

















































































































|                           |      |      |       |       |      |
|---------------------------|------|------|-------|-------|------|
| Respiratory hazards index | 0.22 | 0.25 | 0.204 | -0.29 | 0.70 |
| Thresholds                |      |      |       |       |      |
| Ever-Obesity              | 2.95 | 1.02 | 0.001 | 1.25  | 5.64 |

## Appendix F-IV-3f. Standardized Bayesian Spline Logit Models Predicting Childhood Diagnosis of Obesity

**Outcome:** Childhood Diagnosis of Obesity  
**Sample:** EVER in DHA  
**Type of Model:** SPLINE Standardized  
 (e.g., Spline, Stdzd, Unstdzd)

### SUMMARY OF DATA

Number of observations: 896  
 Number of clusters: 468

### MODEL FIT INFORMATION

Number of Free Parameters: 54  
 Bayesian Posterior Predictive Checking Using Chi-Square:  
 95% CI for the Difference Between the Observed and Replicated Chi-Square Values:  
-25.29  
21.04  
 Posterior Predictive  $p$ -value: 0.52

### MODEL RESULTS

| <i>Predictor Measures (All continuous variables reflect standardized values measured at time of diagnosis unless otherwise noted)</i> | Estimate | Posterior S.D. | One-Tailed P-Value | 95% C.I. Lower (2.50%) | 95% C.I. Upper (2.50%) |
|---|----------|----------------|--------------------|------------------------|------------------------|
| <b>Child Characteristics</b>  |          |                |                    |                        |                        |
| Gender and ethnicity of child (omitted=African American male)   |          |                |                    |                        |                        |
| Latina female   | 0.27     | 0.31           | 0.175              | -0.31                  | 0.95                   |
| Latino male   | -0.19    | 0.31           | 0.276              | -0.81                  | 0.48                   |
| African American female   | 0.49     | 0.30           | 0.046              | -0.07                  | 1.09                   |

|   |       |      |       |       |       |
|---|-------|------|-------|-------|-------|
| First born in family (omitted=no)   | -0.41 | 0.22 | 0.031 | -0.85 | 0.01  |
| <b>Caregiver and Household Characteristics</b>                                      |       |      |       |       |       |
| Number of siblings in household   | -0.43 | 0.13 | 0.000 | -0.67 | -0.19 |
| Caregiver reported depressive symptomatology (omitted=no)                           | -0.25 | 0.28 | 0.184 | -0.79 | 0.29  |
| Caregiver age   | -0.67 | 0.13 | 0.000 | -0.94 | -0.43 |
| Caregiver immigrant status (omitted=no)   | 0.57  | 0.30 | 0.029 | -0.01 | 1.15  |
| Caregiver history of substance abuse (omitted=no)                                   | 0.04  | 0.29 | 0.441 | -0.55 | 0.62  |
| Caregiver disability status (omitted=not disabled)                                  | 0.34  | 0.33 | 0.156 | -0.30 | 0.98  |
| Caregiver educational attainment (omitted=no degree)                                |       |      |       |       |       |
| H.S. diploma  | -0.14 | 0.27 | 0.315 | -0.68 | 0.39  |
| Post-H.S. technical certificate or college degree                                   | 0.91  | 0.28 | 0.001 | 0.34  | 1.41  |
| Caregiver married/partnered (omitted=not married/partnered)                         | 2.01  | 0.28 | 0.000 | 1.47  | 2.60  |
| Natural log of caregiver earnings (in dollars)                                      | -0.31 | 0.30 | 0.138 | -0.97 | 0.19  |
| Caregiver was available to monitor/supervise children FT/PT (omitted=not available) | -0.63 | 0.61 | 0.114 | -2.08 | 0.34  |
| Household stressor scale  | 0.22  | 0.10 | 0.019 | 0.01  | 0.43  |
| Household had health insurance (omitted=no)   | 0.09  | 0.28 | 0.359 | -0.41 | 0.67  |
| Total number of moves from birth to diagnosis                                       | -0.04 | 0.12 | 0.364 | -0.32 | 0.18  |
| Resided in conventional public housing (omitted=no)                                 | 0.73  | 0.38 | 0.019 | 0.04  | 1.55  |
| <b>Neighborhood Characteristics</b>   |       |      |       |       |       |
| Living in neighborhood with negative peers (omitted=no)                             | -0.48 | 0.30 | 0.071 | -1.02 | 0.15  |
| Social capital index  | -0.02 | 0.21 | 0.466 | -0.44 | 0.40  |
| Spline-Social capital index   | 0.47  | 0.39 | 0.127 | -0.35 | 1.22  |
| Social problems index   | -0.26 | 0.34 | 0.233 | -0.91 | 0.39  |
| Spline-Social problems index  | 0.70  | 0.47 | 0.058 | -0.17 | 1.68  |
| Social vulnerability score  | 0.61  | 0.56 | 0.126 | -0.46 | 1.73  |
| Spline-Social vulnerability score   | 0.17  | 1.02 | 0.429 | -1.88 | 2.31  |
| Percent African American residents  | 0.60  | 0.82 | 0.250 | -1.05 | 2.13  |
| Spline-Percent African American residents   | -0.83 | 0.95 | 0.206 | -2.69 | 0.96  |
| Percent Latino residents  | -0.02 | 0.45 | 0.480 | -0.88 | 0.85  |
| Spline-Percent Latino residents   | 0.86  | 0.60 | 0.061 | -0.20 | 2.07  |
| Occupational prestige score   | 0.17  | 0.50 | 0.377 | -0.84 | 1.07  |
| Spline-Occupational prestige score  | -0.40 | 0.66 | 0.270 | -1.52 | 1.04  |
| Percent foreign born residents  | 0.26  | 0.50 | 0.300 | -0.69 | 1.20  |
| Spline-Percent foreign born residents   | -1.27 | 0.59 | 0.023 | -2.38 | -0.06 |

|  |       |      |       |       |      |
|--|-------|------|-------|-------|------|
| Percent of residents who moved in preceding 12 months          | 0.28  | 0.40 | 0.234 | -0.47 | 1.10 |
| Spline-Percent of residents who moved in preceding 12 months   | -0.71 | 0.71 | 0.126 | -2.16 | 0.54 |
| Living in neighborhood with hospitals and clinics (omitted=no) | 0.77  | 0.41 | 0.019 | 0.02  | 1.66 |
| Resource factor score  | -0.59 | 0.37 | 0.066 | -1.28 | 0.16 |
| Spline-Resource factor score                                   | 0.64  | 0.56 | 0.127 | -0.45 | 1.79 |
| Age of housing stock   |       |      |       |       |      |
| Percent of housing built before 1940                           | -1.07 | 0.69 | 0.054 | -2.56 | 0.18 |
| Spline-Percent of housing built before 1940                    | 1.86  | 0.92 | 0.012 | 0.20  | 3.91 |
| Percent of housing built between 1940-1969                     | 0.24  | 0.44 | 0.302 | -0.57 | 1.11 |
| Spline-Percent of housing built between 1940-1969              | -0.32 | 0.69 | 0.324 | -1.62 | 1.01 |
| Violent crime rate per 1,000                                   | -1.10 | 0.59 | 0.036 | -2.18 | 0.08 |
| Spline-Violent crime rate per 1,000                            | -0.08 | 0.90 | 0.460 | -1.88 | 1.65 |
| Property crime rate per 1,000                                  | 0.31  | 0.56 | 0.291 | -0.75 | 1.42 |
| Spline-Property crime rate per 1,000                           | -0.29 | 0.64 | 0.338 | -1.50 | 0.90 |
| Child abuse and neglect rate per 1,000                         | 0.39  | 0.53 | 0.246 | -0.63 | 1.39 |
| Spline-Child abuse and neglect rate per 1,000                  | -0.80 | 0.61 | 0.099 | -1.95 | 0.45 |
| Neurological hazards index (rescaled by 100)                   | 0.56  | 0.42 | 0.096 | -0.31 | 1.32 |
| Spline-Neurological hazards index (rescaled by 100)            | -0.75 | 0.55 | 0.091 | -1.80 | 0.36 |
| Respiratory hazards index                                      | 0.60  | 0.27 | 0.015 | 0.06  | 1.08 |
| Spline-Respiratory hazards index                               | -0.92 | 0.61 | 0.068 | -2.05 | 0.29 |
| Thresholds   |       |      |       |       |      |
| Ever-Obesity   | 3.38  | 0.96 | 0.000 | 1.49  | 5.28 |

## Appendix F-IV-4a. Standardized Bayesian Logit Model Predicting Childhood Diagnosis of Internalizing Behaviors

|   |   |
|---|---|
| <b>Outcome:</b>   | <u>Childhood Diagnosis of Internalizing Behaviors</u> |
| <b>Sample:</b>  | <u>EVER in DHA</u>                                    |
| <b>Type of Model:</b><br>(e.g., Spline, Stdzd, Unstdzd) | <u>Standardized</u>                                   |

### SUMMARY OF DATA

|                         |     |
|-------------------------|-----|
| Number of observations: | 691 |
| Number of clusters:     | 393 |

### MODEL FIT INFORMATION

|                            |    |
|----------------------------|----|
| Number of Free Parameters: | 30 |
|----------------------------|----|

Bayesian Posterior Predictive Checking Using Chi-Square:

