



Wireless Substitution: Early Release of Estimates Based on Data from the National Health Interview Survey, July – December 2006

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Overview

Preliminary results from the July-December 2006 National Health Interview Survey (NHIS) indicate that the number of households with only wireless telephones continues to increase. During the last 6 months of 2006, more than 3 out of every 20 American homes (15.8%) did not have a landline telephone. Of those homes without a landline telephone, most had at least one working wireless telephone. Preliminary results from NHIS suggest that more than one out of every eight American homes (at least 12.8%) had only wireless telephones during the second half of 2006. These are the most up-to-date estimates available from the federal government concerning the size of this population.

NHIS Early Release Program

This report is published via the NHIS Early Release Program. In May and December of each year, the Centers for Disease Control and Prevention's National Center for Health Statistics (NCHS) releases selected estimates of telephone coverage for the civilian noninstitutionalized U.S. population based on data from NHIS, along with comparable estimates from NHIS since 2003. The estimates are based on in-person interviews completed as part of NHIS. In-person interviews are conducted continuously throughout the year to collect information on health status, health-related behaviors, and health care utilization. The survey also includes information about household telephones and whether anyone in the household has a wireless telephone (also known as a cellular telephone, cell phone, or mobile phone).

Two additional reports are published via the Early Release Program. **Early Release of Selected Estimates Based on Data from the National Health Interview Survey** is published quarterly and provides estimates of 15 selected measures of health. **Health Insurance Coverage: Early Release of Estimates Based on Data from the National Health Interview Survey** is published quarterly and provides additional estimates of health insurance coverage.

Methods

For many years, NHIS has included questions on residential telephone numbers to permit re-contact of survey participants. From 2003-2006, additional questions determined whether the telephone number provided was a landline telephone. All survey respondents were also asked whether "you or anyone in your family has a working cellular telephone." A family can be an individual or a group of 2 or more related persons living together in the same housing unit. A family can consist of only one person, and more than one family can live in a household (including, for example, a household where there are multiple single-person families, as when unrelated roommates are living together).

In this report, families are identified as wireless families if anyone in the family had a working cellular telephone. Households are identified as wireless-only if they include at least one wireless family and if there are no working landline telephones inside the household. Persons are identified as wireless-only if they live in a wireless-only household. A similar approach is used to identify adults living in households with no telephone service

(neither wireless nor landline). Household telephone status (rather than family telephone status) is used in this report because most telephone surveys draw samples of households rather than families.

From June through December 2006, household telephone status information was obtained for 13,056 households. These households included 24,473 adults aged 18 years and over and 9,165 children aged 17 years or younger. Analyses of demographic characteristics are based on data from the NHIS Family file. Data for all civilian adults living in interviewed households were used in these analyses. Analyses of selected health measures are based on data from the NHIS Sample Adult file. Data for one civilian adult randomly selected from each family were used in these analyses. From June through December 2006, data on household telephone status and selected health measures were collected from 10,888 randomly selected adults.

Because NHIS is conducted throughout the year and the sample is designed to yield a nationally representative sample each week, data can be analyzed quarterly. Weights are created for each calendar quarter of the NHIS sample. NHIS data weighting procedures have been described in more detail in an NCHS published report (**Series Report Number 2, Volume 130**). The estimates using the July-December 2006 data are being released prior to final data editing and final weighting to provide access to the most recent information from NHIS. The resulting estimates should be considered preliminary and may differ slightly from estimates using the final data files.

Point estimates and 95% confidence intervals were calculated



using SUDAAN software to account for the complex sample design of NHIS. Differences between percentages were evaluated using two-sided significance tests at the 0.05 level. Terms such as “more likely” and “less likely” indicate a statistically significant difference. Lack of comments regarding the difference between any two estimates does not necessarily mean that the difference was tested and found to be not significant. Due to small sample sizes, estimates based on less than 1 year of data may have large variances, and caution should be used in interpreting these estimates.

Telephone Status

Among the findings from the last 6 months of 2006, at least 12.8% of households did not have a traditional landline telephone, but did have at least one wireless telephone (Table 1). Approximately 11.8% of all adults—26.0 million adults—lived in households with only wireless telephones; 11.6% of all children—8.5 million children—lived in households with only wireless telephones.

