permission-giving adult"),
- a sampled adolescent who answers for themselves, and
- an adult who knows the most about the child's health (e.g., "most knowledgeable adult" or MKA) who is the respondent for the child extended interview.

In practice, one adult usually filled multiple roles in households with adolescents or children. However, the possibility of multiple respondents required rules for ordering survey instruments and various administrative activities (e.g., selecting sampled persons, identifying and contacting respondents), and CATI tools for navigating through the administrative and questionnaire screens. The default sequence of the questionnaire and navigation sections is presented in Figure 2-1. A basic principle of the interview flow is that the interviewer should attempt to complete as many different interviews as possible for which the household member currently on the telephone is eligible (e.g., child and permission for the adolescent interview). Once that has happened, the system goes to the HHSELECT screen (see Exhibit 2.1). If there are remaining interviews that couldn't be completed by that adult, the interviewer selects the appropriate individual (e.g., the sampled adult, the MKA for the Child Questionnaire or permission-giving adult for the adolescent permission).

As described in Section 2.1, CHIS 2011-2012 allowed sampling of children and adolescents as part of the screening interview for the landline and surname samples under certain circumstances. If the screener respondent was the sampled adult's spouse and was also determined to be the MKA, the child interview could be completed immediately or at another time before the adult interview. These cases are referred to as "child-first" cases. The adolescent interview could also be completed before the adult interview in child-first cases.

For cases other than those meeting the child-first criteria, the screening interview resumed in the middle of Section G of the Adult Extended Questionnaire, with the following items:

- Identification of adult respondent's spouse if living in the household;
- Enumeration of adolescents and children in the household; and

[6] If the sampled adult was over 65 and unable to answer for himself/herself due to illness or impairment, there could also be a proxy respondent who answered questions for the adult.

- Determining for which adolescents and children the adult respondent and/or spouse is the parent or legal guardian.

This information was used by the CATI program to select one adolescent and one child among those for whom the sampled adult was the parent or legal guardian. Adolescents or children who did not have a parent or legal guardian in the household were not eligible for selection. This includes foster children who are legally considered wards of the state, which means that the foster parent cannot give permission for them to participate in the survey. Households in which there was no one 18 years old or older were also not included in the sample.

Because sampling children and adolescents was part of the adult interview except for child-first cases, the adult interview had to be completed first. Other basic principles of the CATI system flow, once the adult interview is completed, included:

- Attempting to complete as many components as possible with the current respondent before asking for someone else; and
- Attempting the child interview before asking permission for the adolescent interview.

After a cell phone sample adult interview was completed, or after a landline or surname list sample adult interview was completed for non-child-first cases, if an adolescent and/or child was selected the sampled adult was asked:

- to identify the MKA in the household to serve as respondent for the Child Extended Questionnaire; and
- to give permission for the selected adolescent to be interviewed.

Once all possible components were attempted with the current respondent, the CATI program displayed a master navigation screen called HHSELECT. A sample HHSELECT screen is presented as Exhibit 2-1. HHSELECT displayed all interviews scheduled for a household, the name of the respondent, and whether the interview had been completed. The interviewer selected one of the outstanding interviews from HHSELECT, and was routed to the appropriate introductory screens for that interview. HHSELECT reappeared after each component was completed, or attempted but not completed. It also appeared when an interviewer first entered a case started by another interviewer.

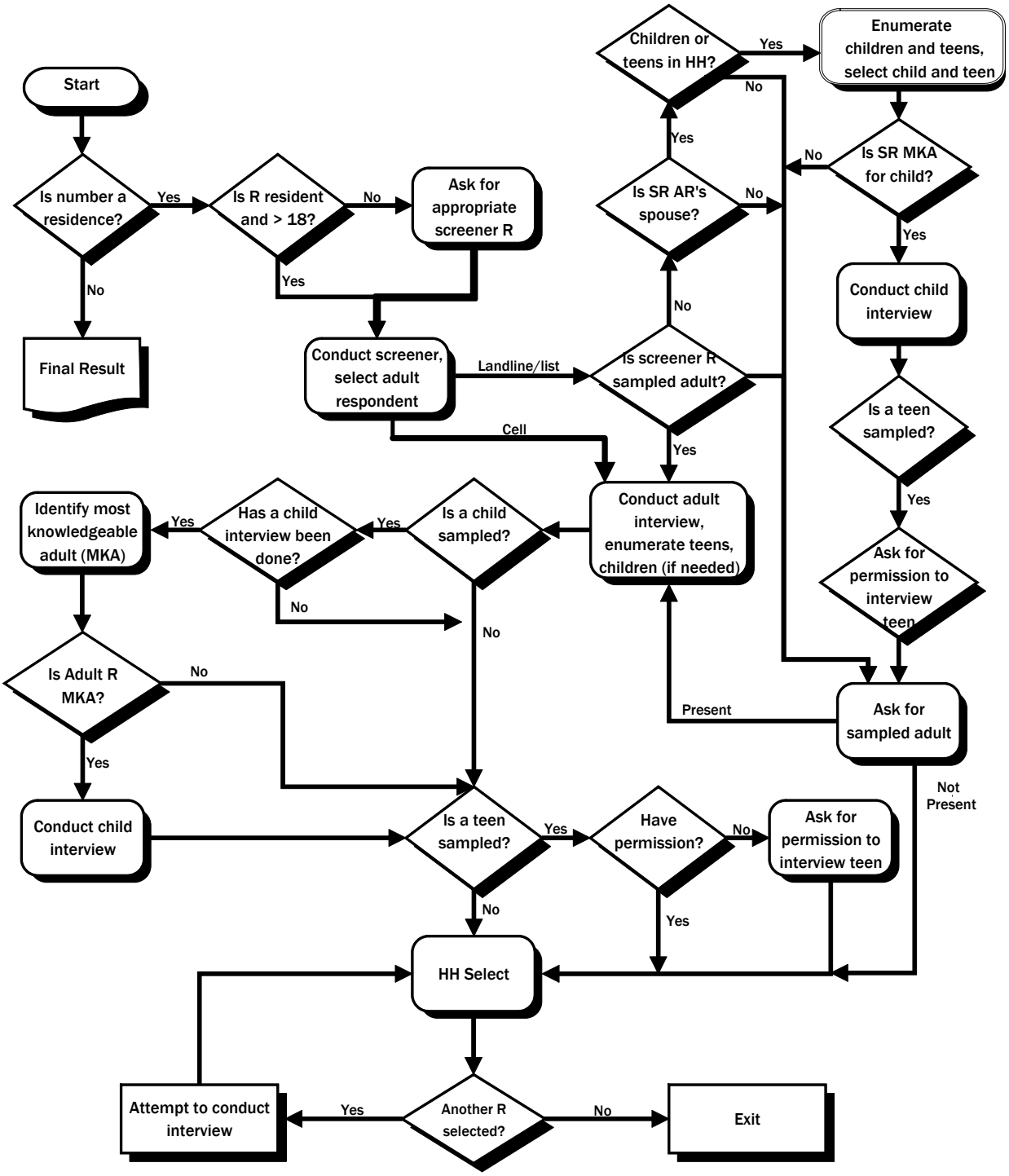
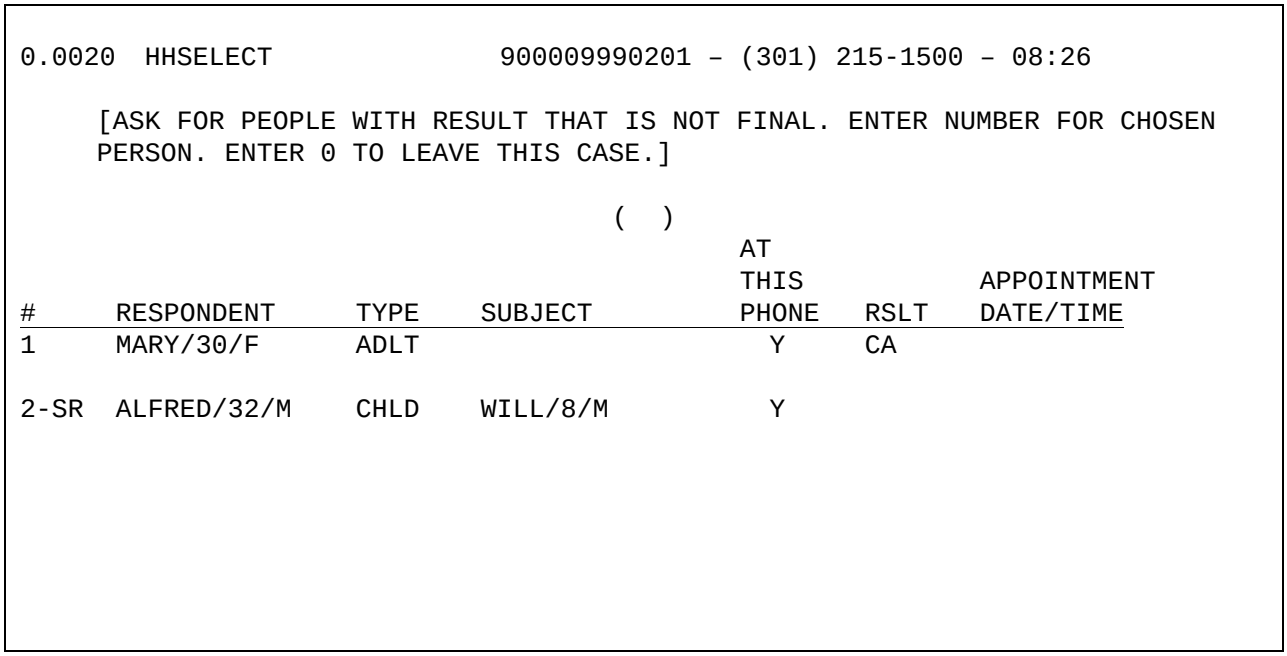


Figure 2-1. CHIS 2011-2012 Interview Flow

Exhibit 2-1. CHIS 2011-2012 HHSELECT CATI screen



```
0.0020  HHSELECT              900009990201 – (301) 215-1500 – 08:26

     [ASK FOR PEOPLE WITH RESULT THAT IS NOT FINAL. ENTER NUMBER FOR CHOSEN
     PERSON. ENTER 0 TO LEAVE THIS CASE.]

                                      (  )
                                          AT
                                          THIS            APPOINTMENT
#      RESPONDENT      TYPE    SUBJECT    PHONE   RSLT    DATE/TIME
1      MARY/30/F       ADLT                 Y     CA

2-SR   ALFRED/32/M     CHLD    WILL/8/M     Y
```

3. EXTENDED INTERVIEWS

CHIS 2011-2012 included three separate extended interviews: adult, child, and adolescent. This chapter describes Westat's involvement in the development of these questionnaires, the content of each, pretesting of the questionnaires, translation of the questionnaires from English into four other languages, changes in the questionnaires during data collection, and how proxy interviews were conducted.

3.1 Questionnaire Development Process

The CHIS questionnaire design was driven by the research needs of UCLA, sponsoring agencies, and a variety of governmental, academic, and other partners, as well as by concerns about respondent burden, response rates, and costs. The target was an adult questionnaire that would not normally exceed 30 minutes in administration time, and child and adolescent questionnaires that would not exceed 15 and 20 minutes, respectively.

In late 2010, UCLA began collaboration with Westat staff for drafts of the adult, adolescent, and child questionnaires. These drafts were developed by UCLA and its partners to cover a wide variety of health-related research topics. Westat reviewed the drafts and provided comments on the selection of question items, wording and sequence, and on the estimated length of the draft instruments. There were several iterations of draft instruments before complete instruments of reasonable length were ready for pretesting.

The surveys included many items from previous CHIS cycles as well as new items. Some of the items carried over were re-worded or re-ordered. The questionnaires posted on the CHIS website (http://healthpolicy.ucla.edu/chis/design/Pages/questionnaires.aspx) include both: (1) a *question* name describing the questionnaire type (adult, adolescent, child) and year, the section within the questionnaire, and a (largely sequential) number within the section; and (2) a *variable* name (largely based on previous CHIS cycles). To reduce the programming required and to facilitate pooling data across survey years, existing variable names were retained in the CATI program; new variables based on new questions were assigned the next available number in their section. Variable names for items in previous cycles not included in the 2011-2012 survey were not re-used. The question name incorporates a separate, sequential numbering system to facilitate manual use of the questionnaire documentation.

3.2 Questionnaire Content

The 2011-2012 adult extended questionnaire is divided into 15 sections:

A. **Demographics** – Age, gender, race, ethnicity, marital status.

B. **Health Conditions** – General health, asthma, diabetes, gestational diabetes, hypertension, heart disease, stroke, arthritis, flu shot, elderly falls.

C. **Health Behaviors** – Walking for transportation and leisure, dietary intake, fast food, access to fresh and affordable foods, cigarette and alcohol use/abuse, second-hand smoke.

D. **General Health, Disability, and Sexual Health** – Height and weight, disability, sexual partners and sexual orientation, registered domestic partners.

E. **Women's Health** – Pregnancy status, breast cancer screening.

F. **Mental Health** – K6 mental health assessment, Sheehan scale, access and utilization, stigma.

G. **Demographics, Part II** – Self and parent's country of birth, languages spoken at home, English proficiency, citizenship and immigration, household composition, paid child care, education, veteran status, employment of self and spouse.

H. **Health Care and Health Insurance –** Usual source of care, emergency room visits, current coverage by public or private plans, coverage of prescription drugs, coverage over past 12 months, spouse's coverage, high deductible health plans, reasons for lack of coverage, hospitalizations, partial scope Medi-Cal.

I. **Adolescent and Child Health Insurance** – For sampled adolescent and child, current coverage by public or private plans, source of coverage, managed care plan characteristics, high deductible plans, coverage in past 12 months, country of birth, citizenship and immigration.

J. **Health Care Utilization and Access** – Visits to medical doctor, personal doctor, patient-centered care, timely appointments, care coordination, communication problems with doctor, change of usual source of care, delays in care, internet use.

K. **Employment, Income, Poverty Status, Food Security** – Hours worked, income last month, household annual income, number of persons supported, poverty level test, availability of food in household and hunger.

L. **Public Program Participation –** Participation in public social programs, assets, alimony and child support, Social Security, pensions, reasons for non-enrollment in Medi-Cal.

M. **Housing and Social Cohesion** – Type of housing and tenure, neighborhood cohesion and safety, civic engagement.

S. **Suicide Ideation** – History of suicide attempts, thoughts of suicide.

N. **Final Demographics** – County of residence, address, use of cell phone, willingness to participate in follow-up study.

The 2011-2012 child extended questionnaire comprises 8 sections:

A. **Demographics and Health Status** – Gender, age, birth weight, height, and weight, school attendance, general health, asthma, other condition.

B. **Dental Health** – Most recent visit to a dentist, main reason haven't visited dentist.

C. **Diet, Physical Activity and Park Use –** Dietary intake, fast food, commute from school to home, name of school, physical activity, use of parks.

D. **Access to and Use of Health Care Services** – Usual source of care, emergency room use, visits to medical doctor, personal doctor, patient-centered care, timely appointments, care coordination, communication problems with doctor, delays in care, flu shot, internet use, First 5 California Kit for New Parents.

E. **Public Program Participation** – Participation in TANF/CalWORKs, Food Stamps, and WIC.

F. **Parental Involvement with child.**

G. **Child Care and Social Cohesion** – Types of child care used, difficulty finding care, neighborhood cohesion and safety.

H. **Demographics, Part II** – Race and ethnicity, country of birth, citizenship/immigration status of child and parents, languages spoken at home, and level of education of respondent and primary caretaker of child.

For child-first cases, some completed child interviews do not have completed adult interviews in the same household. The following topics from the adult questionnaire were administered to the MKA as part of the child questionnaire for child-first cases so that these children would have essential household-level and insurance information for analysis and weighting in the event an adult interview was not completed:

- Sampled adult' education, employment status, and age;
- Citizenship and immigration;
- Health insurance coverage for the sampled adult, spouse, the sampled child, and the sampled adolescent (if there is one);
- Household income;

- Own/rent home, smoking allowed in home; and
- Address information.

Finally, the 2011-2012 adolescent extended questionnaire comprises 14 sections, presented in the order they appear in the interview:

A. **Demographics** – Age, gender, school attendance, name of school.

N. **Bullying and Personal Safety.**

B. **Health Status and Health Conditions** – Self-reported health status, health-related quality of life, height and weight, missed school days, asthma, epilepsy.

C. **Diet, Nutrition, and Food Environment** – Dietary intake, fast food, food environment, water availability and consumption.

D. **Physical Activity and Sedentary Time –** Physical activity, physical education in school, commute from school to home, park or playground use and safety, social cohesion.

E. **Tobacco, Alcohol, and Drug Use –** Smoking habits, drinking, use of recreational drugs.

F. **Emotional Functioning** – K6 mental health assessment, emotional and psychological counseling.

G. **Sexual Behaviors** – Sexual activity, pregnancy, sexually transmitted infection testing, interpersonal violence.

H. **Health Care Utilization and Access** – Usual source of care, emergency room visits, most recent doctor visit, recall of provider advice, personal doctor, patient-centered care: information, timely appointments, care coordination, delays in care.

I. **Dental Health** – Most recent dental visit, main reason haven't visited dentist.

J. **Demographics, Part II** – Race and ethnicity, country of birth, citizenship and immigration, languages spoken at home.

K. **Suicide Ideation and Attempts.**

L. **Adult Supervision** – Adult presence after school, role models, civic engagement, resiliency.

M. **Closing –** Willingness to participate in follow-up study, closing.

3.3 Translation of Questionnaires

Translation of the CHIS 2011-2012 questionnaires began with a thorough review of the 2009 instrument to identify items that would be administered again in 2011-2012. This review was performed by Westat staff that compared printed versions of the two instruments side by side. In addition, electronic comparisons were made using text files of the 2009 and the 2011-2012 "screen libraries" generated by the CATI system. The initial comparison process began in April, 2011.

The electronic comparison of the two survey versions was literally a character-by-character comparison so that any difference, no matter how trivial or insignificant (e.g., an extra space or line), would be identified as a change or as a new item for CHIS 2011-2012. The results of the electronic comparison showed the need to fully translate or to update 45 screens in the CATI system.

To expedite the translation process and to begin conducting non-English interviews as quickly as possible, it was decided that unchanged items would not require a new translation and that they would be administered as they were in CHIS 2009. Screens requiring translation were divided into two categories: "new" screen files which consisted of questions not previously administered in any iteration of CHIS, and "modified" (Mod) screens which consisted of screens identified as having been used in prior administrations of CHIS but requiring text or formatting changes.

Other items requiring translation included questions about child and teen physical activity and access to healthcare. Administered as part of the Child and Adolescent interviews, this module consisted of thirty-four new questions. Also translated were questions about a "Kit for New Parents" for administration to parents on behest of First 5 California, a state agency which provides free information and assistance to the parents of from newborns to five years of age. This module consisted of five new screens. Another set of new screens requiring translation concerned parent's familiarity of vaccines to prevent the Human Papilloma Virus and its use by teenage daughters. This module consisted of nine new questions.

Westat also provided translated versions of the "Frequently Asked Questions" pages used to help interviewers answer respondents' questions about the survey and respond to objections that respondents may have had. In addition, the entire library of more than 1,100 CATI screens was reviewed and checked for consistency in wording across screens.

3.3.1 Letter Translations

The primary text used in the CHIS 2011-2012 advance letter, ad hoc letter, and initial (screener level) and extended interview refusal conversion letters was left intact from letters used for CHIS 2009. The only item requiring translation in all non-English languages (Spanish, Korean, Vietnamese, and Chinese) was the list of survey sponsors on the bottom of each page. These edits were completed by Westat translators, then reviewed and approved by UCLA. The multi-language advance letter was printed in the same layout as in CHIS 2009—an 11" x 17" folded document with English on the front, Spanish on the back, and with Chinese, Korean, and Vietnamese printed from left-to-right on the inside two pages. The refusal conversion letters were printed in four formats; one that combined English and Spanish (front and back of the document), and three others that combined English with the Asian languages.

3.3.2 Spanish Questionnaire Translation

The survey items identified as new or needing revision based on the electronic comparison were translated by Westat's translation unit and contracted translators between April 2011 and August 2011. A formatted text file of the English CATI screens for these items was used for translation work. There were 311 new or updated items in CHIS 2011-2012 that required Spanish translation.

Following a Westat internal evaluation of the initial translation, UCLA reviewed the translation and in that process identified a number of screens requiring further attention. On July 11, 2011, UCLA's language experts and Westat held a conference call to review, discuss, and finalize the translation. Further changes were made to the instrument to coincide with updates to the English survey and as a result of comments collected from Westat's bilingual interviewing staff. Questions added to the translation queue after the conference call were adjudicated separately.

3.3.3 Asian-language Questionnaire Translations

The translation approach used for the Spanish-language interview was adopted for the Asian language interviews in that only the new or modified screens were translated. The same list of 311 new or modified items identified as needing Spanish translation was used for the Asian language translations.

The screen names and survey item numbers from the CATI system were used as the primary "key" when referring to specific items and in identifying items that had been or needed to be translated (e.g., item number "AD56"). The new and revised items were translated or modified in Chinese, Korean, and Vietnamese between April and August, 2011. Translated sections of the survey were forwarded to UCLA as they became available. UCLA's review showed a number of items needing further review. Westat translators and UCLA staff held conference calls during July 2011 to discuss and finalize 283 of the screens. The remaining 28 screens were adjudicated on a roll-out basis throughout August 2011.

3.4 Pretest and Pilot Test

Westat conducted a small paper-and-pencil pretest of portions of the CHIS 2011-2012 adult, child, and adolescent interviews January 31 and February 1, 2011. The purpose of this test was to estimate the time to administer proposed new items and to assess the interview flow and wording of these items. Respondents were recruited by a market research firm at the direction of UCLA. Westat interviewers in the Merced, California, Telephone Research Center (TRC) conducted 9 adult interviews, 9 adolescent interviews, and 9 child interviews. All pretest interviews were conducted by experienced interviewers and monitored by Westat, UCLA, and/or Public Health Institute (PHI) staff. Results from the pretest informed subsequent decisions about dropping or revising questions.

The formal pilot test was conducted through Westat's "virtual TRC," from June 7 through June 11, 2011. Twenty-two interviewers who had worked on CHIS 2009 were trained and conducted interviews. The pilot test was intended as a full dress rehearsal of the main study, except that only an English-language instrument was used, and no attempt was made to convert refusals or follow up with language problem cases. The pilot test sample was drawn from listed telephone numbers expected to have a high yield of adolescents and children. Table 3-1 presents the results of the pilot test, and compares cooperation rates from pilot tests back to 2003. Generally, the screener and adult rates continued the overall downward trend over time, while the rates for the child interview, adolescent permission, and adolescent interview at least held steady.

