



American Academy of Dental Sleep Medicine

Spousal Support Snories Survey Report

February 2015



Survey Overview

AADSM Snoring Survey, Feb. 2015, dubbed the “Spousal Support Snories” Survey, was conducted by ORC International, an independent research firm, on behalf of the AADSM. Results are based on the responses of 1,009 randomly selected adults, ages 18 and older, living in the United States who completed a telephone survey, Jan. 29 – Feb. 1, 2015. Results are accurate to +/- 3 percentage points with a 95 percent confidence level and can be generalized to the entire adult population in the United States within those statistical parameters.

Survey Methodology

The survey was conducted using two probability samples: randomly selected landline telephone numbers and randomly selected mobile (cell) telephone numbers. The combined sample consists of 1,009 adults (18 years old and older) living in the continental United States. Of the 1,009 interviews, 509 were from the landline sample and 500 from the cell phone sample. The margin of error for the sample of 1,009 is +/- 3.09 at the 95% confidence level. Smaller subgroups will have larger error margins.

Surveys were collected by trained and supervised US-based interviewers using ORC International’s computer assisted telephone interviewing (CATI) system. Final data is adjusted to consider the two sample frames and then weighted by age, gender, region, race/ethnicity and education to be proportionally representative of the US adult population.

For a detailed description of the sampling and weighting methods used in this survey, see pages 8-10.

DETAILED FINDINGS

Question #1: Do you think snoring in the opposite sex is a turn-off?

- 39% (309 respondents) of the population said yes
 - 40% of women said yes
 - 37% of men said yes
- Significant breakdowns:
 - Parents
 - 48% of adults living with a child of any age – and 50% of adults who live with a kid age 13 or younger – said snoring is a turn-off, as opposed to 35% of adults living in households without children
 - 45% of adults aged 55-64 said snoring in the opposite sex is a turn-off

	Total	Sex		Age					Children In Household			
		Male	Female	18-34	35-44	45-54	55-64	65+	None	Any	>13	13-17
	(A)	(B)	(C)	(D)	(E)	(F)	(G)	(H)	(J)	(K)	(L)	(M)
Yes	390 39%	181 37%	209 40%	115 38%	67 40%	64 36%	76 45%	66 35%	241 35%	144 48%	120 50%	56 46%
No	475 47%	234 48%	240 46%	147 49%	76 46%	93 52%	71 42%	86 46%	346 50%	123 41%	96 39%	54 45%
It doesn't matter either	105 10%	57 12%	48 9%	35 12%	17 10%	15 9%	16 10%	22 12%	80 11%	22 7%	21 9%	6 5%
Don't know/Refused	39 4%	14 3%	25 5%	6 2%	7 4%	6 4%	5 3%	14 7%	28 4%	9 3%	6 2%	4 4%

DETAILED FINDINGS

Question #2: Which of the following, if any, describes your reaction when a bed partner snores?

- 83% of respondents have had a snoring bed partner
- Total responses:
 - #1 Reaction: Worry about their health (43%)
 - #2 Reaction: Can't sleep (35%)
 - #3 Reaction: Are annoyed and/or angry (26%)
 - #4 Reaction: Want to – or do – sleep in another room (21%)

- Significant breakdowns:
 - Worry about their health
 - 45% of women overall and 50% of women age 45-64 worry about their partner's health
 - Can't sleep
 - 40% of women as opposed to 30% of men
 - Worst for ages 35-44 (43%)
 - Annoyed and/or angry
 - 31% of women as opposed to 22% of men
 - Worst for ages 35-44 (35%)
 - Want to – or do – sleep in another room
 - 23% of women as opposed to 19% of men
 - Most significant for 35-44 age group (24%) and 55-64 age group (37%)

	Total	Sex		Age				
		Male	Female	18-34	35-44	45-54	55-64	65+
	(A)	(B)	(C)	(D)	(E)	(F)	(G)	(H)
Ever had a snoring bed partner	842	396	446	245	134	164	141	156
	83%	81%	85%	81%	80%	91%	84%	83%
			B			H	H	
You worry about their health	438	202	236	118	73	90	83	73
	43%	41%	45%	39%	44%	50%	50%	39%
						DH	DH	
You can't sleep	353	146	207	107	73	58	63	52
	35%	30%	40%	35%	43%	32%	37%	27%
			B		H		H	
You are annoyed and/or angry	267	106	161	86	59	41	42	39
	26%	22%	31%	28%	35%	23%	25%	21%
			B		FH			
You want to - or do - sleep in another room	213	94	118	55	40	37	46	36
	21%	19%	23%	18%	24%	20%	27%	19%
							D	
None of these	140	75	65	41	13	28	17	40
	14%	15%	12%	13%	8%	16%	10%	21%
								DEG
Don't know/Refused	74	42	32	30	18	2	16	9
	7%	9%	6%	10%	11%	1%	9%	5%

DETAILED FINDINGS

Question #3: Has snoring ever had a negative impact on your romantic relationships or marriage?

