|  |
| --- |
| Supplemental Table 1: Mean dietary intake by categories of sleep duration, with the inclusion of a <6 hours/night category: Project EAT |
| **Time in Bed**N | <6 hours59 | 6-7 hours144 | 7-8 hours471 | 8-9 hours642 | >9 hours457 |
|  |  |  | (Referent) |  |  |
| Caffeinated drinks |  |  |  |  |  |
|  Model 1 | 1.01\*(0.70, 1.33) | 0.82(0.62, 1.01) | 0.66(0.57, 0.75) | 0.68(0.60, 0.77) | 0.74(0.63, 0.85) |
|  Model 2 | 0.94(0.62, 1.25) | 0.85(0.65, 1.04) | 0.67(0.58, 0.76) | 0.70(0.61, 0.78) | 0.71(0.61, 0.82) |
| Sugar-sweetened beverages |  |  |  |  |  |
|  Model 1 | 1.29(0.85, 1.74) | 0.86(0.67, 1.06) | 0.85(0.74, 0.97) | 0.83(0.73, 0.93) | 0.94(0.79, 1.09) |
|  Model 2 | 1.22(0.78, 1.65) | 0.89(0.70, 1.09) | 0.86(0.74, 0.98) | 0.85(0.75, 0.94) | 0.91(0.76, 1.05) |
| Sugar-free beverages |  |  |  |  |  |
|  Model 1 | 0.39(0.16, 0.61) | 0.51(0.32, 0.69) | 0.36(0.29, 0.43) | 0.33(0.28, 0.39) | 0.33(0.26, 0.40) |
|  Model 2 | 0.36(0.13, 0.58) | 0.51(0.33, 0.70) | 0.36(0.29, 0.43) | 0.34(0.28, 0.40) | 0.32(0.25, 0.39) |
| Breakfast consumption |  |  |  |  |  |
|  Model 1 | 3.20\*(2.60, 3.79) | 4.01(3.56, 4.46) | 3.94(3.72, 4.16) | 4.07(3.87, 4.27) | 3.65(3.39, 3.92) |
|  Model 2 | 3.33(2.74, 3.92) | 3.95(3.51, 4.38) | 3.92(3.70, 4.14) | 4.04(3.84, 4.24) | 3.69(3.43, 3.95) |
| Fast food consumption |  |  |  |  |  |
|  Model 1 | 1.69(1.08, 2.30) | 1.50(1.18, 1.83) | 1.53(1.38, 1.69) | 1.58(1.45, 1.71) | 1.72(1.56, 1.89) |
|  Model 2 | 1.59(1.02, 2.16) | 1.54(1.21, 1.87) | 1.55(1.39, 1.70) | 1.60(1.47, 1.73) | 1.71(1.54, 1.88) |
| \* p < 0.05Model 1 adjusted for age, sex, race/ethnicity, education, marital statusModel 2 added depressive symptoms and physical activity |

|  |
| --- |
| Supplemental Table 2: Prevalence ratios for intake of energy drinks and sports drinks by sleep duration with the inclusion of a <6 hours/night category: Project EAT |
| **Time in Bed**N | <6 hours59 | 6-7 hours144 | 7-8 hours471 | 8-9 hours642 | >9 hours457 |
| †Energy drinks |  |  |  |  |  |
|  Model 1 | 1.55(0.59, 2.50) | 1.41(0.90, 1.92) | Ref. | 1.09(0.79, 1.39) | 1.03(0.72, 1.35) |
|  Model 2 | 1.44(0.54, 2.34) | 1.37(0.86, 1.87) | Ref. | 1.08(0.79, 1.38) | 1.02(0.71, 1.32) |
| †Sports drinks |  |  |  |  |  |
|  Model 1 | 1.12(0.69, 1.56) | 0.91(0.66, 1.16) | Ref. | 0.86(0.71, 1.02) | 0.80\*(0.62, 0.98) |
|  Model 2 | 1.11(0.67, 1.55) | 0.88(0.63, 1.12) | Ref. | 0.85\*(0.70, 0.99) | 0.80\*(0.63, 0.98) |
| \*p-value <0.05 Model 1 adjusted for age, sex, race/ethnicity, education, marital statusModel 2 added depressive symptoms and physical activity†Energy and sports drink consumption defined as ≥ one drink per week compared to < one drink per week |

