

# Sleep Duration, Quality of Sleep, and Use of Sleep Medication, by Sex and Family Type, 2013–2014

Colleen N. Nugent, Ph.D.; and Lindsey I. Black, M.P.H.

## Key findings

### Data from the National Health Interview Survey, 2013–2014

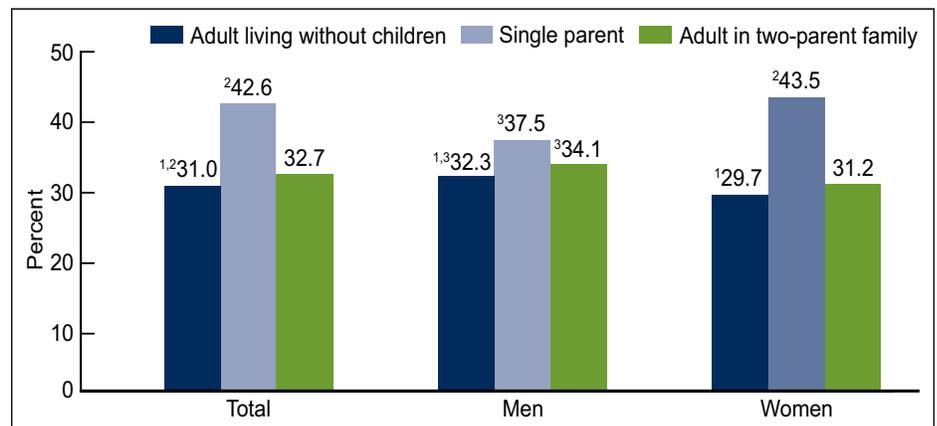
- Single parents, especially women, were more likely than adults in other types of families to have short sleep duration, frequently have trouble falling asleep and staying asleep, and frequently wake up feeling not well-rested.
- Within family types, women were more likely than men to frequently have trouble falling asleep and staying asleep, and to frequently wake up feeling not well-rested.
- Overall, adults in two-parent families were less likely than adults in other types of families to have taken sleep medication four times or more in the past week.

Sleep affects many aspects of well-being and quality of life for people of all ages. Risks associated with deficient or poor-quality sleep include physical health conditions such as diabetes and heart disease (1,2), mental health issues such as depression (3), and driving and workplace accidents (4,5). Nearly one-third of U.S. adults do not meet the recommendation of getting at least 7 hours of sleep daily (6,7). Prior research has found that marital status (8–11) and whether young children live in the household (10–12) are associated with sleep duration and quality. This report describes sleep duration, sleep quality, insomnia symptoms, and the use of sleep medication among U.S. adults, by sex and family type.

*Keywords: sleep time • insomnia • family structure • National Health Interview Survey*

## Overall, single parents with children under age 18 years were more likely to have shorter sleep duration than adults in two-parent families with children under age 18 and adults living without children under age 18.

Figure 1. Percentage of adults aged 18–64 who got less than 7 hours of sleep daily, by sex and family type: United States, 2013–2014



<sup>1</sup>Significantly different from single parents.

<sup>2</sup>Significantly different from adult in two-parent family.

<sup>3</sup>Significantly different from women within the same family type.

NOTES: Single parent includes legal guardians. Both single-parent and two-parent families are limited to those in which no other adults are living in the household.

SOURCE: CDC/NCHS, National Health Interview Survey, 2013–2014.

