

# ***California Health Interview Survey: Successes and Challenges of AAPI Data Collection***

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[www.chis.ucla.edu](http://www.chis.ucla.edu)

# *California Health Interview Survey (CHIS)*

- ▶ **Provides population-based state and local health data for California**
  - ▶ For use by local health departments, community-based organizations, health providers
  
- ▶ **Statewide RDD telephone survey on CATI**
  - ▶ 48,000 households (Adult, Teen, and Child interviews)
  - ▶ 44 geographic strata
  - ▶ Korean & Vietnamese oversamples
  - ▶ Interviews in English, Spanish, Chinese (Mandarin, Cantonese), Korean, Vietnamese
  
- ▶ **Conducted every 2 years- Accumulated 3 cycles 2001, 2003, 2005**

## *CHIS Content & Data*

- ▶ **Provide population-based state and local health data for California's Adults (age 18+), Teens (age 12-17), and Children (0-11)**
  - ▶ Demographics
  - ▶ Immigration Characteristics (length of time in U.S., citizenship, country of birth, parents' country of birth, English proficiency)
  - ▶ Health Status, Conditions, Behaviors
  - ▶ Health Insurance and Public Program Participation
  - ▶ Access to Health Care
  - ▶ Mental Health
  - ▶ Dental Health
  - ▶ Environmental factors (neighborhood, parks, transportation)
  
- ▶ **Geo-coding data for households and schools**

## *CHIS 2007 Timeline*

- ▶ **Feb 06 to Mar 07**
  - Questionnaire development**
    - TAC meetings (adult, teen, child, multicultural)
    - Work group meetings (topic specific)
    - Fund raising (topic specific or sampling focused)
  - OMB, IRB approvals**
  - Pre-test**
  - English simplification, cultural adaptation**
  - CATI pilot test**
  - Begin data collection (English)**
  - Linguistic translation**
  - End data collection**
  - Data cleaning, imputation, variable construction**
  - Weighted data from Westat**
  - CHIS 2007 data delivery**
- ▶ **Nov 06 on**
- ▶ **Dec 06**
- ▶ **Feb-Mar 07**
- ▶ **May 07**
- ▶ **Jun 07**
- ▶ **Jul-Aug 07**
- ▶ **Dec 07**
- ▶ **Jan-Jul 08**
- ▶ **Apr 08**
- ▶ **Aug-Sep 08**

# Sample Design

▶ **CHIS sample designed to meet two goals:**

- ▶ Local-level estimates for counties
- ▶ Statewide estimates for overall population, including its major racial/ethnic groups
  - ▶ Oversampling of subgroups with geographic targeting and supplemental surname list.

<b>CHIS 2001</b>		<b>CHIS 2003</b>		<b>CHIS 2005</b>	
Koreans	326	Koreans	112	Koreans	123
Vietnamese	540	Vietnamese	114	Vietnamese	127
American Indians	351				
Japanese	330				
South Asians	443				
Cambodians	126				

## *CHIS adult samples by race/ethnicity*

	<b>2001</b>	<b>2003</b>	<b>2005</b>
<b>Total Sample Size</b>	56,270	42,044	43,020
<b>Race (Census)</b>			
White	38,760	28,457	30,554
Asian	4,770	3,881	3,935
Native Hawaiian-Pacific Islander	236	158	130
African American	2,615	2,615	1,915
American Indian/Alaska Native	935	882	872
Other	6,445	4,641	4,245
Two or More Races	2,509	1,410	1,369
<b>Latino Ethnicity</b>			
Latino	11,840	8,770	8,036
<b>Asian Ethnicity</b>			
Chinese	1,263	1,276	1,301
Filipino	919	767	666
Korean	798	502	627
Vietnamese	812	456	483
South Asian	405	413	409
Japanese	535	416	422
Other/Two or more	185	303	266

## *Place of Birth, CHIS 2005 Adults*

<b>Country</b>	<b>N</b>	<b>Percent</b>
Mexico	3,434	34.3%
China, Taiwan	958	9.6%
Korea	571	5.7%
Vietnam	547	5.5%
Philippines	507	5.1%
Canada	336	3.3%
Germany	317	3.2%
England	308	3.1%
El Salvador	297	3.0%
India	293	2.9%
Guatemala	186	1.8%

*About 23% of CHIS 2005 adults were born outside the U.S.*

*About 34% of CHIS 2005 foreign born adults born in Asia or the Pacific Islands*

# *Survey Administration for a Multiethnic Population*

## ▶ **English Simplification**

Produce questionnaires that are easy to understand and use simple, conversational language

Target 6th grade reading level

Independent review by health literacy experts

## ▶ **Cultural Adaptation**

Produce questionnaires free of culturally inappropriate, offensive, or confusing wording, phrases, and/or concepts