|  |
| --- |
| Supplemental Table 3: Adjusted mean dietary intake (95% confidence interval) by categories of sleep duration, variability, timing, and quality: Project EAT |
| **Time in Bed**N | <7 hours203 | 7-<8 hours471 | 8-9 hours642 | ≥ 9 hours457 |  |
|  |  | (Referent) |  |  |  |
| Caffeinated drinks per day |  |  |  |  |  |
|  Model 1 | 0.87\*(0.71, 1.04) | 0.66(0.57, 0.75) | 0.68(0.60, 0.77) | 0.74(0.63, 0.85) |  |
|  Model 2 | 0.87\*(0.71, 1.04) | 0.67(0.58, 0.76) | 0.70(0.61, 0.78) | 0.71(0.61, 0.82) |  |
|  Model 3 | 0.87\*(0.71, 1.03) | 0.67(0.58, 0.76) | 0.70(0.62, 0.78) | 0.70(0.59, 0.80) |  |
| Sugar-sweetened beverages |  |  |  |  |  |
|  Model 1 | 0.99(0.79, 1.18) | 0.85(0.74, 0.97) | 0.83(0.73, 0.93) | 0.94(0.79, 1.09) |  |
|  Model 2 | 0.99(0.80, 1.17) | 0.86(0.74, 0.98) | 0.85(0.75, 0.94) | 0.91(0.76, 1.05) |  |
|  Model 3 | 0.98(0.79, 1.17) | 0.86(0.74, 0.98) | 0.85(0.76, 0.95) | 0.89(0.75, 1.04) |  |
| Sugar-free beverages |  |  |  |  |  |
|  Model 1 | 0.47(0.33, 0.62) | 0.36(0.29, 0.43) | 0.33(0.28, 0.39) | 0.33(0.26, 0.40) |  |
|  Model 2 | 0.47(0.32, 0.61) | 0.36(0.29, 0.43) | 0.34(0.28, 0.40) | 0.32(0.25, 0.39) |  |
|  Model 3 | 0.47(0.32, 0.61) | 0.36(0.29, 0.43) | 0.34(0.28, 0.40) | 0.32(0.25, 0.39) |  |
| Breakfast consumption per week |  |  |  |  |  |
|  Model 1 | 3.78(3.41, 4.14) | 3.94(3.72, 4.15) | 4.07(3.87, 4.27) | 3.66(3.39, 3.92) |  |
|  Model 2 | 3.77(3.42, 4.12) | 3.92(3.70, 4.14) | 4.04(3.84, 4.24) | 3.69(3.43, 3.95) |  |
|  Model 3 | 3.77(3.42, 4.13) | 3.93(3.71, 4.14) | 4.05(3.84, 4.25) | 3.70(3.43, 3.96) |  |
| Fast food consumption |  |  |  |  |  |
|  Model 1 | 1.56(1.26, 1.85) | 1.53(1.38, 1.69) | 1.58(1.45, 1.71) | 1.72(1.56, 1.89) |  |
|  Model 2 | 1.56(1.27, 1.85) | 1.55(1.39, 1.70) | 1.60(1.47, 1.73) | 1.71(1.54, 1.88) |  |
|  Model 3 | 1.54(1.25, 1.83) | 1.54(1.38, 1.69) | 1.61(1.48, 1.74) | 1.72(1.55, 1.89) |  |
| **Sleep variability** | < 0.5 hours | 0.5 - <1 hour | 1 – 1.5 hours | > 1.5 hours |  |
| N | 339 | 364 | 571 | 500 |  |
|  | (Referent) |  |  |  |  |
| Caffeinated drinks |  |  |  |  |  |
|  Model 1 | 0.71(0.59, 0.84) | 0.72(0.60, 0.83) | 0.67(0.59, 0.75) | 0.76(0.66, 0.86) |  |
|  Model 2 | 0.72(0.60, 0.84) | 0.71(0.60, 0.83) | 0.68(0.60, 0.77) | 0.75(0.66, 0.84) |  |
|  Model 3 | 0.72(0.59, 0.84) | 0.71(0.60, 0.83) | 0.69(0.60, 0.77) | 0.75(0.65, 0.84) |  |
|  Model 4 | 0.72(0.60, 0.85) | 0.69(0.58, 0.80) | 0.68(0.60, 0.77) | 0.75(0.65, 0.84) |  |
| Sugar-sweetened beverages |  |  |  |  |  |
|  Model 1 | 0.95(0.79, 1.10) | 0.86(0.73, 1.00) | 0.86(0.74, 0.98) | 0.88(0.76, 0.99) |  |
