Appendix F-IV-1a Standardized Bayesian Logit Model Predicting Diagnosis of Asthma During Childhood

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

SUMMARY OF DATA

Number of observations: 814
Number of clusters: 448

MODEL FIT INFORMATION

Number of Free Parameters: 39
Bayesian Posterior Predictive Checking Using Chi-Square:
95% CI for the Difference Between the Observed and Replicated Chi-Square Values:
-29.08
24.68
Posterior Predictive p -value: 0.54

MODEL RESULTS

Predictor Measures (All continuous variables reflect standardized values measured at time of diagnosis unless otherwise noted)

<table>
<thead>
<tr>
<th>Predictor Measures</th>
<th>Estimate</th>
<th>Posterior S.D.</th>
<th>One-Tailed P-Value</th>
<th>95% C.I. Lower (2.50%)</th>
<th>95% C.I. Upper (2.50%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Child Characteristics</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gender and ethnicity of child (omitted=African American male)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Latina female</td>
<td>-0.61</td>
<td>0.23</td>
<td>0.00</td>
<td>-1.07</td>
<td>-0.18</td>
</tr>
<tr>
<td>Latino male</td>
<td>-0.93</td>
<td>0.23</td>
<td>0.00</td>
<td>-1.40</td>
<td>-0.50</td>
</tr>
<tr>
<td>African American female</td>
<td>-0.38</td>
<td>0.28</td>
<td>0.08</td>
<td>-0.98</td>
<td>0.12</td>
</tr>
<tr>
<td>First born in family (omitted=no)</td>
<td>-0.17</td>
<td>0.19</td>
<td>0.19</td>
<td>-0.53</td>
<td>0.19</td>
</tr>
<tr>
<td>Description</td>
<td>Estimate 1</td>
<td>Estimate 2</td>
<td>Estimate 3</td>
<td>Estimate 4</td>
<td>p-Value</td>
</tr>
<tr>
<td>------------------------------------------------------------------------------</td>
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<td>------------</td>
<td>---------</td>
</tr>
<tr>
<td>Child was low birthweight or extremely premature (omitted=no)</td>
<td>0.54</td>
<td>0.27</td>
<td>0.02</td>
<td>0.05</td>
<td>1.11</td>
</tr>
<tr>
<td><strong>Caregiver and Household Characteristics</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Number of siblings in household</td>
<td>-0.17</td>
<td>0.10</td>
<td>0.04</td>
<td>-0.36</td>
<td>0.02</td>
</tr>
<tr>
<td>Caregiver reported depressive symptomatology (omitted=no)</td>
<td>0.02</td>
<td>0.21</td>
<td>0.46</td>
<td>-0.37</td>
<td>0.43</td>
</tr>
<tr>
<td>Caregiver immigrant status (omitted=no)</td>
<td>-0.87</td>
<td>0.13</td>
<td>0.00</td>
<td>-1.14</td>
<td>-0.61</td>
</tr>
<tr>
<td>Caregiver history of substance abuse (omitted=no)</td>
<td>-0.31</td>
<td>0.35</td>
<td>0.20</td>
<td>-0.97</td>
<td>0.40</td>
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<tr>
<td>Caregiver disability status (omitted=not disabled)</td>
<td>-0.17</td>
<td>0.26</td>
<td>0.24</td>
<td>-0.70</td>
<td>0.36</td>
</tr>
<tr>
<td>Caregiver educational attainment (omitted=no degree)</td>
<td>0.95</td>
<td>0.25</td>
<td>0.00</td>
<td>0.47</td>
<td>1.45</td>
</tr>
<tr>
<td>Caregiver married/partnered (omitted=not married/partnered)</td>
<td>1.12</td>
<td>0.26</td>
<td>0.00</td>
<td>0.65</td>
<td>1.71</td>
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<tr>
<td>Natural log of caregiver earnings (in dollars)</td>
<td>-0.32</td>
<td>0.26</td>
<td>0.10</td>
<td>-0.88</td>
<td>0.13</td>
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<tr>
<td>Caregiver was available to monitor/supervise children FT/PT (omitted=not available)</td>
<td>-0.66</td>
<td>0.51</td>
<td>0.08</td>
<td>-1.82</td>
<td>0.29</td>
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<tr>
<td>Household stressor scale</td>
<td>-0.04</td>
<td>0.10</td>
<td>0.35</td>
<td>-0.23</td>
<td>0.15</td>
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<tr>
<td>Household had health insurance (omitted=no)</td>
<td>-0.35</td>
<td>0.17</td>
<td>0.03</td>
<td>-0.68</td>
<td>0.01</td>
</tr>
<tr>
<td>Total number of moves from birth to diagnosis</td>
<td>-0.23</td>
<td>0.11</td>
<td>0.03</td>
<td>-0.44</td>
<td>-0.01</td>
</tr>
<tr>
<td>Resided in conventional public housing (omitted=no)</td>
<td>-0.05</td>
<td>0.29</td>
<td>0.43</td>
<td>-0.57</td>
<td>0.51</td>
</tr>
<tr>
<td><strong>Neighborhood Characteristics</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Living in neighborhood with negative peers (omitted=no)</td>
<td>0.16</td>
<td>0.23</td>
<td>0.27</td>
<td>-0.30</td>
<td>0.60</td>
</tr>
<tr>
<td>Social capital index</td>
<td>0.08</td>
<td>0.10</td>
<td>0.24</td>
<td>-0.12</td>
<td>0.25</td>
</tr>
<tr>
<td>Social problems index</td>
<td>0.10</td>
<td>0.13</td>
<td>0.25</td>
<td>-0.16</td>
<td>0.34</td>
</tr>
<tr>
<td>Social vulnerability score</td>
<td>-0.22</td>
<td>0.28</td>
<td>0.19</td>
<td>-0.79</td>
<td>0.30</td>
</tr>
<tr>
<td>Percent African American residents</td>
<td>-0.13</td>
<td>0.15</td>
<td>0.17</td>
<td>-0.42</td>
<td>0.14</td>
</tr>
<tr>
<td>Percent Latino residents</td>
<td>0.22</td>
<td>0.22</td>
<td>0.16</td>
<td>-0.16</td>
<td>0.69</td>
</tr>
<tr>
<td>Occupational prestige score</td>
<td>-0.40</td>
<td>0.20</td>
<td>0.03</td>
<td>-0.80</td>
<td>0.03</td>
</tr>
<tr>
<td>Percent foreign born residents</td>
<td>-0.49</td>
<td>0.17</td>
<td>0.00</td>
<td>-0.87</td>
<td>-0.20</td>
</tr>
<tr>
<td>Percent of residents who moved in preceding 12 months</td>
<td>0.16</td>
<td>0.14</td>
<td>0.13</td>
<td>-0.12</td>
<td>0.43</td>
</tr>
<tr>
<td>Living in neighborhood with hospitals and clinics (omitted=no)</td>
<td>0.54</td>
<td>0.27</td>
<td>0.03</td>
<td>-0.02</td>
<td>1.00</td>
</tr>
<tr>
<td>Resource factor score</td>
<td>-0.36</td>
<td>0.14</td>
<td>0.00</td>
<td>-0.64</td>
<td>-0.11</td>
</tr>
<tr>
<td>Age of housing stock</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Percent of housing built before 1940</td>
<td>0.05</td>
<td>0.14</td>
<td>0.34</td>
<td>-0.24</td>
<td>0.30</td>
</tr>
<tr>
<td>Percent of housing built between 1940-1969</td>
<td>-0.03</td>
<td>0.14</td>
<td>0.43</td>
<td>-0.31</td>
<td>0.25</td>
</tr>
<tr>
<td>Violent crime rate per 1,000</td>
<td>-0.39</td>
<td>0.21</td>
<td>0.03</td>
<td>-0.79</td>
<td>0.01</td>
</tr>
<tr>
<td>Category</td>
<td>Value 1</td>
<td>Value 2</td>
<td>Value 3</td>
<td>Value 4</td>
<td>Value 5</td>
</tr>
<tr>
<td>----------------------------------------------</td>
<td>---------</td>
<td>---------</td>
<td>---------</td>
<td>---------</td>
<td>---------</td>
</tr>
<tr>
<td>Property crime rate per 1,000</td>
<td>0.82</td>
<td>0.17</td>
<td>0.00</td>
<td>0.50</td>
<td>1.16</td>
</tr>
<tr>
<td>Child abuse and neglect rate per 1,000</td>
<td>-0.82</td>
<td>0.18</td>
<td>0.00</td>
<td>-1.17</td>
<td>-0.50</td>
</tr>
<tr>
<td>Neurological hazards index (rescaled by 100)</td>
<td>0.26</td>
<td>0.17</td>
<td>0.08</td>
<td>-0.10</td>
<td>0.55</td>
</tr>
<tr>
<td>Respiratory hazards index</td>
<td>0.00</td>
<td>0.16</td>
<td>0.49</td>
<td>-0.28</td>
<td>0.33</td>
</tr>
</tbody>
</table>

Thresholds

<table>
<thead>
<tr>
<th>Category</th>
<th>Value 1</th>
<th>Value 2</th>
<th>Value 3</th>
<th>Value 4</th>
<th>Value 5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ever-Asthma</td>
<td>1.74</td>
<td>0.44</td>
<td>0.00</td>
<td>0.89</td>
<td>2.61</td>
</tr>
</tbody>
</table>
Appendix F-IV-1b Standardized Bayesian Logit Model Predicting Diagnosis of Asthma During Childhood

Outcome: Childhood Diagnosis of Asthma
Sample: CURRENTLY in DHA
Type of Model: Standardized (e.g., Spline, Stdzd, Unstdzd)

SUMMARY OF DATA

Number of observations: 549
Number of clusters: 317

MODEL FIT INFORMATION

Number of Free Parameters: 38
Bayesian Posterior Predictive Checking Using Chi-Square:

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

-22.84
24.89

Posterior Predictive p -value: 0.60

MODEL RESULTS

<table>
<thead>
<tr>
<th>Predictor Measures (All continuous variables reflect standardized values measured at time of diagnosis unless otherwise noted)</th>
<th>Estimate</th>
<th>Posterior S.D.</th>
<th>One-Tailed P-Value</th>
<th>95% C.I. Lower (2.50%)</th>
<th>95% C.I. Upper (2.50%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Child Characteristics</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gender and ethnicity of child (omitted=African American male)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Latina female</td>
<td>-0.78</td>
<td>0.32</td>
<td>0.002</td>
<td>-1.38</td>
<td>-0.16</td>
</tr>
<tr>
<td>Latino male</td>
<td>-0.99</td>
<td>0.35</td>
<td>0.001</td>
<td>-1.67</td>
<td>-0.31</td>
</tr>
<tr>
<td>African American female</td>
<td>-0.40</td>
<td>0.31</td>
<td>0.134</td>
<td>-0.94</td>
<td>0.30</td>
</tr>
<tr>
<td>First born in family (omitted=no)</td>
<td>0.12</td>
<td>0.24</td>
<td>0.329</td>
<td>-0.35</td>
<td>0.59</td>
</tr>
</tbody>
</table>
Child was low birthweight or extremely premature (omitted=no) | 0.48 | 0.39 | 0.115 | -0.27 | 1.24

**Caregiver and Household Characteristics**
- Number of siblings in household: -0.20, 0.15, 0.091, -0.51, 0.09
- Caregiver reported depressive symptomatology (omitted=no): -0.22, 0.32, 0.265, -0.90, 0.40
- Caregiver immigrant status (omitted=no): -0.21, 0.49, 0.346, -1.30, 0.69
- Caregiver history of substance abuse (omitted=no): -0.79, 0.36, 0.006, -1.49, -0.13
- Caregiver disability status (omitted=not disabled): 1.27, 0.39, 0.000, 0.55, 2.10
- Caregiver educational attainment (omitted=no degree):
  - H.S. diploma: 0.43, 0.25, 0.047, -0.05, 0.90
  - Post-H.S. technical certificate or college degree: -0.35, 0.34, 0.138, -1.05, 0.28
- Caregiver married/partnered (omitted=not married/partnered): 1.81, 0.40, 0.000, 0.98, 2.57
- Natural log of caregiver earnings (in dollars): -0.18, 0.25, 0.228, -0.69, 0.30
- Caregiver was available to monitor/supervise children FT/PT (omitted=not available): -0.42, 0.50, 0.172, -1.42, 0.53
- Household stressor scale: -0.09, 0.13, 0.215, -0.35, 0.17
- Household had health insurance (omitted=no): -0.06, 0.27, 0.411, -0.52, 0.54
- Total number of moves from birth to diagnosis: -0.23, 0.14, 0.065, -0.49, 0.05
- Resided in conventional public housing (omitted=no) --a

**Neighborhood Characteristics**
- Living in neighborhood with negative peers (omitted=no): 0.27, 0.35, 0.195, -0.41, 1.01
- Social capital index: 0.15, 0.14, 0.170, -0.15, 0.38
- Social problems index: 0.39, 0.15, 0.007, 0.08, 0.68
- Social vulnerability score: -1.76, 0.44, 0.000, -2.57, -0.81
- Percent African American residents: -0.56, 0.18, 0.000, -0.94, -0.25
- Percent Latino residents: -0.18, 0.36, 0.308, -0.90, 0.53
- Occupational prestige score: -2.36, 0.49, 0.000, -3.30, -1.46
- Percent foreign born residents: -1.23, 0.24, 0.000, -1.72, -0.77
- Percent of residents who moved in preceding 12 months: 0.37, 0.20, 0.021, 0.01, 0.79
- Living in neighborhood with hospitals and clinics (omitted=no): 1.17, 0.42, 0.005, 0.33, 2.00
- Resource factor score: -0.53, 0.23, 0.004, -1.05, -0.12
- Age of housing stock:
  - Percent of housing built before 1940: 0.16, 0.18, 0.156, -0.19, 0.58
  - Percent of housing built between 1940-1969: -0.69, 0.22, 0.000, -1.12, -0.24
- Violent crime rate per 1,000: -1.65, 0.38, 0.000, -2.45, -0.93
<table>
<thead>
<tr>
<th></th>
<th>3.21</th>
<th>0.47</th>
<th>0.000</th>
<th>2.41</th>
<th>4.07</th>
</tr>
</thead>
<tbody>
<tr>
<td>Property crime rate per 1,000</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Child abuse and neglect rate per 1,000</td>
<td>-2.06</td>
<td>0.30</td>
<td>0.000</td>
<td>-2.61</td>
<td>-1.43</td>
</tr>
<tr>
<td>Neurological hazards index (rescaled by 100)</td>
<td>0.98</td>
<td>0.31</td>
<td>0.001</td>
<td>0.38</td>
<td>1.61</td>
</tr>
<tr>
<td>Respiratory hazards index</td>
<td>-0.55</td>
<td>0.23</td>
<td>0.014</td>
<td>-0.95</td>
<td>-0.06</td>
</tr>
</tbody>
</table>

Thresholds

| Ever-Asthma | 2.69 | 0.58 | 0.00 | 1.62 | 3.84 |

Notes:

*This variable was excluded from the Bayesian Logit analysis in the Currently in DHA sample (all in sample were in conventional public housing).*
Appendix F-IV-1c Standardized Bayesian Logit Model Predicting Diagnosis of Asthma During Childhood

Outcome: Childhood Diagnosis of Asthma
Sample: MAJORITY in DHA
Type of Model: Standardized
(e.g., Spline, Stdzd, Unstdzd)

SUMMARY OF DATA

Number of observations: 471
Number of clusters: 275

MODEL FIT INFORMATION

Number of Free Parameters: 39
Bayesian Posterior Predictive Checking Using Chi-Square:

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

\[-23.36 \leq \chi^2_{\text{rep}} - \chi^2_{\text{obs}} \leq 22.79\]

Posterior Predictive p -value: 0.61

MODEL RESULTS

Predictor Measures (All continuous variables reflect standardized values measured at time of diagnosis unless otherwise noted)

<table>
<thead>
<tr>
<th>Predictor Measures</th>
<th>Estimate</th>
<th>S.D.</th>
<th>One-Tailed P-Value</th>
<th>95% C.I. Lower (2.50%)</th>
<th>95% C.I. Upper (2.50%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Child Characteristics</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gender and ethnicity of child (omitted=African American male)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Latina female</td>
<td>-0.80</td>
<td>0.32</td>
<td>0.004</td>
<td>-1.46</td>
<td>-0.14</td>
</tr>
<tr>
<td>Latino male</td>
<td>-1.02</td>
<td>0.30</td>
<td>0.000</td>
<td>-1.69</td>
<td>-0.47</td>
</tr>
<tr>
<td>African American female</td>
<td>-0.40</td>
<td>0.38</td>
<td>0.189</td>
<td>-1.01</td>
<td>0.38</td>
</tr>
<tr>
<td>First born in family (omitted=no)</td>
<td>-0.09</td>
<td>0.25</td>
<td>0.366</td>
<td>-0.55</td>
<td>0.43</td>
</tr>
<tr>
<td>Variable</td>
<td>Estimate</td>
<td>Std. Error</td>
<td>t value</td>
<td>Pr(&gt;</td>
<td>t</td>
</tr>
<tr>
<td>-------------------------------------------------------------------------</td>
<td>----------</td>
<td>------------</td>
<td>---------</td>
<td>---------</td>
<td>----------</td>
</tr>
<tr>
<td>Child was low birthweight or extremely premature (omitted=no)</td>
<td>0.75</td>
<td>0.36</td>
<td>2.03</td>
<td>0.04</td>
<td>0.04</td>
</tr>
<tr>
<td><strong>Caregiver and Household Characteristics</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Number of siblings in household</td>
<td>-0.17</td>
<td>0.17</td>
<td>-1.06</td>
<td>0.29</td>
<td>-0.56</td>
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<tr>
<td>Caregiver reported depressive symptomatology (omitted=no)</td>
<td>-0.27</td>
<td>0.29</td>
<td>-0.92</td>
<td>0.36</td>
<td>-0.85</td>
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<tr>
<td>Caregiver age</td>
<td>-0.81</td>
<td>0.19</td>
<td>-4.31</td>
<td>0.00</td>
<td>-1.21</td>
</tr>
<tr>
<td>Caregiver immigrant status (omitted=no)</td>
<td>-0.18</td>
<td>0.49</td>
<td>-0.36</td>
<td>0.71</td>
<td>-1.04</td>
</tr>
<tr>
<td>Caregiver history of substance abuse (omitted=no)</td>
<td>-0.83</td>
<td>0.46</td>
<td>-1.81</td>
<td>0.07</td>
<td>-1.81</td>
</tr>
<tr>
<td>Caregiver disability status (omitted=not disabled)</td>
<td>0.84</td>
<td>0.43</td>
<td>1.95</td>
<td>0.07</td>
<td>-0.07</td>
</tr>
<tr>
<td>Caregiver educational attainment (omitted=no degree)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>H.S. diploma</td>
<td>0.18</td>
<td>0.26</td>
<td>0.72</td>
<td>0.47</td>
<td>-0.32</td>
</tr>
<tr>
<td>Post-H.S. technical certificate or college degree</td>
<td>-0.97</td>
<td>0.35</td>
<td>-2.82</td>
<td>0.00</td>
<td>-1.67</td>
</tr>
<tr>
<td>Caregiver married/partnered (omitted=not married/partnered)</td>
<td>1.21</td>
<td>0.39</td>
<td>3.05</td>
<td>0.00</td>
<td>0.49</td>
</tr>
<tr>
<td>Natural log of caregiver earnings (in dollars)</td>
<td>-0.15</td>
<td>0.31</td>
<td>-0.48</td>
<td>0.63</td>
<td>-0.78</td>
</tr>
<tr>
<td>Caregiver was available to monitor/supervise children FT/PT (omitted=no)</td>
<td>-0.23</td>
<td>0.60</td>
<td>-0.38</td>
<td>0.70</td>
<td>-1.63</td>
</tr>
<tr>
<td>Household stressor scale</td>
<td>-0.03</td>
<td>0.12</td>
<td>-0.27</td>
<td>0.79</td>
<td>-0.26</td>
</tr>
<tr>
<td>Household had health insurance (omitted=no)</td>
<td>-0.01</td>
<td>0.27</td>
<td>-0.38</td>
<td>0.70</td>
<td>-0.51</td>
</tr>
<tr>
<td>Total number of moves from birth to diagnosis</td>
<td>-0.31</td>
<td>0.14</td>
<td>-2.35</td>
<td>0.02</td>
<td>-0.62</td>
</tr>
<tr>
<td>Resided in conventional public housing (omitted=no)</td>
<td>0.40</td>
<td>0.50</td>
<td>0.80</td>
<td>0.42</td>
<td>-0.56</td>
</tr>
<tr>
<td><strong>Neighborhood Characteristics</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Living in neighborhood with negative peers (omitted=no)</td>
<td>0.54</td>
<td>0.34</td>
<td>1.61</td>
<td>0.11</td>
<td>-0.13</td>
</tr>
<tr>
<td>Social capital index</td>
<td>0.20</td>
<td>0.14</td>
<td>1.51</td>
<td>0.13</td>
<td>-0.07</td>
</tr>
<tr>
<td>Social problems index</td>
<td>0.28</td>
<td>0.15</td>
<td>1.89</td>
<td>0.06</td>
<td>-0.02</td>
</tr>
<tr>
<td>Social vulnerability score</td>
<td>-0.88</td>
<td>0.43</td>
<td>-2.06</td>
<td>0.04</td>
<td>-1.69</td>
</tr>
<tr>
<td>Percent African American residents</td>
<td>-0.63</td>
<td>0.21</td>
<td>-3.08</td>
<td>0.00</td>
<td>-1.03</td>
</tr>
<tr>
<td>Percent Latino residents</td>
<td>-0.05</td>
<td>0.35</td>
<td>-0.15</td>
<td>0.88</td>
<td>-0.73</td>
</tr>
<tr>
<td>Occupational prestige score</td>
<td>-1.05</td>
<td>0.32</td>
<td>-3.32</td>
<td>0.00</td>
<td>-1.67</td>
</tr>
<tr>
<td>Percent foreign born residents</td>
<td>-1.05</td>
<td>0.31</td>
<td>-3.38</td>
<td>0.00</td>
<td>-1.72</td>
</tr>
<tr>
<td>Percent of residents who moved in preceding 12 months</td>
<td>0.56</td>
<td>0.22</td>
<td>2.55</td>
<td>0.01</td>
<td>0.12</td>
</tr>
<tr>
<td>Living in neighborhood with hospitals and clinics (omitted=no)</td>
<td>0.72</td>
<td>0.49</td>
<td>1.46</td>
<td>0.15</td>
<td>-0.26</td>
</tr>
<tr>
<td>Resource factor score</td>
<td>-0.57</td>
<td>0.20</td>
<td>-2.83</td>
<td>0.00</td>
<td>-1.01</td>
</tr>
<tr>
<td><strong>Age of housing stock</strong></td>
<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Percent of housing built before 1940</td>
<td>0.18</td>
<td>0.19</td>
<td>0.97</td>
<td>0.33</td>
<td>-0.20</td>
</tr>
<tr>
<td>Percent of housing built between 1940-1969</td>
<td>0.09</td>
<td>0.21</td>
<td>0.44</td>
<td>0.66</td>
<td>-0.28</td>
</tr>
<tr>
<td>Violent crime rate per 1,000</td>
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<td>0.00</td>
<td>-1.53</td>
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<td>Value 3</td>
<td>Value 4</td>
<td>Value 5</td>
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<td>---------</td>
<td>---------</td>
<td>---------</td>
<td>---------</td>
<td>---------</td>
</tr>
<tr>
<td>Property crime rate per 1,000</td>
<td>1.23</td>
<td>0.23</td>
<td>0.000</td>
<td>0.77</td>
<td>1.66</td>
</tr>
<tr>
<td>Child abuse and neglect rate per 1,000</td>
<td>-1.01</td>
<td>0.20</td>
<td>0.000</td>
<td>-1.40</td>
<td>-0.61</td>
</tr>
<tr>
<td>Neurological hazards index (rescaled by 100)</td>
<td>1.09</td>
<td>0.28</td>
<td>0.000</td>
<td>0.53</td>
<td>1.64</td>
</tr>
<tr>
<td>Respiratory hazards index</td>
<td>-0.69</td>
<td>0.25</td>
<td>0.003</td>
<td>-1.17</td>
<td>-0.22</td>
</tr>
<tr>
<td>Thresholds</td>
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<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ever-Asthma</td>
<td>2.61</td>
<td>0.78</td>
<td>0.000</td>
<td>1.15</td>
<td>4.15</td>
</tr>
</tbody>
</table>
Appendix F-IV-1d Standardized Bayesian Logit Model Predicting Diagnosis of Asthma During Childhood

Outcome: Childhood Diagnosis of Asthma
Sample: MOSTLY in DHA
Type of Model: Standardized
(e.g., Spline, Stdzd, Unstdzd)

SUMMARY OF DATA

Number of observations: 548
Number of clusters: 316

MODEL FIT INFORMATION

Number of Free Parameters: 39
Bayesian Posterior Predictive Checking Using Chi-Square:
95% CI for the Difference Between the Observed and Replicated Chi-Square Values:
-27.01 23.24
Posterior Predictive p -value: 0.50

MODEL RESULTS

Predictor Measures (All continuous variables reflect standardized values measured at time of diagnosis unless otherwise noted):