The percentage of adults living in wireless-only households has been steadily increasing since 2003, along with the percentage of children living in wireless-only households (Figure). During the last 6 months of 2006, approximately one out of every eight adults lived in wireless-only households. One year before that (that is, during the last 6 months of 2005), 1 out of every 13 adults lived in wireless-only households. And 2 years before that (that is, during the last 6 months of 2003), only 1 out of every 28 adults lived in wireless-only households.

The percentage of adults and the percentage of children living without any telephone service have remained relatively unchanged over the past 3 years. Approximately 2.2% of households had no telephone service (neither wireless nor landline). Approximately 3.8 million adults (1.7%) and 1.6 million children (2.3%) lived in these households.

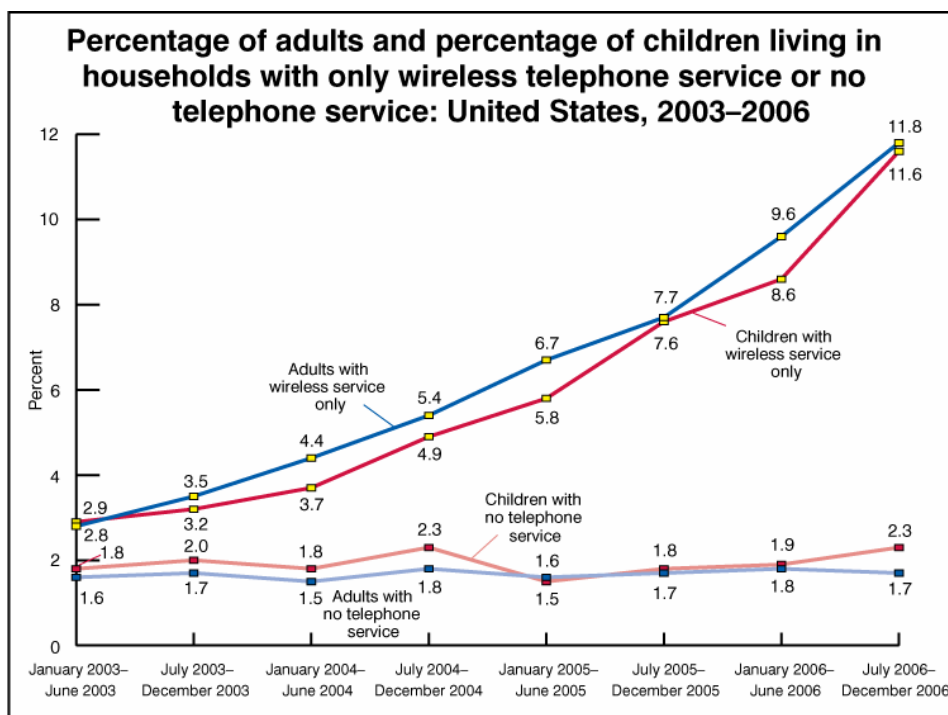
Demographic Differences

The telephone status of U.S. civilian noninstitutionalized adults is shown by selected demographic characteristics and by survey time period in Table 2. For the period July through December 2006, the results reveal that:

- More than one-half of all adults living with unrelated roommates (54.0%) lived in households with only wireless telephones. This is the highest prevalence rate among the population subgroups examined.
- Adults renting their home (26.4%) were more likely than adults owning their home (5.8%) to be living in households with only wireless telephones.
- One-half of all wireless-only adults were less than 30 years of age.
- One in four adults aged 18-24 years (25.2%) lived in households with only wireless telephones. Nearly 30% of adults aged 25-29

years lived in households with only wireless telephones.

- As age increases, the percentage of adults living in households with only wireless telephones decreased: 12.4% for adults aged 30-44 years; 6.1% for adults aged 45-64 years; and 1.9% for adults aged 65 years or over.
- Men (13.1%) were more likely than women (10.5%) to be living in households with only wireless telephones.
- Adults living in poverty (22.4%) were more likely than higher income adults to be living in households with only wireless telephones.
- Adults living in the South (14.0%) were more likely than adults living in the Northeast (8.6%) to be living in households with only wireless telephones.
- Non-Hispanic white adults (10.8%) were less likely than Hispanic adults (15.3%) to be living in households with only wireless telephones.





