

SAMPLE DESIGN DESCRIPTION FOR CHIS 2003 (ORIGINAL PLAN)

OVERVIEW

The California Health Interview Survey (CHIS) is the largest telephone survey in California and the largest health survey of its kind in the country. CHIS 2003 interviews one randomly selected adult in each of the more than 40,000 households sampled in California. In addition, in those households with adolescents (ages 12-17) and/or children (under age 12), one adolescent and one parent proxy of the child is interviewed. This results in approximately 4,000 adolescent interviews and information on approximately 9,000 young children throughout the state. Major content areas for the 2003 survey include health-related behaviors, health status and conditions (including an expanded asthma section), health insurance coverage, access to health care services, social support, plus housing and neighborhood environments. To capture the rich diversity of the California population in 2003, interviews are conducted in five languages: English, Spanish, Chinese (Mandarin and Cantonese dialects), Vietnamese, and Korean.

The CHIS 2003 sample is designed to provide population-based estimates for most California counties, all major ethnic groups, and several ethnic subgroups. The sample is also designed to meet and optimize two goals:

1. To provide local-level estimates for counties with populations of 100,000 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 sample design is created to allow both easy access to and use of CHIS data by organizations and individuals. 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 currently available in several ways:

- 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 expert technical assistance for researchers and all users of web-based and public-use data.

The CHIS 2003 Sample in Detail

The CHIS 2003 sample of adults, adolescents and children consists of 42,000 households, mostly selected through a random-digit dial (RDD) telephone survey methodology (a small number of surname-listed sample is used to supplement the Vietnamese and Korean samples). Only residential households with telephones are in the CHIS sample. The results, however, are statistically adjusted to compensate for households without telephones.

Sample Size by County

All counties in California are sampled. The 58 California counties are arranged into 41 strata (see Table 1). Thirty-three of the 35 counties form their own sample stratum. Two medium sized counties, Monterey and Humboldt, are combined with smaller adjoining counties (San Benito and Del Norte, respectively). The 23 remaining counties are grouped into six sample strata in a way that is meaningful for planning purposes. In CHIS 2003, six of the forty-one strata have a minimum sample size of 400 (these are all low-population density, multi-county strata). The majority of strata have sample sizes of at least 500; the eight most populous strata have 1,000 or more.

California's three city health department jurisdictions (Berkeley, Long Beach, Pasadena) are not over-sampled in CHIS 2003 as they were in CHIS 2001. With special funding, however, sample sizes are increased in Alameda and Los Angeles counties. In Alameda County, the cities of Oakland and Hayward are over-sampled (an additional 1,000 households each), plus an over-sample of the balance of the county (500 additional households), all with funding provided by Alameda County (see Table 2). In Los Angeles, approximately 1,600 households are added to the county's sample with funding provided by L.A. Care Health Plan. Finally, and also in Los Angeles County, CHIS is over-sampling the Antelope Valley Service Planning Area (SPA) by 270 households to increase that area's sample size relative to the larger sample sizes in the county's other, more populous SPAs (see Table 3).

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. In homes with children under age 12, the adult who is most knowledgeable about a selected child is interviewed. As in CHIS 2001, CHIS 2003 has three distinct samples: adult, adolescent, and child. The estimated number of interviews for each sample is 42,000 adults, 4,000 adolescents (parental consent and adolescent ascent are required), and 9,000 children by adult proxies.

Sample Size by Race/Ethnicity

The following is an approximation of the number of interviews to be completed in each major race/ethnic group in the CHIS 2003 sample, including over-samples:

- 8,600 Latinos
- 30,770 Non-Latinos
 - 23,800 Whites
 - 4,000 Asian American/Native Hawaiians/Pacific Islanders
 - 2,700 African Americans
 - 270 American Indian/Alaska Native

The Asian numbers are augmented by over-samples of Koreans and Vietnamese (see next section) and by the Alameda County over-samples. African Americans and Latinos are also augmented with over-samples in Alameda County (see Table 4 for more precise estimates).

