

# SUMMARY OF FINDINGS



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## Objectives

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The National Sleep Foundation commissioned WB&A Market Research to conduct a national survey of adults living within the United States – the 2005 *Sleep in America* poll.

The primary objectives of this research were to answer the following questions:

1. What are the sleep habits and bedtime routines of adults?
2. How many adults experience various types of sleep problems/disorders?
3. How often do adults experience sleep problems/disorders?
4. How do sleep disorders among partners affect their and their significant other's sleep?
5. What types of sleep aids or medications do adults use to treat their sleep problems/disorders?
6. How does daytime sleepiness affect adult lifestyles?
7. What are adults' attitudes concerning sleep related issues?
8. What are adults' experiences with driving drowsy?
9. How do health and medical conditions affect adult sleep habits?

*NSF wishes to acknowledge the volunteer work of the members of its 2005 Poll Task Force. In appreciation of task force members: Christopher Drake, PhD, Henry Ford Health System, Detroit, MI; Meir Kryger, MD, St. Boniface Hospital, Winnipeg, Manitoba, Canada; and Barbara Phillips, MD, MDPH, University of Kentucky, Lexington, KY.*

## Methodology

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In order to collect the information, a total of 1,506 telephone interviews were conducted among a random sample of adults between September 20 and November 7, 2004. The survey averaged 20 minutes in length. In order to qualify for this study, participants had to be:

- At least 18 years of age; and
- Living within the continental United States.

A random sample of telephone numbers was purchased from Affordable Samples and quotas were established by region, based on U.S. Census household data. A similar number of males and females were interviewed. Professional interviewers called from WB&A's telephone interviewing facility located near Annapolis, Maryland. Approximately 80% of the interviewing was conducted on weekdays between 5:00 p.m. and 9:00 p.m., Saturdays between 10:00 a.m. and 2:00 p.m., and Sundays between 4:00 p.m. and 8:00 p.m. The remaining interviews were conducted on weekdays between 9:00 a.m. and 5:00 p.m.

In survey research, the entire population is typically not interviewed, but rather a sample of that population is polled. Therefore, the data are subject to sampling error. The maximum sampling error of the data for the total sample of 1,506 interviews is  $\pm 2.5$  percentage points at the 95% confidence level. However, the sampling error will vary depending on the sample size and the percentages being examined in the sample. Sampling errors are shown below for the Total Sample.

		40%	30%	20%	10%	1%
		or	or	or	or	or
If the percentage found is around:	<u>50%</u>	<u>60%</u>	<u>70%</u>	<u>80%</u>	<u>90%</u>	<u>99%</u>
Then the sampling error in percentage points would be:	$\pm 2.5$	$\pm 2.5$	$\pm 2.3$	$\pm 2.0$	$\pm 1.5$	$\pm 0.5$

*\*For example, if a question asked among the Total Sample for the 2005 Sleep in America poll yielded a percentage of 20%, then we can be sure 95 out of 100 times that the true percentage would lie between 18.0% and 22.0% (20%  $\pm 2.0$  percentage points).*

## Methodology (continued)

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### Notes on reading this report:

1. **Comparing Data:** Some charts show previous years of data where applicable. However, in 2003, only adults ages 55 to 84 were surveyed and, in 2004, only adults with children under the age of 11 living in their households were surveyed. Because data from these two years are not comparable to data from surveys of all adults ages 18 and older, they are not included in these charts.
2. **BMI Scoring:** Body Mass Index or BMI is a tool for indicating weight status in adults. It is a measure of an adult's weight in relation to his or her height. A BMI Score is determined by the following formula:

$$\text{BMI} = \frac{\text{Weight in pounds}}{(\text{Height in inches}) \times (\text{Height in inches})} \times 705$$

Respondents whose BMI is below 18.5 are considered underweight. Those who fall into a BMI range of 18.5 to 24.9 are classified as average. Those who have a BMI score of 25.0 to 29.9 are classified as being overweight, and those who have a score of 30 or more are considered obese.

3. **Berlin Assessment Questionnaire:** The Berlin Assessment Questionnaire is a series of questions asked of respondents to determine if they are *at risk for* sleep apnea. There are eleven questions regarding a person's sleep habits that are broken into three sections. These questions are then scored depending on how respondents answer. If a person scores high on at least two out of the three sections, they are classified as *at risk for* sleep apnea. (See the Appendix for a copy of the Questionnaire.)
4. **Insomnia:** Respondents were asked the following questions to determine if they are *at risk for* insomnia: How often do you have difficulty falling asleep? How often do you wake a lot during the night? How often do you wake too early and are not able to go back to bed? How often do you wake up feeling unrefreshed? They were also asked how much of a high impact their sleep problems have on their daily activities. Those who report at least one of the four symptoms at least a few nights a week and say it impacts their daily activities (a rating of 4 or 5 on a scale where 1 means "no impact" and 5 means "severe impact") are classified as *at risk for* insomnia.
5. **Restless Legs Syndrome:** Respondents were asked the following questions to determine if they are *at risk for* restless legs syndrome (RLS): How often do you have unpleasant feelings in your legs like creepy, crawly, or tingly feelings at night with an urge to move when you lie down to sleep? Are these feelings worse, the same, or better at night? Those who have unpleasant feelings in their legs at least a few nights a week and say they are worse at night are classified as *at risk for* RLS.
6. **Changing Scales:** The scales used in Q19 and Q21 of the 2005 survey were changed from the previous years to incorporate the Berlin Assessment Questionnaire. These scales changed from every night or almost every night, a few nights a week, a few nights a month, rarely or never to every night or almost every night, 3 to 4 nights a week, 1 to 2 nights a week, 1 to 2 nights a month, or never. Even though the scales were changed, they are still comparable to those used in the previous years.

## Methodology (continued)

### Notes on reading this report (continued):

7. **Reading Tables and Charts:** When reading tables and charts, letters are used to show statistically significant differences between groups at the 95% confidence level. For example, in the table below (left), 24% of the respondents in the 2005 survey report that they get 6.0 to 6.9 hours of sleep on weekdays during one night. The letter “C” next to this percentage indicates that 24% is significantly higher than 18% in the 2001 column (column C). This means that respondents in 2005 are more likely than those in 2001 to report that they sleep 6.0 to 6.9 hours a night on weekdays (24% vs. 18%).

In the graph below (right), the up arrows (↑) mean that the percentage is significantly higher than the percentage for the comparison group. For example, the up arrow on the 26% in this graph means that 26% (of females) is significantly higher than the 20% (of males) who say they sleep less than they need to function at their best. Thus, female respondents are more likely than male respondents to report that they get less sleep than they need to function at their best (26% vs. 20%).

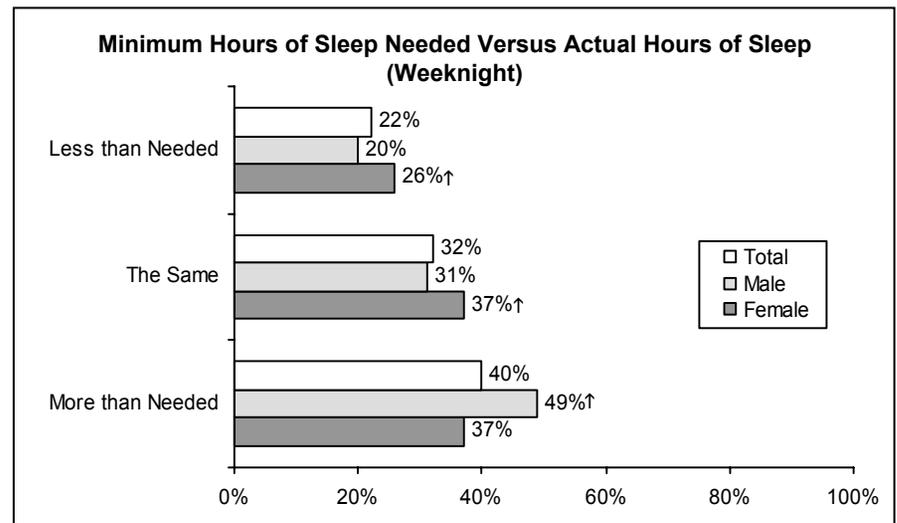
	1998	2001	2002	2005
	B	C	D	E
Less than 6 hours	12%	13%	15% <sub>B</sub>	16% <sub>BC</sub>
6 to 6.9 hours	23 <sub>C</sub>	18	24 <sub>C</sub>	24 <sub>C</sub>
7 to 7.9 hours	28	31	29	31
8 or more hours	35 <sub>DE</sub>	38 <sub>DE</sub>	30 <sub>E</sub>	26
Mean (# of hours)	na	7.0	6.9	6.8
Median (# of hours)	na	7.0	7.0	7.0

Base = Total sample (n=1,506)

Letters mean they are statistically significant at the 95% confidence interval.

na = Not available

Q3



Base = Total sample (n=1,506)

Note: Up arrows mean the percentage is significantly higher than the percentage for the comparison group.

Don't know/Refused = 5%

Q3 & 36

## **Sleep Habits**

## Sleep Habits

The 2005 *Sleep in America* poll indicates that, on average, adults in America are sleeping 6.8 hours a night on weekdays and 7.4 hours a night on weekends. Overall, adults in America report sleeping an average of 6.9 hours a night when considering both weekday and weekend sleep.

- A significant proportion of the respondents (40%) report getting less than seven hours of sleep a night on weekdays. About seven in ten adults (71%) are getting less than eight hours of sleep a night on weekdays.
  - Over the past several years, there has been a downward trend in the proportion of respondents who report sleeping eight or more hours a night on weekdays (from 38% in 2001 to 30% in 2002 and 26% in 2005).
- Some of the respondents are increasing the amount of sleep they get on the weekends, as about one-half (49%) are getting eight or more hours of sleep on the weekends, compared to 26% who sleep that much on weekdays.
  - However, since 2001, there also appears to be a downward trend in the proportion of respondents who say they sleep for eight or more hours on weekend nights (from 61% in 2001 to 52% in 2002 and 49% in 2005).
- Most of the respondents claim that, on weekdays within the past two weeks, they have gone to bed between 10:00 p.m. and Midnight (71%), and awakened between 5:00 a.m. and 7:59 a.m. (72%).
- Similarly, most of the respondents claim that on the weekends within the past two weeks, they have gone to bed between 10:00 p.m. and Midnight (73%). However, they tend to sleep later on the weekends, when most wake up after 7:00 a.m. (73%).

Number of Hours Slept per Night on Weekdays (past two weeks)				
	<u>1998</u>	<u>2001</u>	<u>2002</u>	<u>2005</u>
	B	C	D	E
Less than 6 hours	12%	13%	15% <sub>B</sub>	16% <sub>BC</sub>
6 to 6.9 hours	23 <sub>C</sub>	18	24 <sub>C</sub>	24 <sub>C</sub>
7 to 7.9 hours	28	31	29	31
8 or more hours	35 <sub>DE</sub>	38 <sub>DE</sub>	30 <sub>E</sub>	26
Mean (# of hours)	na	7.0	6.9	6.8
Median (# of hours)	na	7.0	7.0	7.0

Base = Total sample (n=1,506)  
 Letters mean they are statistically significant at the 95% confidence interval.  
 na = Not available  
 Q3

Number of Hours Slept per Night on Weekends (past two weeks)				
	<u>1998</u>	<u>2001</u>	<u>2002</u>	<u>2005</u>
	B	C	D	E
Less than 6 hours	8%	7%	10% <sub>C</sub>	10% <sub>C</sub>
6 to 6.9 hours	14 <sub>C</sub>	10	12	15 <sub>C</sub>
7 to 7.9 hours	23	21	22	24
8 or more hours	53 <sub>E</sub>	61 <sub>BDE</sub>	52	49
Mean (# of hours)	na	7.8	7.5	7.4
Median (# of hours)	na	8.0	8.0	7.5

Base = Total sample (n=1,506)  
 Letters mean they are statistically significant at the 95% confidence interval.  
 na = Not available  
 Q6

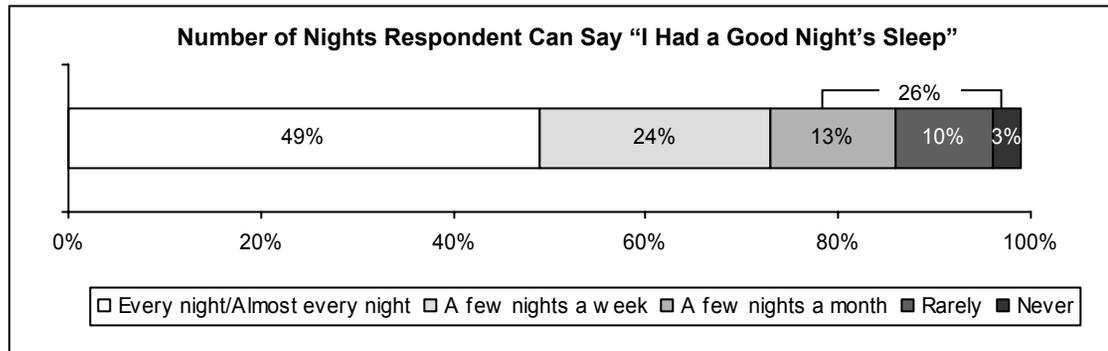
## Sleep Habits (continued)

About one-half of the respondents (49%) report having “a good night’s sleep” every night or almost every night. In contrast, 26% say they had “a good night’s sleep” only a few nights a month or less. Another 24% report having “a good night’s sleep” a few nights a week.

- Older respondents are more likely to report getting a good night’s sleep every night or almost every night (38% of 18-29 year olds vs. 44% of 30-49 year olds vs. 52% of 50-64 year olds vs. 60% of 65 and older).

Sleep problems are more prevalent among those who report getting “a good night’s sleep” only a few nights a week or less.

- Those who report getting “a good night’s sleep” a few nights a month or less are more likely than those who report getting “a good night’s sleep” every night or almost every night to:
  - Get less than six hours of sleep on weekdays (31% of those who “get a good night’s sleep” a few nights a month or less vs. 8% of those who “get a good night’s sleep” every night or almost every night);
  - Experience at least one symptom of insomnia (88% vs. 29%) and/or a sleep disorder (94% vs. 57%) at least a few nights a week;
  - Be *at risk for* restless legs syndrome (21% vs. 4%), insomnia (25% vs. 3%) and/or sleep apnea (48% vs. 13%);
  - Think they have a sleep problem (51% vs. 4%);
  - Report that they get less sleep than the minimum they say they need to function at their best (37% vs. 10%);
  - Consider themselves to be an evening person (50% vs. 34%);
  - Take 30 minutes or more to fall asleep (39% vs. 12%);
  - Experience daytime sleepiness at least three days a week (62% vs. 11%);
  - Have missed work or events or made errors at work at least one day in the past three months (46% vs. 15%);
  - Have their intimate relationship affected because of being too sleepy (34% vs. 8%); and
  - Have problems in their relationship due to their or their partner’s sleep disorders (53% vs. 20%).