95% CI for the Difference Between the Observed and Replicated Chi-Square Values:

|        |
|--------|
| -25.24 |
| 29.93  |

Posterior Predictive  $p$ -value: 0.50

### MODEL RESULTS

| <i>Predictor Measures (All continuous variables reflect standardized values measured at time of diagnosis unless otherwise noted)</i> | Estimate | Posterior S.D. | One-Tailed P-Value | 95% C.I. Lower (2.50%) | 95% C.I. Upper (2.50%) |
|---|----------|----------------|--------------------|------------------------|------------------------|
| <b>Child Characteristics</b>  |          |                |                    |                        |                        |
| Gender and ethnicity of child (omitted=African American male)   |          |                |                    |                        |                        |
| Latina female   | -0.25    | 0.32           | 0.233              | -0.89                  | 0.37                   |
| Latino male   | -0.01    | 0.33           | 0.487              | -0.65                  | 0.62                   |
| African American female   | -0.06    | 0.33           | 0.416              | -0.77                  | 0.53                   |

|   |       |      |       |       |       |
|---|-------|------|-------|-------|-------|
| First born in family (omitted=no)   | -0.13 | 0.22 | 0.243 | -0.59 | 0.27  |
| <b>Caregiver and Household Characteristics</b>                                      |       |      |       |       |       |
| Number of siblings in household   | 0.02  | 0.13 | 0.431 | -0.27 | 0.24  |
| Caregiver reported depressive symptomatology (omitted=no)                           | -0.72 | 0.32 | 0.009 | -1.33 | -0.10 |
| Caregiver age   | -1.01 | 0.22 | 0.000 | -1.55 | -0.65 |
| Caregiver immigrant status (omitted=no)   | 0.45  | 0.40 | 0.136 | -0.43 | 1.20  |
| Caregiver history of substance abuse (omitted=no)                                   | 0.06  | 0.35 | 0.428 | -0.67 | 0.67  |
| Caregiver educational attainment (omitted=no degree)                                |       |      |       |       |       |
| H.S. diploma  | 0.89  | 0.33 | 0.001 | 0.26  | 1.47  |
| Post-H.S. technical certificate or college degree                                   | 0.43  | 0.32 | 0.084 | -0.23 | 1.04  |
| Caregiver married/partnered (omitted=not married/partnered)                         | 1.17  | 0.36 | 0.000 | 0.48  | 1.90  |
| Natural log of caregiver earnings (in dollars)                                      | 0.00  | 0.24 | 0.497 | -0.48 | 0.48  |
| Caregiver was available to monitor/supervise children FT/PT (omitted=not available) | 0.04  | 0.47 | 0.460 | -0.95 | 0.95  |
| Household stressor scale  | 0.34  | 0.11 | 0.001 | 0.14  | 0.59  |
| Household had health insurance (omitted=no)   | 0.65  | 0.27 | 0.006 | 0.15  | 1.21  |
| Total number of moves from birth to diagnosis                                       | 0.01  | 0.11 | 0.479 | -0.19 | 0.24  |
| <b>Neighborhood Characteristics</b>   |       |      |       |       |       |
| Social capital index  | 0.02  | 0.12 | 0.412 | -0.22 | 0.24  |
| Social problems index   | 0.45  | 0.15 | 0.000 | 0.19  | 0.75  |
| Social vulnerability score  | -0.64 | 0.34 | 0.030 | -1.36 | 0.02  |
| Percent African American residents  | 0.13  | 0.23 | 0.271 | -0.31 | 0.61  |
| Percent Latino residents  | 0.50  | 0.40 | 0.092 | -0.14 | 1.27  |
| Occupational prestige score   | -0.16 | 0.18 | 0.170 | -0.50 | 0.18  |
| Percent foreign born residents  | -0.63 | 0.29 | 0.006 | -1.28 | -0.14 |
| Percent of residents who moved in preceding 12 months                               | 0.12  | 0.14 | 0.216 | -0.18 | 0.39  |
| Resource factor score   | 0.00  | 0.17 | 0.496 | -0.31 | 0.33  |
| Violent crime rate per 1,000  | 0.10  | 0.20 | 0.296 | -0.29 | 0.51  |
| Property crime rate per 1,000   | 0.61  | 0.20 | 0.000 | 0.25  | 1.07  |
| Child abuse and neglect rate per 1,000  | -0.55 | 0.20 | 0.004 | -0.98 | -0.18 |
| <b>Thresholds</b>   |       |      |       |       |       |
| Ever-Internalizing Behaviors  | 3.79  | 0.51 | 0.000 | 2.73  | 4.85  |



## Appendix F-IV-4b. Standardized Bayesian Logit Model Predicting Childhood Diagnosis of Internalizing Behaviors

|   |   |
|---|---|
| <b>Outcome:</b>   | <u>Childhood Diagnosis of Internalizing Behaviors</u> |
| <b>Sample:</b>  | <u>CURRENTLY in DHA</u>                               |
| <b>Type of Model:</b><br>(e.g., Spline, Stdzd, Unstdzd) | <u>Standardized</u>                                   |

### SUMMARY OF DATA

|                         |     |
|-------------------------|-----|
| Number of observations: | 361 |
| Number of clusters:     | 241 |

### MODEL FIT INFORMATION

|                            |    |
|----------------------------|----|
| Number of Free Parameters: | 30 |
|----------------------------|----|

Bayesian Posterior Predictive Checking Using Chi-Square:

95% CI for the Difference Between the Observed and Replicated Chi-Square Values:

|        |        |       |
|--------|--------|-------|
| -23.20 | -23.20 | 18.65 |
| 18.65  |        |       |

|                                  |      |
|----------------------------------|------|
| Posterior Predictive $p$ -value: | 0.58 |
|----------------------------------|------|

### MODEL RESULTS

| <i>Predictor Measures (All continuous variables reflect standardized values measured at time of diagnosis unless otherwise noted)</i> | Estimate | Posterior S.D. | One-Tailed P-Value | 95% C.I. Lower (2.50%) | 95% C.I. Upper (2.50%) |
|---|----------|----------------|--------------------|------------------------|------------------------|
| <b>Child Characteristics</b>  |          |                |                    |                        |                        |
| Gender and ethnicity of child (omitted=African American male)   |          |                |                    |                        |                        |
| Latina female   | -0.53    | 0.51           | 0.155              | -1.51                  | 0.46                   |
| Latino male   | -0.24    | 0.45           | 0.281              | -1.14                  | 0.68                   |
| African American female   | -0.73    | 0.46           | 0.060              | -1.66                  | 0.16                   |

|   |       |      |       |       |       |
|---|-------|------|-------|-------|-------|
| First born in family (omitted=no)   | 0.78  | 0.41 | 0.021 | 0.05  | 1.54  |
| <b>Caregiver and Household Characteristics</b>                                      |       |      |       |       |       |
| Number of siblings in household   | 0.38  | 0.20 | 0.027 | -0.01 | 0.76  |
| Caregiver reported depressive symptomatology (omitted=no)                           | -0.72 | 0.46 | 0.059 | -1.63 | 0.16  |
| Caregiver age   | -0.54 | 0.27 | 0.007 | -1.12 | -0.11 |
| Caregiver immigrant status (omitted=no)   | 0.86  | 0.72 | 0.141 | -0.66 | 2.18  |
| Caregiver history of substance abuse (omitted=no)                                   | -0.48 | 0.60 | 0.222 | -1.62 | 0.63  |
| Caregiver educational attainment (omitted=no degree)                                |       |      |       |       |       |
| H.S. diploma  | 0.29  | 0.50 | 0.275 | -0.70 | 1.18  |
| Post-H.S. technical certificate or college degree                                   | 0.76  | 0.50 | 0.061 | -0.21 | 1.76  |
| Caregiver married/partnered (omitted=not married/partnered)                         | 2.46  | 0.60 | 0.000 | 1.33  | 3.78  |
| Natural log of caregiver earnings (in dollars)                                      | -0.22 | 0.35 | 0.243 | -0.94 | 0.43  |
| Caregiver was available to monitor/supervise children FT/PT (omitted=not available) | -0.36 | 0.69 | 0.320 | -1.77 | 1.03  |
| Household stressor scale  | 0.34  | 0.19 | 0.015 | 0.03  | 0.78  |
| Household had health insurance (omitted=no)   | 1.03  | 0.59 | 0.036 | -0.12 | 2.25  |
| Total number of moves from birth to diagnosis                                       | 0.09  | 0.18 | 0.310 | -0.25 | 0.46  |
| <b>Neighborhood Characteristics</b>   |       |      |       |       |       |
| Social capital index  | 0.17  | 0.18 | 0.152 | -0.21 | 0.53  |
| Social problems index   | 0.53  | 0.19 | 0.001 | 0.17  | 0.91  |
| Social vulnerability score  | -0.99 | 0.57 | 0.025 | -2.16 | -0.01 |
| Percent African American residents  | 0.13  | 0.28 | 0.322 | -0.37 | 0.70  |
| Percent Latino residents  | 0.44  | 0.62 | 0.237 | -0.63 | 1.75  |
| Occupational prestige score   | -1.12 | 0.46 | 0.001 | -2.05 | -0.34 |
| Percent foreign born residents  | -1.36 | 0.47 | 0.000 | -2.28 | -0.43 |
| Percent of residents who moved in preceding 12 months                               | -0.25 | 0.33 | 0.218 | -0.91 | 0.36  |
| Resource factor score   | -0.21 | 0.28 | 0.243 | -0.76 | 0.31  |
| Violent crime rate per 1,000  | -1.28 | 0.46 | 0.003 | -2.13 | -0.34 |
| Property crime rate per 1,000   | 2.74  | 0.56 | 0.000 | 1.64  | 3.78  |
| Child abuse and neglect rate per 1,000  | -1.49 | 0.51 | 0.000 | -2.68 | -0.56 |
| <b>Thresholds</b>   |       |      |       |       |       |
| Ever-Internalizing Behaviors  | 4.32  | 0.86 | 0.000 | 2.85  | 6.25  |

## Appendix F-IV-4c. Standardized Bayesian Logit Model Predicting Childhood Diagnosis of Internalizing Behaviors

|   |   |
|---|---|
| <b>Outcome:</b>   | <u>Childhood Diagnosis of Internalizing Behaviors</u> |
| <b>Sample:</b>  | <u>MAJORITY in DHA</u>                                |
| <b>Type of Model:</b><br>(e.g., Spline, Stdzd, Unstdzd) | <u>Standardized</u>                                   |

### SUMMARY OF DATA

Number of observations: 495

Number of clusters: 178

### MODEL FIT INFORMATION

Number of Free Parameters: 30

Bayesian Posterior Predictive Checking Using Chi-Square:

