Supplementary Table 1: Association of COVID-related change in sleep quality and life space mobility (N=923).

| Change in Sleep Quality (ref: stayed the same) | Model 1 (unadjusted) | Model 2 (demographics) | Model 3 (mental & physical) | Model 4 (full) |
|-----------------------------------------------|----------------------|------------------------|-----------------------------|---------------|
|                                               | Beta                 | 95% CI                 | Beta                        | 95% CI        |
| A lot worse                                    | -0.77 [-1.11,-0.43]  | *                      | -0.71 [-1.05,-0.36] *       | -0.44 [-0.79,-0.10] * | -0.34 [-0.69,0.00] |
| A little worse                                 | -0.31 [-0.48,-0.13]  | *                      | -0.29 [-0.47,-0.11] *       | -0.20 [-0.38,-0.02] * | -0.15 [-0.33,0.02] |
| Better                                         | 0.09 [-0.23,0.41]    |                        | 0.11 [-0.21,0.42]           | 0.17 [-0.15,0.48] | 0.21 [-0.10,0.52] |
| Age                                            | -0.01 [-0.02,0.00]   |                        | -0.01 [-0.02,0.00]          | -0.01 [-0.02,0.00] |
| Gender (ref: male)                             |                      |                        |                             |               |
| Female                                         | -0.19 [-0.32,-0.05]  | *                      | -0.19 [-0.32,-0.06] *       | -0.13 [-0.26,0.00] |
| Race (ref: white)                              |                      |                        |                             |               |
| Non-white                                      | -0.47 [-0.88,-0.06]  | *                      | -0.44 [-0.84,-0.04] *       | -0.48 [-0.87,-0.08] * |
| Preferred not to answer                        | 0.22 [-0.25,0.68]    |                        | 0.27 [-0.19,0.73]           | 0.25 [-0.20,0.70] |
| Marital status (ref: not married)              |                      |                        |                             |               |
| Married                                        | 0.06 [-0.08,0.19]    |                        | 0.02 [-0.11,0.16]           | 0.06 [-0.07,0.19] |
| Depression Score                               | -0.02 [-0.04,0.01]   | -0.01 [-0.04,0.01]     | -0.01 [-0.04,0.01]          |               |
| Anxiety Score                                  | -0.02 [-0.04,0.00]   | -0.01 [-0.04,0.01]     | -0.01 [-0.04,0.01]          |               |
| Chronic Condition Count                        | -0.06 [-0.10,-0.03]  | *                      | -0.05 [-0.09,-0.02] *       | -0.17 [-0.22,-0.11] * |
| COVID Avoidant Behaviors                       | -0.17 [-0.22,-0.11]  | *                      | -0.17 [-0.22,-0.11] *       |               |
| Sleep Quality (ref: fair)                      |                      |                        |                             |               |
| Very Poor                                      | 0.34 [-0.26,0.94]    |                        | 0.60 [0.02,1.18] *          |               |
| Poor                                           | 0.52 [-0.05,1.10]    |                        | 0.60 [0.02,1.18] *          |               |
| Good                                           | 0.60 [0.02,1.18]     | *                      | 0.60 [0.02,1.18] *          |               |
| Very Good                                      | 0.50 [-0.09,1.09]    |                        | 0.50 [-0.09,1.09]           |               |

* Denotes significance at a p=0.05 level

Model 1: Unadjusted
Model 2: Adjusted for age, sex, race, and marital status
Model 3: Adjusted for Model 2 characteristics plus depressive symptoms, anxiety symptoms, and number of chronic conditions
Model 4: Adjusted for Model 3 characteristics plus COVID-related avoidant behaviors and pre-COVID sleep ratings
**Supplementary Table 2: Association of COVID-related change in refreshing sleep and life space mobility (N=923).**