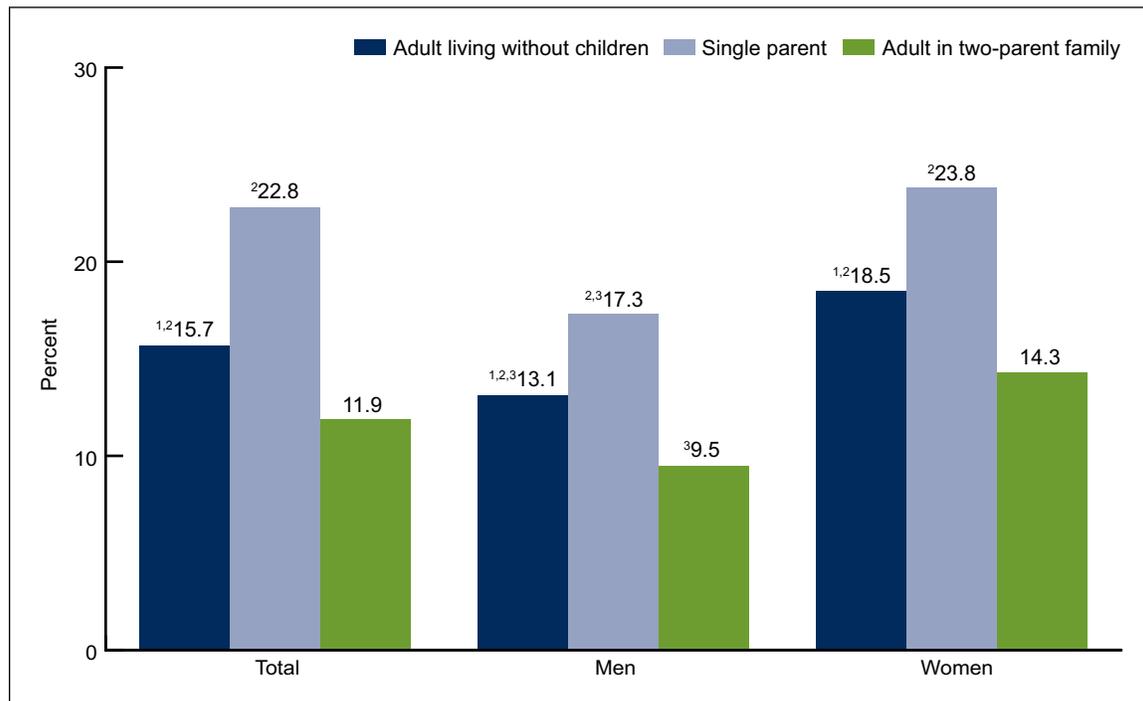


- Among men, single parents with children under age 18 (37.5%) were more likely to get less than 7 hours of sleep in a 24-hour period than adults living without children under age 18 (32.3%) (Figure 1).
- Among women, 43.5% of single parents got less than 7 hours of sleep, which was higher than for adults in two-parent families (31.2%) and adults living without children (29.7%).
- Among single parents, more women (43.5%) than men (37.5%) got less than 7 hours of sleep in a 24-hour period.
- Among adults in two-parent families and adults living without children, men were more likely than women to get less than 7 hours of sleep.

**Single parents were more likely than adults in two-parent families and adults living without children to have had trouble falling asleep four or more times in the past week.**

- The percentage of male single parents who frequently had trouble falling asleep (17.3%) was higher than for men in two-parent families (9.5%) and men living without children (13.1%) (Figure 2).

Figure 2. Percentage of adults aged 18–64 who had trouble falling asleep four or more times in the past week, by sex and family type: United States, 2013–2014



<sup>1</sup>Significantly different from single parents.

<sup>2</sup>Significantly different from adult in two-parent family.

<sup>3</sup>Significantly different from women within the same family type.

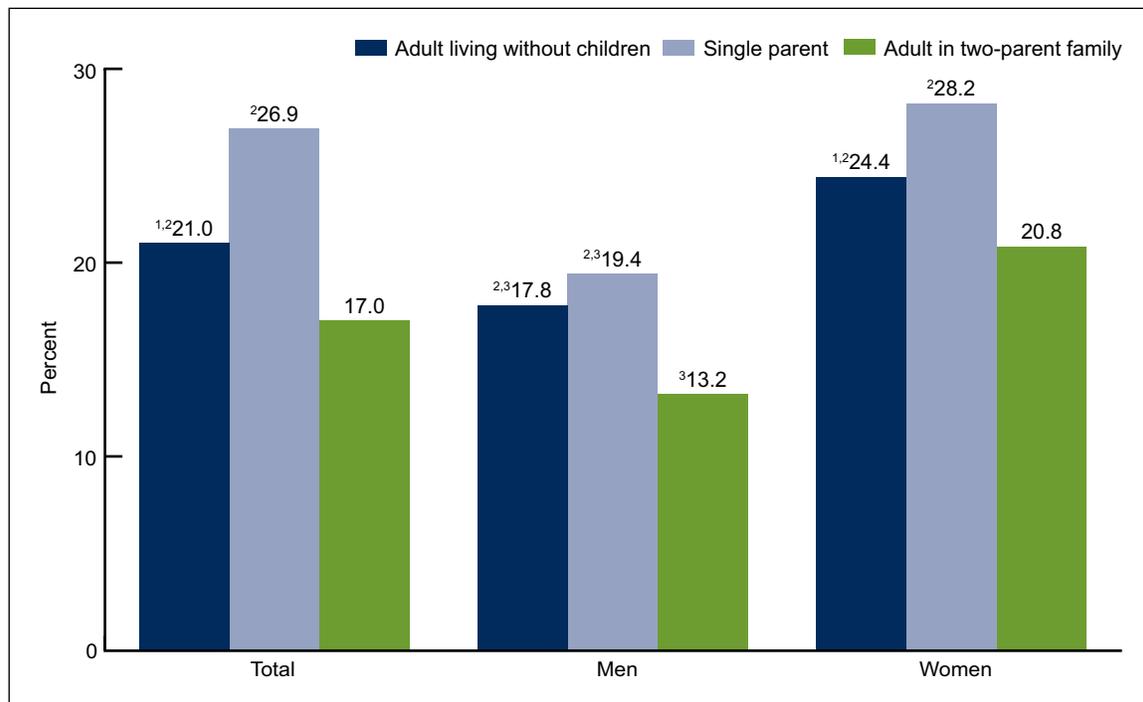
NOTES: Single parent includes legal guardians. Both single-parent and two-parent families are limited to those in which no other adults are living in the household. SOURCE: CDC/NCHS, National Health Interview Survey, 2013–2014.

