

OVERVIEW

The California Health Interview Survey (CHIS) is a biennial population-based, omnibus health survey of California. It is the largest telephone survey in California and the largest state health survey in the country. CHIS 2007 is the fourth data collection cycle following CHIS 2001, 2003, and 2005.

CHIS randomly selects one adult to interview in each of the more than 40,000 participating households throughout California. In addition to adults, interviews are conducted about the health of children (ages 0 to 11 by proxy with the most knowledgeable adult about the health of the selected child) and adolescents (age 12 to 17 following parental permission). The selected adult respondent must be the parent or legal guardian of children and/or adolescents living in the household in order for children and/or adolescents to be eligible for interview. This results in approximately 4,000 adolescent interviews and information on approximately 10,000 young children throughout the state. Major content areas for the 2007 survey include health-related behaviors, health status and conditions, cancer screening, diet, physical activity, health insurance coverage, inter-personal violence, mental health, and access to health care and mental health services. To capture the rich diversity of the California population, interviews are conducted in five languages: English, Spanish, Chinese (Mandarin and Cantonese dialects), Vietnamese, and Korean.

In addition to the main RDD sample, CHIS 2007 introduces two new samples – a statewide cell-phone only sample and an area probability sample in Los Angeles County. More information about these new samples is provided below in *The CHIS 2007 Sample in Detail*.

Overall, the CHIS sample is designed to provide population-based estimates for most California counties and all major ethnic groups, including several ethnic subgroups. The sample is designed to meet and optimize two goals:

1. To provide local-level estimates for counties with populations of 60,000 or more for local planning and comparisons among counties;
2. To provide statewide estimates for California's overall population, its major race/ethnic groups, as well as for several Asian ethnic groups.

The collected information and results are available to state and local health agencies, community-based organizations, health care providers and organizations, advocacy groups, and policy makers. CHIS results and data are available through multiple dissemination channels:

- CHIS web site with an interactive query system (*AskCHIS*) for tailored data estimates
- Public-use data files for researchers and analysts
- Published reports

- Scholarly publications
- The UCLA Center for Health Policy Research Data Access Center with special, more-detailed data files only available in this secure environment

CHIS also provides technical assistance for researchers and all users of web-based and public-use data.

The CHIS 2007 Sample in Detail

CHIS 2007 includes 3 separate samples all administered through a computer assisted telephone interview (CATI) system: a main random digit-dial (RDD) sample supplemented by surname-listed sample; a statewide cell-phone only sample of 800 to 1,000 adults; and an area probability sample in Los Angeles County of 800 to 1,000 adults.

RDD Sample

The main RDD sample consists of adults, adolescents and children from 42,000 to 48,000 households. Nearly all of these cases are selected through an RDD methodology and supplemented by surname-listed sample to increase the yield of Vietnamese and Korean cases. The RDD sample is geographically stratified by county (see *Sample Size by County* below). Only residential households with landline telephones are included in the RDD sample. The sample weights that accompany the data files are statistically adjusted to compensate for households without telephones.

Cell Phone Only Sample

The growth of households that do not have landline telephones has grown rapidly in recent years and most of this change is due to the growth of households with cellular telephones only. There is growing evidence that households without landline telephones are systematically different than households with landline telephones. In order to include this growing population segment in CHIS, a separate cell-phone only sample is conducted with a target sample size of 800 to 1,000 completed adult interviews statewide. This sample is drawn from banks of telephone numbers that are assigned for cellular use. The sampled telephone numbers are called and screened to determine whether the person who answers the phone is an adult and if so, whether or not he or she has a landline telephone. If he or she does have a landline telephone, no more questions are asked and the call is terminated after attempting to reimburse for air time. If he or she does not have a landline telephone, additional questions are asked to determine if the phone is shared among other adults in the same household and one adult is randomly selected to conduct the adult extended interview. After the extended interview is finished, an attempt is made to reimburse the respondent for the cost of cell phone air time. No child or adolescent extended interviews are attempted for the cell phone only sample (however, children and adolescents are enumerated). This methodology was pilot tested in CHIS 2005.