Base = Total sample (n=1,506)  
Don't know/Refused = <1%  
Q28

## Sleep Habits (continued)

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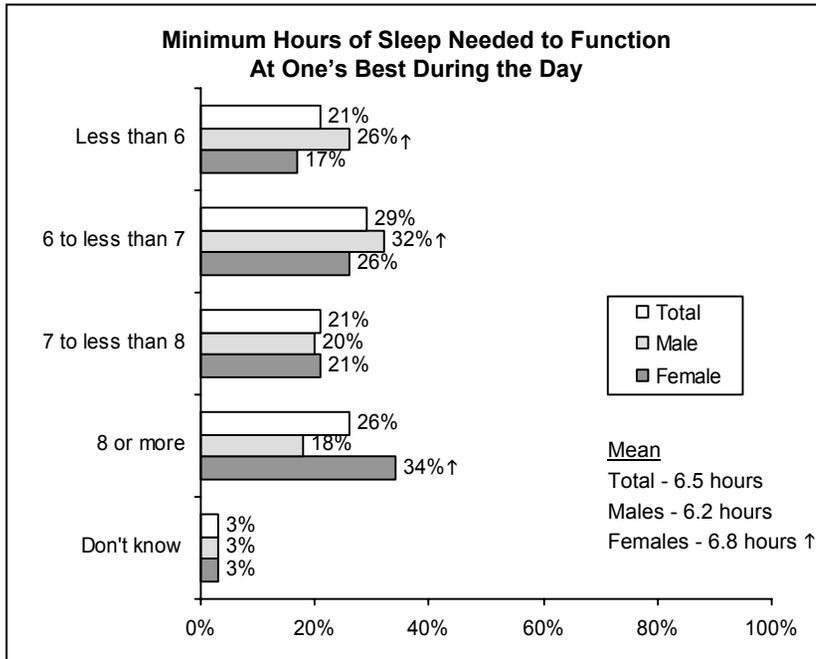
The 2005 *Sleep in America* poll indicates that, on average, respondents report that they need a minimum of 6.5 hours of sleep a night to function at their best during the day. In general, men report needing less sleep (6.2 hours) than women (6.8 hours) to function at their best.

- Specifically, male respondents are more likely than female respondents to report needing less than seven hours of sleep to function at their best during the day (58% vs. 43%). One-third of female respondents (34%) report needing eight or more hours of sleep, compared to 18% of male respondents.

The minimum number of hours of sleep respondents report needing to function at their best during the day was compared to the number of hours they sleep a night on weekdays to determine whether each respondent is getting less sleep, the same amount of sleep, or more sleep than they say they need.

- About three-fourths of respondents (72%) report that they get the same amount or more sleep than they need on a typical weeknight, while 22% report getting less than they need.
- Male respondents are more likely than female respondents to say that they get more sleep than they need (49% vs. 37%), while females are more likely than males to say that they get the same or less sleep than they need (63% vs. 51%).
- Those who report getting less sleep than they say they need to function at their best are more likely than those who get more sleep than they need to:
  - Get less than six hours of sleep on weekdays (38% of those who get less sleep than they need vs. 6% of those who get more sleep than they need);
  - Have at least one symptom of insomnia (76% vs. 41%) and/or a sleep disorder (87% vs. 67%) at least a few nights a week;
  - Be *at risk for* insomnia (17% vs. 6%) and/or sleep apnea (35% vs. 21%);
  - Think they have a sleep problem (37% vs. 11%);
  - Report that they get “a good night’s sleep” a few nights a month or less (46% vs. 19%);
  - Consider themselves to be an evening person (51% vs. 38%);
  - Take 30 minutes or more to fall asleep (32% vs. 14%);
  - Experience daytime sleepiness at least three days a week (53% vs. 16%);
  - Have missed work or events or made errors at work at least one day in the past three months (45% vs. 24%);
  - Have their intimate relationship affected because of being too sleepy (31% vs. 14%); and
  - Have problems in their relationship due to their or their partner’s sleep disorders (48% vs. 28%).

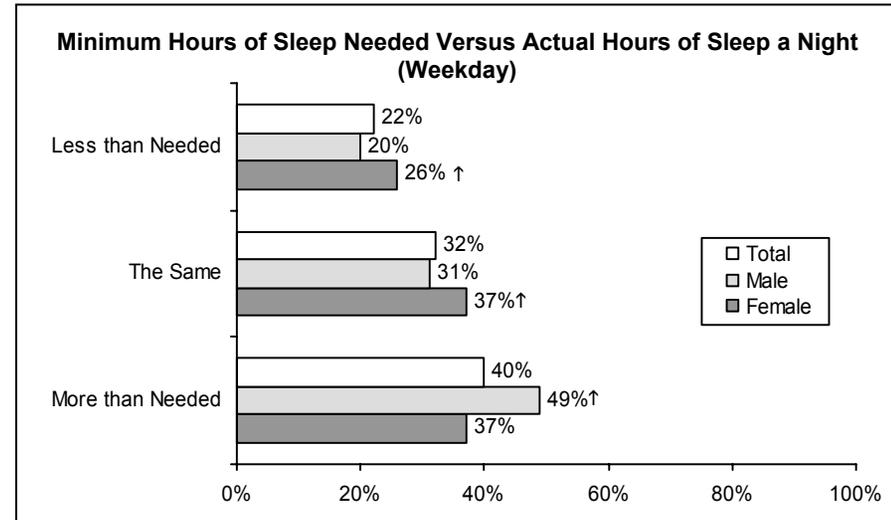
# Sleep Habits (continued)



Base = Total sample (n=1,506)

Note: Up arrows mean the percentage is significantly higher than the percentage for the comparison group.

Q36



Base = Total sample (n=1,506)

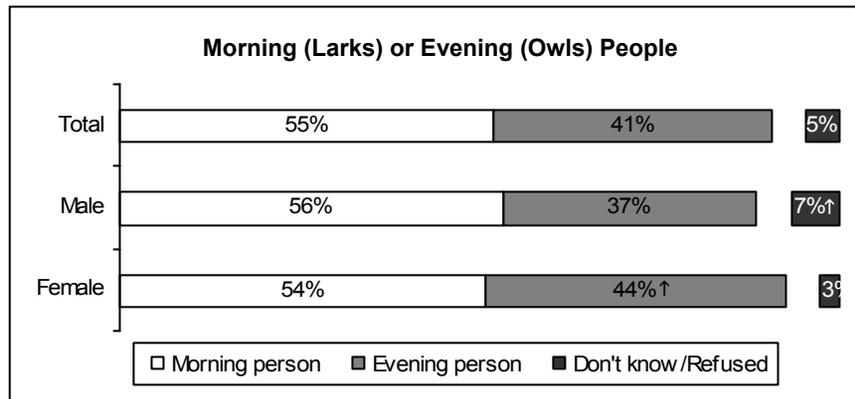
Note: Up arrows mean the percentage is significantly higher than the percentage for the comparison group. Don't know/Refused = 5%

Q3 & 36

## Sleep Habits (continued)

When asked if they feel they are more alert, productive and energetic in the morning or in the evening, more than one-half of the respondents (55%) report that they are morning people (larks), while 41% consider themselves evening people (owls).

- Evening people are more likely than morning people to:
  - Experience at least one symptom of insomnia (62% of evening people vs. 48%) and/or a sleep disorder (80% of morning people vs. 71%) at least a few nights a week;
  - Be *at risk for* insomnia (13% vs. 7%) and/or sleep apnea (31% vs. 22%);
  - Think they have a sleep problem (27% vs. 16%);
  - Report that they get less sleep than the minimum they say they need to function at their best (27% vs. 18%);
  - Report that they get “a good night’s sleep” a few nights a month or less (33% vs. 22%);
  - Take 30 minutes or more to fall asleep (28% vs. 17%);
  - Experience daytime sleepiness at least three days a week (36% vs. 24%); and
  - Have missed work or events or made errors at work at least one day in the past three months (39% vs. 21%).



Base = Total sample (n=1,506; Males=731, Females=775)

Note: Up arrows mean the percentage is significantly higher than the percentage for the comparison group.

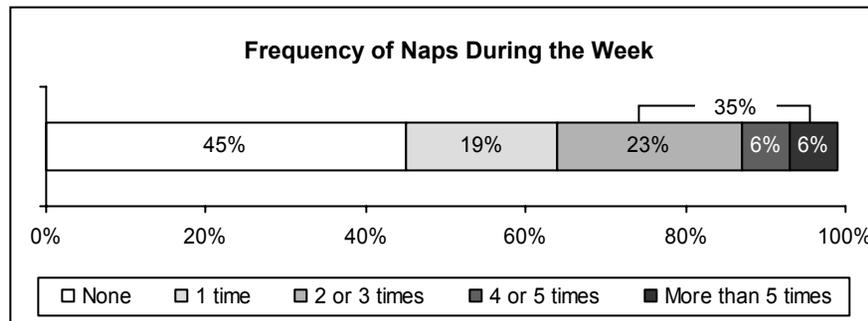
Q45

\*Note: A profile of Larks vs. Owls can be found at the back of this Summary of Findings (page 50).

## Sleep Habits (continued)

More than one-half of the respondents (55%) take, on average, at least one nap during the week, with one-third (35%) reporting that they take two or more naps.

- Those who report taking two or more naps per week say that their naps last an average of 50 minutes, with 30% of these adults usually taking naps of one hour or more.
- Those who report taking two or more naps are more likely than those who do not nap to:
  - Experience at least one symptom of insomnia at least a few nights a week (62% of those who take two or more naps per week vs. 48% of those who do not nap);
  - Be *at risk for* insomnia (12% vs. 8%) and/or sleep apnea (34% vs. 21%);
  - Think they have a sleep problem (25% vs. 19%);
  - Report that they get less sleep than the minimum they say they need to function at their best (25% vs. 19%);
  - Consider themselves to be an evening person (44% vs. 38%);
  - Take 30 minutes or more to fall asleep (26% vs. 21%);
  - Experience daytime sleepiness at least three days a week (38% vs. 22%); and
  - Have missed work or events or made errors at work at least one day in the past three months (31% vs. 24%).



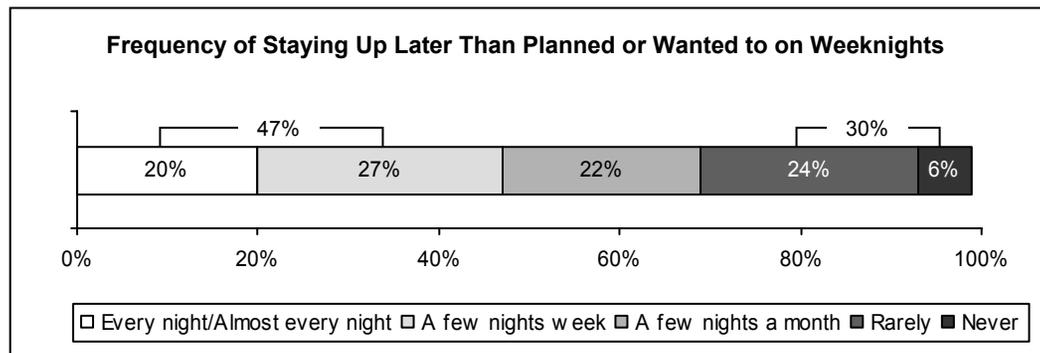
Base = Total sample (n=1,506)  
Don't know = <1%  
Q12

## **Evening Behavior**

## Evening Behavior

About one-half of the respondents (47%) report that, on weeknights, they stay up later than they planned or wanted to at least a few nights a week. Three in ten adults (30%) say that they rarely or never stay up later than anticipated.

- Those respondents who report that they stay up later than they planned or wanted to on weeknights a few nights a week or more are more likely than those who rarely or never do so to:
  - Get less than six hours of sleep on weekdays (20% of those who stay up later than they planned or wanted to on weeknights a few nights a week or more vs. 12% of those who rarely or never stay up later than they planned or wanted to on weeknights);
  - Have at least one symptom of insomnia (65% vs. 49%) and/or a sleep disorder (82% vs. 73%) at least a few nights a week;
  - Be *at risk for* insomnia (12% vs. 7%) and/or sleep apnea (31% vs. 24%);
  - Think they have a sleep problem (26% vs. 19%);
  - Report that they get less sleep than the minimum they say they need to function at their best (29% vs. 17%);
  - Report that they get “a good night’s sleep” a few nights a month or less (34% vs. 21%);
  - Consider themselves to be an evening person (53% vs. 26%);
  - Take 30 minutes or more to fall asleep (26% vs. 20%);
  - Experience daytime sleepiness at least three days a week (37% vs. 24%);
  - Have missed work or events or made errors at work at least one day in the past three months (38% vs. 16%);
  - Have their intimate relationship affected because of being too sleepy (26% vs. 9%); and
  - Have problems in their relationship due to their or their partner’s sleep disorders (39% vs. 22%).
- Those who stay up later than they planned at least a few nights a week are about twice as likely than those who rarely or never do so to be on the Internet (34% vs. 19%) and/or doing work related to their job (23% vs. 11%).