|  Model 2 | 0.95(0.80, 1.10) | 0.86(0.73, 0.99) | 0.88(0.76, 1.00) | 0.86(0.75, 0.97) |  |
|  Model 3 | 0.95(0.79, 1.10) | 0.86(0.73, 0.99) | 0.88(0.76, 1.00) | 0.86(0.75, 0.97) |  |
|  Model 4 | 0.95(0.80, 1.11) | 0.84(0.71, 0.96) | 0.88(0.76, 1.00) | 0.86(0.75, 0.98) |  |
| Sugar-free drinks |  |  |  |  |  |
|  Model 1 | 0.29(0.22, 0.36) | 0.38(0.29, 0.47) | 0.34(0.28, 0.40) | 0.39\*(0.32, 0.47) |  |
|  Model 2 | 0.30(0.22, 0.37) | 0.38(0.29, 0.47) | 0.35(0.28, 0.41) | 0.39(0.32, 0.46) |  |
|  Model 3 | 0.30(0.23, 0.38) | 0.38(0.29, 0.47) | 0.35(0.28, 0.41) | 0.39(0.31, 0.46) |  |
|  Model 4 | 0.31(0.23, 0.38) | 0.38(0.29, 0.47) | 0.34(0.28, 0.41) | 0.39(0.31, 0.46) |  |
| Breakfast consumption |  |  |  |  |  |
|  Model 1 | 3.81(3.52, 4.10) | 4.09(3.85, 4.33) | 3.95(3.74, 4.17) | 3.74(3.51, 3.97) |  |
|  Model 2 | 3.77(3.49, 4.06) | 4.09(3.85, 4.33) | 3.93(3.71, 4.15) | 3.77(3.54, 4.00) |  |
|  Model 3 | 3.81(3.52, 4.10) | 4.07(3.83, 4.31) | 3.94(3.72, 4.16) | 3.75(3.52, 3.98) |  |
|  Model 4 | 3.81(3.51, 4.10) | 4.10(3.86, 4.34) | 3.93(3.71, 4.15) | 3.77(3.54, 4.00) |  |
| Fast food consumption |  |  |  |  |  |
|  Model 1 | 1.47(1.30, 1.64) | 1.60(1.41, 1.79) | 1.53(1.40, 1.67) | 1.77\*(1.60, 1.93) |  |
|  Model 2 | 1.49(1.31, 1.66) | 1.61(1.42, 1.79) | 1.55(1.41, 1.68) | 1.76\*(1.59, 1.93) |  |
|  Model 3 | 1.45(1.28, 1.63) | 1.62(1.43, 1.80) | 1.55(1.41, 1.68) | 1.77\*(1.60, 1.94) |  |
|  Model 4 | 1.45(1.27, 1.63) | 1.63(1.45, 1.82) | 1.55(1.41, 1.68) | 1.78\*(1.61, 1.95) |  |
| **Sleep Timing** | ≤ 10:30 PM | 10:30-11:30 PM | 11:30 PM-12:30 AM | > 12:30 AM |  |
| N | 327 | 497 | 390 | 560 |  |
|  | (Referent) |  |  |  |  |
| Caffeinated drinks |  |  |  |  |  |
|  Model 1 | 0.64(0.53, 0.75) | 0.66(0.57, 0.75) | 0.72(0.61, 0.82) | 0.80\*(0.71, 0.90) |  |
|  Model 2 | 0.66(0.55, 0.77) | 0.67(0.57, 0.76) | 0.71(0.61, 0.82) | 0.79(0.69, 0.88) |  |
|  Model 3 | 0.67(0.56, 0.78) | 0.68(0.58, 0.77) | 0.71(0.61, 0.82) | 0.77(0.68, 0.87) |  |
|  Model 4 | 0.67(0.55, 0.78) | 0.66(0.58, 0.75) | 0.71(0.60, 0.81) | 0.78(0.68, 0.87) |  |
| Sugar-sweetened beverages |  |  |  |  |  |
|  Model 1 | 0.73(0.60, 0.87) | 0.78(0.68, 0.87) | 0.88(0.75, 1.02) | 1.05\*\*(0.93, 1.18) |  |
|  Model 2 | 0.75(0.61, 0.88) | 0.79(0.69, 0.90) | 0.88(0.75, 1.01) | 1.04\*\*(0.92, 1.16) |  |
|  Model 3 | 0.75(0.61, 0.88) | 0.80(0.69, 0.90) | 0.88(0.75, 1.02) | 1.04\*\*(0.91, 1.16) |  |
|  Model 4 | 0.75(0.61, 0.88) | 0.78(0.68, 0.87) | 0.88(0.75, 1.01) | 1.04\*\*(0.91, 1.17) |  |
| Sugar-free beverages |  |  |  |  |  |
|  Model 1 | 0.36(0.28, 0.45) | 0.32(0.26, 0.39) | 0.38(0.29, 0.47) | 0.36(0.29, 0.43) |  |