Tables 3-2a through 3-2c present interview duration by section for the adult, child, and adolescent questionnaires, respectively. The adult extended interview averaged less than 36 minutes to administer, longer than the target of 30 minutes. The child interview averaged 13 minutes, and the adolescent interview about 21 minutes. The screening interview averaged 2.4 minutes, and getting permission to

interview adolescents 2.5 minutes. With the exception of the adolescent interview, these times were all close to or under the targets.

Table 3-1. Number of completed interviews and refusals and cooperation rates in the CHIS 2011-2012 pilot test, and CHIS 2007, 2005, and 2003 pilot cooperation rates

			Cooperation Rate				
Instrument	Completed Interviews	Refusals	2011-2012	2009	2007	2005	2003
Screener	273	709	27.8%	29.3%	31.4%	39.3%	43.0%
Adult interview	101	57	63.9%	68.0%	71.2%	69.5%	78.9%
Child interview	51	4	92.7%	90.0%	90.7%	95.1%	96.2%
Adolescent permission	34	2	94.4%	71.2%	73.8%*	69.4%	NA
Adolescent interview	12	2	85.7%	84.6%	81.8%	92.3%	77.8%

Source: UCLA Center for Health Policy Research, 2003, 2005, 2007, 2009, and 2011-2012 California Health Interview Survey
*Rate reported in 2007 was incorrect, and the rate reported here is correct.

Staff from UCLA, PHI, and Westat observed the pilot test. Results of the observations and debriefing helped inform decisions about cutting and modifying questions between the pilot test and the main study.

3.5 Changes in the Questionnaire during Data Collection

As Westat, UCLA, and PHI staff monitored interviews during the data collection period, as interviewer debriefing sessions were conducted, and as Westat data preparation staff reviewed marginal comments entered by interviewers, several issues with question items arose, some of which suggested that a change in the question wording or answer categories would be beneficial. Some of these issues led to actual changes in the CATI instrument during the field period. Appendix A presents all of the changes to the CATI instruments after data collection started.

Table 3-2a. Mean, standard deviation, minimum, maximum, and median lengths (in minutes) of CHIS 2011-2012 pilot adult extended interview, by section

Section	N	Mean	Std. Dev.	Min.	Max.	Med.
Total	101	**35.45**	**7.17**	**23.58**	**66.43**	**34.15**
A - Demographics	101	3.23	1.00	0.57	7.70	2.95
B - Health Conditions	101	4.84	2.08	0.57	13.50	4.55
C - Health Behaviors	101	4.17	1.10	0.78	9.15	4.05
D - General Health, Disability, and Sexual Health	101	1.82	0.49	1.02	5.17	1.73
E - Women's Health	62	1.44	0.79	0.10	3.92	1.47
F - Mental Health	101	3.31	2.02	1.53	16.25	2.40
G - Demographics, Part II						
(before screener)	101	0.80	0.63	0.28	3.40	0.50
(screener)	93	1.21	0.81	0.10	4.15	1.22
(after screener)	101	1.46	0.49	0.60	2.88	1.40
H - Health Care and Health Insurance						
(adult respondent)	101	1.96	0.79	0.83	6.83	1.77
(spouse)	77	0.46	0.29	0.23	1.53	0.33
(plan details)	101	1.80	0.76	0.73	4.93	1.60
I - Adolescent and Child Health Insurance						
(child)	44	0.81	0.99	0.28	5.15	0.40
(adolescent)	63	0.74	0.76	0.05	3.80	0.57
J - Health Care Utilization and Access	101	2.55	0.64	0.90	4.47	2.48
K - Employment, Income, Poverty Status, Food Security	101	2.30	1.05	0.47	5.42	2.07
L - Public Program Participation	36	1.24	0.52	0.67	3.27	1.16
M - Housing and Social Cohesion	101	2.01	0.65	1.32	6.07	1.83
N - Final Demographics	101	1.61	0.61	0.43	5.48	1.50

Source: UCLA Center for Health Policy Research, 2011-2012 California Health Interview Survey

Table 3-2b. Mean, standard deviation, minimum, maximum, and median length (in minutes) of CHIS 2011-2012 pilot child extended interview, by section

Section	N	Mean	Std. Dev.	Min.	Max.	Med.
Total	**51**	**13.25**	**3.16**	**8.57**	**23.32**	**12.68**
A - Demographics and Health Status	51	3.07	1.24	1.50	7.07	2.80
B - Dental Health	49	0.32	0.11	0.20	0.60	0.27
C - Diet, Physical Activity and Park Use	49	3.51	1.24	0.48	7.83	3.60
D - Access to and Use of Health Care Services	51	3.83	0.98	2.30	7.97	3.57
E - Public Program Participation	27	0.30	0.14	0.13	0.83	0.27
F - Parental Involvement with child	17	0.67	0.25	0.40	1.45	0.62
G - Child Care and Social Cohesion	51	1.09	0.61	0.42	2.75	1.10
H1 - Demographics, Part II	51	1.21	0.71	0.47	3.28	1.00

Source: UCLA Center for Health Policy Research, 2011-2012 California Health Interview Survey

Table 3-2c. Mean, standard deviation, minimum, maximum, and median lengths of CHIS 2011-2012 pilot adolescent extended interview, by section (in minutes)

Section	N	Mean	Std. Dev.	Min.	Max.	Med.
Total	**12**	**20.95**	**4.74**	**15.57**	**31.82**	**19.47**
A - Demographics	12	2.87	0.36	2.07	3.40	2.89
N – Bullying and Fighting	12	1.62	0.26	1.30	1.97	1.59
B - Health Status and Health Conditions	12	2.18	1.38	1.25	5.75	1.42
C - Diet, Nutrition, and Food Environment	12	1.98	0.59	1.47	3.67	1.79
D - Physical Activity and Sedentary Time	12	3.26	0.68	2.20	4.33	3.03
E - Tobacco, Alcohol, and Drug Use	12	0.54	0.21	0.33	0.85	0.42
F - Emotional Functioning	12	1.56	0.37	1.18	2.47	1.49
G - Sexual Behaviors	12	0.28	0.07	0.22	0.50	0.27
H1 - Health Care Utilization and Access	12	1.83	1.23	0.93	4.77	1.37
I - Dental Health	12	0.24	0.04	0.18	0.32	0.23
M - Closing	12	0.57	0.20	0.38	1.12	0.52
J - Demographics, Part II	12	1.01	0.59	0.50	2.08	0.68

Source: UCLA Center for Health Policy Research, 2011-2012 California Health Interview Survey

4. DATA COLLECTOR RECRUITING AND TRAINING

Westat conducted CHIS 2011-2012 at three of its Telephone Research Centers (TRCs) – in Rockville and Frederick, Maryland, and Merced, California – and with data collectors working from their homes nationwide. Overall direction of telephone survey operations was from the TRC central office at the Rockville headquarters.

4.1 Pretest and Pilot Test Recruiting and Training

Westat selected experienced data collectors from the Merced TRC and from our at-home interviewing staff for the pretest and the pilot. For the pretest, data collectors were trained informally on paper and pencil versions of the CHIS 2011-2012 draft questionnaire. Training was conducted by members of the CHIS team. Since the pretest respondents were recruited by a California market research firm, there was no need to train the pretest data collectors on contacting and callback procedures.

The pilot test was conducted utilizing 22 experienced data collectors working from their homes nationwide; all had interviewed for CHIS 2009. The training program was developed and implemented by the TRC Operations Manager, and anticipated the training for the main study. CATI was used for administration of the pilot interviews.

4.2 Recruiting and Training for English-language Telephone Interviewing

The field period for CHIS 2011-2012 began June 15th of 2011, ran for 19 months ending on January 14, 2013. Westat's data collection plan was to recruit and train a large number of data collectors at the beginning of the field period so that peak production would be reached within the first two weeks of the study. Training sessions were planned for early October to incorporate bilingual Asian data collectors and supplement the English interviewing staff. Bilingual Spanish-speaking data collectors were to be trained along with English-only data collectors to conduct interviews in English for a few weeks. Once familiar with the survey, they would be trained in and use the Spanish-language instrument. Asian bilingual data collectors were to be added in the fall.

4.2.1 Recruiting Telephone Data Collectors

The CHIS 2011-2012 interviewing force was a combination of Westat-experienced and newly-hired data collectors. In all locations some experienced data collectors were available at the beginning of the field period. After all training sessions had been held, 383 Westat data collectors of the 405 invited to training successfully completed all sessions. Of those who completed training, 234 had previous interviewing experience at Westat and 149 were new hires.

Westat recruits new data collectors by posting notices on job-oriented websites. Applicants use an online application process. This is followed by calling an interactive voice response (IVR) system which instructs them to leave a voice sample based on a provided script. Selected applicants are then screened via a live phone interview. Successful applicants are invited to complete an online general interviewer training (GIT) using Westat's telephony system, training on CATI system use, and project-specific training. Applicants must complete this general training, training in Westat's CATI system and project-specific training before they actually become Westat employees.

4.2.2 Overview of Training Plan

Development of the training started with an outline of key concepts to be covered. The agenda and the development of materials followed from this starting point. The appearance of all materials was standardized and presentations were scripted so that all trainers could follow the format and deliver a consistent training program across groups.

Training sessions were also organized according to standardized Westat procedures. Training teams were organized with staff that had distinct responsibilities (e.g., a lead trainer who delivered the WebEx training script, a group leader who evaluated trainees and provided administrative information and a coordinator for role plays.). The TRC Operations Manager led development of the training materials, served as one of the lead trainers, and trained the other lead trainers directly.

Initial training was provided to all data collectors in general interviewing techniques and the use of the computer system. These are self-guided web-based trainings with short quizzes at the end of each

session to assess basic knowledge of the lessons. The data collectors were then directed to a project-specific training that focused on the CHIS 2011-2012 screener and extended interviews.

The initial three and a half hours of the project-specific training involved data collectors completing a web-based distance learning session. This training started with the presentation of some background information, review of the advance letter and an instruction to go the web sites www.californiahealthsurvey.org and http://chis.ucla.edu to review material from previous administration of CHIS. These sites offered answers to commonly asked questions and provided numerous examples of how the data is used. The self-tutorial materials involved the completion of an adult interview using a program which simulates the administration of an actual interview, complete with respondent answers to ensure all trainees follow the identical path. Incorporated into this interview are both auditory and written trainer's notes explaining important aspects of the interview. Other materials to be reviewed in this self-paced training include the questions and answers to common respondent concerns, refusal avoidance lines, function key use, key concepts/definitions, a visual and auditory pronunciation guide and instructions on how to create a conference call for distressed respondents. Also included was a review of how calling cell phone sample cases and K/V sample cases differ from the RDD landline calls made. This self-training included two summary quizzes. Data collectors working in a physical telephone research center were able to complete this distance training using a TRC computer, if desired.

After successful completion of the distance learning and summary quizzes, data collectors attended a two-and-a-half hour WebEx session. Data collectors logged onto an assigned session to be connected by telephone in a conference while viewing a shared screen of the trainer's on each person's monitor. WebEx sessions were limited to no more than about twenty-five trainees. This session began by addressing any questions about the distance learning. Then there was a series of interactive screener exercises in which the trainees acted as data collectors and the instructor acted as respondents. Training points were incorporated into these interactive exercises. Next was a discussion of how to gain cooperation with refusal avoidance suggestions presented and shared. A sensitivity session reviewed how to deal with questions of a personal nature. Eight contact procedures were presented with information on how to handles cases resulting in something other than a completed interview.

In order for all trainees to receive the training in the same manner, all data collectors were trained using the self-tutorial and WebEx training regardless of their location for conducting interviews. Trainings began June 5, 2011. Additional trainings were conducted as needed throughout the data collection period.

After all data collectors started production, they received supplemental training on specific questionnaire issues that arose after training. They also received more training in gaining respondent cooperation. These trainings occurred through WebEx sessions and conference calls. Monitoring of data collectors continued throughout data collection as a method of quality control.

Data collectors who demonstrated relevant skills were selected to also receive training in how to handle special cases. These included interviews with proxy respondents for selected adults age 65 and older who were unable to complete an interview due to a physical or mental condition. Proxy data collectors used a training account to review the specially programmed proxy interview involving changing pronouns to fit the proxy circumstance. Through the training program proxy data collectors could also note the elimination of particular questions which would not have been easily answerable by a proxy.

4.2.3 Development of Training Materials

Prior to training, key members of the study area staff, the TRC operations manager, and senior TRC staff developed training materials. Guided by an outline of all the concepts relevant to the study, a complete set of training materials that complemented one another was produced. These materials included the following items.

- Training Program Agenda. The agenda identified the format of the sessions (self-tutorial materials, WebEx items and dyad role plays.), the topics to be covered, and the length of time the session was scheduled to take (see Exhibit 4-1). This document was used during training by the lead trainer and others assisting in training to see what materials were used by the lead trainer as well as the data collector during each session.

- Lead Trainer's Manual. This manual contained all material presented by the lead trainer in a WebEx session. It included interview interactive scripts, contact procedures and refusal avoidance suggestions.

- Website Materials. These self-tutorial, web based materials were provided to data collectors 4-7 days prior to their scheduled WebEx training. It included the simulated adult interview, the reference materials, the CHIS 2011-2012 advance letter, background information on the study, questions and answers to common respondent concerns, website information from http://www.californiahealthsurvey.org, pronunciation guide, refusal avoidance lines taken from support materials, instructions on how to create a conference call for distressed respondents and summary quizzes.

- Dyad Role-Play Scripts. Role plays were produced that focused on contact procedures and provided practice on the administration of the adult, child and adolescent extended interviews.
- Reference Materials. The training web site provided the following documents for data collector reference.
- A link to an introductory video narrated by the late E. Richard Brown, CHIS Principal Investigator.
- Key Concepts Sheet.
- The CHIS 2011-2012 advance letter.
- Background information on the study.
- An Audio-Visual Pronunciation Guide.
- 800#/Website Reference Card.
- Coding of Recordings/Messages Guide.
- Protocol for Referring Distressed Adolescent Respondents.
- News article about the impact of CHIS 2009.
- Additional website information.
- A gaining cooperation presentation.
- Refusal Avoidance statements from experienced data collectors.
- Problem Sheet instructions.
- Tips for successful interviewing.

4.2.4 Training Teams

The WebEx training team for each group consisted of a lead trainer and a group leader. The roles and responsibilities of the team members follow.

Lead Trainer. Lead trainers were responsible for the overall presentation and the pace of training. All lead trainers for CHIS 2011-2012 had several years of training experience and were well-

versed in training techniques and group control. It was the role of the lead trainers to concentrate on delivery of the material, while trainee evaluation was the responsibility of the group leader.

Exhibit 4-1. Agenda for English-Language Telephone Data collector Training, CHIS 2011-2012

Session	Length	Topic	Trainee Materials
Self-Tutorial Study	3 ½ hours	Project Specific self-study	PC and posted reference materials
WebEx Session	2 ½ hours		
1	5 minutes	Introduction	
2	10 minutes	Questions about self-tutorial	Personal Computer, Reference materials
3	50 minutes	Screener Interactives	Personal computer, Q & A's, Refusal Avoidance Sheet
4	10 minutes	Sensitivity Session	Personal computer,
5	50 minutes	Contact Procedures	Personal computer, Q & A's, Refusal Avoidance Sheet
6	10 minutes	Review of Cell Phone procedures	PC
7	10 minutes	Gaining Cooperation	PC
8	5 minutes	Questions & Answers	Role Play Discussion

Group Leader. The group leader was responsible for taking attendance, troubleshooting, and providing administrative information. Most importantly, the group leader was responsible for coordinating an evaluation of each trainee. The role of group leader was filled by shift supervisors with many years of experience working with data collectors.

Role Play Coordinator. The coordinator was responsible for pairing the trainee dyads and ensuring that each pair was monitored during their role play administration in order to assess readiness for live production.

4.2.5 Stages of Data Collector Training

Data collectors were trained in five stages. The first two stages are standard for all CATI data collectors, and the last three stages are specific to the project. The stages are General Interviewing

Techniques (GIT), Teltrain (CATI training), Web-based self-tutorial, project-specific WebEx session and role play administration.

4.2.5.1 General Interviewing Techniques

Every new data collector participated in a 4-hour web-based GIT session; this training was supported by Westat and was not charged to the project. In GIT training, data collectors were introduced to Westat and to survey research, shown samples of types of survey questions and recording conventions, and taught basic ways to obtain accurate data through listening and probing. They learned confidentiality procedures and methods for gaining respondent cooperation. The format was interspersed with exercises leading into the next lesson. Electronic transfer of exercise completion allowed the home office to review both accuracy in demonstrating knowledge and readiness for the next training stage.

4.2.5.2 CATI Training with Teltrain

Before specific project training, each trainee participated in an interactive, computer-assisted tutorial training program that was supervised, but self-administered, and took each participant through the procedures for conducting interviews using CATI. The session instructed data collectors on the use of the computers, all Westat CATI recording functions, and special CATI commands. The script included practice with logging on to the computer and using the keyboard (particularly the keys that control the flow of the CATI interview).

Included in the Teltrain session was a tutorial lesson on the coding of contact procedures. Contact results covered included ring no answers, non-working numbers, fax machine tones, answering machines, and busy signals. Through headphones, trainees experienced exact replications of common contact situations and learned the proper coding techniques through presentation and practice. A follow-up test was administered to evaluate mastery of the contacts. After scoring 100 percent on this test, a data collector was eligible for the specific project training.

4.2.5.3 CHIS Project Training – Web-based Self-tutorial Distance Learning

After data collectors were trained in GIT and the use of the CATI system, they participated in three training sessions devoted to the specific procedures and the administration of the CHIS CATI questionnaire.

At the end of the GIT session, data collectors were emailed instructions on accessing the project specific materials which included a self-guided practice interview of the CHIS 2011-2012 adult interview. The training utilized a program simulating the computer assisted telephone interviewing conducted in CHIS 2011-2012 production. Respondent answers to interview questions appeared on each screen. Data collectors were required to enter the answers provided in order to progress through the instrument, simulating an actual interview. Auditory and written training notes supplemented the interview administration. The successful completion of two summary quizzes were required to be transmitted electronically prior to the WebEx session.

4.2.5.4 CHIS Project Training – WebEx Session

Because of the multiple skills data collectors need, training focused on the techniques designed to cultivate these skills. This involved the active participation of all trainees by simulating the actual conditions of the interview. This approach required trainees to use the same procedures and data collection instruments they used to conduct the survey. This approach is summarized below.

Interactive Lectures. Interactive lectures were used to familiarize data collectors with the screener questionnaire. They were conducted as mock interviews in which the trainer acted as the respondent and the data collectors asked the questions using the computer to read the question text. In addition, the trainer took time to explain or define concepts pertinent to the CHIS data collectors. The screener and contact procedure interactives were designed to present situations requiring specialized data collection skills such as a selected adult being incapacitated or a language other than English being spoken.

The scripts used for interactive training were prepared using the Cheshire Automated Training Scripts (CATS) system. CATS is a series of macros created in MS Word for Windows for TRC staff to develop scripted training materials. With this program, CHIS training staff created training scripts.

Standards of style have been developed so that each training script looks uniform regardless of the author, and all training groups hear the same information, regardless of which trainer presented the material.

Dyad Role Plays. In dyad role plays, one trainee took the role of data collector using the computer while the other acted as the respondent, both using a prepared script that was produced using the CATS system. Data collectors reversed roles after the end of each role play. Each data collector participated in several dyads. Group leaders and other training team members monitored the role plays.

Reinforcing Exercises. In addition, written exercises were given to the data collectors during training to reinforce what was learned during the interactive interviewing sessions. These exercises dealt with proper probing techniques, the entering of additional comments to clarify a response, and gaining respondent cooperation.

Practice Answering Commonly-asked Questions. Commonly-asked questions and answers were discussed and reviewed throughout training as part of the interactive presentations. This document was posted on the web and printed out by trainees to use during the training. The questions dealt with both general interviewing issues and CHIS project-specific issues. This document was translated into Spanish, Chinese, Korean and Vietnamese.

4.2.6 Schedule and Number of Data collectors Trained

Table 4-1 shows the timing of project-specific data collector training sessions for CHIS 2011-2012. The first WebEx trainings beginning June 5, 2011, were held simultaneously in order to train more data collectors in a smaller group setting allowing for greater individual attention. Additional trainings were held primarily in the summer and extending into the fall.

4.2.7 Refusal Avoidance and Conversion

Within two weeks of the onset of CHIS production, Westat scheduled abbreviated small group WebEx training sessions. The objective was to improve interview skills in answering respondent questions and objections with immediate and informative responses. This was also done as part of the live WebEx training but once data collectors had some production experience, the application of these skills became that much more salient. Role playing with typical scenarios was practiced. Ideas were shared

regarding what was deemed to be successful more often. The purpose of this training included an attempt to improve the screener cooperation rate. A subset of these data collectors who were particularly adept with gaining cooperation were subsequently trained and assigned to work as converters for screener and extended level refusals.

Table 4-1. CHIS 2011-2012 data collector training dates, and number of data collectors trained

Training Dates	Data Collectors Invited to Training	Data Collectors Completing Training
2011		
6/5/11	38	38
6/6/11	41	41
6/7/11	26	24
6/9/11	10	9
6/11/11	9	8
6/12/11	20	20
6/16/11	17	16
6/18/11	8	8
6/21/11	12	12
6/24/11	6	6
6/30/11	17	16
7/7/11	25	25
7/9/11	7	7
7/28/11	16	13
7/30/11	14	14
8/24/11	17	17
9/28/11	12	11
10/22/11	6	6
11/3/11	15	15
11/10/11	14	12
11/15/11	8	6
2012	**---**	**---**
3/12/12	1	1
3/30/12	1	1
9/17/12	7	7
10/3/12	9	7
10/11/12	10	10
10/25/12	16	13
11/2/12	13	13
11/10/12	10	7
Total data collectors completing	**405**	**383**

During the regular project training, all data collectors received instruction in refusal avoidance methods. Further strategies were reviewed in special refusal avoidance meetings. Included in the effort to

improve respondent cooperation were special individual coaching sessions by supervisors assigned to small groups of data collectors. In these meetings, the emphasis was on the review of good interviewing techniques by direct observation. In addition, supervisors selected experienced data collectors with average or above average cooperation rates in either the screener, the extended interview, or both for refusal conversion activities.