95% CI for the Difference Between the Observed and Replicated Chi-Square Values:

-21.26  
22.20

Posterior Predictive  $p$ -value: 0.49

### MODEL RESULTS

| <i>Predictor Measures (All continuous variables reflect standardized values measured at time of diagnosis unless otherwise noted)</i> | Estimate | Posterior S.D. | One-Tailed P-Value | 95% C.I. Lower (2.50%) | 95% C.I. Upper (2.50%) |
|---|----------|----------------|--------------------|------------------------|------------------------|
| <b>Child Characteristics</b>  |          |                |                    |                        |                        |
| Gender and ethnicity of child (omitted=African American male)   |          |                |                    |                        |                        |
| Latina female   | -0.60    | 0.57           | 0.150              | -1.69                  | 0.45                   |
| Latino male   | -0.18    | 0.54           | 0.378              | -1.10                  | 0.93                   |
| African American female   | 0.49     | 0.49           | 0.142              | -0.35                  | 1.56                   |

|   |       |      |       |       |       |
|---|-------|------|-------|-------|-------|
| First born in family (omitted=no)   | -0.43 | 0.39 | 0.111 | -1.24 | 0.32  |
| <b>Caregiver and Household Characteristics</b>                                      |       |      |       |       |       |
| Number of siblings in household   | 0.00  | 0.24 | 0.497 | -0.44 | 0.52  |
| Caregiver reported depressive symptomatology (omitted=no)                           | -1.16 | 0.49 | 0.028 | -1.96 | 0.01  |
| Caregiver age   | -1.54 | 0.27 | 0.000 | -2.09 | -1.02 |
| Caregiver immigrant status (omitted=no)   | 0.33  | 0.75 | 0.331 | -1.34 | 1.75  |
| Caregiver history of substance abuse (omitted=no)                                   | -0.07 | 0.63 | 0.457 | -1.51 | 0.99  |
| Caregiver educational attainment (omitted=no degree)                                |       |      |       |       |       |
| H.S. diploma  | 0.39  | 0.46 | 0.189 | -0.43 | 1.40  |
| Post-H.S. technical certificate or college degree                                   | -0.82 | 0.63 | 0.110 | -2.02 | 0.46  |
| Caregiver married/partnered (omitted=not married/partnered)                         | 2.07  | 0.53 | 0.000 | 0.97  | 3.04  |
| Natural log of caregiver earnings (in dollars)                                      | -0.33 | 0.36 | 0.158 | -1.05 | 0.39  |
| Caregiver was available to monitor/supervise children FT/PT (omitted=not available) | -0.50 | 0.71 | 0.206 | -2.14 | 0.62  |
| Household stressor scale  | 0.77  | 0.23 | 0.001 | 0.28  | 1.20  |
| Household had health insurance (omitted=no)   | -0.21 | 0.57 | 0.377 | -1.18 | 0.97  |
| Total number of moves from birth to diagnosis                                       | 0.00  | 0.19 | 0.497 | -0.34 | 0.38  |
| <b>Neighborhood Characteristics</b>   |       |      |       |       |       |
| Social capital index  | 0.00  | 0.24 | 0.491 | -0.49 | 0.45  |
| Social problems index   | 0.96  | 0.29 | 0.000 | 0.44  | 1.64  |
| Social vulnerability score  | -0.37 | 0.45 | 0.181 | -1.26 | 0.48  |
| Percent African American residents  | -0.02 | 0.32 | 0.484 | -0.68 | 0.55  |
| Percent Latino residents  | 0.67  | 0.56 | 0.106 | -0.35 | 1.78  |
| Occupational prestige score   | -0.22 | 0.34 | 0.273 | -0.82 | 0.50  |
| Percent foreign born residents  | -1.50 | 0.51 | 0.000 | -2.56 | -0.52 |
| Percent of residents who moved in preceding 12 months                               | 0.55  | 0.25 | 0.014 | 0.07  | 1.04  |
| Resource factor score   | -0.25 | 0.26 | 0.193 | -0.72 | 0.32  |
| Violent crime rate per 1,000  | -1.03 | 0.45 | 0.008 | -1.92 | -0.15 |
| Property crime rate per 1,000   | 0.68  | 0.29 | 0.009 | 0.07  | 1.21  |
| Child abuse and neglect rate per 1,000  | -0.54 | 0.35 | 0.036 | -1.33 | 0.02  |
| <b>Thresholds</b>   |       |      |       |       |       |
| Ever-Internalizing Behaviors  | 3.08  | 0.74 | 0.000 | 1.54  | 4.38  |

## Appendix F-IV-4d. Standardized Bayesian Logit Model Predicting Childhood Diagnosis of Internalizing Behaviors

|   |   |
|---|---|
| <b>Outcome:</b>   | <u>Childhood Diagnosis of Internalizing Behaviors</u> |
| <b>Sample:</b>  | <u>MOSTLY in DHA</u>                                  |
| <b>Type of Model:</b><br>(e.g., Spline, Stdzd, Unstdzd) | <u>Standardized</u>                                   |

### SUMMARY OF DATA

|                         |                                  |
|-------------------------|----------------------------------|
| Number of observations: | <input type="text" value="459"/> |
| Number of clusters:     | <input type="text" value="259"/> |

### MODEL FIT INFORMATION

|  |                                     |
|--|-------------------------------------|
| Number of Free Parameters:   | <input type="text" value="30"/>     |
| Bayesian Posterior Predictive Checking Using Chi-Square:                         |                                     |
| 95% CI for the Difference Between the Observed and Replicated Chi-Square Values: |                                     |
|  | <input type="text" value="-22.44"/> |
|  | <input type="text" value="21.77"/>  |
| Posterior Predictive <i>p</i> -value:  | <input type="text" value="0.55"/>   |

### MODEL RESULTS

| <i>Predictor Measures (All continuous variables reflect standardized values measured at time of diagnosis unless otherwise noted)</i> | Estimate | Posterior S.D. | One-Tailed P-Value | 95% C.I. Lower (2.50%) | 95% C.I. Upper (2.50%) |
|---|----------|----------------|--------------------|------------------------|------------------------|
| <b>Child Characteristics</b>  |          |                |                    |                        |                        |
| Gender and ethnicity of child (omitted=African American male)   |          |                |                    |                        |                        |
| Latina female   | -0.20    | 0.51           | 0.332              | -1.18                  | 0.89                   |
| Latino male   | -0.13    | 0.54           | 0.409              | -1.18                  | 0.93                   |
| African American female   | 0.10     | 0.54           | 0.421              | -1.04                  | 1.10                   |

|   |       |      |       |       |       |
|---|-------|------|-------|-------|-------|
| First born in family (omitted=no)   | -0.53 | 0.40 | 0.094 | -1.28 | 0.27  |
| <b>Caregiver and Household Characteristics</b>                                      |       |      |       |       |       |
| Number of siblings in household   | -0.01 | 0.19 | 0.473 | -0.42 | 0.36  |
| Caregiver reported depressive symptomatology (omitted=no)                           | -1.06 | 0.52 | 0.011 | -2.14 | -0.15 |
| Caregiver age   | -0.90 | 0.28 | 0.000 | -1.41 | -0.41 |
| Caregiver immigrant status (omitted=no)   | 0.53  | 0.57 | 0.206 | -0.68 | 1.51  |
| Caregiver history of substance abuse (omitted=no)                                   | -0.09 | 0.53 | 0.433 | -1.14 | 0.92  |
| Caregiver educational attainment (omitted=no degree)                                |       |      |       |       |       |
| H.S. diploma  | 0.59  | 0.43 | 0.086 | -0.20 | 1.50  |
| Post-H.S. technical certificate or college degree                                   | -0.09 | 0.49 | 0.413 | -1.09 | 0.89  |
| Caregiver married/partnered (omitted=not married/partnered)                         | 1.11  | 0.53 | 0.020 | 0.05  | 2.09  |
| Natural log of caregiver earnings (in dollars)                                      | 0.53  | 0.36 | 0.077 | -0.24 | 1.19  |
| Caregiver was available to monitor/supervise children FT/PT (omitted=not available) | 0.15  | 0.64 | 0.419 | -1.19 | 1.28  |
| Household stressor scale  | 0.55  | 0.17 | 0.000 | 0.20  | 0.92  |
| Household had health insurance (omitted=no)   | 0.39  | 0.57 | 0.233 | -0.69 | 1.59  |
| Total number of moves from birth to diagnosis                                       | -0.10 | 0.19 | 0.327 | -0.46 | 0.24  |
| <b>Neighborhood Characteristics</b>   |       |      |       |       |       |
| Social capital index  | -0.04 | 0.21 | 0.439 | -0.45 | 0.36  |
| Social problems index   | 0.71  | 0.25 | 0.000 | 0.25  | 1.20  |
| Social vulnerability score  | 0.06  | 0.54 | 0.453 | -0.99 | 1.11  |
| Percent African American residents  | -0.35 | 0.39 | 0.203 | -1.02 | 0.51  |
| Percent Latino residents  | 0.79  | 0.54 | 0.066 | -0.19 | 1.98  |
| Occupational prestige score   | 0.19  | 0.31 | 0.290 | -0.46 | 0.75  |
| Percent foreign born residents  | -0.95 | 0.43 | 0.017 | -1.73 | -0.09 |
| Percent of residents who moved in preceding 12 months                               | 0.44  | 0.24 | 0.038 | -0.04 | 0.95  |
| Resource factor score   | 0.08  | 0.29 | 0.397 | -0.44 | 0.63  |
| Violent crime rate per 1,000  | -0.42 | 0.49 | 0.191 | -1.46 | 0.43  |
| Property crime rate per 1,000   | 0.26  | 0.34 | 0.212 | -0.34 | 0.99  |
| Child abuse and neglect rate per 1,000  | -0.50 | 0.29 | 0.013 | -1.18 | -0.04 |
| <b>Thresholds</b>   |       |      |       |       |       |
| Ever-Internalizing Behaviors  | 3.94  | 0.87 | 0.000 | 2.16  | 5.65  |