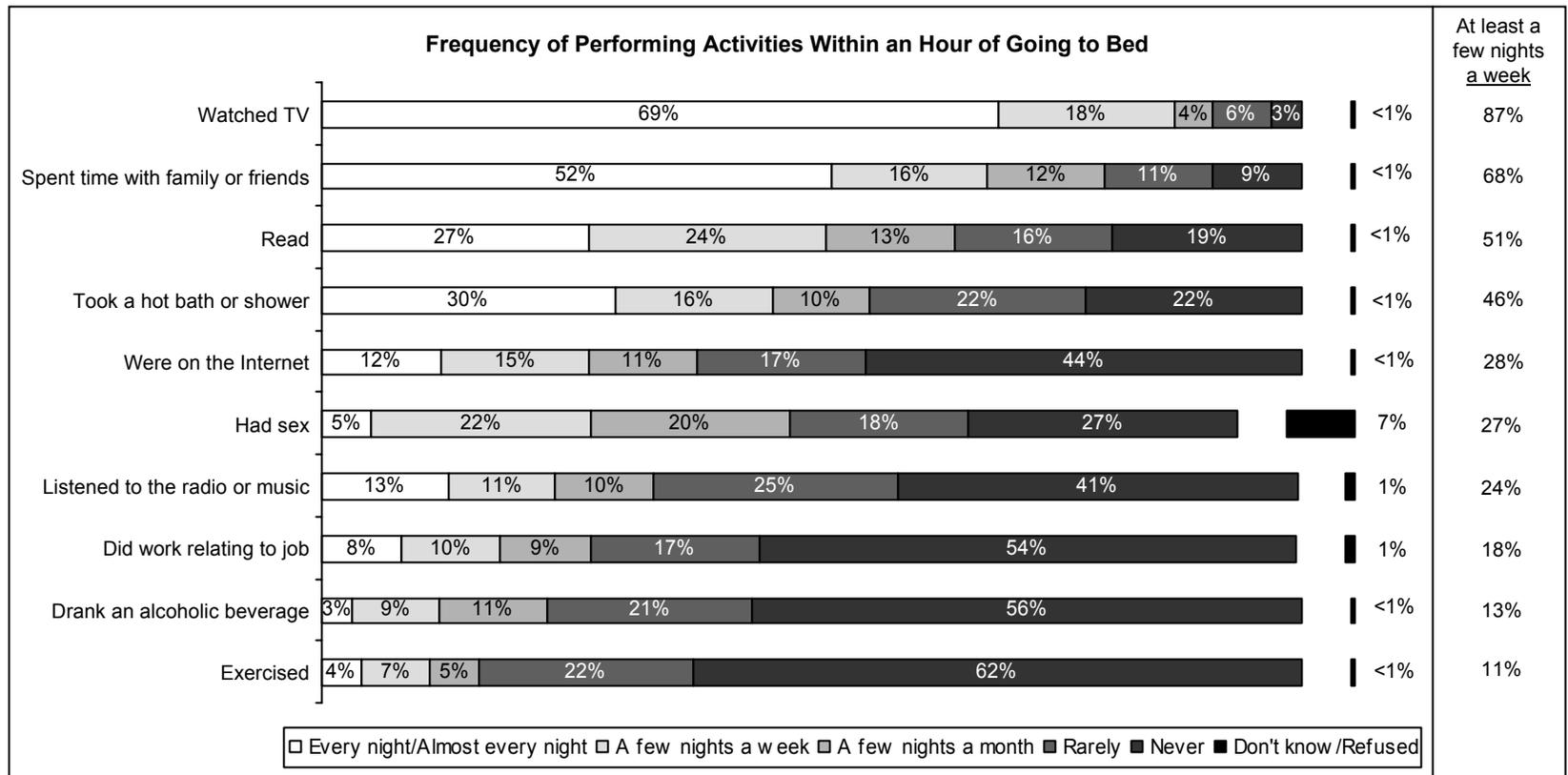


Base = Total sample (n=1,502)  
Don't know/Refused = 1%  
Q6a

## Evening Behavior (continued)

Respondents were asked about their evening activities within the past month. Specifically, they were asked how frequently, within an hour of going to bed, they watched TV, spent time with family or friends, read, took a hot bath or shower, went on the Internet, had sex, listened to the radio or music, did work related to their job, drank an alcoholic beverage and/or exercised.

- The majority of respondents report that, within the last month, they watched TV (87%) and/or spent time with family or friends (68%) within an hour of going to bed at least a few nights a week.
- About one-half of the respondents report having read (51%) and/or taken a hot bath or shower (46%) within an hour of going to bed at least a few nights a week.
- Smaller proportions of the respondents surveyed report doing other activities at least a few nights a week, including going on the Internet (28%), having sex (27%), listening to the radio or music (24%), doing work related to their job (18%), drinking an alcoholic beverage (13%), and/or exercising (11%).

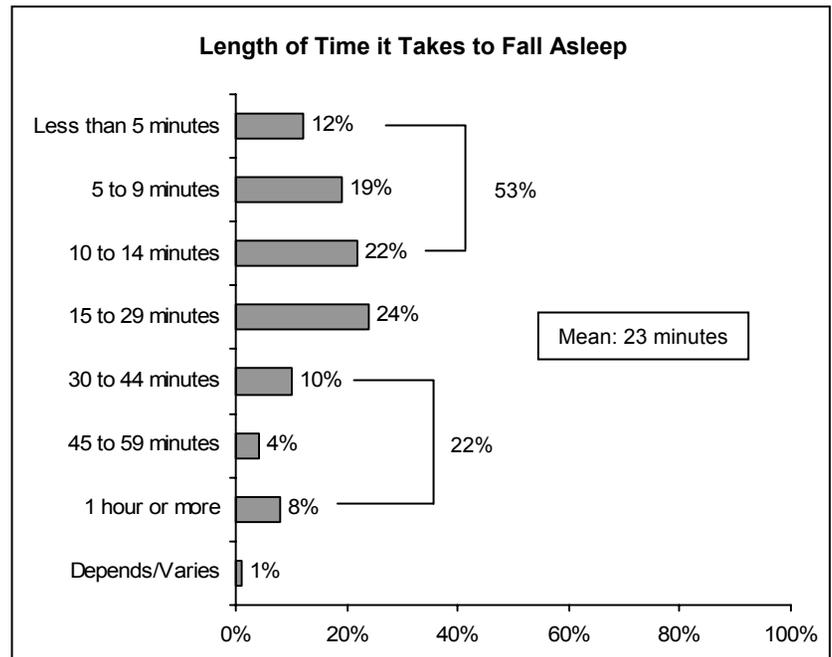


Base = Total sample (n=1,502)  
Q6b

## Evening Behavior (continued)

The 2005 *Sleep in America* poll indicates that, on average, it takes respondents about 23 minutes to fall asleep on most nights.

- About one-half of the respondents (53%) report that it takes less than 15 minutes for them to fall asleep on most nights. About one-fourth report that it takes 15 to 29 minutes (24%) and a similar proportion (22%) report that it takes 30 minutes or more to fall asleep on most nights.
- Male respondents (61% vs. 45%), respondents who are partnered (55% vs. 48%), and Caucasian respondents (54% vs. 43%) are more likely than their counterparts to report falling asleep in less than 15 minutes on most nights.
- Those who take 30 minutes or more to fall asleep on most nights are more likely than those who take less than 15 minutes to fall asleep to:
  - Sleep less than six hours on weekdays (28% of those who take 30 minutes or more to fall asleep on most nights vs. 11% of those who take less than 15 minutes to fall asleep on most nights);
  - Experience at least one symptom of insomnia (82% vs. 43%) and/or a sleep disorder (91% vs. 69%) at least a few nights a week;
  - Be *at risk* for restless legs syndrome (21% vs. 5%), insomnia (18% vs. 6%) and/or sleep apnea (35% vs. 24%);
  - Think they have a sleep problem (44% vs. 12%);
  - Report that they get less sleep than the minimum they say they need to function at their best (32% vs. 18%);
  - Report that they get “a good night’s sleep” a few nights a month or less (48% vs. 19%);
  - Consider themselves to be an evening person (52% vs. 34%);
  - Experience daytime sleepiness at least three days a week (44% vs. 24%);
  - Have their intimate relationship affected because of being too sleepy (26% vs. 15%); and
  - Have problems in their relationship due to their or their partner's sleep disorders (44% vs. 27%).



Base = Total sample (n=1,506)  
Don't know/Not sure = <1%  
Q7

## **Sleep Problems/Disorders**

## Sleep Problems/Disorders

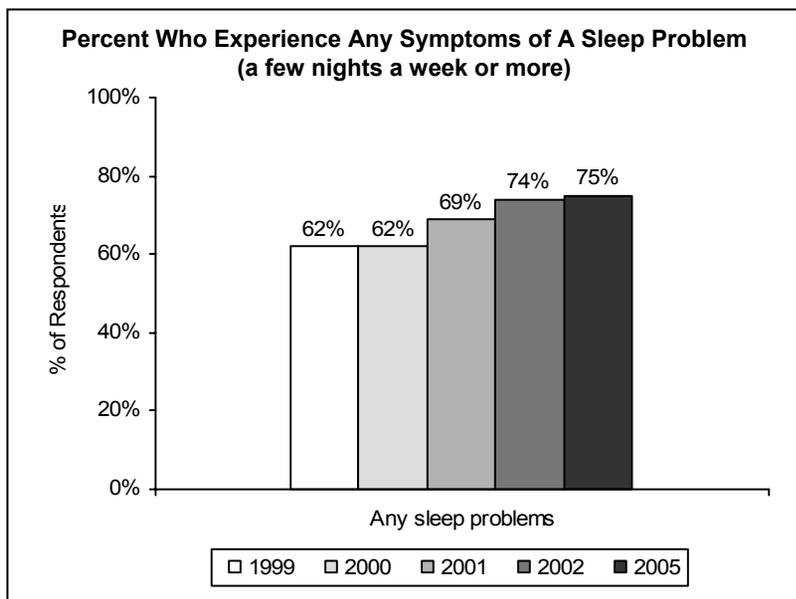
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***For the purposes of the Sleep in America poll, symptoms of a sleep problem were defined as: having difficulty falling asleep, waking a lot during the night, waking up too early and not being able to get back to sleep, waking up feeling unrefreshed, snoring, unpleasant feelings in the legs (RLS), and/or experiencing pauses in breathing.***

Results from the 2005 survey indicate that more adults are experiencing sleep problems on a regular basis. A large majority (75%) report having had at least one symptom of a sleep problem a few nights a week or more within the past year. This continues an upward trend in the prevalence of sleep problems since 1999 (from 62% who experienced a sleep problem a few nights a week or more in 1999 and 2000 to 69% in 2001, 74% in 2002, and 75% in 2005).

When asked if they think they have a sleep problem, however, about three-fourths of the respondents (76%) say they do not believe they do.

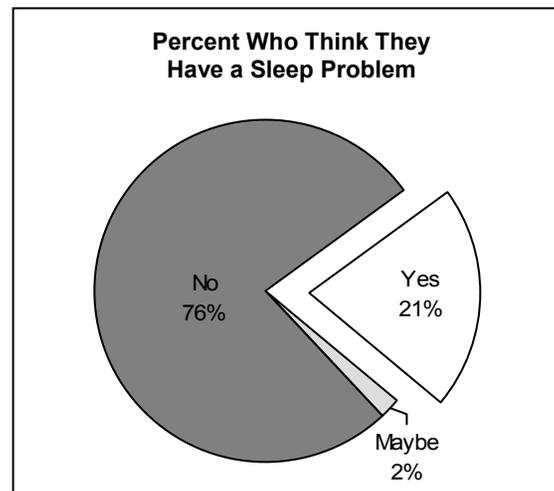
- Those who report that they think they have a sleep problem are more likely than those who do not to:
  - Get less than six hours of sleep on weekdays (32% of those who think they have a sleep problem vs. 11% of those who do not think they have a sleep problem);
  - Have at least one symptom of insomnia (91% vs. 43%) and/or a sleep disorder (96% vs. 68%) at least a few nights a week;
  - Be *at risk for* restless legs syndrome (24% vs. 6%), insomnia (32% vs. 3%) and/or sleep apnea (54% vs. 17%);
  - Report that they get less sleep than the minimum they say they need to function at their best (39% vs. 17%);
  - Report that they get “a good night’s sleep” a few nights a month or less (67% vs. 15%);
  - Consider themselves to be an evening person (54% vs. 37%);
  - Take 30 minutes or more to fall asleep (46% vs. 15%);
  - Experience daytime sleepiness at least three days a week (61% vs. 19%);
  - Have missed work or events or made errors at work at least one day in the past three months (49% vs. 22%);
  - Have their intimate relationship affected because of being too sleepy (30% vs. 15%); and
  - Have problems in their relationship due to their or their partner's sleep disorders (55% vs. 27%).
- When asked what they would do if they thought they had a sleep problem, 45% of the respondents surveyed report that they would talk to a doctor. About two in ten respondents (18%) say they would assume the problem would go away or they would do nothing.



Base = Total sample (n=1,506)

Note: Any sleep problem includes any symptoms of insomnia, snoring, sleep apnea, restless legs syndrome.

Q14a-d,15a,19,21



Base = Total sample (n=1,506)

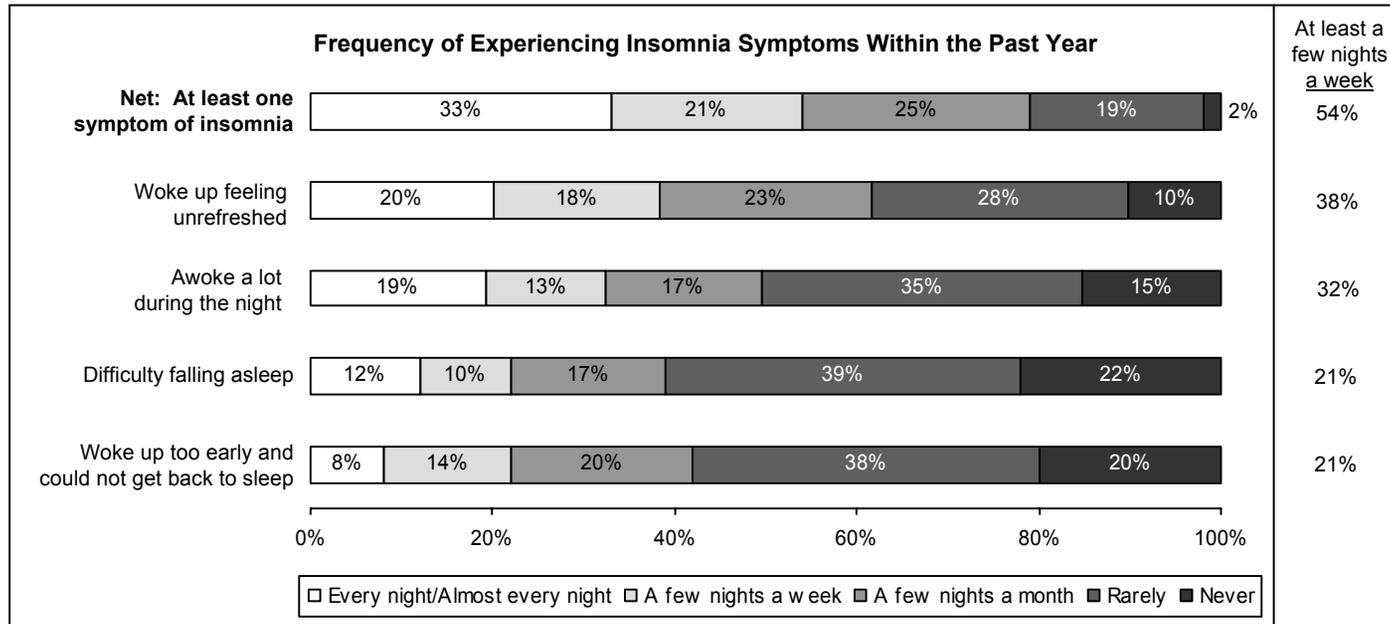
Don't know/Not sure/Refused = 1%

Q11

## Sleep Problems/Disorders (continued)

*In this survey, the adults interviewed were asked if they had ever experienced any of the following symptoms of insomnia: difficulty falling asleep, waking a lot during the night, waking up too early and not being able to get back to sleep, and waking up feeling unrefreshed. To measure the prevalence of insomnia, respondents were also asked how often they have experienced each of these symptoms within the past year.*

- About one-half of the respondents surveyed (54%) report that, within the past year, they have experienced at least one symptom of insomnia at least a few nights a week, with one-third (33%) saying they have experienced at least one symptom every night or almost every night.
- The more common symptoms of insomnia, experienced at least a few nights a week in the past year include waking up feeling unrefreshed (38%) and waking up a lot during the night (32%). Less common symptoms are difficulty falling asleep (21%) and waking up too early and not being able to get back to sleep (21%).
- About eight in ten respondents (83%) report waking during the night because something wakes them up, most often a noise (42%), the need to go to the bathroom (21%) and/or someone else (18%).
  - One-third of the respondents (33%) report that they find it very or somewhat difficult to fall back asleep if awakened during the night.