<table>
<thead>
<tr>
<th>Child Characteristics</th>
<th>Estimate</th>
<th>S.D.</th>
<th>One-Tailed P-Value</th>
<th>95% C.I. Lower (2.50%)</th>
<th>95% C.I. Upper (2.50%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender and ethnicity of child (omitted=African American male)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Latina female</td>
<td>-0.90</td>
<td>0.36</td>
<td>0.003</td>
<td>-1.61</td>
<td>-0.25</td>
</tr>
<tr>
<td>Latino male</td>
<td>-1.12</td>
<td>0.44</td>
<td>0.001</td>
<td>-1.98</td>
<td>-0.30</td>
</tr>
<tr>
<td>African American female</td>
<td>-0.19</td>
<td>0.39</td>
<td>0.320</td>
<td>-1.00</td>
<td>0.60</td>
</tr>
<tr>
<td>First born in family (omitted=no)</td>
<td>0.09</td>
<td>0.27</td>
<td>0.369</td>
<td>-0.42</td>
<td>0.59</td>
</tr>
<tr>
<td>Variable</td>
<td>Coefficient</td>
<td>Standard Error</td>
<td>t-value</td>
<td>p-value</td>
<td>Lower</td>
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<td>-------------------------------------------------------------------------</td>
<td>-------------</td>
<td>----------------</td>
<td>---------</td>
<td>---------</td>
<td>-------</td>
</tr>
<tr>
<td>Child was low birthweight or extremely premature (omitted=no)</td>
<td>1.33</td>
<td>0.39</td>
<td>3.31</td>
<td>0.000</td>
<td>0.56</td>
</tr>
<tr>
<td><strong>Caregiver and Household Characteristics</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Number of siblings in household</td>
<td>-0.05</td>
<td>0.15</td>
<td>-0.43</td>
<td>0.67</td>
<td>-0.36</td>
</tr>
<tr>
<td>Caregiver reported depressive symptomatology (omitted=no)</td>
<td>-0.40</td>
<td>0.36</td>
<td>-1.16</td>
<td>0.28</td>
<td>-1.11</td>
</tr>
<tr>
<td>Caregiver age</td>
<td>-1.19</td>
<td>0.25</td>
<td>-4.73</td>
<td>0.000</td>
<td>-1.64</td>
</tr>
<tr>
<td>Caregiver immigrant status (omitted=no)</td>
<td>-0.52</td>
<td>0.54</td>
<td>-0.97</td>
<td>0.33</td>
<td>-1.63</td>
</tr>
<tr>
<td>Caregiver history of substance abuse (omitted=no)</td>
<td>-0.36</td>
<td>0.39</td>
<td>-0.93</td>
<td>0.35</td>
<td>-1.13</td>
</tr>
<tr>
<td>Caregiver disability status (omitted=not disabled)</td>
<td>1.70</td>
<td>0.48</td>
<td>4.36</td>
<td>0.000</td>
<td>0.68</td>
</tr>
<tr>
<td>Caregiver educational attainment (omitted=no degree)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>H.S. diploma</td>
<td>0.88</td>
<td>0.32</td>
<td>2.81</td>
<td>0.004</td>
<td>0.34</td>
</tr>
<tr>
<td>Post-H.S. technical certificate or college degree</td>
<td>-0.70</td>
<td>0.40</td>
<td>-1.74</td>
<td>0.08</td>
<td>-1.44</td>
</tr>
<tr>
<td>Caregiver married/partnered (omitted=not married/partnered)</td>
<td>2.04</td>
<td>0.45</td>
<td>4.51</td>
<td>0.000</td>
<td>1.15</td>
</tr>
<tr>
<td>Natural log of caregiver earnings (in dollars)</td>
<td>-0.30</td>
<td>0.29</td>
<td>-1.02</td>
<td>0.31</td>
<td>-0.90</td>
</tr>
<tr>
<td>Caregiver was available to monitor/supervise children FT/PT (omitted=not available)</td>
<td>-0.31</td>
<td>0.59</td>
<td>-0.52</td>
<td>0.60</td>
<td>-1.63</td>
</tr>
<tr>
<td>Household stressor scale</td>
<td>-0.04</td>
<td>0.14</td>
<td>-0.32</td>
<td>0.75</td>
<td>-0.30</td>
</tr>
<tr>
<td>Household had health insurance (omitted=no)</td>
<td>0.02</td>
<td>0.33</td>
<td>0.07</td>
<td>0.94</td>
<td>0.469</td>
</tr>
<tr>
<td>Total number of moves from birth to diagnosis</td>
<td>-0.79</td>
<td>0.22</td>
<td>-3.62</td>
<td>0.002</td>
<td>-1.23</td>
</tr>
<tr>
<td>Resided in conventional public housing (omitted=no)</td>
<td>0.01</td>
<td>0.39</td>
<td>0.26</td>
<td>0.79</td>
<td>0.492</td>
</tr>
<tr>
<td><strong>Neighborhood Characteristics</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Living in neighborhood with negative peers (omitted=no)</td>
<td>0.53</td>
<td>0.33</td>
<td>1.62</td>
<td>0.10</td>
<td>0.049</td>
</tr>
<tr>
<td>Social capital index</td>
<td>0.16</td>
<td>0.14</td>
<td>1.18</td>
<td>0.24</td>
<td>0.125</td>
</tr>
<tr>
<td>Social problems index</td>
<td>0.01</td>
<td>0.18</td>
<td>0.57</td>
<td>0.57</td>
<td>0.474</td>
</tr>
<tr>
<td>Social vulnerability score</td>
<td>-0.58</td>
<td>0.40</td>
<td>-1.46</td>
<td>0.15</td>
<td>-0.14</td>
</tr>
<tr>
<td>Percent African American residents</td>
<td>0.06</td>
<td>0.21</td>
<td>0.32</td>
<td>0.75</td>
<td>0.396</td>
</tr>
<tr>
<td>Percent Latino residents</td>
<td>0.52</td>
<td>0.38</td>
<td>1.37</td>
<td>0.18</td>
<td>0.080</td>
</tr>
<tr>
<td>Occupational prestige score</td>
<td>-0.35</td>
<td>0.31</td>
<td>-1.14</td>
<td>0.26</td>
<td>0.123</td>
</tr>
<tr>
<td>Percent foreign born residents</td>
<td>-0.88</td>
<td>0.34</td>
<td>-2.63</td>
<td>0.01</td>
<td>0.000</td>
</tr>
<tr>
<td>Percent of residents who moved in preceding 12 months</td>
<td>0.65</td>
<td>0.22</td>
<td>2.96</td>
<td>0.003</td>
<td>0.000</td>
</tr>
<tr>
<td>Living in neighborhood with hospitals and clinics (omitted=no)</td>
<td>0.78</td>
<td>0.45</td>
<td>1.71</td>
<td>0.09</td>
<td>0.033</td>
</tr>
<tr>
<td>Resource factor score</td>
<td>-0.57</td>
<td>0.20</td>
<td>-2.86</td>
<td>0.005</td>
<td>0.000</td>
</tr>
<tr>
<td>Age of housing stock</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Percent of housing built before 1940</td>
<td>0.22</td>
<td>0.20</td>
<td>1.13</td>
<td>0.26</td>
<td>0.140</td>
</tr>
<tr>
<td>Percent of housing built between 1940-1969</td>
<td>0.41</td>
<td>0.23</td>
<td>1.81</td>
<td>0.07</td>
<td>0.015</td>
</tr>
<tr>
<td>Violent crime rate per 1,000</td>
<td>-0.48</td>
<td>0.32</td>
<td>-1.51</td>
<td>0.13</td>
<td>0.063</td>
</tr>
</tbody>
</table>

*Note: t-values are calculated for each coefficient to test the null hypothesis that the coefficient is zero.*
<table>
<thead>
<tr>
<th>Metric</th>
<th>Value1</th>
<th>Value2</th>
<th>Value3</th>
<th>Value4</th>
<th>Value5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Property crime rate per 1,000</td>
<td>1.07</td>
<td>0.25</td>
<td>0.000</td>
<td>0.63</td>
<td>1.57</td>
</tr>
<tr>
<td>Child abuse and neglect rate per 1,000</td>
<td>-0.94</td>
<td>0.27</td>
<td>0.000</td>
<td>-1.54</td>
<td>-0.52</td>
</tr>
<tr>
<td>Neurological hazards index (rescaled by 100)</td>
<td>0.26</td>
<td>0.24</td>
<td>0.117</td>
<td>-0.23</td>
<td>0.74</td>
</tr>
<tr>
<td>Respiratory hazards index</td>
<td>-0.14</td>
<td>0.22</td>
<td>0.277</td>
<td>-0.52</td>
<td>0.32</td>
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</table>

**Thresholds**

<table>
<thead>
<tr>
<th>Metric</th>
<th>Value1</th>
<th>Value2</th>
<th>Value3</th>
<th>Value4</th>
<th>Value5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ever-Asthma</td>
<td>3.68</td>
<td>0.75</td>
<td>0.00</td>
<td>2.26</td>
<td>5.23</td>
</tr>
</tbody>
</table>
Appendix F-IV-1e Standardized Bayesian Logit Models Predicting Childhood Diagnosis of Asthma by Gender and Ethnicity

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

SUMMARY OF DATA

Number of observations: 426
Number of clusters: 306

MODEL FIT INFORMATION

Number of Free Parameters: 37
Bayesian Posterior Predictive Checking Using Chi-Square:

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

\[-22.84\] to \[24.89\]

Posterior Predictive p-value: 0.60

MODEL RESULTS

Predictor Measures (All continuous variables reflect standardized values measured at time of diagnosis unless otherwise noted)

<table>
<thead>
<tr>
<th>Predictor Measures</th>
<th>Estimate</th>
<th>S.D.</th>
<th>One-Tailed P-Value</th>
<th>95% C.I.</th>
<th>95% C.I.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Child Characteristics</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>African American</td>
<td>0.98</td>
<td>0.31</td>
<td>0.000</td>
<td>0.49</td>
<td>1.67</td>
</tr>
<tr>
<td>First born in family (omitted=no)</td>
<td>-0.08</td>
<td>0.32</td>
<td>0.395</td>
<td>-0.69</td>
<td>0.56</td>
</tr>
<tr>
<td>Child was low birthweight or extremely premature (omitted=no)</td>
<td>0.80</td>
<td>0.35</td>
<td>0.012</td>
<td>0.08</td>
<td>1.41</td>
</tr>
<tr>
<td>Caregiver and Household Characteristics</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Variable</td>
<td>B</td>
<td>SE</td>
<td>t</td>
<td>PB</td>
<td>z</td>
</tr>
<tr>
<td>----------------------------------------------------------------</td>
<td>----</td>
<td>-----</td>
<td>-----</td>
<td>-----</td>
<td>-----</td>
</tr>
<tr>
<td>Number of siblings in household</td>
<td>-0.17</td>
<td>0.17</td>
<td>0.170</td>
<td>-0.46</td>
<td>0.18</td>
</tr>
<tr>
<td>Caregiver reported depressive symptomatology (omitted=no)</td>
<td>-0.06</td>
<td>0.25</td>
<td>0.408</td>
<td>-0.52</td>
<td>0.43</td>
</tr>
<tr>
<td>Caregiver age</td>
<td>-0.93</td>
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<td>0.000</td>
<td>-1.39</td>
<td>-0.60</td>
</tr>
<tr>
<td>Caregiver immigrant status (omitted=no)</td>
<td>-0.58</td>
<td>0.52</td>
<td>0.105</td>
<td>-1.71</td>
<td>0.37</td>
</tr>
<tr>
<td>Caregiver history of substance abuse (omitted=no)</td>
<td>-0.29</td>
<td>0.47</td>
<td>0.238</td>
<td>-1.42</td>
<td>0.42</td>
</tr>
<tr>
<td>Caregiver disability status (omitted=not disabled)</td>
<td>0.63</td>
<td>0.46</td>
<td>0.063</td>
<td>-0.12</td>
<td>1.64</td>
</tr>
<tr>
<td>Caregiver educational attainment (omitted=no degree)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>H.S. diploma</td>
<td>0.48</td>
<td>0.28</td>
<td>0.042</td>
<td>-0.06</td>
<td>1.00</td>
</tr>
<tr>
<td>Post-H.S. technical certificate or college degree</td>
<td>-0.67</td>
<td>0.36</td>
<td>0.015</td>
<td>-1.36</td>
<td>-0.08</td>
</tr>
<tr>
<td>Caregiver married/partnered (omitted=not married/partnered)</td>
<td>0.68</td>
<td>0.39</td>
<td>0.038</td>
<td>-0.10</td>
<td>1.42</td>
</tr>
<tr>
<td>Natural log of caregiver earnings (in dollars)</td>
<td>-0.31</td>
<td>0.33</td>
<td>0.155</td>
<td>-0.95</td>
<td>0.35</td>
</tr>
<tr>
<td>Caregiver was available to monitor/supervise children FT/PT (omitted=not available)</td>
<td>-0.58</td>
<td>0.65</td>
<td>0.150</td>
<td>-2.00</td>
<td>0.67</td>
</tr>
<tr>
<td>Household stressor scale</td>
<td>-0.16</td>
<td>0.14</td>
<td>0.130</td>
<td>-0.41</td>
<td>0.13</td>
</tr>
<tr>
<td>Household had health insurance (omitted=no)</td>
<td>-0.15</td>
<td>0.29</td>
<td>0.327</td>
<td>-0.70</td>
<td>0.48</td>
</tr>
<tr>
<td>Total number of moves from birth to diagnosis</td>
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<td>0.20</td>
<td>0.063</td>
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</tr>
<tr>
<td>Resided in conventional public housing (omitted=no)</td>
<td>-0.39</td>
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<td><strong>Neighborhood Characteristics</strong></td>
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<td>0.117</td>
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<td>0.53</td>
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<td>0.003</td>
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<td>-0.21</td>
</tr>
<tr>
<td>Percent African American residents</td>
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<td>0.030</td>
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<td>0.02</td>
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<tr>
<td>Percent Latino residents</td>
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<td>Occupational prestige score</td>
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<td>Percent foreign born residents</td>
<td>-0.47</td>
<td>0.28</td>
<td>0.038</td>
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<td>Percent of residents who moved in preceding 12 months</td>
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<td>Living in neighborhood with hospitals and clinics (omitted=no)</td>
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<td>0.160</td>
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<td>Resource factor score</td>
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<td>0.055</td>
<td>-0.60</td>
<td>0.07</td>
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<tr>
<td>Age of housing stock</td>
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<td></td>
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<tr>
<td>Percent of housing built before 1940</td>
<td>-0.22</td>
<td>0.22</td>
<td>0.160</td>
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<td>Percent of housing built between 1940-1969</td>
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<td>Property crime rate per 1,000</td>
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<td>0.000</td>
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</tr>
<tr>
<td>Child abuse and neglect rate per 1,000</td>
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<td>0.20</td>
<td>0.000</td>
<td>-1.19</td>
<td>-0.37</td>
</tr>
<tr>
<td>Neurological hazards index (rescaled by 100)</td>
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<td>0.152</td>
<td>-0.22</td>
<td>0.56</td>
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<td>------</td>
<td>-------</td>
<td>-------</td>
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<td>Respiratory hazards index</td>
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<tr>
<td>Ever-Asthma</td>
<td>2.34</td>
<td>0.66</td>
<td>0.000</td>
<td>1.17</td>
<td>3.77</td>
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</table>
Appendix F-IV-1f Standardized Bayesian Spline Logit Models Predicting Childhood Diagnosis of Asthma

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

SUMMARY OF DATA

| Number of observations: | 814 |
| Number of clusters: | 448 |

MODEL FIT INFORMATION

| Number of Free Parameters: | 55 |
| Bayesian Posterior Predictive Checking Using Chi-Square: | 95% CI for the Difference Between the Observed and Replicated Chi-Square Values: |
| | -30.68 |
| | 28.80 |
| Posterior Predictive p-value: | 0.50 |

MODEL RESULTS

<table>
<thead>
<tr>
<th>Predictor Measures (All continuous variables reflect standardized values measured at time of diagnosis unless otherwise noted)</th>
<th>Estimate</th>
<th>Posterior S.D.</th>
<th>One-Tailed P-Value</th>
<th>95% C.I. Lower (2.50%)</th>
<th>95% C.I. Upper (2.50%)</th>
</tr>
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<tbody>
<tr>
<td>Child Characteristics</td>
<td></td>
<td></td>
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<td></td>
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</tr>
<tr>
<td>Gender and ethnicity of child (omitted=African American male)</td>
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<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Latina female</td>
<td>-0.80</td>
<td>0.27</td>
<td>0.000</td>
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<td>-0.27</td>
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<td>Latino male</td>
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<td>0.000</td>
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<td>African American female</td>
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<td>0.003</td>
<td>-1.44</td>
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<tr>
<td>First born in family (omitted=no)</td>
<td>-0.31</td>
<td>0.23</td>
<td>0.072</td>
<td>-0.78</td>
<td>0.13</td>
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<tr>
<td>Child was low birthweight or extremely premature (omitted=no)</td>
<td>0.76</td>
<td>0.30</td>
<td>0.005</td>
<td>0.16</td>
<td>1.36</td>
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<td>Caregiver and Household Characteristics</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Number of siblings in household</td>
<td>-0.23</td>
<td>0.12</td>
<td>0.023</td>
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<td>0.00</td>
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<td>Caregiver reported depressive symptomatology (omitted=no)</td>
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<td>0.467</td>
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<td>0.48</td>
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<td>-1.27</td>
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<td>0.000</td>
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<td>-0.97</td>
</tr>
<tr>
<td>Caregiver immigrant status (omitted=no)</td>
<td>0.00</td>
<td>0.39</td>
<td>0.498</td>
<td>-0.74</td>
<td>0.81</td>
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<tr>
<td>Caregiver history of substance abuse (omitted=no)</td>
<td>-0.31</td>
<td>0.33</td>
<td>0.174</td>
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<td>Caregiver disability status (omitted=not disabled)</td>
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<td>0.33</td>
<td>0.001</td>
<td>0.29</td>
<td>1.55</td>
</tr>
<tr>
<td>Caregiver educational attainment (omitted=no degree)</td>
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<td></td>
<td></td>
<td></td>
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<td>H.S. diploma</td>
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<td>0.22</td>
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<td>Post-H.S. technical certificate or college degree</td>
<td>-0.41</td>
<td>0.28</td>
<td>0.075</td>
<td>-0.94</td>
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<td>Caregiver married/partnered (omitted=not married/partnered)</td>
<td>1.28</td>
<td>0.30</td>
<td>0.000</td>
<td>0.71</td>
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<td>Natural log of caregiver earnings (in dollars)</td>
<td>-0.26</td>
<td>0.28</td>
<td>0.170</td>
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</tr>
<tr>
<td>Caregiver was available to monitor/supervise children FT/PT (omitted=not available)</td>
<td>-0.62</td>
<td>0.54</td>
<td>0.111</td>
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<td>0.11</td>
<td>0.226</td>
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<tr>
<td>Household had health insurance (omitted=no)</td>
<td>-0.38</td>
<td>0.22</td>
<td>0.039</td>
<td>-0.78</td>
<td>0.04</td>
</tr>
<tr>
<td>Total number of moves from birth to diagnosis</td>
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<td>0.14</td>
<td>0.021</td>
<td>-0.53</td>
<td>-0.01</td>
</tr>
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<td>Resided in conventional public housing (omitted=no)</td>
<td>-0.12</td>
<td>0.33</td>
<td>0.357</td>
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<td>0.54</td>
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<td>Neighborhood Characteristics</td>
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<td></td>
</tr>
<tr>
<td>Living in neighborhood with negative peers (omitted=no)</td>
<td>0.31</td>
<td>0.30</td>
<td>0.170</td>
<td>-0.28</td>
<td>0.89</td>
</tr>
<tr>
<td>Social capital index</td>
<td>0.71</td>
<td>0.24</td>
<td>0.001</td>
<td>0.25</td>
<td>1.18</td>
</tr>
<tr>
<td>Spline-Social capital index</td>
<td>-1.24</td>
<td>0.42</td>
<td>0.001</td>
<td>-2.04</td>
<td>-0.41</td>
</tr>
<tr>
<td>Social problems index</td>
<td>-0.01</td>
<td>0.32</td>
<td>0.481</td>
<td>-0.65</td>
<td>0.58</td>
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<tr>
<td>Spline-Social problems index</td>
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<td>0.42</td>
<td>0.293</td>
<td>-0.56</td>
<td>1.04</td>
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<tr>
<td>Social vulnerability score</td>
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<td>0.60</td>
<td>0.444</td>
<td>-1.07</td>
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<td>Spline-Social vulnerability score</td>
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<td>0.157</td>
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<td>Percent African American residents</td>
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<td>0.74</td>
<td>0.472</td>
<td>-1.49</td>
<td>1.38</td>
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<tr>
<td>Spline-Percent African American residents</td>
<td>-0.51</td>
<td>0.86</td>
<td>0.269</td>
<td>-2.21</td>
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<td>Percent Latino residents</td>
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<td>0.49</td>
<td>0.058</td>
<td>-1.75</td>
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<td>Spline-Percent Latino residents</td>
<td>0.60</td>
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<td>Percent foreign born residents</td>
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<td>0.50</td>
<td>0.083</td>
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<td>Spline-Percent foreign born residents</td>
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<td>0.014</td>
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<td>Coefficient 1</td>
<td>Coefficient 2</td>
<td>Coefficient 3</td>
<td>Coefficient 4</td>
<td>Coefficient 5</td>
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<tr>
<td>-------------------------------------------------------------------------</td>
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<td>---------------</td>
<td>---------------</td>
<td>---------------</td>
<td>---------------</td>
</tr>
<tr>
<td>Percent of residents who moved in preceding 12 months</td>
<td>0.61</td>
<td>0.38</td>
<td>0.060</td>
<td>-0.14</td>
<td>1.32</td>
</tr>
<tr>
<td>Spline-Percent of residents who moved in preceding 12 months</td>
<td>-1.13</td>
<td>0.54</td>
<td>0.033</td>
<td>-2.08</td>
<td>0.08</td>
</tr>
<tr>
<td>Living in neighborhood with hospitals and clinics (omitted=no)</td>
<td>0.70</td>
<td>0.32</td>
<td>0.017</td>
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<td>1.30</td>
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<tr>
<td>Resource factor score</td>
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<td>0.057</td>
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<td>Spline-Resource factor score</td>
<td>0.10</td>
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<td>Age of housing stock</td>
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</tr>
<tr>
<td>Percent of housing built before 1940</td>
<td>1.11</td>
<td>0.49</td>
<td>0.015</td>
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<td>2.04</td>
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<td>Spline-Percent of housing built before 1940</td>
<td>-1.39</td>
<td>0.64</td>
<td>0.021</td>
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<td>-0.07</td>
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<td>Percent of housing built between 1940-1969</td>
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<td>0.41</td>
<td>0.131</td>
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<td>Spline-Percent of housing built between 1940-1969</td>
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<td>Violent crime rate per 1,000</td>
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<td>0.000</td>
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<td>Spline-Violent crime rate per 1,000</td>
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<td>0.70</td>
<td>0.000</td>
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<td>Property crime rate per 1,000</td>
<td>1.66</td>
<td>0.57</td>
<td>0.001</td>
<td>0.66</td>
<td>2.84</td>
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<td>Spline-Property crime rate per 1,000</td>
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<td>0.68</td>
<td>0.193</td>
<td>-2.00</td>
<td>0.69</td>
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<tr>
<td>Child abuse and neglect rate per 1,000</td>
<td>-1.46</td>
<td>0.49</td>
<td>0.002</td>
<td>-2.37</td>
<td>-0.36</td>
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<td>Spline-Child abuse and neglect rate per 1,000</td>
<td>0.74</td>
<td>0.54</td>
<td>0.089</td>
<td>-0.36</td>
<td>1.75</td>
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<tr>
<td>Neurological hazards index (rescaled by 100)</td>
<td>0.47</td>
<td>0.40</td>
<td>0.123</td>
<td>-0.34</td>
<td>1.21</td>
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<tr>
<td>Spline-Neurological hazards index (rescaled by 100)</td>
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<td>0.60</td>
<td>0.092</td>
<td>-1.97</td>
<td>0.47</td>
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<td>Respiratory hazards index</td>
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<td>0.24</td>
<td>0.048</td>
<td>-0.87</td>
<td>0.05</td>
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<td>Spline-Respiratory hazards index</td>
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<td>2.50</td>
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</tr>
<tr>
<td>Ever-Asthma</td>
<td>0.19</td>
<td>0.95</td>
<td>0.42</td>
<td>-1.73</td>
<td>1.98</td>
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Appendix F-IV-2a. Standardized Bayesian Logit Model Predicting Childhood Diagnosis of Neurodevelopmental Disorders

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

SUMMARY OF DATA

Number of observations: 841
Number of clusters: 442

MODEL FIT INFORMATION

Number of Free Parameters: 38
Bayesian Posterior Predictive Checking Using Chi-Square:

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

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<th>Lower CI</th>
<th>Upper CI</th>
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<td>-28.62</td>
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</table>

Posterior Predictive p -value: 0.50

MODEL RESULTS

 Predictor Measures (All continuous variables reflect standardized values measured at time of diagnosis unless otherwise noted)

<table>
<thead>
<tr>
<th>Predictor Measures</th>
<th>Estimate</th>
<th>S.D.</th>
<th>One-Tailed P-Value</th>
<th>95% C.I. Lower (2.50%)</th>
<th>95% C.I. Upper (2.50%)</th>
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<tr>
<td>Child Characteristics</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gender and ethnicity of child (omitted=African American male)</td>
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<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Latina female</td>
<td>-0.95</td>
<td>0.34</td>
<td>0.001</td>
<td>-1.75</td>
<td>-0.37</td>
</tr>
<tr>
<td>Latino male</td>
<td>-0.17</td>
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<td>0.247</td>
<td>-0.65</td>
<td>0.31</td>
</tr>
<tr>
<td>African American female</td>
<td>-0.42</td>
<td>0.26</td>
<td>0.053</td>
<td>-0.96</td>
<td>0.07</td>
</tr>
<tr>
<td>Description</td>
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<tr>
<td>First born in family (omitted=no)</td>
<td>-0.37</td>
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<td>0.027</td>
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<tr>
<td>Child was low birthweight or extremely premature (omitted=no)</td>
<td>0.29</td>
<td>0.28</td>
<td>0.160</td>
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<td><strong>Caregiver and Household Characteristics</strong></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Number of siblings in household</td>
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<td>Caregiver reported depressive symptomatology (omitted=no)</td>
<td>0.19</td>
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<td>Caregiver age</td>
<td>-0.73</td>
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<td>Caregiver immigrant status (omitted=no)</td>
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<td>Caregiver history of substance abuse (omitted=no)</td>
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<td>0.498</td>
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<td>Caregiver educational attainment (omitted=no degree)</td>
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<td>Post-H.S. technical certificate or college degree</td>
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<td>Natural log of caregiver earnings (in dollars)</td>
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<td>Household stressor scale</td>
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<td>Total number of moves from birth to diagnosis</td>
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<td><strong>Neighborhood Characteristics</strong></td>
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<td>0.141</td>
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<td>0.011</td>
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<td>Percent African American residents</td>
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<td>0.177</td>
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<td>Percent Latino residents</td>
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<td>Percent foreign born residents</td>
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<td>0.003</td>
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<td>Percent of residents who moved in preceding 12 months</td>
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<td>0.316</td>
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<td>0.40</td>
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<td>Percent of housing built between 1940-1969</td>
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<td>0.252</td>
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<td>Violent crime rate per 1,000</td>
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<td>-0.75</td>
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<tr>
<td>Property crime rate per 1,000</td>
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<td>0.16</td>
<td>0.000</td>
<td>0.25</td>
<td>0.88</td>
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<td>Child abuse and neglect rate per 1,000</td>
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<td>-0.96</td>
<td>-0.37</td>
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<td>Neurological hazards index (rescaled by 100)</td>
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<td>0.17</td>
<td>0.039</td>
<td>-0.06</td>
<td>0.65</td>
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<tr>
<td>Respiratory hazards index</td>
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**Thresholds**

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<td>Ever-Neurodevelopmental Disorders</td>
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<td>0.000</td>
<td>1.15</td>
<td>2.92</td>
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Appendix F-IV-2b. Standardized Bayesian Logit Model Predicting Childhood Diagnosis of Neurodevelopmental Disorders

Outcome: Childhood Diagnosis of Neurodevelopmental Disorders
Sample: CURRENTLY in DHA
Type of Model: Standardized
(e.g., Spline, Stdzd, Unstdzd)