Refusal conversion focuses on attempts to persuade respondents who have previously refused to participate or to complete an interview. Data collectors received special training in re-contacting and encouraging participation by those respondents who had originally declined. The refusal conversion training sessions lasted between one to two hours and covered specific conversion strategies. They explored common reasons for refusals, reasons specific to CHIS 2011-2012, and the importance of addressing respondent concerns with appropriate responses. During the refusal hold period, a conversion letter was sent to all households for which there was an address on file. This prefaced the refusal conversion call.

4.2.8 Data Collector Performance

Data collector performance was evaluated through examination of cooperation rate reports and monitoring of live interviewing for the skills needed for effective interviewing. Ten percent of interviewing time was monitored throughout the data collection period. Supervisors monitored data collectors for a minimum of ten minutes at a time. The monitoring was followed by a one-on-one coaching session to review techniques that were or were not working in an effort to either reinforce exemplified skills or provide feedback for improving interviewing style. Data collectors were monitored by TRC supervisors and training staff to determine if the following skills were demonstrated: use of a conversational style; reading fluency; ability to answer respondent questions quickly, accurately, and completely; ability to gain respondent cooperation; reading screens verbatim; and using neutral probes. Data collectors whose performance fell below acceptable levels attended additional coaching sessions with an emphasis on gaining respondent cooperation and answering respondent questions.

The following techniques were used to identify and reinforce behaviors effective in gaining respondent cooperation:

- The Project Coordinator published a weekly priority list for team leaders and mentors. It included lists of data collectors by name who were targeted for heavy monitoring because of recent change in status such as cooperation rates lower than average; evaluation for specialized tasks and refusal conversion. The issues that were to be focused on during monitoring were also provided, such as the data collector's ability to answer respondent questions/concerns quickly and accurately, and read all screens (in particular the screener introduction) at the appropriate pace and tempo for the respondent; read screens verbatim; and probe neutrally and appropriately. For refusal data collectors, the emphasis was on the ability to engage respondents and use appropriate techniques.

- Supervisors provided feedback to data collectors on an individual basis after monitoring sheets had been completed. This included feedback on positive aspects of the interview and suggestions for improving performance.

- Project Coordinators sent reports regarding data collector performance to the operations manager. Reports identified strengths and weaknesses as reported in monitoring sheets. They also provided input on data collectors recommended for special tasks.

- Project coordinator reports were used in combination with cooperation rates to identify data collectors for refusal conversion and other specialized tasks.

4.3 Training for Spanish-language Interviewing

All Spanish bilingual data collectors were trained according to the protocol described in Section 4.3.5, in sessions that included both English-only and bilingual data collectors. Spanish interviewing was conducted at all TRCs and also by bilingual Spanish speakers working from home. After completing the English-language CHIS-specific training, Spanish bilingual data collectors initially worked in English. Once the Spanish-language instrument was ready, bilingual data collectors were given practice using it before proceeding to live interviewing in Spanish. The training was monitored by Spanish-speaking supervisors. Since the English and Spanish instruments were so similar, there were few substantive or operational issues to work through during training.

Once the data collectors began interviewing at the TRCs in Spanish, they were monitored closely by Spanish-speaking supervisors. The first priority in CATI for Spanish bilingual data collectors were cases from the work class identified as speaking Spanish. Bilingual Spanish data collectors worked primarily in the Spanish work class for the rest of the field period but also made the initial follow-up calls to households that English speaking data collectors categorized as OTHER LANGUAGE (not Spanish, Mandarin, Cantonese, Korean, Vietnamese, or other Asian language). The expectation was that some of these would turn out to be Spanish speaking households not identified by a non-bilingual data collector. If

the household was not Spanish speaking and the Spanish data collector was unable to ascertain the language being spoken, these cases were next called by data collectors fluent in an Asian language to determine if the household spoke an Asian language eligible for a foreign language interview.

4.4 Training for Asian-language Interviewing

Bilingual and multilingual staff was utilized to assist the CHIS interviews in Vietnamese, Mandarin, Cantonese, and Korean. The training for Asian-language data collectors was conducted in multiple stages. Data collectors were first trained to administer English interviews. All trainees were hired on the premise that some of their interviewing time would be spent conducting English interviews. Asian-language-speaking households were identified in limited quantities, so in order to make their interviewing time efficient, data collectors had to demonstrate an ability to conduct English interviews. Additionally, it was not uncommon to conduct the adult interview in an Asian language followed by an adolescent interview where the preferred language was English.

Chinese and Korean characters and Vietnamese accented text were displayed on CATI in the Asian languages. Data collector instructions and help text remained in English. Asian data collectors attended the following training sessions:

- GIT
- Teltrain
- CHIS Web-based Self-tutorial in English
- CHIS WebEx training in English
- CHIS training in specific Asian languages
- Dyad role plays – both in the Asian languages and one in English
- Live interviewing

GIT, Teltrain, and CHIS Training in English. Following the standard training protocol established for CHIS, the Asian-language data collectors completed GIT, Teltrain, and parts of the English language CHIS project training. Each of these training steps was conducted in English, but open exclusively to the data collectors hired to conduct interviews in Vietnamese, Mandarin, Cantonese and

Korean. Because the Asian-language data collectors had English as a second language, trainers spent additional time defining terms, explaining concepts, and providing instruction on telephone interviewing and the CHIS instruments.

Vietnamese, Mandarin, Cantonese, and Korean Training Assistance. Vietnamese, Mandarin, Cantonese and Korean speaking staff were drawn from various areas of the Westat organization to assist in the creation of training materials. Data collectors were provided with translated copies of the advance letter and the Commonly Asked Questions and Answers. Vietnamese, Cantonese, Mandarin and Korean dyads were developed similar to the English dyads but with the Asian text shown for the respondent to follow on the screenshots. Asian supervisors either served as respondents for Asian speaking data collectors or monitored the Asian dyads to assess readiness for data collection.

Dyad Role Plays. Once the instrument had been thoroughly reviewed, the trainees were given the opportunity to practice using role plays. The trainee acting the part of the data collector would use the CATI instrument to administer the CHIS questionnaire in Vietnamese, Mandarin, Cantonese or Korean. The trainee acting the part of the respondent would use the scripted role play book or a role play document posted on the training website to respond to the data collector's questions. The role plays presented the screenshots to a respondent in the various Asian languages. An adolescent role play interview to be conducted in English was included in the set in an attempt to simulate a common real life scenario and provided additional English practice.

At any point in the interviewing process, data collectors had the capability to change the displayed text on a screen from English to an Asian language or vice versa. Additionally, data collectors could move a case to any of the other language work classes using a control key sequence if it was appropriate to have an interview done by a bilingual data collector speaking another language. Practice on this capability was included in the language specific trainings.

Live Interviewing. After training and practice, the data collectors began interviewing in Vietnamese, Mandarin, Cantonese and Korean. Having a CATI instrument with Mandarin, Cantonese, Korean, and Vietnamese translations including diacritical marks, provided a streamlined and greatly simplified interviewing process. Since all cases were contained in the CATI scheduler, case control was easily managed with cases designated for a specific language only being delivered to data collectors trained in interviewing in that Asian language.

Bilingual Monitoring. Asian speaking Westat supervisors were used to measure interviewing quality, and to provide feedback to individual data collectors. Specific monitoring forms and guidelines describing what to look and listen for were utilized. After a data collector had completed a monitoring session, the TRC supervisor would provide a review of the monitoring sheets completed. The monitoring information would further be used to follow-up with the data collector who had been monitored and review strengths and weaknesses exhibited. Supervisors fluent in Vietnamese, Korean, Mandarin and Cantonese working at the Rockville TRC in addition to bilingual supervisors working from home monitored Asian language data collectors.

4.5 Training for Surname List Sample Interviewing

Screening of Korean and Vietnamese surname sample cases was at first done primarily by the English-speaking data collectors working the landline sample, who had the capability of moving cases into a specific language group if necessary. This approach allowed the Asian data collectors to concentrate more fully on cases already identified as specific to their language. Refusal cases from the surname sample were called for an initial conversion attempt by Vietnamese or Korean speaking data collectors who had the capability to move the cases to another language if needed.

When the yield of interviews with Korean and Vietnamese adults proved lower than expected from both the landline and surname samples, an additional surname sample was screened using a separate CATI program that employed predictive dialing. For this additional sample, only a very brief screening interview was conducted, in English, on the first contact, to determine whether the household included anyone of Korean or Vietnamese ancestry. Cases screening in and language problems were moved to the regular CHIS CATI scheduler in the appropriate work class for follow-up. This special screening was conducted by a separate staff of experienced data collectors who underwent an abbreviated version of the CHIS training, concentrating on contacting procedures and gaining cooperation.

4.6 Training for Proxy Interviewing

For cases where a sampled adult was 65 or older and unable to be interviewed for physical or mental health reasons, the data collector attempted to identify an appropriate proxy respondent. The proxy

had to be an adult member of the household who knew about the sampled adult's health and health care. The CATI questionnaire was modified as described in Chapter 2 to accommodate proxy interviews.

Selected data collectors were specially trained to conduct the proxy interviews. Training comprised discussion of how to contact households identified as candidates for proxy interviews, determining whether a proxy would be appropriate, and identifying a respondent, review of the changes to the questionnaire for proxy interviews, and several practice interviews in CATI. Cases identified as eligible for proxy interviews were grouped in a separate work class and delivered by the CATI system only to data collectors trained for proxy interviewing.

4.7 Training for AIAN Sample Interviewing

To capture the rich diversity of the California population, interviews were conducted from a list sample of households considered to have a greater possibility of having residents of American Indian/Alaska Native (AIAN) heritage. Prior to calling AIAN cases, all data collectors were presented with information on the speech patterns commonly encountered in this population group. Unique cultural issues were discussed along with techniques for dealing with special situations, for example, lengthy pauses after being asked a question. Additionally, emphasis was placed on identifying the specific tribal heritage a respondent might have.

5. SCHEDULING AND RELEASE OF WORK

This chapter describes activities related to initiating data collection, including preparation and release of sampled telephone numbers, how the sample was organized in the CATI system, mailing advance letters, and handling inbound calls to Westat's CHIS 1-800 number. Before releasing sampled telephone numbers for interviewing, Westat arranged for purging out-of-scope telephone numbers for the landline and surname samples.

Data collection for the statewide landline and cell samples began June 15, 2011, and ended January 14, 2013. The list samples were fielded beginning the week of September 19, 2011, and continued through January 14, 2013. Because the target proportion of cell numbers in the overall RDD sample was adjusted (from 25 percent to 20 percent) at the end of 2011, a majority of the cell sample was dialed in 2011.

5.1 Sample Preparation

5.1.1 Landline Sample

The landline sample for CHIS 2011-2012 was selected and released to CATI in much the same way as in previous CHIS cycles. *CHIS 2011-2012 Methodology Series: Report 1 – Sample Design* describes the selection process in detail; it is summarized here to demonstrate how the sample was fielded.

A total of 764,887 telephone numbers were selected for the landline sample. Table 5-1 shows the number and proportion of sampled telephone numbers in each landline RDD stratum and the surname supplemental sample that were excluded because they were identified as nonworking or business numbers. See *CHIS 2011-2012 Methodology Series: Report 1 – Sample Design* for more details on these procedures. Overall, 7.7 percent of sampled numbers were purged as businesses, as compared with 8.4 percent in 2009. The proportion of landline numbers purged as business ranged from a low of 5.5 percent in the North Balance and Yuba County strata to a high of 9.0 percent in Imperial County. Another 47.7 percent of landline numbers were identified as nonworking by automated dialing and detection of a

tri-tone sound, an increase of more than 3 points over 2009. The low was 35.9 percent in Kings County and the high 54.8 percent in San Francisco.

Table 5-1 also shows the proportion of non-purged numbers (those eligible to be called by Westat interviewers) for which addresses were obtained in reverse directory matches. Overall, 48.7 percent of numbers yielded addresses in the matches performed with multiple vendors, down from 58 percent in 2009. Sutter County had the highest address rate at 63.4 percent, and the North Balance stratum the lowest at 41.2 percent.

An advance letter signed by the CHIS Principal Investigator was sent for all sampled landline and surname telephone numbers for which an address was available from reverse directory services. The advance letter (shown in Appendix B in English only) used for the RDD samples was printed on CHIS letterhead in English, Spanish, Chinese, Korean, and Vietnamese. For the Korean and Vietnamese supplemental samples, the letter was printed in English and the appropriate language. A different letter, also signed by the CHIS Principal Investigator, was sent after initial refusals for the screening interview (for cases designated as "conversion"), adult interview, or permission to interview a selected adolescent, if an address had been obtained for the sampled number. Versions of this letter were printed in English and one other language, which was Spanish for all cases except those in the surname supplemental samples or who had been identified as speaking one of the CHIS Asian languages.

5.1.2 Supplemental List Samples

Supplemental samples were fielded for CHIS 2011-2012 to increase the yield of interviews with persons of Korean, Vietnamese, and American Indian/Alaska Native (AIAN) heritage. The Asian samples were based on surname lists and published telephone numbers. The AIAN sample was drawn from patient lists of clinics treating Indians in California, and included both landline and cell numbers. The surname samples had less than 1 percent of numbers purged as businesses and from 15 to 19 percent of numbers purged as nonworking; more than 80 percent of the remainder had addresses. AIAN sample landline numbers were also purged; almost 6 percent were businesses and 48 percent nonworking. Between the list itself and the vendor match, 94 percent of the remaining numbers were associated with addresses.

Table 5-1 Number and percentage of telephone numbers removed from sample before calling by reason, and number and proportion of numbers available to be called for which addresses were obtained

			Removed—Business		Removed—Nonworking		Sample Available to Call			
Stratum	Description	Sampled	Number	Percentage	Number	Percentage	Total	Address	No Address	% w/Addr.
1	Los Angeles	208,781	17,481	8.4%	103,304	49.5%	87,996	39,691	48,305	45.1%
2	San Diego	98,638	7,874	8.0%	47,259	47.9%	43,505	19,167	24,338	44.1%
3	Orange	52,062	4,438	8.5%	26,286	50.5%	21,338	9,388	11,950	44.0%
4	Santa Clara	28,629	1,896	6.6%	14,734	51.5%	11,999	5,932	6,067	49.4%
5	San Bernardino	24,700	2,020	8.2%	11,044	44.7%	11,636	5,419	6,217	46.6%
6	Riverside	28,054	2,106	7.5%	12,070	43.0%	13,878	6,641	7,237	47.9%
7	Alameda	23,863	1,581	6.6%	11,866	49.7%	10,416	5,317	5,099	51.0%
8	Sacramento	21,881	1,473	6.7%	9,877	45.1%	10,531	4,866	5,665	46.2%
9	Contra Costa	14,931	988	6.6%	7,294	48.9%	6,649	3,669	2,980	55.2%
10	Fresno	8,976	697	7.8%	4,297	47.9%	3,982	2,095	1,887	52.6%
11	San Francisco	20,980	1,457	6.9%	11,498	54.8%	8,025	3,820	4,205	47.6%
12	Ventura	10,330	860	8.3%	4,839	46.8%	4,631	2,148	2,483	46.4%
13	San Mateo	14,399	1,013	7.0%	7,599	52.8%	5,787	3,126	2,661	54.0%
14	Kern	9,037	621	6.9%	4,101	45.4%	4,315	2,231	2,084	51.7%
15	San Joaquin	7,058	536	7.6%	2,934	41.6%	3,588	1,999	1,589	55.7%
16	Sonoma	5,747	405	7.0%	2,591	45.1%	2,751	1,644	1,107	59.8%
17	Stanislaus	7,214	540	7.5%	3,077	42.7%	3,597	1,985	1,612	55.2%
18	Santa Barbara	8,389	739	8.8%	4,361	52.0%	3,289	1,568	1,721	47.7%
19	Solano	7,926	525	6.6%	3,466	43.7%	3,935	2,258	1,677	57.4%
20	Tulare	6,447	463	7.2%	2,996	46.5%	2,988	1,626	1,362	54.4%
21	Santa Cruz	7,483	571	7.6%	3,520	47.0%	3,392	1,845	1,547	54.4%
22	Marin	9,493	723	7.6%	4,822	50.8%	3,948	2,317	1,631	58.7%
23	San Luis Obispo	6,243	492	7.9%	2,841	45.5%	2,910	1,614	1,296	55.5%
24	Placer	6,997	526	7.5%	3,023	43.2%	3,448	1,680	1,768	48.7%
25	Merced	7,519	492	6.5%	3,129	41.6%	3,898	2,005	1,893	51.4%
26	Butte	4,637	402	8.7%	1,808	39.0%	2,427	1,426	1,001	58.8%
27	Shasta	4,898	418	8.5%	1,954	39.9%	2,526	1,350	1,176	53.4%
28	Yolo	6,040	433	7.2%	2,701	44.7%	2,906	1,546	1,360	53.2%
29	El Dorado	5,737	354	6.2%	2,610	45.5%	2,773	1,628	1,145	58.7%
30	Imperial	7,170	645	9.0%	2,747	38.3%	3,778	2,079	1,699	55.0%

Table 5-1. Number and percentage of telephone numbers removed from sample before calling by reason, and number and proportion of numbers called for which addresses were obtained (continued)

			Removed—Business		Removed—Nonworking		Sample Available to Call			
Stratum	Description	Sampled	Number	Percentage	Number	Percentage	Tota	Address	No Address	% w/Addr.
31	Napa	8,355	733	8.8%	3,590	43.0%	4,032	2,334	1,698	57.9%
32	Kings	7,239	501	6.9%	2,599	35.9%	4,139	2,283	1,856	55.2%
33	Madera	6,320	448	7.1%	2,738	43.3%	3,134	1,595	1,539	50.9%
34	Monterey	6,651	454	6.8%	3,448	51.8%	2,749	1,459	1,290	53.1%
35	Humboldt	4,338	303	7.0%	1,994	46.0%	2,041	1,056	985	51.7%
36	Nevada	5,743	466	8.1%	2,187	38.1%	3,090	1,774	1,316	57.4%
37	Mendocino	4,985	395	7.9%	2,173	43.6%	2,417	1,396	1,021	57.8%
38	Sutter	6,706	543	8.1%	2,935	43.8%	3,228	2,045	1,183	63.4%
39	Yuba	8,678	479	5.5%	3,944	45.4%	4,255	2,394	1,861	56.3%
40	Lake	7,433	449	6.0%	3,822	51.4%	3,162	1,759	1,403	55.6%
41	San Benito	9,507	741	7.8%	4,256	44.8%	4,510	2,318	2,192	51.4%
42	Tehama, Glen, Colusa	4,414	381	8.6%	1,829	41.4%	2,204	1,166	1,038	52.9%
43	North Balance	4,475	245	5.5%	2,037	45.5%	2,193	903	1,290	41.2%
44	Sierra Balance	5,784	353	6.1%	2,489	43.0%	2,942	1,418	1,524	48.2%
Total	**Landline**	764,887	59,260	7.7%	364,689	47.7%	340,938	165,980	174,958	48.7%
	Korean Surname	10,667	56	0.5%	1,998	18.7%	8,613	6,907	1,706	80.2%
	Vietnamese Surname	5,594	14	0.3%	820	14.7%	4,760	3,938	822	82.7%
	AIAN List Landline	8,816	520	5.9%	4,233	48.0%	4,063	3,833	230	94.3%

Source: UCLA Center for Health Policy Research, 2011-2012 California Health Interview Survey.

5.1.3 Cell Sample

CHIS 2011-2012 included a sample of telephone numbers assigned to cellular service, as was done in 2007 and 2009. As in 2009, adults were sampled in all eligible households identified from this sample, and children and adolescents were sampled as well when present in the household. The sample was selected from banks of numbers allocated to cellular service, and also included numbers from the landline sample that were identified as belonging to cell phones. The cell sample included 134,648 numbers from cellular banks and 2,877 identified from the landline. The latter number is fewer than what was identified from the landline sample in 2009. No addresses were available for the cell sample, and there was no purging for non-working and business numbers.

5.2 Sample Management

All sampled telephone numbers were divided into "release groups," or random subsets of the overall samples, separately by sample type (landline with address, landline no address, list). Those with addresses were fielded in such a way that the pre-notification letters would be received within a few days of the initial telephone contact attempt. Both cases with and without addresses were generally given the same priority within the CATI scheduler.

Within the CATI system, active and completed cases were allocated into work classes, which are divisions of the sample that are to be worked by interviewers with special training or skills. Westat's CATI scheduler treats each work class as an independent sample. Work classes were given priority order for delivery of work to qualified interviewers. For example, a refusal converter would always be delivered a refusal work class case if one was available before being given a case from the default work class. The CHIS 2011-2012 work classes were defined as follows:

- **Default—**All RDD and surname list cases on initial release, and continuing RDD and surname list sample cases that had not been moved to another work class; available to all interviewers

- **Refusal—**Any RDD sample case that encountered a refusal at any point in the interview process, whether at the screener or any extended interview level; available only to interviewers selected to work and trained as refusal converters. There were five different refusal work classes: screener initial refusal, extended refusal (other than adolescent and adolescent permission), adolescent refusal, adolescent permission refusal, and second refusals of any type.

- **Hearing/Speech—**Any RDD or county supplemental sample case in which a respondent was determined to have difficulty communicating because of hearing or speech impairment;

- **Language (Spanish)—**Any case determined or suspected to require a Spanish bilingual interviewer to re-contact; available only to the appropriate bilingual interviewers; there was also a refusal work class for Spanish-language cases;

- **Language (Mandarin, Cantonese, Vietnamese, and Korean)—**All RDD cases determined or suspected to require a Mandarin, Cantonese, Vietnamese, or Korean bilingual interviewer to re-contact; available only to the appropriate bilingual interviewers;

- **Language (Other)—**Any RDD or county supplemental sample case determined or suspected to require contact in a language other than Spanish, Mandarin, Cantonese, Korean, or Vietnamese; available to bilingual interviewers for verification of language spoken by the respondent;

- **AIAN**—Telephone numbers from the AIAN list were worked by a small group of interviewers who had received a special cultural sensitivity training developed by UCLA; and

- **Proxy Interviews—**For sampled adults, 65 or older who could not complete the interview because of poor health or physical limitations, selected interviewers attempted to complete an interview with a proxy respondent in the household.