Base = Total sample (n=1,506)  
 Don't know/Refused = <1 to 1%  
 Q14a-d

## Sleep Problems/Disorders (continued)

Respondents were also asked if they had ever experienced any of the following symptoms of a sleep disorder within the past year:

### Snoring – Frequent or loud snoring can be a symptom of sleep apnea.

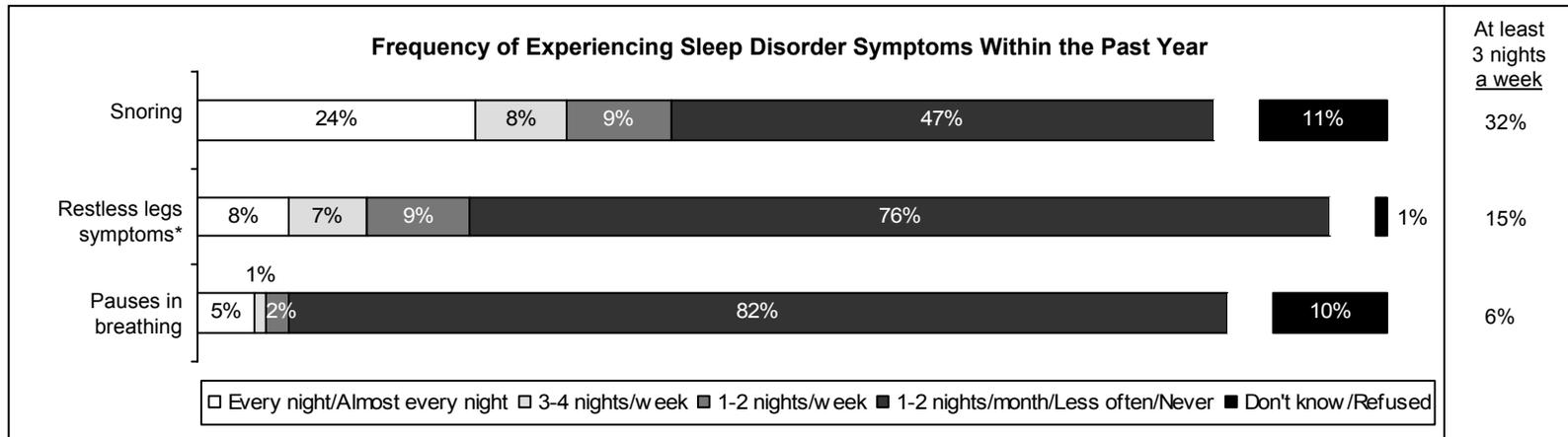
- About six in ten respondents (59%) report that, according to their own experiences or what others tell them, they snore.
- About one-third of all respondents (32%) report that they snore at least three nights a week, with one-fourth (24%) saying they snore every night or almost every night. About one-half of the respondents (47%) report that they snore one to two nights a month or less often.
- Among those who snore, 64% say that their snoring is as loud as talking, or slightly louder than breathing. One in six (17%) would say that their snoring is very loud and can be heard in adjacent rooms.
- More than one-half of those who snore (57%) report that their snoring has bothered others.

### Unpleasant, tingling feelings in legs – A common report of those with restless legs syndrome.

- While a three-fourths of the respondents surveyed (76%) report that they experience restless legs symptoms one to two nights a month or less often, 15% report that they experience these symptoms at least three nights a week, with 8% saying that they have these symptoms every night or almost every night.
- Among those who say that they have unpleasant feelings in their legs at night at least a few nights a week, about two-thirds (65%) report that these feelings are worse at night than during the day.

### Pauses in breathing – Observed or experienced pauses in breathing during sleep can be a symptom of sleep apnea.

- The vast majority of the respondents (82%) report that they experience pauses in breathing one to two nights a month, less often or never. About one twenty respondents (6%) say that they experience pauses in breathing at least 3 nights a week, with 5% saying they experience this every night or almost every night.



Base = Total sample (n=1,506)

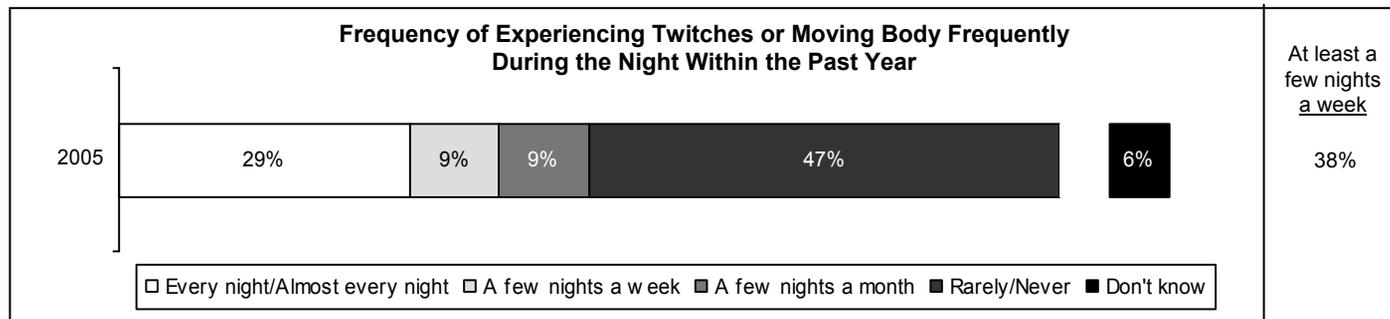
\*Note: Scale is based off of every night or almost every night, a few nights a week, a few nights a month, rarely, or never.

Q15a,19,21

## Sleep Problems/Disorders (continued)

Almost four in ten respondents (38%) report that, within the past year, they had twitches or moved their body frequently during the night at least a few nights a week, with about three in ten (29%) saying they experienced this every night or almost every night.

- Almost one-half of the respondents (47%) rarely or never experienced twitches or moving their body frequently during the night within the past year.



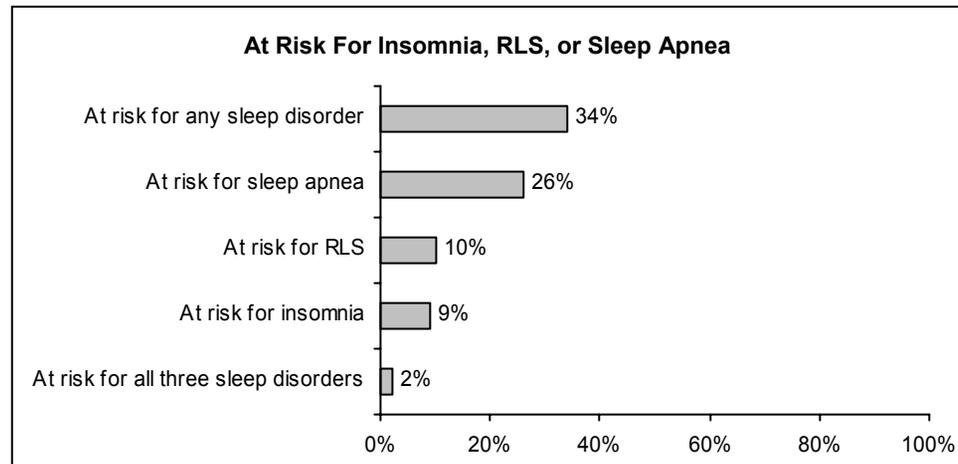
Base = Total sample (n=1,506)  
Q15b

## Sleep Problems/Disorders (continued)

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The 2005 *Sleep in America* poll indicates that about one-third of the respondents (34%) are *at risk for* insomnia, restless legs syndrome and/or sleep apnea, with 2% of the respondents *at risk for* all three.

- The Berlin Assessment Questionnaire is a three-section survey (see the Appendix) used to determine if a respondent has sleep apnea. Respondents who score high on at least two of the three sections of the questionnaire are considered *at risk for* sleep apnea. The 2005 *Sleep in America* poll indicates that about one-fourth of America's adults (26%) are *at risk for* sleep apnea.
- Respondents who experience restless legs symptoms at least a few nights a week and whose symptoms are worse at night are considered *at risk for* restless legs syndrome (RLS). The 2005 *Sleep in America* poll indicates that one in ten of America's adults (10%) are *at risk for* RLS.
- Respondents who experience at least one symptom of insomnia at least a few nights a week and who say their sleep problems have a high impact on their daily activities (a rating of 4 or 5 on a scale where 1 means "no impact" and 5 means "severe impact") are considered *at risk for* insomnia. The 2005 *Sleep in America* poll indicates that about one in ten of America's adults (9%) are *at risk for* insomnia.
- Those who are *at risk for* insomnia, restless legs syndrome, and/or sleep apnea are more likely than those who are not *at risk for* a sleep disorder to:
  - Get less than six hours of sleep on weekdays (35% *at risk for* insomnia, 27% *at risk for* restless legs syndrome and 23% *at risk for* sleep apnea vs. 12% not *at risk for* any sleep disorder);
  - Think that they have a sleep problem (70%, 52% and 44% vs. 9%);
  - Report that they get less sleep than the minimum they say they need to function at their best (40%, 32% and 30% vs. 18%);
  - Report that they get "a good night's sleep" a few nights a month or less (70%, 57% and 50% vs. 16%);
  - Take 30 minutes or more to fall asleep (42%, 47% and 30% vs. 16%);
  - Experience daytime sleepiness at least three days a week (78%, 57% and 66% vs. 13%);
  - Have missed work or events or made errors at work at least one day in the past three months (59%, 46% and 42% vs. 21%);
  - Have their intimate relationship affected because of being too sleepy (39%, 38% and 28% vs. 13%); and
  - Have problems in their relationship due to their or their partner's sleep disorders (65%, 49% and 50% vs. 24%).



Base = Total sample (n=1,506)

*At risk for insomnia* = Those who experience at least one symptom of insomnia at least a few nights a week and whose sleep problems have a high impact on their daily activities (a rating of 4 or 5 on a scale where 1 means "no impact" and 5 means "severe impact").

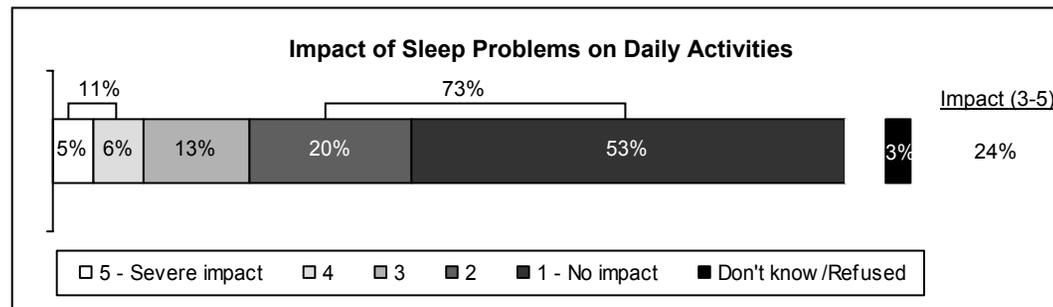
*At risk for RLS* = Those who experience restless legs symptoms at least a few nights a week and whose symptoms are worse at night.

*At risk for sleep apnea* = Respondents who score high on at least two of the three sections of the questionnaire are considered *at risk for sleep apnea*.

## Sleep Problems/Disorders (continued)

All respondents were asked to rate how severe the impact of their sleep problems is on their daily lives, using a scale of 1 to 5, where a 1 means no impact and a 5 means severe impact.

- About three-fourths (73%) report that their sleep problems have little or no impact on their daily lives, giving a rating of 1 or 2.
- However, about one-fourth of the respondents (24%) say that their sleep problems have some impact on their daily lives, giving a rating of 3, 4, or 5. One in ten respondents (11%) gave a rating of 4 or 5.

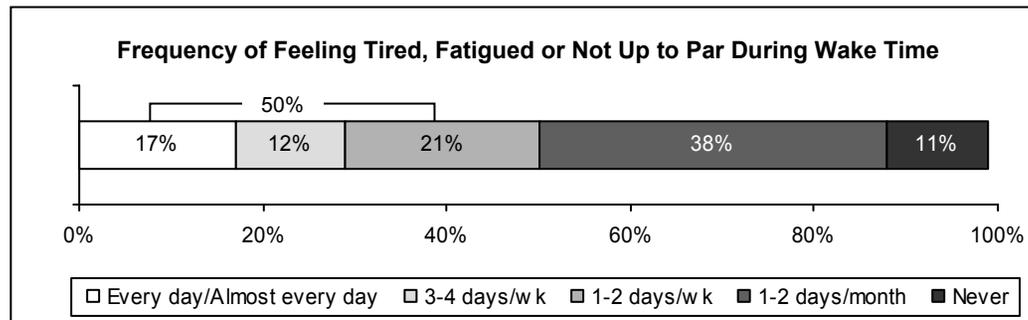


Base = Total sample (n=1,506)  
Q22

## Sleep Problems/Disorders (continued)

One-half of all respondents (50%) report feeling tired, fatigued or not up to par during wake time at least one day a week, with 17% saying this happens every day or almost every day.

- Those who feel tired, fatigued or not up to par during wake time at least one day a week are more likely than those who rarely or never feel this way to:
  - Get less than six hours of sleep on weekdays (20% of those who feel tired, fatigued or not up to par during wake time at least once day a week vs. 11% of those who rarely or never feel tired, fatigued or not up to par during wake time);
  - Have at least one symptom of insomnia (77% vs. 31%) and/or a sleep disorder (89% vs. 60%) at least a few nights a week;
  - Be *at risk for* restless legs syndrome (15% vs. 4%), insomnia (17% vs. 1%), and/or sleep apnea (41% vs. 11%);
  - Think that they have a sleep problem (34% vs. 8%);
  - Report that they get less sleep than the minimum they say they need to function at their best (32% vs. 11%);
  - Report that they get “a good night’s sleep” a few nights a month or less (45% vs. 9%);
  - Consider themselves to be an evening person (50% vs. 32%);
  - Take 30 minutes or more to fall asleep (29% vs. 14%);
  - Have missed work or events or made errors at work at least one day in the past three months (43% vs. 14%);
  - Have their intimate relationship affected because of being too sleepy (29% vs. 8%); and
  - Have problems in their relationship due to their or their partner’s sleep disorders (47% vs. 20%).



Base = Total sample (n=1,506)  
Don't know/Refused = 1%  
Q34

## **Sleep Problems/Disorders and Relationship**

## Sleep Problems/Disorders and Relationship

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On most nights, 61% of the respondents sleep with a significant other (61%), while 12% sleep most nights with their pet, and 5% sleep with their child(ren). Six in ten respondents (62%) report that they *prefer* to sleep with their significant other.

