

| Characteristic                    | <i>OR</i> | 95% CI     | <i>p-value</i>   |
|-----------------------------------|-----------|------------|------------------|
| <b>Gender</b>                     |           |            |                  |
| Male                              | —         | —          |                  |
| Female                            | 0.63      | 0.50, 0.78 | <b>&lt;0.001</b> |
| <b>Race</b>                       |           |            |                  |
| White                             | —         | —          |                  |
| Black                             | 1.17      | 0.93, 1.47 | 0.191            |
| <b>Age at Year 3 Clinic Visit</b> |           |            |                  |
| 70-74                             | —         | —          |                  |
| 75-79                             | 1.26      | 1.00, 1.61 | 0.055            |
| 80-84                             | 1.63      | 1.12, 2.33 | <b>0.009</b>     |
| <b>Education</b>                  |           |            |                  |
| Less than High School             | —         | —          |                  |
| High School Graduate              | 0.59      | 0.44, 0.80 | <b>&lt;0.001</b> |
| Post-secondary Schooling          | 0.55      | 0.41, 0.72 | <b>&lt;0.001</b> |
| <b>Alcohol Consumption</b>        |           |            |                  |
| Never                             | —         | —          |                  |
| Current                           | 0.92      | 0.71, 1.20 | 0.557            |
| Former                            | 1.29      | 0.94, 1.77 | 0.111            |
| <b>Smoking Status</b>             |           |            |                  |
| Never                             | —         | —          |                  |
| Former                            | 0.97      | 0.77, 1.22 | 0.774            |
| Current                           | 1.73      | 1.14, 2.58 | <b>0.009</b>     |
| <b>Family Income</b>              |           |            |                  |
| less than \$10,000                | —         | —          |                  |
| \$10,000 to \$25,000              | 0.95      | 0.66, 1.39 | 0.797            |
| > \$25,000 up to \$50,000         | 0.88      | 0.61, 1.29 | 0.513            |
| ≥ \$50,000                        | 0.62      | 0.40, 0.96 | <b>0.031</b>     |
| <b>Spirituality/Religion</b>      |           |            |                  |
| Not Important                     | —         | —          |                  |
| Important                         | 0.61      | 0.37, 1.02 | <b>0.049</b>     |
| <b>Site</b>                       |           |            |                  |

|  |            |            |                           |
|--|------------|------------|---------------------------|
|  | Memphis    | —          | —                         |
|  | Pittsburgh | 0.78       | 0.63, 0.98<br><b>0.03</b> |
| <b>Daytime Sleepiness</b>                | 1.08       | 0.78, 1.48 | 0.64                      |
| <b>Depressive Symptoms</b>               | 1.2        | 0.85, 1.68 | 0.285                     |
| <b>Anxiety Symptoms</b>                  | 0.79       | 0.62, 1.00 | 0.057                     |
| <b>Hit Head Hard Enough to Faint</b>     | 1.28       | 0.89, 1.82 | 0.175                     |
| <b>Parkinsons Disease</b>                | 3.95       | 0.93, 16.8 | 0.053                     |
| <b>BMI</b>                               |            |            |                           |
| <25                                      | —          | —          |                           |
| 25-29.9                                  | 0.78       | 0.60, 1.00 | 0.05                      |
| >30                                      | 0.72       | 0.53, 0.97 | 0.031                     |
| <b>Avg sitting systolic BP, z score</b>  | 1.01       | 0.90, 1.12 | 0.926                     |
| <b>Avg sitting diastolic BP, z score</b> | 0.95       | 0.85, 1.07 | 0.399                     |
| <b>Self-reported Health</b>              |            |            |                           |
| Excellent/Very Good                      | —          | —          |                           |
| Good                                     | 1.27       | 0.99, 1.63 | 0.062                     |
| Fair/Poor                                | 1.81       | 1.33, 2.45 | <b>&lt;0.001</b>          |
| <b>Cognitive Impairment</b>              | 3.11       | 2.21, 4.35 | <b>&lt;0.001</b>          |
| <b>Pneumonia, preceding 6 months</b>     | 1.57       | 0.43, 4.73 | 0.445                     |
| <b>MI/Heart Disease</b>                  | 1.33       | 1.02, 1.71 | <b>0.03</b>               |
| <b>Cerebrovascular Disease</b>           | 1.23       | 0.83, 1.77 | 0.289                     |
| <b>Hypertension</b>                      | 1.05       | 0.84, 1.32 | 0.643                     |
| <b>Diabetes Mellitus</b>                 | 1.1        | 0.82, 1.47 | 0.521                     |