During the field period, Westat data collection and statistical staff monitored the yield (number of completed interviews) by stratum. As the number of completed interviews neared the targets, several actions were possible. Some cases in each stratum were held in reserve; in strata that appeared to be falling short of the targets, additional sample was released for calling. The monitoring process was repeated several times, re-calibrating the fielded sample as more information on progress to date became available. A few strata required purchase of additional sample because of unexpectedly low residency and/or response rates, or because the target number of completed interviews was increased. See *CHIS 2011-2012 Methodology Series: Report 1 – Sample Design* for a discussion of meeting the target numbers of completed adult and child interviews by stratum.

5.3 Inbound Toll-Free Calls

Westat maintained a toll-free number for respondents to call with questions about the survey. The toll-free line was staffed weekdays from 9 a.m. to midnight Eastern Time, Saturdays from 10 a.m. – 6 p.m. Eastern Time, and Sundays from 2 p.m. – 10 p.m. Eastern Time. In the event an operator was not

available to answer the call or for calls made outside of the above time frames, the caller was directed to a voicemail message specific to CHIS.

Respondents had access to the toll-free number from a variety of sources. The toll-free number was included on all advance letters with an invitation for respondents with questions to call. The number was also placed on all refusal conversion letters sent to respondents who had earlier refused to participate. Interviewers provided the number throughout the data collection period to respondents who requested additional information.

Between the start of data collection in June 2011 and the end in January 2013, 1,589 calls were made to the toll-free number, many fewer than in 2009. Some of these were calling to refuse participation or to report that the sampled adult was too ill to participate. The vast majority were simply to verify the legitimacy of the study or ask general questions with no further action required.

UCLA also maintained a separate toll-free number during the field period, which was available on the CHIS web site. Westat interviewers provided the UCLA number to respondents who specifically wanted to talk with someone at UCLA, and in other cases to help persuade the person to do the interview. There was continual back-and-forth contact between UCLA and Westat in response to these calls. Westat followed up on any calls complaining about an interviewer's behavior by identifying the interviewer and reviewing the case with her or him. Some of these exchanges involved cell sample respondents who claimed not to have received promised incentive payments. Again, Westat followed up as needed to resolve these issues.

6. DATA COLLECTION RESULTS

This chapter describes the results of the CHIS 2011-2012 data collection, first presenting detailed tables of outcomes at each interview level, and then discussing procedures to increase response once various interim outcomes were encountered. The chapter discusses separate strategies for answering machines, "ring no answers," callbacks, language problems, and refusals.

6.1 Detailed Results by Outcome

Interviewers assign a result code to each attempt to reach a sampled telephone number. The telephone result codes are divided into interim (numeric) and final (alpha) codes. During data collection, each case is tracked according to its most recent result code. Cases with interim codes are typically managed automatically by the scheduler according to preset parameters, such as how to work through "time slices" (see Section 6.3) and how long to wait before re-contacting an initial refusal. Problem cases (result codes beginning with "8") require manual intervention before they are re-fielded.

Cases assigned certain final result codes are often re-fielded, but these actions require specific decisions and return of cases to the active scheduler. For example, cases with no contact after seven calls were given a final status of "NA"; if the only contact over seven calls was an answering matching, the code "NM" was assigned. Groups of NA and NM cases were periodically re-fielded for an additional set of seven calls each. Once a case resulted in some human contact, it was no longer eligible for a final NA or NM code.

Initial refusals (interim codes beginning with "2") were moved to the refusal work class and generally not called again for 2 weeks. Initial refusals that were considered hostile or abusive received a final result code of "RB." If a case received a second refusal, it was also coded as RB. Most RBs were re-fielded for a third attempt. If a third refusal was encountered, the case was coded "R3."

At the end of the field period, all remaining interim cases were assigned final result codes according to their call history. Many cases for which some contact had been made received codes beginning with "M" (maximum calls), with the actual designation depending on what else had happened during their call history.

Tables 6-1 and 6-2, 6-4, 6-5, and 6-8 present the complete final result code dispositions, by sample, for the screener, adult, child, and adolescent interviews, respectively. The following sections discuss these results by instrument.

6.1.1 Screening Interview

Landline and Cell Samples. As shown in Table 6-1, more than 55 percent of the sampled landline telephone numbers were determined by the sample vendor to be out of scope, either because they were nonresidential or nonworking. (See Table 5-1 for more detail.) All remaining landline numbers and all cell numbers were made available for the Westat TRC to call. More than 18,000 landline numbers and 13,000 cell numbers were loaded into CATI but never called because they were not needed for the stratum targets. Because each sampled telephone number was randomly assigned a sequence number within stratum and the cases were fielded in sequential order, for practical purposes the cases not called may be considered not to have been a part of the sample. Of the sampled numbers Westat called, an additional 24.5 percent proved to be non-working or businesses. In contrast, about 38 percent of the cell sample numbers were identified as out-of-scope, all through interviewer calls.

Eligibility criteria for the landline sample were quite limited; only 314 cases were determined to be ineligible during the screener, most because the number was associated with a household outside of California. For the cell sample, sampled numbers were ineligible if the number belonged to someone under 18 years of age, as well as if the owner of the number resided outside of California. The eligibility rate for the cell sample (completed screeners divided by that number plus ineligibles) was 67.7 percent.

The completion rate, or sample yield, is simply the ratio of completed screeners for eligible households to the total sample, excluding numbers never called. Since the denominator includes out-of-scope and ineligible cases, the completion rate is considerably lower than the response rate (see *CHIS 2011-2012 Methodology Series: Report 4 — Response Rates*), but is useful because it shows what sample size is needed to achieve a particular number of completed cases. The completion rate was 19.4 percent of dialed numbers for the landline sample. Taken as a percentage of all sampled numbers except those not dialed, which is how the completion rate was calculated in previous cycles, the rate was 8.4 percent, compared with 9.6 percent in 2009. The completion rate for the cell sample was 13.2 percent, a substantial increase over the 2009 rate of 8.3 percent.

The cooperation rate, shown at the bottom of Table 6-1, was 50.1 percent for the landline sample, about one point higher than in 2009, and 44.2 percent for the cell sample, 13 points higher than in 2009. The cooperation rate was thus about 6 points lower for the cell sample than for the landline sample in 2011; in 2009 the gap was 18 points. The improvement in the cooperation rate was due in part to increasing refusal conversion efforts; in previous cycles, there was no second refusal conversion attempted for the cell sample. As cell phone use increases compared with landline use, people may also be more willing to be interviewed on their cell phones. Noncontact was less of a problem for the cell sample in 2011-2012 than in previous cycles; the 14.7 percent rate of noncontact in 2011-2012 was 9 points less than the 2009 rate.

List Samples. As described in Chapter 5, two kinds of list samples were fielded in CHIS 2011-2012: the Asian surname samples and the AIAN list sample. Table 6-2 describes the performance of these samples at the screener level. Sample performance varied considerably by type. The overall yield (percentage of sampled numbers resulting a completed screener with an eligible household) was much higher for the Vietnamese surname sample (18.4 percent) than for any of the other lists. The biggest difference between the two surname samples was the eligibility rate, which was more than twice as high for the Vietnamese list than for the Korean list. More than half of the AIAN list's landline numbers proved to be out of scope, with most (93 percent) of these identified as nonworking or business numbers by the sample vendor. The AIAN cell numbers had a higher rate of noncontact than any of the other lists, and about a 20-point lower eligibility rate than the AIAN landline. The cooperation rate for the surname lists was comparable to those of the cell and landline samples; the cooperation rate for the AIAN list was about 5 points lower than for the surname lists, and there was little difference in cooperation between the landline and cell numbers obtained from the AIAN list.

Landline Sample Over Time. The proportion of landline numbers determined to be out of scope has increased over CHIS cycles, in part because of changes in the sample design. The proportion of out-of-scope cases identified by the sample vendor (NB/NT) as compared with the proportion identified by interviewers (NR/NW) has also grown larger over time as the vendor has improved its procedures for identifying business and nonworking numbers. However, the 2011-2012 rate of vendor-purged numbers was up only slightly from 2009, and the proportion of interviewer-identified out-of-scope numbers stayed the same.

Table 6-1. Detailed results of CHIS 2011-2012 data collection, screening interview, landline and cell samples

	LANDLINE			CELL		
		Percentage			Percentage	
	Number	Within category	of Total	Number	Within category	of Total
TOTAL NUMBERS SAMPLED	**764,887**			**137,525**		
Out of Scope – Vendor Purge						
NB – NON-RESIDENTIAL, BUSINESS PURGE	59,260	14.0%		0	0.0%	
NT – NON-WORKING, TRITONE MATCH	364,689	86.0%		0	0.0%	
Total Out of Scope – Vendor Purge	**423,949**		**55.4%**	**0**		**0.0%**
NUMBERS AVAILABLE TO BE CALLED	340,938			137,525		
NEVER CALLED	18,128			13,369		
TOTAL NUMBERS DIALED	322,810			124,156		
CS – COMPLETED SCREENER (C)	62,491		19.4%	16,340		13.2%
Ineligible(I)						
IF – INELIGIBLE SCREENER; >9 UNRELATED ADULTS	5	1.6%		7	0.1%	
IO – INELIGIBLE OUT OF STATE	187	59.6%		2,396	30.8%	
IP – INELIGIBLE CELLULAR	0	0.0%		5,375	69.0%	
IS – INELIGIBLE SCREENER; NO ELIGIBLE ADULTS	10	3.2%		1	<0.05%	
IZ – INELIGIBLE SCREENER; NO ADULTS IN HH	112	35.7%		6	0.1%	
Total Ineligible	**314**		**0.1%**	**7,785**		**6.3%**
Out of Scope						
NR – NON-RESIDENTIAL PHONE NUMBER	18,640	23.6%		2,908	6.2%	
NW – NON-WORKING PHONE NUMBER	60,361	76.4%		44,071	93.8%	
OD – DUPLICATE TELEPHONE NUMBER	10	<0.05%		5	<0.05%	
Total Out of Scope	**79,011**		**24.5%**	**46,984**		**37.8%**
Noncontact						
NA – NO CONTACT MADE AFTER TIME SLICES FILLED	72,271	67.6%		776	4.3%	
NM – NO CONTACT – REACHED ANSWERING MACHINE	34,697	32.4%		17,456	95.7%	
Total Noncontact	**106,968**		**33.1%**	**18,232**		**14.7%**
Refusal (R)						
R3 – FINAL REFUSAL – RECEIVED 3 OR MORE 2S	41,705	66.6%		18,112	59.6%	
RB – FINAL REFUSAL	3,655	5.8%		2,749	9.0%	
RM – REFUSAL REACHED MAXIMUM CALL LIMIT	9,112	14.6%		5,534	18.2%	
RX – RE-RELEASED RB REACHED MAX CALL LIMIT	8,119	13.0%		4,008	13.2%	
Total Refusal	**62,591**		**19.4%**	**30,403**		**24.5%**
Other Nonresponse						
LH – HEARING AND SPEECH PROBLEM	362	3.2%		18	0.4%	
LM – LANGUAGE PROBLEM REACHED MAX CALLS	567	5.0%		180	4.1%	
LP – FINAL LANGUAGE PROBLEM	2499	21.9%		442	10.0%	
MC – MAXIMUM CALLS	6006	52.5%		2,816	63.8%	
ML – MAXIMUM CALLS – LANGUAGE PROB IN HH	1374	12.0%		931	21.1%	
MR -- MAXIMUM CALLS, REFUSAL IN HH	272	2.4%		0	0.0%	
NO – OTHER NON-RESPONSE	355	3.1%		25	0.6%	
Total Other Nonresponse	**11,435**		**3.5%**	**4,412**		**3.6%**
ELIGIBILITY RATE (C / (C+I))		99.5%			67.7%	
COOPERATION RATE ((C+I) / (C+I+R))		50.1%			44.2%	

Source: UCLA Center for Health Policy Research, 2011-2012 California Health Interview Survey

Table 6-2. Detailed results of CHIS 2011-2012 data collection, list sample screening

	KOREAN SAMPLE		VIETNAMESE SAMPLE		AIAN SAMPLE LANDLINE		AIAN SAMPLE CELL	
	Number	Percentage	Number	Percentage	Number	Percentage	Number	Percentage
COMPLETED SCREENER								
ELIGIBLE	725	6.8%	1,031	18.4%	509	5.8%	79	6.3%
INELIGIBLE	1,523	14.3%	301	5.4%	283	3.2%	99	7.9%
OUT OF SCOPE	3,510	32.9%	1,373	24.5%	5,094	57.8%	273	21.8%
NONCONTACT	1,675	15.7%	954	17.1%	1,481	16.8%	434	34.7%
REFUSAL	2,576	24.2%	1,566	28.0%	1,146	13.0%	256	20.5%
LANGUAGE PROBLEM	437	4.1%	274	4.9%	32	0.4%	7	0.6%
OTHER NONRESPONSE	221	2.1%	95	1.7%	271	3.1%	102	8.2%
TOTAL (excluding numbers not called)	**10,667**		**5,594**		**8,816**		**1,250**	
ELIGIBILTY RATE (C / (C+I))		32.3%		77.4%		64.3%		44.4%
COOPERATION RATE ((C+I) / (C+I+R))		46.6%		46.0%		40.9%		41.0%

Source: UCLA Center for Health Policy Research, 2011-2012 California Health Interview Survey

Table 6-3a presents a comparison of CHIS 2011-2012 RDD (landline) screener data collection results, excluding out-of-scope and not-called cases, with those of previous cycles. The steady decline of the proportion of the sample resulting in a completed screener resumed after a brief upturn between 2007 and 2009. There was also a substantial increase in the proportion of numbers with no contact, partially offset by a decrease in the proportion of numbers with refusal or other nonresponse as the final outcome.

Table 6-3b presents similar information for the cell samples in 2009 and 2011-2012, but including out-of-scope cases. The table indicates considerable movement between cycles: the proportion of completed screeners and out-of-scope increased, while the proportion of noncontact cases dropped almost 10 points. The rates of refusal and other nonresponse also dropped slightly. All of these short-term trends point to California residents becoming somewhat more comfortable with doing surveys on cell phones.

Table 6-3a. Comparison of landline RDD screener outcomes excluding out-of-scope cases, CHIS 2001through CHIS 2011-2012

	CHIS 2011-2012	CHIS 2009	CHIS 2007	CHIS 2005	CHIS 2003	CHIS 2001
Sample Size	243,799	295,894	316,785	198,372	153,452	154,639
Completed Screeners	25.6%	27.5%	26.8%	35.1%	43.2%	53.0%
Ineligible	0.1%	0.1%	<0.05%	<0.05%	0.5%	<0.05%
Noncontact	43.9%	38.3%	30.2%	23.6%	19.7%	19.8%
Refusal	25.7%	28.5%	36.8%	34.8%	28.7%	20.9%
Other Nonresponse	4.7%	5.7%	6.2%	6.5%	7.9%	6.3%

Source: UCLA Center for Health Policy Research, 2001, 2003, 2005, 2007, 2009, and 2011-2012 California Health Interview Survey

Table 6-3b. Comparison of cell RDD screener outcomes, CHIS 2009 versus CHIS 2011-2012

	CHIS 2011-2012	CHIS 2009
Sample Size	124,156	62,774
Completed Screeners	13.2%	8.3%
Out of Scope	37.8%	33.7%
Ineligible	6.3%	3.5%
Noncontact	14.7%	24.0%
Refusal	24.5%	26.0%
Other Nonresponse	3.6%	4.5%

Source: UCLA Center for Health Policy Research, 2009 and 2011-2012 California Health Interview Survey

6.1.2 Adult Extended Interview

The number of completed screeners with eligible households becomes the total number of cases available for the adult extended interview. The results of data collection efforts for the adult extended interview in all samples are shown in Table 6-4.

Adult extended interviews were completed for 52.3 percent of the 62,491 landline sample adults, virtually the same rate as in 2009. As in past cycles, the CHIS team decided that it would use data from partially completed adult interviews, so long as the interview went at least through Section K. Fewer than 1 percent of all adult interviews counted as complete were only partially done (CP). The proportion of refusals in the 2011-2012 landline adult sample (27.7 percent) was almost identical to the proportion in 2009, and the proportion of other nonresponse (19.9 percent) was up about a point and a half.

The completion rate for the cell sample, 56.0 percent, was almost 4 points higher than for the landline sample, and 2.6 points higher than it was in 2009. The cooperation rate, 66.9 percent, was also higher than that for the landline sample, despite the fact that no refusal conversion was attempted for the adult extended interview in the cell sample. Nonresponse other than refusals, at 15.7 percent, was about 3 points higher for the 2011-2012 cell sample than for the 2009 sample. The $25 incentive for an adult interview was undoubtedly a factor in obtaining cooperation from respondents in the cell sample.

The completion rate for the surname samples, 47.0 percent, was also very close to the 2009 rate; with nonresponse other than refusals accounting for the lower completion rate compared with the landline sample. The AIAN sample performed similarly to the surname samples, except for the higher rate of ineligibility (7.7 percent) at the adult level.

Table 6-4. Detailed results of CHIS 2011-2012 data collection, adult extended interview by sample type

	LANDLINE SAMPLE			CELL SAMPLE			SURNAME SAMPLES			AIAN SAMPLE		
		Percentage			Percentage			Percentage			Percentage	
	Number	Within category	of Total	Number	Within category	of Total	Number	Within category	of Total	Number	Within category	of Total
Completed Interviews (C)												
CA – COMPLETED ADULT EXTENDED	32,529	99.5%		9,070	99.1%		810	98.2%		264	98.9%	
CP – ADULT PARTIAL COMPLETE FINISHED	171	0.5%		82	0.9%		15	1.8%		3	1.1%	
Total Completed Interviews	**32,700**		**52.3%**	**9,152**		**56.0%**	**825**		**47.0%**	**267**		**45.4**
Ineligible (I)												
IA – IN'BLE AGE FOR ADULT EXTENDED	23	35.4%		8	16.3%		0	0.0%		0	0.0%	
IN – IN'BLE RACE FOR SURNAME SAMPLE	0	0.0%		0	0.0%		20	95.2%		44	97.8%	
IO – IN'BLE OUT OF STATE	42	64.6%		41	83.7%		1	4.8%		1	2.2%	
Total Ineligible	**65**		**0.1%**	**49**		**0.3%**	**21**		**1.2%**	**45**		**7.7%**
Out of Scope												
OE – OUT OF SCOPE ENUMERATION ERROR	347	97.8%		37	94.9%		2	66.7%		4	100.0%	
OO – OTHER OUT OF SCOPE	8	2.3%		2	5.1%		1	33.3%		0	0.0%	
Total Out of Scope	**355**		**0.6%**	**39**		**0.2%**	**3**		**0.2%**	**4**		**0.7%**
Refusal (R)												
R1 – FINAL REF, NO CONVERSION ATTEMPT	0	0.0%		4,465	98.5%		0	0.0%		14	10.7%	
R3 – FINAL REF, 3 OR MORE REFUSALS	20	0.1%		0	0.0%		1	0.2%		1	0.8%	
RB – FINAL REF	14,439	85.3%		68	1.5%		421	90.0%		74	56.5%	
RM – REF REACHED MAXIMUM CALL LIMIT	2,461	14.5%		0	0.0%		46	9.8%		42	32.1%	
Total Refusal	**16,920**		**27.1%**	**4,533**		**27.7%**	**468**		**26.7%**	**131**		**22.3**
Other Nonresponse												
LH – LANG PROBLEM HEARING/SPEECH	247	2.0%		10	0.4%		9	2.1%		7	5.0%	
LM – LANG PROB REACHED MAX CALLS	117	0.9%		8	0.3%		4	0.9%		2	1.4%	
LP -- FINAL LANGUAGE PROBLEM	248	2.0%		14	0.6%		3	0.7%		0	0.0%	
MC – MAXIMUM CALLS	3,320	26.7%		978	38.1%		53	12.1%		79	56.0%	
ML – MAXIMUM CALLS – SCRNRSLT PROB	2,167	17.4%		447	17.4%		185	42.1%		1	0.7%	
MR – MAXIMUM CALLS – REFUSAL IN HH	1,433	11.5%		461	18.0%		24	5.5%		24	17.0%	
MT – MAXIMUM NUMBER OF CALL	53	0.4%		8	0.3%		3	0.7%		0	0.0%	
ND – RESPONDENT DECEASED	86	0.7%		2	0.1%		4	0.9%		1	0.7%	
NF -- NOT AVAILABLE IN FIELD PERIOD	14	0.1%		2	0.1%		0	0.0%		3	2.1%	
NL -- NOT LOCATABLE THROUGH TRACING	3,981	32.0%		606	23.6%		113	25.7%		20	14.2%	
NO -- OTHER NON-RESPONSE	40	0.3%		8	0.3%		1	0.2%		0	0.0%	
NS – SUBJECT SICK/INCAPACITATED	745	6.0%		23	0.9%		40	9.1%		4	2.8%	
Total Other Nonresponse	**12,451**		**19.9%**	**2,567**		**15.7%**	**439**		**25.0%**	**141**		**24.0**
TOTAL	**62,491**			**16,340**			**1,756**			**588**		
ELIGIBILITY RATE (C / (C+I))			99.8%			99.5%			97.5%			85.6%
COOPERATION RATE (C / (C+R))			65.9%			66.9%			63.8%			67.1%

Source: UCLA Center for Health Policy Research, 2011-2012 California Health Interview Survey

Table 6-5. Detailed results of CHIS 2011-2012 data collection, child extended interview by sample type

	LANDLINE SAMPLE			CELL SAMPLE			SURNAME SAMPLES			AIAN SAMPLE		
		Percentage			Percentage			Percentage			Percentage	
	Number	Within category	of Total	Number	Within category	of Total	Number	Within category	of Total	Number	Within category	of Total
Completed Interviews (C)												
CC – COMPLETED CHILD EXTENDED	5,603		74.4%	1,523		78.5%	161		71.2%	50		78.1%
Ineligible (I)												
IC – IN'BLE AGE FOR CHILD EXTENDED	36	97.3%		12	100.0%		3	100.0%		0		
IO – INELIGIBLE OUT OF STATE	1	2.7%		0	0.0%		0	0.0%		0		
Total Ineligible	**37**		**0.5%**	**12**		**0.6%**	**3**		**1.3%**	**0**		**0.0%**
Out of Scope												
OE – OUT OF SCOPE ENUMERATION ERROR	20		0.3%	3		0.2%	2		0.9%	0		0.0%
Refusal (R)												
R1 – FINAL REF, NO CONVERSION ATTEMPT	0	0.0%		235	99.2%		0	0.0%		1	20.0%	
R3 – FINAL REF, 3 OR MORE REFUSALS	1	0.1%		0	0.0%		0	0.0%		0	0.0%	
RB – FINAL REF	680	80.8%		2	0.8%		20	95.2%		1	20.0%	
RM – REF REACHED MAXIMUM CALL LIMIT	161	19.1%		0	0.0%		1	4.8%		3	60.0%	
Total Refusal	*842*		*11.2%*	*237*		*12.2%*	*21*		*9.3%*	*5*		*7.8%*
Other Nonresponse												
LM – LANG PROB REACHED MAX CALLS	5	0.5%		1	0.6%		0	0.0%		0	0.0%	
LP – FINAL LANGUAGE PROBLEM	4	0.4%		1	0.6%		0	0.0%		0	0.0%	
MC – MAXIMUM CALLS	278	27.0%		70	42.2%		5	12.8%		2	22.2%	
ML – MAXIMUM CALLS – SCRNRSLT	237	23.0%		35	21.1%		14	35.9%		0	0.0%	
MR – MAXIMUM CALLS – REFUSAL IN HH	191	18.5%		26	15.7%		9	23.1%		6	66.7%	
MT – MAXIMUM NUMBER OF CALL	22	2.1%		0	0.0%		3	7.7%		0	0.0%	
NL – NOT LOCATABLE THROUGH TRACING	291	28.2%		33	19.9%		8	20.5%		1	11.1%	
NO – OTHER NON-RESPONSE	1	0.1%		0	0.0%		0	0.0%		0	0.0%	
NS – SUBJECT SICK/INCAPACITATED	2	0.2%		0	0.0%		0	0.0%		0	0.0%	
Total Other Nonresponse	**1,031**		**13.7%**	**166**		**8.6%**	**39**		**17.3%**	**9**		**14.1%**
TOTAL	**7,533**			**1,941**			**226**			**64**		
ELIGIBILITY RATE (C / (C+I))			99.3%			99.2%			98.2%			100.0%
COOPERATION RATE (C / (C+R))			86.9%			86.5%			88.5%			90.9%

Source: UCLA Center for Health Policy Research, 2011-2012 California Health Interview Survey

Thus far, the discussion has considered cooperation, eligibility, and completion rates for the screener and adult interviews separately. In fact, it is the combination of these rates that is most instructive in judging performance of the samples. The combined completion (yield) rate provides a basic statistic for sample performance: how many sampled telephone numbers does it take to yield one completed adult interview? Note that the completion rate is a function of the cooperation and eligibility rates, and also includes residency and other sample loss components. The landline sample had a combined yield rate of 4.5 percent, or about 22 sampled telephone numbers per adult completed interview. The 2009 rate was 5.0 percent or about 20 sampled numbers per completed adult interview. Part of the decline is attributable to the increase in the proportion of the sample that is identified as business or nonworking before calling. Taking these sampled numbers out of the denominator, the adult yield rate was 10.1 percent in 2011-2012, as compared with 10.9 percent in 2007. For the cell sample, the combined yield rate in 2011-2012 was 7.4 percent, up substantially from 4.9 percent in 2009. Since there is no purge of business and nonworking cell numbers, this is the operative yield rate.