About three-fourths of those respondents who are married or living with someone (76%) report that their partner has had at least one symptom of insomnia within the past year.

- About one-half report that their partner woke up feeling unrefreshed (56%) and/or woke up too early and could not get back to sleep (46%) within the past year.
- About four in ten report that, within the past year, their partner woke up a lot during the night (38%) and/or had difficulty falling asleep (37%).
- Those whose partner has symptoms of insomnia are more likely than those whose partner does not to:
  - Experience at least one symptom of insomnia themselves (56% of those whose partner has insomnia vs. 42% of those whose partner does not have insomnia) and/or a sleep disorder (81% vs. 64%) at least a few nights a week;
  - Be *at risk for* restless legs syndrome (10% vs. 6%) and/or sleep apnea (28% vs. 15%);
  - Report that they get less sleep than the minimum they say they need to function at their best (23% vs. 16%);
  - Report that they get “a good night’s sleep” a few nights a month or less (26% vs. 20%);
  - Consider themselves to be an evening person (42% vs. 33%);
  - Experience daytime sleepiness at least three days a week (31% vs. 17%);
  - Have missed work or events or made errors at work at least one day in the past three months (30% vs. 18%);
  - Have their intimate relationship affected because of being too sleepy (27% vs. 12%); and
  - Have problems in their relationship due to their or their partner’s sleep disorders (38% vs. 18%).

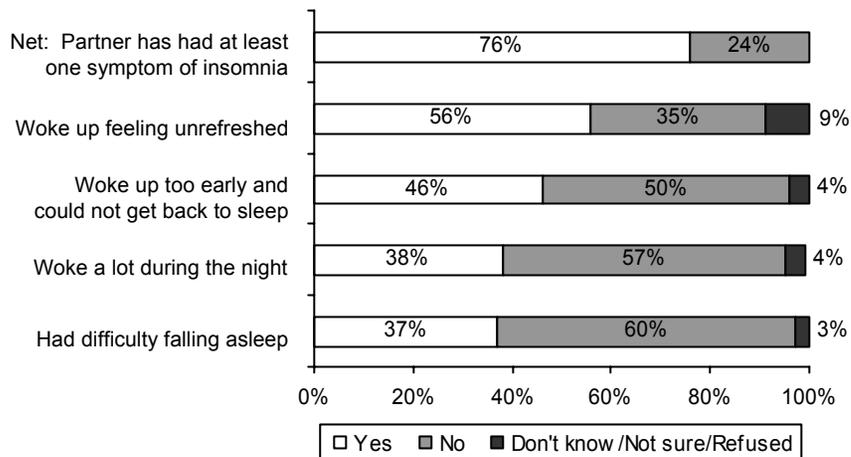
Likewise, 77% of those who are married or living with someone report that their partner has experienced at least one symptom of a sleep problem or disorder within the past year.

- Most commonly, respondents who are married or living with someone report that their partner snores (67%).
- About one-third (34%) say that their partner moves their body frequently or has twitches during the night.
- Less than two in ten say that their partner experiences pauses in breathing (19%) and/or has unpleasant feelings in their legs at night with an urge to move when they lie down to sleep (15%).

## Sleep Problems/Disorders and Relationship (continued)

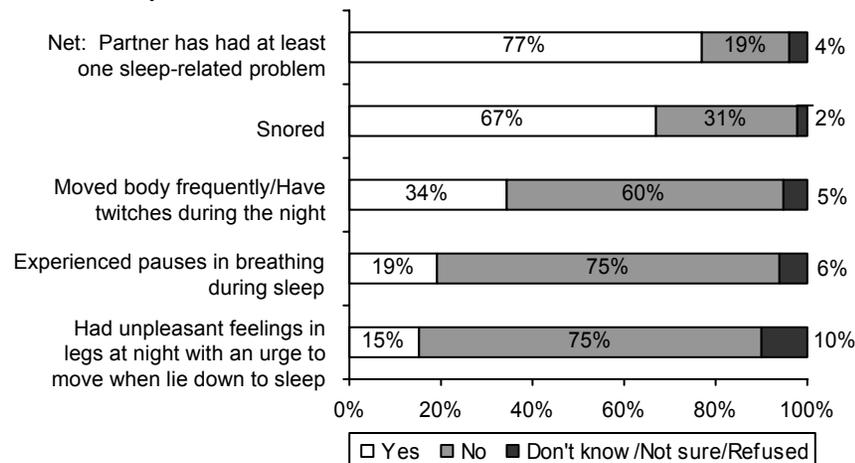
- Those respondents with a partner who has any type of sleep problem/disorder are more likely than those whose partner does not have any sleep problem/disorder to:
  - Experience at least one symptom of insomnia themselves (55% of those whose partner has any sleep problems vs. 47% of those whose partner does not have any sleep problems) and/or a sleep disorder (78% vs. 69%) at least a few nights a week;
  - Be *at risk* for restless legs syndrome (10% vs. 5%) and/or sleep apnea (27% vs. 19%);
  - Report that they get “a good night’s sleep” a few nights a month or less (26% vs. 19%);
  - Take 30 minutes or more to fall asleep (21% vs. 12%);
  - Experience daytime sleepiness at least three days a week (30% vs. 19%);
  - Have missed work or events or made errors at work at least one day in the past three months (28% vs. 21%);
  - Have their intimate relationship affected because of being too sleepy (24% vs. 9%); and
  - Have problems in their relationship due to their or their partner’s sleep disorders (35% vs. 9%).

**Partner Has Had the Following Symptoms of Insomnia Within the Past Year**



Base = Those who are married or living with someone (n=1,008)  
Q24a-d

**Partner Has Experienced Symptoms of Sleep-Related Problems or Disorders Within the Past Year**



Base = Those who are married or living with someone (n=1,008)  
Q25a-d

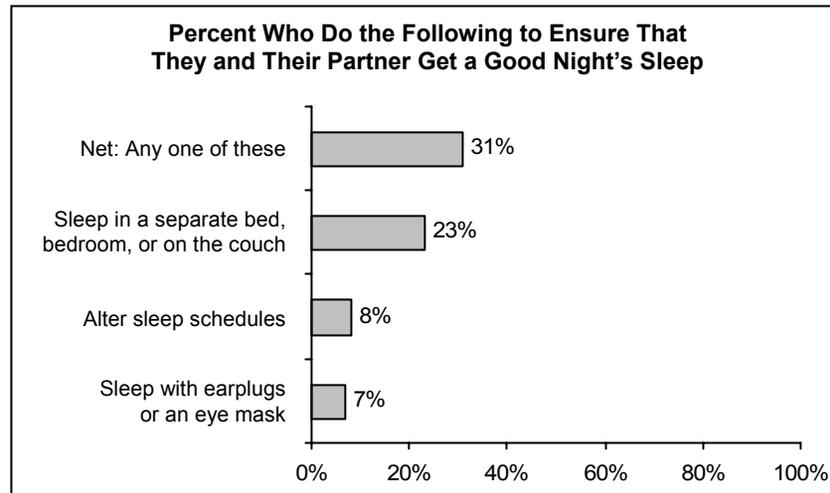
## Sleep Problems/Disorders and Relationship (continued)

About three-fourths of the respondents who are married or living with someone (74%) report that they do not lose any sleep as a result of their partner's sleep problems/disorders.

- However, about one-fourth (26%) say that they do lose some sleep because of their partner's sleep problems, with these respondents reporting that they lose, on average, 49 minutes of sleep on a typical night.

About three in ten respondents who are married or living with someone (31%) report that, as a result of a sleep problem, they or their partner sleeps in a separate bed, bedroom, or on the couch; alter their sleep schedules; and/or sleep with earplugs or an eye mask to ensure that they both get a good night's sleep.

- Most often, these respondents sleep in a separate bed, bedroom, or on the couch (23%), while some alter their sleep schedules (8%) and/or sleep with earplugs or an eye mask (7%).

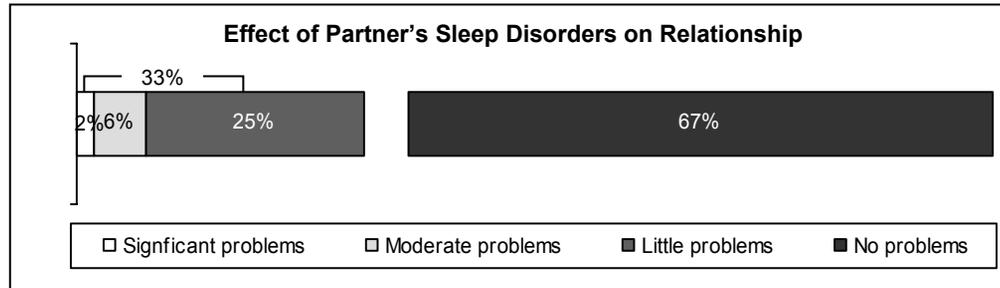


Base = Those who are married or living with someone (n=1,008)  
Q23

## Sleep Problems/Disorders and Relationship (continued)

Two-thirds of those respondents who are married or living with someone (67%) report that their partner's sleep disorders do not cause problems in their relationship. However, 33% say that their partner's sleep disorders do cause some problems in their relationship, with 25% saying they cause little problems in their relationship.

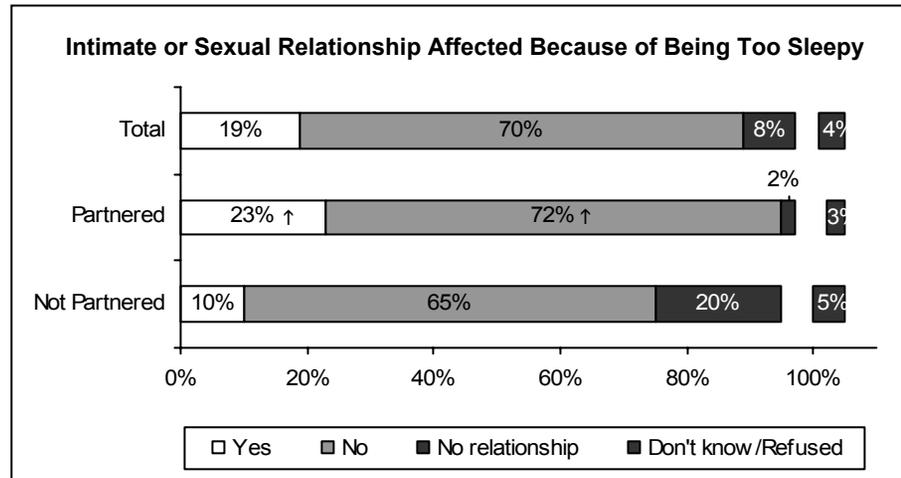
- About one-fourth of the respondents who are partnered (23%) report that their intimate or sexual relationship has been affected because they have been too sleepy. That is, they had sex less often or lost interest in having sex because they were too sleepy.



Base = Those who are married or living with someone (n=1,008)

Don't know/Refused = <1%

Q27



Base = Total sample (n=1,506; Partnered=1,008; Not Partnered=495)

Note: Up arrows mean the percentage is significantly higher than the percentage for the comparison group.

Q41

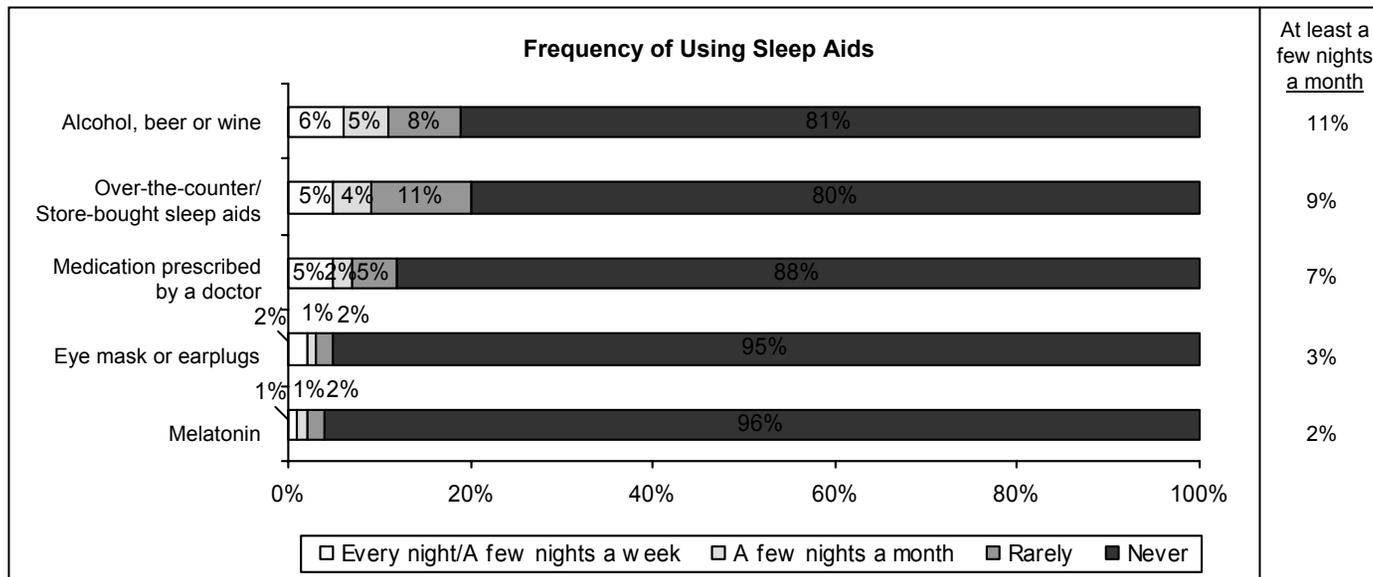
## **Medical Conditions and Lifestyle**

## Medical Conditions and Lifestyle

Respondents were asked if they use any of the following sleep aids specifically to help them sleep: over-the-counter or store-bought sleep aids (OTC); sleep medication prescribed by a doctor (Rx); alcohol, beer or wine, an eye mask or earplugs; and/or melatonin.

The vast majority of the respondents (76%) report that they never use any of these aids. However, some do use the following aids at least a few nights a week to help them sleep:

- 11% report using alcohol, beer or wine.
- 9% report using over-the-counter sleep aids.
- 7% report using prescription medications.
- 3% report using an eye mask or earplugs.
- 2% report using melatonin.