SUMMARY OF DATA

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MODEL FIT INFORMATION

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<tr>
<th>Number of Free Parameters:</th>
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Bayesian Posterior Predictive Checking Using Chi-Square:

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

| -24.82 | 23.23 |

Posterior Predictive p -value:

| 0.74 |

MODEL RESULTS

Predictor Measures (All continuous variables reflect standardized values measured at time of diagnosis unless otherwise noted)

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<thead>
<tr>
<th>Predictor Measures (All continuous variables reflect standardized values measured at time of diagnosis unless otherwise noted)</th>
<th>Estimate</th>
<th>Posterior S.D.</th>
<th>One-Tailed P-Value</th>
<th>95% C.I. Lower (2.50%)</th>
<th>95% C.I. Upper (2.50%)</th>
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<td>Child Characteristics</td>
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<td>Gender and ethnicity of child (omitted=African American male)</td>
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<tr>
<td>Latina female</td>
<td>-1.15</td>
<td>0.34</td>
<td>0.000</td>
<td>-1.75</td>
<td>-0.44</td>
</tr>
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<td>Latino male</td>
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<td>0.27</td>
<td>0.078</td>
<td>-0.90</td>
<td>0.14</td>
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<td>Variable</td>
<td>Coefficient</td>
<td>Standard Error</td>
<td>t-statistic</td>
<td>p-value</td>
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<td>----------------</td>
<td>-------------</td>
<td>---------</td>
<td></td>
</tr>
<tr>
<td>African American female</td>
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<td>0.29</td>
<td>0.005</td>
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<td>-0.11</td>
</tr>
<tr>
<td>First born in family (omitted=no)</td>
<td>-0.28</td>
<td>0.27</td>
<td>0.137</td>
<td>-0.88</td>
<td>0.20</td>
</tr>
<tr>
<td>Child was low birthweight or extremely premature (omitted=no)</td>
<td>-0.01</td>
<td>0.33</td>
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<td><strong>Caregiver and Household Characteristics</strong></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Number of siblings in household</td>
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<td>Caregiver reported depressive symptomatology (omitted=no)</td>
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<td>0.23</td>
<td>0.155</td>
<td>-0.21</td>
<td>0.65</td>
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<td>Caregiver age</td>
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<td>0.14</td>
<td>0.003</td>
<td>-0.59</td>
<td>-0.05</td>
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<td>Caregiver immigrant status (omitted=no)</td>
<td>0.11</td>
<td>0.37</td>
<td>0.362</td>
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<td>0.79</td>
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<td>Caregiver history of substance abuse (omitted=no)</td>
<td>0.04</td>
<td>0.27</td>
<td>0.445</td>
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<td>0.52</td>
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<td>Caregiver disability status (omitted=not disabled)</td>
<td>0.42</td>
<td>0.37</td>
<td>0.145</td>
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<td>1.10</td>
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<td>Caregiver educational attainment (omitted=no degree)</td>
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<td>H.S. diploma</td>
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<td>Post-H.S. technical certificate or college degree</td>
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<td>0.080</td>
<td>-0.19</td>
<td>0.91</td>
</tr>
<tr>
<td>Caregiver married/partnered (omitted=not married/partnered)</td>
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<td>0.26</td>
<td>0.153</td>
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<td>0.73</td>
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<td>0.25</td>
<td>0.312</td>
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<td>0.37</td>
</tr>
<tr>
<td>Caregiver was available to monitor/supervise children FT/PT (omitted=no available)</td>
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<td>0.50</td>
<td>0.197</td>
<td>-1.45</td>
<td>0.66</td>
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<td>Household stressor scale</td>
<td>-0.10</td>
<td>0.10</td>
<td>0.143</td>
<td>-0.32</td>
<td>0.09</td>
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<td>Household had health insurance (omitted=no)</td>
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<td>0.24</td>
<td>0.255</td>
<td>-0.65</td>
<td>0.30</td>
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<td>Total number of moves from birth to diagnosis</td>
<td>0.04</td>
<td>0.09</td>
<td>0.363</td>
<td>-0.15</td>
<td>0.20</td>
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<td><strong>Neighborhood Characteristics</strong></td>
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<tr>
<td>Living in neighborhood with negative peers (omitted=no)</td>
<td>-0.20</td>
<td>0.27</td>
<td>0.243</td>
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<td>Social capital index</td>
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<td>Social problems index</td>
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<td>0.055</td>
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<td>Social vulnerability score</td>
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<td>Percent African American residents</td>
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<td>0.17</td>
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<td>Percent Latino residents</td>
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<td>Percent foreign born residents</td>
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<td>-0.60</td>
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<tr>
<td>Percent of residents who moved in preceding 12 months</td>
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<td>Living in neighborhood with hospitals and clinics (omitted=no)</td>
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<td>Percent of housing built before 1940</td>
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<td>Percent of housing built</td>
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<td>0.022</td>
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<td>between 1940-1969</td>
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<td>Violent crime rate per 1,000</td>
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<td>0.000</td>
<td>1.09</td>
<td>2.37</td>
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<td>-1.78</td>
<td>-0.77</td>
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<tr>
<td>per 1,000</td>
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**Thresholds**

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Appendix F-IV-2c. Standardized Bayesian Logit Model Predicting Childhood Diagnosis of Neurodevelopmental Disorders

**Outcome:**
Childhood Diagnosis of Neurodevelopmental Disorders

**Sample:**
MAJORITY in DHA

**Type of Model:**
Standardized

(e.g., Spline, Stdzd, Unstdzd)

### SUMMARY OF DATA

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### MODEL FIT INFORMATION

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Bayesian Posterior Predictive Checking Using Chi-Square:

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

| -23.16 | 21.85 |

Posterior Predictive $p$ -value:

| 0.63 |

### MODEL RESULTS

**Predictor Measures (All continuous variables reflect standardized values measured at time of diagnosis unless otherwise noted)**

<table>
<thead>
<tr>
<th>Predictor Measures</th>
<th>Estimate</th>
<th>Posterior S.D.</th>
<th>One-Tailed P-Value</th>
<th>95% C.I. Lower (2.50%)</th>
<th>95% C.I. Upper (2.50%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Child Characteristics</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Gender and ethnicity of child (omitted=African American male)

<table>
<thead>
<tr>
<th>Characteristics</th>
<th>Beta</th>
<th>SE</th>
<th>Z</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>Latina female</td>
<td>-1.39</td>
<td>0.41</td>
<td>0.00</td>
<td>-2.26</td>
</tr>
<tr>
<td>African American female</td>
<td>-0.19</td>
<td>0.30</td>
<td>0.25</td>
<td>-0.76</td>
</tr>
<tr>
<td>First born in family (omitted=no)</td>
<td>-0.36</td>
<td>0.28</td>
<td>0.08</td>
<td>-0.95</td>
</tr>
<tr>
<td>Child was low birthweight or extremely premature (omitted=no)</td>
<td>-0.43</td>
<td>0.30</td>
<td>0.07</td>
<td>-1.02</td>
</tr>
</tbody>
</table>

Caregiver and Household Characteristics

<table>
<thead>
<tr>
<th>Characteristics</th>
<th>Beta</th>
<th>SE</th>
<th>Z</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of siblings in household</td>
<td>-0.14</td>
<td>0.16</td>
<td>0.17</td>
<td>0.44</td>
</tr>
<tr>
<td>Caregiver reported depressive symptomatology (omitted=no)</td>
<td>0.44</td>
<td>0.27</td>
<td>0.05</td>
<td>-0.10</td>
</tr>
<tr>
<td>Caregiver age</td>
<td>-0.50</td>
<td>0.14</td>
<td>0.00</td>
<td>-0.79</td>
</tr>
<tr>
<td>Caregiver immigrant status (omitted=no)</td>
<td>0.11</td>
<td>0.39</td>
<td>0.37</td>
<td>-0.61</td>
</tr>
<tr>
<td>Caregiver history of substance abuse (omitted=no)</td>
<td>0.31</td>
<td>0.35</td>
<td>0.18</td>
<td>-0.37</td>
</tr>
<tr>
<td>Caregiver disability status (omitted=not disabled)</td>
<td>0.10</td>
<td>0.37</td>
<td>0.40</td>
<td>-0.71</td>
</tr>
<tr>
<td>Caregiver educational attainment (omitted=no degree)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>H.S. diploma</td>
<td>-0.13</td>
<td>0.28</td>
<td>0.33</td>
<td>-0.67</td>
</tr>
<tr>
<td>Post-H.S. technical certificate or college degree</td>
<td>0.15</td>
<td>0.31</td>
<td>0.31</td>
<td>-0.40</td>
</tr>
<tr>
<td>Caregiver married/partnered (omitted=not married/partnered)</td>
<td>0.12</td>
<td>0.32</td>
<td>0.32</td>
<td>-0.43</td>
</tr>
<tr>
<td>Natural log of caregiver earnings (in dollars)</td>
<td>-0.26</td>
<td>0.28</td>
<td>0.16</td>
<td>-0.86</td>
</tr>
<tr>
<td>Caregiver was available to monitor/supervise children FT/PT (omitted=not available)</td>
<td>-0.57</td>
<td>0.58</td>
<td>0.16</td>
<td>-1.71</td>
</tr>
<tr>
<td>Household stressor scale</td>
<td>-0.06</td>
<td>0.12</td>
<td>0.31</td>
<td>-0.28</td>
</tr>
<tr>
<td>Household had health insurance (omitted=no)</td>
<td>-0.60</td>
<td>0.29</td>
<td>0.02</td>
<td>-1.19</td>
</tr>
<tr>
<td>Total number of moves from birth to diagnosis</td>
<td>-0.10</td>
<td>0.11</td>
<td>0.18</td>
<td>-0.32</td>
</tr>
</tbody>
</table>

Neighborhood Characteristics

<table>
<thead>
<tr>
<th>Characteristics</th>
<th>Beta</th>
<th>SE</th>
<th>Z</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>Living in neighborhood with negative peers (omitted=no)</td>
<td>-0.19</td>
<td>0.34</td>
<td>0.30</td>
<td>-0.83</td>
</tr>
<tr>
<td>Social capital index</td>
<td>-0.12</td>
<td>0.13</td>
<td>0.19</td>
<td>-0.37</td>
</tr>
<tr>
<td>Social problems index</td>
<td>0.19</td>
<td>0.17</td>
<td>0.14</td>
<td>-0.14</td>
</tr>
<tr>
<td>Social vulnerability score</td>
<td>0.70</td>
<td>0.60</td>
<td>0.11</td>
<td>-0.42</td>
</tr>
<tr>
<td>Percent African American residents</td>
<td>-0.40</td>
<td>0.20</td>
<td>0.01</td>
<td>-0.82</td>
</tr>
<tr>
<td>Percent Latino residents</td>
<td>-0.16</td>
<td>0.44</td>
<td>0.38</td>
<td>-0.97</td>
</tr>
<tr>
<td>Occupational prestige score</td>
<td>-1.29</td>
<td>0.41</td>
<td>0.00</td>
<td>-2.21</td>
</tr>
<tr>
<td>Percent foreign born residents</td>
<td>-0.79</td>
<td>0.27</td>
<td>0.00</td>
<td>-1.27</td>
</tr>
<tr>
<td>Percent of residents who moved in preceding 12 months</td>
<td>0.19</td>
<td>0.23</td>
<td>0.18</td>
<td>-0.20</td>
</tr>
<tr>
<td>Living in neighborhood with hospitals and clinics (omitted=no)</td>
<td>0.50</td>
<td>0.36</td>
<td>0.07</td>
<td>-0.19</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Metric</th>
<th>Score 1</th>
<th>Score 2</th>
<th>Score 3</th>
<th>Score 4</th>
<th>Score 5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Resource factor score</td>
<td>-0.09</td>
<td>0.23</td>
<td>0.360</td>
<td>-0.50</td>
<td>0.37</td>
</tr>
<tr>
<td>Age of housing stock</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Percent of housing built before 1940</td>
<td>0.28</td>
<td>0.19</td>
<td>0.093</td>
<td>-0.12</td>
<td>0.61</td>
</tr>
<tr>
<td>Percent of housing built between 1940-1969</td>
<td>-0.26</td>
<td>0.20</td>
<td>0.105</td>
<td>-0.66</td>
<td>0.12</td>
</tr>
<tr>
<td>Violent crime rate per 1,000</td>
<td>-1.98</td>
<td>0.44</td>
<td>0.000</td>
<td>-2.93</td>
<td>-1.25</td>
</tr>
<tr>
<td>Property crime rate per 1,000</td>
<td>0.93</td>
<td>0.22</td>
<td>0.000</td>
<td>0.52</td>
<td>1.38</td>
</tr>
<tr>
<td>Child abuse and neglect rate per 1,000</td>
<td>-0.79</td>
<td>0.25</td>
<td>0.000</td>
<td>-1.30</td>
<td>-0.28</td>
</tr>
<tr>
<td>Neurological hazards index (rescaled by 100)</td>
<td>0.86</td>
<td>0.28</td>
<td>0.000</td>
<td>0.30</td>
<td>1.38</td>
</tr>
<tr>
<td>Respiratory hazards index</td>
<td>-0.37</td>
<td>0.23</td>
<td>0.057</td>
<td>-0.84</td>
<td>0.08</td>
</tr>
<tr>
<td>Thresholds</td>
<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Ever-Neurodevelopmental Disorders</td>
<td>1.50</td>
<td>0.54</td>
<td>0.002</td>
<td>0.38</td>
<td>2.49</td>
</tr>
</tbody>
</table>
Appendix F-IV-2d. Standardized Bayesian Logit Model Predicting Childhood Diagnosis of Neurodevelopmental Disorders

Outcome: Childhood Diagnosis of Neurodevelopmental Disorders
Sample: MOSTLY in DHA
Type of Model: Standardized
(e.g., Spline, Stdzd, Unstdzd)

SUMMARY OF DATA

| Number of observations: | 411 |
| Number of clusters:     | 263 |

MODEL FIT INFORMATION

| Number of Free Parameters: | 37 |

Bayesian Posterior Predictive Checking Using Chi-Square:

<table>
<thead>
<tr>
<th>95% CI for the Difference Between the Observed and Replicated Chi-Square Values:</th>
</tr>
</thead>
<tbody>
<tr>
<td>-27.84</td>
</tr>
<tr>
<td>24.15</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Posterior Predictive $p$-value:</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.57</td>
</tr>
</tbody>
</table>

MODEL RESULTS

<table>
<thead>
<tr>
<th>Predictor Measures (All continuous variables reflect standardized values measured at time of diagnosis unless otherwise noted)</th>
<th>Estimate</th>
<th>Posterior S.D.</th>
<th>One-Tailed P-Value</th>
<th>95% C.I. Lower (2.50%)</th>
<th>95% C.I. Upper (2.50%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Child Characteristics</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gender and ethnicity of child (omitted=African American male)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>---------------------------------------------------------------</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td>Latina female</td>
<td>-a</td>
<td>-a</td>
<td>-a</td>
<td>-a</td>
<td>-a</td>
</tr>
<tr>
<td>Latino male</td>
<td>0.29</td>
<td>0.36</td>
<td>0.223</td>
<td>-0.44</td>
<td>0.94</td>
</tr>
<tr>
<td>African American female</td>
<td>-0.10</td>
<td>0.42</td>
<td>0.414</td>
<td>-0.93</td>
<td>0.69</td>
</tr>
<tr>
<td>First born in family (omitted=no)</td>
<td>-0.21</td>
<td>0.33</td>
<td>0.269</td>
<td>-0.91</td>
<td>0.44</td>
</tr>
<tr>
<td>Child was low birthweight or extremely premature (omitted=no)</td>
<td>0.03</td>
<td>0.41</td>
<td>0.481</td>
<td>-0.77</td>
<td>0.82</td>
</tr>
<tr>
<td>Caregiver and Household Characteristics</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Number of siblings in household</td>
<td>-0.14</td>
<td>0.18</td>
<td>0.207</td>
<td>-0.52</td>
<td>0.17</td>
</tr>
<tr>
<td>Caregiver reported depressive symptomatology (omitted=no)</td>
<td>-0.01</td>
<td>0.33</td>
<td>0.486</td>
<td>-0.71</td>
<td>0.59</td>
</tr>
<tr>
<td>Caregiver age</td>
<td>-0.63</td>
<td>0.20</td>
<td>0.000</td>
<td>-1.05</td>
<td>-0.27</td>
</tr>
<tr>
<td>Caregiver immigrant status (omitted=no)</td>
<td>-0.85</td>
<td>0.60</td>
<td>0.070</td>
<td>-2.08</td>
<td>0.24</td>
</tr>
<tr>
<td>Caregiver history of substance abuse (omitted=no)</td>
<td>0.34</td>
<td>0.42</td>
<td>0.204</td>
<td>-0.59</td>
<td>1.10</td>
</tr>
<tr>
<td>Caregiver disability status (omitted=not disabled)</td>
<td>0.23</td>
<td>0.45</td>
<td>0.294</td>
<td>-0.64</td>
<td>1.10</td>
</tr>
<tr>
<td>Caregiver educational attainment (omitted=no degree)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>H.S. diploma</td>
<td>0.42</td>
<td>0.33</td>
<td>0.121</td>
<td>-0.25</td>
<td>1.02</td>
</tr>
<tr>
<td>Post-H.S. technical certificate or college degree</td>
<td>0.22</td>
<td>0.41</td>
<td>0.268</td>
<td>-0.71</td>
<td>0.99</td>
</tr>
<tr>
<td>Caregiver married/partnered (omitted=not married/partnered)</td>
<td>0.33</td>
<td>0.33</td>
<td>0.149</td>
<td>-0.30</td>
<td>1.05</td>
</tr>
<tr>
<td>Natural log of caregiver earnings (in dollars)</td>
<td>-0.10</td>
<td>0.33</td>
<td>0.396</td>
<td>-0.84</td>
<td>0.41</td>
</tr>
<tr>
<td>Caregiver was available to monitor/supervise children FT/PT (omitted=not available)</td>
<td>-0.51</td>
<td>0.65</td>
<td>0.208</td>
<td>-1.88</td>
<td>0.66</td>
</tr>
<tr>
<td>Household stressor scale</td>
<td>-0.20</td>
<td>0.15</td>
<td>0.087</td>
<td>-0.47</td>
<td>0.12</td>
</tr>
<tr>
<td>Household had health insurance (omitted=no)</td>
<td>-1.09</td>
<td>0.29</td>
<td>0.000</td>
<td>-1.70</td>
<td>-0.50</td>
</tr>
<tr>
<td>Total number of moves from birth to diagnosis</td>
<td>-0.31</td>
<td>0.17</td>
<td>0.031</td>
<td>-0.65</td>
<td>0.01</td>
</tr>
<tr>
<td>Neighborhood Characteristics</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Living in neighborhood with negative peers (omitted=no)</td>
<td>-0.45</td>
<td>0.39</td>
<td>0.092</td>
<td>-1.32</td>
<td>0.28</td>
</tr>
<tr>
<td>Social capital index</td>
<td>-0.04</td>
<td>0.17</td>
<td>0.394</td>
<td>-0.40</td>
<td>0.28</td>
</tr>
<tr>
<td>Social problems index</td>
<td>0.44</td>
<td>0.20</td>
<td>0.012</td>
<td>0.04</td>
<td>0.79</td>
</tr>
<tr>
<td>Social vulnerability score</td>
<td>1.59</td>
<td>0.49</td>
<td>0.001</td>
<td>0.69</td>
<td>2.55</td>
</tr>
<tr>
<td>Percent African American residents</td>
<td>0.20</td>
<td>0.33</td>
<td>0.294</td>
<td>-0.63</td>
<td>0.71</td>
</tr>
<tr>
<td>Percent Latino residents</td>
<td>0.87</td>
<td>0.48</td>
<td>0.050</td>
<td>-0.13</td>
<td>1.72</td>
</tr>
<tr>
<td>Occupational prestige score</td>
<td>-0.30</td>
<td>0.34</td>
<td>0.203</td>
<td>-1.04</td>
<td>0.33</td>
</tr>
<tr>
<td>Percent foreign born residents</td>
<td>-0.73</td>
<td>0.34</td>
<td>0.017</td>
<td>-1.37</td>
<td>-0.06</td>
</tr>
<tr>
<td>Percent of residents who moved in preceding 12 months</td>
<td>-0.16</td>
<td>0.24</td>
<td>0.274</td>
<td>-0.62</td>
<td>0.27</td>
</tr>
<tr>
<td>Living in neighborhood with hospitals and clinics (omitted=no)</td>
<td>0.26</td>
<td>0.51</td>
<td>0.284</td>
<td>-0.63</td>
<td>1.35</td>
</tr>
<tr>
<td>Factor</td>
<td>Factor Loadings</td>
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<tr>
<td>---------------------------------------------</td>
<td>-----------------</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Resource factor score</td>
<td>-0.10  0.22  0.328 -0.52  0.32</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Age of housing stock</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Percent of housing built before 1940</td>
<td>-0.12  0.23  0.302 -0.54  0.35</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Percent of housing built between 1940-1969</td>
<td>-0.37  0.25  0.048 -0.89  0.08</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Violent crime rate per 1,000</td>
<td>-1.76  0.39  0.000 -2.49 -0.99</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Property crime rate per 1,000</td>
<td>0.52  0.31  0.034 -0.04  1.17</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Child abuse and neglect rate per 1,000</td>
<td>-1.09  0.30  0.000 -1.80 -0.65</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Neurological hazards index (rescaled by 100)</td>
<td>0.38  0.26  0.071 -0.16  0.83</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Respiratory hazards index</td>
<td>0.19  0.25  0.204 -0.30  0.67</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Thresholds**

<table>
<thead>
<tr>
<th>Disorder</th>
<th>Thresholds</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ever-Neurodevelopmental Disorders</td>
<td>1.85  0.65  0.002  0.51  3.08</td>
</tr>
</tbody>
</table>

*Hispanic Female was omitted from the model.*
Appendix F-IV-2e. Standardized Bayesian Logit Models Predicting Childhood Diagnosis of Neurodevelopmental Disorders by Gender and Ethnicity

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

SUMMARY OF DATA

Number of observations: 438
Number of clusters: 309

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:

-25.89
22.49

Posterior Predictive p-value: 0.55

MODEL RESULTS

Predictor Measures (All continuous variables reflect standardized values measured at time of diagnosis unless otherwise noted)

<table>
<thead>
<tr>
<th>Predictor Measures</th>
<th>Estimate</th>
<th>S.D.</th>
<th>One-Tailed P-Value</th>
<th>95% C.I. Lower (2.50%)</th>
<th>95% C.I. Upper (2.50%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Child Characteristics</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>African American</td>
<td>0.00</td>
<td>0.24</td>
<td>0.496</td>
<td>-0.46</td>
<td>0.50</td>
</tr>
<tr>
<td>First born in family (omitted=no)</td>
<td>-0.43</td>
<td>0.26</td>
<td>0.041</td>
<td>-0.98</td>
<td>0.07</td>
</tr>
<tr>
<td>Child was low birthweight or extremely premature (omitted=no)</td>
<td>0.27</td>
<td>0.32</td>
<td>0.205</td>
<td>-0.39</td>
<td>0.86</td>
</tr>
</tbody>
</table>

Caregiver and Household Characteristics
<p>| Variable Description                                                                 | Coefficient | Standard Error | t-Value | Pr(&gt;|t|) |
|--------------------------------------------------------------------------------------|-------------|----------------|---------|---------|
| Number of siblings in household                                                     | -0.18       | 0.14           | 0.093   | -0.48   |
| Caregiver reported depressive symptomatology (omitted=no)                           | 0.42        | 0.25           | 0.049   | -0.09   |
| Caregiver age                                                                       | -0.59       | 0.15           | 0.000   | -0.88   |
| Caregiver immigrant status (omitted=no)                                             | 0.12        | 0.38           | 0.355   | -0.59   |
| Caregiver history of substance abuse (omitted=no)                                    | 0.24        | 0.32           | 0.229   | -0.44   |
| Caregiver disability status (omitted=not disabled)                                  | 0.00        | 0.38           | 0.499   | -0.78   |
| Caregiver educational attainment (omitted=no degree)                                 |             |                |         |         |
| H.S. diploma                                                                        | 0.25        | 0.26           | 0.169   | -0.26   |
| Post-H.S. technical certificate or college degree                                    | 0.29        | 0.32           | 0.177   | -0.37   |
| Caregiver married/partnered (omitted=not married/partnered)                         | 0.15        | 0.27           | 0.306   | -0.40   |
| Natural log of caregiver earnings (in dollars)                                       | -0.29       | 0.26           | 0.121   | -0.84   |
| Caregiver was available to monitor/supervise children FT/PT (omitted=not available) | -0.51       | 0.52           | 0.155   | -1.57   |
| Household stressor scale                                                             | -0.17       | 0.12           | 0.075   | -0.41   |
| Household had health insurance (omitted=no)                                          | -0.40       | 0.24           | 0.045   | -0.88   |
| Total number of moves from birth to diagnosis                                       | 0.00        | 0.12           | 0.494   | -0.24   |
| <strong>Neighborhood Characteristics</strong>                                                     |             |                |         |         |
| Living in neighborhood with negative peers (omitted=no)                             | -0.02       | 0.31           | 0.480   | -0.58   |
| Social capital index                                                                | -0.09       | 0.11           | 0.189   | -0.31   |
| Social problems index                                                                | 0.24        | 0.16           | 0.065   | -0.07   |
| Social vulnerability score                                                           | 1.18        | 0.51           | 0.007   | 0.23    |
| Percent African American residents                                                   | -0.07       | 0.19           | 0.372   | -0.46   |
| Percent Latino residents                                                             | 0.22        | 0.34           | 0.250   | -0.45   |
| Occupational prestige score                                                         | -0.42       | 0.28           | 0.081   | -0.92   |
| Percent foreign born residents                                                      | -0.46       | 0.26           | 0.039   | -1.00   |
| Percent of residents who moved in preceding 12 months                                | -0.27       | 0.22           | 0.111   | -0.71   |
| Living in neighborhood with hospitals and clinics (omitted=no)                      | 0.64        | 0.38           | 0.037   | -0.06   |
| Resource factor score                                                                | -0.20       | 0.20           | 0.161   | -0.59   |
| Age of housing stock                                                                |             |                |         |         |
| Percent of housing built before 1940                                                | -0.13       | 0.19           | 0.258   | -0.51   |
| Percent of housing built between 1940-1969                                          | -0.20       | 0.20           | 0.145   | -0.60   |
| Violent crime rate per 1,000                                                        | -1.35       | 0.36           | 0.001   | -2.04   |
| Property crime rate per 1,000                                                       | 0.34        | 0.23           | 0.073   | -0.13   |
| Child abuse and neglect rate per 1,000                                              | -0.60       | 0.21           | 0.003   | -1.00   |
| Neurological hazards index (rescaled by 100)                                        | 0.33        | 0.18           | 0.035   | -0.02   |</p>
<table>
<thead>
<tr>
<th>Respiratory hazards index</th>
<th>-0.07</th>
<th>0.20</th>
<th>0.375</th>
<th>-0.45</th>
<th>0.30</th>
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<tr>
<td>Thresholds</td>
<td>2.218</td>
<td>0.46</td>
<td>0.000</td>
<td>1.341</td>
<td>3.125</td>
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Appendix F-IV-2f. Standardized Bayesian Spline Logit Models Predicting Childhood Diagnosis of Neurodevelopmental Disorders