A change in completion or yield rates generally corresponds to a change in data collection efficiency that is more (or fewer) resources are required to complete a single interview than previously. The overall trends in efficiency are discussed in Section 6.8.

6.1.3 Child Extended Interview

The completion rate for the child interview (Table 6-5) in the landline sample was 74.4 percent, up about a point from CHIS 2009. The cooperation rate of 86.9 percent was less than one point lower than in 2009. The completion rate for the cell sample was 78.5 percent, 4 points higher than for the landline, while the cooperation rate (86.5 percent) was comparable to that of the landline sample. The difference between the samples was in "other nonresponse," which accounted for 13.7 percent of the landline sample and only 8.6 percent of the cell sample. The fact that cell respondents are paid ($10) for the child interview may account for the difference in the completion rate. The cooperation rates for the surname (88.5 percent) and AIAN (90.9 percent) samples were both higher than for the landline and cell samples, but the completion rate for the surname samples (71.2 percent) was the lowest for any sample, due to a high (17.3 percent) rate of "other nonresponse."

Two design changes have affected the selection of children over CHIS cycles. The first was the child-first procedure, first adopted in CHIS 2005. The second was the addition of the cell sample, and

sampling children from the cell sample, first done in CHIS 2009; the cell sample does not use the child-first procedure because most adults selected from the cell sample are also the screener respondent. Table 6-6 summarizes sampling and completing interviews about children from CHIS 2007 through CHIS 2009 to examine the effects of these two design changes.

The first set of numbers in Table 6-6 shows how many children were selected. The proportion of the child sample coming from cell numbers has risen from none in 2007 to almost 5 percent in 2009 to almost 20 percent in 2011-2012. At the same time, the proportion of children selected "child first" dropped from about 48 percent in 2007 and 2009 to about 40 percent in 2011-2012. This drop is a result of the increase in the proportion of the overall sample allocated to cell numbers over these cycles. The proportion of children selected "child first" in the samples other than cell numbers has stayed fairly steady over the same period. The proportion of child-first sample selected in households where the adult interview is not completed has risen slightly over these three cycles; this proportion, now over two-thirds of sampled children in the non-cell samples, is evidence of the importance of the child-first procedure in increasing the yield of child interviews.

The next set of numbers in Table 6-6 shows how many child interviews were completed. Because the child interview completion rate is somewhat higher for the cell sample than for the other samples, the proportion of completed child interviews from the cell sample is slightly higher than the proportion of sampled children, up to almost 21 percentage points in 2011-2012. On the other hand, the proportion of all child interviews completed child first is lower than the proportion of all children sampled child first because the completion rate is lower for this group. The completion rate for children sampled child first in households where an adult interview is not completed is lower still, although it rebounded in 2011-2012 (58.3 percent) after a 7-point drop from 2007 to 2009. The proportion of child-first interviews completed in households where an adult interview was not completed has increased from 2007 (56.2 percent) to 2011-2012 (60.3 percent). Thus, the child-first procedure still appears to be an important method to increase the yield of children for CHIS.

The last two sets of numbers in Table 6-6 show the trend in overall yield of sampled children, first as a proportion of completed adult interviews and then as a proportion of completed screeners. The cell sample actually showed an increase in relative yield from 2009 to 2011-2012, from 0.20 to 0.21 per completed adult and from 0.08 to 0.12 per completed screener. Over the same period, the other samples have shown a decline, from 0.26 in 2009 to 0.23 in 2011-2012 per completed adult, and from 0.15 to 0.12 per completed screener. The child-first procedure increases the likelihood of sampling a child in non-cell

Table 6-6. Number of children sampled and child interviews completed, CHIS 2007 through 2011-2012

	CHIS 2011-2012	CHIS 2009	CHIS 2007
Total children sampled	**9,764**	**12,129**	**13,089**
Cell sample	1,941	595	0
Percentage of all children	*19.9%*	*4.9%*	*0.0%*
Other samples	7,823	11,534	13,089
Child first	3,922	5,816	6,335
Percentage of all samples	*40.2%*	*48.0%*	*48.4%*
Percentage of other samples	*50.1%*	*50.4%*	*48.4%*
Child first no adult	2,737	4,034	4,189
Percentage of child first	*69.8%*	*69.4%*	*66.1%*
Completed child interviews	**7,337**	**8,981**	**9,933**
Cell sample	1,523	486	0
Percentage of all child interviews	*20.8%*	*5.4%*	*0.0%*
Other samples	5,814	8,495	9,933
Child first	2,646	3,751	4,532
Percentage of all samples	*36.1%*	*41.8%*	*45.6%*
Percentage of other samples	*45.5%*	*44.2%*	*45.6%*
Completion rate	*67.5%*	*64.5%*	*71.5%*
Child first no adult	1,596	2,163	2,545
Percentage of child first	60.3%	57.7%	56.2%
Completion rate	58.3%	53.6%	60.8%
Child sampled per completed adult			
Cell sample	0.21	0.20	Not Done*
Other samples	0.23	0.26	0.26
Other samples excluding no adult	0.15	0.17	0.18
Child sampled per completed screener			
Cell sample	0.12	0.08	Not Done*
Other samples	0.12	0.15	0.15

Source: UCLA Center for Health Policy Research, 2007, 2009, and 2011-2012 California Health Interview Survey
*No child interviews were completed in cell phone cases in 2007.

sample households, complicating the comparison between the cell and non-cell samples for children sampled per completed adult. If we exclude the households where no adult interview was completed, the proportion of households with a child sampled was 0.17 in 2009 and 0.15 in 2011-2012. It's not obvious which set of non-cell numbers to compare with those for the cell sample. However, it is clear that the cell sample is becoming increasingly important as a source of sampled children in CHIS, a trend that is likely

to continue. The proportion of children living in cell-only households is higher nationally than the proportion of adults living in cell-only households (Blumberg and Luke, 2012), and both proportions have been growing steadily.

Whether the child-first procedure has affected the completion rate for adult interviews cannot be answered definitively without an experiment. The *CHIS 2005 Methodology Series: Report 2 – Data Collection* concluded that adding the child-first procedure seemed to have led to about 200 fewer adult interviews, or about half of one percentage point on the overall completion rate. Subsequent reports found no evidence of an additional effect. Table 6-7 compares cooperation and completion rates for landline adult interviews from CHIS 2003 through CHIS 2011-2012 by whether the sampled adult was also the screener respondent and whether children were reported in the screener. All of the child-first cases had a sampled adult who was not the screener respondent and reported children in the household. In 2005 and 2007, both cooperation rates and completion rates were declining across all categories in Table 6-7 (with one exception), and the drop was greater among households reporting children. In 2009, the declines continued, but there was little difference by whether children were reported. In 2011-2012, we see an increase in both cooperation and completion rates where the screener respondent is the sampled adult, and the increase is greater in households reporting children, a reversal of the trend from 2003 to 2007. Among households where someone other than the screener respondent was the sampled adult, both cooperation and completion rates declined from 2009 to 2011-2012, but the decline was greater in households where no children were reported.

Table 6-7 also shows the rates for the 2011-2012 cell sample for comparison. All of the rates in the first four columns are lower than for the landline sample, but the overall rates are higher because almost all of the sampled adults in the cell sample were also screener respondents. Someone other than the screener respondent would have been selected only if the sampled telephone number were for a cell phone shared within the household.

6.1.4 Adolescent Extended Interview

Table 6-8 presents data collection results for the adolescent interviews. All of the numbers and percentages in the upper portion of the tables refer to sampled adolescents for whom permission to interview was obtained from a parent or legal guardian. The bottom three rows add the permission dimension.

Table 6-7. Cooperation and completion rates, landline sample adult extended interview, by whether children were reported in screener and whether sampled adult is the screener respondent

	Sampled Adult Is Screener Respondent		Sampled Adult Is Not Screener Respondent		
	Children Reported	No Children Reported	Children Reported	No Children Reported	Total
Cooperation rate					
CHIS 2003	84.0%	83.8%	64.8%	62.2%	76.1%
CHIS 2005	78.9%	79.8%	55.3%	56.4%	70.9%
Change '03-'05	*-5.1*	*-4.0*	*-9.5*	*-5.8*	*-5.2*
CHIS 2007	76.7%	79.8%	47.8%	51.2%	68.7%
Change '05-'07	*-2.2*	*0.0*	*-7.5*	*-5.2*	*-2.2*
CHIS 2009	71.8%	74.7%	47.7%	50.4%	65.3%
Change '07-'09	*-4.9*	*-5.1*	*-0.1*	*-0.8*	*-3.4*
CHIS 2011-2012	74.3%	76.4%	46.9%	48.9%	65.9%
Change '09-11	*2.5*	*1.7*	*-0.8*	*-1.5*	*0.6*
CHIS 2011-2012 cell	66.4%	68.6%	37.5%	28.9%	66.9%
Completion rate					
CHIS 2003	70.6%	76.7%	44.9%	47.7%	63.1%
CHIS 2005	65.3%	72.9%	37.6%	43.0%	58.4%
Change '03-'05	*-5.3*	*-3.8*	*-7.3*	*-4.7*	*-4.7*
CHIS 2007	63.8%	73.8%	32.1%	39.5%	57.5%
Change '05-'07	*-1.5*	*0.9*	*-5.5*	*-3.5*	*-0.9*
CHIS 2009	56.7%	66.8%	29.4%	37.4%	52.5%
Change '07-'09	*-7.1*	*-7.0*	*-2.7*	*-2.1*	*-5.0*
CHIS 2011-2012	59.1%	67.9%	28.8%	35.1%	52.3%
Change '09-11	*2.4*	*1.1*	*-0.6*	*-2.3*	*-0.2*
CHIS 2011-2012 cell	53.9%	59.3%	21.5%	18.6%	56.0%

The completion rate among adolescents for the landline sample (72.3 percent) was lower than that in 2009, but the proportion of permission-giving adults (PGA's) refusing permission (39.6 percent) was down about 2 points from 2009. The combined completion rate (completed adolescent interviews divided by all adolescents sampled, 43.7 percent) was thus almost identical to that from 2009. The adolescent yield (i.e., completed interviews) for the cell sample (44.3 percent) was slightly higher than that for the landline sample but more than 6 points lower than in 2009. The adolescent completion rate and the rate of permission-giving were both lower than in 2009. For the list samples, the net yields were lower than for the landline and cell samples, due to a lower adolescent cooperation rate (surname samples) and to other nonresponse among adolescents (AIAN sample).

The child-first procedure also affects the adolescent yield, since adolescents could be sampled and interviewed in child-first households before the adult interviews, although not to the extent of the child yield. In the CHIS 2003 RDD sample, the ratio of adolescents sampled to adults sampled was 10.0

percent, and of adolescent interviews to adult interviews was 9.6 percent. In the CHIS 2005 main RDD sample, these ratios were 10.4 percent and 9.1 percent; the child first procedure increased the number of adolescents sampled, but the completion rate declined, so the net number of adolescent interviews was lower than in 2003. In 2007 the ratios were 9.4 percent and 7.4 percent, respectively, declines of 1.0 and 1.7 percent. In 2009, the decline slowed and the gap between the two ratios was reduced: the ratio of adolescents sampled to adults sampled in the landline sample was 8.5 percent and the ratio of adolescent interviews completed to adult interviews completed was 7.0 percent. These trends continued in 2011-2012, with ratios of 7.9 percent and 6.6 percent, respectively. For the 2011-2012 cell sample, the ratios were 7.7 percent and 6.1 percent, somewhat lower than for the landline sample. Again, the cell sample did not benefit from the child first procedure. The cell ratios were also not much different from 2009, which had 7.5 percent and 6.5 percent. Thus, as with the child interview, the cell sample is becoming relatively more important in completing adolescent interviews.

6.1.5 Interview Completion Over Data Collection Periods

Sampling and data delivery were divided into three periods for CHIS 2011-2012, reflecting the new continuous design: T2[7], June 15-December 19, 2011, with about half the sample; T3, December 20, 2012-June 18, 2012; and T4, June 19, 2012-January 14, 2013 2013; T3 and T4 each included about one-quarter of the sample. At the end of each period, Westat assembled all of the completed interviews from households that had no pending interviews across sampled adults, children, and adolescents, and delivered a "snapshot" data file to UCLA. The period for which a telephone number was sampled did not necessarily correspond to the snapshot file in which its interviews were delivered: T2 sample was included in all 3 files, and T3 sample was included in both T3 and T4 files.

[7] There is no T1, since the cycle did not start in the field until the middle of 2011.

Table 6-8. Detailed results of CHIS 2011-2012 data collection, adolescent extended interview, landline and surname samples

	LANDLINE SAMPLE			CELL SAMPLE			SURNAME SAMPLES			AIAN SAMPLE		
		Percentage			Percentage			Percentage			Percentage	
	Number	Within category	of Total	Number	Within category	of Total	Number	Within category	of Total	Number	Within category	of Total
Completed Interviews (C)												
CT – COMPLETED TEEN EXTENDED	2,165		72.3%	557		68.6%	57		62.0%	21		61.8%
Ineligible (I)												
IT – IN'BLE AGE FOR TEEN EXTENDED	41		1.4%	10		1.2%	1		1.1%	0		0.0%
Out of Scope												
OE – OUT OF SCOPE ENUMERATION ERROR	7		0.2%	2		0.3%	0		0.0%	0		0.0%
Refusal (R)												
R1 – FINAL REF, NO CONVERSION ATTEMPT	0	0.0%		135	97.8%		0	0.0%		1	33.3%	
R3 – FINAL REF RECEIVED 3 OR MORE 2S	1	0.2%		0	0.0%		0	0.0%		0	0.0%	
RB – FINAL REF	364	82.9%		3	2.2%		24	100.0%		1	33.3%	
RM – REFREACHED MAXIMUM CALL LIMIT	74	16.9%		0	0.0%		0	0.0%		1	33.3%	
Total Refusal	**439**		**14.7%**	**138**		**17.0%**	**24**		**26.1%**	**3**		**8.8%**
Other Nonresponse												
LM – LANG PROBLEM REACHED MAX CALLS	2	0.6%		0	0.0%		0	0.0%		0	0.0%	
MC – MAXIMUM CALLS	117	34.3%		45	42.9%		2	20.0%		5	50.0%	
ML – MAX CALLS – SCRNRSLT PROB IN HH	68	19.9%		16	15.2%		4	40.0%		0	0.0%	
MR – MAX CALLS – REFUSAL IN HH	61	17.9%		15	14.3%		2	20.0%		4	40.0%	
MT – MAX NUMBER OF CALL ATTEMPTS	4	1.2%		0	0.0%		0	0.0%		0	0.0%	
NL -- NOT LOCATABLE THROUGH TRACING	1	0.3%		0	0.0%		0	0.0%		0	0.0%	
NO -- OTHER NON-RESPONSE	77	22.6%		27	25.7%		2	20.0%		1	10.0%	
NS – SUBJECT SICK/INCAPACITATED	11	3.2%		2	1.9%		0	0.0%		0	0.0%	
Total Other Nonresponse	**341**		**11.4%**	**105**		**12.9%**	**10**		**10.9%**	**10**		**29.4%**
TOTAL	**2,993**			**812**			**92**			**34**		
COOPERATION RATE (C / (C+R))			83.1%			80.1%			70.4%			87.5%
ADOLESCENTS SAMPLED	4,958			1,256			157			53		
PERMISSION NOT RECEIVED	1,965		39.6%	444		35.4%	65		41.4%	19		35.8%%
COMBINED COMPLETION RATE (C / SAMPLED)			43.7%			44.4%			36.3%			39.6%

Source: UCLA Center for Health Policy Research, 2011-2012 California Health Interview Survey

Table 6-9 shows how the T2-T4 landline and cell samples were completed and included in T2-T4 snapshot files. About 77 percent of all T2 sample worked and 87 percent of adult completed interviews from the T2 landline sample were included in the first (T2) snapshot file. That file also included a small portion of the T3 landline sample – about 5 percent of all adult completed interviews and 3 percent of all finalized numbers. The second (T3) snapshot file included 12 percent of T2 landline sample completed interviews and 73% of T3 landline sample completed adult interviews, and the third (T4) snapshot file included all T4, 2 percent of T2, and 22 percent of T3 landline sample completed adult interviews. The cell sample was somewhat less widely distributed: the first snapshot file included only T2 sampled cases, and about 90 percent of all T2 sample completed adult interviews. Completed adult interviews from the T3 cell sample were included in both the second (T3) and third (T4) snapshot files, and all T4 cell sample cases were included in the third (T4) snapshot file. A primary reason for the difference between the landline and cell samples is that the targeted proportion of cell cases was reduced from 25 percent to 20 percent at the end of T2.

Table 6-9 also shows the adult interview cooperation and completion rates for each of the sample waves (T2-T4) across all data collection periods. The rates are remarkably consistent: for the landline sample, the cooperation rate dropped one point (66 percent to 65 percent) and the completion rate dropped two points (53 percent to 51 percent). However, for the cell sample the cooperation rate rose 4 points from T3 and 3 points from T2, and the completion rate rose 2 points between T3 and T4, back to the T2 rate of 56 percent.

6.2 Answering Machines

Studies indicate that leaving a message on a landline answering machine seems to increase cooperation rates (e.g., Xu et al., 1993). Apparently the message acts like an advance letter in that it legitimizes the study, allows the respondent time to make an informed decision, and distinguishes the "survey telephone call" from telemarketing calls. Because of this finding in the literature, the message below was left the first time an answering machine was encountered at a dialed telephone number.

> "Hello, I'm calling for the University of California. We are doing a study about the health of the people of California and about health care. I am not asking for money—this is a scientific study called the California Health Survey. We will call you back in the next few days."

Table 6-9. Distribution of completed adult interviews and final adult dispositions by sampled wave and snapshot file, CHIS 2011-2012

	Sampled Wave (T)												
	T2 (6/15/11 – 12/19/11)				T3 (12/20/11 – 6/18/12)				T4 (6/19/12 – 1/14/13)	Total (All Waves)			
	Snapshot				Snapshot				Snapshot				
	1st	2nd	Final T2	Total T2	1st	2nd	Final T3	Total T3	Final T4	1st	2nd	Final	Total
Landline Sample													
Completed interviews	16,276	2,198	294	18,768	468	6,933	2,035	9,436	4,496	16,744	9,131	6,825	32,700
Percentage within wave	87%	12%	2%		5%	73%	22%		100%	51%	28%	21%	
Total final	**27,403**	**6,553**	**1,703**	**35,659**	**489**	**10,984**	**6,486**	**17,959**	**8,873**	**27,892**	**17,537**	**17,062**	**62,491**
Percentage within wave	77%	18%	5%		3%	61%	36%			45%	28%	27%	
Cooperation Rate*				66%				66%	65%				66%
Completion Rate†				53%				53%	51%				53%
Cell Sample													
Completed interviews	5,040	512	53	5,605	0	1,040	1,478	2,518	442	5,627	1,552	1,973	9,152
Percentage within wave	90%	9%	1%			41%	59%		100%	61%	17%	22%	
Total final	**8,671**	**1,109**	**248**	**10,028**	**0**	**1,874**	**2,802**	**4,676**	**786**	**9,521**	**2,983**	**3,836**	**16,340**
Percentage within wave	86%	11%	2%			40%	60%			58%	18%	23%	
Cooperation Rate*				67%				66%	70%				67%
Completion Rate†				56%				54%	56%				56%

*Cooperation rate = ((complete + partial complete)/(complete + partial complete + ineligible + refusal))

†Completion rate = ((complete + partial complete)/total sampled)

Source: UCLA Center for Health Policy Research, 2011-2012 California Health Interview Survey

For the landline sample, the proportion of cases that have had at least one answering machine/voice mail result at the screener and adult interview level has been increasing very slowly across CHIS cycles. At the screener level it has increased from 42 percent in 2007 and 2009 to 44 percent in 2011-2012. At the adult level it has increased more rapidly from 37 percent in 2007 to 41 percent in 2009 and 43 percent in 2011-2012. The cell sample has seen larger changes between the 2009 and 2011-2012 surveys: from 55 percent in 2009 to 67 percent in 2011-2012 at the screener level, and from 41 percent in 2009 to 35 percent in 2011-2012 at the adult level. These figures reflect other trends in this report. It is gradually but steadily getting harder to reach households through landlines, while cell phones contact patterns are changing more rapidly.