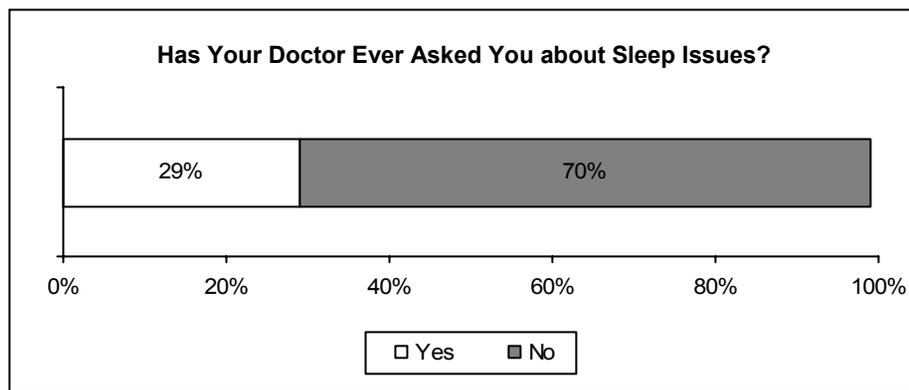
Base = Those answering (n=1,458-1,503)  
Q32a-e

## Medical Conditions and Lifestyle (continued)

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Seven in ten respondents (70%) report that their doctor has never asked them about their sleep, while 29% report that their doctor has.

- Most of the respondents completely or mostly agree that doctors should discuss sleep issues with their patients (89%) and/or that insufficient or poor sleep is associated with health problems (83%).



Base = Total sample (n=1,506)

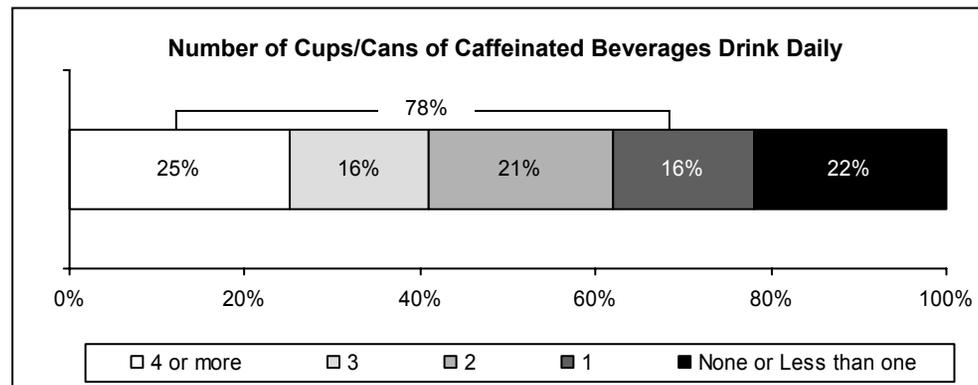
Don't know = 1%

Q29

## Medical Conditions and Lifestyle (continued)

About eight in ten respondents (78%) report that they drink at least one cup/can of a caffeinated beverage daily, including soda, soft drinks, coffee and tea, with 25% saying that they drink four or more cups/cans a day.

- Those who drink four or more cups/cans of caffeinated beverages daily are more likely than those who drink zero to one cups/cans to:
  - Sleep less than six hours on weekdays (21% of those who drink four or more cups/cans of caffeinated beverages daily vs. 14% of those who drink zero to one cups/cans of caffeinated beverages daily);
  - Experience at least one symptom of an insomnia (59% vs. 52%) and/or a sleep disorder (82% vs. 69%) at least a few nights a week;
  - Be *at risk for* sleep apnea (33% vs. 21%);
  - Think that they have a sleep problem (25% vs. 19%);
  - Report that they get “a good night’s sleep” a few nights a month or less (35% vs. 25%);
  - Consider themselves to be an evening person (46% vs. 38%);
  - Experience daytime sleepiness at least three days a week (33% vs. 26%);
  - Have missed work or events or made errors at work at least one day in the past three months (32% vs. 26%);
  - Have their intimate relationship affected because of being too sleepy (23% vs. 15%); and
  - Have problems in their relationship due to their or their partner’s sleep disorders (38% vs. 29%).

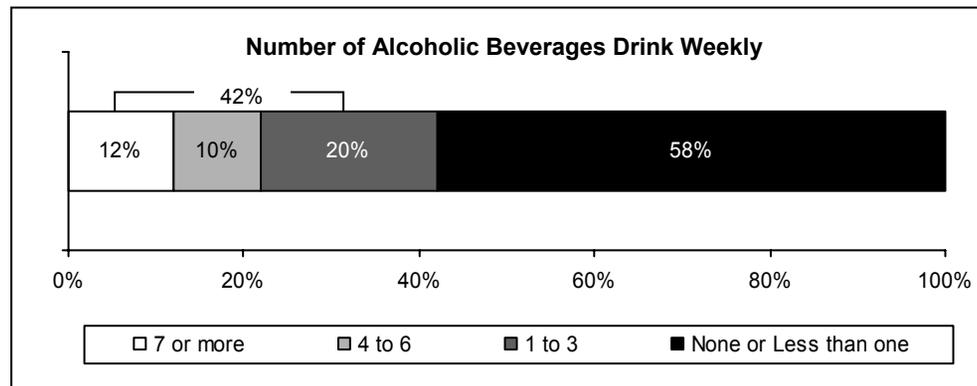


Base = Those answering (n=1,498)  
Q46

## Medical Conditions and Lifestyle (continued)

About six in ten (58%) respondents say that they do not drink any or they drink less than one alcoholic beverage weekly, including beer, wine, liquor, or mixed drinks. However, 42% drink one or more alcoholic drinks per week, with 22% saying they drink four or more per week.

- Those who drink four or more alcoholic beverages weekly are more likely than those who drink zero to one to:
  - Report that they get more sleep than the minimum they say they need to function at their best (50% of those who drink four or more alcoholic beverages weekly vs. 37% of those who drink zero to one alcoholic beverages weekly);
  - Take less than 15 minutes to fall asleep (60% vs. 50%); and
  - Have problems in their relationship due to their or their partner's sleep disorders (39% vs. 31%).

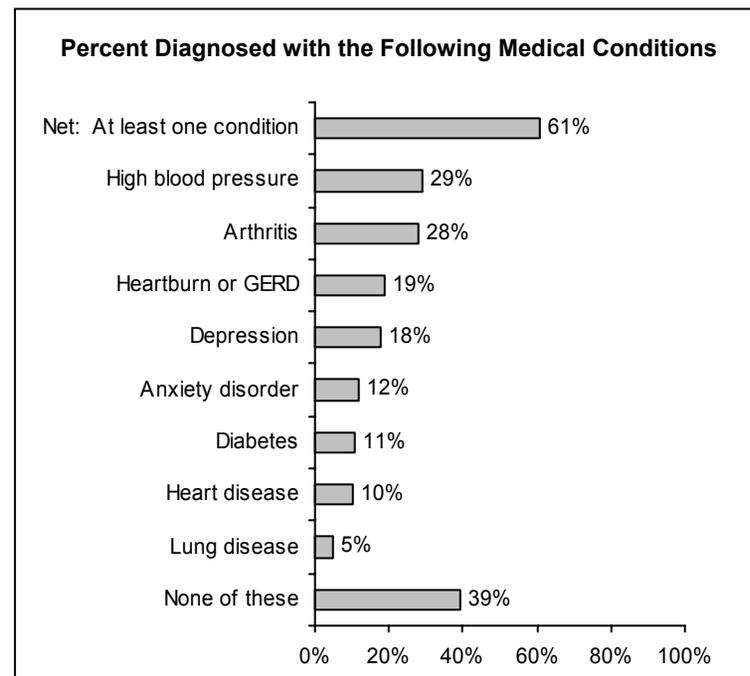


Base = Those answering (n=1,492)  
Q47

## Medical Conditions and Lifestyle (continued)

Respondents were asked if they have you ever been told by a doctor that they have any of the following medical conditions: high blood pressure, arthritis, heartburn/GERD, depression, an anxiety disorder, diabetes, heart disease, and/or lung disease. About six in ten respondents (61%) report that they have been diagnosed with at least one of these conditions.

- About three in ten report that they have been diagnosed with high blood pressure (29%) and/or arthritis (28%).
- About two in ten report that they have heartburn or GERD (19%) and/or depression (18%).
- About one in ten respondents report that they have been diagnosed with an anxiety disorder (12%), diabetes (11%), and/or heart disease (10%).
- One in twenty respondents (5%) have lung disease.
- Those who have been diagnosed with at least one of these medical conditions are more likely than those who have not to:
  - Sleep less than six hours per night on weekdays (18% of those who have been diagnosed with at least one medical condition vs. 12% of those who have not been diagnosed with a medical condition);
  - Experience at least one symptom of insomnia (59% vs. 46%) and/or a sleep disorder (79% vs. 69%) at least a few nights a week;
  - Be *at risk* for restless legs syndrome (13% vs. 4%), insomnia (12% vs. 5%), and/or sleep apnea (35% vs. 11%);
  - Think that they have a sleep problem (27% vs. 11%);
  - Report that they get “a good night’s sleep” a few nights a month or less (31% vs. 20%);
  - Take more than 30 minutes to fall asleep (27% vs. 14%);
  - Experience daytime sleepiness at least three days a week (35% vs. 19%);
  - Have made errors at work (24% vs. 17%) or missed events (18% vs. 13%) at least one day in the past; and
  - Have problems in their relationship due to their or their partner’s sleep disorders (38% vs. 26%).



Base = Total sample (n=1,506)  
Q56

## Medical Conditions and Lifestyle (continued)

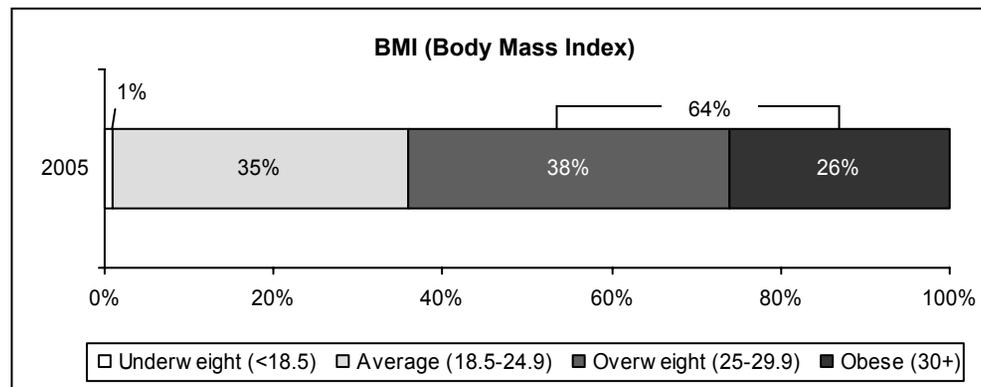
Respondents were asked to report their height and weight, without shoes. Using this information, the Body Mass Index (BMI) for all respondents was calculated using the following formula:

$$\text{BMI} = \frac{\text{Weight in pounds}}{(\text{Height in inches}) \times (\text{Height in inches})} \times 705$$

Respondents whose BMI is below 18.5 are considered underweight. Those who fall into a BMI range of 18.5 to 24.9 are classified as average. Those who have a BMI score of 25.0 to 29.9 are classified as being overweight, and those who have a score of 30 or more are considered obese.

The 2005 *Sleep in America* poll indicates that about two-thirds of the respondents (64%) are overweight or obese, while 35% are of average weight.

- Those who are considered obese are more likely than those who are under or of average weight to:
  - Sleep less than six hours per night on weekdays (18% of those who are considered obese vs. 11% of those who are considered under or of average weight);
  - Experience at least one symptom of insomnia (61% vs. 53%) and/or a sleep disorder (85% vs. 67%) at least a few nights a week;
  - Be *at risk for* sleep apnea (57% vs. 10%);
  - Think that they have a sleep problem (30% vs. 17%);
  - Experience daytime sleepiness at least three days a week (37% vs. 26%); and
  - Have problems in their relationship due to their or their partner's sleep disorders (37% vs. 29%).



Base = Those answering (n=1,457)  
Q53,54

\*Note: A profile based on respondents' BMI can be found at the back of this Summary of Findings (page 51).

## Medical Conditions and Lifestyle (continued)

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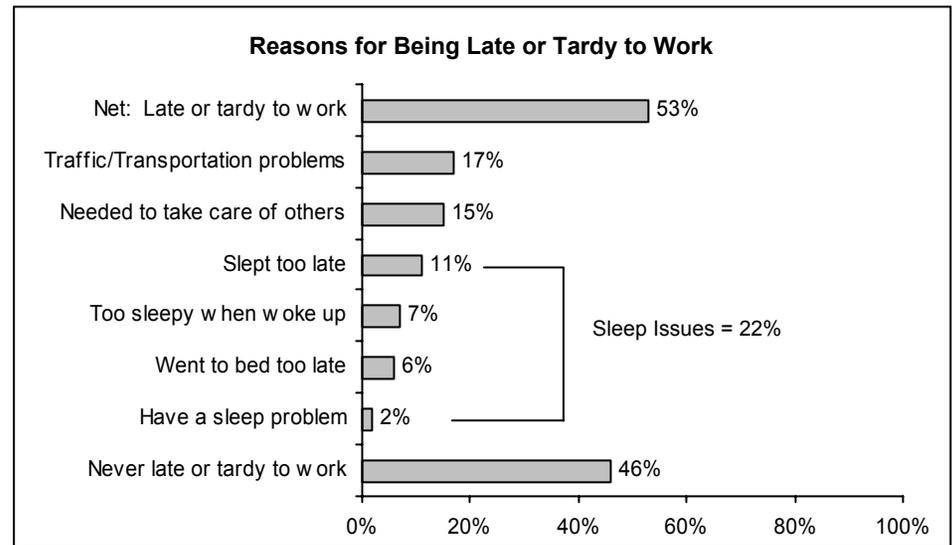
About three in ten respondents (28%) report that they have missed work, events/activities, or made errors at work within the past three months because of being too sleepy or having a sleep problem.

- Specifically, 6% of working adults report that, within the past three months, they have missed work because they were too tired or have a sleep problem.
- Almost two in ten working adults (17%) report that, within the past three months, they have missed family events, leisure activities, work functions, or other activities because they were too tired or have a sleep problem.
- About two in ten working adults (21%) say that, within the past three months, they have made errors at work because of being too tired or having a sleep problem.
- Those who have missed work or events or made errors at work at least one day in the past three months are more likely than those who have not missed work or events or made errors on any days to:
  - Experience at least one symptom of insomnia (72% missed work/events or made errors at work at least one day in the past three months vs. 46% have not missed work/events or made errors any days) and/or a sleep disorder (88% vs. 69%) at least a few nights a week;
  - Be *at risk for* restless legs syndrome (16% vs. 7%), insomnia (20% vs. 5%), and/or sleep apnea (39% vs. 20%);
  - Think that they have a sleep problem (36% vs. 14%);
  - Report that they get less sleep than the minimum they say they need to function at their best (35% vs. 17%);
  - Report that they get “a good night’s sleep” a few nights a month or less (44% vs. 20%);
  - Consider themselves to be an evening person (56% vs. 35%);
  - Take 30 minutes or more to fall asleep (28% vs. 20%);
  - Experience daytime sleepiness at least three days a week (50% vs. 20%);
  - Have their intimate relationship affected because of being too sleepy (38% vs. 11%); and
  - Have problems in their relationship due to their or their partner's sleep disorders (56% vs. 24%).