- Among women, roughly one-quarter of single parents frequently had trouble falling asleep, which was greater than the 14.3% of women in two-parent families and 18.5% of women living without children who frequently had trouble falling asleep.
- Within every family type, women were more likely than men to frequently have trouble falling asleep.

**Overall, single parents were more likely than adults in other types of families to have had trouble staying asleep four or more times in the past week.**

- For men, a similar percentage of adults living without children (17.8%) and single parents (19.4%) frequently had trouble staying asleep. Both were more likely to frequently have trouble staying asleep than men in two-parent families (13.2%) (Figure 3).
- For women, the percentage of single parents who frequently had trouble staying asleep (28.2%) was higher than for adults living without children (24.4%) and adults in two-parent families (20.8%).
- Women of each family type were more likely than men of the same family type to frequently have trouble staying asleep. For example, nearly 3 in 10 female single parents frequently had trouble staying asleep, compared with 2 in 10 male single parents.

Figure 3. Percentage of adults aged 18–64 who had trouble staying asleep four or more times in the past week, by sex and family type: United States, 2013–2014



<sup>1</sup>Significantly different from single parents.

<sup>2</sup>Significantly different from adult in two-parent family.

<sup>3</sup>Significantly different from women within the same family type.

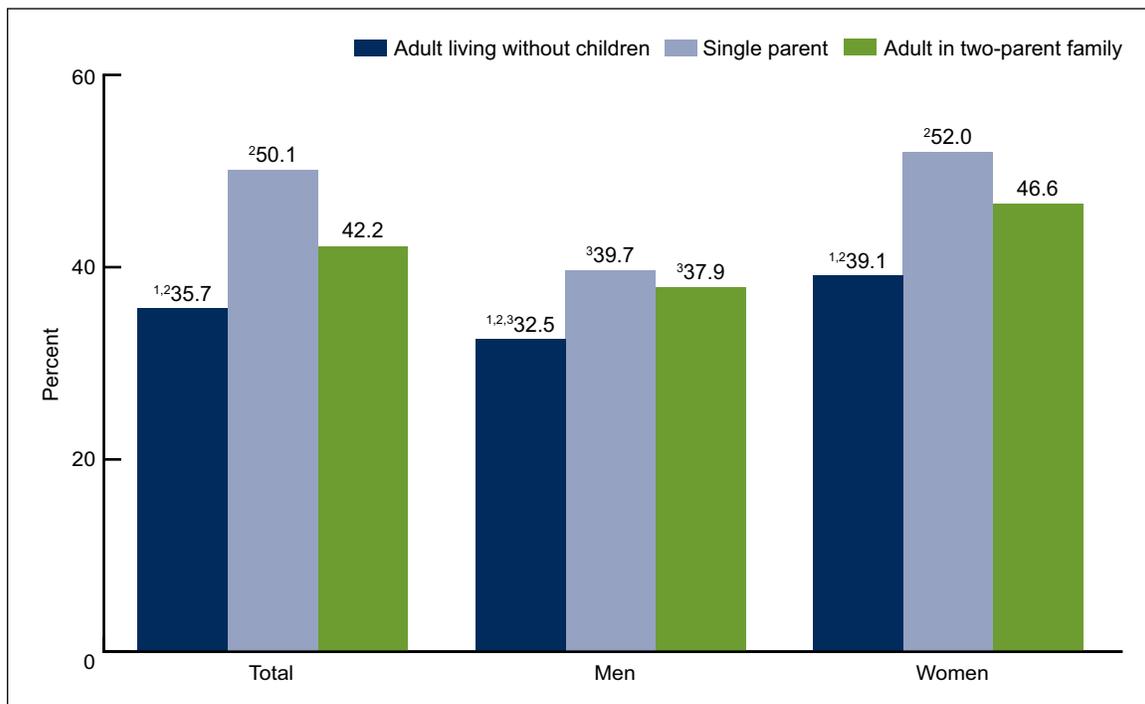
NOTES: Single parent includes legal guardians. Both single-parent and two-parent families are limited to those in which no other adults are living in the household.