Selected Health Measures by Household Telephone Status

Most major survey research organizations, including NCHS, do not include wireless telephone numbers when conducting random-digit-dial telephone surveys. Therefore, the inability to reach households with only wireless telephones (or with no telephone service) has potential implications for results from health surveys, political polls, and other research conducted using random-digit-dial telephone surveys. Coverage bias may exist if there are differences between persons with and without landline telephones on the substantive variables of interest.

The NHIS Early Release Program updates and releases estimates for 15 key adult health indicators every 3 months. **Table 3** presents estimates by telephone status for all but two of these measures. (“Pneumococcal vaccination” and “personal care needs” were not included because these indicators are limited to adults aged 65 years and older.) For the period July through December 2006, the results reveal that:

- The prevalence of binge drinking (i.e., having five or more alcoholic drinks in 1 day during the past year) among wireless-only adults (35.9%) was twice as high as the prevalence among adults living in landline households (17.2%). Wireless-only adults were also more likely to be current smokers.
- Compared with adults living in landline households, wireless-only adults were more likely to report that their health status was excellent or very good, and they were less likely to be obese or to have been diagnosed with diabetes.
- The percentage without health insurance coverage at the time of the interview among wireless-only adults (31.1%) was twice as high as the percentage among adults living in landline households (14.9%).

- Compared with adults living in landline households, wireless-only adults were more likely to have experienced financial barriers to obtaining needed health care, and they were less likely to have a usual place to go for medical care. Wireless-only adults were also less likely to have received an influenza vaccination during the previous year.
- Wireless-only adults (46.8%) were more likely than adults living in landline households (34.6%) to have ever been tested for HIV, the virus that causes AIDS.

For More Information

The potential for bias due to undercoverage remains a real and growing threat to surveys conducted only on landline telephones. For more information about the potential implications for health surveys based on landline telephone interviews, see:

- Blumberg SJ, Luke JV, Cynamon ML. Telephone coverage and health survey estimates: Evaluating the need for concern about wireless substitution. *American Journal of Public Health* 96:926-31. 2006.
- Blumberg SJ, Luke JV, Cynamon ML, Frankel MR. Recent trends in household telephone coverage in the United States. In JM Lepkowski et al. (eds.), *Advances in Telephone Survey Methodology* (chapter 3). New York: JW Wiley and Sons, Inc. Forthcoming.

Suggested Citation

Blumberg SJ, Luke JV. Wireless substitution: Early release of estimates based on data from the National Health Interview Survey, July – December 2006. National Center for Health Statistics. Available from <http://www.cdc.gov/nchs/nhis.htm>. May 14, 2007.

Table 1. Percentage of households, adults, and children by household telephone status and date of interview: United States, January 2003 – December 2006

Date of interview	Number of households (unweighted)	Household Telephone Status						Total
		Landline households with a wireless telephone	Landline households without a wireless telephone	Landline households with unknown wireless telephone status	Nonlandline households with unknown wireless telephone status	Wireless-only households	Phoneless households	
		Percent of households						
January 2003 – June 2003	16,524	42.4	43.0	9.3	0.2	3.2	2.0	100.0
July 2003 – December 2003	18,988	41.8	42.3	9.3	0.3	4.2	2.1	100.0
January 2004 – June 2004	16,284	43.2	39.6	9.9	0.5	5.0	1.8	100.0
July 2004 – December 2004	20,135	43.1	38.7	9.4	0.5	6.1	2.2	100.0
January 2005 – June 2005	18,301	42.4	34.4	13.2	0.8	7.3	1.9	100.0
July 2005 – December 2005	20,088	42.6	32.4	13.8	0.8	8.4	1.9	100.0
January 2006 – June 2006	16,009	45.6	30.9	10.3	0.7	10.5	2.0	100.0
July 2006 – December 2006	13,056	44.3	29.6	10.2	0.8	12.8	2.2	100.0
95% Confidence Interval ¹		42.74 - 45.90	28.20 - 31.07	9.33 - 11.17	0.60 - 1.17	11.83 - 13.87	1.89 - 2.57	
		Percent of adults						
	Number of adults (unweighted)							
January 2003 – June 2003	30,745	45.7	40.4	9.4	0.2	2.8	1.6	100.0
July 2003 – December 2003	35,152	45.2	39.8	9.5	0.2	3.5	1.7	100.0
January 2004 – June 2004	30,423	46.9	36.3	10.4	0.5	4.4	1.5	100.0
July 2004 – December 2004	37,611	46.8	35.7	9.7	0.5	5.4	1.8	100.0
January 2005 – June 2005	34,047	46.1	31.5	13.5	0.7	6.7	1.6	100.0
July 2005 – December 2005	37,622	46.4	29.7	13.9	0.7	7.7	1.7	100.0
January 2006 – June 2006	29,842	49.5	28.2	10.4	0.6	9.6	1.8	100.0
July 2006 – December 2006	24,473	48.1	27.3	10.5	0.7	11.8	1.7	100.0
95% Confidence Interval ¹		46.43 - 49.74	25.86 - 28.76	9.54 - 11.51	0.48 - 0.93	10.78 - 12.80	1.46 - 2.05	