## Medical Conditions and Lifestyle (continued)

Among those working adults surveyed, 53% report that they have been late or tardy to work at some time.

- Most often, these respondents report being late for work because of some sleep issue(s) (22%), including sleeping too late (11%), being too sleepy when they woke up (7%), going to bed too late (6%) and/or having a sleep problem (2%).
- In addition, traffic/transportation problems (17%) and/or needing to take care of others (15%) are reasons they report for having arrived late to work.
- Those who are late to work because they have sleep issues are more likely than those who are never late or tardy to work to:
  - Have at least one symptom of insomnia (68% of those who are late to work because they have sleep issues vs. 54% of those who are never late or tardy to work) and/or a sleep disorder (82% vs. 75%) at least a few nights a week;
  - Be *at risk for* insomnia (15% vs. 9%) and/or sleep apnea (36% vs. 26%);
  - Think that they have a sleep problem (29% vs. 20%);
  - Report that they get less sleep than the minimum they say they need to function at their best (30% vs. 20%);
  - Report that they get “a good night’s sleep” a few nights a month or less (42% vs. 26%);
  - Consider themselves to be an evening person (62% vs. 33%);
  - Experience daytime sleepiness at least three days a week (42% vs. 26%);
  - Have missed work or events or made errors at work at least one day in the past three months (57% vs. 24%);
  - Have their intimate relationship affected because of being too sleepy (34% vs. 16%); and
  - Have problems in their relationship due to their or their partner’s sleep disorders (49% vs. 31%).

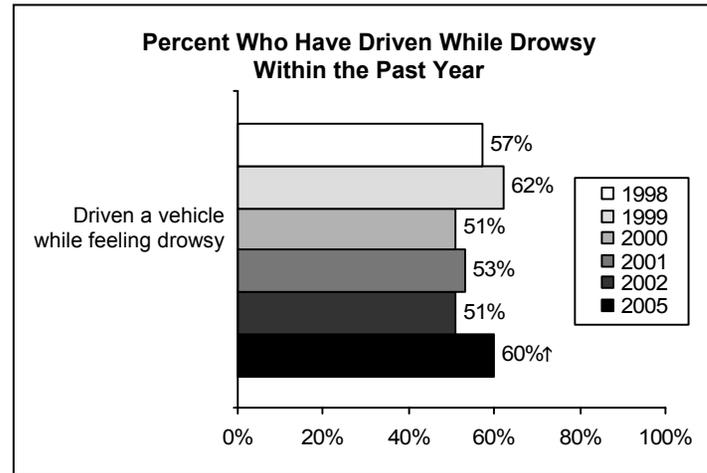


Base = Those who work (n=1,228)  
 Do not work = 18%  
 Multiple Responses Accepted, Top Mentions  
 Q37

**Driving Drowsy**

## Driving Drowsy

Results from the 2005 *Sleep in America* poll indicate that 60% of America's adults who drive or have a license report that, within the past year, they have driven a car or motor vehicle when feeling drowsy. This is a significant increase compared to results from recent years (51% in 2000, 53% in 2001, and 51% in 2002).



Base = Total sample in 1998 – 2001

Base = Those who drive/have a license in 2002 and 2005 (n=1,456)

Note: Up arrows mean the percentage is significantly higher than the percentage for the comparison group.

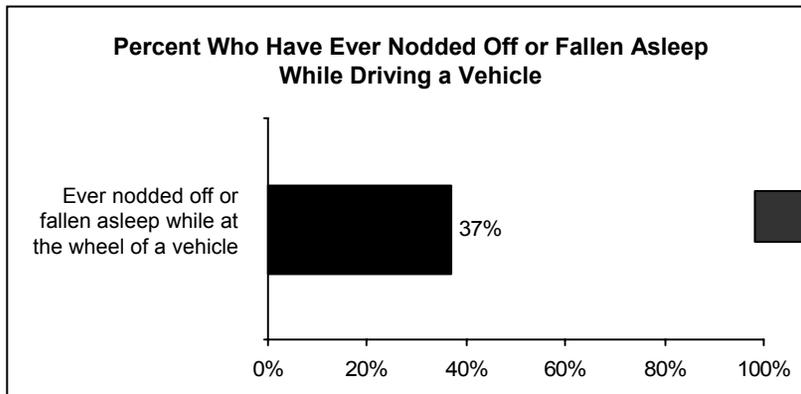
Q48

Four percent of the respondents who drive or have a license have had an accident or near accident in the past year because of dozing off or being too tired while driving.

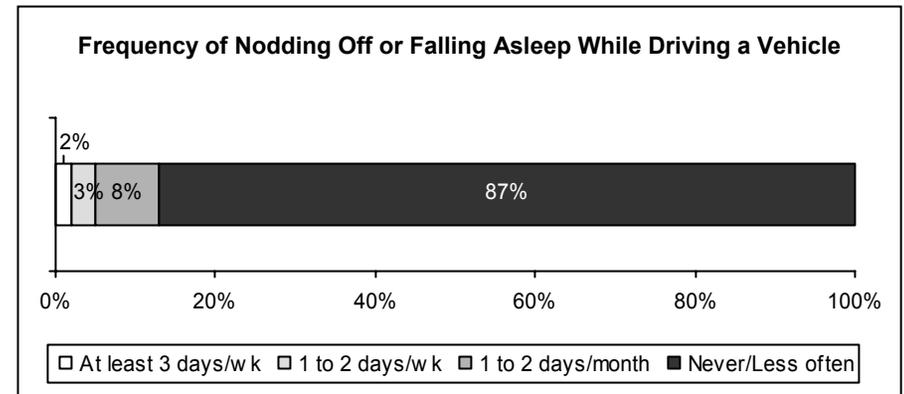
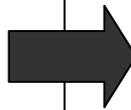
- Among these respondents, 29% report having had an accident or near accident at least once a month in the past year.

## Driving Drowsy (continued)

About one-third of the respondents who drive or have a license (37%) report that they have ever nodded off or fallen asleep while driving a vehicle, even just for a brief moment. Among these respondents, 13% say they have done so at least once a month.



Base = Those who drive/have a license and answering (n=1,456)  
Q51



Base = Those who drive or have a license and have nodded off or fallen asleep while driving (n=541)  
Don't know/Refused = 1%  
Q52

## **Characteristics of Respondents**

## Characteristics of Respondents

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Key characteristics of the adults surveyed in the 2005 *Sleep in America* Poll include the following:

- Equal proportions of male (49%) and female (51%) respondents were surveyed;
- 62% are married, while 18% are divorced, separated, or widowed, 15% are single, and 5% are living with someone;
- As per the U.S. Census, 36% live in the South, while 24% live in the Midwest, 21% in the West, and 19% in the Northeast;
- 42% live in suburban neighborhoods, while 39% live in rural neighborhoods and 18% live in urban neighborhoods;
- 84% are Caucasian/White, and 16% are minorities;
- The mean age of the respondents is 49.0 years;
- 52% are employed full-time;
- 80% of those who are employed work regular day shifts;
- Those employed work, on average, 42.3 hours per week; and
- The most common professions of the respondents surveyed include technical (27%), service (21%), government (18%) and professional/managerial positions (15%).

Differences in responses were analyzed by these demographic characteristics. The most notable differences are seen by gender.

- Specifically, females are more likely than males to:
  - Sleep eight hours or more on weekdays (30% female vs. 22% male);
  - Experience at least one symptom of insomnia at least a few nights a week (57% vs. 51%);
  - Not be *at risk for* restless legs syndrome, insomnia, or sleep apnea (69% vs. 63%);
  - Report that they get less sleep than the minimum they say they need to function at their best (24% vs. 19%);
  - Consider themselves to be an evening person (44% vs. 37%);
  - Take 30 minutes or more to fall asleep (28% vs. 16%); and
  - Experience daytime sleepiness at least one day a week (53% vs. 47%).

## Characteristics of Respondents (continued) - Profile

### Gender

	Male B	Female C
<u>Hours slept on weekdays</u>	n = (731)	(775)
Less than 6 hours	17%	14%
8 hours or more	22	30 <sub>B</sub>
Mean (# of hours)	6.6	6.9 <sub>B</sub>
<u>Insomnia – at least a few nights a week</u>		
Net: Any symptom of insomnia	51%	57% <sub>B</sub>
Difficulty falling asleep	17	26 <sub>B</sub>
Awake a lot during the night	28	35 <sub>B</sub>
Woke too early & couldn't get back to sleep	19	24 <sub>B</sub>
Woke up feeling unrefreshed	36	39
<u>Sleep disorders – at least a few nights a week</u>		
Net: Any symptom of a sleep disorder	76%	74%
Snoring	39 <sub>C</sub>	25
Sleep apnea	8 <sub>C</sub>	5
Restless legs syndrome	15	15
<u>At risk for</u>		
Net: RLS, insomnia and/or sleep apnea	37% <sub>C</sub>	31%
Restless legs syndrome	8	11
Insomnia	8	11
Sleep apnea	31 <sub>C</sub>	21
None	63	69 <sub>B</sub>
<u>Think they have a sleep problem</u>		
Yes	20%	22%
<u>Actual vs. minimum hours of sleep</u>		
Get <u>less</u> sleep than needed	19%	24% <sub>B</sub>
Get the <u>same</u> amount of sleep as needed	29	35 <sub>B</sub>
Get <u>more</u> sleep than needed	46 <sub>C</sub>	35

	Male B	Female C
<u>"I had a good night's sleep"</u>	n = (731)	(775)
Every night or almost every night	51% <sub>C</sub>	46%
A few nights a month or less	26	28
<u>Lark or owl</u>		
Lark (Morning person)	56%	54%
Owl (Evening person)	37	44 <sub>B</sub>
<u>Length of time taken to fall asleep</u>		
Less than 15 minutes	61% <sub>C</sub>	45%
15 to 29 minutes	22	25
30 minutes or more	16	28 <sub>B</sub>
<u>Daytime sleepiness</u>		
At least 3 days a week	27%	31%
At least 1 day a week	47	53 <sub>B</sub>
Rarely or never	52 <sub>C</sub>	46
<u>BMI</u>		
Underweight/Average	25%	44% <sub>B</sub>
Overweight	46 <sub>C</sub>	29
Obese	28 <sub>C</sub>	23
<u>Miss work/events because of sleep (past 3 months)</u>		
Do not miss work/events	71%	68%
Miss 1 or more days or work/events	27	30
Miss 1 or more days of work	5	7
Made errors at work	19	23
Miss 1 or more events	14	18
<u>Intimate relationship affected because of sleep</u>		
Yes	17%	20%
<u>Problems sleep disorders have on relationship</u>		
Any problems	31%	34%
<u>Frequency of driving drowsy (past year)</u>		
At least once a month	38% <sub>C</sub>	28%

## Characteristics of Respondents (continued) - Profile

There do not appear to be any key differences in responses by region.

### Region

	North-east B	Midwest C	South D	West E
<u>Hours slept on weekdays</u>	n = (285)	(362)	(543)	(316)
Less than 6 hours	18%	14%	18% <sub>E</sub>	12%
8 hours or more	24	26	26	29
Mean (# of hours)	6.7	6.8	6.7	6.9 <sub>D</sub>
<u>Insomnia – at least a few nights a week</u>				
Net: Any symptom of insomnia	51%	50%	57% <sub>C</sub>	57%
Difficulty falling asleep	18	18	25 <sub>BC</sub>	23
Awake a lot during the night	29	29	35 <sub>C</sub>	32
Woke too early & couldn't get back to sleep	18	20	24 <sub>B</sub>	22
Woke up feeling unrefreshed	36	33	39	41 <sub>C</sub>
<u>Sleep disorders – at least a few nights a week</u>				
Net: Any symptom of a sleep disorder	74%	72%	78% <sub>C</sub>	73%
Snoring	34 <sub>E</sub>	32 <sub>E</sub>	35 <sub>E</sub>	24
Sleep apnea	5	7	7	4
Restless legs syndrome	10	13	19 <sub>BC</sub>	15
<u>At risk for</u>				
Net: RLS, insomnia and/or sleep apnea	32%	37%	34%	30%
Restless legs syndrome	6	9	11 <sub>B</sub>	11 <sub>B</sub>
Insomnia	7	9	10	10
Sleep apnea	26	27	26	23
None	68	63	66	70
<u>Think they have a sleep problem</u>				
Yes	19%	20%	22%	22%
<u>Actual vs. minimum hours of sleep</u>				
Get <u>less</u> sleep than needed	21%	20%	23%	23%
Get the <u>same</u> amount of sleep as needed	31	34	32	34
Get <u>more</u> sleep than needed	42	42	39	39

	North-east B	Midwest C	South D	West E
<u>"I had a good night's sleep"</u>	n = (285)	(362)	(543)	(316)
Every night or almost every night	49%	50%	48%	48%
A few nights a month or less	28	25	26	29
<u>Lark or owl</u>				
Lark (Morning person)	58%	53%	54%	56%
Owl (Evening person)	39	42	42	39
<u>Length of time taken to fall asleep</u>				
Less than 15 minutes	56%	56%	51%	49%
15 to 29 minutes	24	23	22	27
30 minutes or more	18	20	25 <sub>B</sub>	22
<u>Daytime sleepiness</u>				
At least 3 days a week	28%	27%	29%	32%
At least 1 day a week	47	49	51	53
Rarely or never	52	51	48	46
<u>BMI</u>				
Underweight/Average	34%	32%	35%	39%
Overweight	38	38	36	37
Obese	25	25	27	23
<u>Miss work/events because of sleep (past 3 months)</u>				
Do not miss work/events	72%	68%	71%	66%
Miss 1 or more days or work/events	26	31	26	31
Miss 1 or more days of work	5	5	6	8
Made errors at work	20	23	18	25 <sub>D</sub>
Miss 1 or more events	13	17	16	18
<u>Intimate relationship affected because of sleep</u>				
Yes	18%	17%	17%	23% <sub>D</sub>
<u>Problems sleep disorders have on relationship</u>				
Any problems	34%	35%	30%	34%
<u>Frequency of driving drowsy (past year)</u>				
At least once a month	34%	34%	31%	32%

## Characteristics of Respondents (continued) - Profile

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Differences in responses were also analyzed by age.