## Appendix F-IV-4e. Standardized Bayesian Logit Models Predicting Childhood Diagnosis of Internalizing Behaviors by Gender and Ethnicity

**Outcome:** Childhood Diagnosis of Internalizing Behaviors  
**Sample:** EVER in DHA Strata - MALES  
**Type of Model:** Standardized  
 (e.g., Spline, Stdzd, Unstdzd)

### SUMMARY OF DATA

Number of observations: 374  
 Number of clusters: 276

### MODEL FIT INFORMATION

Number of Free Parameters: 28  
 Bayesian Posterior Predictive Checking Using Chi-Square:

95% CI for the Difference Between the Observed and Replicated Chi-Square Values:

-20.27  
19.77

Posterior Predictive  $p$ -value: 0.50

### MODEL RESULTS

| <i>Predictor Measures (All continuous variables reflect standardized values measured at time of diagnosis unless otherwise noted)</i> | Estimate | Posterior S.D. | One-Tailed P-Value | 95% C.I. Lower (2.50%) | 95% C.I. Upper (2.50%) |
|---|----------|----------------|--------------------|------------------------|------------------------|
| <b>Child Characteristics</b>  |          |                |                    |                        |                        |
| African American  | -0.12    | 0.53           | 0.390              | -1.18                  | 0.97                   |
| First born in family (omitted=no)   | 0.14     | 0.37           | 0.355              | -0.60                  | 0.84                   |
| <b>Caregiver and Household Characteristics</b>  |          |                |                    |                        |                        |
| Number of siblings in household   | 0.28     | 0.19           | 0.070              | -0.12                  | 0.65                   |

|   |       |      |       |       |       |
|---|-------|------|-------|-------|-------|
| Caregiver reported depressive symptomatology (omitted=no)                           | -0.90 | 0.48 | 0.019 | -1.90 | -0.03 |
| Caregiver age   | -1.06 | 0.30 | 0.000 | -1.80 | -0.56 |
| Caregiver immigrant status (omitted=no)   | 0.85  | 0.55 | 0.073 | -0.25 | 1.86  |
| Caregiver history of substance abuse (omitted=no)                                   | -2.62 | 1.40 | 0.017 | -5.93 | -0.17 |
| Caregiver educational attainment (omitted=no degree)                                |       |      |       |       |       |
| H.S. diploma  | 1.16  | 0.57 | 0.029 | -0.04 | 2.28  |
| Post-H.S. technical certificate or college degree                                   | 1.00  | 0.70 | 0.093 | -0.66 | 2.30  |
| Caregiver married/partnered (omitted=not married/partnered)                         | 1.08  | 0.49 | 0.015 | 0.10  | 2.02  |
| Natural log of caregiver earnings (in dollars)                                      | -0.71 | 0.43 | 0.039 | -1.56 | 0.05  |
| Caregiver was available to monitor/supervise children FT/PT (omitted=not available) | -0.64 | 0.76 | 0.197 | -2.17 | 0.82  |
| Household stressor scale  | 0.72  | 0.26 | 0.000 | 0.28  | 1.29  |
| Household had health insurance (omitted=no)   | 1.39  | 0.60 | 0.007 | 0.32  | 2.66  |
| Total number of moves from birth to diagnosis                                       | 0.29  | 0.20 | 0.065 | -0.08 | 0.72  |
| <b>Neighborhood Characteristics</b>   |       |      |       |       |       |
| Social capital index  | -0.03 | 0.24 | 0.448 | -0.52 | 0.42  |
| Social problems index   | 0.63  | 0.21 | 0.000 | 0.25  | 1.04  |
| Social vulnerability score  | -0.15 | 0.53 | 0.385 | -1.14 | 1.00  |
| Percent African American residents  | 0.17  | 0.44 | 0.340 | -0.68 | 1.08  |
| Percent Latino residents  | 0.32  | 0.67 | 0.310 | -1.13 | 1.58  |
| Occupational prestige score   | -0.16 | 0.44 | 0.368 | -0.94 | 0.82  |
| Percent foreign born residents  | -0.51 | 0.42 | 0.142 | -1.23 | 0.36  |
| Percent of residents who moved in preceding 12 months                               | -0.13 | 0.34 | 0.333 | -0.91 | 0.49  |
| Resource factor score   | 0.63  | 0.38 | 0.049 | -0.07 | 1.36  |
| Violent crime rate per 1,000  | 0.09  | 0.34 | 0.389 | -0.55 | 0.80  |
| Property crime rate per 1,000   | 0.74  | 0.30 | 0.002 | 0.18  | 1.34  |
| Child abuse and neglect rate per 1,000  | -0.83 | 0.34 | 0.001 | -1.56 | -0.23 |
| <b>Thresholds</b>   |       |      |       |       |       |
| Ever-Internalizing Behaviors  | 5.33  | 0.85 | 0.000 | 3.45  | 6.71  |



**Appendix F-IV-4f. Standardized Bayesian Spline Logit Models Predicting Childhood Diagnosis of Internalizing Behaviors**

**Outcome:** Childhood Diagnosis of Internalizing Behaviors  
**Sample:** EVER in DHA  
**Type of Model:** SPLINE Standardized  
 (e.g., Spline, Stdzd, Unstdzd)

**SUMMARY OF DATA**

Number of observations: **691**  
 Number of clusters: **393**

**MODEL FIT INFORMATION**

Number of Free Parameters: **42**  
 Bayesian Posterior Predictive Checking Using Chi-Square:

95% CI for the Difference Between the Observed and Replicated Chi-Square Values:

**-28.75**  
**26.85**

Posterior Predictive *p*-value: **0.55**

**MODEL RESULTS**

| <i>Predictor Measures (All continuous variables reflect standardized values measured at time of diagnosis unless otherwise noted)</i> | Estimate | Posterior S.D. | One-Tailed P-Value | 95% C.I. Lower (2.50%) | 95% C.I. Upper (2.50%) |
|---|----------|----------------|--------------------|------------------------|------------------------|
| <b>Child Characteristics</b>  |          |                |                    |                        |                        |
| Gender and ethnicity of child (omitted=African American male)   |          |                |                    |                        |                        |
| Latina female   | -0.30    | 0.40           | 0.250              | -0.99                  | 0.54                   |
| Latino male   | -0.16    | 0.41           | 0.362              | -0.93                  | 0.69                   |
| African American female   | -0.24    | 0.38           | 0.250              | -1.02                  | 0.48                   |

|   |       |      |       |       |       |
|---|-------|------|-------|-------|-------|
| First born in family (omitted=no)   | -0.25 | 0.28 | 0.183 | -0.80 | 0.29  |
| <b>Caregiver and Household Characteristics</b>                                      |       |      |       |       |       |
| Number of siblings in household   | -0.07 | 0.15 | 0.329 | -0.38 | 0.20  |
| Caregiver reported depressive symptomatology (omitted=no)                           | -0.77 | 0.35 | 0.010 | -1.50 | -0.15 |
| Caregiver age   | -1.39 | 0.29 | 0.000 | -1.88 | -0.80 |
| Caregiver immigrant status (omitted=no)   | 0.66  | 0.49 | 0.104 | -0.37 | 1.55  |
| Caregiver history of substance abuse (omitted=no)                                   | 0.09  | 0.42 | 0.412 | -0.79 | 0.82  |
| Caregiver educational attainment (omitted=no degree)                                |       |      |       |       |       |
| H.S. diploma  | 1.00  | 0.33 | 0.001 | 0.30  | 1.66  |
| Post-H.S. technical certificate or college degree                                   | 0.71  | 0.38 | 0.034 | -0.03 | 1.39  |
| Caregiver married/partnered (omitted=not married/partnered)                         | 1.09  | 0.40 | 0.001 | 0.37  | 1.91  |
| Natural log of caregiver earnings (in dollars)                                      | 0.22  | 0.25 | 0.202 | -0.34 | 0.66  |
| Caregiver was available to monitor/supervise children FT/PT (omitted=not available) | 0.43  | 0.50 | 0.202 | -0.64 | 1.35  |
| Household stressor scale  | 0.45  | 0.15 | 0.000 | 0.20  | 0.79  |
| Household had health insurance (omitted=no)   | 0.47  | 0.35 | 0.067 | -0.16 | 1.22  |
| Total number of moves from birth to diagnosis                                       | 0.04  | 0.14 | 0.375 | -0.22 | 0.30  |
| <b>Neighborhood Characteristics</b>   |       |      |       |       |       |
| Social capital index  | 0.19  | 0.28 | 0.262 | -0.37 | 0.72  |
| Spline-Social capital index   | -0.25 | 0.55 | 0.322 | -1.27 | 0.88  |
| Social problems index   | 0.47  | 0.43 | 0.154 | -0.29 | 1.40  |
| Spline-Social problems index  | 0.09  | 0.57 | 0.441 | -0.98 | 1.24  |
| Social vulnerability score  | 0.77  | 0.74 | 0.129 | -0.59 | 2.36  |
| Spline-Social vulnerability score   | -1.80 | 0.84 | 0.005 | -3.55 | -0.30 |
| Percent African American residents  | 0.19  | 0.75 | 0.397 | -1.27 | 1.73  |
| Spline-Percent African American residents   | -0.16 | 0.93 | 0.427 | -2.08 | 1.63  |
| Percent Latino residents  | 0.73  | 0.65 | 0.135 | -0.44 | 2.08  |
| Spline-Percent Latino residents   | -0.05 | 0.82 | 0.473 | -1.68 | 1.53  |
| Occupational prestige score   | 0.31  | 0.49 | 0.268 | -0.64 | 1.30  |
| Spline-Occupational prestige score  | -0.70 | 0.75 | 0.188 | -2.09 | 0.71  |
| Percent foreign born residents  | -0.62 | 0.61 | 0.161 | -1.74 | 0.59  |
| Spline-Percent foreign born residents   | -0.02 | 0.80 | 0.485 | -1.57 | 1.59  |
| Percent of residents who moved in preceding 12 months                               | 1.29  | 0.47 | 0.001 | 0.50  | 2.43  |
| Spline-Percent of residents who moved in preceding 12 months                        | -3.22 | 1.11 | 0.000 | -6.23 | -1.47 |
| Resource factor score   | 0.43  | 0.40 | 0.116 | -0.26 | 1.28  |