See footnotes at end of table.



Date of interview	Number of children (unweighted)	Household Telephone Status					Wireless-only households	Phoneless households	Total
		Landline households with a wireless telephone	Landline households without a wireless telephone	Landline households with unknown wireless telephone status	Nonlandline households with unknown wireless telephone status	Percent of children			
January 2003 – June 2003	11,937	49.6	35.7	9.6	0.3	2.9	1.8	100.0	
July 2003 – December 2003	13,331	49.1	35.7	9.7	0.3	3.2	2.0	100.0	
January 2004 – June 2004	11,718	49.6	31.6	12.6	0.7	3.7	1.8	100.0	
July 2004 – December 2004	14,368	49.4	31.4	11.6	0.5	4.9	2.3	100.0	
January 2005 – June 2005	12,903	49.3	27.0	15.8	0.7	5.8	1.5	100.0	
July 2005 – December 2005	13,883	50.5	23.9	15.2	0.9	7.6	1.8	100.0	
January 2006 – June 2006	11,670	53.4	23.8	11.5	0.9	8.6	1.9	100.0	
July 2006 – December 2006	9,165	51.9	21.5	11.9	0.9	11.6	2.3	100.0	
95% Confidence Interval ¹		49.62 - 54.10	19.63 - 23.42	10.50 - 13.50	0.58 - 1.51	10.39 - 12.86	1.72 - 2.96		

¹Confidence intervals refer to the time period July – December 2006.

DATA SOURCE: National Health Interview Survey, January 2003 – December 2006. Data are based on household interviews of a sample of the civilian noninstitutionalized population.



Table 2. Percentage of adults with only wireless telephones, by selected demographic characteristics and by calendar half-years: United States, January 2003 – December 2006

Demographic characteristic	Calendar half-year								95% Confidence Interval ¹
	Jan – Jun 2003	Jul – Dec 2003	Jan – Jun 2004	Jul – Dec 2004	Jan – Jun 2005	Jul – Dec 2005	Jan – Jun 2006	Jul – Dec 2006	
Percent									
Race/ethnicity									
Hispanic or Latino, any race(s)	3.3	4.3	6.0	6.8	8.5	11.2	11.2	15.3	13.36 - 17.56
White, non-Hispanic, single race	2.6	3.2	4.2	5.1	6.5	6.9	9.0	10.8	9.77 - 11.96
Black, non-Hispanic, single race	2.9	4.0	4.1	5.8	6.6	8.5	10.5	12.8	11.19 - 14.64
Asian, non-Hispanic, single race	2.8	4.3	3.3	4.7	5.3	6.7	10.2	11.8	8.96 - 15.28
Other single race, non-Hispanic	*2.4	*10.2	7.6	10.2	*11.1	*8.0	9.8	17.2	9.53 - 28.97
Multiple race, non-Hispanic	*5.5	7.2	8.9	11.2	8.1	11.5	15.4	14.6	10.02 - 20.85
Age									
18-24 years	6.0	8.1	10.3	14.2	16.6	17.5	22.6	25.2	22.07 - 28.63
25-29 years	6.6	8.1	9.9	11.4	16.5	19.8	22.3	29.1	25.64 - 32.91
30-44 years	2.9	3.9	4.4	5.4	6.5	7.8	9.4	12.4	11.25 - 13.62
45-64 years	1.4	1.7	2.3	2.7	3.2	3.7	5.3	6.1	5.44 - 6.91
65 years or more	0.5	0.5	0.9	0.8	0.9	1.2	1.3	1.9	1.37 - 2.59
Sex									
Male	3.2	3.9	5.2	6.5	7.5	8.6	10.7	13.1	11.99 - 14.34
Female	2.4	3.1	3.7	4.5	6.0	6.9	8.5	10.5	9.52 - 11.51
Education									
Some high school or less	2.9	3.4	4.9	5.5	6.7	8.0	8.3	12.9	11.30 - 14.59
High school graduate or GED ²	2.9	4.2	4.2	5.1	6.9	7.6	9.6	10.6	9.53 - 11.71
Some post-high school, no degree	3.5	3.9	5.6	7.2	8.2	9.4	11.9	14.4	12.64 - 16.37
4-year college degree or higher	1.9	2.7	3.2	4.3	5.5	6.3	8.5	10.1	8.50 - 12.06
Employment status last week									
Working at a job or business	3.2	4.2	5.1	6.4	8.0	9.2	11.6	13.9	12.84 - 15.09
Keeping house	2.4	2.5	3.6	4.0	5.1	6.1	7.1	8.6	7.09 - 10.45
Going to school	4.2	7.3	7.1	12.2	10.8	15.5	17.3	20.4	14.01 - 28.65
Something else (incl. unemployed)	1.8	2.0	2.6	2.8	3.6	3.7	4.2	6.2	5.43 - 7.09

