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The 2005 Kaiser Low-Income Coverage and Access Survey: Survey Methods and Baseline Tables

This document details the methods used to develop the 2005 Kaiser Low-Income Coverage and Access Survey dataset and presents baseline tables on population demographics, overall and by health coverage. The Kaiser Family Foundation conducted this national survey to examine health insurance coverage, access to care and the impact of health costs on the low-income population. The majority of the uninsured are low-income, and this survey of more than 5,000 low-income adults provides detailed data that can be used to inform the ongoing debate on reforming the U.S. health care system.

Survey Methods:

The survey was a random digit dial survey of adults ages 19 to 64 living in households with incomes at or below twice the poverty level, with a national all-income comparison sample. The survey collection time spanned from March 2005 until January 2006 and yielded 5,482 low-income completed interviews and 1,146 completed interviews in the all-income sample. Respondents could complete the survey in Spanish or English. The Kaiser Family Foundation contracted with NuStats to administer the survey.

Sampling technique and survey development

Two samples were drawn for the survey. The primary sample consisted of adults in low-income households. The low-income sample was split into six independent samples to allow for state-level analysis in five large states. Thus, independent samples were identified in each of the following geographic strata: California, Texas, Florida, Missouri, New York, and the balance of the United States.

To enhance the efficiency of screening for low-income households, the low-income survey sampled the low-income population in the highest poverty Census tracts that account for 20% of the low-income population according to the 2000 Census. Although this method has the potential of introducing bias since low-income people in high-poverty tracts differ from low-income people in other areas, it produced a much larger low-income sample than would have been possible with a general random digit dial (RDD) sampling approach. Sample households were selected by random digit dial within these tracts.

Low-income adults were defined as adults living in households with incomes below twice the poverty level using 2004 Department of Health and Human Services poverty guidelines. Those guidelines define 200% of poverty as \$37,700 in annual household income for a family of four and \$18,620 for a single person.¹

¹ See <http://aspe.hhs.gov/poverty/04poverty.shtml> for details on the HHS poverty guidelines for 2004.

The secondary sample was drawn using random digit dialing, from all U.S. households, irrespective of income and state of residence. There was no income screening, so both low-income and higher-income households were included in this sample. Any household with one or more adults aged 19 to 64 was eligible.

After the household was found to be eligible for the survey, an adult aged 19 to 64 was randomly selected according to which adult had the most recent birthday. Substitutions were not allowed, in accordance with strict probability sampling protocol. Selected low-income survey replicates over-sampled males after it was noted that fewer males had been surveyed than was expected. Under this protocol, if both males and females lived in a household, a male was sampled.

The sample was split into 50 replicates (each a random partition of the whole) separately for each stratum of the low-income sample and the entire national sample. Before the survey was fielded, it was tested using both cognitive interviews and a formal pretest phase. The survey was tested through seven cognitive interviews in English and three in Spanish. The revised survey was then developed into a Computer Assisted Telephone Interviewing application and 56 pilot interviews were conducted.

The survey did not use advanced notification letters or incentives. Calls were initiated so that specific times of day and days of the week were dialed over a 10 call profile.

Response rate and non-response follow-up

The low-income survey yielded an overall response rate of 31%, attained through a 38% response to the initial screening questions and an 82% interview response (Table 1). Of the households that were screened, 50% met the low-income survey’s age and income requirements.

Low-Income Survey	CA	FL	MO	NY	TX	BALANCE of U.S.	TOTAL
Screening response rate	32%	40%	34%	35%	38%	50%	38%
Eligibility rate (among screened households)	62%	41%	45%	51%	57%	45%	50%
Interview response rate	78%	82%	83%	82%	85%	85%	82%
Overall response rate	25%	32%	28%	29%	32%	42%	31%
Number of interviews	1,270	705	745	812	1,042	908	5,482

Note: Table 1 includes respondents from the non-response follow-up survey.

Source: NuStats

Table 2 presents the response rates for the national survey. This survey yielded a 22% overall response rate, attained through a 25% screening response and an 87% interview response. The 68% eligibility rate among screened households reflects the screening solely on age eligibility (i.e., households with at least one person age 19 to 64).

Screening response rate	25%
Interview response rate	87%
Overall response rate	22%
Number of interviews	1,146

Note: Table 2 includes respondents from the non-response follow-up survey.