Area Probability Sample

CHIS 2007 includes an area probability sample of 800 to 1,000 households in Los Angeles County. The purpose of the area probability sample is to explore non-response bias in the RDD sample. This sample consists of a geographically clustered sample of addresses. An attempt is

made to match each address to a telephone number. If such a match can be made, the household is initially contacted by phone in a manner identical to cases in the RDD sample except that no additional attempts are made to contact the household if a refusal is encountered at the screener stage. If a telephone number cannot be matched to the address or a refusal is encountered at the screener stage, a recruiter is sent to the address in person to introduce the household to the survey and invite an adult household member to complete the screener interview. All interviews in the area probability sample are completed by telephone; either by a landline telephone in the household or via the recruiter's cellular telephone. No child or adolescent extended interviews are attempted for the cell phone only sample (however, children and adolescents are enumerated).

Sample Size by County

The geographic stratification of the CHIS sample was revised in 2005 to provide data for more individual counties than the original sample design used in CHIS 2001 and 2003. This revised design is continued in CHIS 2007. California's 58 counties are arranged into 44 strata (see Table 1). Forty-one counties form their own independent sampling stratum (expanded from 33 in the previous design). The remaining 17 counties are arranged into 3 multiple county strata.

As in all CHIS cycles, agencies may partner with CHIS to increase the sample size or add county-specific content in their county through supplemental funding.

Sample Size by Age Category

From each household, as many as three persons, one from each of three age categories is selected to be interviewed. One adult (ages 18 and older) from each household is part of the adult sample. In households with adolescents (ages 12-17) residing at home, one adolescent is interviewed (parental consent and adolescent ascent are required). In homes with children under age 12, the adult who is most knowledgeable about a selected child is interviewed. As in previous data collection cycles, CHIS 2007 produces three distinct samples: adult, adolescent, and child. The estimated number of interviews for each sample is more than 40,000 adults, approximately 4,000 adolescents, and approximately 10,000 children by adult proxy.

Over-sampling Asian Ethnic Groups

Two Asian ethnic groups, Vietnamese and Korean, are augmented in CHIS 2007 with additional sample so that each group's total sample size of adult interviews reaches a target of 500. A combination of geographic targeting based on areas with high concentration of these groups plus a limited number of listed-surname sampling is used to increase the number of Vietnamese and Koreans in the sample.

Because the CHIS 2007 RDD sample produces a sufficient number of Chinese (approximately 950) and Filipinos (approximately 700), there is no need to over-sample these two large groups.

Table 1. CHIS 2007 RDD Sample Size Targets for Counties

Stratum	DOF 2007 est. Households	CHIS Sample (Households)
Los Angeles	3,372,542	8,261
San Diego	1,114,534	2,730
Orange	1,033,150	2,531
Santa Clara	603,330	1,478
San Bernardino	624,980	1,531
Riverside	648,868	1,589
Alameda	573,249	1,404
Sacramento	541,384	1,326
Contra Costa	387,973	950
Fresno	287,876	705
San Francisco	341,217	836
Ventura	269,241	659
San Mateo	262,741	644
Kern	246,460	604
San Joaquin	225,664	553
Sonoma	187,166	500
Stanislaus	171,805	500
Santa Barbara	145,512	500
Solano	144,589	500
Tulare	126,811	500
Santa Cruz	94,909	500
Marin	101,858	500
San Luis Obispo	100,335	500
Placer	120,875	500
Merced	78,654	500
Butte	86,473	500
Shasta	72,645	500
Yolo	72,327	500
El Dorado	67,871	500
Imperial	47,730	500
Napa	49,846	500
Kings	41,793	500
Madera	41,796	500
Monterey	134,133	500
Humboldt	53,323	500
Nevada	41,062	500
Mendocino	35,679	500
Sutter	31,130	500
Yuba	23,350	500
Lake	27,348	500
San Benito	18,011	500
Tehama-Glenn-Colusa	39,625	400
Del Norte-Lassen-Modoc- Plumas-Sierra-Siskiyou-Trinity	58,915	400
Tuolumne-Calaveras-Amador- Inyo-Mariposa-Mono-Alpine	77,768	400
Total	12,826,550	40,000