SOURCE: CDC/NCHS, National Health Interview Survey, 2013–2014.

**Roughly one-half of single parents had frequently woken up feeling not well-rested in the past week, compared with only 4 in 10 adults in two-parent families and one-third of adults living without children.**

- In families with children, male single parents (39.7%) were similar to men in two-parent families (37.9%) in the percentage feeling not well-rested four or more days in the past week. Both were more likely than men living without children (32.5%) to frequently wake feeling not well-rested (Figure 4).
- Among women, the percentage who frequently woke feeling not well-rested was highest for single parents (52.0%) and lowest for those living without children (39.1%).
- Within every family type, women were more likely than men to frequently wake feeling not well-rested.

Figure 4. Percentage of adults aged 18–64 who woke up feeling not well-rested four or more days in the past week, by sex and family type: United States, 2013–2014



<sup>1</sup>Significantly different from single parents.

<sup>2</sup>Significantly different from adult in two-parent family.

<sup>3</sup>Significantly different from women within the same family type.

NOTES: Single parent includes legal guardians. Both single-parent and two-parent families are limited to those in which no other adults are living in the household.

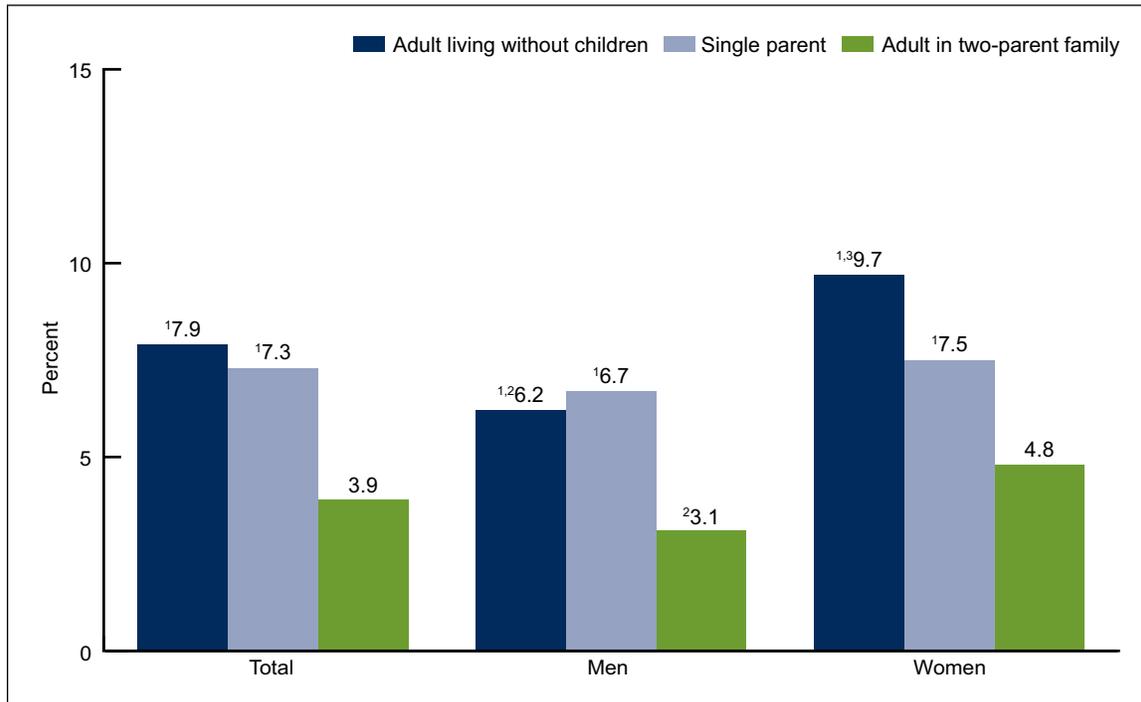
SOURCE: CDC/NCHS, National Health Interview Survey, 2013–2014.

**Adults in two-parent families were less likely than adults in other types of families to have taken medication to help fall or stay asleep four times or more in the past week.**

- Among men, both adults living in families without children and single parents were twice as likely as men in two-parent families to have frequently taken sleep medication in the past week (Figure 5).

- Among women, the percentage living without children who frequently took sleep medication in the past week (9.7%) was greater than for both female single parents (7.5%) and women in two-parent families (4.8%).
- Among adults living without children and adults in two-parent families, women were more likely than men to have frequently taken sleep medication in the past week.