|  Model 2 | 0.38(0.29, 0.46) | 0.33(0.27, 0.39) | 0.38(0.29, 0.47) | 0.35(0.29, 0.42) |  |
|  Model 3 | 0.39(0.31, 0.48) | 0.34(0.27, 0.40) | 0.37(0.28, 0.46) | 0.34(0.27, 0.41) |  |
|  Model 4 | 0.39(0.30, 0.47) | 0.34(0.28, 0.41) | 0.37(0.28, 0.45) | 0.34(0.27, 0.41) |  |
| Breakfast consumption |  |  |  |  |  |
|  Model 1 | 4.98(4.70, 5.25) | 4.11\*\*\*(3.88, 4.35) | 3.73\*\*\*(3.48, 3.98) | 3.18\*\*\*(2.97, 3.39) |  |
|  Model 2 | 4.94(4.66, 5.22) | 4.10\*\*\*(3.87, 4.33) | 3.73\*\*\*(3.48, 3.98) | 3.21\*\*\*(3.00, 3.42) |  |
|  Model 3 | 4.99(4.70, 5.27) | 4.11\*\*\*(3.87, 4.34) | 3.71\*\*\*(3.47, 3.96) | 3.19\*\*\*(2.97, 3.40) |  |
|  Model 4 | 5.00(4.71, 5.28) | 4.11\*\*\*(3.87, 4.34) | 3.72\*\*\*(3.47, 3.96) | 3.20\*\*\*(2.98, 3.41) |  |
| Fast food consumption |  |  |  |  |  |
|  Model 1 | 1.43(1.26, 1.60) | 1.51(1.36, 1.66) | 1.73\*(1.54, 1.91) | 1.70\*(1.54, 1.86) |  |
|  Model 2 | 1.46(1.28, 1.63) | 1.52(1.37, 1.67) | 1.73\*(1.54, 1.91) | 1.69(1.53, 1.85) |  |
|  Model 3 | 1.43(1.26, 1.61) | 1.51(1.36, 1.66) | 1.74\*(1.55, 1.92) | 1.70\*(1.54, 1.86) |  |
|  Model 4 | 1.44(1.27, 1.62) | 1.53(1.38, 1.68) | 1.74\*(1.56, 1.92) | 1.69(1.53, 1.85) |  |
| **Sleep Quality**+ | Not at all | Somewhat | Very much |  |  |
| N | 604 | 811 | 358 |  |  |
|  | (Referent) |  |  |  |  |
| Caffeinated beverages |  |  |  |  |  |
|  Model 1 | 0.63(0.55, 0.71) | 0.72(0.65, 0.80) | 0.83\*\*(0.71, 0.95) |  |  |
|  Model 2 | 0.70(0.61, 0.78) | 0.72(0.64, 0.80) | 0.73(0.61, 0.85) |  |  |
|  Model 3 | 0.70(0.62, 0.79) | 0.72(0.64, 0.80) | 0.71(0.59, 0.83) |  |  |
|  Model 4 | 0.70(0.62, 0.79) | 0.71(0.64, 0.79) | 0.71(0.59, 0.83) |  |  |
| Sugar-sweetened beverages |  |  |  |  |  |
|  Model 1 | 0.82(0.73, 0.92) | 0.85(0.75, 0.95) | 1.06\*(0.89, 1.22) |  |  |
|  Model 2 | 0.89(0.78, 1.00) | 0.85(0.75, 0.95) | 0.95(0.78, 1.12) |  |  |
|  Model 3 | 0.89(0.78, 1.00) | 0.85(0.75, 0.95) | 0.94(0.77, 1.10) |  |  |
|  Model 4 | 0.89(0.78, 1.00) | 0.84(0.75, 0.93) | 0.95(0.78, 1.12) |  |  |
| Sugar-free beverages |  |  |  |  |  |
|  Model 1 | 0.30(0.24, 0.35) | 0.37(0.31, 0.43) | 0.42\*(0.33, 0.52) |  |  |
|  Model 2 | 0.33(0.27, 0.39) | 0.36(0.30, 0.42) | 0.40(0.30, 0.49) |  |  |
|  Model 3 | 0.33(0.27, 0.39) | 0.36(0.31, 0.42) | 0.39(0.29, 0.48) |  |  |
|  Model 4 | 0.33(0.27, 0.40) | 0.36(0.31, 0.42) | 0.38(0.28, 0.48) |  |  |
| Breakfast consumption |  |  |  |  |  |
|  Model 1 | 4.15(3.93, 4.37) | 3.98(3.80, 4.16) | 3.27\*\*(3.02, 3.51) |  |  |
|  Model 2 | 4.04(3.81, 4.27) | 3.98(3.80, 4.16) | 3.42\*\*(3.16, 3.68) |  |  |
|  Model 3 | 4.03(3.81, 4.26) | 3.98(3.80, 4.16) | 3.43\*\*(3.17, 3.69) |  |  |