See footnotes at end of table.



Demographic characteristic	Calendar half-year								95% Confidence Interval ¹
	Jan – Jun 2003	Jul – Dec 2003	Jan – Jun 2004	Jul – Dec 2004	Jan – Jun 2005	Jul – Dec 2005	Jan – Jun 2006	Jul – Dec 2006	
	Percent								
Household structure									
Adult living alone	5.3	7.1	8.3	9.7	11.2	12.3	16.2	18.2	16.49 - 20.05
Unrelated adults, no children	10.8	*6.6	19.7	33.1	36.0	33.6	44.2	54.0	41.56 - 66.04
Related adults, no children	2.0	2.7	3.2	3.6	5.3	5.9	7.1	8.5	7.60 - 9.56
Adult(s) with children	2.4	2.9	3.6	4.7	5.4	7.0	8.6	10.5	9.43 - 11.60
Household poverty status ³									
Poor	5.9	6.3	8.0	10.1	11.8	14.2	15.8	22.4	18.42 - 26.86
Near poor	4.8	6.2	6.7	7.6	10.8	12.7	14.4	15.7	13.69 - 17.99
Not poor	2.5	3.2	3.7	5.1	6.2	7.0	9.4	11.3	10.23 - 12.44
Geographic region ⁴									
Northeast	1.3	2.1	2.3	2.9	4.1	4.7	7.2	8.6	6.52 - 11.20
Midwest	3.2	4.1	5.1	6.4	7.2	8.8	10.2	11.4	9.87 - 13.09
South	3.2	3.8	5.3	6.3	7.6	9.6	11.4	14.0	12.15 - 15.99
West	2.9	3.7	4.2	5.4	7.0	6.2	7.8	11.0	9.29 - 13.04
Metropolitan statistical area status									
Metropolitan	3.1	3.8	5.0	6.3	7.7	8.7	10.3	12.7	11.52 - 13.91
Not metropolitan	1.8	2.8	2.9	3.4	4.1	5.1	7.0	8.0	6.71 - 9.48
Home ownership status ⁵									
Owned or being bought	1.4	1.8	2.1	2.6	3.1	3.8	5.1	5.8	5.12 - 6.47
Renting	6.7	8.5	10.9	13.9	16.7	19.3	22.5	26.4	24.29 - 28.61
Other arrangement	4.0	5.9	6.3	10.1	10.7	8.4	10.7	*20.3	10.59 - 35.29
Number of wireless-only adults in survey sample (unweighted)	848	1,225	1,348	2,065	2,263	2,918	2,804	2,878	

*Estimate has a relative standard error greater than 30% and does not meet NCHS standards for reliability.

¹Confidence intervals refer to the time period July – December 2006.