Source: NuStats

The low response rates reflect a trend of decreased response rates for telephone surveys over recent years.² As with all RDD surveys, there is a concern about the potential for bias that would be introduced if responders differed from those who chose not to respond. To address this issue, Kaiser and NuStats fielded a non-response follow-up study for both the low-income survey and the national all-income survey. The non-response follow-up study surveyed non-respondents in the national survey and the balance of the U.S. portion of the low-income survey. Several methods were used to convert non-responders from the original survey sample in the follow-up surveys. Phone numbers from non-responders in the original sample were matched to addresses, and mailings were sent with \$1 incentives before they were contacted again over the phone for the survey. The households were also offered an incentive of \$10 for completing the telephone survey. Table 3 shows the breakdown of the response rates for the initial surveys and the non-response follow-up surveys. The response rates for the follow-up surveys were substantially higher due to the aggressive steps taken to encourage participation in the survey.

	National Survey		Low-Income Survey -- Balance of the U.S.	
	Non-response follow up	Initial Survey	Non-response follow up	Initial Survey
Screening response rate	44%	24%	56%	40%
Interview response rate	90%	86%	87%	82%
Overall response rate	40%	21%	49%	33%
N of interviews	148	998	577	331

Source: NuStats

² Pew Research Center, "Survey Experiment Shows: Polls Face Growing Resistance, but Still Representative" (Washington: Pew Research Center for the People and the Press, 2004).

Overall, the characteristics of the non-response follow-up sample were very similar to the initial sample. In the low-income survey, there were slightly fewer men and respondents age 55-64 in the follow-up survey. In the national survey, there were slightly more respondents age 55-64 and slightly more with private health coverage in the follow-up survey.

Imputation and top-coding of poverty level

Because poverty level was anticipated to be a key variable for analysis, missing values of poverty level were imputed when respondents declined to answer questions on income. Income was imputed for about 13% of those surveyed in the low-income population. A poverty ratio category (under 50% FPL, 50%-99%, 100-133%, 134-149%, 150-199%, 200%+) was assigned based on a model that used the following variables as predictor and control variables: race/ethnicity, sex, age group, and work status. As happens in other surveys, in about 13% of cases, respondents reported household incomes that were above the 200% of poverty threshold despite reporting lower incomes during the initial screening. Those respondents were still included in the low-income sample and are included in the 150-199% FPL group.

Income was also missing for about 16% of respondents in the national all-income sample. In those cases, income (both as an amount and a ratio of the poverty level) was imputed based in race, sex and education.

Survey weights

The survey weights for the low-income survey take into account the selection probability and non-response and are post-stratified to align the data to U.S. Census 2000 data at the tract level for the specific population of interest (<200% of the poverty threshold) using the following variables: geography, race/ethnicity, education, sex and age. A similar method was used for the national all-income sample, with the following variables used for post-stratification: race/ethnicity, education, sex, age group, and poverty status (above or below 200% FPL).

Benchmark Analysis

To examine the extent to which our survey data align with independent estimates from long-standing national surveys that have high response rates and include households with and without land lines, we compared our 2005 national all-income survey data to the 2003 National Health Interview Survey conducted by the National Center for Health Statistics. A modest difference was detected for those whose perceived health status is excellent, very good or good (91% in NHIS vs. 84% in our national sample). Also, the National Survey appears to have a lower proportion of employed persons relative to the 2003 NHIS (64% vs. 77%). But there are no significant differences among persons with private insurance, persons without health insurance, marital status and education level.

Design effect and statistical analysis

Statistical analysis of the survey takes the survey's weighting into account and also accounts for the over-sampling of specific states in the low-income survey. Using pseudo-PSUs and stratum indicators, we have conducted all statistical tests and calculated all standard errors by using Taylor series linearization.