|  Model 4 | 4.02(3.79, 4.25) | 3.99(3.80, 4.17) | 3.47\*\*(3.20, 3.74) |  |  |
| Fast food consumption |  |  |  |  |  |
|  Model 1 | 1.50(1.36, 1.63) | 1.64(1.52, 1.76) | 1.70(1.49, 1.92) |  |  |
|  Model 2 | 1.59(1.44, 1.74) | 1.62(1.50, 1.74) | 1.60(1.37, 1.82) |  |  |
|  Model 3 | 1.59(1.44, 1.74) | 1.62(1.50, 1.74) | 1.60(1.37, 1.82) |  |  |
|  Model 4 | 1.61(1.47, 1.76) | 1.62(1.50, 1.75) | 1.57(1.35, 1.80) |  |  |
| \*p-value <0.05 \*\*p-value <0.01Model 1 adjusted for age, sex, race/ethnicity, education, marital statusModel 2 added depression, and physical activityModel 3 added time in bedBeverages measured in servings per day, breakfast and fast food servings per weekCaffeinated beverages were defined as low-calorie beverages with caffeine (e.g. Diet Coke, Diet Mountain Dew), carbonated beverages with caffeine and sugar (e.g., Coke, Pepsi, Mountain Dew, Dr. Pepper), tea with caffeine including green tea, coffee with caffeine, and dairy coffee drink (e.g. cappuccino)¶Sugar-sweetened beverages were defined as carbonated beverages with caffeine and sugar, other carbonated beverages with sugar (e.g. 7-Up, Root Beer, Ginger Ale, Caffeine-Free Coke), and other sugared beverages (punch, lemonade, sports drinks, or sugared ice tea)Sugar-free beverages were defined as low-calorie beverages with caffeine and other low-calorie beverages without caffeine (e.g. Diet 7-Up)+Sleep quality was assessed via the following questions: During the past 12 months, how often have you been bothered or troubled by having trouble going to sleep or staying asleep |

|  |
| --- |
| Supplemental Table 4: Prevalence ratios (95% confidence intervals) for intake of energy drinks and sports drinks by sleep duration, variability, timing, and quality: Project EAT |
| **Time in Bed**N | <7 hours203 | 7-<8 hours471 | 8-9 hours642 | ≥ 9 hours457 |  |
| †Energy drinks |  |  |  |  |  |
|  Model 1 | 1.45(0.95, 1.94) | Ref. | 1.09(0.79, 1.39) | 1.03(0.71, 1.35) |  |
|  Model 2 | 1.39(0.91, 1.87) | Ref. | 1.08(0.79, 1.38) | 1.01(0.71, 1.32) |  |
|  Model 3 | 1.39(0.90, 1.87) | Ref. | 1.11(0.81, 1.42) | 1.02(0.71, 1.34) |  |
| †Sports drinks |  |  |  |  |  |
|  Model 1 | 0.97(0.74, 1.20) | Ref. | 0.86(0.71, 1.02) | 0.80\*(0.62, 0.97) |  |
|  Model 2 | 0.94(0.71, 1.18) | Ref. | 0.85\*(0.70, 0.99) | 0.80\*(0.63, 0.98) |  |
|  Model 3 | 0.93(0.70, 1.16) | Ref. | 0.87(0.72, 1.02) | 0.81(0.63, 0.98) \* |  |
| **Sleep variability** | < 0.5 hours | 0.5 - <1 hour | 1 – 1.5 hours | > 1.5 hours |  |
| N | 339 | 364 | 571 | 500 |  |
| Energy drinks |  |  |  |  |  |
|  Model 1 | Ref. | 1.59\*\*(1.04, 2.14) | 1.30(0.88, 1.73) | 1.40\*(0.93, 1.87) |  |