When calling back to conduct an adult interview there has already been contact with the household (landline) or sampled adult (most cell and many landline). An answering machine/voice mail result for these cases may indicate that the person is screening calls. Call screening by sampled households may be more common in the cell phone sample than in the landline sample because cell phones come with caller ID by default. That the proportion of adult cases with an answering machine/voice mail result declined between CHIS 2009 and CHIS 2011-2012 may mean that more cell phone respondents are now completing the adult interview on the same call as the screener or that previously fewer are screening follow-up calls.

For the first time in CHIS 2011-2012, interviewers recorded the language of the answering machine or voice mail greeting. If the greeting was not in English and the interviewer was able to identify the language, a message was left only when the interviewer spoke that language. Otherwise a message was not left, and the case was moved to the appropriate language work class. At the first answering machine/voice mail result in that work class, a message would be left in the same language as the greeting. The reasoning was that if non-English-speaking respondents heard an English message, they would be more likely to screen the next call. This procedure was instituted relatively early in the CHIS 2011-2012 field period. Table 6-10 shows the distribution of answering machine/voice mail greetings encountered across sample types. Except for landline sample numbers associated with Hispanic surnames, about 95 percent of all greetings were reported as being in English. The Hispanic surname numbers had 9.5 percent Spanish greetings. Thus, most greetings were in English, even in parts of the sample (Hispanic surname, surname list) where we would expect to encounter other languages much more frequently.

Looking only at completed screeners where a greeting language was coded (numbers not in a table), and where the screener was completed in Spanish, only 21 percent of landline cases and 30 percent of cell cases had reported a Spanish greeting. In the landline sample, only around 5 percent of screeners completed in an Asian language had had an Asian or unknown greeting language coded. The same was true for list sample screeners conducted in Korean, while list sample screeners conducted in Vietnamese had had about 10 percent greeting language reported as Asian or unknown. On the other hand, 90 percent of landline cases and 94 percent of cell cases where the greeting language was Spanish had the screener conducted in Spanish. Further, 49 percent of Asian language greeting cases in the landline sample and 100 percent in the list sample had screeners conducted in an Asian language. A greeting in a language other than English thus seems to predict the language in which the screener will be conducted, but for only a small proportion of the cases that end up with a non-English screener. The procedure instituted in CHIS 2011-2012 does therefore seem to be appropriate.

Table 6-10. Language of answering machine/voice mail greeting by sample type, CHIS 2011-2012

	Language of Greeting				No	
	English	Spanish	Other	Unknown	Greeting	Total
Landline sample	**78,018**	**1,654**	**202**	**378**	**1,307**	**81,559**
	95.7%	*2.0%*	*0.3%*	*0.5%*	*1.6%*	
Hispanic surname	9,271	1,008	22	71	240	10,612
	87.4%	*9.5%*	*0.2%*	*0.7%*	*2.3%*	
Other case with address	41,805	179	93	166	450	42,693
	97.9%	*0.4%*	*0.2%*	*0.4%*	*1.1%*	
No-address case	26,942	467	87	141	617	28,254
	95.4%	*1.7%*	*0.3%*	*0.5%*	*2.2%*	
Cell sample	**41,402**	**1,193**	**119**	**484**	**694**	**43,892**
	94.3%	*2.7%*	*0.3%*	*1.1%*	*1.6%*	
List samples	**6,962**	**32**	**98**	**21**	**169**	**7,282**
	95.6%	*0.4%*	*1.4%*	*0.3%*	*2.3%*	
Total all samples	**126,382**	**2,879**	**419**	**883**	**2,170**	**132,733**
	95.2%	*2.2%*	*0.3%*	*0.7%*	*1.6%*	

Source: UCLA Center for Health Policy Research, 2011-2012 California Health Interview Survey

As to whether leaving a message in language increased screener response, we cannot say definitively without an experiment. However, in the landline sample 37 percent of cases with a Spanish greeting were completed, as compared with 23 percent of those with an English greeting. In the cell sample, 23 percent of cases with a Spanish greeting were completed, as compared with 13 percent of those with an English greeting. In the list sample, 21 percent of cases with an Asian language greeting were completed, as compared with 8 percent of those with an English greeting. However, this relationship did not hold for the landline sample, where 18 percent of cases with Asian language greetings were

completed, as compared with 23 percent of those with English greetings. People who customize their answering machine or voice mail greetings may be more likely to respond to surveys in general than those who do not, but the findings described here are consistent with a positive effect of leaving messages in language.

6.3 Time Slice Strategy and Calling Windows

If the initial call attempt resulted in "no answer," a busy signal, or an answering machine, the call scheduler would automatically place the telephone number into time slice queues so that additional calls would be made over several days at several different times of day. The goal is to find a time when someone would answer the telephone. The CHIS 2011-2012 time slice strategy, as follows below, began with one very similar to that used in CHIS 2007 and CHIS 2009.

The time slices were defined as: (1a) early weekdays, 9 a.m. to 2 p.m.; (1b) late weekdays, 2 p.m. to 6 p.m.; (2) early evening, 6 p.m. to 7:30 p.m.; (3) late evening, 7:30 p.m. to 9 p.m.; (4) Saturday, 10 a.m. to 6 p.m.; (5) Sunday, 2 p.m. to 9 p.m. The strategy consisted of a total of 14 calls if there was no contact with a person:

- Four calls consisting of an early or late day, early evening, late evening, and weekend (either Saturday or Sunday), in any order;
- One week wait;
- Three calls consisting of an early evening, late evening, and the weekend day not called in the preceding four calls, in any order;
- One week wait;
- Four calls consisting of a an early or late day (whichever was not called in the first set), early evening, late evening, and weekend (either Saturday or Sunday), in any order;
- One week wait; and
- Three calls consisting of an early evening, late evening, and the weekend day not called in the preceding 4 calls, in any order.

If, after these 14 calls, there was still no contact, the telephone number was retired by coding it NA (all no answer or busy) or NM (at least one answering machine, but no "live" contact).

In 2011-2012, we continued the practice begun during CHIS 2007 of moving cases (except cell sample cases) with 4 calls that did not reach a person or an answering machine out of the main CATI scheduler. These cases continued the call sequence using a different CATI system at Westat, with a predictive dialer[8]. If a call was answered by a live person, an operator would come on the line and ask whether the number was for business or household use. Numbers with answered calls were returned to the main CATI system for further follow-up. The operator's script did not mention CHIS specifically. The logic for this operation is described in *CHIS 2007 Methodology Series: Report 2 – Data Collection.*

At the end of the survey, 22 percent of the landline numbers available to call (after purging the nonworking and business numbers) were coded NA, a decrease of 2 percentage points from CHIS 2009. About 11 percent of the callable landline numbers ended up as NM, also a 2 percentage point decrease from CHIS 2009.

6.4 Maximum Call Limits

When a person answered the telephone, the telephone number was removed from the time slice strategy described above. Once contact was made, all subsequent calls were based upon the respondent's assessment of the best time to call or it was left to the interviewer to suggest the best time. This was generally in terms of an exact appointment or a general "best time" to call (e.g., day, evening, or weekend). The maximum call counter for these cases for both the screener and the extended interview was set at 23 per interview type (e.g., adult, teen, and child). This limit was set to allow enough calls for two refusal conversion efforts and calls in Spanish or Asian languages. As a result, only about 3.0 percent of the landline sample telephone numbers that were not determined to be out of scope ended as "maximum calls" (MC, ML, or LM) at the screener level (Table 6-1). This proportion was down from 2009 (4.8 percent). The rate of maximum call cases for the cell sample was 4.0 percent, down from 6.7 percent in 2009.

At the adult extended level, about 11.3 percent of landline cases (Table 6-4) received one of the "maximum call" codes—MC, LM/ML (maximum calls where the number was coded a language problem at some point), MR (maximum calls where a refusal was encountered at some point), and MT (maximum calls where we were given a different telephone number to reach the adult respondent), slightly lower

[8] A predictive dialer calls telephone numbers automatically as prompted by the scheduler; only if the call is answered does it go to an interviewer. With the system used for most CHIS calls, the interviewer must initiate the call.

than the rate in 2009. The rate for the cell sample (11.6 percent) was a bit higher than for the landline sample and for the 2009 cell sample, The rate for the surname samples was higher (15.3 percent) than the RDD samples, but lower than it was in 2009. The rate for the AIAN sample (18.0 percent, was the highest among the 2011-2012 samples.

The pattern was similar with the child and adolescent interviews across the samples. About 9.7 percent of child interviews (Table 6-5) and 8.4 percent of adolescent interviews (Table 6-8) from the landline sample were in these categories, as compared with about 6.8 percent and 9.4 percent for the cell sample. The landline rates were each about two percentage points lower than in 2009. Rates for the surname samples were 13.7 percent and 8.7 percent, respectively. There were relatively few child and adolescent cases for the AIAN sample; maximum call rates were 12.5 percent and 26.5 percent, respectively.

6.5 Language Strategy

An important CHIS capability is conducting interviews in a variety of languages. CHIS instruments have been administered in English, Spanish, Mandarin, Cantonese, Korean, and Vietnamese in every cycle to date. Section 3.3 of this report describes the process by which the questionnaires were translated and prepared for use, and Sections 4.4 and 4.5 describe the recruitment and training of Spanish- and Asian-language bilingual interviewers, respectively. This section describes how the non-English interviews were managed in the CATI system and the TRCs where they were conducted.

6.5.1 RDD Strategy

Most sampled telephone numbers for the landline sample were loaded into the default CATI work class, which meant that they were available to any interviewer working the RDD sample. (See Section 5.2 for a complete description of the CHIS 2011-2012 work classes). However, for the second time, CHIS 2011-2012 landline telephone numbers matched to an address associated with a likely Hispanic surname were loaded into the Spanish work class for their first calls. In any work class, whenever an interviewer encountered a respondent who did not speak English or another language the interviewer spoke, he or she would indicate that it was a “language problem,” and what language the respondent was speaking, if it could be determined. The first sort was into Spanish, Cantonese, Mandarin, Korean, Vietnamese,

undetermined Asian language, and other or not determined language. Cases determined to require a bilingual interviewer in one of the CHIS languages were put into the appropriate language work class, and became available to bilingual interviewers once the translations were finalized in CATI.

Cases where the respondent was thought to speak an undetermined Asian language were called by a group of Asian bilingual interviewers, who would either continue with the process if they spoke the appropriate language or move it to the appropriate language work class. Cases where the language was not determined at all were assigned first to Spanish bilingual interviewers, then to Chinese bilingual interviewers if the language was still undetermined. Often in the process respondents were able to tell interviewers what language they spoke, and the interviewers would immediately re-assign the case to the appropriate language work class. Cases requiring a language other than the five for which translations were available were finalized as language problem nonresponse.

6.5.2 Supplemental Sample Strategy

Initially, the Korean and Vietnamese surname samples were worked by all interviewers. Much of the screening work could be done in English. Once a language problem was encountered, the case was transferred to the appropriate language work class. More than 80 percent of the adult extended interviews completed from the surname samples were conducted in Korean or Vietnamese. (See Table 6-10 in the next section.)

6.5.3 Completed Interviews by Language

Table 6-11 shows the number of adult extended interviews completed in each of the five CHIS 2011-2012 languages, by landline stratum and separately for the cell and surname samples.

Overall, some 4,406 adult interviews from these samples were conducted in Spanish, just over 10 percent of the total, which was two points higher than in 2009. The highest percentage of adult interviews completed in Spanish in the landline sample was in Imperial County (48.8 percent), more than twice that of any other landline stratum, and about 6 points higher than in 2009. More than 9 percent of adult interviews in the cell sample were conducted in Spanish, also a 2 percentage point increase over 2009. These increases in the proportion of interviews conducted in Spanish may have been due to the growing

proportion of Californians who are Hispanic and a longer field period for the Spanish-language interview in the 2011-2012 cycle.

In the landline sample, there were 856 adult interviews conducted in an Asian language, or about 2.6 percent of the total, up more than a point from 2009. The highest RDD proportions of Cantonese (10.2 percent), Mandarin (3.9 percent), and Asian languages in total (15.8 percent) were in the San Francisco stratum. The highest proportion of Korean interviews was in Los Angeles (2.1 percent) and of Vietnamese in Santa Clara (5.1 percent). For the surname samples, 81 percent of all adult interviews were conducted in Korean or Vietnamese.

See Table 7-2 in *CHIS 2011-2012 Methodology Series: Report 4—Response Rates* for more on numbers of interviews conducted by language.

6.6 Refusal Conversion

At each stage of the interview process, Westat interviewers made extensive conversion efforts for refusals that were not judged to be hostile or abusive. These procedures and the results are described in *CHIS 2011-2012 Methodology Series: Report 4 — Response Rates*. That report contains the initial and conversion cooperation rates by type of interview.

6.7 Proxy Interviews

As in previous CHIS cycles, UCLA decided to allow proxy reporting for sample persons over 65 who were unable to respond for themselves because of physical, mental, or emotional limitations. Proxy respondents had to be adult members of the household knowledgeable about the sampled adult's health. Some 530 candidates for proxy interviews were identified based upon interviewers' notes; of these, 230 interviews were completed with proxies, and another 30 were completed with the sampled adults themselves.

Table 6-11. Number of adult interviews completed by language and sample/landline sample stratum

Stratum	Sampling stratum	English	Spanish	Cantonese	Mandarin	Korean	Vietnamese	Total	Percentage Spanish	Percentage Asian
1	Los Angeles	5,297	1,129	73	101	143	54	6,797	16.6%	5.5%
2	San Diego	3,539	484	1	5	11	32	4,072	11.9%	1.2%
3	Orange	1,462	130	3	21	24	67	1,707	7.6%	6.7%
4	Santa Clara	867	51	8	21	7	51	1,005	5.1%	8.7%
5	San Bernardino	893	127	3	1	1	5	1,030	12.3%	1.0%
6	Riverside	1,162	152	0	1	4	5	1,324	11.5%	0.8%
7	Alameda	931	28	18	11	3	6	997	2.8%	3.8%
8	Sacramento	876	30	5	4	2	15	932	3.2%	2.8%
9	Contra Costa	603	27	2	5	1	1	639	4.2%	1.4%
10	Fresno	342	66	0	0	0	0	408	16.2%	0.0%
11	San Francisco	474	22	60	23	3	7	589	3.7%	15.8%
12	Ventura	403	44	0	2	0	1	450	9.8%	0.7%
13	San Mateo	469	17	6	3	2	0	497	3.4%	2.2%
14	Kern	392	70	0	0	0	0	462	15.2%	0.0%
15	San Joaquin	296	39	0	1	0	3	339	11.5%	1.2%
16	Sonoma	337	9	0	1	0	0	347	2.6%	0.3%
17	Stanislaus	355	47	0	3	0	0	405	11.6%	0.7%
18	Santa Barbara	364	46	1	0	1	0	412	11.2%	0.5%
19	Solano	365	28	1	0	0	1	395	7.1%	0.5%
20	Tulare	298	77	0	0	0	0	375	20.5%	0.0%
21	Santa Cruz	354	46	0	0	0	0	400	11.5%	0.0%
22	Marin	429	6	2	0	0	0	437	1.4%	0.5%
23	San Luis Obispo	395	12	0	0	0	0	407	2.9%	0.0%
24	Placer	366	5	0	0	0	0	371	1.4%	0.0%
25	Merced	333	85	0	0	0	0	418	20.3%	0.0%
26	Butte	349	6	0	0	0	0	355	1.7%	0.0%
27	Shasta	397	3	0	0	0	0	400	0.8%	0.0%
28	Yolo	323	29	1	3	1	0	357	8.1%	1.4%
29	El Dorado	361	9	0	1	0	0	371	2.4%	0.3%
30	Imperial	233	223	0	1	0	0	457	48.8%	0.2%
31	Napa	405	47	0	0	2	1	455	10.3%	0.7%
32	Kings	365	78	1	0	0	0	444	17.6%	0.2%
33	Madera	395	59	0	1	1	0	456	12.9%	0.4%

Table 6-11. Number of adult interviews completed by language and sample/landline sample stratum (continued)

Stratum	Sampling stratum	English	Spanish	Cantonese	Mandarin	Korean	Vietnamese	Total	Percentage Spanish	Percentage Asian
34	Monterey	237	56	0	0	0	1	294	19.1%	0.3%
35	Humboldt	291	5	0	0	0	0	296	1.7%	0.0%
36	Nevada	429	4	1	0	0	0	434	0.9%	0.2%
37	Mendocino	400	18	0	1	0	0	419	4.3%	0.2%
38	Sutter	371	36	0	0	0	2	409	8.8%	0.5%
39	Yuba	447	27	0	0	1	0	475	5.7%	0.2%
40	Lake	436	19	0	1	0	0	456	4.2%	0.2%
41	San Benito	390	75	0	0	0	0	465	16.1%	0.0%
42	Tehama, Glen, Colusa	288	38	0	0	0	0	326	11.7%	0.0%
43	North Balance	269	4	0	0	0	0	273	1.5%	0.0%
44	Sierra Balance	340	3	0	0	0	0	343	0.9%	0.0%
	TOTAL	**28,328**	**3,516**	**186**	**211**	**207**	**252**	**32,700**	**10.8%**	**2.6%**
	LANDLINE SAMPLE									
	Cell Sample	8,148	890	19	27	41	27	9,152	9.7%	1.2%
	Surname samples	160	0	1	0	280	384	825	0.0%	80.6%
	AIAN sample	267	0	0	0	0	0	267	0.0%	0.0%
	TOTAL	**36,903**	**4,406**	**206**	**238**	**528**	**663**	**42,944**	**10.3%**	**3.8%**

Source: UCLA Center for Health Policy Research, 2011-2012 California Health Interview Survey

Interviewers who conducted the proxy interviews were trained to substitute the name of the sampled adult or an appropriate pronoun wherever "you" appeared in the question text; in cases where "you" referred specifically to the respondent (e.g., "You said earlier . . ."), the word "you" was highlighted for the proxy interviews.

6.8 Level of Effort

CHIS 2007 Methodology Series: Report 2 — Data Collection described a substantial increase in the relative level of effort required to complete the CHIS 2007 data collection as compared with CHIS 2005. Again in 2009 the relative level of effort required increased over the previous cycle. Overall, the relative level of effort also increased in 2011-2012 for several reasons, including:

- a lower completion rates for the screener and extended interviews in the landline sample,
- a higher proportion of interviews completed in languages other than English,
- the addition of a new (AIAN) list sample, and
- a substantial increase in the cell sample size.

Somewhat mitigating these factors were:

- a higher completion rate for the cell sample,
- a reduction in the target number of completed adult interviews from the Korean and Vietnamese list samples, and
- a shorter adult interview.

As described in Chapter 2, CHIS 2011-2012 was conducted in five languages: English, Spanish, Vietnamese, Chinese (Cantonese and Mandarin dialects), and Korean. Table 6-12 presents mean administration times for the various questionnaires by language for both CHIS 2011-2012 and CHIS 2009. The 2011-2012 screener interview was slightly shorter overall than the 2009 screener, across all languages. In other languages the screener was 29 to 45 percent longer than in English, somewhat less than in 2009.

The mean administration time for the English adult extended interview was about 4½ minutes less in 2011-2012 than 2009. The ratio to English administration time was identical for Spanish between

2011-2012 and 2009, but lower for all of the Asian languages; the Vietnamese adult interview actually had a lower mean administration time than the English.

Table 6-12. Mean administration times (in minutes), relative times, and sample sizes for CHIS 2011-2012 and CHIS 2009 instruments by language of administration

	CHIS 2011-2012				CHIS 2009		
	N	Median	Mean	Ratio to English	N	Mean	Ratio to English
Screener							
All Languages	81,175	2.25	2.59		90,631	2.65	
English	66,717	2.15	2.44	1	75,746	2.49	1
Spanish	11,428	2.87	3.31	1.36	11,566	3.41	1.37
Vietnamese	1,205	2.95	3.2	1.31	1,546	3.96	1.59
Korean	997	3.00	3.15	1.29	1,091	3.3	1.33
Cantonese	417	3.20	3.46	1.42	366	3.57	1.43
Mandarin	411	3.10	3.53	1.45	316	3.84	1.54
Adult Interview							
All Languages	42,673	33.17	35.28		47,241	39.83	
English	36,720	32.18	33.86	1	41,668	38.27	1
Spanish	4,342	45.10	46.96	1.39	3,758	53.25	1.39
Vietnamese	649	30.65	31.95	0.94	865	46.57	1.22
Korean	523	35.47	35.5	1.05	607	45.82	1.2
Cantonese	201	40.53	41.52	1.23	155	55.48	1.45
Mandarin	238	43.43	45.82	1.35	188	55.1	1.44
Child Interview							
All Languages	7,337	14.10	14.97		8,945	15.74	
English	5,357	13.25	13.85	1	6,760	14.64	1
Spanish	1,764	17.52	18.24	1.32	1,816	19.41	1.33
Vietnamese	130	14.21	15.57	1.12	224	18.19	1.24
Korean	48	14.88	15.35	1.11	88	16.12	1.1
Cantonese	12	16.87	18.57	1.34	38	19.01	1.3
Mandarin	26	17.77	18.15	1.31	19	19.99	1.37
Adolescent Interview							
All Languages	2,800	22.25	22.99		3,379	17.94	
English	2,598	21.93	22.64	1	3,099	17.66	1
Spanish	183	26.77	27.61	1.22	252	21.3	1.21
Vietnamese	8	26.01	26.14	1.15	10	19.97	1.13
Korean	5	24.33	24.98	1.1	9	17.98	1.02
Cantonese	2	25.99	25.99	1.15	6	18.82	1.07
Mandarin	4	25.82	25.53	1.13	3	16.94	0.96

Source: UCLA Center for Health Policy Research, 2011-2012 and 2009 California Health Interview Survey

The child interview, with an overall mean length of 15 minutes, was about ¾ of a minute shorter in 2011-2012 than in 2009, and the ratio of other languages to English was very similar between 2011-2012 and 2009. The child interview timings presented here do not include the adult interview questions administered when the child interview was done first. Those questions averaged 8.7 minutes to administer in English, slightly more than in 2009. The other languages ranged from 7.2 to 10.4 minutes.