²GED is General Educational Development high school equivalency diploma.

³Poverty status is based on household income and household size using the U.S. Census Bureau's poverty thresholds. "Poor" persons are defined as those below the poverty threshold. "Near poor" persons have incomes of 100% to less than 200% of the poverty threshold. "Not poor" persons have incomes of 200% of the poverty threshold or greater. Early Release estimates stratified by poverty are based only on the reported income and may differ from similar estimates produced later that are based on both reported and imputed income. NCHS imputes income for approximately 30% of NHIS records, but the imputed income file is not available until a few months after the annual release of NHIS microdata. For households with multiple families, household income and household size were calculated as the sum of the multiple measures of family income and family size.

⁴In the geographic classification of the U.S. population, states are grouped into the following four regions used by the U.S. Census Bureau. Northeast includes Maine, Vermont, New Hampshire, Massachusetts, Connecticut, Rhode Island, New York, New Jersey, and Pennsylvania. Midwest includes Ohio, Illinois, Indiana, Michigan, Wisconsin, Minnesota, Iowa, Missouri, North Dakota, South Dakota, Kansas, and Nebraska. South includes Delaware, Maryland, District of Columbia, West Virginia, Virginia, Kentucky, Tennessee, North Carolina, South Carolina, Georgia, Florida, Alabama, Mississippi, Louisiana, Oklahoma, Arkansas, and Texas. West includes Washington, Oregon, California, Nevada, New Mexico, Arizona, Idaho, Utah, Colorado, Montana, Wyoming, Alaska, and Hawaii.

⁵For households with multiple families, home ownership status was determined by considering the reported home ownership status for each family. If any family reported owning the home, then the household level variable was classified as "owned or being bought" for all persons living in the household. If one family reported renting the home and another family reported "other arrangements," then the household level variable was classified as "other arrangement" for all persons living in the household.

DATA SOURCE: National Health Interview Survey, January 2003 – December 2006. Data are based on household interviews of a sample of the civilian noninstitutionalized population.



Table 3. Prevalence rates (and 95% confidence intervals) for selected measures of health status, conditions, and behaviors for adults 18 years of age and older by household telephone status: United States, June – December 2006

	Household telephone service		
	Landline household ¹	Wireless-only household	Phoneless household
	Percent (95% confidence interval)		
Health-related behaviors			
Five or more alcoholic drinks in 1 day at least once in past year ²	17.2 (16.06 - 18.38)	35.9 (32.27 - 39.62)	22.3 (16.77 - 27.85)
Current smoker ³	18.9 (17.87 - 20.02)	29.6 (26.67 - 32.46)	41.5 (34.11 - 48.86)
Engaged in regular leisure-time physical activity ⁴	30.4 (28.77 - 31.98)	34.4 (31.15 - 37.64)	17.8 (11.59 - 24.07)
Health status			
Health status described as excellent or very good ⁵	59.8 (58.43 - 61.17)	68.2 (65.24 - 71.10)	43.2 (36.34 - 49.97)
Experienced serious psychological distress in past 30 days ⁶	2.7 (2.35 - 3.13)	4.0 (2.63 - 5.43)	7.3 (3.83 - 10.70)
Obese (adults 20 years of age or older) ⁷	27.9 (26.62 - 29.12)	22.3 (19.44 - 25.07)	25.5 (19.58 - 31.42)
Asthma episode in the past year ⁸	3.9 (3.46 - 4.42)	3.5 (2.41 - 4.53)	5.8 (2.34 - 9.20)
Ever diagnosed with diabetes ⁹	8.3 (7.65 - 9.04)	3.8 (2.60 - 4.93)	6.6 (3.70 - 9.48)
Health care service use			
Received influenza vaccine during past year ¹⁰	29.2 (27.87 - 30.52)	14.8 (12.52 - 17.07)	16.0 (11.12 - 20.85)
Ever been tested for HIV ¹¹	34.6 (33.19 - 35.98)	46.8 (43.75 - 49.83)	36.8 (30.24 - 43.44)
Health care access			
Has a usual place to go for medical care ¹²	86.2 (85.11 - 87.22)	67.1 (63.89 - 70.23)	59.1 (51.13 - 66.98)
Failed to obtain needed medical care in past year due to financial barriers ¹³	6.7 (5.99 - 7.42)	14.0 (11.77 - 16.28)	17.2 (12.23 - 22.19)
Currently uninsured ¹⁴	14.9 (13.78 - 15.96)	31.1 (28.32 - 33.86)	46.4 (39.62 - 53.08)
Number of adults in survey sample (unweighted)	8,963	1,626	299

¹ In this analysis, landline households include households that also have wireless telephone service.