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

SUMMARY OF DATA
Number of observations: 841
Number of clusters: 442

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:
-35.09
23.96

Posterior Predictive $p$ -value: 0.59

MODEL RESULTS

<table>
<thead>
<tr>
<th>Predictor Measures (All continuous variables reflect standardized values measured at time of diagnosis unless otherwise noted)</th>
<th>Estimate</th>
<th>Posterior S.D.</th>
<th>One-Tailed P-Value</th>
<th>95% C.I. Lower (2.50%)</th>
<th>95% C.I. Upper (2.50%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Child Characteristics</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>


Gender and ethnicity of child (omitted=African American male)
- Latina female
  -1.00  0.38  0.000  -1.72  -0.30
- Latino male
  -0.22  0.26  0.185  -0.75  0.30
- African American female
  -0.71  0.30  0.009  -1.29  -0.08
First born in family (omitted=no)
  -0.58  0.21  0.006  -0.99  -0.18
Child was low birthweight or extremely premature (omitted=no)
  0.27  0.28  0.152  -0.30  0.81

Caregiver and Household Characteristics
- Number of siblings in household
  -0.31  0.14  0.013  -0.57  -0.02
- Caregiver reported depressive symptomatology (omitted=no)
  0.19  0.24  0.195  -0.27  0.70
- Caregiver age
  -0.88  0.15  0.000  -1.16  -0.58
- Caregiver immigrant status (omitted=no)
  0.53  0.37  0.095  -0.24  1.16
- Caregiver history of substance abuse (omitted=no)
  0.09  0.30  0.393  -0.50  0.66
- Caregiver disability status (omitted=not disabled)
  -0.01  0.36  0.491  -0.79  0.64
- Caregiver educational attainment (omitted=no degree)
  -0.01  0.26  0.212  -0.30  0.72
  -0.32  0.27  0.121  -0.18  0.90
- Caregiver married/partnered (omitted=not married/partnered)
  0.24  0.22  0.149  -0.23  0.66
- Natural log of caregiver earnings (in dollars)
  -0.17  0.22  0.215  -0.60  0.22
- Caregiver was available to monitor/supervise children FT/PT (omitted=not available)
  -0.25  0.45  0.295  -1.11  0.60
- Household stressor scale
  0.03  0.10  0.386  -0.16  0.23
- Household had health insurance (omitted=no)
  -0.18  0.23  0.203  -0.67  0.23
- Total number of moves from birth to diagnosis
  -0.06  0.10  0.246  -0.26  0.13

Neighborhood Characteristics
- Living in neighborhood with negative peers (omitted=no)
  -0.12  0.29  0.332  -0.69  0.46
- Social capital index
  0.03  0.21  0.450  -0.41  0.42
- Spline-Social capital index
  -0.27  0.41  0.250  -1.04  0.59
- Social problems index
  -0.14  0.33  0.325  -0.80  0.49
- Spline-Social problems index
  0.58  0.45  0.085  -0.26  1.52
- Social vulnerability score
  1.75  0.75  0.014  0.20  3.15
- Spline-Social vulnerability score
  -1.90  0.88  0.025  -3.46  -0.05
- Percent African American residents
  -0.23  0.84  0.381  -2.19  1.32
- Spline-Percent African American residents
  -0.50  0.99  0.313  -2.53  1.52
- Percent Latino residents
  -1.47  0.50  0.000  -2.37  -0.48
<table>
<thead>
<tr>
<th>Variable</th>
<th>Coefficient</th>
<th>Standard Error</th>
<th>p-value</th>
<th>Lower 95% CI</th>
<th>Upper 95% CI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Spline-Percent Latino residents</td>
<td>1.97</td>
<td>0.62</td>
<td>0.000</td>
<td>0.74</td>
<td>3.22</td>
</tr>
<tr>
<td>Occupational prestige score</td>
<td>-0.90</td>
<td>0.46</td>
<td>0.024</td>
<td>-1.80</td>
<td>-0.01</td>
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<tr>
<td>Spline-Occupational prestige score</td>
<td>-1.23</td>
<td>0.60</td>
<td>0.014</td>
<td>-2.54</td>
<td>-0.14</td>
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<tr>
<td>Percent foreign born residents</td>
<td>0.70</td>
<td>0.57</td>
<td>0.087</td>
<td>-0.33</td>
<td>1.92</td>
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<tr>
<td>Spline-Percent foreign born residents</td>
<td>-2.32</td>
<td>0.83</td>
<td>0.004</td>
<td>-4.06</td>
<td>-0.81</td>
</tr>
<tr>
<td>Percent of residents who moved in preceding 12 months</td>
<td>0.13</td>
<td>0.47</td>
<td>0.388</td>
<td>-0.81</td>
<td>1.00</td>
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<tr>
<td>Spline-Percent of residents who moved in preceding 12 months</td>
<td>-0.58</td>
<td>0.63</td>
<td>0.178</td>
<td>-1.93</td>
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<tr>
<td>Living in neighborhood with hospitals and clinics (omitted=no)</td>
<td>0.50</td>
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<td>0.088</td>
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<tr>
<td>Resource factor score</td>
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<td>0.205</td>
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<td>0.46</td>
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<td>Spline-Resource factor score</td>
<td>0.23</td>
<td>0.58</td>
<td>0.350</td>
<td>-0.87</td>
<td>1.29</td>
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<tr>
<td>Age of housing stock</td>
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<tr>
<td>Percent of housing built before 1940</td>
<td>1.58</td>
<td>0.61</td>
<td>0.000</td>
<td>0.41</td>
<td>2.73</td>
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<tr>
<td>Spline-Percent of housing built before 1940</td>
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<td>0.79</td>
<td>0.001</td>
<td>-3.54</td>
<td>-0.51</td>
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<tr>
<td>Percent of housing built between 1940-1969</td>
<td>-0.87</td>
<td>0.39</td>
<td>0.015</td>
<td>-1.62</td>
<td>-0.08</td>
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<tr>
<td>Spline-Percent of housing built between 1940-1969</td>
<td>0.85</td>
<td>0.66</td>
<td>0.089</td>
<td>-0.47</td>
<td>2.03</td>
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<tr>
<td>Violent crime rate per 1,000</td>
<td>-1.35</td>
<td>0.60</td>
<td>0.012</td>
<td>-2.51</td>
<td>-0.15</td>
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<tr>
<td>Spline-Violent crime rate per 1,000</td>
<td>1.39</td>
<td>0.78</td>
<td>0.040</td>
<td>-0.23</td>
<td>2.91</td>
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<tr>
<td>Property crime rate per 1,000</td>
<td>0.53</td>
<td>0.66</td>
<td>0.228</td>
<td>-0.85</td>
<td>1.74</td>
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<td>Spline-Property crime rate per 1,000</td>
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<td>0.74</td>
<td>0.305</td>
<td>-1.04</td>
<td>1.96</td>
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<tr>
<td>Child abuse and neglect rate per 1,000</td>
<td>-1.59</td>
<td>0.55</td>
<td>0.002</td>
<td>-2.66</td>
<td>-0.60</td>
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<tr>
<td>Spline-Child abuse and neglect rate per 1,000</td>
<td>1.30</td>
<td>0.61</td>
<td>0.014</td>
<td>0.19</td>
<td>2.49</td>
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<tr>
<td>Neurological hazards index (rescaled by 100)</td>
<td>0.44</td>
<td>0.36</td>
<td>0.116</td>
<td>-0.28</td>
<td>1.16</td>
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<tr>
<td>Spline-Neurological hazards index (rescaled by 100)</td>
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<td>0.52</td>
<td>0.026</td>
<td>-2.00</td>
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<tr>
<td>Respiratory hazards index</td>
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<td>0.293</td>
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<td>Spline-Respiratory hazards index</td>
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<td>0.200</td>
<td>-0.66</td>
<td>1.71</td>
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<tr>
<td></td>
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</tr>
<tr>
<td>Thresholds</td>
<td></td>
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<tr>
<td>Ever-Neurodevelopmental Disorders</td>
<td>1.25</td>
<td>0.92</td>
<td>0.101</td>
<td>-0.68</td>
<td>2.95</td>
</tr>
</tbody>
</table>
Appendix F-IV-3a. Standardized Bayesian Logit Model Predicting Childhood Diagnosis of Obesity

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

SUMMARY OF DATA

Number of observations: 896
Number of clusters: 468

MODEL FIT INFORMATION

Number of Free Parameters: 38
Bayesian Posterior Predictive Checking Using Chi-Square:

95% CI for the Difference Between the Observed and Replicated Chi-Square Values:
-23.31
25.32

Posterior Predictive p-value: 0.51

MODEL RESULTS

<table>
<thead>
<tr>
<th>Predictor Measures (All continuous variables reflect standardized values measured at time of diagnosis unless otherwise noted)</th>
<th>Estimate</th>
<th>S.D.</th>
<th>One-Tailed P-Value</th>
<th>95% C.I. Lower (2.50%)</th>
<th>95% C.I. Upper (2.50%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Child Characteristics</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gender and ethnicity of child (omitted=African American male)</td>
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<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Latina female</td>
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<td>0.28</td>
<td>0.214</td>
<td>-0.30</td>
<td>0.80</td>
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<td>Latino male</td>
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<td>0.50</td>
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<tr>
<td>African American female</td>
<td>0.34</td>
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<td>0.104</td>
<td>-0.23</td>
<td>0.94</td>
</tr>
<tr>
<td>First born in family (omitted=no)</td>
<td>-0.32</td>
<td>0.21</td>
<td>0.043</td>
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<td>0.07</td>
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### Caregiver and Household Characteristics

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<thead>
<tr>
<th>Characteristic</th>
<th>Coefficient 1</th>
<th>Coefficient 2</th>
<th>Coefficient 3</th>
<th>Coefficient 4</th>
<th>Coefficient 5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of siblings in household</td>
<td>-0.36</td>
<td>0.11</td>
<td>0.000</td>
<td>-0.57</td>
<td>-0.14</td>
</tr>
<tr>
<td>Caregiver reported depressive symptomatology (omitted=no)</td>
<td>-0.14</td>
<td>0.21</td>
<td>0.241</td>
<td>-0.55</td>
<td>0.32</td>
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<tr>
<td>Caregiver age</td>
<td>-0.61</td>
<td>0.14</td>
<td>0.000</td>
<td>-0.95</td>
<td>-0.40</td>
</tr>
<tr>
<td>Caregiver immigrant status (omitted=no)</td>
<td>0.44</td>
<td>0.27</td>
<td>0.066</td>
<td>-0.12</td>
<td>0.91</td>
</tr>
<tr>
<td>Caregiver history of substance abuse (omitted=no)</td>
<td>-0.11</td>
<td>0.29</td>
<td>0.358</td>
<td>-0.64</td>
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<td>Caregiver disability status (omitted=not disabled)</td>
<td>0.42</td>
<td>0.28</td>
<td>0.078</td>
<td>-0.15</td>
<td>0.94</td>
</tr>
<tr>
<td>Caregiver educational attainment (omitted=no degree)</td>
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</tr>
<tr>
<td>H.S. diploma</td>
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<td>0.26</td>
<td>0.466</td>
<td>-0.46</td>
<td>0.57</td>
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<td>Post-H.S. technical certificate or college degree</td>
<td>0.71</td>
<td>0.25</td>
<td>0.000</td>
<td>0.29</td>
<td>1.29</td>
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<tr>
<td>Caregiver married/partnered (omitted=not married/partnered)</td>
<td>1.74</td>
<td>0.24</td>
<td>0.000</td>
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<td>2.22</td>
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<tr>
<td>Natural log of caregiver earnings (in dollars)</td>
<td>-0.12</td>
<td>0.21</td>
<td>0.268</td>
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<td>0.24</td>
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<tr>
<td>Caregiver was available to monitor/supervise children FT/PT (omitted=not available)</td>
<td>-0.27</td>
<td>0.43</td>
<td>0.246</td>
<td>-1.23</td>
<td>0.46</td>
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<tr>
<td>Household stressor scale</td>
<td>0.19</td>
<td>0.10</td>
<td>0.019</td>
<td>0.01</td>
<td>0.37</td>
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<tr>
<td>Household had health insurance (omitted=no)</td>
<td>0.17</td>
<td>0.24</td>
<td>0.236</td>
<td>-0.31</td>
<td>0.64</td>
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<tr>
<td>Total number of moves from birth to diagnosis</td>
<td>-0.03</td>
<td>0.10</td>
<td>0.387</td>
<td>-0.22</td>
<td>0.17</td>
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<td>Resided in conventional public housing (omitted=no)</td>
<td>0.48</td>
<td>0.29</td>
<td>0.024</td>
<td>0.00</td>
<td>1.14</td>
</tr>
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</table>

### Neighborhood Characteristics

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<tr>
<th>Characteristic</th>
<th>Coefficient 1</th>
<th>Coefficient 2</th>
<th>Coefficient 3</th>
<th>Coefficient 4</th>
<th>Coefficient 5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Living in neighborhood with negative peers (omitted=no)</td>
<td>-0.45</td>
<td>0.30</td>
<td>0.080</td>
<td>-1.04</td>
<td>0.13</td>
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<tr>
<td>Social capital index</td>
<td>0.13</td>
<td>0.10</td>
<td>0.102</td>
<td>-0.07</td>
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<td>Social problems index</td>
<td>0.12</td>
<td>0.16</td>
<td>0.239</td>
<td>-0.20</td>
<td>0.40</td>
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<td>0.36</td>
<td>0.062</td>
<td>-0.12</td>
<td>1.26</td>
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<tr>
<td>Percent African American residents</td>
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<td>0.15</td>
<td>0.408</td>
<td>-0.32</td>
<td>0.26</td>
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<tr>
<td>Percent Latino residents</td>
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<td>0.24</td>
<td>0.341</td>
<td>-0.59</td>
<td>0.37</td>
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<td>Occupational prestige score</td>
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<td>0.23</td>
<td>0.242</td>
<td>-0.62</td>
<td>0.29</td>
</tr>
<tr>
<td>Percent foreign born residents</td>
<td>-0.13</td>
<td>0.18</td>
<td>0.229</td>
<td>-0.48</td>
<td>0.23</td>
</tr>
<tr>
<td>Percent of residents who moved in preceding 12 months</td>
<td>-0.09</td>
<td>0.16</td>
<td>0.279</td>
<td>-0.40</td>
<td>0.20</td>
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<td>Living in neighborhood with hospitals and clinics (omitted=no)</td>
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<td>0.34</td>
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<td>Resource factor score</td>
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<td>0.12</td>
<td>0.183</td>
<td>-0.35</td>
<td>0.13</td>
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<tr>
<td>Age of housing stock</td>
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<tr>
<td>Percent of housing built before 1940</td>
<td>0.18</td>
<td>0.15</td>
<td>0.116</td>
<td>-0.10</td>
<td>0.47</td>
</tr>
<tr>
<td>Percent of housing built between 1940-1969</td>
<td>0.04</td>
<td>0.15</td>
<td>0.393</td>
<td>-0.26</td>
<td>0.37</td>
</tr>
<tr>
<td>Violent crime rate per 1,000</td>
<td>-0.64</td>
<td>0.27</td>
<td>0.010</td>
<td>-1.18</td>
<td>-0.11</td>
</tr>
<tr>
<td>Property crime rate per 1,000</td>
<td>0.11</td>
<td>0.18</td>
<td>0.282</td>
<td>-0.26</td>
<td>0.48</td>
</tr>
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<td>Category</td>
<td>Value 1</td>
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<td>Value 3</td>
<td>Value 4</td>
<td>Value 5</td>
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<td>---------</td>
<td>---------</td>
<td>---------</td>
<td>---------</td>
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</tr>
<tr>
<td>Child abuse and neglect rate per 1,000</td>
<td>-0.51</td>
<td>0.20</td>
<td>0.004</td>
<td>-0.90</td>
<td>-0.12</td>
</tr>
<tr>
<td>Neurological hazards index (rescaled by 100)</td>
<td>0.19</td>
<td>0.16</td>
<td>0.136</td>
<td>-0.13</td>
<td>0.48</td>
</tr>
<tr>
<td>Respiratory hazards index</td>
<td>0.14</td>
<td>0.16</td>
<td>0.193</td>
<td>-0.15</td>
<td>0.46</td>
</tr>
<tr>
<td>Thresholds</td>
<td>3.46</td>
<td>0.54</td>
<td>0.000</td>
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<tr>
<td>Ever-Obesity</td>
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<td></td>
<td></td>
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<td></td>
</tr>
</tbody>
</table>
Appendix F-IV-3b. Standardized Bayesian Logit Model Predicting Childhood Diagnosis of Obesity

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

SUMMARY OF DATA

| Number of observations: | 591 |
| Number of clusters:     | 326 |

MODEL FIT INFORMATION

| Number of Free Parameters: | 37 |

Bayesian Posterior Predictive Checking Using Chi-Square:

- 95% CI for the Difference Between the Observed and Replicated Chi-Square Values:
  - Lower: -18.52
  - Upper: 19.93
- Posterior Predictive p-value: 0.56

MODEL RESULTS

Predictor Measures (All continuous variables reflect standardized values measured at time of diagnosis unless otherwise noted)

<table>
<thead>
<tr>
<th>Child Characteristics</th>
<th>Estimate</th>
<th>Posterior S.D.</th>
<th>One-Tailed P-Value</th>
<th>95% C.I. Lower (2.50%)</th>
<th>95% C.I. Upper (2.50%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender and ethnicity of child (omitted=African American male)</td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Latina female</td>
<td>0.23</td>
<td>0.36</td>
<td>0.264</td>
<td>-0.42</td>
<td>0.96</td>
</tr>
<tr>
<td>Latino male</td>
<td>-0.60</td>
<td>0.52</td>
<td>0.127</td>
<td>-1.59</td>
<td>0.43</td>
</tr>
<tr>
<td>African American female</td>
<td>0.29</td>
<td>0.37</td>
<td>0.221</td>
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<td>1.00</td>
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<td>First born in family (omitted=no)</td>
<td>-0.32</td>
<td>0.31</td>
<td>0.164</td>
<td>-0.88</td>
<td>0.35</td>
</tr>
</tbody>
</table>
### Caregiver and Household Characteristics

<table>
<thead>
<tr>
<th></th>
<th>Coef 1</th>
<th>Coef 2</th>
<th>Coef 3</th>
<th>Coef 4</th>
<th>Coef 5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of siblings in household</td>
<td>-0.43</td>
<td>0.16</td>
<td>0.000</td>
<td>-0.75</td>
<td>-0.15</td>
</tr>
<tr>
<td>Caregiver reported depressive symptomatology (omitted=no)</td>
<td>-0.49</td>
<td>0.34</td>
<td>0.039</td>
<td>-1.26</td>
<td>0.04</td>
</tr>
<tr>
<td>Caregiver age</td>
<td>-0.56</td>
<td>0.19</td>
<td>0.001</td>
<td>-0.89</td>
<td>-0.18</td>
</tr>
<tr>
<td>Caregiver immigrant status (omitted=no)</td>
<td>1.00</td>
<td>0.42</td>
<td>0.016</td>
<td>0.14</td>
<td>1.77</td>
</tr>
<tr>
<td>Caregiver history of substance abuse (omitted=no)</td>
<td>-0.14</td>
<td>0.40</td>
<td>0.341</td>
<td>-1.02</td>
<td>0.60</td>
</tr>
<tr>
<td>Caregiver disability status (omitted=not disabled)</td>
<td>0.45</td>
<td>0.44</td>
<td>0.170</td>
<td>-0.34</td>
<td>1.35</td>
</tr>
<tr>
<td>Caregiver educational attainment (omitted=no degree)</td>
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<tr>
<td>H.S. diploma</td>
<td>-0.41</td>
<td>0.33</td>
<td>0.084</td>
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<tr>
<td>Post-H.S. technical certificate or college degree</td>
<td>0.83</td>
<td>0.36</td>
<td>0.001</td>
<td>0.24</td>
<td>1.64</td>
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<tr>
<td>Caregiver married/partnered (omitted=not married/partnered)</td>
<td>3.69</td>
<td>0.57</td>
<td>0.000</td>
<td>2.72</td>
<td>4.88</td>
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<tr>
<td>Natural log of caregiver earnings (in dollars)</td>
<td>-0.72</td>
<td>0.44</td>
<td>0.027</td>
<td>-1.73</td>
<td>0.01</td>
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<tr>
<td>Caregiver was available to monitor/supervise children FT/PT (omitted=not available)</td>
<td>-1.28</td>
<td>0.90</td>
<td>0.036</td>
<td>-3.40</td>
<td>0.17</td>
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<td>Household stressor scale</td>
<td>0.29</td>
<td>0.13</td>
<td>0.014</td>
<td>0.03</td>
<td>0.54</td>
</tr>
<tr>
<td>Household had health insurance (omitted=no)</td>
<td>-0.04</td>
<td>0.29</td>
<td>0.444</td>
<td>-0.56</td>
<td>0.58</td>
</tr>
<tr>
<td>Total number of moves from birth to diagnosis</td>
<td>0.14</td>
<td>0.13</td>
<td>0.134</td>
<td>-0.14</td>
<td>0.38</td>
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<tr>
<td>Resided in conventional public housing (omitted=no)</td>
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<td></td>
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<td></td>
</tr>
<tr>
<td>Living in neighborhood with negative peers (omitted=no)</td>
<td>0.00</td>
<td>0.32</td>
<td>0.500</td>
<td>-0.70</td>
<td>0.59</td>
</tr>
<tr>
<td>Social capital index</td>
<td>0.29</td>
<td>0.14</td>
<td>0.016</td>
<td>0.03</td>
<td>0.59</td>
</tr>
<tr>
<td>Social problems index</td>
<td>-0.05</td>
<td>0.18</td>
<td>0.400</td>
<td>-0.45</td>
<td>0.28</td>
</tr>
<tr>
<td>Social vulnerability score</td>
<td>0.25</td>
<td>0.60</td>
<td>0.331</td>
<td>-0.70</td>
<td>1.49</td>
</tr>
<tr>
<td>Percent African American residents</td>
<td>-0.66</td>
<td>0.24</td>
<td>0.001</td>
<td>-1.13</td>
<td>-0.20</td>
</tr>
<tr>
<td>Percent Latino residents</td>
<td>-0.49</td>
<td>0.38</td>
<td>0.067</td>
<td>-1.30</td>
<td>0.11</td>
</tr>
<tr>
<td>Occupational prestige score</td>
<td>-1.07</td>
<td>0.45</td>
<td>0.006</td>
<td>-1.98</td>
<td>-0.24</td>
</tr>
<tr>
<td>Percent foreign born residents</td>
<td>-0.65</td>
<td>0.34</td>
<td>0.030</td>
<td>-1.28</td>
<td>0.02</td>
</tr>
<tr>
<td>Percent of residents who moved in preceding 12 months</td>
<td>0.06</td>
<td>0.32</td>
<td>0.450</td>
<td>-0.60</td>
<td>0.61</td>
</tr>
<tr>
<td>Living in neighborhood with hospitals and clinics (omitted=no)</td>
<td>1.45</td>
<td>0.57</td>
<td>0.003</td>
<td>0.38</td>
<td>2.58</td>
</tr>
<tr>
<td>Resource factor score</td>
<td>-0.62</td>
<td>0.32</td>
<td>0.024</td>
<td>-1.28</td>
<td>-0.01</td>
</tr>
<tr>
<td>Age of housing stock</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Percent of housing built before 1940</td>
<td>0.44</td>
<td>0.18</td>
<td>0.006</td>
<td>0.10</td>
<td>0.80</td>
</tr>
<tr>
<td>Percent of housing built between 1940-1969</td>
<td>0.10</td>
<td>0.25</td>
<td>0.344</td>
<td>-0.36</td>
<td>0.59</td>
</tr>
<tr>
<td>Violent crime rate per 1,000</td>
<td>-1.86</td>
<td>0.41</td>
<td>0.000</td>
<td>-2.66</td>
<td>-1.06</td>
</tr>
<tr>
<td>Property crime rate per 1,000</td>
<td>1.22</td>
<td>0.32</td>
<td>0.000</td>
<td>0.63</td>
<td>1.80</td>
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### Neighborhood Characteristics

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<tr>
<th></th>
<th>Coef 1</th>
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<th>Coef 3</th>
<th>Coef 4</th>
<th>Coef 5</th>
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<tbody>
<tr>
<td>Living in neighborhood with negative peers (omitted=no)</td>
<td>0.00</td>
<td>0.32</td>
<td>0.500</td>
<td>-0.70</td>
<td>0.59</td>
</tr>
<tr>
<td>Social capital index</td>
<td>0.29</td>
<td>0.14</td>
<td>0.016</td>
<td>0.03</td>
<td>0.59</td>
</tr>
<tr>
<td>Social problems index</td>
<td>-0.05</td>
<td>0.18</td>
<td>0.400</td>
<td>-0.45</td>
<td>0.28</td>
</tr>
<tr>
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<tr>
<td>Percent African American residents</td>
<td>-0.66</td>
<td>0.24</td>
<td>0.001</td>
<td>-1.13</td>
<td>-0.20</td>
</tr>
<tr>
<td>Percent Latino residents</td>
<td>-0.49</td>
<td>0.38</td>
<td>0.067</td>
<td>-1.30</td>
<td>0.11</td>
</tr>
<tr>
<td>Occupational prestige score</td>
<td>-1.07</td>
<td>0.45</td>
<td>0.006</td>
<td>-1.98</td>
<td>-0.24</td>
</tr>
<tr>
<td>Percent foreign born residents</td>
<td>-0.65</td>
<td>0.34</td>
<td>0.030</td>
<td>-1.28</td>
<td>0.02</td>
</tr>
<tr>
<td>Percent of residents who moved in preceding 12 months</td>
<td>0.06</td>
<td>0.32</td>
<td>0.450</td>
<td>-0.60</td>
<td>0.61</td>
</tr>
<tr>
<td>Living in neighborhood with hospitals and clinics (omitted=no)</td>
<td>1.45</td>
<td>0.57</td>
<td>0.003</td>
<td>0.38</td>
<td>2.58</td>
</tr>
<tr>
<td>Resource factor score</td>
<td>-0.62</td>
<td>0.32</td>
<td>0.024</td>
<td>-1.28</td>
<td>-0.01</td>
</tr>
<tr>
<td>Age of housing stock</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Percent of housing built before 1940</td>
<td>0.44</td>
<td>0.18</td>
<td>0.006</td>
<td>0.10</td>
<td>0.80</td>
</tr>
<tr>
<td>Percent of housing built between 1940-1969</td>
<td>0.10</td>
<td>0.25</td>
<td>0.344</td>
<td>-0.36</td>
<td>0.59</td>
</tr>
<tr>
<td>Violent crime rate per 1,000</td>
<td>-1.86</td>
<td>0.41</td>
<td>0.000</td>
<td>-2.66</td>
<td>-1.06</td>
</tr>
<tr>
<td>Property crime rate per 1,000</td>
<td>1.22</td>
<td>0.32</td>
<td>0.000</td>
<td>0.63</td>
<td>1.80</td>
</tr>
<tr>
<td></td>
<td>Y</td>
<td>Z</td>
<td>W</td>
<td>X</td>
<td>V</td>
</tr>
<tr>
<td>------------------------------</td>
<td>---------</td>
<td>---------</td>
<td>---------</td>
<td>---------</td>
<td>------------</td>
</tr>
<tr>
<td>Child abuse and neglect rate per 1,000</td>
<td>-1.25</td>
<td>0.31</td>
<td>0.000</td>
<td>-1.86</td>
<td>-0.65</td>
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<tr>
<td>Neurological hazards index (rescaled by 100)</td>
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<td>0.40</td>
<td>0.000</td>
<td>0.90</td>
<td>2.44</td>
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<td>Respiratory hazards index</td>
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<td>0.000</td>
<td>-1.56</td>
<td>-0.46</td>
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</tbody>
</table>