|  Model 2 | Ref. | 1.54\*(1.02, 2.07) | 1.29(0.87, 1.70) | 1.36(0.90, 1.81) |  |
|  Model 3 | Ref. | 1.53\*(1.01, 2.04) | 1.29(0.87, 1.71) | 1.35(0.89, 1.81) |  |
|  Model 4 | Ref. | 1.55\*(1.02, 2.07) | 1.30(0.88, 1.72) | 1.33(0.88, 1.79) |  |
| Sports drinks |  |  |  |  |  |
|  Model 1 | Ref. | 1.08(0.84, 1.33) | 1.01(0.80, 1.23) | 0.93(0.71, 1.14) |  |
|  Model 2 | Ref. | 1.06(0.82, 1.30) | 0.99(0.79, 1.20) | 0.92(0.71, 1.13) |  |
|  Model 3 | Ref. | 1.02(0.79, 1.24) | 0.95(0.76, 1.15) | 0.87(0.68, 1.07) |  |
|  Model 4 | Ref. | 1.04(0.81, 1.27) | 0.96(0.76, 1.16) | 0.87(0.67, 1.07) |  |
| **Sleep Timing** | ≤ 10:30 PM | 10:30-11:30 PM | 11:30 PM-12:30 AM | > 12:30 AM |  |
| N | 327 | 497 | 390 | 560 |  |
| Energy drinks |  |  |  |  |  |
|  Model 1 | Ref. | 1.44(0.86, 2.01) | 1.63\*(0.97, 2.29) | 1.83\*\*(1.10, 2.55) |  |
|  Model 2 | Ref. | 1.36(0.82, 1.90) | 1.53\*(0.92, 2.15) | 1.71\*\*(1.04, 2.38) |  |
|  Model 3 | Ref.  | 1.35(0.82, 1.89) | 1.50\*(0.90, 2.11) | 1.65\*\*(0.99, 2.30) |  |
|  Model 4 | Ref. | 1.32(0.80, 1.85) | 1.49\*(0.89, 2.10) | 1.63\*(0.98, 2.27) |  |
| Sports drinks |  |  |  |  |  |
|  Model 1 | Ref. | 1.07(0.80, 1.34) | 1.07(0.79, 1.35) | 1.22(0.92, 1.51) |  |
|  Model 2 | Ref. | 1.03(0.78, 1.28) | 1.04(0.77, 1.30) | 1.18(0.90, 1.46) |  |
|  Model 3 | Ref.  | 1.01(0.76, 1.26) | 1.01(0.75, 1.26) | 1.15(0.87, 1.43) |  |
|  Model 4 | Ref. | 1.01(0.76, 1.26) | 1.00(0.75, 1.25) | 1.14(0.86, 1.41) |  |
| **Sleep Quality**+ | Not at all | Somewhat | Very much |  |  |
| N | 604 | 811 | 358 |  |  |
| Energy drinks |  |  |  |  |  |
|  Model 1 | Ref. | 1.42\*\*(1.06, 1.78) | 1.96\*\*\*(1.40, 2.51) |  |  |
|  Model 2 | Ref. | 1.38\*(1.01, 1.74) | 1.84\*\*\*(1.28, 2.40) |  |  |
|  Model 3 | Ref. | 1.37\*(1.01, 1.74) | 1.79\*\*\*(1.24, 2.34) |  |  |
|  Model 4 | Ref. | 1.38\*(1.02, 1.75) | 1.80\*\*\*(1.24, 2.36) |  |  |
| Sports drinks |  |  |  |  |  |
|  Model 1 | Ref. | 1.00(0.83, 1.17) | 1.24\*(0.99, 1.49) |  |  |
|  Model 2 | Ref. | 0.99(0.82, 1.17) | 1.27\*(1.00, 1.55) |  |  |
|  Model 3 | Ref. | 1.00(0.83, 1.18) | 1.28\*(1.00, 1.56) |  |  |
|  Model 4 | Ref. | 0.99(0.82, 1.16) | 1.26(0.98, 1.53) |  |  |
| \*p-value <0.05 \*\*p-value <0.01Model 1 adjusted for age, sex, race/ethnicity, education, marital statusModel 2 added depression, and physical activityModel 3 added sleep duration+Sleep quality was assessed via the following questions: During the past 12 months, how often have you been bothered or troubled by having trouble going to sleep or staying asleep?†Energy and sports drink consumption defined as ≥ one drink per week compared to < one drink per week |  |