Figure 5. Percentage of adults aged 18–64 who took medication to stay or fall asleep four or more times in the past week, by sex and family type: United States, 2013–2014



<sup>1</sup>Significantly different from adult in two-parent family.

<sup>2</sup>Significantly different from women within the same family type.

<sup>3</sup>Significantly different from single parents.

NOTES: Single parent includes legal guardians. Both single-parent and two-parent families are limited to those in which no other adults are living in the household.

SOURCE: CDC/NCHS, National Health Interview Survey, 2013–2014.

## Summary

Getting sufficient sleep is a national health objective and a public health priority (13). This report describes sleep duration, sleep quality, and use of sleep medication among U.S. men and women, by family type. Overall, results reveal that single parents get less sleep and experience more sleep-related problems than adults in other types of families. Single parents were the most likely to have short sleep duration, more trouble both falling asleep and staying asleep, and to frequently wake feeling not well-rested. Adults in two-parent families were less likely than adults in other types of families to have taken sleep medication frequently in the past week. Women of all family types were more likely than men in the same family type to have more trouble falling asleep and staying asleep, and to frequently wake feeling not well-rested.

Among families with children under age 18, the percentage that are single-parent families has risen to 32% over the past several decades (14). Research has shown that single parents have fewer financial resources (14), and this report finds that sleep is another domain in which single-parent families are disadvantaged.

## Definitions

Adult in two-parent family: An adult aged 18–64 living in a family with children under age 18 in which there are two parents in the household but no other adults. Such families include married or cohabiting adults who are both parents of biological or adoptive children under age 18 in the household, or one biological or adoptive parent along with a stepparent.

Adult living without children: An adult aged 18–64 who does not have children under age 18 living at home. The adult may be living alone or with other related adults, such as a spouse or partner or other relative.

Not feeling well-rested: Respondents who answered “3 days or fewer” on the questionnaire item asking, “In the past week, on how many days did you wake up feeling well-rested?”

Short sleep duration: Respondents who answered “6 hours of sleep or less” on the questionnaire item asking, “On average, how many hours of sleep do you get in a 24-hour period?”

Single parent: A biological or adoptive parent or legal guardian aged 18–64 living in a family with children under age 18 in which there are no other adults in the household.

Taking sleep medication: Respondents who answered “four times or more” on the questionnaire item asking, “In the past week, how many times did you take medication to help you fall asleep or stay asleep?”

Trouble falling asleep: Respondents who answered “four times or more” on the questionnaire item asking, “In the past week, how many times did you have trouble falling asleep?”

Trouble staying asleep: Respondents who answered “four times or more” on the questionnaire item asking, “In the past week, how many times did you have trouble staying asleep?”

## Data source and methods

The National Health Interview Survey (NHIS) is a nationally representative survey of the civilian noninstitutionalized population of the United States. It is conducted continuously throughout the year by the Centers for Disease Control and Prevention’s (CDC) National Center for Health Statistics (NCHS). NHIS is an in-person interview conducted in the respondent’s home. In some instances, follow-up to complete the interview is by telephone. The survey consists of (a) a Family Core component, with questions asked about all members of the family; (b) a Sample Adult component, which collects additional information from one randomly selected adult per family; and (c) a Sample Child component, which collects additional information about one randomly selected child per family. Data for this analysis come from the Sample Adult and Family Core components of the 2013–2014 NHIS. For more information about NHIS, visit the NHIS website at <http://www.cdc.gov/nchs/nhis.htm>.

For survey items related to sleep, it is unknown whether respondents include naps in their conceptual interpretation of sleep. It is also unknown whether sleep medication is over-the-counter or prescribed by a doctor. The study population includes only adults living in households that contain a single family. Adults living with roommates, nannies, au pairs, or other unrelated persons are not included. In addition, only adults aged 18–64 are included due to differences in the age distribution of adults without children under age 18 compared with parents with children

under age 18. In families with children under 18, the sample is further restricted to sample adults who are parents or legal guardians of children in the family, and to only single-parent or two-parent families without other adults.

NHIS is designed to yield a nationally representative sample, and these analyses used weights to produce national estimates. The sample design is described in more detail elsewhere (15). Point estimates and the corresponding variances for this analysis were calculated using SUDAAN software (16) to account for the complex sample design of NHIS. The Taylor series linearization method was used for variance estimation. All estimates shown meet the NCHS standard for reliability (having a relative standard error less than or equal to 30%). Differences between percentages were evaluated using two-sided significance tests at the 0.05 level. All differences reported are significant unless stated otherwise.

### About the authors

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