**SUPPLEMENTARY TABLE 1:** Univariable logistic regression analysis of variables associated with hyposmia (CC-SIT SCORE = 7 or 8) compared to good olfaction (CC-SIT SCORE  $\geq$  9). OR = Odds Ratio, CI = Confidence Interval

| Characteristic              | Hyposmia - Odds Ratio (95% Confidence Interval), <i>p value</i> |                                    |                                    |                                    |                                    |
|-----------------------------|---|------------------------------------|------------------------------------|------------------------------------|------------------------------------|
|                             | Model 1   | Model 2                            | Model 3                            | Model 4                            | Model 5                            |
| <b>Gender</b>               |   |                                    |                                    |                                    |                                    |
| Male                        | —   | —                                  | —                                  | —                                  | —                                  |
| Female                      | 0.61 (0.49, 0.77), <b>&lt;.001</b>                              | 0.62 (0.49, 0.78), <b>&lt;.001</b> | 0.59 (0.46, 0.74), <b>&lt;.001</b> | 0.56 (0.44, 0.72), <b>&lt;.001</b> | 0.51 (0.41, 0.63), <b>&lt;.001</b> |
| <b>Race</b>                 |   |                                    |                                    |                                    |                                    |
| White                       | —   | —                                  | —                                  | —                                  | —                                  |
| Black                       | 1.27 (1.01, 1.61), <b>0.044</b>                                 | 1.08 (0.84, 1.38), 0.564           | 1.02 (0.78, 1.32), 0.907           | 0.96 (0.73, 1.25), 0.765           | 1.04 (0.82, 1.32), 0.753           |
| <b>Age</b>                  |   |                                    |                                    |                                    |                                    |
| 70-74                       | —   | —                                  | —                                  | —                                  | —                                  |
| 75-79                       | 1.26 (0.99, 1.60), 0.063  | 1.27 (1.00, 1.62), <b>0.050</b>    | 1.27 (1.00, 1.62), 0.053           | 1.28 (1.00, 1.63), <b>0.047</b>    | 1.35 (1.10, 1.66), <b>0.005</b>    |
| 80-84                       | 1.65 (1.13, 2.37), <b>0.008</b>                                 | 1.68 (1.15, 2.42), <b>0.006</b>    | 1.68 (1.15, 2.43), <b>0.006</b>    | 1.70 (1.16, 2.45), <b>0.006</b>    | 1.99 (1.45, 2.72), <b>&lt;.001</b> |
| <b>Education</b>            |   |                                    |                                    |                                    |                                    |
| Less than High School       | —   | —                                  | —                                  | —                                  | —                                  |
| High School Graduate        |   | 0.62 (0.46, 0.84), 0.002           | 0.63 (0.46, 0.86), 0.003           | 0.62 (0.45, 0.85), 0.003           | 0.83 (0.62, 1.10), 0.186           |
| Some college                |   | 0.54 (0.40, 0.73), <b>&lt;.001</b> | 0.60 (0.43, 0.83), <b>0.002</b>    | 0.61 (0.44, 0.84), <b>0.003</b>    | 0.84 (0.62, 1.13), 0.240           |
| <b>Family Income</b>        |   |                                    |                                    |                                    |                                    |
| less than \$10,000          |   | —                                  | —                                  | —                                  | —                                  |
| \$10,000 to \$25,000        |   |                                    | 0.96 (0.65, 1.43), 0.821           | 0.97 (0.66, 1.45), 0.886           | 0.86 (0.63, 1.20), 0.382           |
| \$25,000 to \$50,000        |   |                                    | 0.94 (0.61, 1.45), 0.767           | 0.96 (0.63, 1.49), 0.853           | 0.86 (0.60, 1.23), 0.396           |
| ≥ \$50,000                  |   |                                    | 0.63 (0.38, 1.05), 0.073           | 0.66 (0.40, 1.12), 0.121           | 0.64 (0.42, 0.97), <b>0.037</b>    |
| <b>Alcohol Consumption</b>  |   |                                    |                                    |                                    |                                    |
| Never                       |   |                                    | —                                  | —                                  | —                                  |
| Current                     |   |                                    |                                    | 0.94 (0.71, 1.26), 0.684           | 1.03 (0.80, 1.32), 0.827           |
| Former                      |   |                                    |                                    | 1.17 (0.83, 1.64), 0.362           | 1.25 (0.93, 1.67), 0.140           |
| <b>Smoking Status</b>       |   |                                    |                                    |                                    |                                    |
| Never                       |   |                                    | —                                  | —                                  | —                                  |
| Former                      |   |                                    |                                    | 0.80 (0.62, 1.04), 0.096           | 0.90 (0.73, 1.12), 0.363           |
| Current                     |   |                                    |                                    | 1.55 (1.00, 2.37), <b>0.046</b>    | 1.32 (0.90, 1.93), 0.156           |
| <b>Site</b>                 |   |                                    |                                    |                                    |                                    |
| Memphis                     |   |                                    |                                    |                                    | —                                  |
| Pittsburgh                  |   |                                    |                                    |                                    | 0.96 (0.78, 1.17), 0.655           |
| <b>BMI</b>                  |   |                                    |                                    |                                    |                                    |
| <25                         |   |                                    |                                    |                                    | —                                  |
| 25-29.9                     |   |                                    |                                    |                                    | 0.82 (0.66, 1.03), 0.085           |
| >30                         |   |                                    |                                    |                                    | 0.74 (0.56, 0.96), <b>0.025</b>    |
| <b>Systolic BP</b>          |   |                                    |                                    |                                    |                                    |
|                             |   |                                    |                                    |                                    | 0.96 (0.86, 1.08), 0.522           |
| <b>Diastolic BP</b>         |   |                                    |                                    |                                    |                                    |
|                             |   |                                    |                                    |                                    | 1.04 (0.93, 1.16), 0.473           |
| <b>Self-reported Health</b> |   |                                    |                                    |                                    |                                    |