- 9% of respondents answered yes
- Significant breakdowns:
 - 14% of respondents aged 35-44 and 55-64 said yes
 - 15% of respondents who were divorced or separated said yes

	Total	Sex		Age					Marital Status				
		Male	Female	18-34	35-44	45-54	55-64	65+	Marital Status				
									Married/Living with partner	Single	Divorced	Separated	Widowed
(A)	(B)	(C)	(D)	(E)	(F)	(G)	(H)	(Q)	(R)	(S)	(T)	(U)	
Ever been in romantic relationship/marriage (Net)	982	479	503	293	166	176	162	181	496	269	107	25	66
	97%	98%	96%	97%	99%	98%	97%	96%	99%	96%	98%	94%	92%
Yes	93	45	48	14	23	18	23	15	44	22	14	7	2
	9%	9%	9%	5%	14%	10%	14%	8%	9%	8%	13%	25%	3%
No	889	433	456	279	143	158	140	166	452	247	93	18	63
	88%	89%	87%	92%	85%	88%	83%	88%	90%	88%	86%	69%	89%
I've never been in a romantic relationship or marriage	17	6	11	8	0	3	2	5	2	10	1	2	2
	2%	1%	2%	3%	0%	2%	1%	2%	0%	4%	1%	6%	3%
Don't know/Refused	10	2	7	2	1	0	4	3	4	1	1	0	3
	1%	1%	1%	1%	1%	0%	2%	1%	1%	0%	1%	0%	4%

DETAILED FINDINGS

Question #4: If you had a bed partner with sleep apnea, which one of the following treatments would you prefer that they use during nighttime sleep to treat the disease? (READ IF NECESSARY: Sleep apnea is a potentially life-threatening condition that causes sufferers to repeatedly stop breathing during sleep for anywhere from a few seconds to more than a minute.)

- 77% reported a preference between the two treatments
 - Of those who reported a preference, 63% preferred OAT
- Significant breakdowns:
 - 58% of single adults preferred OAT, compared to only 27% of single adults who choose CPAP, making single adults twice as likely to prefer OAT to CPAP for their bed partner
 - Overall – including those who had no preference – less than 30% chose CPAP (29%)
 - 57% of those 18-34 chose OAT

	Total	Sex		Age				
		Male	Female	18-34	35-44	45-54	55-64	65+
	(A)	(B)	(C)	(D)	(E)	(F)	(G)	(H)
Any preference (Net)	782 77%	368 76%	414 79%	255 84% GH	132 79% H	141 79% H	127 76% H	124 66%
An oral appliance - like a mouth guard - that holds their jaw forward	493 49%	234 48%	259 50%	173 57% GH	85 51% H	86 48% H	76 45%	71 37%
A C-PAP mask connected with tubing to a continually running machine	289 29%	134 28%	155 30%	82 27%	47 28%	55 30%	51 31%	54 28%
No preference	161 16%	89 18%	72 14%	35 11%	30 18%	26 14%	26 16%	45 24% DFG
Don't know/Refused	66 7%	30 6%	36 7%	13 4%	6 3%	13 7%	14 8%	20 10%

DETAILED FINDINGS

Question #4: If you had a bed partner with sleep apnea, which one of the following treatments would you prefer that they use during nighttime sleep to treat the disease? (READ IF NECESSARY: Sleep apnea is a potentially life-threatening condition that causes sufferers to repeatedly stop breathing during sleep for anywhere from a few seconds to more than a minute.)

	Marital Status				
	Married/Living with partner	Single	Divorced	Separated	Widowed
	(Q)	(R)	(S)	(T)	(U)
Any preference (Net)	381	237	81	23	48
	76%	85%	74%	87%	68%
		QSU			
An oral appliance - like a mouth guard - that holds their jaw forward	233	161	41	15	33
	46%	58%	38%	57%	46%
		QS			
A C-PAP mask connected with tubing to a continually running machine	148	75	40	8	15
	30%	27%	37%	30%	22%
			U		
No preference	92	32	20	1	13
	18%	11%	18%	4%	19%
	R				
Don't know/Refused	29	12	8	2	10
	6%	4%	8%	9%	13%

ADDENDUM: SURVEY METHODOLOGY DETAIL

Sampling

This telephone survey used a dual frame sampling design. This means that the sample is drawn from two independent sample frames—one for landlines and one for cell phones.

Landline Sample

The Random Digit Dial (RDD) landline telephone sample is generated using the following process. First, all residential exchanges and working 100 banks are determined. A 100 series bank is defined to be working if one (1) or more assigned residential landline telephone numbers are found within that bank. Within any given 100-series bank there are 100 possible two-digit combinations that form the suffix in a complete telephone number. For instance, in working bank 21, numbers 00-99 can be appended to form the one hundred complete numbers 2100-2199. This forms the sample frame of all possible telephone numbers within which RDD samples are then generated.