Thresholds

| Ever-Obesity | 3.44 | 0.67 | 0.000 | 2.06   | 4.74       |

**Notes:**

aResided in conventional public housing was not included in model b/c did not vary in Current DHA sample (all were in conventional public housing).
Appendix F-IV-3c. Standardized Bayesian Logit Model Predicting Childhood Diagnosis of Obesity

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

SUMMARY OF DATA

Number of observations: 509
Number of clusters: 289

MODEL FIT INFORMATION

Number of Free Parameters: 38
Bayesian Posterior Predictive Checking Using Chi-Square:

95% CI for the Difference Between the Observed and Replicated Chi-Square Values:
-23.00 18.03

Posterior Predictive p-value: 0.57

MODEL RESULTS

<table>
<thead>
<tr>
<th>Predictor Measures (All continuous variables reflect standardized values measured at time of diagnosis unless otherwise noted)</th>
<th>Estimate</th>
<th>Posterior S.D.</th>
<th>One-Tailed P-Value</th>
<th>95% C.I. Lower (2.50%)</th>
<th>95% C.I. Upper (2.50%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Child Characteristics</td>
<td></td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gender and ethnicity of child (omitted=African American male)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Latina female</td>
<td>0.16</td>
<td>0.37</td>
<td>0.331</td>
<td>-0.57</td>
<td>0.85</td>
</tr>
<tr>
<td>Latino male</td>
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<td>0.39</td>
<td>0.259</td>
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<td>0.57</td>
</tr>
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<td>African American female</td>
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<td>0.40</td>
<td>0.377</td>
<td>-0.52</td>
<td>1.02</td>
</tr>
<tr>
<td>First born in family (omitted=no)</td>
<td>-0.39</td>
<td>0.33</td>
<td>0.133</td>
<td>-0.99</td>
<td>0.25</td>
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### Caregiver and Household Characteristics

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<tr>
<th>Characteristic</th>
<th>Coefficient 1</th>
<th>Coefficient 2</th>
<th>Coefficient 3</th>
<th>Coefficient 4</th>
<th>Coefficient 5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of siblings in household</td>
<td>-0.34</td>
<td>0.14</td>
<td>0.007</td>
<td>-0.59</td>
<td>-0.05</td>
</tr>
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<td>0.31</td>
<td>0.361</td>
<td>-0.50</td>
<td>0.69</td>
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<td>Caregiver age</td>
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<td>0.16</td>
<td>0.031</td>
<td>-0.65</td>
<td>0.03</td>
</tr>
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<td>0.36</td>
<td>0.000</td>
<td>0.32</td>
<td>1.70</td>
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<td>Caregiver history of substance abuse (omitted=no)</td>
<td>0.17</td>
<td>0.40</td>
<td>0.326</td>
<td>-0.63</td>
<td>0.94</td>
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<td>Caregiver disability status (omitted=not disabled)</td>
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<td>0.446</td>
<td>-0.73</td>
<td>0.74</td>
</tr>
<tr>
<td>Caregiver educational attainment (omitted=no degree)</td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>H.S. diploma</td>
<td>0.37</td>
<td>0.33</td>
<td>0.107</td>
<td>-0.31</td>
<td>1.07</td>
</tr>
<tr>
<td>Post-H.S. technical certificate or college degree</td>
<td>1.33</td>
<td>0.40</td>
<td>0.000</td>
<td>0.59</td>
<td>2.17</td>
</tr>
<tr>
<td>Caregiver married/partnered (omitted=not married/partnered)</td>
<td>2.16</td>
<td>0.37</td>
<td>0.000</td>
<td>1.38</td>
<td>2.86</td>
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<tr>
<td>Natural log of caregiver earnings (in dollars)</td>
<td>-0.38</td>
<td>0.28</td>
<td>0.079</td>
<td>-0.98</td>
<td>0.10</td>
</tr>
<tr>
<td>Caregiver was available to monitor/supervise children FT/PT (omitted=not available)</td>
<td>-0.56</td>
<td>0.57</td>
<td>0.140</td>
<td>-1.87</td>
<td>0.42</td>
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<tr>
<td>Household stressor scale</td>
<td>0.46</td>
<td>0.16</td>
<td>0.006</td>
<td>0.12</td>
<td>0.73</td>
</tr>
<tr>
<td>Household had health insurance (omitted=no)</td>
<td>0.06</td>
<td>0.34</td>
<td>0.440</td>
<td>-0.53</td>
<td>0.74</td>
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<tr>
<td>Total number of moves from birth to diagnosis</td>
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<td>0.13</td>
<td>0.451</td>
<td>-0.28</td>
<td>0.22</td>
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<tr>
<td>Resided in conventional public housing (omitted=no)</td>
<td>0.93</td>
<td>0.71</td>
<td>0.080</td>
<td>-0.25</td>
<td>2.56</td>
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### Neighborhood Characteristics

<table>
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<tr>
<th>Characteristic</th>
<th>Coefficient 1</th>
<th>Coefficient 2</th>
<th>Coefficient 3</th>
<th>Coefficient 4</th>
<th>Coefficient 5</th>
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</thead>
<tbody>
<tr>
<td>Living in neighborhood with negative peers (omitted=no)</td>
<td>-0.38</td>
<td>0.41</td>
<td>0.193</td>
<td>-1.10</td>
<td>0.49</td>
</tr>
<tr>
<td>Social capital index</td>
<td>0.12</td>
<td>0.14</td>
<td>0.200</td>
<td>-0.14</td>
<td>0.40</td>
</tr>
<tr>
<td>Social problems index</td>
<td>0.18</td>
<td>0.18</td>
<td>0.166</td>
<td>-0.17</td>
<td>0.55</td>
</tr>
<tr>
<td>Social vulnerability score</td>
<td>0.61</td>
<td>0.62</td>
<td>0.156</td>
<td>-0.60</td>
<td>1.79</td>
</tr>
<tr>
<td>Percent African American residents</td>
<td>-0.52</td>
<td>0.22</td>
<td>0.003</td>
<td>-0.96</td>
<td>-0.13</td>
</tr>
<tr>
<td>Percent Latino residents</td>
<td>-0.98</td>
<td>0.36</td>
<td>0.001</td>
<td>-1.74</td>
<td>-0.35</td>
</tr>
<tr>
<td>Occupational prestige score</td>
<td>-0.92</td>
<td>0.37</td>
<td>0.003</td>
<td>-1.71</td>
<td>-0.28</td>
</tr>
<tr>
<td>Percent foreign born residents</td>
<td>-0.05</td>
<td>0.27</td>
<td>0.444</td>
<td>-0.58</td>
<td>0.50</td>
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<tr>
<td>Percent of residents who moved in preceding 12 months</td>
<td>-0.23</td>
<td>0.24</td>
<td>0.139</td>
<td>-0.73</td>
<td>0.16</td>
</tr>
<tr>
<td>Living in neighborhood with hospitals and clinics (omitted=no)</td>
<td>0.64</td>
<td>0.50</td>
<td>0.084</td>
<td>-0.30</td>
<td>1.59</td>
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<tr>
<td>Resource factor score</td>
<td>-0.34</td>
<td>0.22</td>
<td>0.074</td>
<td>-0.71</td>
<td>0.17</td>
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<tr>
<td>Age of housing stock</td>
<td></td>
<td></td>
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<td></td>
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<tr>
<td>Percent of housing built before 1940</td>
<td>0.46</td>
<td>0.20</td>
<td>0.014</td>
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<td>0.91</td>
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<tr>
<td>Percent of housing built between 1940-1969</td>
<td>0.24</td>
<td>0.21</td>
<td>0.121</td>
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<td>0.66</td>
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<tr>
<td>Violent crime rate per 1,000</td>
<td>-0.98</td>
<td>0.45</td>
<td>0.000</td>
<td>-2.00</td>
<td>-0.20</td>
</tr>
<tr>
<td>Property crime rate per 1,000</td>
<td>0.33</td>
<td>0.24</td>
<td>0.084</td>
<td>-0.10</td>
<td>0.80</td>
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<td>Child abuse and neglect rate per 1,000</td>
<td>-0.15</td>
<td>0.28</td>
<td>0.281</td>
<td>-0.78</td>
<td>0.40</td>
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<td>Neurological hazards index (rescaled by 100)</td>
<td>0.69</td>
<td>0.34</td>
<td>0.033</td>
<td>-0.04</td>
<td>1.30</td>
</tr>
<tr>
<td>Respiratory hazards index</td>
<td>-0.24</td>
<td>0.27</td>
<td>0.204</td>
<td>-0.70</td>
<td>0.31</td>
</tr>
</tbody>
</table>

**Thresholds**

| Ever-Obesity | 4.38 | 0.88 | 0.000 | 2.63 | 5.92 |

**Notes:**

Although PH_obese was not included in Stata runs (b/c it perfectly predicted outcome), it was included in the Bayesian analysis.
Appendix F-IV-3d. Standardized Bayesian Logit Model Predicting Childhood Diagnosis of Obesity

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

SUMMARY OF DATA

Number of observations: 603
Number of clusters: 337

MODEL FIT INFORMATION

Number of Free Parameters: 38
Bayesian Posterior Predictive Checking Using Chi-Square:

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

   -22.19
   27.27

Posterior Predictive p-value: 0.48

MODEL RESULTS

Predictor Measures (All continuous variables reflect standardized values measured at time of diagnosis unless otherwise noted)

<table>
<thead>
<tr>
<th>Predictor Measures</th>
<th>Estimate</th>
<th>S.D.</th>
<th>One-Tailed P-Value</th>
<th>95% C.I. Lower (2.50%)</th>
<th>95% C.I. Upper (2.50%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Child Characteristics</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gender and ethnicity of child (omitted=African American male)</td>
<td></td>
<td></td>
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<tr>
<td>Latina female</td>
<td>0.69</td>
<td>0.42</td>
<td>0.042</td>
<td>-0.08</td>
<td>1.51</td>
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<tr>
<td>Latino male</td>
<td>0.29</td>
<td>0.43</td>
<td>0.252</td>
<td>-0.58</td>
<td>1.13</td>
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<tr>
<td>African American female</td>
<td>0.62</td>
<td>0.44</td>
<td>0.066</td>
<td>-0.15</td>
<td>1.55</td>
</tr>
<tr>
<td>First born in family (omitted=no)</td>
<td>-0.35</td>
<td>0.31</td>
<td>0.120</td>
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<td>0.25</td>
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### Caregiver and Household Characteristics

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<th>p</th>
<th>B</th>
<th>SE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of siblings in household</td>
<td>-0.39</td>
<td>0.14</td>
<td>0.005</td>
<td>-0.66</td>
<td>-0.11</td>
</tr>
<tr>
<td>Caregiver reported depressive symptomatology (omitted=no)</td>
<td>0.33</td>
<td>0.29</td>
<td>0.131</td>
<td>-0.29</td>
<td>0.89</td>
</tr>
<tr>
<td>Caregiver age</td>
<td>-0.36</td>
<td>0.15</td>
<td>0.004</td>
<td>-0.68</td>
<td>-0.08</td>
</tr>
<tr>
<td>Caregiver immigrant status (omitted=no)</td>
<td>0.79</td>
<td>0.38</td>
<td>0.009</td>
<td>0.11</td>
<td>1.53</td>
</tr>
<tr>
<td>Caregiver history of substance abuse (omitted=no)</td>
<td>-0.29</td>
<td>0.44</td>
<td>0.254</td>
<td>-1.11</td>
<td>0.56</td>
</tr>
<tr>
<td>Caregiver disability status (omitted=not disabled)</td>
<td>0.21</td>
<td>0.40</td>
<td>0.305</td>
<td>-0.65</td>
<td>0.97</td>
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<tr>
<td>Caregiver educational attainment (omitted=no degree)</td>
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<tr>
<td>H.S. diploma</td>
<td>0.98</td>
<td>0.38</td>
<td>0.004</td>
<td>0.25</td>
<td>1.72</td>
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<tr>
<td>Post-H.S. technical certificate or college degree</td>
<td>1.67</td>
<td>0.41</td>
<td>0.000</td>
<td>0.96</td>
<td>2.51</td>
</tr>
<tr>
<td>Caregiver married/partnered (omitted=not married/partnered)</td>
<td>2.24</td>
<td>0.36</td>
<td>0.000</td>
<td>1.60</td>
<td>2.96</td>
</tr>
<tr>
<td>Natural log of caregiver earnings (in dollars)</td>
<td>-0.25</td>
<td>0.27</td>
<td>0.171</td>
<td>-0.80</td>
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<tr>
<td>Caregiver was available to monitor/supervise children FT/PT (omitted=not available)</td>
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<tr>
<td>Household stressor scale</td>
<td>0.18</td>
<td>0.13</td>
<td>0.111</td>
<td>-0.09</td>
<td>0.42</td>
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<tr>
<td>Household had health insurance (omitted=no)</td>
<td>0.13</td>
<td>0.35</td>
<td>0.341</td>
<td>-0.54</td>
<td>0.93</td>
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<tr>
<td>Total number of moves from birth to diagnosis</td>
<td>-0.39</td>
<td>0.19</td>
<td>0.008</td>
<td>-0.80</td>
<td>-0.06</td>
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<tr>
<td>Resided in conventional public housing (omitted=no)</td>
<td>0.28</td>
<td>0.43</td>
<td>0.278</td>
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### Neighborhood Characteristics

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<tr>
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<th>p</th>
<th>B</th>
<th>SE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Living in neighborhood with negative peers (omitted=no)</td>
<td>-0.71</td>
<td>0.38</td>
<td>0.020</td>
<td>-1.47</td>
<td>-0.04</td>
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<td>Social capital index</td>
<td>0.14</td>
<td>0.13</td>
<td>0.122</td>
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</tr>
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<td>Social problems index</td>
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<td>0.18</td>
<td>0.401</td>
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<td>0.30</td>
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<td>Social vulnerability score</td>
<td>1.69</td>
<td>0.56</td>
<td>0.000</td>
<td>0.60</td>
<td>2.85</td>
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<tr>
<td>Percent African American residents</td>
<td>0.09</td>
<td>0.22</td>
<td>0.358</td>
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<td>0.50</td>
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<tr>
<td>Percent Latino residents</td>
<td>-0.50</td>
<td>0.35</td>
<td>0.060</td>
<td>-1.27</td>
<td>0.11</td>
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<td>Occupational prestige score</td>
<td>-0.94</td>
<td>0.32</td>
<td>0.000</td>
<td>-1.53</td>
<td>-0.33</td>
</tr>
<tr>
<td>Percent foreign born residents</td>
<td>0.10</td>
<td>0.26</td>
<td>0.359</td>
<td>-0.36</td>
<td>0.63</td>
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<tr>
<td>Percent of residents who moved in preceding 12 months</td>
<td>-0.42</td>
<td>0.20</td>
<td>0.008</td>
<td>-0.82</td>
<td>-0.05</td>
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<td>Living in neighborhood with hospitals and clinics (omitted=no)</td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Resource factor score</td>
<td>1.62</td>
<td>0.56</td>
<td>0.001</td>
<td>0.55</td>
<td>2.72</td>
</tr>
<tr>
<td>Age of housing stock</td>
<td>0.00</td>
<td>0.23</td>
<td>0.492</td>
<td>-0.47</td>
<td>0.44</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Percent of housing built before 1940</td>
<td>0.44</td>
<td>0.20</td>
<td>0.021</td>
<td>0.02</td>
<td>0.83</td>
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<tr>
<td>Percent of housing built between 1940-1969</td>
<td>0.02</td>
<td>0.18</td>
<td>0.449</td>
<td>-0.31</td>
<td>0.41</td>
</tr>
<tr>
<td>Violent crime rate per 1,000</td>
<td>-1.59</td>
<td>0.43</td>
<td>0.000</td>
<td>-2.49</td>
<td>-0.86</td>
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<td>Property crime rate per 1,000</td>
<td>-0.03</td>
<td>0.29</td>
<td>0.474</td>
<td>-0.68</td>
<td>0.46</td>
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<td>--------</td>
<td>--------</td>
<td>--------</td>
<td>--------</td>
<td>--------</td>
</tr>
<tr>
<td>Child abuse and neglect rate per 1,000</td>
<td>-0.08</td>
<td>0.27</td>
<td>0.393</td>
<td>-0.63</td>
<td>0.43</td>
</tr>
<tr>
<td>Neurological hazards index (rescaled by 100)</td>
<td>-0.09</td>
<td>0.26</td>
<td>0.366</td>
<td>-0.66</td>
<td>0.37</td>
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<td>Respiratory hazards index</td>
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<td>0.24</td>
<td>0.018</td>
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<td>0.94</td>
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<tr>
<td><strong>Thresholds</strong></td>
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<tr>
<td>Ever-Obesity</td>
<td>5.59</td>
<td>0.88</td>
<td>0.000</td>
<td>3.69</td>
<td>7.27</td>
</tr>
</tbody>
</table>
Appendix F-IV-3e. Standardized Bayesian Logit Models Predicting Childhood Diagnosis of Obesity by Gender and Ethnicity

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

SUMMARY OF DATA

Number of observations: 477
Number of clusters: 339

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:

-29.76
22.90

Posterior Predictive p-value: 0.55

MODEL RESULTS

**Predictor Measures (All continuous variables reflect standardized values measured at time of diagnosis unless otherwise noted)**

<table>
<thead>
<tr>
<th>Predictor Measures</th>
<th>Estimate</th>
<th>S.D.</th>
<th>One-Tailed P-Value</th>
<th>95% C.I. Lower (2.50%)</th>
<th>95% C.I. Upper (2.50%)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Child Characteristics</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>African American</td>
<td>-0.24</td>
<td>0.37</td>
<td>0.261</td>
<td>-0.89</td>
<td>0.55</td>
</tr>
<tr>
<td>First born in family (omitted = no)</td>
<td>-0.65</td>
<td>0.47</td>
<td>0.108</td>
<td>-1.52</td>
<td>0.31</td>
</tr>
<tr>
<td><strong>Caregiver and Household Characteristics</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Number of siblings in household</td>
<td>-0.47</td>
<td>0.20</td>
<td>0.002</td>
<td>-0.95</td>
<td>-0.14</td>
</tr>
<tr>
<td>Variable</td>
<td>Estimate</td>
<td>Std. Error</td>
<td>t value</td>
<td>Pr(&gt;</td>
<td>t</td>
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<td>----------</td>
<td>------------</td>
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<td>---------</td>
<td></td>
</tr>
<tr>
<td>Caregiver reported depressive symptomatology (omitted=no)</td>
<td>-0.78</td>
<td>0.46</td>
<td>0.038</td>
<td>-1.78</td>
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</tr>
<tr>
<td>Caregiver age</td>
<td>-0.78</td>
<td>0.26</td>
<td>-1.32</td>
<td>0.09</td>
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<td>Caregiver immigrant status (omitted=no)</td>
<td>-0.08</td>
<td>0.58</td>
<td>-0.442</td>
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<tr>
<td>Caregiver history of substance abuse (omitted=no)</td>
<td>0.37</td>
<td>0.48</td>
<td>-0.59</td>
<td>0.33</td>
<td></td>
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<tr>
<td>Caregiver disability status (omitted=not disabled)</td>
<td>0.30</td>
<td>0.43</td>
<td>-0.57</td>
<td>1.09</td>
<td></td>
</tr>
<tr>
<td>Caregiver educational attainment (omitted=no degree)</td>
<td></td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>H.S. diploma</td>
<td>0.16</td>
<td>0.43</td>
<td>-1.17</td>
<td>0.55</td>
<td></td>
</tr>
<tr>
<td>Post-H.S. technical certificate or college degree</td>
<td>-0.67</td>
<td>0.38</td>
<td>-1.32</td>
<td>1.38</td>
<td></td>
</tr>
<tr>
<td>Caregiver married/partnered (omitted=not married/partnered)</td>
<td>2.15</td>
<td>0.45</td>
<td>-0.34</td>
<td>3.10</td>
<td></td>
</tr>
<tr>
<td>Natural log of caregiver earnings (in dollars)</td>
<td>-0.65</td>
<td>0.37</td>
<td>-1.34</td>
<td>0.10</td>
<td></td>
</tr>
<tr>
<td>Caregiver was available to monitor/supervise children FT/PT (omitted=not available)</td>
<td>-1.22</td>
<td>0.73</td>
<td>-1.17</td>
<td>0.55</td>
<td></td>
</tr>
<tr>
<td>Household stressor scale</td>
<td>0.25</td>
<td>0.17</td>
<td>0.346</td>
<td>0.05</td>
<td></td>
</tr>
<tr>
<td>Household had health insurance (omitted=no)</td>
<td>-0.38</td>
<td>0.33</td>
<td>-1.03</td>
<td>0.25</td>
<td></td>
</tr>
<tr>
<td>Total number of moves from birth to diagnosis</td>
<td>0.02</td>
<td>0.19</td>
<td>-0.12</td>
<td>0.57</td>
<td></td>
</tr>
<tr>
<td>Resided in conventional public housing (omitted=no)</td>
<td>1.12</td>
<td>0.59</td>
<td>-0.36</td>
<td>3.66</td>
<td></td>
</tr>
</tbody>
</table>

**Neighborhood Characteristics**

| Variable                                                                 | Estimate | Std. Error | t value | Pr(>|t|) |
|-------------------------------------------------------------------------|----------|------------|---------|---------|
| Living in neighborhood with negative peers (omitted=no)                | -0.18    | 0.49       | -1.13   | 0.78   |
| Social capital index                                                    | 0.02     | 0.18       | 0.70    | 0.28   |
| Social problems index                                                   | 0.01     | 0.25       | -0.24   | 0.49   |
| Social vulnerability score                                              | 0.48     | 0.34       | -0.24   | 1.82   |
| Percent African American residents                                      | 0.08     | 0.24       | -0.37   | 0.55   |
| Percent Latino residents                                                | 0.07     | 0.43       | -0.37   | 0.55   |
| Occupational prestige score                                             | 0.48     | 0.64       | -0.70   | 0.49   |
| Percent foreign born residents                                          | 0.01     | 0.34       | -0.72   | 0.49   |
| Percent of residents who moved in preceding 12 months                   | 0.41     | 0.34       | -0.72   | 0.49   |
| Living in neighborhood with hospitals and clinics (omitted=no)          | -0.04    | 0.52       | -0.10   | 0.91   |
| Resource factor score                                                   | 0.41     | 0.21       | 0.04    | 0.89   |
| Age of housing stock                                                    |          |            |         |        |
| Percent of housing built before 1940                                    | -0.13    | 0.22       | -0.60   | 0.28   |
| Percent of housing built between 1940-1969                              | 0.41     | 0.21       | 0.04    | 0.89   |
| Violent crime rate per 1,000                                            | -0.55    | 0.52       | -1.71   | 0.35   |
| Property crime rate per 1,000                                           | 0.30     | 0.30       | 0.153   | 0.24   |
| Child abuse and neglect rate per 1,000                                  | -1.00    | 0.31       | -1.56   | 0.15   |
| Neurological hazards index (rescaled by 100)                            | 0.44     | 0.29       | 0.067   | 0.10   |

### Notes
- The table above lists various factors and their coefficients associated with caregiver characteristics and neighborhood factors.
- The coefficients represent the relationship between the predictor and the outcome variables.
- The significance levels (Pr(>|t|)) indicate the statistical significance of the coefficients.
- The table includes caregiver-reported depressive symptomatology, caregiver age, caregiver immigrant status, caregiver history of substance abuse, caregiver disability status, caregiver educational attainment, caregiver marital status, natural log of caregiver earnings, caregiver availability to monitor/supervise children, household stressor scale, and other variables.
- The neighborhood characteristics section includes variables such as living in a neighborhood with negative peers, social capital index, social problems index, social vulnerability score, percent African American residents, percent Latino residents, occupational prestige score, percent foreign born residents, percent of residents who moved in preceding 12 months, living in neighborhood with hospitals and clinics, resource factor score, age of housing stock, percent of housing built before 1940, violent crime rate, property crime rate, child abuse and neglect rate, and neurological hazards index.
<table>
<thead>
<tr>
<th></th>
<th>0.22</th>
<th>0.25</th>
<th>0.204</th>
<th>-0.29</th>
<th>0.70</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Respiratory hazards index</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Thresholds</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Ever-Obesity</strong></td>
<td>2.95</td>
<td>1.02</td>
<td>0.001</td>
<td>1.25</td>
<td>5.64</td>
</tr>
</tbody>
</table>
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

Predictor Measures (All continuous variables reflect standardized values measured at time of diagnosis unless otherwise noted)

