**Appendix A** Results of two-part total expenditure model for U.S. children (6-17 years of age). Datasource: Linked 2007 NHIS and 2008 MEPS file.

|  |  |  |  |
| --- | --- | --- | --- |
|  |  | Part ILogistic regression | Part IIGeneralized linear model |
| Covariate |  | OR | P | 95% CI | Coefficient | P | 95% CI |
| Pain-related conditions | Noⱡ | -- | -- | -- | -- | -- | -- |
|  | Yes | 1.57 | 0.09 | [0.93, 2.65] | 1.63 | 0.001\* | [1.23, 2.17] |
| Asthma | Noⱡ | -- | -- | -- | -- | -- | -- |
|  | Yes | 2.06 | 0.02\* | [1.10, 3.82] | 1.45 | 0.02\* | [1.05, 2.00] |
| ADHD | Noⱡ | -- | -- | -- | -- | -- | -- |
|  | Yes | 4.57 | 0.003\* | [1.70, 12.33] | 1.90 | 0.000\* | [1.33, 2.70] |
| Obese | Noⱡ | -- | -- | -- | -- | -- | -- |
|  | Yes | 0.97 | 0.914 | [0.61, 1.55] | 1.03 | 0.75 | [0.83, 1.29] |
| Age group | 6-11 yearsⱡ | -- | -- | -- | -- | -- | -- |
|  | 12-17 years | 1.36 | 0.09 | [0.95, 1.95] | 1.12 | 0.25 | [0.92, 1.37] |
| Sex | Maleⱡ | -- | -- | -- | -- | -- | -- |
|  | Female | 2.19 | 0.000\* | [1.57, 3.04] | 1.06 | 0.54 | [0.88, 1.27] |
| Race/ethnicity | Hispanicⱡ | -- | -- | -- | -- | -- | -- |
|  | White, non-Hispanic | 1.31 | 0.26 | [0.81, 2.10] | 1.11 | 0.45 | [0.84, 1.47] |
|  | Black, non-Hispanic | 0.59 | 0.04\* | [0.35, 0.97] | 0.81 | 0.24 | [0.57, 1.15] |
|  | Asian | 0.51 | 0.049\* | [0.26, 0.99] | 1.01 | 0.98 | [0.55, 1.85] |
|  | Other | 0.68 | 0.61 | [0.16, 2.92] | 0.83 | 0.53 | [0.45. 1.51] |
| Mother’s education | Some college ⱡ | -- | -- | -- | -- | -- | -- |
|  | High school or less | 0.57 | 0.006\* | [0.37, 0.85] | 0.67 | 0.001\* | [0.53, 0.84] |
| Income category | < 100% FPL ⱡ | -- | -- | -- | -- | -- | -- |
|  | 100-124% FPL | 1.44 | 0.24 | [0.78, 2.67] | 3.00 | 0.001\* | [1.61, 5.56] |
|  | 125-200% FPL | 1.11 | 0.70 | [0.66, 1.85] | 1.63 | 0.02\* | [1.08, 2.45] |
|  | 201-399% FPL | 1.50 | 0.17 | [0.84, 2.67] | 1.44 | 0.07 | [0.98, 2.12] |
|  | >400% FPL | 2.40 | 0.03\* | [1.11, 5.21] | 1.08 | 0.74 | [0.69, 1.70] |
| Insurance | Any privateⱡ | -- | -- | -- | -- | -- | -- |
|  | Public only | 1.05 | 0.81 | [0.71, 1.54] | 0.81 | 0.25 | [0.56, 1.16] |
|  | Uninsured | 0.26 | 0.000\* | [0.15, 0.45] | 0.53 | 0.008\* | [0.33, 0.85] |
| Parent(s) present in family | Two parentsⱡ | -- | -- | -- | -- | -- | -- |
|  | One or no parents | 0.94 | 0.73 | [0.66, 1.33] | 0.78 | 0.06 | [0.61, 1.00] |
| Geographical region of U.S. | Northeastⱡ | -- | -- | -- | -- | -- | -- |
|  | Midwest | 1.25 | 0.48 | [0.67, 2.31] | 0.72 | 0.06 | [0.51, 1.01] |
|  | South | 0.71 | 0.16 | [0.44, 1.15] | 0.98 | 0.91 | [0.70, 1.38] |
|  | West | 0.54 | 0.02\* | [0.31, 0.92] | 0.73 | 0.13 | [0.50, 1.10] |
| Metropolitan statistical area  | Non-MSAⱡ | -- | -- | -- | -- | -- | -- |
|  | MSA | 1.22 | 0.27 | [0.86, 1.73] | 1.64 | 0.000\* | [1.26, 2.12] |
| Child has usual source of care | Noⱡ | -- | -- | -- | -- | -- | -- |
|  | Yes | 2.70 | 0.001\* | [0.86, 1.73] | 1.08 | 0.80 | [1.26, 2.12] |

NHIS, National Health Interview Survey; MEPS, Medical Expenditure Panel Survey; FPL, federal poverty level; MSA, Metropolitan statistical area; CI, Confidence Interval; OR, Odds Ratio

ⱡReference category

\* p <.05

Note: Part I of the two part model is a logistic regression on the odds of having no positive expenditures. We present odds ratios of having positive healthcare expenditures as a function of the covariate. For example, the odds of having a positive expenditure was increased by 57 % for participants with pain relative to participants without pain (OR=1.57), however this increase was not statistically significant. Part II of the two-part model is a generalized linear model on total positive expenditures from the first part of the model. The GLM coefficients represent the percentage increase in healthcare expenditures as a function of the covariate. For example; among participants with positive healthcare expenditures, spending for those with pain was 63 % higher than participants without pain.