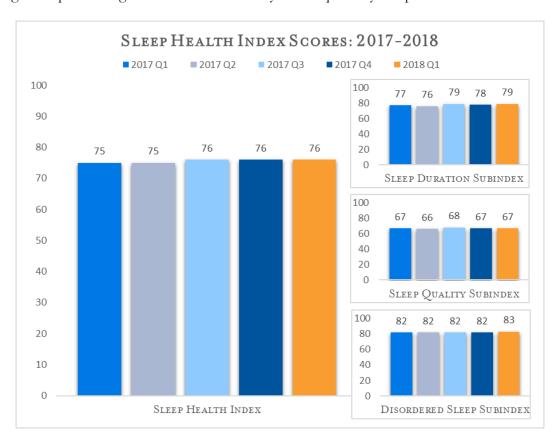
Quarterly Report - Q1 2018

The Sleep Health Index® is the National Sleep Foundation's composite index of sleep duration, sleep quality, and disordered sleep. The Sleep Health Index remained unchanged at 76 for the third straight quarter. The first quarter of 2018 results showed improvement in the sleep duration subindex (to 79) to match its high recorded in 2017; this was driven primarily by impressive gains in weekday sleep. The subindices, sleep quality and disordered sleep, remained at 67 and 83, respectively.

Americans are getting more sleep in 2018. Sleep totals are moving closer to the recommended amount of weeknight sleep, but still are not within the recommended ranges. The public scores just a 68 on 0-100 scale for weekday sleep, with only 27 percent getting the recommended sleep time, 7 to 9 hours. (Sixty-five percent get less sleep than that and 8 percent get more.) Nonetheless, that 68 score for weeknight sleep is the highest it has been in two years of quarterly Sleep Health Index data.

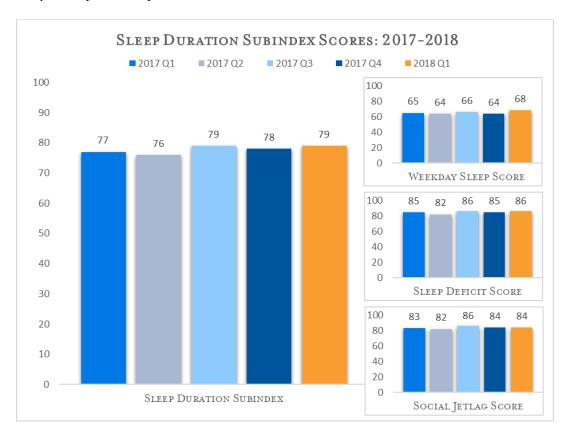


Notably among groups, the overall index gained 5 points among nonwhites to 77, a new high in nine quarters of data. Among whites, it's 76.

Sleep Duration

The sleep duration subindex factors estimated weekday sleep, sleep deficit and social jetlag.

The sleep duration score of 79 is slightly up from 78 a quarter ago, and is being driven by the weekday sleep subcomponent, with a 4-point gain to 68; this is its largest quarterly movement to date. The sleep deficit and social jetlag components, much higher at 86 and 84, respectively, did not change significantly from previous quarters.



The shift in weekday sleep reflects more Americans coming closer to the recommended range, yet still not actually falling within it. As noted, just 27 percent are estimated to be getting the recommended 7 to 9 hours a night, matching the nine-quarter average and showing similarity to last quarter's 25 percent.

Segments of Note

Despite the overall gains, the wealthiest Americans, those with annual incomes of \$100,000 or more, average weekday sleep time declined from 6.7 to 6.3 hours. For comparison, those with incomes of \$50,000 or less sleep 7.0 hours, and those with incomes in-between, sleep 6.6 hours. The lower and middle earners' sleep times were unchanged for the period.

Seniors saw a 4-point increase in the sleep duration scores to match a high of 85. Sleep duration scores were lowest among young adults (75). Slight increases in sleep duration occurred among those without college degrees, nonwhites, conservatives and those in the \$50,000-\$100,000 income range.