Identify potentially problematic language through independent review by bi-lingual/bi-cultural health workers on a consultant basis

## ▶ **Linguistic Translation**

# *Linguistic Translation*

## ▶ **Issue/Problem**

- ▶ AAPI subgroups are largely immigrant and some groups linguistically isolated; also true with Eastern Europeans, Northeast Africans
- ▶ Most linguistically isolated groups may have a small chance of being sampled

## ▶ **Goals**

- ▶ Produce high quality, conversational, English-equivalent translations
- ▶ Initial translation of new items by data collection contractor
- ▶ Translation then reviewed by certified translators (required by CCPHS)
- ▶ Independent review by bi-cultural/bi-lingual consultants to identify any potential problems. Group reconciliation of problematic items.

## *Non-English languages in California (ACS 2004)*

<b>Rank</b>	<b>All Households</b>	<b>Linguistically Isolated HHs</b>	<b>Linguistically Isolated HHs w/ Children</b>
1	<b>Spanish</b>	<b>Spanish</b>	<b>Spanish</b>
2	<b>Chinese</b>	<b>Chinese</b>	<b>Chinese</b>
3	Tagalog	<b>Vietnamese</b>	<b>Vietnamese</b>
4	<b>Vietnamese</b>	<b>Korean</b>	<b>Korean</b>
5	<b>Korean</b>	Tagalog	Tagalog
6	Japanese	Japanese	Russian
7	French	Russian	Japanese
8	German	Panjabi	Armenian
9	Armenian	Persian	Persian
10	Persian	Italian	Panjabi

# CHIS Interview Languages

Language	Adult		
	2001	2003	2005
English	48,348	36,766	38,476
Spanish	4,963	3,589	3,141
Vietnamese	140	309	371
Korean	223	314	430
Cantonese	203	261	269
Mandarin	217	239	333
<i>Khmer</i>	28	n.a.	n.a.
<b>Total</b>	<b>54,122</b>	<b>41,478</b>	<b>43,020</b>
Percent Non-English	<b>10.7%</b>	<b>11.4%</b>	<b>10.6%</b>

## CHIS 2003 interview language distribution

Asian Ethnicity	(n)	Interview Language					
		English	Spanish	Cantonese	Mandarin	Korean	Vietnamese
<b>Total</b>	<b>3,807</b>	<b>69.3%</b>	<b>0.1%</b>	<b>7.2%</b>	<b>6.5%</b>	<b>8.5%</b>	<b>8.4%</b>
<b>Chinese</b>	<b>1,160</b>	<b>61.1%</b>	<b>0.2%</b>	<b>22.0%</b>	<b>16.6%</b>	<b>0.0%</b>	<b>0.1%</b>
<b>Korean</b>	<b>495</b>	<b>34.7%</b>	<b>0.0%</b>	<b>0.0%</b>	<b>0.0%</b>	<b>65.3%</b>	<b>0.0%</b>
<b>Vietnamese</b>	<b>453</b>	<b>31.1%</b>	<b>0.0%</b>	<b>2.9%</b>	<b>0.2%</b>	<b>0.0%</b>	<b>65.8%</b>
<b>Filipino</b>	<b>639</b>	<b>100.0%</b>	<b>0.0%</b>	<b>0.0%</b>	<b>0.0%</b>	<b>0.0%</b>	<b>0.0%</b>
<b>Other</b>	<b>1,060</b>	<b>92.4%</b>	<b>0.0%</b>	<b>0.6%</b>	<b>4.9%</b>	<b>0.1%</b>	<b>2.1%</b>

# Non-Latino Chinese Survey Estimates

## CHIS 2003 Adult

Non-Latino Chinese	English Interview Estimate	Chinese Interview Estimate	Total Estimate	Difference (1 vs. 2)	Bias Est.
Age (yrs)	40.0	52.2	44.7	-12.2 <sup>***</sup>	-4.7
% Female	51.8	61.0	55.5	-9.2 <sup>***</sup>	-3.7
Mean household income (\$,000)	82.1	34.0	62.7	48.1 <sup>***</sup>	19.4
% High school or Less	15.4	59.3	33.1	-43.9 <sup>***</sup>	-17.7
% Life in US	65.2	28.2	50.3	37.0 <sup>***</sup>	14.9
% Fair, poor health	5.9	41.0	20.1	-35.1 <sup>***</sup>	-14.2
% Ever diagnosed with asthma	10.2	5.3	8.3	4.9 <sup>***</sup>	1.9
% Ever diagnosed with diabetes	3.8	7.2	5.2	-3.4 <sup>***</sup>	-1.4
% Ever diagnosed with hypertension	13.0	26.7	18.5	-13.7 <sup>***</sup>	-5.5
% Have usual source of care	88.8	85.1	87.3	3.7 <sup>***</sup>	1.5
% Visited doctor in 12 months	80.4	77.1	79.0	3.3 <sup>***</sup>	1.4
% Had dental visit in 12 months	76.9	58.4	69.4	18.5 <sup>***</sup>	7.5
% Currently insured	92.7	76.1	86.0	16.6 <sup>***</sup>	6.7
% Have any kind of dental insurance	73.9	59.0	67.9	14.9 <sup>***</sup>	6.0