| Model 1  | Model 2        | Model 3        | Model 4        |
|---------|----------------|----------------|----------------|
|         | (unadjusted)   | (demographics) | (mental & physical) | (full) |
| Beta    | 95% CI         | Beta           | 95% CI         | Beta       | 95% CI     | Beta       | 95% CI     | Beta       | 95% CI     |
| Change in Refreshing Sleep (ref: stayed the same) |                     |                 |                 |                     |                 |                     |                 |                     |
| A lot worse | -0.69 [-1.07,-0.31] * | -0.64 [-1.02,-0.26] * | -0.39 [-0.77,0.00] | -0.32 [-0.70,0.06] |
| A little worse | -0.39 [-0.57,-0.21] * | -0.37 [-0.55,-0.18] * | -0.26 [-0.45,-0.07] * | -0.19 [-0.37,-0.00] * |
| Better | -0.07 [-0.40,0.25] | -0.01 [-0.34,0.32] | 0.08 [-0.24,0.40] | 0.08 [-0.24,0.40] |
| Age | -0.01 [-0.02,0.00] | -0.01 [-0.02,0.00] | -0.01 [-0.02,0.00] | -0.01 [-0.02,0.00] |
| Gender (ref: male) |                     |                 |                 |                     |                 |                     |                 |                     |
| Female | -0.19 [-0.32,-0.06] * | -0.2 [-0.33,-0.07] * | -0.14 [-0.27,-0.01] * |                     |                 |                     |                 |                     |
| Race (ref: white) |                     |                 |                 |                     |                 |                     |                 |                     |
| Non-white | -0.51 [-0.92,-0.10] * | -0.48 [-0.88,-0.07] * | -0.50 [-0.90,-0.11] * |                     |                 |                     |                 |                     |
| Preferred not to answer | 0.14 [-0.33,0.60] | 0.21 [-0.25,0.67] | 0.21 [-0.24,0.66] |                     |                 |                     |                 |                     |
| Marital status (ref: not married) |                     |                 |                 |                     |                 |                     |                 |                     |
| Married | 0.04 [-0.09,0.18] | 0.01 [-0.12,0.14] | 0.05 [-0.08,0.18] |                     |                 |                     |                 |                     |
| Depression Score |                     |                 |                 |                     |                 |                     |                 |                     |
| Anxiety Score |                     |                 |                 |                     |                 |                     |                 |                     |
| Chronic Condition Count |                     |                 |                 |                     |                 |                     |                 |                     |
| COVID Avoidant Behaviors |                     |                 |                 |                     |                 |                     |                 |                     |
| Refreshing Sleep (ref: Somewhat) |                     |                 |                 |                     |                 |                     |                 |                     |
| Not at all |                     |                 |                 |                     |                 |                     |                 |                     |
| A little bit |                     |                 |                 |                     |                 |                     |                 |                     |
| Quite a bit |                     |                 |                 |                     |                 |                     |                 |                     |
| Very much |                     |                 |                 |                     |                 |                     |                 |                     |

* Denotes significance at a p=0.05 level

Model 1: Unadjusted
Model 2: Adjusted for age, sex, race, and marital status
Model 3: Adjusted for Model 2 characteristics plus depressive symptoms, anxiety symptoms, and number of chronic conditions
Model 4: Adjusted for Model 3 characteristics plus COVID-related avoidant behaviors and pre-COVID sleep ratings
## Supplementary Table 3: Association of COVID-related change in sleep problems and life space mobility (N=923).

|                                | Model 1 (unadjusted) | Model 2 (demographics) | Model 3 (mental & physical) | Model 4 (full) |
|--------------------------------|----------------------|------------------------|-----------------------------|---------------|
|                                | Beta     | 95% CI    | Beta     | 95% CI    | Beta     | 95% CI    | Beta     | 95% CI    |
| Change in Sleep Problems (ref: stayed the same) |          |            |          |            |          |            |          |            |
| A lot worse                    | -0.74    | [-1.11,-0.38] * | -0.69    | [-1.06,-0.32] * | -0.45    | [-0.83,-0.08] * | -0.38    | [-0.74,-0.01] * |
| A little worse                 | -0.31    | [-0.49,-0.12] * | -0.29    | [-0.47,-0.10] * | -0.17    | [-0.36,0.02] | -0.12    | [-0.31,0.07] |
| Better                         | -0.02    | [-0.32,0.28] | 0.00     | [-0.31,0.30] | 0.06     | [-0.24,0.35] | 0.08     | [-0.22,0.37] |
| Age                            | -0.01    | [-0.02,0.00] | 0.00     | [-0.02,0.00] | 0.01     | [-0.02,0.00] | 0.01     | [-0.02,0.00] |
| Gender (ref: male)             |          |            |          |            |          |            |          |            |
| Female                         | -0.20    | [-0.33,-0.06] * | -0.20    | [-0.33,-0.07] * | -0.14    | [-0.27,-0.00] * |          |            |
| Race (ref: white)              |          |            |          |            |          |            |          |            |
| Non-white                      | -0.50    | [-0.91,-0.09] * | -0.46    | [-0.86,-0.05] * | -0.49    | [-0.89,-0.09] * |          |            |
| Preferred not to answer        | 0.16     | [-0.30,0.62] | 0.23     | [-0.22,0.69] | 0.22     | [-0.23,0.68] |          |            |
| Marital status (ref: not married) |          |            |          |            |          |            |          |            |
| Married                        | 0.05     | [-0.09,0.18] | 0.02     | [-0.12,0.15] | 0.06     | [-0.07,0.19] |          |            |
| Depression Score               | -0.02    | [-0.04,0.01] | -0.02    | [-0.04,0.01] | -0.01    | [-0.03,0.01] |          |            |
| Anxiety Score                  | -0.02    | [-0.04,0.00] | -0.01    | [-0.03,0.01] |          |            |          |            |
| Chronic Condition Count        | -0.06    | [-0.10,-0.03] * | -0.05    | [-0.09,-0.02] * | -0.17    | [-0.23,-0.11] * |          |            |
| COVID Avoidant Behaviors       |          |            |          |            |          |            |          |            |
| Sleep Problems (ref: somewhat) |          |            |          |            |          |            |          |            |
| Not at all                     | -0.09    | [-0.23,0.06] | -0.09    | [-0.23,0.06] | -0.04    | [-0.22,0.14] |          |            |
| A little bit                   | -0.04    | [-0.22,0.14] | -0.15    | [-0.43,0.12] | -0.35    | [-0.87,0.18] |          |            |
| Quite a bit                   | -0.15    | [-0.43,0.12] | -0.35    | [-0.87,0.18] |          |            |          |            |
| Very much                      |          |            |          |            |          |            |          |            |