|   |       |      |       |       |       |
|---|-------|------|-------|-------|-------|
| Spline-Resource factor score                  | -0.80 | 0.66 | 0.125 | -2.13 | 0.45  |
| Violent crime rate per 1,000                  | -1.66 | 0.65 | 0.010 | -2.99 | -0.39 |
| Spline-Violent crime rate per 1,000           | 2.34  | 0.76 | 0.004 | 0.80  | 3.81  |
| Property crime rate per 1,000                 | 1.60  | 0.73 | 0.020 | 0.13  | 2.95  |
| Spline-Property crime rate per 1,000          | -1.06 | 0.79 | 0.096 | -2.54 | 0.55  |
| Child abuse and neglect rate per 1,000        | 0.38  | 0.48 | 0.229 | -0.60 | 1.26  |
| Spline-Child abuse and neglect rate per 1,000 | -1.01 | 0.62 | 0.049 | -2.23 | 0.20  |
| Thresholds                                    |       |      |       |       |       |
| Ever-Internalizing Behaviors                  | 1.91  | 0.92 | 0.026 | -0.03 | 3.66  |

## Appendix F-IV-5a. Standardized Bayesian Logit Model Predicting Childhood Behavioral Health Service Use

|   |  |
|---|--|
| <b>Outcome:</b>   | <u>Childhood Behavioral Health Service Use</u> |
| <b>Sample:</b>  | <u>EVER in DHA</u>                             |
| <b>Type of Model:</b><br>(e.g., Spline, Stdzd, Unstdzd) | <u>Standardized</u>                            |

### SUMMARY OF DATA

|                         |     |
|-------------------------|-----|
| Number of observations: | 584 |
| Number of clusters:     | 353 |

### MODEL FIT INFORMATION

|  |        |
|--|--------|
| Number of Free Parameters:   | 36     |
| Bayesian Posterior Predictive Checking Using Chi-Square:                         |        |
| 95% CI for the Difference Between the Observed and Replicated Chi-Square Values: |        |
|  | -25.79 |
|  | 18.26  |
| Posterior Predictive <i>p</i> -value:  | 0.69   |

### MODEL RESULTS

| <i>Predictor Measures (All continuous variables reflect standardized values measured at time of diagnosis unless otherwise noted)</i> | Estimate | Posterior S.D. | One-Tailed P-Value | 95% C.I. Lower (2.50%) | 95% C.I. Upper (2.50%) |
|---|----------|----------------|--------------------|------------------------|------------------------|
| <b>Child Characteristics</b>  |          |                |                    |                        |                        |
| Gender and ethnicity of child (omitted=African American male)   |          |                |                    |                        |                        |
| Latina female   | -0.52    | 0.24           | 0.03               | -0.95                  | 0.01                   |
| Latino male   | -0.55    | 0.26           | 0.02               | -1.07                  | -0.04                  |
| African American female   | -0.31    | 0.26           | 0.16               | -0.76                  | 0.28                   |

|   |       |      |      |       |       |
|---|-------|------|------|-------|-------|
| First born in family (omitted=no)   | -0.18 | 0.18 | 0.17 | -0.51 | 0.18  |
| <b>Caregiver and Household Characteristics</b>                                      |       |      |      |       |       |
| Number of siblings in household   | -0.11 | 0.09 | 0.11 | -0.27 | 0.07  |
| Caregiver reported depressive symptomatology (omitted=no)                           | 0.27  | 0.19 | 0.10 | -0.14 | 0.58  |
| Caregiver age   | -0.76 | 0.12 | 0.00 | -1.07 | -0.54 |
| Caregiver immigrant status (omitted=no)   | 0.26  | 0.21 | 0.09 | -0.15 | 0.67  |
| Caregiver history of substance abuse (omitted=no)                                   | -0.61 | 0.26 | 0.01 | -1.17 | -0.10 |
| Caregiver disability status (omitted=not disabled)                                  | 0.73  | 0.24 | 0.00 | 0.28  | 1.24  |
| Caregiver educational attainment (omitted=no degree)                                |       |      |      |       |       |
| H.S. diploma  | 0.58  | 0.18 | 0.00 | 0.23  | 0.95  |
| Post-H.S. technical certificate or college degree                                   | 0.22  | 0.23 | 0.16 | -0.21 | 0.70  |
| Caregiver married/partnered (omitted=not married/partnered)                         | 1.02  | 0.20 | 0.00 | 0.67  | 1.40  |
| Natural log of caregiver earnings (in dollars)                                      | 0.33  | 0.16 | 0.02 | 0.03  | 0.63  |
| Caregiver was available to monitor/supervise children FT/PT (omitted=not available) | 0.36  | 0.29 | 0.10 | -0.25 | 0.91  |
| Household stressor scale  | 0.10  | 0.08 | 0.08 | -0.03 | 0.26  |
| Household had health insurance (omitted=no)   | 0.29  | 0.19 | 0.06 | -0.12 | 0.60  |
| Total number of moves from birth to diagnosis                                       | -0.12 | 0.09 | 0.10 | -0.29 | 0.06  |
| <b>Neighborhood Characteristics</b>   |       |      |      |       |       |
| Living in neighborhood with negative peers (omitted=no)                             | 0.24  | 0.22 | 0.16 | -0.27 | 0.63  |
| Social capital index  | -0.08 | 0.10 | 0.21 | -0.28 | 0.09  |
| Social problems index   | 0.02  | 0.10 | 0.38 | -0.19 | 0.21  |
| Social vulnerability score  | -0.77 | 0.24 | 0.00 | -1.28 | -0.32 |
| Percent African American residents  | -0.02 | 0.14 | 0.46 | -0.29 | 0.25  |
| Percent Latino residents  | 0.18  | 0.22 | 0.21 | -0.18 | 0.61  |
| Occupational prestige score   | -0.79 | 0.22 | 0.00 | -1.19 | -0.39 |
| Percent foreign born residents  | -0.71 | 0.17 | 0.00 | -1.05 | -0.40 |
| Percent of residents who moved in preceding 12 months                               | 0.29  | 0.11 | 0.01 | 0.05  | 0.49  |
| Living in neighborhood with hospitals and clinics (omitted=no)                      | 0.00  | 0.26 | 0.49 | -0.42 | 0.56  |
| Resource factor score   | -0.06 | 0.14 | 0.32 | -0.34 | 0.21  |
| Percent of housing built before 1940  | 0.14  | 0.11 | 0.10 | -0.05 | 0.41  |
| Violent crime rate per 1,000  | -0.26 | 0.19 | 0.11 | -0.62 | 0.12  |
| Property crime rate per 1,000   | 0.33  | 0.13 | 0.00 | 0.10  | 0.60  |
| Child abuse and neglect rate per 1,000  | -0.10 | 0.15 | 0.25 | -0.42 | 0.14  |
| Neurological hazards index (rescaled by 100)  | 0.22  | 0.13 | 0.05 | -0.04 | 0.49  |

|                                    |      |      |      |       |      |
|------------------------------------|------|------|------|-------|------|
| Respiratory hazards index          | 0.20 | 0.13 | 0.08 | -0.08 | 0.42 |
| Thresholds                         |      |      |      |       |      |
| Ever-Behavioral Health Service Use | 2.06 | 0.40 | 0.00 | 1.32  | 2.85 |

## Appendix F-IV-5b. Standardized Bayesian Logit Model Predicting Childhood Behavioral Health Service Use

|   |  |
|---|--|
| <b>Outcome:</b>   | <u>Childhood Behavioral Health Service Use</u> |
| <b>Sample:</b>  | <u>CURRENTLY in DHA</u>                        |
| <b>Type of Model:</b><br>(e.g., Spline, Stdzd, Unstdzd) | <u>Standardized</u>                            |

### SUMMARY OF DATA

|                         |     |
|-------------------------|-----|
| Number of observations: | 368 |
| Number of clusters:     | 248 |

### MODEL FIT INFORMATION

|  |        |
|--|--------|
| Number of Free Parameters:   | 36     |
| Bayesian Posterior Predictive Checking Using Chi-Square:                         |        |
| 95% CI for the Difference Between the Observed and Replicated Chi-Square Values: |        |
|  | -23.06 |
|  | 30.40  |
| Posterior Predictive $p$ -value:   | 0.48   |