\*  $p < 0.05$ , \*\*  $p < 0.01$ , \*\*\*  $p < 0.001$



Lee, S., Kurata, J., Nguyen, N.A., and Jawad, M. *The Effect of Covering Linguistic Minorities Using Multilingual Surveys*. Paper presented at the annual meeting of the American Association for Public Opinion Research, Montréal, Canada, 2006.

# *Non-Latino Vietnamese Survey Estimates*

## *CHIS 2003 Adult*

Non-Latino Vietnamese	English Interview Estimate	Vietnamese Interview Estimate	Total Estimate	Difference (1 vs. 2)		Bias Est.
Age (yrs)	32.0	47.2	42.0	-15.2	***	-10.0
% Female	38.8	53.3	48.3	-14.5	***	-9.5
Mean household income (\$,000)	82.2	29.3	47.4	52.9	***	34.8
% High school or Less	21.0	68.1	51.9	-47.1	***	-30.9
% Life in US	65.8	28.4	41.2	37.4	***	24.6
% Fair, poor health	10.6	56.9	41.0	-46.3	***	-30.4
% Ever diagnosed with asthma	4.5	7.9	6.7	-3.4	***	-2.2
% Ever diagnosed with diabetes	1.1	10.5	7.3	-9.4	***	-6.2
% Ever diagnosed with hypertension	10.8	28.9	22.7	-18.1	***	-11.9
% Have usual source of care	86.7	82.8	84.1	3.9	***	2.6
% Visited doctor in 12 months	72.2	80.8	77.9	-8.6	***	-5.7
% Had dental visit in 12 months	77.9	66.7	70.5	11.2	***	7.4
% Currently insured	86.5	80.9	82.8	5.6	***	3.7
% Have any kind of dental insurance	77.4	70.6	73.0	6.8	***	4.4

\*  $p < 0.05$ , \*\*  $p < 0.01$ , \*\*\*  $p < 0.001$

## *Who's involved*

- ▶ **UCLA Center for Health Policy Research in collaboration with the Public Health Institute and the California Dept. of Health**
- ▶ **Technical Advisory Committees and Topic Specific Workgroups**
- ▶ **Advisory Board**
- ▶ **Funding Organizations**
- ▶ **Westat—Data collection contractor (through competitive bid)**

# *Successes and Challenges*

## ▶ **COSTS**

- ▶ Increased data collection costs
- ▶ Continuous funding needed

## ▶ **Balance of small county and ethnic subgroup samples**

## ▶ **Decreasing Response Rates (30% in 2005)**

- ▶ 2007 Cell Phone component
- ▶ In-person Area Probability Sample

## ▶ **Demographics**

- ▶ CHIS 2001 oversample of Cambodian: resistance, trust
- ▶ Screener/interview of Asian languages
- ▶ Funding for additional oversamples

## *Successes and Challenges*

▶ **Population based subgroup data for AAPI and Latino populations**

▶ **Inclusion of linguistically isolated communities**

- ▶ Pourat, N., Ponce, N., Wyn, R. *Assessment of the State of Ethnic-Specific Health Survey Data*. AAPI Nexus (Forthcoming):

**Exclusion of such groups in surveys (ie. NHIS) limits ability to assess impact of cultural and linguistic barriers to health care and likely underestimates disparities.**

▶ **Provide data for policy and program implementation from state to local level efforts**

# *Impact of CHIS*

## ▶ **Publications**

- ▶ 70 peer-reviewed articles published using CHIS 2001 and 2003
- ▶ 30 research projects are currently active through the Data Access Center

## ▶ **Public Use Files**

- ▶ 500+ downloads of the public-use files (Jan 1 2007-March 30, 2007)

## ▶ **AskCHIS Use**

- ▶ More than 11,000 registered users have made more than 220,000 queries
- ▶ Nearly 2,000 users made 20,000 queries in the first quarter of 2007

▶ **This is in addition to the reports, policy briefs, and other publications that are disseminated by universities, voluntary organizations, and county, state, and federal agencies.**

▶ **Playing a lead role in California health reform efforts**

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