The adolescent interview (22.6 minutes in English) was almost 5 minutes longer than in 2009. The Spanish interview was about 22 percent longer, and the Asian interviews generally only a bit longer than those conducted in English. Very few adolescent interviews were conducted in the Asian languages.

7. QUALITY CONTROL

Westat's quality control procedures were in place throughout the study. Some of them, such as CATI testing and interviewer training, were used before data collection began as preventive quality controls. Others, such as supplemental interviewer training, monitoring, and comment and problem sheet review were used during data collection to respond to issues with interviewers or to make adjustments to the questionnaires. Interviewer training is described in Chapter 4. Each of the other quality control method is briefly described below.

7.1 Computer-Assisted Telephone Interview Testing

Quality control of the survey questionnaires began with development of specifications for CATI programming. Westat's automated management system for CATI specifications tracked question text, sequencing, response categories, and the appropriate use of "fills" within questions based upon previously recorded information, and range and logic checks. The CATI specification document, published both in PDF and Microsoft Word format, provided the guide for project staff and programmers as to what the CATI instrument should include. The system tracked each change to the specifications and the reason for that change, whether it originated from UCLA, Westat project staff, or the programming team. At some points during the design period, changes were programmed directly into CATI, and the specification database was updated later to reflect what was actually administered.

Once programming commenced, quality control continued with testing to make sure that the CATI instrument was working according to the specifications. The questions and skip patterns were tested as soon as the questionnaires were programmed, as was the database used to store the captured responses. This testing included review by project staff, TRC staff (including interviewers), data preparation staff, the statistical staff and programmers, and by staff at UCLA and Public Health Institute.

After the pilot test and then again during the first few weeks of the statewide field period, the data preparation and programming staffs reviewed frequency counts from each instrument to make sure that the CATI program was performing correctly and all responses and administrative data were being stored in the appropriate variable fields.

7.2 Real-time Range and Logic Checking

Another method of quality control involved the use of edits in the CATI system. Specifically, real-time range checks were programmed for several sections of the questionnaire to catch unlikely or impossible responses and also to catch errors that might result from typographical errors by interviewers. Each check had defined ranges with minimum and maximum values. For example, there were checks to ensure that a child's reported height and weight were within appropriate ranges for the units (metric or English/avoirdupois) the interviewer had specified. Some of these edits were added during the field period.

The edits included both soft and hard ranges. "Hard-range" checks do not allow the interviewer to continue without entering an answer within the range programmed, while "soft-range" checks merely require an interviewer to confirm an unlikely entry. In the rare situations where a respondent insisted on an answer that violated a hard-range check, the interviewer entered "Don't know" for the response to the item and wrote a comment describing the situation that was later reviewed by data preparation staff.

Other edits checked logic between responses. For example, if a respondent 65 years of age or older reported not being covered by Medicare, a verification question appeared on the CATI screen.

7.3 Interviewer Memoranda

As discussed in Chapter 4, interviewer memoranda were given to the staff to clarify and reinforce issues, as well as to inform staff of procedural changes. A total of 7 memoranda were distributed to interviewers.

7.4 Interviewer Monitoring

Westat monitored telephone interviewer performance throughout the field period. Monitoring forms for each interviewer were reviewed weekly, and any interviewers who were identified as in need of additional monitoring were monitored more heavily in the following week. Team leaders also performed additional monitoring if there was concern about an interviewer's performance.

Westat's capacity to monitor telephone interviewers is based on an investment in highly sophisticated equipment and electronic linkages. From a remote location, team leaders and monitors intercepted calls and silently listened to both the interviewer and the respondent. At the same time, the team leader could see what appeared on the interviewer's computer screen and the responses that the interviewer entered. Team leaders simultaneously checked on interviewing technique and the interviewer's ability to correctly capture data.

Westat team leaders and monitors selected 15-minute intervals of each interviewer's working time to monitor. Team leaders performed extra monitoring if there was a concern about an interviewer's performance. An interview monitoring report form was completed each time an interviewer was monitored. Interviewers who continued to have significant problems after receiving feedback or remedial training were released from the study.

During the first weeks following completion of training, the results of monitoring were discussed with each interviewer immediately following the monitoring session. This discussion provided feedback to the interviewer and suggestions to improve his or her techniques to gain cooperation, ask questions, or record responses. Subsequent reports were only reviewed with an interviewer if there was a specific problem, in which case the report was discussed immediately. Team leaders reviewed the monitoring reports throughout the survey period to identify any common problems that might have revealed the need for additional interviewer-wide training.

7.5 Triage

Interviewing during all hours of TRC operation is supported by a specially trained "triage" team leader. The triage team leader was called whenever a problem interfered with the ability to conduct CATI interviewing. When the triage team leader received a problem report, he or she diagnosed the problem and called the appropriate personnel. Hardware, software, and project-specific support were always available via home or cell telephones. The appropriate support personnel were able to respond to problems within minutes of a problem report, regardless of the time of day.

7.6 Using Comments and Problem Sheets to Find Problems

Interviewers made comments within the CATI questionnaire whenever a response did not fit a category and/or when they perceived a problem with a question. With input from UCLA and PHI, some of these comments were used to update data. Data updates and other data preparation issues are discussed in detail in *CHIS 2011-2012 Methodology Series: Report 3 — Data Processing Procedures*.

Comments were also used as indicators of difficulties with the questionnaire. If there were many comments about a particular item, it potentially indicated that a question needed to be changed or reinforced with an interviewer memorandum or a meeting.

Problem sheets were also used for quality control. When interviewers or team leaders encountered a problem in conducting or monitoring an interview, they completed a CATI problem sheet. These sheets were reviewed by a triage team leader and forwarded to the appropriate staff member for resolution. Any problems that suggested a change to the questionnaire were discussed with the UCLA project director.

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CHIS Mid-Administration Changes--Adult

Element	Question #	Question Text and Description
Section B1		
AB106	QA12_B7	***Did you visit a hospital emergency room for your asthma because you were unable to see your doctor?*** Mid-administration changes: From the beginning of production through 6/29/2011, this question text read "Did you visit an emergency room…" From 6/30/2011 through 7/17/2011, this question text mistakenly read "Did you visit a hospital..." On 7/18/2011, it was finally corrected to read "Did you visit a hospital emergency room..."
AB107	QA12_B12	***Did you visit a hospital emergency room for your asthma because you were unable to see your doctor?*** Mid-administration changes: From the beginning of production through 6/29/2011, this question text read "Did you visit an emergency room…" From 6/30/2011 through 7/17/2011, this question text mistakenly read "Did you visit a hospital..." On 7/18/2011, it was finally corrected to read "Did you visit a hospital emergency room..."
AB109	QA12_B28	***During the past 12 months, have you had to visit a hospital emergency room because of your diabetes?*** Mid-administration changes: From the beginning of production through 6/29/2011, this question text read "…have you had to visit an emergency room…" From 6/30/2011 through 7/17/2011, this question text mistakenly read "…have you had to visit a hospital..." On 7/18/2011, it was finally corrected to read "…have you had to visit a hospital emergency room..."
AB110	QA12_B29	***Did you visit a hospital emergency room for your diabetes because you were unable to see your doctor?*** Mid-administration changes: From the beginning of production through 6/29/2011, this question text read "Did you visit an emergency room…" From 6/30/2011 through 7/17/2011, this question text mistakenly read "Did you visit a hospital..." On 7/18/2011, it was finally corrected to read "Did you visit a hospital emergency room..."
AB115	QA12_B39	***During the past 12 months, have you had to visit a hospital emergency room because of your heart disease?*** Mid-administration changes: From the beginning of production through 6/29/2011, this question text read "…have you had to visit an emergency room…" On 6/30/2011, it was corrected to "…have you had to visit a hospital emergency room..."

Element	Question #	Question Text and Description
AB116	QA12_B40	***Did you visit a hospital emergency room for your heart disease because you were unable to see your doctor?*** Mid-administration changes: From the beginning of production through 6/29/2011, this question text read "Did you visit an emergency room…" On 6/30/2011, it was corrected to "Did you visit a hospital emergency room..."
AB67	QA12_B11	***During the PAST 12 MONTHS, have you had to visit a hospital emergency room because of YOUR asthma?*** Mid-administration changes: From the beginning of production through 6/29/2011, this question text read "…have you had to visit an emergency room…" From 6/30/2011 through 7/17/2011, this question text mistakenly read "…have you had to visit a hospital..." On 7/18/2011, it was finally corrected to read "...have you had to visit a hospital emergency room..."
Section D		
AD60	QA12_D16	***Are you legally married to someone of the same sex?*** This item was not asked in the proxy interview. Mid-administration change: On 6/30/2011, this question paired with AD61 replaced AD59
AD61	QA12_D17	***Are you recognized by the State of California as a legally registered domestic partner to someone of the same sex?*** This item was not asked in the proxy interview. Mid-administration change: On 6/30/2011, this question paired with AD60 replaced AD59
Section E		
AB60	QA12_E16	***Tell me how you FIRST found out about your breast cancer. Was it by…*** Mid-administration change: After being dropped on 10/03/2011 because of NCI funding cuts, this item was reactivated on 2/10/2012. In the Fall of 2012, followup calls were made to women who had completed the survey between 10/03/2011 and 2/9/2012 in an effort to complete this section as well.
AD13	QA12_E1	***To your knowledge, are you NOW pregnant?*** This item was not asked in the proxy interview. Mid-administration change: From 12/20/2011 through 2/9/2012, this question was asked at the end of Section A, Demographics; on 2/10/2012 with the restoration of the NCI questions about women's health, it was moved back to being asked at the beginning of Section E, Women's Health.

Element	*Question #*	*Question Text and Description*
AD14	QA12_E3	***Have you EVER had a mammogram?*** Mid-administration change: After being dropped on 10/03/2011 because of NCI funding cuts, this item was reactivated on 2/10/2012. In the Fall of 2012, followup calls were made to women who had completed the survey between 10/03/2011 and 2/9/2012 in an effort to complete this section as well.
AD16	QA12_E7	***How many mammograms have you had in the last 6 years? <Your> best estimate is fine.*** Mid-administration change: After being dropped on 10/03/2011 because of NCI funding cuts, this item was reactivated on 2/10/2012. In the Fall of 2012, followup calls were made to women who had completed the survey between 10/03/2011 and 2/9/2012 in an effort to complete this section as well.
AD17	QA12_E8	***How long ago did you have your most recent mammogram?*** Mid-administration change: After being dropped on 10/03/2011 because of NCI funding cuts, this item was reactivated on 2/10/2012. In the Fall of 2012, followup calls were made to women who had completed the survey between 10/03/2011 and 2/9/2012 in an effort to complete this section as well.
AD18	QA12_E10	***Tell me the main reason you had a mammogram. Was it. . .*** Mid-administration change: After being dropped on 10/03/2011 because of NCI funding cuts, this item was reactivated on 2/10/2012. In the Fall of 2012, followup calls were made to women who had completed the survey between 10/03/2011 and 2/9/2012 in an effort to complete this section as well.
AD19	QA12_E12	***Have you ever had a mammogram where the results were NOT normal?*** Mid-administration change: After being dropped on 10/03/2011 because of NCI funding cuts, this item was reactivated on 2/10/2012. In the Fall of 2012, followup calls were made to women who had completed the survey between 10/03/2011 and 2/9/2012 in an effort to complete this section as well.
AD20	QA12_E13	***Have you ever had an operation to remove a lump from your breast?*** Mid-administration change: After being dropped on 10/03/2011 because of NCI funding cuts, this item was reactivated on 2/10/2012. In the Fall of 2012, followup calls were made to women who had completed the survey between 10/03/2011 and 2/9/2012 in an effort to complete this section as well.
AD21	QA12_E14	***Did the lump turn out to be cancer?*** Mid-administration change: After being dropped on 10/03/2011 because of NCI funding cuts, this item was reactivated on 2/10/2012. In the Fall of 2012, followup calls were made to women who had completed the survey between 10/03/2011 and 2/9/2012 in an effort to complete this section as well.

Element	*Question #*	*Question Text and Description*
AD22	QA12_E15	***How many operations have you had to remove a lump that WASN'T cancer?*** Mid-administration change: After being dropped on 10/03/2011 because of NCI funding cuts, this item was reactivated on 2/10/2012. In the Fall of 2012, followup calls were made to women who had completed the survey between 10/03/2011 and 2/9/2012 in an effort to complete this section as well.
AD23	QA12_E17	***Did you have any other tests and/or surgery when your mammogram was NOT normal?*** Mid-administration change: After being dropped on 10/03/2011 because of NCI funding cuts, this item was reactivated on 2/10/2012. In the Fall of 2012, followup calls were made to women who had completed the survey between 10/03/2011 and 2/9/2012 in an effort to complete this section as well.
AD24	QA12_E18	***What additional tests and/or surgery did you have?*** Mid-administration change: After being dropped on 10/03/2011 because of NCI funding cuts, this item was reactivated on 2/10/2012. In the Fall of 2012, followup calls were made to women who had completed the survey between 10/03/2011 and 2/9/2012 in an effort to complete this section as well.
AD25	QA12_E20	***What is the ONE most important reason why you have {NEVER had a mammogram/NOT had a mammogram in the past 2 years}?*** This item was not asked in the proxy interview. Mid-administration change: After being dropped on 10/03/2011 because of NCI funding cuts, this item was reactivated on 2/10/2012. In the Fall of 2012, followup calls were made to women who had completed the survey between 10/03/2011 and 2/9/2012 in an effort to complete this section as well.
AD26	QA12_E19	***In the past 2 years, has a doctor recommended that you have a mammogram?*** Mid-administration change: After being dropped on 10/03/2011 because of NCI funding cuts, this item was reactivated on 2/10/2012. In the Fall of 2012, followup calls were made to women who had completed the survey between 10/03/2011 and 2/9/2012 in an effort to complete this section as well.
AE50	QA12_E9	***Was your most recent mammogram recommended by a doctor?*** Mid-administration change: After being dropped on 10/03/2011 because of NCI funding cuts, this item was reactivated on 2/10/2012. In the Fall of 2012, followup calls were made to women who had completed the survey between 10/03/2011 and 2/9/2012 in an effort to complete this section as well.

Element	Question #	Question Text and Description
AE91	QA12_E11	***How much did you pay for your most recent mammogram - was it none, some, or all of the cost?*** Mid-administration change: After being dropped on 10/03/2011 because of NCI funding cuts, this item was reactivated on 2/10/2012. In the Fall of 2012, followup calls were made to women who had completed the survey between 10/03/2011 and 2/9/2012 in an effort to complete this section as well.
AE92	QA12_E4	***Has a doctor ever told you that women your age only need a mammogram every other year?*** Mid-administration change: After being dropped on 10/03/2011 because of NCI funding cuts, this item was reactivated on 2/10/2012. In the Fall of 2012, followup calls were made to women who had completed the survey between 10/03/2011 and 2/9/2012 in an effort to complete this section as well.
AE93	QA12_E5	***Has a doctor ever talked with you about when women should start having mammograms?*** This item was not asked in the proxy interview. Mid-administration change: This item went into production on August 5, 2011. After being dropped on 10/03/2011 because of NCI funding cuts, this item was reactivated on 2/10/2012. In the Fall of 2012, followup calls were made to women who had completed the survey between 10/03/2011 and 2/9/2012 in an effort to complete this section as well.
AE94	QA12_E6	***Has a doctor ever talked with you about stopping your mammograms?*** Mid-administration change: This item went into production on August 5, 2011. After being dropped on 10/03/2011 because of NCI funding cuts, this item was reactivated on 2/10/2012. In the Fall of 2012, followup calls were made to women who had completed the survey between 10/03/2011 and 2/9/2012 in an effort to complete this section as well.
AF37	QA12_E2	***In the past 12 months, has a doctor examined your breasts for LUMPS?*** Mid-administration change: After being dropped on 10/03/2011 because of NCI funding cuts, this item was reactivated on 2/10/2012. In the Fall of 2012, followup calls were made to women who had completed the survey between 10/03/2011 and 2/9/2012 in an effort to complete this section as well.
Section F		
AF69INTR	QA12_F14intro	***Think {again, please,} about the month in the past 12 months when you were at your worst emotionally.*** This item was not read in the proxy interview. Mid-administration change: The threshold for this scale was increased on 12/20/2011.

Element	Question #	Question Text and Description
Section H		
AH103	QA12_H78	***In the past 12 months, did you try to purchase a health insurance plan directly from an insurance company or HMO?*** Mid-administration change: This new item was added to the survey on 6/30/2011.
AI33	QA12_H67	***Was your other health insurance Medi-CAL, Healthy Families, a plan you obtained through an employer, a plan you purchased directly from an insurance company, or some other plan?*** Mid-administration change: On 6/30/2011, this question was expanded to include direct purchase plans in both the question text and response categories.
Section I		
AI72	QA12_I86	***Have you ever heard of the HPV shot or cervical cancer vaccine to prevent HPV infection? The vaccine is also called GARDASIL®, or Cervarix®.*** This item was not asked in the proxy interview. Mid-administration change: On 8/18/2011, this item was put into production. NOTE: After the lead-in question AI72 (which is asked only if AE77 was not asked in Section B), AI73, AI78, AI74, AI75, and AI89 are asked first about a randomly selected teen daughter (12+ years old) and then about a randomly selected child daughter (8-11 years old). These daughters may or may not be the same as the teen or child selected for the extended teen and child interviews. In the 2007 administration, this was set up on the repeating ENUM segment because of the potential to ask these items about all eligible persons. So, the child answers are collected in the same variables as the teen answers on the repeating ENUM segment. ENUM.PERSNUM = HPVID_T is the selected teen's ENUM; ENUM.PERSNUM = HPVID_C is the selected child's ENUM.
AI73	QA12_I87	***{The next questions are about HPV shots for your daughter.} Did {ADOLESCENT DAUGHTER NAME} ever get the HPV vaccine or HPV shots?*** This item was not asked in the proxy interview. Mid-administration change: On 8/18/2011, this item was put into production.
AI73_C	QA12_I92	***{The next questions are about HPV shots for your daughter.} Did {CHILD DAUGHTER NAME} ever get the HPV vaccine or HPV shots?*** This item was not asked in the proxy interview. Mid-administration change: On 8/18/2011, this item was put into production.

Element	Question #	Question Text and Description
AI74	QA12_I89	***{HPV is a virus that can cause cervical cancer. A vaccine that protects against HPV has been approved for females ages 9 to 26.} If {ADOLESCENT DAUGHTER NAME}'s doctor recommended the HPV vaccine, would you have her get it?*** This item was not asked in the proxy interview. Mid-administration change: On 8/18/2011, this item was put into production.
AI74_C	QA12_I94	***{HPV is a virus that can cause cervical cancer. A vaccine that protects against HPV has been approved for females ages 9 to 26.} If {CHILD DAUGHTER NAME}'s doctor recommended the HPV vaccine, would you have her get it?*** This item was not asked in the proxy interview. Mid-administration change: On 8/18/2011, this item was put into production.
AI75	QA12_I90	***What is the MAIN reason you would NOT want {ADOLESCENT DAUGHTER NAME} to get the vaccine?*** This item was not asked in the proxy interview. Mid-administration change: On 8/18/2011, this item was put into production.
AI75_C	QA12_I95	***What is the MAIN reason you would NOT want {CHILD DAUGHTER NAME} to get the vaccine?*** This item was not asked in the proxy interview. Mid-administration change: On 8/18/2011, this item was put into production.
AI78	QA12_I88	***Did {ADOLESCENT DAUGHTER NAME} get all three doses of the HPV vaccine?*** This item was not asked in the proxy interview. Mid-administration change: On 8/18/2011, this item was put into production.
AI78_C	QA12_I93	***Did {CHILD DAUGHTER NAME} get all three doses of the HPV vaccine?*** This item was not asked in the proxy interview. Mid-administration change: On 8/18/2011, this item was put into production.
AI89	QA12_I91	***Is cost {also} a reason that you would NOT have {ADOLESCENT DAUGHTER NAME} get the vaccine?*** This item was not asked in the proxy interview. Mid-administration change: On 8/18/2011, this item was put into production.
AI89_C	QA12_I96	***Is cost {also} a reason that you would NOT have {CHILD DAUGHTER NAME} get the vaccine?*** This item was not asked in the proxy interview. Mid-administration change: On 8/18/2011, this item was put into production.