- Older respondents tend to be more likely than younger respondents to:
  - Be able to say they “had a good night’s sleep” every night or almost every night (38% age 18-29 vs. 44% age 30-49 vs. 52% age 50-64 vs. 60% age 65+);
  - Consider themselves to be a morning person (37% vs. 51% vs. 61% vs. 64%); and
  - Not have missed work or events or made errors at work at least one day in the past three months (55% vs. 64% vs. 71% vs. 89%).
- However, younger respondents tend to be more likely than older respondents to:
  - Wake up feeling unrefreshed (46% age 18-29 vs. 44% age 30-49 vs. 36% age 50-64 vs. 22% age 65+);
  - Consider themselves to be an evening person (59% vs. 44% vs. 36% vs. 29%);
  - Have missed work or events or made errors at work at least one day in the past three months (44% vs. 36% vs. 26% vs. 5%);
  - Have their intimate relationship affected because of being too sleepy (27% vs. 26% vs. 15% vs. 4%); and
- Notably, those who are age 50-64 tend to be the most likely to report experiencing snoring at least a few nights a week (40% vs. 28% age 18-39, 33% age 30-49 and 29% age 65+). And, these respondents are more likely than their counter parts to be likely to have RLS, insomnia and/or sleep apnea (40% vs. 28%, 33% and 29%).

## Characteristics of Respondents (continued) - Profile

### Age of Respondent

	<u>18-29</u>	<u>30-49</u>	<u>50-64</u>	<u>65+</u>		<u>18-29</u>	<u>30-49</u>	<u>50-64</u>	<u>65+</u>
	B	C	D	E	n =	B	C	D	E
<u>Hours slept on weekdays</u>									
Less than 6 hours	13%	17%	16%	14%	(177)	(177)	(616)	(426)	(273)
8 hours or more	30	24	25	30					
Mean (# of hours)	6.8	6.7	6.7	6.9 <sub>C</sub>					
<u>Insomnia – at least a few nights a week</u>									
Net: Any symptom of insomnia	60%	56%	53%	51%					
Difficulty falling asleep	29 <sub>DE</sub>	21	19	20					
Awake a lot during the night	24	31	33 <sub>B</sub>	39 <sub>BC</sub>					
Woke too early & couldn't get back to sleep	21	21	21	25					
Woke up feeling unrefreshed	46 <sub>DE</sub>	44 <sub>DE</sub>	36 <sub>E</sub>	22					
<u>Sleep disorders – at least a few nights a week</u>									
Net: Any symptom of a sleep disorder	77%	75% <sub>E</sub>	77% <sub>E</sub>	69%					
Snoring	23	33 <sub>BE</sub>	40 <sub>BCE</sub>	22					
Sleep apnea	1	7 <sub>B</sub>	8 <sub>B</sub>	5 <sub>B</sub>					
Restless legs syndrome	12	12	17 <sub>C</sub>	19 <sub>C</sub>					
<u>At risk for</u>									
Net: RLS, insomnia and/or sleep apnea	28%	33%	40% <sub>BCE</sub>	29%					
Restless legs syndrome	10	8	11	11					
Insomnia	8	11	10	7					
Sleep apnea	19	25	33 <sub>BCE</sub>	21					
None	72 <sub>D</sub>	67 <sub>D</sub>	60	71 <sub>D</sub>					
<u>Think they have a sleep problem</u>									
Yes	18%	21%	23%	20%					
<u>Actual vs. minimum hours of sleep</u>									
Get <u>less</u> sleep than needed	21%	25% <sub>D</sub>	18%	21%					
Get the <u>same</u> amount of sleep as needed	31	28	39 <sub>BC</sub>	33					
Get <u>more</u> sleep than needed	44	43	38	36					
<u>"I had a good night's sleep"</u>									
Every night or almost every night	38%	44%	52% <sub>BC</sub>	60% <sub>BCD</sub>	(177)	(177)	(616)	(426)	(273)
A few nights a month or less	31 <sub>E</sub>	28 <sub>E</sub>	29 <sub>E</sub>	19					
<u>Lark or owl</u>									
Lark (Morning person)	37%	51% <sub>B</sub>	61% <sub>BC</sub>	64% <sub>BC</sub>					
Owl (Evening person)	59 <sub>CDE</sub>	44 <sub>DE</sub>	36 <sub>E</sub>	29					
<u>Length of time taken to fall asleep</u>									
Less than 15 minutes	49%	52%	56%	51%					
15 to 29 minutes	21	26	23	21					
30 minutes or more	30 <sub>CD</sub>	21	19	25					
<u>Daytime sleepiness</u>									
At least 3 days a week	26%	33% <sub>E</sub>	29%	24%					
At least 1 day a week	55 <sub>E</sub>	55 <sub>DE</sub>	47	42					
Rarely or never	45	45	52 <sub>C</sub>	55 <sub>C</sub>					
<u>BMI</u>									
Underweight/Average	46% <sub>CDE</sub>	36% <sub>D</sub>	30%	32%					
Overweight	29	36	38 <sub>B</sub>	43 <sub>BC</sub>					
Obese	23	24	30 <sub>E</sub>	22					
<u>Miss work/events because of sleep (past 3 months)</u>									
Do not miss work/events	55%	64% <sub>B</sub>	71% <sub>BC</sub>	89% <sub>BCD</sub>					
Miss 1 or more days of work/events	44 <sub>DE</sub>	36 <sub>DE</sub>	26 <sub>E</sub>	5					
Miss 1 or more days of work	13 <sub>CDE</sub>	6 <sub>E</sub>	4 <sub>E</sub>	1					
Made errors at work	28 <sub>E</sub>	22 <sub>E</sub>	21 <sub>E</sub>	5					
Miss 1 or more events	24 <sub>DE</sub>	21 <sub>DE</sub>	14 <sub>E</sub>	4					
<u>Intimate relationship affected because of sleep</u>									
Yes	27% <sub>DE</sub>	26% <sub>DE</sub>	15% <sub>E</sub>	4%					
<u>Problems sleep disorders have on relationship</u>									
Any problems	22%	38% <sub>BE</sub>	35% <sub>BE</sub>	22%					
<u>Frequency of driving drowsy (past year)</u>									
At least once a month	46% <sub>DE</sub>	39% <sub>DE</sub>	30% <sub>E</sub>	14%					

## Characteristics of Respondents (continued) - Profile

### Morning (Larks) or Evening (Owls) People

	<u>Lark</u> B	<u>Owl</u> C
<u>Hours slept on weekdays</u>	n = (824)	(612)
Less than 6 hours	14%	17%
8 hours or more	28	25
Mean (# of hours)	6.8	6.7
<u>Insomnia – at least a few nights a week</u>		
Net: Any symptom of insomnia	48%	62% <sub>B</sub>
Difficulty falling asleep	16	28 <sub>B</sub>
Awake a lot during the night	28	36 <sub>B</sub>
Woke too early & couldn't get back to sleep	21	22
Woke up feeling unrefreshed	31	46 <sub>B</sub>
<u>Sleep disorders – at least a few nights a week</u>		
Net: Any symptom of a sleep disorder	71%	80% <sub>B</sub>
Snoring	31	33
Sleep apnea	6	7
Restless legs syndrome	14	16
<u>At risk for</u>		
Net: RLS, insomnia and/or sleep apnea	29%	39% <sub>B</sub>
Restless legs syndrome	9	10
Insomnia	7	13 <sub>B</sub>
Sleep apnea	22	31 <sub>B</sub>
None	71 <sub>C</sub>	61
<u>Think they have a sleep problem</u>		
Yes	16%	27% <sub>B</sub>
<u>Actual vs. minimum hours of sleep</u>		
Get <u>less</u> sleep than needed	18%	27% <sub>B</sub>
Get the <u>same</u> amount of sleep as needed	36 <sub>C</sub>	30
Get <u>more</u> sleep than needed	42	38

	<u>Lark</u> B	<u>Owl</u> C
<u>"I had a good night's sleep"</u>	n = (824)	(612)
Every night or almost every night	54% <sub>C</sub>	40%
A few nights a month or less	22	33 <sub>B</sub>
<u>Length of time taken to fall asleep</u>		
Less than 15 minutes	59% <sub>C</sub>	45%
15 to 29 minutes	22	26
30 minutes or more	17	28 <sub>B</sub>
<u>Daytime sleepiness</u>		
At least 3 days a week	24%	36% <sub>B</sub>
At least 1 day a week	43	61 <sub>B</sub>
Rarely or never	56 <sub>C</sub>	38
<u>BMI</u>		
Underweight/Average	34%	35%
Overweight	41 <sub>C</sub>	32
Obese	22	29 <sub>B</sub>
<u>Miss work/events because of sleep (past 3 months)</u>		
Do not miss work/events	76% <sub>C</sub>	60%
Miss 1 or more days of work/events	21	39 <sub>B</sub>
Miss 1 or more days of work	3	10 <sub>B</sub>
Made errors at work	16	28 <sub>B</sub>
Miss 1 or more events	12	23 <sub>B</sub>
<u>Intimate relationship affected because of sleep</u>		
Yes	17%	22%
<u>Problems sleep disorders have on relationship</u>		
Any problems	32%	36%
<u>Frequency of driving drowsy (past year)</u>		
At least once a month	29%	38% <sub>B</sub>

## Characteristics of Respondents (continued) - Profile

### BMI (Body Mass Index)

	n =	Under/ Average B	Over weight C	Obese D
<u>Hours slept on weekdays</u>		(522)	(556)	(428)
Less than 6 hours		11%	18% <sub>B</sub>	18% <sub>B</sub>
8 hours or more		31 <sub>CD</sub>	25	22
Mean (# of hours)		7.0 <sub>CD</sub>	6.7	6.6
<u>Insomnia – at least a few nights a week</u>				
Net: Any symptom of insomnia		53%	50%	61% <sub>BC</sub>
Difficulty falling asleep		22 <sub>C</sub>	16	27 <sub>C</sub>
Awake a lot during the night		31	29	36 <sub>C</sub>
Woke too early & couldn't get back to sleep		21	20	25
Woke up feeling unrefreshed		35	34	46 <sub>BC</sub>
<u>Sleep disorders – at least a few nights a week</u>				
Net: Any symptom of a sleep disorder		67%	74% <sub>B</sub>	85% <sub>BC</sub>
Snoring		16	34 <sub>B</sub>	47 <sub>BC</sub>
Sleep apnea		3	5 <sub>B</sub>	12 <sub>BC</sub>
Restless legs syndrome		11	15 <sub>B</sub>	20 <sub>B</sub>
<u>At risk for</u>				
Net: RLS, insomnia and/or sleep apnea		19%	26% <sub>B</sub>	60% <sub>BC</sub>
Restless legs syndrome		8	10	11
Insomnia		9	8	12 <sub>C</sub>
Sleep apnea		10	17 <sub>B</sub>	57 <sub>BC</sub>
None		81 <sub>CD</sub>	74 <sub>D</sub>	40
<u>Think they have a sleep problem</u>				
Yes		17%	17%	30% <sub>BC</sub>
<u>Actual vs. minimum hours of sleep</u>				
Get <u>less</u> sleep than needed		20%	23%	23%
Get the <u>same</u> amount of sleep as needed		32	35	30
Get <u>more</u> sleep than needed		43	38	40

	n =	Under/ Average B	Over weight C	Obese D
<u>"I had a good night's sleep"</u>		(522)	(556)	(428)
Every night or almost every night		48%	53% <sub>D</sub>	44%
A few nights a month or less		27	24	31 <sub>C</sub>
<u>Lark or owl</u>				
Lark (Morning person)		54% <sub>D</sub>	61% <sub>BD</sub>	47%
Owl (Evening person)		41 <sub>C</sub>	35	47 <sub>C</sub>
<u>Length of time taken to fall asleep</u>				
Less than 15 minutes		53%	54%	51%
15 to 29 minutes		25	24	21
30 minutes or more		21	20	26 <sub>C</sub>
<u>Daytime sleepiness</u>				
At least 3 days a week		26%	26%	37% <sub>BC</sub>
At least 1 day a week		49	47	55 <sub>C</sub>
Rarely or never		50	52 <sub>D</sub>	44
<u>Miss work/events because of sleep (past 3 months)</u>				
Do not miss work/events		70%	71%	68%
Miss 1 or more days of work/events		28	27	31
Miss 1 or more days of work		8 <sub>CD</sub>	5	4
Made errors at work		21	22	21
Miss 1 or more events		16	14	19 <sub>C</sub>
<u>Intimate relationship affected because of sleep</u>				
Yes		19%	19%	18%
<u>Problems sleep disorders have on relationship</u>				
Any problems		29%	34%	37% <sub>B</sub>
<u>Frequency of driving drowsy (past year)</u>				
At least once a month		31%	32%	36%

## Appendix

## Berlin Assessment Questionnaire

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1. Do you snore?

- Yes (1)
- No (0)
- Don't Know/Refused (0)

2. If you snore - your Snoring is:

- Slightly louder than breathing (0)
- As loud as talking (0)
- Louder than talking (0)
- Very loud. Can be heard in adjacent rooms (1)
- Don't know/Refused (0)

3. How often do you snore?

- Nearly every day (1)
- 3-4 times a week (1)
- 1-2 times a week (0)
- 1-2 times a month (0)
- Never or nearly never/Don't know (0)

4. Has your snoring ever bothered other people?

- Yes (1)
- No/Don't know/Refused (0)

5. Has anyone noticed that you quit breathing during your sleep?

- Nearly every day (2)
- 3-4 times a week (2)
- 1-2 times a week (0)
- 1-2 times a month (0)
- Never or nearly never/Don't know/Refused (0)

**ADD SCORES FROM QUESTIONS 1-5: \_\_\_\_\_**

**IF  $\geq 2$ , CHECK BOX**

6. How often do you feel tired or fatigued after your sleep?

- Nearly every day (1)
- 3-4 times a week (1)
- 1-2 times a week (0)
- 1-2 times a month (0)
- Never or nearly never/Don't know/Refused (0)

7. During your wake time, do you feel tired, fatigued or not up to par?

- Nearly every day (1)
- 3-4 times a week (1)
- 1-2 times a week (0)
- 1-2 times a month (0)
- Never or nearly never/Don't know/Refused (0)

8. Have you ever nodded off or fallen asleep while driving a vehicle?

- Yes (1)
- No/Don't know/Refused (0)

9. If yes, how often does it occur?

- Nearly every day (1)
- 3-4 times a week (1)
- 1-2 times a week (0)
- 1-2 times a month (0)
- Never or nearly never/Don't know/Refused (0)

**ADD SCORES FROM QUESTIONS 6-9: \_\_\_\_\_**

**IF  $\geq 2$ , CHECK BOX**

## Berlin Assessment Questionnaire (continued)

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10. Do you have high blood pressure?

- Yes (1)
- No (0)
- Don't know/Refused (0)

11. What is your height? \_\_\_\_\_

12. What is your weight? \_\_\_\_\_

13. How old are you? \_\_\_\_\_

14. Are you:

- Male
- Female

15. Calculate Body Mass Index using the following formula:

$$\text{BMI} = \frac{\text{Weight in pounds}}{(\text{Height in inches}) \times (\text{Height in inches})} \times 705$$

Is BMI >30kg/m<sup>2</sup>?

- Yes (1)
- No (0)

**ADD SCORES FROM QUESTIONS 10 and 15: \_\_\_\_\_**

**IF ≥1, CHECK BOX**

**IF ≥2 SECTION BOXES ARE CHECKED, SUBJECT IS AT RISK FOR SLEEP APNEA.**