<table>
<thead>
<tr>
<th>Child Characteristics</th>
<th>Estimate</th>
<th>S.D.</th>
<th>P-Value</th>
<th>95% C.I. Lower (2.50%)</th>
<th>95% C.I. Upper (2.50%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender and ethnicity of child (omitted=African American male)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Latina female</td>
<td>0.27</td>
<td>0.31</td>
<td>0.175</td>
<td>-0.31</td>
<td>0.95</td>
</tr>
<tr>
<td>Latino male</td>
<td>-0.19</td>
<td>0.31</td>
<td>0.276</td>
<td>-0.81</td>
<td>0.48</td>
</tr>
<tr>
<td>African American female</td>
<td>0.49</td>
<td>0.30</td>
<td>0.046</td>
<td>-0.07</td>
<td>1.09</td>
</tr>
<tr>
<td>Variable</td>
<td>Coefficient 1</td>
<td>Coefficient 2</td>
<td>Coefficient 3</td>
<td>Coefficient 4</td>
<td>Coefficient 5</td>
</tr>
<tr>
<td>-------------------------------------------------------------------------</td>
<td>---------------</td>
<td>---------------</td>
<td>---------------</td>
<td>---------------</td>
<td>---------------</td>
</tr>
<tr>
<td>First born in family (omitted=no)</td>
<td>-0.41</td>
<td>0.22</td>
<td>0.031</td>
<td>-0.85</td>
<td>0.01</td>
</tr>
<tr>
<td><strong>Caregiver and Household Characteristics</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Number of siblings in household</td>
<td>-0.43</td>
<td>0.13</td>
<td>0.000</td>
<td>-0.67</td>
<td>-0.19</td>
</tr>
<tr>
<td>Caregiver reported depressive symptomatology (omitted=no)</td>
<td>-0.25</td>
<td>0.28</td>
<td>0.184</td>
<td>-0.79</td>
<td>0.29</td>
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<tr>
<td>Caregiver age</td>
<td>-0.67</td>
<td>0.13</td>
<td>0.000</td>
<td>-0.94</td>
<td>-0.43</td>
</tr>
<tr>
<td>Caregiver immigrant status (omitted=no)</td>
<td>0.57</td>
<td>0.30</td>
<td>0.029</td>
<td>-0.01</td>
<td>1.15</td>
</tr>
<tr>
<td>Caregiver history of substance abuse (omitted=no)</td>
<td>0.04</td>
<td>0.29</td>
<td>0.441</td>
<td>-0.55</td>
<td>0.62</td>
</tr>
<tr>
<td>Caregiver disability status (omitted=not disabled)</td>
<td>0.34</td>
<td>0.33</td>
<td>0.156</td>
<td>-0.30</td>
<td>0.98</td>
</tr>
<tr>
<td>Caregiver educational attainment (omitted=no degree)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>H.S. diploma</td>
<td>-0.14</td>
<td>0.27</td>
<td>0.315</td>
<td>-0.68</td>
<td>0.39</td>
</tr>
<tr>
<td>Post-H.S. technical certificate or college degree</td>
<td>0.91</td>
<td>0.28</td>
<td>0.001</td>
<td>0.34</td>
<td>1.41</td>
</tr>
<tr>
<td>Caregiver married/partnered (omitted=not married/partnered)</td>
<td>2.01</td>
<td>0.28</td>
<td>0.000</td>
<td>1.47</td>
<td>2.60</td>
</tr>
<tr>
<td>Natural log of caregiver earnings (in dollars)</td>
<td>-0.31</td>
<td>0.30</td>
<td>0.138</td>
<td>-0.97</td>
<td>0.19</td>
</tr>
<tr>
<td>Caregiver was available to monitor/supervise children FT/PT (omitted=not available)</td>
<td>-0.63</td>
<td>0.61</td>
<td>0.114</td>
<td>-2.08</td>
<td>0.34</td>
</tr>
<tr>
<td>Household stressor scale</td>
<td>0.22</td>
<td>0.10</td>
<td>0.019</td>
<td>0.01</td>
<td>0.43</td>
</tr>
<tr>
<td>Household had health insurance (omitted=no)</td>
<td>0.09</td>
<td>0.28</td>
<td>0.359</td>
<td>-0.41</td>
<td>0.67</td>
</tr>
<tr>
<td>Total number of moves from birth to diagnosis</td>
<td>-0.04</td>
<td>0.12</td>
<td>0.364</td>
<td>-0.32</td>
<td>0.18</td>
</tr>
<tr>
<td>Resided in conventional public housing (omitted=no)</td>
<td>0.73</td>
<td>0.38</td>
<td>0.019</td>
<td>0.04</td>
<td>1.55</td>
</tr>
<tr>
<td><strong>Neighborhood Characteristics</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Living in neighborhood with negative peers (omitted=no)</td>
<td>-0.48</td>
<td>0.30</td>
<td>0.071</td>
<td>-1.02</td>
<td>0.15</td>
</tr>
<tr>
<td>Social capital index</td>
<td>-0.02</td>
<td>0.21</td>
<td>0.466</td>
<td>-0.44</td>
<td>0.40</td>
</tr>
<tr>
<td>Spline-Social capital index</td>
<td>0.47</td>
<td>0.39</td>
<td>0.127</td>
<td>-0.35</td>
<td>1.22</td>
</tr>
<tr>
<td>Social problems index</td>
<td>-0.26</td>
<td>0.34</td>
<td>0.233</td>
<td>-0.91</td>
<td>0.39</td>
</tr>
<tr>
<td>Spline-Social problems index</td>
<td>0.70</td>
<td>0.47</td>
<td>0.058</td>
<td>-0.17</td>
<td>1.68</td>
</tr>
<tr>
<td>Social vulnerability score</td>
<td>0.61</td>
<td>0.56</td>
<td>0.126</td>
<td>-0.46</td>
<td>1.73</td>
</tr>
<tr>
<td>Spline-Social vulnerability score</td>
<td>0.17</td>
<td>1.02</td>
<td>0.429</td>
<td>-1.88</td>
<td>2.31</td>
</tr>
<tr>
<td>Percent African American residents</td>
<td>0.60</td>
<td>0.82</td>
<td>0.250</td>
<td>-1.05</td>
<td>2.13</td>
</tr>
<tr>
<td>Spline-Percent African American residents</td>
<td>-0.83</td>
<td>0.95</td>
<td>0.206</td>
<td>-2.69</td>
<td>0.96</td>
</tr>
<tr>
<td>Percent Latino residents</td>
<td>-0.02</td>
<td>0.45</td>
<td>0.480</td>
<td>-0.88</td>
<td>0.85</td>
</tr>
<tr>
<td>Spline-Percent Latino residents</td>
<td>0.86</td>
<td>0.60</td>
<td>0.061</td>
<td>-0.20</td>
<td>2.07</td>
</tr>
<tr>
<td>Occupational prestige score</td>
<td>0.17</td>
<td>0.50</td>
<td>0.377</td>
<td>-0.84</td>
<td>1.07</td>
</tr>
<tr>
<td>Spline-Occupational prestige score</td>
<td>-0.40</td>
<td>0.66</td>
<td>0.270</td>
<td>-1.52</td>
<td>1.04</td>
</tr>
<tr>
<td>Percent foreign born residents</td>
<td>0.26</td>
<td>0.50</td>
<td>0.300</td>
<td>-0.69</td>
<td>1.20</td>
</tr>
<tr>
<td>Spline-Percent foreign born residents</td>
<td>-1.27</td>
<td>0.59</td>
<td>0.023</td>
<td>-2.38</td>
<td>-0.06</td>
</tr>
</tbody>
</table>
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

**Outcome:**

**Sample:**

**Type of Model:**
(e.g., Spline, Stdzd, Unstdzd)

**Childhood Diagnosis of Internalizing Behaviors**

**EVER in DHA**

**Standardized**

**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:
    - Lower: -25.24
    - Upper: 29.93
- Posterior Predictive p-value: 0.50

**MODEL RESULTS**

*Predictor Measures (All continuous variables reflect standardized values measured at time of diagnosis unless otherwise noted)*

<table>
<thead>
<tr>
<th>Child Characteristics</th>
<th>Estimate</th>
<th>S.D.</th>
<th>One-Tailed P-Value</th>
<th>95% C.I. Lower (2.50%)</th>
<th>95% C.I. Upper (2.50%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender and ethnicity of child (omitted=African American male)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Latina female</td>
<td>-0.25</td>
<td>0.32</td>
<td>0.233</td>
<td>-0.89</td>
<td>0.37</td>
</tr>
<tr>
<td>Latino male</td>
<td>-0.01</td>
<td>0.33</td>
<td>0.487</td>
<td>-0.65</td>
<td>0.62</td>
</tr>
<tr>
<td>African American female</td>
<td>-0.06</td>
<td>0.33</td>
<td>0.416</td>
<td>-0.77</td>
<td>0.53</td>
</tr>
<tr>
<td>Variable</td>
<td>Coefficient</td>
<td>Standard Error</td>
<td>Z Score</td>
<td>P Value</td>
<td></td>
</tr>
<tr>
<td>-------------------------------------------------------------------------</td>
<td>-------------</td>
<td>----------------</td>
<td>---------</td>
<td>----------</td>
<td></td>
</tr>
<tr>
<td>First born in family (omitted=no)</td>
<td>-0.13</td>
<td>0.22</td>
<td>0.24</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Caregiver and Household Characteristics</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Number of siblings in household</td>
<td>0.02</td>
<td>0.13</td>
<td>0.43</td>
<td>-0.27</td>
<td></td>
</tr>
<tr>
<td>Caregiver reported depressive symptomatology (omitted=no)</td>
<td>-0.72</td>
<td>0.32</td>
<td>0.009</td>
<td>-1.33</td>
<td></td>
</tr>
<tr>
<td>Caregiver age</td>
<td>-1.01</td>
<td>0.22</td>
<td>0.000</td>
<td>-1.55</td>
<td></td>
</tr>
<tr>
<td>Caregiver immigrant status (omitted=no)</td>
<td>0.45</td>
<td>0.40</td>
<td>0.136</td>
<td>-0.43</td>
<td></td>
</tr>
<tr>
<td>Caregiver history of substance abuse (omitted=no)</td>
<td>0.06</td>
<td>0.35</td>
<td>0.428</td>
<td>-0.67</td>
<td></td>
</tr>
<tr>
<td>Caregiver educational attainment (omitted=no degree)</td>
<td></td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>H.S. diploma</td>
<td>0.89</td>
<td>0.33</td>
<td>0.001</td>
<td>0.26</td>
<td></td>
</tr>
<tr>
<td>Post-H.S. technical certificate or college degree</td>
<td>0.43</td>
<td>0.32</td>
<td>0.084</td>
<td>-0.23</td>
<td></td>
</tr>
<tr>
<td>Caregiver married/partnered (omitted=not married/partnered)</td>
<td>1.17</td>
<td>0.36</td>
<td>0.000</td>
<td>0.48</td>
<td></td>
</tr>
<tr>
<td>Natural log of caregiver earnings (in dollars)</td>
<td>0.00</td>
<td>0.24</td>
<td>0.497</td>
<td>-0.48</td>
<td></td>
</tr>
<tr>
<td>Caregiver was available to monitor/supervise children FT/PT (omitted=not available)</td>
<td>0.04</td>
<td>0.47</td>
<td>0.460</td>
<td>-0.95</td>
<td></td>
</tr>
<tr>
<td>Household stressor scale</td>
<td>0.34</td>
<td>0.11</td>
<td>0.001</td>
<td>0.14</td>
<td></td>
</tr>
<tr>
<td>Household had health insurance (omitted=no)</td>
<td>0.65</td>
<td>0.27</td>
<td>0.006</td>
<td>0.15</td>
<td></td>
</tr>
<tr>
<td>Total number of moves from birth to diagnosis</td>
<td>0.01</td>
<td>0.11</td>
<td>0.479</td>
<td>-0.19</td>
<td></td>
</tr>
<tr>
<td><strong>Neighborhood Characteristics</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Social capital index</td>
<td>0.02</td>
<td>0.12</td>
<td>0.412</td>
<td>-0.22</td>
<td></td>
</tr>
<tr>
<td>Social problems index</td>
<td>0.45</td>
<td>0.15</td>
<td>0.000</td>
<td>0.19</td>
<td></td>
</tr>
<tr>
<td>Social vulnerability score</td>
<td>-0.64</td>
<td>0.34</td>
<td>0.030</td>
<td>-1.36</td>
<td></td>
</tr>
<tr>
<td>Percent African American residents</td>
<td>0.13</td>
<td>0.23</td>
<td>0.271</td>
<td>-0.31</td>
<td></td>
</tr>
<tr>
<td>Percent Latino residents</td>
<td>0.50</td>
<td>0.40</td>
<td>0.092</td>
<td>-0.14</td>
<td></td>
</tr>
<tr>
<td>Occupational prestige score</td>
<td>-0.16</td>
<td>0.18</td>
<td>0.170</td>
<td>-0.50</td>
<td></td>
</tr>
<tr>
<td>Percent foreign born residents</td>
<td>-0.63</td>
<td>0.29</td>
<td>0.006</td>
<td>-1.28</td>
<td></td>
</tr>
<tr>
<td>Percent of residents who moved in preceding 12 months</td>
<td>0.12</td>
<td>0.14</td>
<td>0.216</td>
<td>-0.18</td>
<td></td>
</tr>
<tr>
<td>Resource factor score</td>
<td>0.00</td>
<td>0.17</td>
<td>0.496</td>
<td>-0.31</td>
<td></td>
</tr>
<tr>
<td>Violent crime rate per 1,000</td>
<td>0.10</td>
<td>0.20</td>
<td>0.296</td>
<td>-0.29</td>
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<tr>
<td>Property crime rate per 1,000</td>
<td>0.61</td>
<td>0.20</td>
<td>0.000</td>
<td>0.25</td>
<td></td>
</tr>
<tr>
<td>Child abuse and neglect rate per 1,000</td>
<td>-0.55</td>
<td>0.20</td>
<td>0.004</td>
<td>-0.98</td>
<td></td>
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<tr>
<td><strong>Thresholds</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ever-Internalizing Behaviors</td>
<td>3.79</td>
<td>0.51</td>
<td>0.000</td>
<td>2.73</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>4.85</td>
<td></td>
</tr>
</tbody>
</table>
Appendix F-IV-4b. Standardized Bayesian Logit Model Predicting Childhood Diagnosis of Internalizing Behaviors

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

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:

<table>
<thead>
<tr>
<th></th>
<th>Lower 2.5%</th>
<th>Upper 2.5%</th>
</tr>
</thead>
<tbody>
<tr>
<td>95% C.I.</td>
<td>-23.20</td>
<td>18.65</td>
</tr>
</tbody>
</table>

Posterior Predictive p-value: 0.58

MODEL RESULTS

Predictor Measures (All continuous variables reflect standardized values measured at time of diagnosis unless otherwise noted)

<table>
<thead>
<tr>
<th>Predictor Measures</th>
<th>Estimate</th>
<th>Posterior S.D.</th>
<th>One-Tailed P-Value</th>
<th>95% C.I. Lower (2.50%)</th>
<th>95% C.I. Upper (2.50%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Child Characteristics</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gender and ethnicity of child (omitted=African American male)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Latina female</td>
<td>-0.53</td>
<td>0.51</td>
<td>0.155</td>
<td>-1.51</td>
<td>0.46</td>
</tr>
<tr>
<td>Latino male</td>
<td>-0.24</td>
<td>0.45</td>
<td>0.281</td>
<td>-1.14</td>
<td>0.68</td>
</tr>
<tr>
<td>African American female</td>
<td>-0.73</td>
<td>0.46</td>
<td>0.060</td>
<td>-1.66</td>
<td>0.16</td>
</tr>
<tr>
<td>First born in family (omitted=no)</td>
<td>0.78</td>
<td>0.41</td>
<td>0.021</td>
<td>0.05</td>
<td>1.54</td>
</tr>
<tr>
<td>----------------------------------</td>
<td>------</td>
<td>------</td>
<td>--------</td>
<td>------</td>
<td>------</td>
</tr>
<tr>
<td><strong>Caregiver and Household Characteristics</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Number of siblings in household</td>
<td>0.38</td>
<td>0.20</td>
<td>0.027</td>
<td>-0.01</td>
<td>0.76</td>
</tr>
<tr>
<td>Caregiver reported depressive symptomatology (omitted=no)</td>
<td>-0.72</td>
<td>0.46</td>
<td>0.059</td>
<td>-1.63</td>
<td>0.16</td>
</tr>
<tr>
<td>Caregiver age</td>
<td>-0.54</td>
<td>0.27</td>
<td>0.007</td>
<td>-1.12</td>
<td>-0.11</td>
</tr>
<tr>
<td>Caregiver immigrant status (omitted=no)</td>
<td>0.86</td>
<td>0.72</td>
<td>0.141</td>
<td>-0.66</td>
<td>2.18</td>
</tr>
<tr>
<td>Caregiver history of substance abuse (omitted=no)</td>
<td>-0.48</td>
<td>0.60</td>
<td>0.222</td>
<td>-1.62</td>
<td>0.63</td>
</tr>
<tr>
<td>Caregiver educational attainment (omitted=no degree)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>H.S. diploma</td>
<td>0.29</td>
<td>0.50</td>
<td>0.275</td>
<td>-0.70</td>
<td>1.18</td>
</tr>
<tr>
<td>Post-H.S. technical certificate or college degree</td>
<td>0.76</td>
<td>0.50</td>
<td>0.061</td>
<td>-0.21</td>
<td>1.76</td>
</tr>
<tr>
<td>Caregiver married/partnered (omitted=not married/partnered)</td>
<td>2.46</td>
<td>0.60</td>
<td>0.000</td>
<td>1.33</td>
<td>3.78</td>
</tr>
<tr>
<td>Natural log of caregiver earnings (in dollars)</td>
<td>-0.22</td>
<td>0.35</td>
<td>0.243</td>
<td>-0.94</td>
<td>0.43</td>
</tr>
<tr>
<td>Caregiver was available to monitor/supervise children FT/PT (omitted=not available)</td>
<td>-0.36</td>
<td>0.69</td>
<td>0.320</td>
<td>-1.77</td>
<td>1.03</td>
</tr>
<tr>
<td>Household stressor scale</td>
<td>0.34</td>
<td>0.19</td>
<td>0.015</td>
<td>0.03</td>
<td>0.78</td>
</tr>
<tr>
<td>Household had health insurance (omitted=no)</td>
<td>1.03</td>
<td>0.59</td>
<td>0.036</td>
<td>-0.12</td>
<td>2.25</td>
</tr>
<tr>
<td>Total number of moves from birth to diagnosis</td>
<td>0.09</td>
<td>0.18</td>
<td>0.310</td>
<td>-0.25</td>
<td>0.46</td>
</tr>
<tr>
<td><strong>Neighborhood Characteristics</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Social capital index</td>
<td>0.17</td>
<td>0.18</td>
<td>0.152</td>
<td>-0.21</td>
<td>0.53</td>
</tr>
<tr>
<td>Social problems index</td>
<td>0.53</td>
<td>0.19</td>
<td>0.001</td>
<td>0.17</td>
<td>0.91</td>
</tr>
<tr>
<td>Social vulnerability score</td>
<td>-0.99</td>
<td>0.57</td>
<td>0.025</td>
<td>-2.16</td>
<td>-0.01</td>
</tr>
<tr>
<td>Percent African American residents</td>
<td>0.13</td>
<td>0.28</td>
<td>0.322</td>
<td>-0.37</td>
<td>0.70</td>
</tr>
<tr>
<td>Percent Latino residents</td>
<td>0.44</td>
<td>0.62</td>
<td>0.237</td>
<td>-0.63</td>
<td>1.75</td>
</tr>
<tr>
<td>Occupational prestige score</td>
<td>-1.12</td>
<td>0.46</td>
<td>0.001</td>
<td>-2.05</td>
<td>-0.34</td>
</tr>
<tr>
<td>Percent foreign born residents</td>
<td>-1.36</td>
<td>0.47</td>
<td>0.000</td>
<td>-2.28</td>
<td>-0.43</td>
</tr>
<tr>
<td>Percent of residents who moved in preceding 12 months</td>
<td>-0.25</td>
<td>0.33</td>
<td>0.218</td>
<td>-0.91</td>
<td>0.36</td>
</tr>
<tr>
<td>Resource factor score</td>
<td>-0.21</td>
<td>0.28</td>
<td>0.243</td>
<td>-0.76</td>
<td>0.31</td>
</tr>
<tr>
<td>Violent crime rate per 1,000</td>
<td>-1.28</td>
<td>0.46</td>
<td>0.003</td>
<td>-2.13</td>
<td>-0.34</td>
</tr>
<tr>
<td>Property crime rate per 1,000</td>
<td>2.74</td>
<td>0.56</td>
<td>0.000</td>
<td>1.64</td>
<td>3.78</td>
</tr>
<tr>
<td>Child abuse and neglect rate per 1,000</td>
<td>-1.49</td>
<td>0.51</td>
<td>0.000</td>
<td>-2.68</td>
<td>-0.56</td>
</tr>
<tr>
<td><strong>Thresholds</strong></td>
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<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ever-Internalizing Behaviors</td>
<td>4.32</td>
<td>0.86</td>
<td>0.000</td>
<td>2.85</td>
<td>6.25</td>
</tr>
</tbody>
</table>
Appendix F-IV-4c. Standardized Bayesian Logit Model Predicting Childhood Diagnosis of Internalizing Behaviors

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

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

Predictor Measures (All continuous variables reflect standardized values measured at time of diagnosis unless otherwise noted)

<table>
<thead>
<tr>
<th>Predictor Measures</th>
<th>Estimate</th>
<th>S.D.</th>
<th>One-Tailed P-Value</th>
<th>95% C.I. Lower (2.50%)</th>
<th>95% C.I. Upper (2.50%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Child Characteristics</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gender and ethnicity of child (omitted=African American male)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Latina female</td>
<td>-0.60</td>
<td>0.57</td>
<td>0.150</td>
<td>-1.69</td>
<td>0.45</td>
</tr>
<tr>
<td>Latino male</td>
<td>-0.18</td>
<td>0.54</td>
<td>0.378</td>
<td>-1.10</td>
<td>0.93</td>
</tr>
<tr>
<td>African American female</td>
<td>0.49</td>
<td>0.49</td>
<td>0.142</td>
<td>-0.35</td>
<td>1.56</td>
</tr>
<tr>
<td>First born in family (omitted=no)</td>
<td>-0.43</td>
<td>0.39</td>
<td>0.111</td>
<td>-1.24</td>
<td>0.32</td>
</tr>
<tr>
<td>----------------------------------</td>
<td>--------</td>
<td>-------</td>
<td>-------</td>
<td>--------</td>
<td>------</td>
</tr>
<tr>
<td><strong>Caregiver and Household Characteristics</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Number of siblings in household</td>
<td>0.00</td>
<td>0.24</td>
<td>0.497</td>
<td>-0.44</td>
<td>0.52</td>
</tr>
<tr>
<td>Caregiver reported depressive symptomatology (omitted=no)</td>
<td>-1.16</td>
<td>0.49</td>
<td>0.028</td>
<td>-1.96</td>
<td>0.01</td>
</tr>
<tr>
<td>Caregiver age</td>
<td>-1.54</td>
<td>0.27</td>
<td>0.000</td>
<td>-2.09</td>
<td>-1.02</td>
</tr>
<tr>
<td>Caregiver immigrant status (omitted=no)</td>
<td>0.33</td>
<td>0.75</td>
<td>0.331</td>
<td>-1.34</td>
<td>1.75</td>
</tr>
<tr>
<td>Caregiver history of substance abuse (omitted=no)</td>
<td>-0.07</td>
<td>0.63</td>
<td>0.457</td>
<td>-1.51</td>
<td>0.99</td>
</tr>
<tr>
<td>Caregiver educational attainment (omitted=no degree)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>H.S. diploma</td>
<td>0.39</td>
<td>0.46</td>
<td>0.189</td>
<td>-0.43</td>
<td>1.40</td>
</tr>
<tr>
<td>Post-H.S. technical certificate or college degree</td>
<td>-0.82</td>
<td>0.63</td>
<td>0.110</td>
<td>-2.02</td>
<td>0.46</td>
</tr>
<tr>
<td>Caregiver married/partnered (omitted=not married/partnered)</td>
<td>2.07</td>
<td>0.53</td>
<td>0.000</td>
<td>0.97</td>
<td>3.04</td>
</tr>
<tr>
<td>Natural log of caregiver earnings (in dollars)</td>
<td>-0.33</td>
<td>0.36</td>
<td>0.158</td>
<td>-1.05</td>
<td>0.39</td>
</tr>
<tr>
<td>Caregiver was available to monitor/supervise children FT/PT (omitted=not available)</td>
<td>-0.50</td>
<td>0.71</td>
<td>0.206</td>
<td>-2.14</td>
<td>0.62</td>
</tr>
<tr>
<td>Household stressor scale</td>
<td>0.77</td>
<td>0.23</td>
<td>0.001</td>
<td>0.28</td>
<td>1.20</td>
</tr>
<tr>
<td>Household had health insurance (omitted=no)</td>
<td>-0.21</td>
<td>0.57</td>
<td>0.377</td>
<td>-1.18</td>
<td>0.97</td>
</tr>
<tr>
<td>Total number of moves from birth to diagnosis</td>
<td>0.00</td>
<td>0.19</td>
<td>0.497</td>
<td>-0.34</td>
<td>0.38</td>
</tr>
<tr>
<td><strong>Neighborhood Characteristics</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Social capital index</td>
<td>0.00</td>
<td>0.24</td>
<td>0.491</td>
<td>-0.49</td>
<td>0.45</td>
</tr>
<tr>
<td>Social problems index</td>
<td>0.96</td>
<td>0.29</td>
<td>0.000</td>
<td>0.44</td>
<td>1.64</td>
</tr>
<tr>
<td>Social vulnerability score</td>
<td>-0.37</td>
<td>0.45</td>
<td>0.181</td>
<td>-1.26</td>
<td>0.48</td>
</tr>
<tr>
<td>Percent African American residents</td>
<td>-0.02</td>
<td>0.32</td>
<td>0.484</td>
<td>-0.68</td>
<td>0.55</td>
</tr>
<tr>
<td>Percent Latino residents</td>
<td>0.67</td>
<td>0.56</td>
<td>0.106</td>
<td>-0.35</td>
<td>1.78</td>
</tr>
<tr>
<td>Occupational prestige score</td>
<td>-0.22</td>
<td>0.34</td>
<td>0.273</td>
<td>-0.82</td>
<td>0.50</td>
</tr>
<tr>
<td>Percent foreign born residents</td>
<td>-1.50</td>
<td>0.51</td>
<td>0.000</td>
<td>-2.56</td>
<td>-0.52</td>
</tr>
<tr>
<td>Percent of residents who moved in preceding 12 months</td>
<td>0.55</td>
<td>0.25</td>
<td>0.014</td>
<td>0.07</td>
<td>1.04</td>
</tr>
<tr>
<td>Resource factor score</td>
<td>-0.25</td>
<td>0.26</td>
<td>0.193</td>
<td>-0.72</td>
<td>0.32</td>
</tr>
<tr>
<td>Violent crime rate per 1,000</td>
<td>-1.03</td>
<td>0.45</td>
<td>0.008</td>
<td>-1.92</td>
<td>-0.15</td>
</tr>
<tr>
<td>Property crime rate per 1,000</td>
<td>0.68</td>
<td>0.29</td>
<td>0.009</td>
<td>0.07</td>
<td>1.21</td>
</tr>
<tr>
<td>Child abuse and neglect rate per 1,000</td>
<td>-0.54</td>
<td>0.35</td>
<td>0.036</td>
<td>-1.33</td>
<td>0.02</td>
</tr>
</tbody>
</table>

**Thresholds**

**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

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

SUMMARY OF DATA

- Number of observations: 459
- Number of clusters: 259

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:

\[-22.44, 21.77\]

Posterior Predictive \( p \)-value: 0.55

MODEL RESULTS

**Predictor Measures (All continuous variables reflect standardized values measured at time of diagnosis unless otherwise noted)**