Sleep Quality

Sleep Health Index's sleep quality subindex matched its nine-quarter average at 67.

College graduates saw an increase to 75, after a low of 71 in the prior quarter. In comparison, non-college graduates' sleep quality score, at 64, is unchanged from the previous quarter. The change among graduates reflects more days feeling well-rested and fewer days having trouble staying asleep or being negatively affected by lack of sleep.

Disordered Sleep

The disordered sleep subindex remains unchanged at 83.

That said, a quarter of Americans have spoken to a medical professional about sleep problems, and 16 percent – one in six – say they've been diagnosed with a sleep disorder or have taken medication to help them sleep in the past week.

METHODOLOGY – This survey for the National Sleep Foundation was conducted among a random national sample of 1,010 adults via landline and cell phone interviews Jan. 17-21, 2018. Results have a margin of sampling error of 3.6 points for the full sample. The survey was produced for the National Sleep Foundation by Langer Research Associates of New York, N.Y., with sampling, data collection and tabulation by SSRS of Glen Mills, Pa.

Full results follow. * = <0.5%

1. In general, how would you rate your sleep quality? Would you say it's excellent, very good, good, only fair, or poor?

```
--- Excellent/very good ---
                                               --- Fair/poor ---
                                                                     No
          NET Excellent Very good
                                                                   opinion
                                               NET
                                                     Fair Poor
                                        Good
                                         30
                                                      28
1/21/18
          31
                   11
                               19
                                               39
                                                             12
```

- 2. Thinking about just the past 7 days, what time did you most often go to bed on workdays? Please answer about weekdays if you did not work last week.
- 3. What about on non-work days or weekends what time did you most often go to bed on those days?
- 4. What time did you most often wake up for the day on work days or weekdays?
- 5. What about on non-work days or weekends what time did you most often wake up for the day on those days?

```
----- Number of hours in bed: Weekday -----
         <5 5 to <6 6 to <7 7 to <8 8 to <9
                                                9+
                                                    Mean
                                                           SD
                        13
1/21/18
                6
                                 25
                                                28
                                                     8.0
         ----- Number of hours in bed: Weekend ---
             5 to <6 6 to <7 7 to <8 8 to <9
                                                9+
                                                    Mean
                                                           SD
1/21/18
         1
               3
                                 15
                                                           2.1
                         6
                                         29
                                                46
                                                    8.8
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6. During the past 7 days, how many days did you wake up feeling well-rested, if any?

0 days 1-2 days 3-4 days 5-6 days 7 days No opin. Mean SD 1/21/18 15 16 18 20 31 1 4.1 2.6

7. How many nights did you have trouble <u>falling</u> asleep?

0 days 1-2 days 3-4 days 5-6 days 7 days No opin. Mean SD 1/21/18 48 18 12 9 12 * 2.0 2.5

8. And how many nights did you have trouble staying asleep?

0 days 1-2 days 3-4 days 5-6 days 7 days No opin. Mean SD 1/21/18 48 17 11 6 17 1 2.2 2.7

9. Still thinking about the past 7 days, how many days did poor or insufficient sleep significantly impact your daily activities, like your work performance, socializing, exercising, or other typical activities?

10. How many days did you fall asleep without intending to, such as dozing off in front of the TV or in any other situation?

1-2 days 3-4 days 5-6 days 7 days 0 days No opin. Mean SD 5 1/21/18 52 24 13 6 1 1.5 2.1

11. How many nights did you take over-the-counter or prescription medication to help you sleep?

0 days 1-2 days 3-4 days 5-6 days 7 days No opin. Mean SD 1/21/18 84 5 3 1 8 * .8 2.0

12. Have you ever been told by a doctor that you have a sleep disorder, such as insomnia or sleep apnea, or not?

Yes No No opinion 1/21/18 16 84 *

13. Have you ever discussed any sleep problems you were having with a doctor or medical professional, or has this not come up?

Yes No No opinion 1/21/18 25 75 *

14. How many hours of sleep do you need per day to be well-rested and feel your best?