Section J

Element	Question #	Question Text and Description
AJ105	QA12_J17	***In California, you have the right to get help from an interpreter for free during your medical visits. Did you know this before today?*** This item was not asked in the proxy interview. Mid-administration change: Until 6/30/2011, this question text read, "Do you know you have the right to get interpreter services for free during your medical visits?"
AJ50	QA12_J13	***In what language did the doctor speak to you?*** This item was not asked in the proxy interview. Mid-administration change: Until 6/30/2011, this question text read "In what language does your doctor speak to you?"
Section K		
AK22	QA12_K7	***What is <your> best estimate of your HOUSEHOLD'S TOTAL ANNUAL income from all sources BEFORE TAXES in 2011?*** Mid-administration change: On 2/17/2012, the reference year for the household's total annual income changed to 2011 instead of 2010. A new flag (AK22YEAR) indicates which year was asked about, and Census poverty levels assigned will be for the same year.
AK29	QA12_K17	***I need to ask just one more question about income.*** ***Was your total annual household income before taxes less than or more than ${POVRT50}?*** Mid-administration change: On 2/17/2012, the reference year for the household's total annual income changed to 2011 instead of 2010. A new flag (AK22YEAR) indicates which year was asked about, and Census poverty levels assigned will be for the same year.
Section L		
AL5	QA12_L3	***Are you receiving Food Stamp benefits, also known as CalFresh?*** Mid-administration change: Until 6/30/2011, this question text read "Are you receiving Food Stamp benefits?"
IAP2	QA12_L4	***Is {ADOLESCENT /AGE/SEX} receiving Food Stamp benefits, also known as CalFresh?*** This item was not asked in the proxy interview. Mid-administration change: Until 8/2/2011, this question text read "Is {ADOLESCENT /AGE/SEX} receiving Food Stamp benefits?"
Section N		

Element	Question #	Question Text and Description
AM33	QA12_N7	***I won't ask you for the number, but do you have a working cell phone?*** Mid-administration change: Until 7/18/2011, this question text read, "Do you have a working cell phone?"
Section Z		
AB101	QA12_B58	***Who was diagnosed with colon or rectal cancer?*** Mid-administration change: This item was dropped on 6/30/2011--after the start of production on 6/15/2011
AB102	QA12_B59	***How many {brothers/sisters/sons/daughters} were diagnosed with colon or rectal cancer?*** Mid-administration change: This item was dropped on 6/30/2011--after the start of production on 6/15/2011
AB103	QA12_B78	***{Before you had the PSA test, did/Did} a doctor ever talk with you about the advantages and disadvantages of having {it/the PSA test}?*** Mid-administration change: This item was dropped on 6/30/2011--after the start of production on 6/15/2011
AB104	QA12_B79	***{Before you had the PSA test, did/Did} a doctor ever tell you that some doctors recommend having {it/the PSA test} and others do not?*** Mid-administration change: This item was dropped on 6/30/2011--after the start of production on 6/15/2011
AB105	QA12_B80	***Did a doctor or or other health care professional ever recommend that you have a PSA test?*** Mid-administration change: This item was dropped on 6/30/2011--after the start of production on 6/15/2011
AB128	QA12_B55	***How much did you pay for your most recent stool blood test using a home kit—was it none, some or all of the cost?*** Mid-administration change: This item was dropped on 10/03/2011 because of NCI funding cuts.
AB129	QA12_B59	***How much did you pay for your most recent colonoscopy—was it none, some or all of the cost?*** Mid-administration change: This item was dropped on 10/03/2011 because of NCI funding cuts.
AB130	QA12_B63	***How much did you pay for your most recent sigmoidoscopy—was it none, some or all of the cost?*** Mid-administration change: This item was dropped on 10/03/2011 because of NCI funding cuts.

Element	*Question #*	*Question Text and Description*
AB131	QA12_B66	***In the last 12 months, did you have a CAT scan or CT scan? During this test, you are lying down and moved through a donut shaped x-ray machine while holding your breath.*** Mid-administration change: This item was dropped on 10/03/2011 because of NCI funding cuts.
AB132	QA12_B67	***Were any of the CAT scans you had in the last 12 months done of your chest area?*** Mid-administration change: This item was dropped on 10/03/2011 because of NCI funding cuts.
AB133	QA12_B68	***Were any of the CAT scans of your chest area done to check for lung cancer, rather than for some other reason?*** Mid-administration change: This item was dropped on 10/03/2011 because of NCI funding cuts.
AB134	QA12_B74	***How many HPV shots did you get?*** Mid-administration change: This item was dropped on 10/03/2011 because of NCI funding cuts.
AB135	QA12_B75	***Do you plan to get HPV shots in the next 12 months?*** Mid-administration change: This item was dropped on 10/03/2011 because of NCI funding cuts.
AB136	QA12_B76	***What is the main reason you do not plan to get more HPV shots in the next 12 months?*** Mid-administration change: This item was dropped on 10/03/2011 because of NCI funding cuts.
AB137	QA12_B77	***What is the main reason you will not get HPV shots in the next 12 months*** Mid-administration change: This item was dropped on 10/03/2011 because of NCI funding cuts.
AB138	QA12_B78	***Is cost {also }a reason that you do not plan to get HPV shots in the next 12 months?*** Mid-administration change: This item was dropped on 10/03/2011 because of NCI funding cuts.
AB139	QA12_B79	***Has a doctor or other health care professional ever recommended that you get HPV shots?*** Mid-administration change: This item was dropped on 10/03/2011 because of NCI funding cuts.

Element	*Question #*	*Question Text and Description*
AB83	QA12_B54	***What was the main reason you did your most recent stool blood test using a home kit? Was it…*** Mid-administration change: This item was dropped on 10/03/2011 because of NCI funding cuts.
AB84	QA12_B56	***A sigmoidoscopy and a colonoscopy are both tests that examine the bowel by inserting a tube in the rectum. The difference is that during a sigmoidoscopy, <you> are awake and can drive <yourself> home after the test; however, during a colonoscopy, <you> may feel sleepy and <you> need someone to drive <you> home. Have you ever had a colonoscopy?*** Mid-administration change: This item was dropped on 10/03/2011 because of NCI funding cuts.
AB85	QA12_B57	***When did you have your most recent colonoscopy to check for colon cancer?*** Mid-administration change: This item was dropped on 10/03/2011 because of NCI funding cuts.
AB86	QA12_B58	***What was the main reason you had your most recent colonoscopy? Was it…*** Mid-administration change: This item was dropped on 10/03/2011 because of NCI funding cuts.
AB87	QA12_B60	***Have you ever had a sigmoidoscopy?*** Mid-administration change: This item was dropped on 10/03/2011 because of NCI funding cuts.
AB88	QA12_B61	***When did you have your most recent sigmoidoscopy to check for colon cancer?*** Mid-administration change: This item was dropped on 10/03/2011 because of NCI funding cuts.
AB89	QA12_B62	***What was the main reason you had your most recent sigmoidoscopy? Was it…*** Mid-administration change: This item was dropped on 10/03/2011 because of NCI funding cuts.
AB90	QA12_B64	***In the past 5 years, has a doctor recommended that you have a sigmoidoscopy, colonoscopy or stool blood test?*** Mid-administration change: This item was dropped on 10/03/2011 because of NCI funding cuts.
AD10	QA12_E29	***What is the ONE most important reason why you have {NEVER had a Pap test/NOT had a Pap test in the last 3 years}?*** This item was not asked in the proxy interview. Mid-administration change: This item went into production on August 5, 2011, but was dropped on 10/03/2011 because of NCI funding cuts.

Element	*Question #*	*Question Text and Description*
AD28	QA12_E22	***Are you currently taking hormone therapy?*** Mid-administration change: This item was dropped on 10/03/2011 because of NCI funding cuts.
AD4	QA12_E25	***Have you ever had a Pap test to check for cervical cancer?*** Mid-administration change: This item went into production on August 5, 2011, but was dropped on 10/03/2011 because of NCI funding cuts.
AD5	QA12_E26	***How many Pap tests have you had in the last 6 years?*** Mid-administration change: This item went into production on August 5, 2011, but was dropped on 10/03/2011 because of NCI funding cuts.
AD59	QA12_D16	***Are you legally registered as a domestic partner or legally married in California with someone of the same sex?*** Mid-administration change: On 6/30/2011, this question was replaced with AD60 and AD61
AD6	QA12_E27	***How long ago did you have your most recent Pap test?*** Mid-administration change: This item went into production on August 5, 2011, but was dropped on 10/03/2011 because of NCI funding cuts.
AD8	QA12_E32	***Have you ever had a Pap test where the results were NOT normal?*** Mid-administration change: This item went into production on August 5, 2011, but was dropped on 10/03/2011 because of NCI funding cuts.
AE51	QA1_E22	***Are you taking any of the following medications?*** ***Tamoxifen or Nolvadex?*** Mid-administration change: On 6/30/2011, this question was dropped after the start of production on 6/15/2011.
AE52		***Raloxifene or Evista?*** Mid-administration change: On 6/30/2011, this question was dropped after the start of production on 6/15/2011.
AE71	QA12_E30	***In the past 3 years, has a doctor recommended that you have a Pap test?*** Mid-administration change: This item went into production on August 5, 2011, but was dropped on 10/03/2011 because of NCI funding cuts.
AE72	QA12_B69	***Have you ever heard of HPV? HPV stands for human papillomavirus (pap-uh-LOW-muh-vi-rus).*** Mid-administration change: This item was dropped on 10/03/2011 because of NCI funding cuts.

Element	*Question #*	*Question Text and Description*
AE74	QA12_B70	***These next questions are about HPV. Your best guess is fine.*** ***Do you think HPV can cause cervical cancer?*** Mid-administration change: This item was dropped on 10/03/2011 because of NCI funding cuts.
AE77	QA12_B72	***Have you ever heard of the HPV shot or cervical cancer vaccine to prevent HPV infection? The vaccine is called GARDASIL®, or Cervarix®.*** Mid-administration change: This item was dropped on 10/03/2011 because of NCI funding cuts.
AE78	QA12_B73	***Have you ever received the HPV shot or cervical cancer vaccine?*** Mid-administration change: This item was dropped on 10/03/2011 because of NCI funding cuts.
AE79	QA12_E31	***When do <you> expect to have your next Pap test?*** Mid-administration change: This item went into production on August 5, 2011, but was dropped on 10/03/2011 because of NCI funding cuts.
AE84	QA12_E24	***Some women go on and off Hormone Therapy. Altogether, how long have you taken HT?*** Mid-administration change: This item was dropped on 10/03/2011 because of NCI funding cuts.
AE87	QA12_B71	***Do you think HPV can go away on its own without treatment?*** Mid-administration change: This item was dropped on 10/03/2011 because of NCI funding cuts.
AE95	QA12_E28	***How much did you pay for your most recent Pap test--did you pay none, some or all of the cost?*** Mid-administration change: This item went into production on August 5, 2011, but was dropped on 10/03/2011 because of NCI funding cuts.
AF20	QA12_B65	***What is the ONE most important reason why you have {NEVER had/NOT had} one of these exams {recently}?*** Mid-administration change: This item was dropped on 10/03/2011 because of NCI funding cuts.
AF24	QA12_B53	***When did you do your most recent blood test using a home kit to check for colon cancer?*** Mid-administration change: This item was dropped on 10/03/2011 because of NCI funding cuts.

Element	*Question #*	*Question Text and Description*
AF30	QA12_B74	***Have you ever HEARD OF a PSA or "prostate-specific antigen" test to detect prostate cancer? A PSA test is a blood test to detect prostate cancer.*** Mid-administration change: On 6/30/2011, this question was dropped after the start of production on 6/15/2011.
AF31	QA12_B75	***Have you ever had a PSA test?*** Mid-administration change: On 6/30/2011, this question was dropped after the start of production on 6/15/2011.
AF33	QA12_B76	***When did you have your most recent PSA test?*** Mid-administration change: On 6/30/2011, this question was dropped after the start of production on 6/15/2011.
AF34	QA12_B77	***What was the main reason you had this PSA test – was it...*** Mid-administration change: On 6/30/2011, this question was dropped after the start of production on 6/15/2011.
AF4	QA12_B52	***Now I'm going to ask about your family's history of cancer. By family we mean only your blood relatives. Did your biological father or mother, full brothers or sisters, or biological sons or daughters ever have cancer of any kind?*** Mid-administration change: On 6/30/2011, this question was dropped after the start of production on 6/15/2011.
AF47	QA12_E21	***Have you ever taken Hormone Therapy or HT for menopausal symptoms?*** Mid-administration change: This item was dropped on 10/03/2011 because of NCI funding cuts.
AF48	QA12_E23	***About how long ago did you stop using Hormone Therapy -- Was it…*** Mid-administration change: This item was dropped on 10/03/2011 because of NCI funding cuts.
AF5	QA12_B53	***What kind of cancer or cancers were these?*** Mid-administration change: On 6/30/2011, this question was dropped after the start of production on 6/15/2011.
AF5A	QA12_B54	***Was the skin cancer you mentioned non-melanoma, melanoma, or an unknown type?*** Mid-administration change: On 6/30/2011, this question was dropped after the start of production on 6/15/2011.
AF6	QA12_B55	***Was your mother ever diagnosed with breast cancer?*** Mid-administration change: On 6/30/2011, this question was dropped after the start of production on 6/15/2011.

Element	*Question #*	*Question Text and Description*
AF7	QA12_B56	***Do you have any sisters who have ever been diagnosed with breast cancer?*** Mid-administration change: On 6/30/2011, this question was dropped after the start of production on 6/15/2011.
AF8	QA12_B57	***How many sisters have been diagnosed with breast cancer?*** Mid-administration change: On 6/30/2011, this question was dropped after the start of production on 6/15/2011.
AH79	QA12_H88	***{The following questions are about your current health plan.} While you've had your current health plan, have you reached the limit of what your insurance company would pay for?*** Mid-administration change: On 6/30/2011, this question was dropped after the start of production on 6/15/2011.
AH80	QA12_H88	***Did this happen in the past 12 months?*** Mid-administration change: On 6/30/2011, this question was dropped after the start of production on 6/15/2011.
AH81	QA12_H89	***During the past 12 months, did you have medical bills that you had problems paying or were unable to pay, either for yourself or any family member in your household?*** Mid-administration change: On 6/30/2011, this question was dropped after the start of production on 6/15/2011.
AH83	QA12_H90	***What is the total amount of medical bills?*** Mid-administration change: On 6/30/2011, this question was dropped after the start of production on 6/15/2011.
AH84	QA12_H91	***Were you or your family member uninsured at the time care was provided?*** Mid-administration change: On 6/30/2011, this question was dropped after the start of production on 6/15/2011.
AH85	QA12_H92	***Because of these medical bills, were you unable to pay for basic necessities like food, heat or rent?*** Mid-administration change: On 6/30/2011, this question was dropped after the start of production on 6/15/2011.
AH86	QA12_H93	***Because of these medical bills, did you take on credit card debt?*** Mid-administration change: On 6/30/2011, this question was dropped after the start of production on 6/15/2011.
AH87	QA12_H94	***Did you take out a loan or use up your savings?*** Mid-administration change: On 6/30/2011, this question was dropped after the start of production on 6/15/2011.

Element	*Question #*	*Question Text and Description*
AH88	QA12_H95	***Did you have to declare bankruptcy?*** Mid-administration change: On 6/30/2011, this question was dropped after the start of production on 6/15/2011.
AM20		***People in this neighborhood generally do NOT get along with each other.*** Mid-administration change: On 6/30/2011, this question was dropped after the start of production on 6/15/2011.

CHIS Mid-Administration Changes--Child

Element	Question #	Question Text and Description
Section A		
CA33	QC11_A14	***During the PAST 12 MONTHS, has {CHILD NAME /AGE/SEX} had to visit a hospital emergency room because of {his/her} asthma?*** Mid-administration change: Until 6/30/2011, this question text read, "...had to visit an emergency room …"
CA41	QC11_A19	***During the PAST 12 MONTHS, has {CHILD NAME /AGE/SEX} had to visit a hospital emergency room because of {his/her} asthma?*** Mid-administration change: Until 6/30/2011, this question text read, "...had to visit an emergency room …"
CA48	QC11_A15	***Did you take {CHILD NAME /AGE/SEX} to a hospital emergency room for {his/her} asthma because you were unable to see {his/her} doctor?*** Mid-administration change: Until 6/30/2011, this question text read, "...to an emergency room …"
CA49	QC11_A20	***Did you take {CHILD NAME /AGE/SEX} to a hospital emergency room for {his/her} asthma because you were unable to see {his/her} doctor?*** Mid-administration change: Until 6/30/2011, this question text read, "...to an emergency room …"
CA52	QC11_A28	***During the PAST 12 MONTHS, has {CHILD NAME /AGE/SEX} had to visit a hospital emergency room because of {his/her} {CONDITION(s) 4-91 FROM CA10A}?*** Mid-administration change: Until 6/30/2011, this question text read, "...had to visit an emergency room …"
CA53	QC11_A29	***Did you take {CHILD NAME /AGE/SEX} to a hospital emergency room for {his/her} {CONDITION(s) 4-91 FROM CA10A} because you were unable to see {his/her} doctor?*** Mid-administration change: Until 6/30/2011, this question text read, "...to an emergency room …"
Section K		
KAH103	QK11_H78	***In the past 12 months, did you try to purchase a health insurance plan directly from an insurance company or HMO?*** Mid-administration change: This new item was added to the survey on 6/30/2011.
Section Z		

Element	Question #	Question Text and Description
CG40		***People in this neighborhood generally do NOT get along with each other.*** Mid-administration change: On 6/30/2011, this question was dropped after the start of production on 6/15/2011.
KAH79		***The following questions are about your spouse's current health plan. While your spouse has had {his or her} current health plan, has {he or she} reached the limit of what {his or her} insurance company would pay for?*** Mid-administration change: On 6/30/2011, this question was dropped after the start of production on 6/15/2011.
KAH80		***Did this happen in the past 12 months?*** Mid-administration change: On 6/30/2011, this question was dropped after the start of production on 6/15/2011.
KAH81		***During the past 12 months, did your spouse have medical bills that {he or she} had problems paying or was unable to pay, either for {him or herself} or any family member in {his or her} household?*** Mid-administration change: On 6/30/2011, this question was dropped after the start of production on 6/15/2011.
KAH83		***What is the total amount of medical bills?*** Mid-administration change: On 6/30/2011, this question was dropped after the start of production on 6/15/2011.
KAH84		***Was your spouse or other family member uninsured at the time care was provided?*** Mid-administration change: On 6/30/2011, this question was dropped after the start of production on 6/15/2011.
KAH85		***Because of these medical bills, was your spouse unable to pay for basic necessities like food, heat or rent?*** Mid-administration change: On 6/30/2011, this question was dropped after the start of production on 6/15/2011.
KAH86		***Because of these medical bills, did your spouse take on credit card debt?*** Mid-administration change: On 6/30/2011, this question was dropped after the start of production on 6/15/2011.
KAH87		***Did your spouse take out a loan or use up {his or her} savings?*** Mid-administration change: On 6/30/2011, this question was dropped after the start of production on 6/15/2011.
KAH88		***Did your spouse declare bankruptcy?*** Mid-administration change: On 6/30/2011, this question was dropped after the start of production on 6/15/2011.

CHIS Mid-Administration Changes--Adolescent

Element	Question #	Question Text and Description
Section C		
TC46	QT11_C11	***{Does/When you were last attending school, did} your school offer free drinking water to students during lunchtime?*** Mid-administration change: This item went into production on 12/28/2011.
TC47	QT11_C12	***{Does/When you were last attending school, did} your school offer free drinking water to students at lunchtime from drinking fountains or faucets in the cafeteria or where students eat?*** Mid-administration change: This item went into production on 12/28/2011.
TC48	QT11_C13	***{Does/When you were last attending school, did} your school offer free drinking water to students at lunchtime from water pitchers?*** Mid-administration change: This item went into production on 12/28/2011.
TC49	QT11_C14	***[{Does/When you were last attending school, did} your school offer free drinking water to students at lunchtime]...From a spout or dispenser that is attached to the wall?*** Mid-administration change: This item went into production on 12/28/2011.
TC50	QT11_C15	***[{Does/When you were last attending school, did} your school offer free drinking water to students at lunchtime]...From a large container of water with a spout, such as a water cooler?*** Mid-administration change: This item went into production on 12/28/2011.
TC51	QT11_C16	***{Does/When you were last attending school, did} your school offer free bottled water to students at lunchtime?*** Mid-administration change: This item went into production on 12/28/2011.
TC52	QT11_C17	***{Does/When you were last attending school, did} your school give out free cups for drinking water during lunchtime?*** Mid-administration change: This item went into production on 12/28/2011.
TC53	QT11_C18	***Yesterday, how many glasses of water did you drink at school, home, and everywhere else? Count one cup as one glass and count one bottle of water as two glasses. Count only a few sips, like from a water fountain, as less than one glass. Your best guess is fine.*** Mid-administration change: This item went into production on 12/28/2011.
TC54	QT11_C19	***On the last day that you were in school, how many glasses of water did you drink at school? Count one cup as one glass and count one bottle of water as two glasses. Count only a few sips, like from a water fountain, as less than one glass. Your best guess is fine.*** Mid-administration change: This item went into production on 12/28/2011.

Element	*Question #*	*Question Text and Description*
Section Z		
TD33		***How many days in the past 30 days did you go to the park?***
		Mid-administration change: This item was dropped on 6/30/2011--after the start of production on 6/15/2011
TD35		***People in this neighborhood generally do NOT get along with each other.***
		Mid-administration change: This item was dropped on 6/30/2011--after the start of production on 6/15/2011
TH14	QT11_L13	***How true are these statements about your home or the adults with whom you live? In my home, there is a parent or some other adult . . .***
		Who cares about my schoolwork. Is this . . .
		Mid-administration change: This item was dropped on 6/30/2011--after the start of production on 6/15/2011
TH15	QT11_L14	***Who listens to me when I have something to say. Is this . . .***
		Mid-administration change: This item was dropped on 6/30/2011--after the start of production on 6/15/2011
TH16	QT11_L15	***Who talks with me about my problems.***
		Mid-administration change: This item was dropped on 6/30/2011--after the start of production on 6/15/2011
TH17	QT11_L16	***Who notices when I'm in a bad mood.***
		Mid-administration change: This item was dropped on 6/30/2011--after the start of production on 6/15/2011
TH18	QT11_L17	***Who always wants me to do my best.***
		Mid-administration change: This item was dropped on 6/30/2011--after the start of production on 6/15/2011
TH19	QT11_L18	***Who believes that I will be a success.***
		Mid-administration change: This item was dropped on 6/30/2011--after the start of production on 6/15/2011

APPENDIX B

CHIS 2011-2012 ADVANCE LETTER (IN ENGLISH ONLY)

UCLA | UCLA CENTER FOR HEALTH POLICY RESEARCH

Dear Current Resident,

Your household has been selected for this year's California Health Survey. This important telephone survey is your opportunity to have your voice heard on health issues.

This survey helps California learn about the health of its people and the problems they have getting health care. The results may help the people and families in your community.

Your household is very special because you are part of a scientific sample representing many other households like yours. We do this survey every two years. Since 2001, more than 200,000 Californians have talked to us about many different health topics.

We will be calling sometime in the next two weeks and one adult in your household will be selected for the interview. If you have teenagers (ages 12-17), we will ask to interview one with permission from a parent. Participation is voluntary and confidential. Your answers will be combined with other participants and used only for statistical reporting.

Please take a moment to take our call. We are not selling anything or asking for money. If we call at an inconvenient time, you can suggest a better time for us to call back. To thank you in advance for taking our call and hearing about this survey, 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).

Thank you for your help.

Sincerely,

Dr. E. Richard Brown
Director, UCLA Center for Health Policy Research

Note: If you have questions about the California Health Survey, you can call toll-free 1-888-941-2950 or visit our website at www.californiahealthsurvey.org

Major funders of this survey include the California Department of Health Care Services, California Department of Public Health, First 5 California, Office of the Patient Advocate, The California Endowment, and the National Cancer Institute.

Relevant to Privacy Act Information, the legislative authority for this survey is 42 USC 285.

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