<table>
<thead>
<tr>
<th>Predictor Measures</th>
<th>Estimate</th>
<th>S.D.</th>
<th>One-Tailed ( P )-Value</th>
<th>95% C.I. Lower (2.50%)</th>
<th>95% C.I. Upper (2.50%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender and ethnicity of child (omitted=African American male)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Latina female</td>
<td>-0.20</td>
<td>0.51</td>
<td>0.332</td>
<td>-1.18</td>
<td>0.89</td>
</tr>
<tr>
<td>Latino male</td>
<td>-0.13</td>
<td>0.54</td>
<td>0.409</td>
<td>-1.18</td>
<td>0.93</td>
</tr>
<tr>
<td>African American female</td>
<td>0.10</td>
<td>0.54</td>
<td>0.421</td>
<td>-1.04</td>
<td>1.10</td>
</tr>
<tr>
<td>Description</td>
<td>Estimate</td>
<td>Std. Error</td>
<td>z-value</td>
<td>P-value</td>
<td>Lower Limit</td>
</tr>
<tr>
<td>----------------------------------------------------------------------------</td>
<td>----------</td>
<td>------------</td>
<td>---------</td>
<td>---------</td>
<td>-------------</td>
</tr>
<tr>
<td>First born in family (omitted=no)</td>
<td>-0.53</td>
<td>0.40</td>
<td>0.094</td>
<td>-1.28</td>
<td>0.27</td>
</tr>
<tr>
<td><strong>Caregiver and Household Characteristics</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Number of siblings in household</td>
<td>-0.01</td>
<td>0.19</td>
<td>0.473</td>
<td>-0.42</td>
<td>0.36</td>
</tr>
<tr>
<td>Caregiver reported depressive symptomatology (omitted=no)</td>
<td>-1.06</td>
<td>0.52</td>
<td>0.011</td>
<td>-2.14</td>
<td>-0.15</td>
</tr>
<tr>
<td>Caregiver age</td>
<td>-0.90</td>
<td>0.28</td>
<td>0.000</td>
<td>-1.41</td>
<td>-0.41</td>
</tr>
<tr>
<td>Caregiver immigrant status (omitted=no)</td>
<td>0.53</td>
<td>0.57</td>
<td>0.206</td>
<td>-0.68</td>
<td>1.51</td>
</tr>
<tr>
<td>Caregiver history of substance abuse (omitted=no)</td>
<td>-0.09</td>
<td>0.53</td>
<td>0.433</td>
<td>-1.14</td>
<td>0.92</td>
</tr>
<tr>
<td>Caregiver educational attainment (omitted=no degree)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>H.S. diploma</td>
<td>0.59</td>
<td>0.43</td>
<td>0.086</td>
<td>-0.20</td>
<td>1.50</td>
</tr>
<tr>
<td>Post-H.S. technical certificate or college degree</td>
<td>-0.09</td>
<td>0.49</td>
<td>0.413</td>
<td>-1.09</td>
<td>0.89</td>
</tr>
<tr>
<td>Caregiver married/partnered (omitted=not married/partnered)</td>
<td>1.11</td>
<td>0.53</td>
<td>0.020</td>
<td>0.05</td>
<td>2.09</td>
</tr>
<tr>
<td>Natural log of caregiver earnings (in dollars)</td>
<td>0.53</td>
<td>0.36</td>
<td>0.077</td>
<td>-0.24</td>
<td>1.19</td>
</tr>
<tr>
<td>Caregiver was available to monitor/supervise children FT/PT (omitted=not available)</td>
<td>0.15</td>
<td>0.64</td>
<td>0.419</td>
<td>-1.19</td>
<td>1.28</td>
</tr>
<tr>
<td>Household stressor scale</td>
<td>0.55</td>
<td>0.17</td>
<td>0.000</td>
<td>0.20</td>
<td>0.92</td>
</tr>
<tr>
<td>Household had health insurance (omitted=no)</td>
<td>0.39</td>
<td>0.57</td>
<td>0.233</td>
<td>-0.69</td>
<td>1.59</td>
</tr>
<tr>
<td>Total number of moves from birth to diagnosis</td>
<td>-0.10</td>
<td>0.19</td>
<td>0.327</td>
<td>-0.46</td>
<td>0.24</td>
</tr>
<tr>
<td><strong>Neighborhood Characteristics</strong></td>
<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Social capital index</td>
<td>-0.04</td>
<td>0.21</td>
<td>0.439</td>
<td>-0.45</td>
<td>0.36</td>
</tr>
<tr>
<td>Social problems index</td>
<td>0.71</td>
<td>0.25</td>
<td>0.000</td>
<td>0.25</td>
<td>1.20</td>
</tr>
<tr>
<td>Social vulnerability score</td>
<td>0.06</td>
<td>0.54</td>
<td>0.453</td>
<td>-0.99</td>
<td>1.11</td>
</tr>
<tr>
<td>Percent African American residents</td>
<td>-0.35</td>
<td>0.39</td>
<td>0.203</td>
<td>-1.02</td>
<td>0.51</td>
</tr>
<tr>
<td>Percent Latino residents</td>
<td>0.79</td>
<td>0.54</td>
<td>0.066</td>
<td>-0.19</td>
<td>1.98</td>
</tr>
<tr>
<td>Occupational prestige score</td>
<td>0.19</td>
<td>0.31</td>
<td>0.290</td>
<td>-0.46</td>
<td>0.75</td>
</tr>
<tr>
<td>Percent foreign born residents</td>
<td>-0.95</td>
<td>0.43</td>
<td>0.017</td>
<td>-1.73</td>
<td>-0.09</td>
</tr>
<tr>
<td>Percent of residents who moved in preceding 12 months</td>
<td>0.44</td>
<td>0.24</td>
<td>0.038</td>
<td>-0.04</td>
<td>0.95</td>
</tr>
<tr>
<td>Resource factor score</td>
<td>0.08</td>
<td>0.29</td>
<td>0.397</td>
<td>-0.44</td>
<td>0.63</td>
</tr>
<tr>
<td>Violent crime rate per 1,000</td>
<td>-0.42</td>
<td>0.49</td>
<td>0.191</td>
<td>-1.46</td>
<td>0.43</td>
</tr>
<tr>
<td>Property crime rate per 1,000</td>
<td>0.26</td>
<td>0.34</td>
<td>0.212</td>
<td>-0.34</td>
<td>0.99</td>
</tr>
<tr>
<td>Child abuse and neglect rate per 1,000</td>
<td>-0.50</td>
<td>0.29</td>
<td>0.013</td>
<td>-1.18</td>
<td>-0.04</td>
</tr>
<tr>
<td><strong>Thresholds</strong></td>
<td></td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Ever-Internalizing Behaviors</td>
<td>3.94</td>
<td>0.87</td>
<td>0.000</td>
<td>2.16</td>
<td>5.65</td>
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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

<p>| | |</p>
<table>
<thead>
<tr>
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<th></th>
</tr>
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<tbody>
<tr>
<td>Number of observations:</td>
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<td>Number of clusters:</td>
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MODEL FIT INFORMATION

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</tr>
</thead>
<tbody>
<tr>
<td>Number of Free Parameters:</td>
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</table>

Bayesian Posterior Predictive Checking Using Chi-Square:

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

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>-20.27</td>
<td>19.77</td>
</tr>
</tbody>
</table>

Posterior Predictive p-value: 0.50

MODEL RESULTS

<table>
<thead>
<tr>
<th>Predictor Measures (All continuous variables reflect standardized values measured at time of diagnosis unless otherwise noted)</th>
<th>Estimate</th>
<th>S.D.</th>
<th>One-Tailed P-Value</th>
<th>95% C.I. Lower (2.50%)</th>
<th>95% C.I. Upper (2.50%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Child Characteristics</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>African American</td>
<td>-0.12</td>
<td>0.53</td>
<td>0.390</td>
<td>-1.18</td>
<td>0.97</td>
</tr>
<tr>
<td>First born in family (omitted=no)</td>
<td>0.14</td>
<td>0.37</td>
<td>0.355</td>
<td>-0.60</td>
<td>0.84</td>
</tr>
<tr>
<td>Caregiver and Household Characteristics</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Number of siblings in household</td>
<td>0.28</td>
<td>0.19</td>
<td>0.070</td>
<td>-0.12</td>
<td>0.65</td>
</tr>
<tr>
<td></td>
<td>Coefficient</td>
<td>Standard Error</td>
<td>p-value</td>
<td>Lower Bound</td>
<td>Upper Bound</td>
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<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td>Caregiver reported depressive symptomatology (omitted=no)</td>
<td>-0.90</td>
<td>0.48</td>
<td>0.019</td>
<td>-1.90</td>
<td>-0.03</td>
</tr>
<tr>
<td>Caregiver age</td>
<td>-1.06</td>
<td>0.30</td>
<td>0.000</td>
<td>-1.80</td>
<td>-0.56</td>
</tr>
<tr>
<td>Caregiver immigrant status (omitted=no)</td>
<td>0.85</td>
<td>0.55</td>
<td>0.073</td>
<td>-0.25</td>
<td>1.86</td>
</tr>
<tr>
<td>Caregiver history of substance abuse (omitted=no)</td>
<td>-2.62</td>
<td>1.40</td>
<td>0.017</td>
<td>-5.93</td>
<td>-0.17</td>
</tr>
<tr>
<td>Caregiver educational attainment (omitted=no degree)</td>
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<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>H.S. diploma</td>
<td>1.16</td>
<td>0.57</td>
<td>0.029</td>
<td>-0.04</td>
<td>2.28</td>
</tr>
<tr>
<td>Post-H.S. technical certificate or college degree</td>
<td>1.00</td>
<td>0.70</td>
<td>0.093</td>
<td>-0.66</td>
<td>2.30</td>
</tr>
<tr>
<td>Caregiver married/partnered (omitted=not married/partnered)</td>
<td>1.08</td>
<td>0.49</td>
<td>0.015</td>
<td>0.10</td>
<td>2.02</td>
</tr>
<tr>
<td>Natural log of caregiver earnings (in dollars)</td>
<td>-0.71</td>
<td>0.43</td>
<td>0.039</td>
<td>-1.56</td>
<td>0.05</td>
</tr>
<tr>
<td>Caregiver was available to monitor/supervise children FT/PT (omitted=not available)</td>
<td>-0.64</td>
<td>0.76</td>
<td>0.197</td>
<td>-2.17</td>
<td>0.82</td>
</tr>
<tr>
<td>Household stressor scale</td>
<td>0.72</td>
<td>0.26</td>
<td>0.000</td>
<td>0.28</td>
<td>1.29</td>
</tr>
<tr>
<td>Household had health insurance (omitted=no)</td>
<td>1.39</td>
<td>0.60</td>
<td>0.007</td>
<td>0.32</td>
<td>2.66</td>
</tr>
<tr>
<td>Total number of moves from birth to diagnosis</td>
<td>0.29</td>
<td>0.20</td>
<td>0.065</td>
<td>-0.08</td>
<td>0.72</td>
</tr>
<tr>
<td><strong>Neighborhood Characteristics</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Social capital index</td>
<td>-0.03</td>
<td>0.24</td>
<td>0.448</td>
<td>-0.52</td>
<td>0.42</td>
</tr>
<tr>
<td>Social problems index</td>
<td>0.63</td>
<td>0.21</td>
<td>0.000</td>
<td>0.25</td>
<td>1.04</td>
</tr>
<tr>
<td>Social vulnerability score</td>
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<td>0.53</td>
<td>0.385</td>
<td>-1.14</td>
<td>1.00</td>
</tr>
<tr>
<td>Percent African American residents</td>
<td>0.17</td>
<td>0.44</td>
<td>0.340</td>
<td>-0.68</td>
<td>1.08</td>
</tr>
<tr>
<td>Percent Latino residents</td>
<td>0.32</td>
<td>0.67</td>
<td>0.310</td>
<td>-1.13</td>
<td>1.58</td>
</tr>
<tr>
<td>Occupational prestige score</td>
<td>-0.16</td>
<td>0.44</td>
<td>0.368</td>
<td>-0.94</td>
<td>0.82</td>
</tr>
<tr>
<td>Percent foreign born residents</td>
<td>-0.51</td>
<td>0.42</td>
<td>0.142</td>
<td>-1.23</td>
<td>0.36</td>
</tr>
<tr>
<td>Percent of residents who moved in preceding 12 months</td>
<td>-0.13</td>
<td>0.34</td>
<td>0.333</td>
<td>-0.91</td>
<td>0.49</td>
</tr>
<tr>
<td>Resource factor score</td>
<td>0.63</td>
<td>0.38</td>
<td>0.049</td>
<td>-0.07</td>
<td>1.36</td>
</tr>
<tr>
<td>Violent crime rate per 1,000</td>
<td>0.09</td>
<td>0.34</td>
<td>0.389</td>
<td>-0.55</td>
<td>0.80</td>
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<tr>
<td>Property crime rate per 1,000</td>
<td>0.74</td>
<td>0.30</td>
<td>0.002</td>
<td>0.18</td>
<td>1.34</td>
</tr>
<tr>
<td>Child abuse and neglect rate per 1,000</td>
<td>-0.83</td>
<td>0.34</td>
<td>0.001</td>
<td>-1.56</td>
<td>-0.23</td>
</tr>
</tbody>
</table>

**Thresholds**

**Ever-Internalizing Behaviors**

<table>
<thead>
<tr>
<th></th>
<th>Coefficient</th>
<th>Standard Error</th>
<th>p-value</th>
<th>Lower Bound</th>
<th>Upper Bound</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>5.33</td>
<td>0.85</td>
<td>0.000</td>
<td>3.45</td>
<td>6.71</td>
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</tbody>
</table>
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:

<table>
<thead>
<tr>
<th>Lower Boundary</th>
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</tr>
</thead>
<tbody>
<tr>
<td>-28.75</td>
<td>26.85</td>
</tr>
</tbody>
</table>

Posterior Predictive p-value: 0.55

MODEL RESULTS

Predictor Measures (All continuous variables reflect standardized values measured at time of diagnosis unless otherwise noted)

<table>
<thead>
<tr>
<th>Child Characteristics</th>
<th>Estimate</th>
<th>S.D.</th>
<th>One-Tailed P-Value</th>
<th>95% C.I. Lower (2.50%)</th>
<th>95% C.I. Upper (2.50%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender and ethnicity of child (omitted=African American male)</td>
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<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Latina female</td>
<td>-0.30</td>
<td>0.40</td>
<td>0.250</td>
<td>-0.99</td>
<td>0.54</td>
</tr>
<tr>
<td>Latino male</td>
<td>-0.16</td>
<td>0.41</td>
<td>0.362</td>
<td>-0.93</td>
<td>0.69</td>
</tr>
<tr>
<td>African American female</td>
<td>-0.24</td>
<td>0.38</td>
<td>0.250</td>
<td>-1.02</td>
<td>0.48</td>
</tr>
<tr>
<td>Variable</td>
<td>B</td>
<td>SE</td>
<td>t</td>
<td>P</td>
<td>95% CI</td>
</tr>
<tr>
<td>-------------------------------------------------------------------------</td>
<td>-------</td>
<td>-------</td>
<td>-----</td>
<td>------</td>
<td>--------</td>
</tr>
<tr>
<td>First born in family (omitted=no)</td>
<td>-0.25</td>
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</tr>
<tr>
<td><strong>Caregiver and Household Characteristics</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Number of siblings in household</td>
<td>-0.07</td>
<td>0.15</td>
<td>0.329</td>
<td>-0.38</td>
<td>0.20</td>
</tr>
<tr>
<td>Caregiver reported depressive symptomatology (omitted=no)</td>
<td>-0.77</td>
<td>0.35</td>
<td>0.10</td>
<td>-1.50</td>
<td>-0.15</td>
</tr>
<tr>
<td>Caregiver age</td>
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<td>0.42</td>
<td>0.141</td>
<td>-0.79</td>
<td>0.82</td>
</tr>
<tr>
<td>Caregiver educational attainment (omitted=no degree)</td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>H.S. diploma</td>
<td>1.00</td>
<td>0.33</td>
<td>0.001</td>
<td>0.30</td>
<td>1.66</td>
</tr>
<tr>
<td>Post-H.S. technical certificate or college degree</td>
<td>0.71</td>
<td>0.38</td>
<td>0.034</td>
<td>-0.03</td>
<td>1.39</td>
</tr>
<tr>
<td>Caregiver married/partnered (omitted=not married/partnered)</td>
<td>1.09</td>
<td>0.40</td>
<td>0.001</td>
<td>0.37</td>
<td>1.91</td>
</tr>
<tr>
<td>Natural log of caregiver earnings (in dollars)</td>
<td>0.22</td>
<td>0.25</td>
<td>0.202</td>
<td>-0.34</td>
<td>0.66</td>
</tr>
<tr>
<td>Caregiver was available to monitor/supervise children FT/PT (omitted=not available)</td>
<td>0.43</td>
<td>0.50</td>
<td>0.202</td>
<td>-0.64</td>
<td>1.35</td>
</tr>
<tr>
<td>Household stressor scale</td>
<td>0.45</td>
<td>0.15</td>
<td>0.000</td>
<td>0.20</td>
<td>0.79</td>
</tr>
<tr>
<td>Household had health insurance (omitted=no)</td>
<td>0.47</td>
<td>0.35</td>
<td>0.067</td>
<td>-0.16</td>
<td>1.22</td>
</tr>
<tr>
<td>Total number of moves from birth to diagnosis</td>
<td>0.04</td>
<td>0.14</td>
<td>0.375</td>
<td>-0.22</td>
<td>0.30</td>
</tr>
<tr>
<td><strong>Neighborhood Characteristics</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Social capital index</td>
<td>0.19</td>
<td>0.28</td>
<td>0.262</td>
<td>-0.37</td>
<td>0.72</td>
</tr>
<tr>
<td>Spline-Social capital index</td>
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<td>0.55</td>
<td>0.322</td>
<td>-1.27</td>
<td>0.88</td>
</tr>
<tr>
<td>Social problems index</td>
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<td>0.43</td>
<td>0.154</td>
<td>-0.29</td>
<td>1.40</td>
</tr>
<tr>
<td>Spline-Social problems index</td>
<td>0.09</td>
<td>0.57</td>
<td>0.441</td>
<td>-0.98</td>
<td>1.24</td>
</tr>
<tr>
<td>Social vulnerability score</td>
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<td>0.129</td>
<td>-0.59</td>
<td>2.36</td>
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<tr>
<td>Spline-Social vulnerability score</td>
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<td>0.84</td>
<td>0.005</td>
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<td>-0.30</td>
</tr>
<tr>
<td>Percent African American residents</td>
<td>0.19</td>
<td>0.75</td>
<td>0.397</td>
<td>-1.27</td>
<td>1.73</td>
</tr>
<tr>
<td>Spline-Percent African American residents</td>
<td>-0.16</td>
<td>0.93</td>
<td>0.427</td>
<td>-2.08</td>
<td>1.63</td>
</tr>
<tr>
<td>Percent Latino residents</td>
<td>0.73</td>
<td>0.65</td>
<td>0.135</td>
<td>-0.44</td>
<td>2.08</td>
</tr>
<tr>
<td>Spline-Percent Latino residents</td>
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<td>0.82</td>
<td>0.473</td>
<td>-1.68</td>
<td>1.53</td>
</tr>
<tr>
<td>Occupational prestige score</td>
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<td>0.49</td>
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</tr>
<tr>
<td>Spline-Occupational prestige score</td>
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<td>0.75</td>
<td>0.188</td>
<td>-2.09</td>
<td>0.71</td>
</tr>
<tr>
<td>Percent foreign born residents</td>
<td>-0.62</td>
<td>0.61</td>
<td>0.161</td>
<td>-1.74</td>
<td>0.59</td>
</tr>
<tr>
<td>Spline-Percent foreign born residents</td>
<td>-0.02</td>
<td>0.80</td>
<td>0.485</td>
<td>-1.57</td>
<td>1.59</td>
</tr>
<tr>
<td>Percent of residents who moved in preceding 12 months</td>
<td>1.29</td>
<td>0.47</td>
<td>0.001</td>
<td>0.50</td>
<td>2.43</td>
</tr>
<tr>
<td>Spline-Percent of residents who moved in preceding 12 months</td>
<td>-3.22</td>
<td>1.11</td>
<td>0.000</td>
<td>-6.23</td>
<td>-1.47</td>
</tr>
<tr>
<td>Resource factor score</td>
<td>0.43</td>
<td>0.40</td>
<td>0.116</td>
<td>-0.26</td>
<td>1.28</td>
</tr>
<tr>
<td></td>
<td>Value 1</td>
<td>Value 2</td>
<td>Value 3</td>
<td>Value 4</td>
<td>Value 5</td>
</tr>
<tr>
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<td>---------</td>
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</tr>
<tr>
<td>Spline-Resource factor score</td>
<td>-0.80</td>
<td>0.66</td>
<td>0.125</td>
<td>-2.13</td>
<td>0.45</td>
</tr>
<tr>
<td>Violent crime rate per 1,000</td>
<td>-1.66</td>
<td>0.65</td>
<td>0.010</td>
<td>-2.99</td>
<td>-0.39</td>
</tr>
<tr>
<td>Spline-Violent crime rate per 1,000</td>
<td>2.34</td>
<td>0.76</td>
<td>0.004</td>
<td>0.80</td>
<td>3.81</td>
</tr>
<tr>
<td>Property crime rate per 1,000</td>
<td>1.60</td>
<td>0.73</td>
<td>0.020</td>
<td>0.13</td>
<td>2.95</td>
</tr>
<tr>
<td>Spline-Property crime rate per 1,000</td>
<td>-1.06</td>
<td>0.79</td>
<td>0.096</td>
<td>-2.54</td>
<td>0.55</td>
</tr>
<tr>
<td>Child abuse and neglect rate per 1,000</td>
<td>0.38</td>
<td>0.48</td>
<td>0.229</td>
<td>-0.60</td>
<td>1.26</td>
</tr>
<tr>
<td>Spline-Child abuse and neglect rate per 1,000</td>
<td>-1.01</td>
<td>0.62</td>
<td>0.049</td>
<td>-2.23</td>
<td>0.20</td>
</tr>
<tr>
<td><strong>Thresholds</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Ever-Internalizing Behaviors</strong></td>
<td>1.91</td>
<td>0.92</td>
<td>0.026</td>
<td>-0.03</td>
<td>3.66</td>
</tr>
</tbody>
</table>
Appendix F-IV-5a. Standardized Bayesian Logit Model Predicting Childhood Behavioral Health Service Use

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

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 p-value: 0.69

MODEL RESULTS

Predictor Measures (All continuous variables reflect standardized values measured at time of diagnosis unless otherwise noted)

<table>
<thead>
<tr>
<th>Predictor Measures</th>
<th>Estimate</th>
<th>S.D.</th>
<th>One-Tailed P-Value</th>
<th>95% C.I. Lower (2.50%)</th>
<th>95% C.I. Upper (2.50%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Child Characteristics</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gender and ethnicity of child (omitted=African American male)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Latina female</td>
<td>-0.52</td>
<td>0.24</td>
<td>0.03</td>
<td>-0.95</td>
<td>0.01</td>
</tr>
<tr>
<td>Latino male</td>
<td>-0.55</td>
<td>0.26</td>
<td>0.02</td>
<td>-1.07</td>
<td>-0.04</td>
</tr>
<tr>
<td>African American female</td>
<td>-0.31</td>
<td>0.26</td>
<td>0.16</td>
<td>-0.76</td>
<td>0.28</td>
</tr>
</tbody>
</table>
### Caregiver and Household Characteristics

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Factor Loadings</th>
</tr>
</thead>
<tbody>
<tr>
<td>First born in family (omitted=no)</td>
<td>-0.18 0.18 0.17 -0.51 0.18</td>
</tr>
<tr>
<td>Number of siblings in household</td>
<td>-0.11 0.09 0.11 -0.27 0.07</td>
</tr>
<tr>
<td>Caregiver reported depressive symptomatology (omitted=no)</td>
<td>0.27 0.19 0.10 -0.14 0.58</td>
</tr>
<tr>
<td>Caregiver age</td>
<td>-0.76 0.12 0.00 -1.07 -0.54</td>
</tr>
<tr>
<td>Caregiver immigrant status (omitted=no)</td>
<td>0.26 0.21 0.09 -0.15 0.67</td>
</tr>
<tr>
<td>Caregiver history of substance abuse (omitted=no)</td>
<td>-0.61 0.26 0.01 -1.17 -0.10</td>
</tr>
<tr>
<td>Caregiver disability status (omitted=not disabled)</td>
<td>0.73 0.24 0.00 0.28 1.24</td>
</tr>
<tr>
<td>Caregiver educational attainment (omitted=no degree)</td>
<td></td>
</tr>
<tr>
<td>H.S. diploma</td>
<td>0.58 0.18 0.00 0.23 0.95</td>
</tr>
<tr>
<td>Post-H.S. technical certificate or college degree</td>
<td>0.22 0.23 0.16 -0.21 0.70</td>
</tr>
<tr>
<td>Caregiver married/partnered (omitted=not married/partnered)</td>
<td>1.02 0.20 0.00 0.67 1.40</td>
</tr>
<tr>
<td>Natural log of caregiver earnings (in dollars)</td>
<td>0.33 0.16 0.02 0.03 0.63</td>
</tr>
<tr>
<td>Caregiver was available to monitor/supervise children FT/PT (omitted=not available)</td>
<td></td>
</tr>
<tr>
<td>Household stressor scale</td>
<td>0.10 0.08 0.08 -0.03 0.26</td>
</tr>
<tr>
<td>Household had health insurance (omitted=no)</td>
<td>0.29 0.19 0.06 -0.12 0.60</td>
</tr>
<tr>
<td>Total number of moves from birth to diagnosis</td>
<td>-0.12 0.09 0.10 -0.29 0.06</td>
</tr>
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</table>