Over-sampling Asian Ethnic Groups

Two Asian ethnic groups, Vietnamese and Korean, are augmented in CHIS 2003 with additional sample so that each group's total sample size of adult interviews will reach a target of 400. A combination of geographic targeting based on Census tract density characteristics plus a limited number of listed-surname sampling is used to increase the number of Vietnamese and Koreans in the sample.

Because the CHIS 2003 RDD sample will produce a sufficient number of Chinese (approximately 1,000) and Filipinos (approximately 800), there is no need to over-sample these two large groups (see Table 5).

American Indian/Alaska Native Sample Size

American Indian/Alaska Natives (AIAN) are not over-sampled in CHIS 2003 as they were in CHIS 2001 with specific Indian Health Service funding available at that time. The CHIS 2003 AIAN estimated sample size of 268 adult interviews (Table 4) is for single race, non-Latino AIAN and is based on Census 2000 data. The sample size of AIAN is much larger when a less-restrictive definition is used. For example, in the CHIS 2001 RDD sample (excluding the over-samples), the number of AIAN is 424 using the single race, non-Latino definition; this more than doubles to 935 using a single-race definition that includes both Latino and non-Latino ethnicities.

Table 1. CHIS 2003 RDD Minimum Sample Size Targets for Counties

Geographic Strata		Sample Size
1	Los Angeles	10,084
2	Alameda	3,989
3	San Diego	2,279
4	Orange	2,142
5	Santa Clara	1,296
6	San Bernardino	1,211
7	Riverside	1,160
8	Sacramento	1,039
9	Contra Costa	800
10	San Francisco	800
11	Fresno	600
12	San Mateo	600
13	Ventura	600
14	Butte	500
15	El Dorado	500
16	Imperial	500
17	Kern	500
18	Kings	500
19	Madera	500
20	Marin	500
21	Merced	500
22	Napa	500
23	Placer	500
24	San Joaquin	500
25	San Luis Obispo	500
26	Santa Barbara	500
27	Santa Cruz	500
28	Shasta	500
29	Solano	500
30	Sonoma	500
31	Stanislaus	500
32	Tulare	500
33	Yolo	500
34	Humboldt Del Norte	500
35	Monterey San Benito	500
36	Siskiyou Trinity Lassen Modoc	400
37	Mendocino Lake	400
38	Tehama Colusa Glenn	400
39	Sutter Yuba	400
40	Nevada Sierra Plumas	400
41	Tuolumne Mariposa Calaveras Mono Amador Alpine Inyo	400
Total of 41 Strata		40,000

Table 2. Alameda County City Oversamples

City	RDD Sample	Over-sample	Total
Hayward	103	1,118	1,221
Oakland	345	1,171	1,516
Balance of Alameda	751	501	1,252
Total Sample	1,199	2,790	3,989

Table 3. Expected Sample Sizes in Los Angeles County Service Planning Areas (SPAs)

Service Planning Area	Sample Size
San Fernando	2,031
San Gabriel	1,866
South Bay	1,599
East	1,245
Metro	1,081
South	916
West	724
Antelope Valley*	621
Los Angeles Total	10,084

* Includes 270 over-sample households

Table 4. Expected Sample Sizes for Major Race/Ethnic Groups

	White*	Latino	AAPI*	African American*	AIAN*
RDD Sample	22,378	8,269	3,161	2,253	258
Alameda Over-samples	1,393	362	492	440	10
Asian Over-samples			324		
Total Samples	23,771	8,631	3,977	2,693	268

* Single race, non-Latino

Table 5. Samples for Asian Ethnic Groups

Group	RDD Sample	Over-samples		Total
		Alameda	Statewide	
Chinese	877	199	0	1,076
Filipino	697	98	0	796
Vietnamese	279	33	88	400
Korean	337	26	37	400
Other AAPI*	970	136	0	1,106
Total AAPI	3,161	492	324	3,977

* Asian American and Pacific Islander