|                                |                                    |
|--------------------------------|------------------------------------|
| Excellent/Very Good            |                                    |
| Good                           | 1.20 (0.97, 1.49), 0.100           |
| Fair/Poor                      | 1.58 (1.18, 2.11), <b>0.002</b>    |
| <b>Depressive Symptoms</b>     | 0.98 (0.70, 1.35), 0.890           |
| <b>Anxiety Symptoms</b>        | 0.79 (0.63, 0.99), <b>0.041</b>    |
| <b>Hit Head Hard</b>           | 1.18 (0.85, 1.62), 0.312           |
| <b>Parkinson's Disease</b>     | 4.33 (1.30, 16.8), <b>0.021</b>    |
| <b>Cognitive Impairment</b>    | 2.96 (2.14, 4.11), <b>&lt;.001</b> |
| <b>Hypertension</b>            | 0.95 (0.77, 1.17), 0.620           |
| <b>Cerebrovascular Disease</b> | 0.99 (0.70, 1.39), 0.950           |

**Supplementary Table 2:** Multivariable logistic regression models of variables associated with hyposmia (CC-SIT Score 7 or 8) compared to good olfaction (CC-SIT score  $\geq 9$ ). Model 1: Gender + race + age; Model 2: Model 1 + education; Model 3: Model 2 + socioeconomic status; Model 4: Model 3 + lifestyle/behavioral factors; Model 5: Model 4 + comorbidities. OR = Odds Ratio, CI = Confidence Interval