### MODEL RESULTS

| <i>Predictor Measures (All continuous variables reflect standardized values measured at time of diagnosis unless otherwise noted)</i> | Estimate | Posterior S.D. | One-Tailed P-Value | 95% C.I. Lower (2.50%) | 95% C.I. Upper (2.50%) |
|---|----------|----------------|--------------------|------------------------|------------------------|
| <b>Child Characteristics</b>  |          |                |                    |                        |                        |
| Gender and ethnicity of child (omitted=African American male)   |          |                |                    |                        |                        |
| Latina female   | -0.60    | 0.35           | 0.023              | -1.37                  | -0.02                  |
| Latino male   | -0.71    | 0.30           | 0.005              | -1.33                  | -0.14                  |
| African American female   | -0.60    | 0.33           | 0.032              | -1.24                  | 0.05                   |

|   |       |      |       |       |       |
|---|-------|------|-------|-------|-------|
| First born in family (omitted=no)   | 0.31  | 0.24 | 0.087 | -0.15 | 0.77  |
| <b>Caregiver and Household Characteristics</b>                                      |       |      |       |       |       |
| Number of siblings in household   | -0.01 | 0.12 | 0.477 | -0.23 | 0.21  |
| Caregiver reported depressive symptomatology (omitted=no)                           | 0.42  | 0.27 | 0.060 | -0.10 | 0.85  |
| Caregiver age   | -0.29 | 0.13 | 0.007 | -0.56 | -0.06 |
| Caregiver immigrant status (omitted=no)   | 0.20  | 0.30 | 0.240 | -0.57 | 0.71  |
| Caregiver history of substance abuse (omitted=no)                                   | -0.43 | 0.36 | 0.110 | -1.21 | 0.18  |
| Caregiver disability status (omitted=not disabled)                                  | 0.75  | 0.43 | 0.047 | -0.15 | 1.56  |
| Caregiver educational attainment (omitted=no degree)                                |       |      |       |       |       |
| H.S. diploma  | 0.73  | 0.28 | 0.007 | 0.16  | 1.29  |
| Post-H.S. technical certificate or college degree                                   | 0.62  | 0.29 | 0.025 | -0.01 | 1.16  |
| Caregiver married/partnered (omitted=not married/partnered)                         | 1.53  | 0.38 | 0.000 | 0.80  | 2.35  |
| Natural log of caregiver earnings (in dollars)                                      | -0.14 | 0.23 | 0.248 | -0.60 | 0.32  |
| Caregiver was available to monitor/supervise children FT/PT (omitted=not available) | -0.49 | 0.45 | 0.127 | -1.34 | 0.36  |
| Household stressor scale  | 0.26  | 0.11 | 0.007 | 0.05  | 0.47  |
| Household had health insurance (omitted=no)   | -0.05 | 0.29 | 0.425 | -0.59 | 0.58  |
| Total number of moves from birth to diagnosis                                       | 0.08  | 0.11 | 0.237 | -0.15 | 0.28  |
| <b>Neighborhood Characteristics</b>   |       |      |       |       |       |
| Living in neighborhood with negative peers (omitted=no)                             | 0.21  | 0.32 | 0.240 | -0.48 | 0.78  |
| Social capital index  | 0.07  | 0.11 | 0.282 | -0.17 | 0.26  |
| Social problems index   | -0.08 | 0.17 | 0.347 | -0.37 | 0.27  |
| Social vulnerability score  | -1.56 | 0.41 | 0.000 | -2.38 | -0.82 |
| Percent African American residents  | -0.49 | 0.18 | 0.002 | -0.83 | -0.15 |
| Percent Latino residents  | -0.38 | 0.31 | 0.105 | -1.02 | 0.19  |
| Occupational prestige score   | -1.85 | 0.33 | 0.000 | -2.65 | -1.31 |
| Percent foreign born residents  | -1.06 | 0.22 | 0.000 | -1.50 | -0.61 |
| Percent of residents who moved in preceding 12 months                               | 0.29  | 0.20 | 0.043 | -0.03 | 0.69  |
| Living in neighborhood with hospitals and clinics (omitted=no)                      | -0.23 | 0.31 | 0.200 | -0.91 | 0.29  |
| Resource factor score   | -0.19 | 0.18 | 0.123 | -0.56 | 0.14  |
| Percent of housing built before 1940  | 0.26  | 0.14 | 0.035 | -0.02 | 0.53  |
| Violent crime rate per 1,000  | -1.10 | 0.26 | 0.000 | -1.64 | -0.65 |
| Property crime rate per 1,000   | 1.72  | 0.31 | 0.000 | 1.14  | 2.25  |
| Child abuse and neglect rate per 1,000  | -0.50 | 0.20 | 0.013 | -0.92 | -0.13 |
| Neurological hazards index (rescaled by 100)  | 1.24  | 0.26 | 0.000 | 0.78  | 1.76  |



|                                    |       |      |       |       |       |
|------------------------------------|-------|------|-------|-------|-------|
| Respiratory hazards index          | -0.62 | 0.20 | 0.000 | -1.03 | -0.27 |
| Thresholds                         |       |      |       |       |       |
| Ever-Behavioral Health Service Use | 1.02  | 0.51 | 0.005 | 0.13  | 2.08  |

## Appendix F-IV-5c. Standardized Bayesian Logit Model Predicting Childhood Behavioral Health Service Use

|   |  |
|---|--|
| <b>Outcome:</b>   | <u>Childhood Behavioral Health Service Use</u> |
| <b>Sample:</b>  | <u>MAJORITY in DHA</u>                         |
| <b>Type of Model:</b><br>(e.g., Spline, Stdzd, Unstdzd) | <u>Standardized</u>                            |

### SUMMARY OF DATA

|                         |     |
|-------------------------|-----|
| Number of observations: | 297 |
| Number of clusters:     | 190 |

### MODEL FIT INFORMATION

|  |        |
|--|--------|
| Number of Free Parameters:   | 36     |
| Bayesian Posterior Predictive Checking Using Chi-Square:                         |        |
| 95% CI for the Difference Between the Observed and Replicated Chi-Square Values: |        |
|  | -24.21 |
|  | 21.40  |
| Posterior Predictive $p$ -value:   | 0.52   |

### MODEL RESULTS

| <i>Predictor Measures (All continuous variables reflect standardized values measured at time of diagnosis unless otherwise noted)</i> | Estimate | Posterior S.D. | One-Tailed P-Value | 95% C.I. Lower (2.50%) | 95% C.I. Upper (2.50%) |
|---|----------|----------------|--------------------|------------------------|------------------------|
| <b>Child Characteristics</b>  |          |                |                    |                        |                        |
| Gender and ethnicity of child (omitted=African American male)   |          |                |                    |                        |                        |
| Latina female   | -1.03    | 0.42           | 0.012              | -1.78                  | -0.18                  |
| Latino male   | -0.91    | 0.34           | 0.010              | -1.58                  | -0.24                  |
| African American female   | -0.62    | 0.38           | 0.048              | -1.38                  | 0.09                   |

|   |       |      |       |       |       |
|---|-------|------|-------|-------|-------|
| First born in family (omitted=no)   | -0.24 | 0.28 | 0.192 | -0.76 | 0.29  |
| <b>Caregiver and Household Characteristics</b>                                      |       |      |       |       |       |
| Number of siblings in household   | -0.09 | 0.13 | 0.178 | -0.40 | 0.15  |
| Caregiver reported depressive symptomatology (omitted=no)                           | -0.21 | 0.32 | 0.266 | -0.85 | 0.43  |
| Caregiver age   | -1.02 | 0.16 | 0.000 | -1.28 | -0.69 |
| Caregiver immigrant status (omitted=no)   | 0.25  | 0.36 | 0.246 | -0.46 | 0.96  |
| Caregiver history of substance abuse (omitted=no)                                   | -0.81 | 0.41 | 0.024 | -1.58 | -0.01 |
| Caregiver disability status (omitted=not disabled)                                  | 1.24  | 0.42 | 0.010 | 0.28  | 2.01  |
| Caregiver educational attainment (omitted=no degree)                                |       |      |       |       |       |
| H.S. diploma  | 0.21  | 0.33 | 0.244 | -0.36 | 0.89  |
| Post-H.S. technical certificate or college degree                                   | 0.07  | 0.33 | 0.432 | -0.50 | 0.74  |
| Caregiver married/partnered (omitted=not married/partnered)                         | 1.29  | 0.27 | 0.000 | 0.74  | 1.81  |
| Natural log of caregiver earnings (in dollars)                                      | 0.15  | 0.22 | 0.264 | -0.32 | 0.57  |
| Caregiver was available to monitor/supervise children FT/PT (omitted=not available) | 0.06  | 0.42 | 0.446 | -0.73 | 0.88  |
| Household stressor scale  | 0.35  | 0.11 | 0.002 | 0.13  | 0.56  |
| Household had health insurance (omitted=no)   | -0.28 | 0.30 | 0.208 | -0.84 | 0.24  |
| Total number of moves from birth to diagnosis                                       | 0.06  | 0.11 | 0.288 | -0.14 | 0.27  |
| <b>Neighborhood Characteristics</b>   |       |      |       |       |       |
| Living in neighborhood with negative peers (omitted=no)                             | -0.29 | 0.37 | 0.192 | -1.03 | 0.46  |
| Social capital index  | 0.08  | 0.12 | 0.272 | -0.17 | 0.30  |
| Social problems index   | 0.25  | 0.20 | 0.100 | -0.19 | 0.64  |
| Social vulnerability score  | -1.34 | 0.40 | 0.000 | -2.08 | -0.50 |
| Percent African American residents  | -0.58 | 0.21 | 0.002 | -0.96 | -0.15 |
| Percent Latino residents  | -0.59 | 0.35 | 0.040 | -1.29 | 0.08  |
| Occupational prestige score   | -1.99 | 0.33 | 0.000 | -2.67 | -1.41 |
| Percent foreign born residents  | -1.08 | 0.26 | 0.000 | -1.59 | -0.59 |
| Percent of residents who moved in preceding 12 months                               | 0.49  | 0.18 | 0.000 | 0.14  | 0.82  |
| Living in neighborhood with hospitals and clinics (omitted=no)                      | -0.52 | 0.43 | 0.100 | -1.31 | 0.27  |
| Resource factor score   | -0.10 | 0.22 | 0.310 | -0.57 | 0.28  |
| Percent of housing built before 1940  | 0.55  | 0.17 | 0.000 | 0.20  | 0.88  |
| Violent crime rate per 1,000  | -0.84 | 0.32 | 0.000 | -1.46 | -0.19 |
| Property crime rate per 1,000   | 0.67  | 0.23 | 0.002 | 0.25  | 1.14  |
| Child abuse and neglect rate per 1,000  | -0.22 | 0.21 | 0.154 | -0.70 | 0.16  |
| Neurological hazards index (rescaled by 100)  | 0.81  | 0.24 | 0.000 | 0.34  | 1.27  |

|                                    |       |      |       |       |      |
|------------------------------------|-------|------|-------|-------|------|
| Respiratory hazards index          | -0.29 | 0.19 | 0.066 | -0.70 | 0.07 |
| Thresholds                         |       |      |       |       |      |
| Ever-Behavioral Health Service Use | 0.22  | 0.60 | 0.338 | -0.98 | 1.38 |