* Denotes significance at a p=0.05 level

Model 1: Unadjusted
Model 2: Adjusted for age, sex, race, and marital status
Model 3: Adjusted for Model 2 characteristics plus depressive symptoms, anxiety symptoms, and number of chronic conditions
Model 4: Adjusted for Model 3 characteristics plus COVID-related avoidant behaviors and pre-COVID sleep ratings
Supplementary Table 4: Association of COVID-related change in difficulty falling asleep and life space mobility (N=923).

| Change in Difficulty Falling Asleep (ref: stayed the same) | Model 1 (unadjusted) | Model 2 (demographics) | Model 3 (mental & physical) | Model 4 (full) |
|-----------------------------------------------------------|----------------------|------------------------|----------------------------|---------------|
|                                                           | Beta | 95% CI | Beta | 95% CI | Beta | 95% CI | Beta | 95% CI |
| A lot worse                                               | -0.66 | [-1.04,-0.27] | *    | -0.61 | [-0.99,-0.22] | *    | -0.36 | [-0.75,0.04] | -0.25 | [-0.64,0.13] |
| A little worse                                            | -0.33 | [-0.54,-0.12] | *    | -0.30 | [-0.52,-0.09] | *    | -0.21 | [-0.42,0.01] | -0.16 | [-0.37,0.06] |
| Better                                                    | -0.22 | [-0.63,0.18]  |        | -0.19 | [-0.60,0.21]  |        | -0.08 | [-0.48,0.32]  | -0.04 | [-0.43,0.36] |
| Age                                                       | -0.01 | [-0.02,0.00]  |        | -0.01 | [-0.02,0.00]  |        | -0.01 | [-0.02,0.00]  |        |               |
| Gender (ref: male)                                        |       |         |       | -0.19 | [-0.32,-0.06] | *    | -0.19 | [-0.33,-0.06] | -0.13 | [-0.26,0.00] |
| Race (ref: white)                                         |       |         |       |        |         |       | -0.19 | [-0.32,0.06] | *    |               |
| Non-white                                                 | -0.54 | [-0.95,-0.13] | *    | -0.48 | [-0.88,-0.08] | *    | -0.51 | [-0.90,-0.11] | *    |               |
| Preferred not to answer                                   | 0.11  | [-0.36,0.57] |        | 0.20  | [-0.26,0.66]  |        | 0.16  | [-0.28,0.61]  |        |               |
| Marital status (ref: not married)                         |       |         |       |        |         |       |        |         |        |               |
| Married                                                   | 0.06  | [-0.08,0.19] |        | 0.02  | [-0.11,0.15]  |        | 0.06  | [-0.07,0.19]  |        |               |
| Depression Score                                          |       |         |       |        |         |       |        |         |        |               |
| Anxiety Score                                             |       |         |       |        |         |       |        |         |        |               |
| Chronic Condition Count                                   |       |         |       |        |         |       |        |         |        |               |
| COVID Avoidant Behaviors                                  |       |         |       |        |         |       |        |         |        |               |
| Difficulty Falling Asleep (ref: somewhat)                 |       |         |       |        |         |       |        |         |        |               |
| Not at all                                                |       |         |       |        |         |       |        |         |        |               |
| A little bit                                              |       |         |       |        |         |       |        |         |        |               |
| Quite a bit                                               |       |         |       |        |         |       |        |         |        |               |
| Very much                                                 |       |         |       |        |         |       |        |         |        |               |

* Denotes significance at a p=0.05 level

- Model 1: Unadjusted
- Model 2: Adjusted for age, sex, race, and marital status
- Model 3: Adjusted for Model 2 characteristics plus depressive symptoms, anxiety symptoms, and number of chronic conditions
- Model 4: Adjusted for Model 3 characteristics plus COVID-related avoidant behaviors and pre-COVID sleep ratings