**Baseline Table 1
Low-Income Survey and National Add-On**

	Low-Income Survey			200% FPL or above		
	<u>Number of Respondents</u>	<u>Weighted Percentage</u>	<u>95% Confidence Interval</u>	<u>Number of Respondents</u>	<u>Weighted Percentage</u>	<u>95% Confidence Interval</u>
Gender						
Male	1814	42.3%	(40.2%,44.4%)	284	50.8%	(46.5%,55.1%)
Female	3665	57.7%	(55.5%,59.8%)	416	49.2%	(44.9%,53.5%)
Insurance Status						
Private	1492	29.1%	(26.1%,32.3%)	576	79.4%	(75.3%,82.9%)
Medicaid/Other Public	1766	32.9%	(30.3%,35.6%)	64	10.7%	(8.2%,14.0%)
Uninsured	2183	38.0%	(35.6%,40.5%)	58	9.9%	(7.4%,13.2%)
Age						
Age 19-34	1978	50.6%	(47.0%,54.3%)	166	23.4%	(20.0%,27.1%)
Age 35-49	1941	30.8%	(27.9%,33.9%)	253	35.7%	(31.7%,39.9%)
Age 49-64	1563	18.6%	(16.7%,20.6%)	281	41.0%	(36.7%,45.3%)
Family Poverty Level						
Less than 50%	1494	27.9%	(24.5%,31.5%)	---	---	---
50%-99%	1613	26.9%	(24.6%,29.4%)	---	---	---
100-133%	755	14.8%	(12.0%,18.2%)	---	---	---
134-149%	309	4.8%	(4.0%,5.9%)	---	---	---
150-199%	1311	25.5%	(22.8%,28.5%)	---	---	---
200-299%	---	---	---	193	28.7%	(25.0%,32.6%)
300-399%	---	---	---	129	17.3%	(14.4%,20.6%)
400%+	---	---	---	378	54.1%	(49.8%,58.3%)
Household Type						
Unmarried, no children	1881	38.7%	(35.6%,41.8%)	205	33.1%	(28.9%,37.6%)
Unmarried, children	1330	23.2%	(20.6%,26.0%)	38	4.8%	(3.5%,6.7%)
Married, no children	815	12.3%	(10.4%,14.3%)	240	32.9%	(29.1%,36.9%)
Married, children	1418	25.9%	(23.4%,28.5%)	212	29.2%	(25.5%,33.3%)
Family Work Status						
Full-time	2718	48.0%	(44.2%,51.8%)	578	81.0%	(77.1%,84.4%)
Only Part-time	569	13.0%	(10.6%,15.7%)	26	3.3%	(2.2%,5.0%)
Non-Workers	2106	39.1%	(36.0%,42.3%)	93	15.7%	(12.5%,19.6%)
Education Status						
Less Than High School	2204	41.7%	(38.2%,45.1%)	26	10.2%	(6.7%,15.2%)
High School Graduate	1608	28.6%	(25.9%,31.4%)	151	26.7%	(23.1%,30.8%)
Some College or Higher	1596	29.7%	(26.9%,32.7%)	514	63.1%	(58.4%,67.5%)
Race/Ethnicity						
White only (non-Hispanic)	1076	27.2%	(25.2%,29.2%)	549	76.0%	(71.9%,79.7%)
Black only (non-Hispanic)	956	36.1%	(33.1%,39.1%)	54	9.0%	(6.5%,12.5%)
Hispanic	3124	29.8%	(27.9%,31.7%)	48	8.8%	(6.5%,11.8%)
Other	326	7.0%	(5.8%,8.4%)	49	6.2%	(4.6%,8.3%)
Health Status						
Excellent/Very Good/Good	3872	71.6%	(68.1%,74.9%)	634	87.4%	(83.7%,90.3%)
Fair/Poor	1591	28.4%	(25.08%,31.9%)	66	12.6%	(9.7%,16.4%)
Disability						
Not disabled	4592	85.3%	(83.6%,87.0%)	643	89.7%	(86.0%,92.5%)
Disabled	866	14.7%	(13.0%,16.4%)	55	10.3%	(7.48%,14.0%)

NOTE: Total number of responses to individual questions are not always equal because not all respondents answered all questions. Medicaid/Other Public includes SCHIP, Medicare and military coverage.