All exchanges and associated working 100 series banks within the RDD database are arrayed in a pre-defined order – specifically, exchanges are ordered within predominant county based on household size largest to smallest. Counties are ordered by Metro/non-Metro areas within State within Census Division. Using the ordered database, an **Epssem** (Equal Probability Selection Method) sample is generated. A sample frame is defined to be a set of 100 series banks within exchanges serving a particular geographic area (city, county, state, national, etc.). The sampling interval is determined by dividing the total number of possible numbers in the geographic sample frame by the number of requested RDD sample records. Each sample interval is of equal size. One number is selected at random from each sample interval. All possible telephone numbers are given an equal probability of selection regardless of the density of assigned residential households within them.

Cell Phone Sample

The MSG Cellular RDD database is constructed quarterly utilizing Telecordia's LERG product. The LERG is a continuously updated suite of telephony databases that, among other things, provides current information for every active Thousand Series Block in the North American Numbering Plan. Using multiple files within the LERG, every thousand series block that is dedicated to providing wireless service is identified and incorporated into the Cellular RDD database. Additionally, Rate Center boundaries are constructed each quarter. Rate Center boundaries provide the information needed to map each cellular thousand series block to a predominant county.

The cell phone sample was generated from cell phone 1,000 series blocks with all the 100 series banks within each block turned on. The sampling interval is then calculated by dividing the universe of all possible numbers by the number of records desired, thus specifying the size of the frame subdivisions. Within each of the subsets one number is selected at random giving all numbers an equal probability of selection.

At this point, the frame size has been fixed and divided into equal-sized subsets of ten-digit numbers. Within each of the subsets one number is selected at random giving all numbers an equal probability of selection.

Weighting

In this probability-based sample, the basis of the weighting is the inverse of the selection probability. Then, weighting adjustments are frequently used to reduce the potential for biases that may be present due to incomplete frame coverage and survey nonresponse—both inherent in all telephone surveys. These adjustments may take advantage of geographic, demographic, and socioeconomic information that are known for the population and measured in the sample surveys. The adjustments reduce potential bias to the extent that the survey respondents and nonrespondents (noncontacts, refusals, etc.) with similar geographic, demographic, and socioeconomic characteristics are also similar with respect to the survey statistics of interest. In other words, post-survey weighting adjustments reduce bias if the weighting variables are related to (correlated with) the survey measures and the likelihood of survey participation.

The *landline-cell* combined sample used is a dual frame sampling design. This means that the sample is drawn from two independent sampling frames—one for landlines and one for cell phones. Adults with a landline but no cell phone (A) must be reached through a landline telephone sample. Adults with a cell phone and no landline (C) must be reached through the cell phone sample. Adults with both a landline and a cell phone (B) can be reached through either of the frames. Sampling from the two frames results in these four groups:

a_1 : Landline respondents without a cell phone (landline only)

b_1 : Landline respondents with a cell phone (dual user)

b_2 : Cell phone respondents with a landline (dual user)

c_2 : Cell phone respondents without a landline (cell only)

The dual user groups (b_1, b_2) are further classified into two subgroups:

Cell mostly: those who receive most calls on a cell phone

Landline mostly/Mixed use: those who receive most calls on a landline or who receive calls on both regularly

The National Health Interview Survey (NHIS) provides estimates of these user group populations. CARAVAN[®] weight-adjust the landline sample and the cell sample to their respective population proportions as reported from the NHIS. Once this design weight is calculated, the combined sample is weighted to represent the US population using data from the US Census Bureau's Current Population Survey (CPS). This form of weighting is referred to as *calibration weighting*ⁱ in that survey respondents are assigned weights that are calibrated to reflect the population. The calibration weighting for CARAVAN[®] is based on a series of ratio adjustments called iterative proportional fitting, or "*raking*"ⁱⁱ, which was first introduced by Deming and Stephan for use in the 1940 US census.

About ORC International

ORC International is a collaborative and consultative research partner to hundreds of organizations around the globe. We possess a wide variety of resources, tools and technologies to collect and analyze information for our clients.

ORC International is ISO 20252 certified. To achieve certification, ORC International passed a comprehensive, on-site audit. The certification establishes globally recognized terms, definitions, and service requirements for project management in research organizations. Processes outlined in ISO 20252 are designed to produce transparent, consistent, well documented and error-free methods of conducting and managing research projects. Adherence and certification to such standards provides a basis of confidence for clients and other constituencies that the work produced is being executed with quality processes and controls in place. The internationally recognized standard also provides a basis for subcontractor evaluation.

ⁱ For a summary of calibration weighting, refer to Kalton, G. and I. Flores-Cervantes (2003) “Weighting Methods”, *Journal of Official Statistics*.

ⁱⁱ Deming, W. E. and F. F. Stephan (1940) “On a Least Squares Adjustment of a Sampled Frequency Table When the Expected Marginal Totals are Known,” *Annals of Mathematical Statistics*.