² A year is defined as the 12 months prior to the interview. The analyses excluded adults with unknown alcohol consumption (about 2% of respondents each year).

³ Current smokers were defined as those who smoked more than 100 cigarettes in their lifetime and now smoke every day or some days. The analyses excluded persons with unknown smoking status (about 1% of respondents each year).

⁴ Regular leisure-time physical activity is defined as engaging in light-moderate leisure-time physical activity for greater than or equal to 30 minutes at a frequency greater than or equal to five times per week or engaging in vigorous leisure-time physical activity for greater than or equal to 20 minutes at a frequency greater than or equal to three times per week. Persons who were known to have not met the frequency recommendations are classified as "not regular," regardless of duration. The analyses excluded persons with unknown physical activity participation (about 3% of respondents each year).

⁵ Health status data were obtained by asking respondents to assess their own health and that of family members living in the same household as excellent, very good, good, fair, or poor. The analyses excluded persons with unknown health status (about 0.5% of respondents each year).

⁶ Six psychological distress questions are included in the NHIS. These questions ask how often during the past 30 days a respondent experienced certain symptoms of psychological distress (feeling so sad that nothing could cheer you up, nervous, restless or fidgety, hopeless, worthless, that everything was an effort). The response codes of the six items for each person are summed to yield a scale with a 0-to-24 range. A value of 13 or more for this scale indicates that at least one symptom was experienced "most of the time" and is used here to define serious psychological distress.

⁷ Obesity is defined as a Body Mass Index (BMI) of 30 kg/m² or more. The measure is based on self-reported height and weight. The analyses excluded people with unknown height or weight (about 4% of respondents each year).



⁸ Information on an episode of asthma or asthma attack during the past year is self-reported by adults aged 18 years and over. A year is defined as the 12 months prior to the interview. The analyses excluded people with unknown asthma episode status (about 0.3% of respondents each year).

⁹ Prevalence of diagnosed diabetes is based on self-report of ever having been diagnosed with diabetes by a doctor or other health professional. Persons reporting “borderline” diabetes status and women reporting diabetes only during pregnancy were not coded as having diabetes in the analyses. The analyses excluded persons with unknown diabetes status (about 0.1% of respondents each year).

¹⁰ Receipt of flu shots and receipt of nasal spray flu vaccinations were included in the calculation of flu vaccination estimates. Responses to the flu vaccination questions cannot be used to determine when the subject received the flu vaccination during the 12 months preceding the interview. In addition, estimates are subject to recall error, which will vary depending on when the question is asked because the receipt of a flu vaccination is seasonal. The analyses excluded those with unknown flu vaccination status (about 1% of respondents each year).

¹¹ Individuals who received HIV testing solely as a result of blood donation were considered as not having been tested for HIV. The analyses excluded those with unknown human immunodeficiency virus (HIV) test status (about 4% of respondents each year).

¹² The usual place to go for medical care does not include a hospital emergency room. The analyses excluded persons with an unknown usual place to go for medical care (about 0.6% of respondents each year).

¹³ A year is defined as the 12 months prior to the interview. The analyses excluded persons with unknown responses to the question on failure to obtain needed medical care due to cost (about 0.5% of respondents each year).

¹⁴ A person was defined as uninsured if he or she did not have any private health insurance, Medicare, Medicaid, State Children’s Health Insurance Program (SCHIP), state-sponsored or other government-sponsored health plan, or military plan at the time of the interview. A person was also defined as uninsured if he or she had only Indian Health Service coverage or had only a private plan that paid for one type of service such as accidents or dental care. The data on health insurance status were edited using an automated system based on logic checks and keyword searches. The analyses excluded persons with unknown health insurance status (about 1% of respondents each year).

DATA SOURCE: National Health Interview Survey, July – December 2006. Data are based on household interviews of a sample of the civilian noninstitutionalized population.