**Baseline Table 2
Low-Income Survey by Insurance**

	Private			Medicaid/Other Public			Uninsured		
	Number of Respondents	Weighted Percentage	95% Confidence Interval	Number of Respondents	Weighted Percentage	95% Confidence Interval	Number of Respondents	Weighted Percentage	95% Confidence Interval
Gender									
Male	554	47.2%	(42.3%-52.1%)	465	34.1%	(30.7%,37.6%)	784	46.2%	(42.8%,49.6%)
Female	940	52.8%	(47.9%-57.7%)	1299	65.9%	(62.3%-69.3%)	1398	53.8%	(50.3%,57.2%)
Age									
Age 19-34	477	44.3%	(36.7%,52.1%)	559	46.5%	(40.6%,52.5%)	919	58.3%	(54.0%,62.5%)
Age 35-49	1707	36.2%	(28.7%,44.5%)	570	29.2%	(24.0%,35.1%)	797	28.3%	(24.4%,32.6%)
Age 49-64	454	19.5%	(16.5%,22.9%)	637	24.3%	(20.4%,28.5%)	467	13.3%	(10.6%,16.7%)
Family Poverty Level									
Less than 50%	158	10.7%	(7.5%,15.05%)	652	39.4%	(34.0%,45.0%)	666	30.8%	(25.3%,37.0%)
50%-99%	266	16.6%	(13.2%,20.8%)	600	31.8%	(27.4%,36.4)	741	31.3%	(27.2%,35.6%)
100%-133%	206	12.8%	(9.7%,16.6%)	238	15.1%	(11.7%,19.3%)	308	16.5%	(11.9%,22.5%)
134%-150%	113	7.0%	(5.2%,9.5%)	76	2.9%	(1.7%,4.7%)	119	4.9%	(3.8%,6.4%)
150-199%	751	52.8%	(47.3%,58.3%)	200	10.9%	(8.0%,14.5%)	349	16.5%	(13.6%,19.8%)
Household Type									
Unmarried, no children	504	33.6%	(27.5%,40.3%)	680	42.1%	(36.8%,47.5%)	676	38.5%	(33.7%,43.5%)
Unmarried, children	235	14.2%	(11.3%,17.8%)	540	29.0%	(24.1%,34.5%)	551	25.6%	(22.1%,29.5%)
Married, no children	312	16.7%	(13.9%,19.9%)	203	9.7%	(7.0%,13.2%)	298	11.5%	(8.9%,14.7%)
Married, children	430	35.5%	(29.5%,41.9%)	333	19.2%	(16.0%,23.0%)	643	24.4%	(20.9%,28.3%)
Family Work Status									
Full-time	1155	75.3%	(69.9%,79.9%)	460	26.2%	(21.2%,32.0%)	1089	46.5%	(40.3%,52.8%)
Only Part-time	123	12.6%	(8.7%,17.8%)	154	9.8%	(6.8%,14.0%)	285	14.7%	(11.5%,18.6%)
Non-Workers	195	12.2%	(9.7%,15.2%)	1131	63.9%	(58.5%,69.0%)	762	38.8%	(34.3%,43.5%)
Education Status									
Less Than High School	337	22.4%	(16.5%,29.6%)	762	47.5%	(41.6%,53.5%)	1089	51.7%	(46.9%,56.6%)
High School Graduate	455	31.9%	(26.6%,37.7%)	544	27.5%	(23.3%,32.2%)	599	27.2%	(22.9%,32.1%)
Some College or Higher	682	45.7%	(40.0%,51.6%)	440	25.0%	(20.4%,30.2%)	462	21.1%	(17.5%,25.1%)
Race/Ethnicity									
White only (non-Hispanic)	455	38.9%	(33.8%,44.3%)	333	23.3%	(19.9%,27.2%)	283	22.0%	(18.7%,25.6%)
Black only (non-Hispanic)	302	34.0%	(28.9%,39.6%)	387	43.3%	(39.3%,47.3%)	261	30.7%	(26.2%,35.6%)
Hispanic	644	20.8%	(18.0%,24.0%)	933	25.0%	(21.9%,28.3%)	1523	40.8%	(37.3%,44.4%)
Other	93	6.2%	(4.6%,8.3%)	113	8.4%	(6.0%,11.6%)	116	6.5%	(4.5%,9.4%)
Health Status									
Excellent/Very Good/Good	1195	82.9%	(78.5%,86.5%)	1082	61.0%	(55.6%,66.2%)	1563	71.7%	(66.0%,76.7%)
Fair/Poor	294	17.2%	(13.5%,21.5%)	680	39.0%	(33.8%,44.4%)	610	28.3%	(23.3%,34.0%)
Disability									
Not disabled	1392	94.3%	(92.0%,96.0%)	1328	77.5%	(74.0%,80.6%)	1965	89.2%	(85.6%,91.9%)
Disabled	100	5.7%	(4.0%,8.0%)	438	22.6%	(19.4%,26.0%)	205	10.9%	(8.1%,14.4%)

NOTE: Total number of responses to individual questions are not always equal because not all respondents answered all questions. Medicaid/Other Public includes SCHIP, Medicare and military coverage.

This overview is part of a series that analyzes data from The 2005 Kaiser Low-Income Coverage and Access Survey. The Kaiser Family Foundation conducted this national survey to examine health insurance coverage, access to care and the impact of health costs on the low-income population. The majority of the uninsured are low-income, and this survey of more than 5,000 low-income adults provides detailed data that can be used to inform the ongoing debate on reforming the U.S. health care system.



THE KAISER COMMISSION ON
Medicaid and the Uninsured

The Henry J. Kaiser Family Foundation

Headquarters

2400 Sand Hill Road
Menlo Park, CA 94025
(650) 854-9400 Fax: (650) 854-4800

Washington Offices and

Barbara Jordan Conference Center

1330 G Street, NW
Washington, DC 20005
(202) 347-5270 Fax: (202) 347-5274

www.kff.org

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