## Appendix F-IV-5d. Standardized Bayesian Logit Model Predicting Childhood Behavioral Health Service Use

|   |  |
|---|--|
| <b>Outcome:</b>   | <u>Childhood Behavioral Health Service Use</u> |
| <b>Sample:</b>  | <u>MOSTLY in DHA</u>                           |
| <b>Type of Model:</b><br>(e.g., Spline, Stdzd, Unstdzd) | <u>Standardized</u>                            |

### SUMMARY OF DATA

|                         |     |
|-------------------------|-----|
| Number of observations: | 374 |
| Number of clusters:     | 232 |

### MODEL FIT INFORMATION

|                            |    |
|----------------------------|----|
| Number of Free Parameters: | 36 |
|----------------------------|----|

Bayesian Posterior Predictive Checking Using Chi-Square:

95% CI for the Difference Between the Observed and Replicated Chi-Square Values:

|        |
|--------|
| -19.33 |
| 25.76  |

|                                  |      |
|----------------------------------|------|
| Posterior Predictive $p$ -value: | 0.52 |
|----------------------------------|------|

### MODEL RESULTS

| <i>Predictor Measures (All continuous variables reflect standardized values measured at time of diagnosis unless otherwise noted)</i> | Estimate | Posterior<br>S.D. | One-Tailed<br>P-Value | 95% C.I.<br>Lower<br>(2.50%) | 95% C.I.<br>Upper<br>(2.50%) |
|---|----------|-------------------|-----------------------|------------------------------|------------------------------|
| <b>Child Characteristics</b>  |          |                   |                       |                              |                              |
| Gender and ethnicity of child (omitted=African American male)   |          |                   |                       |                              |                              |
| Latina female   | -0.87    | 0.40              | 0.009                 | -1.75                        | -0.18                        |
| Latino male   | -0.49    | 0.40              | 0.102                 | -1.24                        | 0.28                         |
| African American female   | -0.45    | 0.36              | 0.104                 | -1.17                        | 0.22                         |

|   |       |      |       |          |          |
|---|-------|------|-------|----------|----------|
| First born in family (omitted=no)   | -0.96 | 0.33 | 0.001 | -1.59    | -0.35    |
| <b>Caregiver and Household Characteristics</b>                                      |       |      |       |          |          |
| Number of siblings in household   | -0.10 | 0.14 | 0.243 | -0.38    | 0.15     |
| Caregiver reported depressive symptomatology (omitted=no)                           | 0.31  | 0.35 | 0.171 | -0.37    | 1.07     |
| Caregiver age   | -1.39 | 0.19 | 0.000 | -1.76    | -1.01    |
| Caregiver immigrant status (omitted=no)   | -0.16 | 0.41 | 0.350 | -1.05    | 0.61     |
| Caregiver history of substance abuse (omitted=no)                                   | -1.13 | 0.44 | 0.001 | -2.04    | -0.29    |
| Caregiver disability status (omitted=not disabled)                                  | 1.44  | 0.45 | 0.004 | 0.48     | 2.20     |
| Caregiver educational attainment (omitted=no degree)                                |       |      |       |          |          |
| H.S. diploma  | 0.83  | 0.30 | 0.001 | 0.22     | 1.38     |
| Post-H.S. technical certificate or college degree                                   | 0.33  | 0.37 | 0.171 | -0.44    | 1.04     |
| Caregiver married/partnered (omitted=not married/partnered)                         | 1.22  | 0.32 | 0.000 | 0.61     | 1.92     |
| Natural log of caregiver earnings (in dollars)                                      | 0.51  | 0.21 | 0.010 | 0.07     | 0.92     |
| Caregiver was available to monitor/supervise children FT/PT (omitted=not available) | 0.77  | 0.41 | 0.039 | -0.05    | 1.52     |
| Household stressor scale  | 0.12  | 0.14 | 0.176 | -0.14    | 0.41     |
| Household had health insurance (omitted=no)   | 0.50  | 0.33 | 0.060 | -0.13    | 1.18     |
| Total number of moves from birth to diagnosis                                       | -0.14 | 0.16 | 0.177 | -0.45    | 0.17     |
| <b>Neighborhood Characteristics</b>   |       |      |       |          |          |
| Living in neighborhood with negative peers (omitted=no)                             | -0.86 | 0.34 | 0.001 | -1.56700 | -0.23500 |
| Social capital index  | -0.19 | 0.14 | 0.101 | -0.46    | 0.11     |
| Social problems index   | 0.29  | 0.15 | 0.019 | 0.02     | 0.59     |
| Social vulnerability score  | -1.36 | 0.38 | 0.000 | -2.17    | -0.73    |
| Percent African American residents  | 0.27  | 0.23 | 0.104 | -0.16    | 0.73     |
| Percent Latino residents  | 0.64  | 0.35 | 0.034 | -0.04    | 1.30     |
| Occupational prestige score   | -1.46 | 0.33 | 0.000 | -2.06    | -0.76    |
| Percent foreign born residents  | -1.19 | 0.29 | 0.000 | -1.81    | -0.64    |
| Percent of residents who moved in preceding 12 months                               | 0.65  | 0.16 | 0.000 | 0.35     | 1.00     |
| Living in neighborhood with hospitals and clinics (omitted=no)                      | -0.39 | 0.38 | 0.157 | -1.12    | 0.38     |
| Resource factor score   | -0.03 | 0.20 | 0.446 | -0.42    | 0.38     |
| Percent of housing built before 1940  | 0.47  | 0.18 | 0.010 | 0.10     | 0.81     |
| Violent crime rate per 1,000  | -0.50 | 0.31 | 0.041 | -1.12    | 0.10     |
| Property crime rate per 1,000   | 0.65  | 0.23 | 0.001 | 0.18     | 1.08     |
| Child abuse and neglect rate per 1,000  | -0.13 | 0.22 | 0.274 | -0.62    | 0.27     |
| Neurological hazards index (rescaled by 100)  | 0.22  | 0.18 | 0.126 | -0.14    | 0.56     |

|                                    |      |      |       |       |      |
|------------------------------------|------|------|-------|-------|------|
| Respiratory hazards index          | 0.24 | 0.19 | 0.105 | -0.16 | 0.60 |
| Thresholds                         |      |      |       |       |      |
| Ever-Behavioral Health Service Use | 2.06 | 0.60 | 0.000 | 0.94  | 3.27 |

## Appendix F-IV-5e. Standardized Bayesian Logit Models Predicting Childhood Behavioral Health Service Use by Gender and Ethnicity

|   |  |
|---|--|
| <b>Outcome:</b>   | <u>Childhood Behavioral Health Service Use</u> |
| <b>Sample:</b>  | <u>EVER in DHA Strata - MALES</u>              |
| <b>Type of Model:</b><br>(e.g., Spline, Stdzd, Unstdzd) | <u>Standardized</u>                            |

### SUMMARY OF DATA

Number of observations:

Number of clusters:

### MODEL FIT INFORMATION

Number of Free Parameters:

Bayesian Posterior Predictive Checking Using Chi-Square:

95% CI for the Difference Between the Observed and Replicated Chi-Square Values:

-21.87      25.59

0.56

Posterior Predictive  $p$ -value:

### MODEL RESULTS



| <i>Predictor Measures (All continuous variables reflect standardized values measured at time of diagnosis unless otherwise noted)</i> | Estimate | Posterior S.D. | One-Tailed P-Value | 95% C.I. Lower (2.50%) | 95% C.I. Upper (2.50%) |
|---|----------|----------------|--------------------|------------------------|------------------------|
| <b>Child Characteristics</b>  |          |                |                    |                        |                        |
| African American  | 0.86     | 0.33           | 0.002              | 0.21                   | 1.51                   |
| First born in family (omitted=no)   | -0.38    | 0.26           | 0.070              | -0.86                  | 0.12                   |
| <b>Caregiver and Household Characteristics</b>  |          |                |                    |                        |                        |
| Number of siblings in household   | 0.04     | 0.13           | 0.366              | -0.21                  | 0.29                   |
| Caregiver reported depressive symptomatology (omitted=no)   | 0.24     | 0.32           | 0.262              | -0.40                  | 0.83                   |
| Caregiver age   | -1.24    | 0.17           | 0.000              | -1.63                  | -0.94                  |
| Caregiver immigrant status (omitted=no)   | 0.03     | 0.40           | 0.460              | -0.83                  | 0.72                   |
| Caregiver history of substance abuse (omitted=no)   | -0.82    | 0.46           | 0.034              | -1.84                  | 0.02                   |
| Caregiver disability status (omitted=not disabled)  | 0.55     | 0.44           | 0.118              | -0.36                  | 1.32                   |
| Caregiver educational attainment (omitted=no degree)  |          |                |                    |                        |                        |
| H.S. diploma  | 0.57     | 0.32           | 0.016              | 0.02                   | 1.25                   |
| Post-H.S. technical certificate or college degree   | 0.34     | 0.39           | 0.158              | -0.37                  | 1.16                   |
| Caregiver married/partnered (omitted=not married/partnered)   | 1.16     | 0.33           | 0.000              | 0.51                   | 1.81                   |
| Natural log of caregiver earnings (in dollars)  | -0.32    | 0.27           | 0.098              | -0.83                  | 0.20                   |
| Caregiver was available to monitor/supervise children FT/PT (omitted=not available)   | -0.20    | 0.50           | 0.330              | -1.20                  | 0.87                   |
| Household stressor scale  | 0.29     | 0.12           | 0.010              | 0.05                   | 0.55                   |
| Household had health insurance (omitted=no)   | -0.07    | 0.32           | 0.400              | -0.78                  | 0.49                   |
| Total number of moves from birth to diagnosis   | -0.39    | 0.16           | 0.008              | -0.72                  | -0.08                  |
| <b>Neighborhood Characteristics</b>   |          |                |                    |                        |                        |
| Living in neighborhood with negative peers (omitted=no)   | -0.02    | 0.39           | 0.476              | -0.77                  | 0.83                   |
| Social capital index  | -0.06    | 0.13           | 0.328              | -0.32                  | 0.17                   |
| Social problems index   | -0.05    | 0.20           | 0.412              | -0.42                  | 0.35                   |
| Social vulnerability score  | -1.24    | 0.35           | 0.000              | -1.93                  | -0.59                  |
| Percent African American residents  | 0.11     | 0.19           | 0.252              | -0.24                  | 0.52                   |
| Percent Latino residents  | 0.40     | 0.40           | 0.138              | -0.28                  | 1.21                   |
| Occupational prestige score   | -1.17    | 0.33           | 0.000              | -1.90                  | -0.59                  |
| Percent foreign born residents  | -1.21    | 0.34           | 0.000              | -2.07                  | -0.63                  |
| Percent of residents who moved in preceding 12 months   | 0.23     | 0.17           | 0.090              | -0.14                  | 0.55                   |
| Living in neighborhood with hospitals and clinics (omitted=no)  | -0.12    | 0.39           | 0.366              | -0.94                  | 0.59                   |
| Resource factor score   | 0.34     | 0.22           | 0.054              | -0.05                  | 0.79                   |
| Percent of housing built before 1940  | 0.21     | 0.17           | 0.092              | -0.09                  | 0.58                   |

|  |       |      |       |       |       |
|--|-------|------|-------|-------|-------|
| Violent crime rate per 1,000                 | -0.17 | 0.25 | 0.254 | -0.66 | 0.33  |
| Property crime rate per 1,000                | 0.58  | 0.20 | 0.000 | 0.18  | 1.00  |
| Child abuse and neglect rate per 1,000       | -0.71 | 0.26 | 0.002 | -1.31 | -0.26 |
| Neurological hazards index (rescaled by 100) | 0.23  | 0.22 | 0.142 | -0.18 | 0.68  |
| Respiratory hazards index                    | 0.38  | 0.21 | 0.044 | -0.07 | 0.72  |
| Thresholds                                   |       |      |       |       |       |
| Ever-Behavioral Health Service Use           | 2.37  | 0.60 | 0.000 | 1.17  | 3.46  |

## Appendix F-IV-5f. Standardized Bayesian Spline Logit Models Predicting Childhood Behavioral Health Service Use

**Outcome:** Childhood Behavioral Health Service Use  
**Sample:** EVER in DHA  
**Type of Model:** SPLINE Standardized  
 (e.g., Spline, Stdzd, Unstdzd)

### SUMMARY OF DATA

Number of observations: 584

Number of clusters: 353

### MODEL FIT INFORMATION

Number of Free Parameters: 51

Bayesian Posterior Predictive Checking Using Chi-Square:

95% CI for the Difference Between the Observed and Replicated Chi-Square Values:

-29.49

27.62

Posterior Predictive *p*-value: 0.62

### MODEL RESULTS

| <i>Predictor Measures (All continuous variables reflect standardized values measured at time of diagnosis unless otherwise noted)</i> | Estimate | Posterior S.D. | One-Tailed P-Value | 95% C.I. Lower (2.50%) | 95% C.I. Upper (2.50%) |
|---|----------|----------------|--------------------|------------------------|------------------------|
| <b>Child Characteristics</b>  |          |                |                    |                        |                        |
| Gender and ethnicity of child (omitted=African American male)   |          |                |                    |                        |                        |
| Latina female   | -0.41    | 0.29           | 0.100              | -0.94                  | 0.25                   |
| Latino male   | -0.61    | 0.27           | 0.008              | -1.11                  | -0.08                  |
| African American female   | -0.29    | 0.26           | 0.158              | -0.75                  | 0.22                   |

|   |       |      |       |       |       |
|---|-------|------|-------|-------|-------|
| First born in family (omitted=no)   | -0.37 | 0.18 | 0.016 | -0.77 | -0.04 |
| <b>Caregiver and Household Characteristics</b>                                      |       |      |       |       |       |
| Number of siblings in household   | -0.15 | 0.09 | 0.034 | -0.34 | 0.01  |
| Caregiver reported depressive symptomatology (omitted=no)                           | 0.38  | 0.23 | 0.042 | -0.10 | 0.82  |
| Caregiver age   | -0.90 | 0.11 | 0.000 | -1.14 | -0.70 |
| Caregiver immigrant status (omitted=no)   | 0.28  | 0.27 | 0.146 | -0.29 | 0.75  |
| Caregiver history of substance abuse (omitted=no)                                   | -0.74 | 0.28 | 0.000 | -1.33 | -0.25 |
| Caregiver disability status (omitted=not disabled)                                  | 0.70  | 0.29 | 0.008 | 0.19  | 1.31  |
| Caregiver educational attainment (omitted=no degree)                                |       |      |       |       |       |
| H.S. diploma  | 0.40  | 0.21 | 0.036 | -0.04 | 0.77  |
| Post-H.S. technical certificate or college degree                                   | 0.22  | 0.25 | 0.204 | -0.26 | 0.74  |
| Caregiver married/partnered (omitted=not married/partnered)                         | 1.00  | 0.25 | 0.000 | 0.55  | 1.51  |
| Natural log of caregiver earnings (in dollars)                                      | 0.29  | 0.18 | 0.070 | -0.07 | 0.60  |
| Caregiver was available to monitor/supervise children FT/PT (omitted=not available) | 0.37  | 0.35 | 0.164 | -0.36 | 0.98  |
| Household stressor scale  | 0.12  | 0.10 | 0.114 | -0.07 | 0.32  |
| Household had health insurance (omitted=no)   | 0.37  | 0.23 | 0.054 | -0.07 | 0.79  |
| Total number of moves from birth to diagnosis                                       | -0.16 | 0.11 | 0.066 | -0.37 | 0.04  |
| <b>Neighborhood Characteristics</b>   |       |      |       |       |       |
| Living in neighborhood with negative peers (omitted=no)                             | 0.24  | 0.27 | 0.202 | -0.29 | 0.77  |
| Social capital index  | -0.28 | 0.19 | 0.076 | -0.65 | 0.09  |
| Spline-Social capital index   | 0.25  | 0.33 | 0.232 | -0.39 | 0.93  |
| Social problems index   | -0.64 | 0.32 | 0.024 | -1.23 | -0.01 |
| Spline-Social problems index  | 1.12  | 0.47 | 0.018 | 0.08  | 1.92  |
| Social vulnerability score  | 0.19  | 0.53 | 0.368 | -0.78 | 1.31  |
| Spline-Social vulnerability score   | -0.90 | 0.64 | 0.060 | -2.30 | 0.23  |
| Percent African American residents  | 0.35  | 0.64 | 0.296 | -0.95 | 1.58  |
| Spline-Percent African American residents   | -0.87 | 0.76 | 0.116 | -2.32 | 0.57  |
| Percent Latino residents  | -0.76 | 0.40 | 0.048 | -1.47 | 0.15  |
| Spline-Percent Latino residents   | 1.21  | 0.54 | 0.018 | 0.09  | 2.25  |
| Occupational prestige score   | 0.38  | 0.38 | 0.172 | -0.39 | 1.09  |
| Spline-Occupational prestige score  | -2.49 | 0.61 | 0.000 | -3.64 | -1.26 |
| Percent foreign born residents  | -0.10 | 0.44 | 0.420 | -0.93 | 0.80  |
| Spline-Percent foreign born residents   | -1.44 | 0.56 | 0.002 | -2.61 | -0.42 |
| Percent of residents who moved in preceding 12 months                               | 1.37  | 0.33 | 0.000 | 0.81  | 2.14  |

|  |       |      |       |       |       |
|--|-------|------|-------|-------|-------|
| Spline-Percent of residents who moved in preceding 12 months   | -1.92 | 0.50 | 0.000 | -3.03 | -1.12 |
| Living in neighborhood with hospitals and clinics (omitted=no) | 0.28  | 0.31 | 0.148 | -0.34 | 0.95  |
| Resource factor score  | -0.35 | 0.33 | 0.150 | -1.02 | 0.34  |
| Spline-Resource factor score                                   | 0.33  | 0.51 | 0.260 | -0.66 | 1.30  |
| Percent of housing built before 1940                           | 0.54  | 0.37 | 0.088 | -0.21 | 1.21  |
| Spline-Percent of housing built before 1940                    | -0.45 | 0.53 | 0.202 | -1.38 | 0.64  |
| Violent crime rate per 1,000                                   | -0.83 | 0.48 | 0.038 | -1.86 | 0.08  |
| Spline-Violent crime rate per 1,000                            | 0.90  | 0.54 | 0.068 | -0.20 | 1.85  |
| Property crime rate per 1,000                                  | -0.15 | 0.46 | 0.350 | -1.09 | 0.68  |
| Spline-Property crime rate per 1,000                           | 0.44  | 0.53 | 0.180 | -0.58 | 1.48  |
| Child abuse and neglect rate per 1,000                         | 0.86  | 0.42 | 0.022 | 0.07  | 1.74  |
| Spline-Child abuse and neglect rate per 1,000                  | -0.91 | 0.49 | 0.026 | -1.91 | 0.00  |
| Neurological hazards index (rescaled by 100)                   | 0.30  | 0.34 | 0.192 | -0.35 | 0.96  |
| Spline-Neurological hazards index (rescaled by 100)            | -0.63 | 0.51 | 0.112 | -1.56 | 0.40  |
| Respiratory hazards index                                      | 0.04  | 0.23 | 0.420 | -0.40 | 0.51  |
| Spline-Respiratory hazards index                               | -0.05 | 0.41 | 0.464 | -0.79 | 0.83  |
| Thresholds   |       |      |       |       |       |
| Ever-Behavioral Health Service Use                             | 0.21  | 0.64 | 0.370 | -1.05 | 1.53  |