### Neighborhood Characteristics

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Factor Loadings</th>
</tr>
</thead>
<tbody>
<tr>
<td>Living in neighborhood with negative peers (omitted=no)</td>
<td>0.24 0.22 0.16 -0.27 0.63</td>
</tr>
<tr>
<td>Social capital index</td>
<td>-0.08 0.10 0.21 -0.28 0.09</td>
</tr>
<tr>
<td>Social problems index</td>
<td>0.02 0.10 0.38 -0.19 0.21</td>
</tr>
<tr>
<td>Social vulnerability score</td>
<td>-0.77 0.24 0.00 -1.28 -0.32</td>
</tr>
<tr>
<td>Percent African American residents</td>
<td>-0.02 0.14 0.46 -0.29 0.25</td>
</tr>
<tr>
<td>Percent Latino residents</td>
<td>0.18 0.22 0.21 -0.18 0.61</td>
</tr>
<tr>
<td>Occupational prestige score</td>
<td>-0.79 0.22 0.00 -1.19 -0.39</td>
</tr>
<tr>
<td>Percent foreign born residents</td>
<td>-0.71 0.17 0.00 -1.05 -0.40</td>
</tr>
<tr>
<td>Percent of residents who moved in preceding 12 months</td>
<td>0.29 0.11 0.01 0.05 0.49</td>
</tr>
<tr>
<td>Living in neighborhood with hospitals and clinics (omitted=no)</td>
<td>0.00 0.26 0.49 -0.42 0.56</td>
</tr>
<tr>
<td>Resource factor score</td>
<td>-0.06 0.14 0.32 -0.34 0.21</td>
</tr>
<tr>
<td>Percent of housing built before 1940</td>
<td>0.14 0.11 0.10 -0.05 0.41</td>
</tr>
<tr>
<td>Violent crime rate per 1,000</td>
<td>-0.26 0.19 0.11 -0.62 0.12</td>
</tr>
<tr>
<td>Property crime rate per 1,000</td>
<td>0.33 0.13 0.00 0.10 0.60</td>
</tr>
<tr>
<td>Child abuse and neglect rate per 1,000</td>
<td>-0.10 0.15 0.25 -0.42 0.14</td>
</tr>
<tr>
<td>Neurological hazards index (rescaled by 100)</td>
<td>0.22 0.13 0.05 -0.04 0.49</td>
</tr>
<tr>
<td></td>
<td>0.20</td>
</tr>
<tr>
<td>--------------------------</td>
<td>------</td>
</tr>
<tr>
<td>Respiratory hazards index</td>
<td></td>
</tr>
<tr>
<td>Thresholds</td>
<td></td>
</tr>
<tr>
<td>Ever-Behavioral Health Service Use</td>
<td>2.06</td>
</tr>
</tbody>
</table>
Appendix F-IV-5b. Standardized Bayesian Logit Model Predicting Childhood Behavioral Health Service Use

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

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

Predictor Measures (All continuous variables reflect standardized values measured at time of diagnosis unless otherwise noted)

<table>
<thead>
<tr>
<th>Predictor Measures</th>
<th>Estimate</th>
<th>S.D.</th>
<th>One-Tailed P-Value</th>
<th>95% C.I. Lower (2.50%)</th>
<th>95% C.I. Upper (2.50%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Child Characteristics</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gender and ethnicity of child (omitted=African American male)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Latina female</td>
<td>-0.60</td>
<td>0.35</td>
<td>0.023</td>
<td>-1.37</td>
<td>-0.02</td>
</tr>
<tr>
<td>Latino male</td>
<td>-0.71</td>
<td>0.30</td>
<td>0.005</td>
<td>-1.33</td>
<td>-0.14</td>
</tr>
<tr>
<td>African American female</td>
<td>-0.60</td>
<td>0.33</td>
<td>0.032</td>
<td>-1.24</td>
<td>0.05</td>
</tr>
<tr>
<td>Variable</td>
<td>Coefficient</td>
<td>Standard Error</td>
<td>t-statistic</td>
<td>p-value</td>
<td>95% Confidence Interval</td>
</tr>
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<td>-------------</td>
<td>----------------</td>
<td>-------------</td>
<td>---------</td>
<td>------------------------</td>
</tr>
<tr>
<td>First born in family (omitted=no)</td>
<td>0.31</td>
<td>0.24</td>
<td>0.087</td>
<td>0.15</td>
<td>-0.15 - 0.77</td>
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<tr>
<td><strong>Caregiver and Household Characteristics</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Number of siblings in household</td>
<td>-0.01</td>
<td>0.12</td>
<td>-0.477</td>
<td>-0.23</td>
<td>0.21</td>
</tr>
<tr>
<td>Caregiver reported depressive symptomatology (omitted=no)</td>
<td>0.42</td>
<td>0.27</td>
<td>-0.010</td>
<td>0.85</td>
<td></td>
</tr>
<tr>
<td>Caregiver age</td>
<td>-0.29</td>
<td>0.13</td>
<td>-0.007</td>
<td>-0.56</td>
<td>-0.06</td>
</tr>
<tr>
<td>Caregiver immigrant status (omitted=no)</td>
<td>0.20</td>
<td>0.30</td>
<td>0.240</td>
<td>-0.57</td>
<td>0.71</td>
</tr>
<tr>
<td>Caregiver history of substance abuse (omitted=no)</td>
<td>-0.43</td>
<td>0.36</td>
<td>-0.110</td>
<td>-1.21</td>
<td>0.18</td>
</tr>
<tr>
<td>Caregiver disability status (omitted=not disabled)</td>
<td>0.75</td>
<td>0.43</td>
<td>-0.047</td>
<td>-0.15</td>
<td>1.56</td>
</tr>
<tr>
<td>Caregiver educational attainment (omitted=no degree)</td>
<td></td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>H.S. diploma</td>
<td>0.73</td>
<td>0.28</td>
<td>0.007</td>
<td>0.16</td>
<td>1.29</td>
</tr>
<tr>
<td>Post-H.S. technical certificate or college degree</td>
<td>0.62</td>
<td>0.29</td>
<td>0.025</td>
<td>-0.01</td>
<td>1.16</td>
</tr>
<tr>
<td>Caregiver married/partnered (omitted=not married/partnered)</td>
<td>1.53</td>
<td>0.38</td>
<td>0.000</td>
<td>0.80</td>
<td>2.35</td>
</tr>
<tr>
<td>Natural log of caregiver earnings (in dollars)</td>
<td>-0.14</td>
<td>0.23</td>
<td>0.248</td>
<td>-0.60</td>
<td>0.32</td>
</tr>
<tr>
<td>Caregiver was available to monitor/supervise children FT/PT (omitted=not available)</td>
<td>-0.49</td>
<td>0.45</td>
<td>0.127</td>
<td>-1.34</td>
<td>0.36</td>
</tr>
<tr>
<td>Household stressor scale</td>
<td>0.26</td>
<td>0.11</td>
<td>0.007</td>
<td>0.05</td>
<td>0.47</td>
</tr>
<tr>
<td>Household had health insurance (omitted=no)</td>
<td>-0.05</td>
<td>0.29</td>
<td>0.425</td>
<td>-0.59</td>
<td>0.58</td>
</tr>
<tr>
<td>Total number of moves from birth to diagnosis</td>
<td>0.08</td>
<td>0.11</td>
<td>0.237</td>
<td>-0.15</td>
<td>0.28</td>
</tr>
<tr>
<td><strong>Neighborhood Characteristics</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Living in neighborhood with negative peers (omitted=no)</td>
<td>0.21</td>
<td>0.32</td>
<td>0.240</td>
<td>-0.48</td>
<td>0.78</td>
</tr>
<tr>
<td>Social capital index</td>
<td>0.07</td>
<td>0.11</td>
<td>0.282</td>
<td>-0.17</td>
<td>0.26</td>
</tr>
<tr>
<td>Social problems index</td>
<td>-0.08</td>
<td>0.17</td>
<td>0.347</td>
<td>-0.37</td>
<td>0.27</td>
</tr>
<tr>
<td>Social vulnerability score</td>
<td>-1.56</td>
<td>0.41</td>
<td>0.000</td>
<td>-2.38</td>
<td>-0.82</td>
</tr>
<tr>
<td>Percent African American residents</td>
<td>-0.49</td>
<td>0.18</td>
<td>0.002</td>
<td>-0.83</td>
<td>-0.15</td>
</tr>
<tr>
<td>Percent Latino residents</td>
<td>-0.38</td>
<td>0.31</td>
<td>0.105</td>
<td>-1.02</td>
<td>0.19</td>
</tr>
<tr>
<td>Occupational prestige score</td>
<td>-1.85</td>
<td>0.33</td>
<td>0.000</td>
<td>-2.65</td>
<td>-1.31</td>
</tr>
<tr>
<td>Percent foreign born residents</td>
<td>-1.06</td>
<td>0.22</td>
<td>0.000</td>
<td>-1.50</td>
<td>-0.61</td>
</tr>
<tr>
<td>Percent of residents who moved in preceding 12 months</td>
<td>0.29</td>
<td>0.20</td>
<td>0.043</td>
<td>-0.03</td>
<td>0.69</td>
</tr>
<tr>
<td>Living in neighborhood with hospitals and clinics (omitted=no)</td>
<td>-0.23</td>
<td>0.31</td>
<td>0.200</td>
<td>-0.91</td>
<td>0.29</td>
</tr>
<tr>
<td>Resource factor score</td>
<td>-0.19</td>
<td>0.18</td>
<td>0.123</td>
<td>-0.56</td>
<td>0.14</td>
</tr>
<tr>
<td>Percent of housing built before 1940</td>
<td>0.26</td>
<td>0.14</td>
<td>0.035</td>
<td>-0.02</td>
<td>0.53</td>
</tr>
<tr>
<td>Violent crime rate per 1,000</td>
<td>-1.10</td>
<td>0.26</td>
<td>0.000</td>
<td>-1.64</td>
<td>-0.65</td>
</tr>
<tr>
<td>Property crime rate per 1,000</td>
<td>1.72</td>
<td>0.31</td>
<td>0.000</td>
<td>1.14</td>
<td>2.25</td>
</tr>
<tr>
<td>Child abuse and neglect rate per 1,000</td>
<td>-0.50</td>
<td>0.20</td>
<td>0.013</td>
<td>-0.92</td>
<td>-0.13</td>
</tr>
<tr>
<td>Neurological hazards index (rescaled by 100)</td>
<td>1.24</td>
<td>0.26</td>
<td>0.000</td>
<td>0.78</td>
<td>1.76</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>--------------------------</td>
<td>-----</td>
<td>-----</td>
<td>-------</td>
<td>-----</td>
<td>-----</td>
</tr>
<tr>
<td>Respiratory hazards index</td>
<td>-0.62</td>
<td>0.20</td>
<td>0.000</td>
<td>-1.03</td>
<td>-0.27</td>
</tr>
<tr>
<td>Thresholds</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ever-Behavioral Health Service Use</td>
<td>1.02</td>
<td>0.51</td>
<td>0.005</td>
<td>0.13</td>
<td>2.08</td>
</tr>
</tbody>
</table>
Appendix F-IV-5c. Standardized Bayesian Logit Model Predicting Childhood Behavioral Health Service Use

**Outcome:**
Childhood Behavioral Health Service Use

**Sample:**
MAJORITY in DHA

**Type of Model:**
(e.g., Spline, Stdzd, Unstdzd)

**Standardized**

### 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 to 21.40
  - Posterior Predictive $p$-value: 0.52

### MODEL RESULTS

**Predictor Measures (All continuous variables reflect standardized values measured at time of diagnosis unless otherwise noted)**

<table>
<thead>
<tr>
<th>Predictor Measures</th>
<th>Estimate</th>
<th>S.D.</th>
<th>One-Tailed $P$-Value</th>
<th>95% C.I. Lower (2.50%)</th>
<th>95% C.I. Upper (2.50%)</th>
</tr>
</thead>
</table>
| **Child Characteristics**
  - 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 |
**Caregiver and Household Characteristics**

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Coefficient</th>
<th>Standard Error</th>
<th>t-statistic</th>
<th>p-value</th>
<th>Lower Bound</th>
<th>Upper Bound</th>
</tr>
</thead>
<tbody>
<tr>
<td>First born in family (omitted=no)</td>
<td>-0.24</td>
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<td>Caregiver reported depressive symptomatology (omitted=no)</td>
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<td>0.32</td>
<td>0.266</td>
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<td>Caregiver age</td>
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<td>-0.69</td>
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<tr>
<td>Caregiver immigrant status (omitted=no)</td>
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<td>0.246</td>
<td>-0.46</td>
<td>0.96</td>
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<td>0.41</td>
<td>0.024</td>
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<td>H.S. diploma</td>
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<td>Natural log of caregiver earnings (in dollars)</td>
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<td>0.264</td>
<td>-0.32</td>
<td>0.57</td>
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<td>Caregiver was available to monitor/supervise children FT/PT (omitted=not available)</td>
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<tr>
<td>Household stressor scale</td>
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<td>0.002</td>
<td>0.13</td>
<td>0.56</td>
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<tr>
<td>Living in neighborhood with negative peers (omitted=no)</td>
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<td>Social capital index</td>
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<td>0.12</td>
<td>0.272</td>
<td>-0.17</td>
<td>0.30</td>
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<tr>
<td>Social problems index</td>
<td>0.25</td>
<td>0.20</td>
<td>0.100</td>
<td>-0.19</td>
<td>0.64</td>
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</tr>
<tr>
<td>Social vulnerability score</td>
<td>-1.34</td>
<td>0.40</td>
<td>0.000</td>
<td>-2.08</td>
<td>-0.50</td>
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<tr>
<td>Percent African American residents</td>
<td>-0.58</td>
<td>0.21</td>
<td>0.002</td>
<td>-0.96</td>
<td>-0.15</td>
<td></td>
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<tr>
<td>Percent Latino residents</td>
<td>-0.59</td>
<td>0.35</td>
<td>0.040</td>
<td>-1.29</td>
<td>0.08</td>
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<tr>
<td>Occupational prestige score</td>
<td>-1.99</td>
<td>0.33</td>
<td>0.000</td>
<td>-2.67</td>
<td>-1.41</td>
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<tr>
<td>Percent foreign born residents</td>
<td>-1.08</td>
<td>0.26</td>
<td>0.000</td>
<td>-1.59</td>
<td>-0.59</td>
<td></td>
</tr>
<tr>
<td>Percent of residents who moved in preceding 12 months</td>
<td>0.49</td>
<td>0.18</td>
<td>0.000</td>
<td>0.14</td>
<td>0.82</td>
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<tr>
<td>Living in neighborhood with hospitals and clinics (omitted=no)</td>
<td>-0.52</td>
<td>0.43</td>
<td>0.100</td>
<td>-1.31</td>
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<td>Resource factor score</td>
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<tr>
<td>Percent of housing built before 1940</td>
<td>0.55</td>
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<td>0.20</td>
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<td>Violent crime rate per 1,000</td>
<td>-0.84</td>
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<td>0.000</td>
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<td>-0.19</td>
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<tr>
<td>Property crime rate per 1,000</td>
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<td>0.23</td>
<td>0.002</td>
<td>0.25</td>
<td>1.14</td>
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<tr>
<td>Child abuse and neglect rate per 1,000</td>
<td>-0.22</td>
<td>0.21</td>
<td>0.154</td>
<td>-0.70</td>
<td>0.16</td>
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</tr>
<tr>
<td>Neurological hazards index (rescaled by 100)</td>
<td>0.81</td>
<td>0.24</td>
<td>0.000</td>
<td>0.34</td>
<td>1.27</td>
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<tr>
<td>Respiratory hazards index</td>
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<td>0.19</td>
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</tr>
<tr>
<td>Thresholds</td>
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<td></td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ever-Behavioral Health Service Use</td>
<td>0.22</td>
<td>0.60</td>
<td>0.338</td>
<td>-0.98</td>
<td>1.38</td>
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</tbody>
</table>
Appendix F-IV-5d. Standardized Bayesian Logit Model Predicting Childhood Behavioral Health Service Use

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

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

Predictor Measures (All continuous variables reflect standardized values measured at time of diagnosis unless otherwise noted)

<table>
<thead>
<tr>
<th>Predictor Measures</th>
<th>Estimate</th>
<th>S.D.</th>
<th>One-Tailed P-Value</th>
<th>95% C.I. Lower (2.50%)</th>
<th>95% C.I. Upper (2.50%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Child Characteristics</td>
<td>gender and ethnicity of child (omitted=African American male)</td>
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<td></td>
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<td></td>
</tr>
<tr>
<td>Latina female</td>
<td>-0.87</td>
<td>0.40</td>
<td>0.009</td>
<td>-1.75</td>
<td>-0.18</td>
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<td>Latino male</td>
<td>-0.49</td>
<td>0.40</td>
<td>0.102</td>
<td>-1.24</td>
<td>0.28</td>
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<td>African American female</td>
<td>-0.45</td>
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<td>0.104</td>
<td>-1.17</td>
<td>0.22</td>
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<td>Category</td>
<td>Coefficient</td>
<td>Standard Error</td>
<td>z-value</td>
<td>p-value</td>
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<td>-------------</td>
<td>----------------</td>
<td>---------</td>
<td>---------</td>
<td></td>
</tr>
<tr>
<td>First born in family (omitted=no)</td>
<td>-0.96</td>
<td>0.33</td>
<td>0.001</td>
<td>-1.59</td>
<td></td>
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<tr>
<td>Number of siblings in household</td>
<td>-0.10</td>
<td>0.14</td>
<td>0.243</td>
<td>-0.38</td>
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</tr>
<tr>
<td>Caregiver reported depressive symptomatology (omitted=no)</td>
<td>0.31</td>
<td>0.35</td>
<td>0.171</td>
<td>-0.37</td>
<td></td>
</tr>
<tr>
<td>Caregiver age</td>
<td>-1.39</td>
<td>0.19</td>
<td>0.000</td>
<td>-1.76</td>
<td></td>
</tr>
<tr>
<td>Caregiver immigrant status (omitted=no)</td>
<td>-0.16</td>
<td>0.41</td>
<td>0.350</td>
<td>-1.05</td>
<td></td>
</tr>
<tr>
<td>Caregiver history of substance abuse (omitted=no)</td>
<td>-1.13</td>
<td>0.44</td>
<td>0.001</td>
<td>-2.04</td>
<td></td>
</tr>
<tr>
<td>Caregiver disability status (omitted=not disabled)</td>
<td>1.44</td>
<td>0.45</td>
<td>0.004</td>
<td>0.48</td>
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<tr>
<td>Caregiver educational attainment (omitted=no degree)</td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>H.S. diploma</td>
<td>0.83</td>
<td>0.30</td>
<td>0.001</td>
<td>0.22</td>
<td></td>
</tr>
<tr>
<td>Post-H.S. technical certificate or college degree</td>
<td>0.33</td>
<td>0.37</td>
<td>0.171</td>
<td>-0.44</td>
<td></td>
</tr>
<tr>
<td>Caregiver married/partnered (omitted=not married/partnered)</td>
<td>1.22</td>
<td>0.32</td>
<td>0.000</td>
<td>0.61</td>
<td></td>
</tr>
<tr>
<td>Natural log of caregiver earnings (in dollars)</td>
<td>0.51</td>
<td>0.21</td>
<td>0.010</td>
<td>0.07</td>
<td></td>
</tr>
<tr>
<td>Caregiver was available to monitor/supervise children FT/PT (omitted=not available)</td>
<td>0.77</td>
<td>0.41</td>
<td>0.039</td>
<td>-0.05</td>
<td></td>
</tr>
<tr>
<td>Household stressor scale</td>
<td>0.12</td>
<td>0.14</td>
<td>0.176</td>
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</tr>
<tr>
<td>Household had health insurance (omitted=no)</td>
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<td>0.060</td>
<td>-0.13</td>
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</tr>
<tr>
<td>Total number of moves from birth to diagnosis</td>
<td>-0.14</td>
<td>0.16</td>
<td>0.177</td>
<td>-0.45</td>
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<tr>
<td>Neighborhood Characteristics</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Living in neighborhood with negative peers (omitted=no)</td>
<td>-0.86</td>
<td>0.34</td>
<td>0.001</td>
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<tr>
<td>Social capital index</td>
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<tr>
<td>Social problems index</td>
<td>0.29</td>
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<td>0.019</td>
<td>0.02</td>
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<td>Social vulnerability score</td>
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<td>0.000</td>
<td>-2.17</td>
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</tr>
<tr>
<td>Percent African American residents</td>
<td>0.27</td>
<td>0.23</td>
<td>0.104</td>
<td>-0.16</td>
<td></td>
</tr>
<tr>
<td>Percent Latino residents</td>
<td>0.64</td>
<td>0.35</td>
<td>0.034</td>
<td>-0.04</td>
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<tr>
<td>Occupational prestige score</td>
<td>-1.46</td>
<td>0.33</td>
<td>0.000</td>
<td>-2.06</td>
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</tr>
<tr>
<td>Percent foreign born residents</td>
<td>-1.19</td>
<td>0.29</td>
<td>0.000</td>
<td>-1.81</td>
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<td>Percent of residents who moved in preceding 12 months</td>
<td>0.65</td>
<td>0.16</td>
<td>0.000</td>
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</tr>
<tr>
<td>Living in neighborhood with hospitals and clinics (omitted=no)</td>
<td>-0.39</td>
<td>0.38</td>
<td>0.157</td>
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<td>Resource factor score</td>
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<td>Percent of housing built before 1940</td>
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<td>Violent crime rate per 1,000</td>
<td>-0.50</td>
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<td>Property crime rate per 1,000</td>
<td>0.65</td>
<td>0.23</td>
<td>0.001</td>
<td>0.18</td>
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<td>Child abuse and neglect rate per 1,000</td>
<td>-0.13</td>
<td>0.22</td>
<td>0.274</td>
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<tr>
<td>Respiratory hazards index</td>
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<td>0.105</td>
<td>-0.16</td>
<td>0.60</td>
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Appendix F-IV-5e. Standardized Bayesian Logit Models Predicting Childhood Behavioral Health Service Use by Gender and Ethnicity

<table>
<thead>
<tr>
<th>Outcome:</th>
<th>Childhood Behavioral Health Service Use</th>
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<tr>
<td>Sample:</td>
<td>EVER in DHA Strata - MALES</td>
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<tr>
<td>Type of Model: (e.g., Spline, Stdzd, Unstdzd)</td>
<td>Standardized</td>
</tr>
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</table>

**SUMMARY OF DATA**

| Number of observations: | 308 |
| Number of clusters:     | 234 |

**MODEL FIT INFORMATION**

| Number of Free Parameters: | 34 |

Bayesian Posterior Predictive Checking Using Chi-Square:

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</thead>
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<td>-21.87</td>
</tr>
<tr>
<td>25.59</td>
</tr>
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</table>

| Posterior Predictive p-value: | 0.56 |

**MODEL RESULTS**
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<tr>
<th>Predictor Measures (All continuous variables reflect standardized values measured at time of diagnosis unless otherwise noted)</th>
<th>Estimate</th>
<th>Posterior S.D.</th>
<th>One-Tailed P-Value</th>
<th>95% C.I. Lower (2.50%)</th>
<th>95% C.I. Upper (2.50%)</th>
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</thead>
<tbody>
<tr>
<td><strong>Child Characteristics</strong></td>
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<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>African American</td>
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<td>0.33</td>
<td>0.002</td>
<td>0.21</td>
<td>1.51</td>
</tr>
<tr>
<td>First born in family (omitted=no)</td>
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<td>0.070</td>
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<td>0.12</td>
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<td><strong>Caregiver and Household Characteristics</strong></td>
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<tr>
<td>Number of siblings in household</td>
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<tr>
<td>Caregiver reported depressive symptomatology (omitted=no)</td>
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<td>0.32</td>
<td>0.262</td>
<td>-0.40</td>
<td>0.83</td>
</tr>
<tr>
<td>Caregiver age</td>
<td>-1.24</td>
<td>0.17</td>
<td>0.000</td>
<td>-1.63</td>
<td>-0.94</td>
</tr>
<tr>
<td>Caregiver immigrant status (omitted=no)</td>
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<td>0.40</td>
<td>0.460</td>
<td>-0.83</td>
<td>0.72</td>
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<td>Caregiver history of substance abuse (omitted=no)</td>
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<td>0.46</td>
<td>0.034</td>
<td>-1.84</td>
<td>0.02</td>
</tr>
<tr>
<td>Caregiver disability status (omitted=not disabled)</td>
<td>0.55</td>
<td>0.44</td>
<td>0.118</td>
<td>-0.36</td>
<td>1.32</td>
</tr>
<tr>
<td>Caregiver educational attainment (omitted=no degree)</td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>H.S. diploma</td>
<td>0.57</td>
<td>0.32</td>
<td>0.016</td>
<td>0.02</td>
<td>1.25</td>
</tr>
<tr>
<td>Post-H.S. technical certificate or college degree</td>
<td>0.34</td>
<td>0.39</td>
<td>0.158</td>
<td>-0.37</td>
<td>1.16</td>
</tr>
<tr>
<td>Caregiver married/partnered (omitted=not married/partnered)</td>
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<td>-0.32</td>
<td>0.27</td>
<td>0.098</td>
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<td>0.20</td>
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<td>-0.20</td>
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<td>0.330</td>
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<td>Household stressor scale</td>
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<td>0.12</td>
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<td>0.16</td>
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<td><strong>Neighborhood Characteristics</strong></td>
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<td>0.328</td>
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<tr>
<td>Percent African American residents</td>
<td>0.11</td>
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<td>Percent Latino residents</td>
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<td>Percent foreign born residents</td>
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<td>Percent of residents who moved in preceding 12 months</td>
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<td>0.090</td>
<td>-0.14</td>
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<td>0.60</td>
<td>0.000</td>
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Appendix F-IV-5f. Standardized Bayesian Spline Logit Models Predicting Childhood Behavioral Health Service Use

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<th>Outcome: Childhood Behavioral Health Service Use</th>
<th>EVER in DHA</th>
<th>SPLINE Standardized</th>
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<td>Sample:</td>
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<td>Type of Model:</td>
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<td></td>
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<tr>
<td>(e.g., Spline, Stdzd, Unstdzd)</td>
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SUMMARY OF DATA

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<th>Number of observations:</th>
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<td>Number of clusters:</td>
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MODEL FIT INFORMATION

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<td>Bayesian Posterior Predictive Checking Using Chi-Square:</td>
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<th>95% CI for the Difference Between the Observed and Replicated Chi-Square Values:</th>
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<tr>
<td>-29.49</td>
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<td>27.62</td>
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| Posterior Predictive p-value: | 0.62 |

MODEL RESULTS

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<tr>
<th>Predictor Measures (All continuous variables reflect standardized values measured at time of diagnosis unless otherwise noted)</th>
<th>Estimate</th>
<th>S.D.</th>
<th>One-Tailed P-Value</th>
<th>95% C.I. Lower (2.50%)</th>
<th>95% C.I. Upper (2.50%)</th>
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<td>Child Characteristics</td>
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<td>Gender and ethnicity of child (omitted=African American male)</td>
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<td>Latina female</td>
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<td>0.100</td>
<td>-0.94</td>
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<td>Latino male</td>
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<td>0.008</td>
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<td>African American female</td>
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<td>0.26</td>
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<td>-0.75</td>
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<td>First born in family (omitted=no)</td>
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<td>0.18</td>
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<td><strong>Caregiver and Household Characteristics</strong></td>
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<tr>
<td>Number of siblings in household</td>
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<td>0.146</td>
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<td>Caregiver history of substance abuse (omitted=no)</td>
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<td>0.000</td>
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<td>Caregiver disability status (omitted=not disabled)</td>
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<td>0.29</td>
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<td>Caregiver educational attainment (omitted=no degree)</td>
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<td>H.S. diploma</td>
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<td>0.21</td>
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<td>Post-H.S. technical certificate or college degree</td>
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<td>0.25</td>
<td>0.204</td>
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<td>Caregiver married/partnered (omitted=not married/partnered)</td>
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<td>0.25</td>
<td>0.000</td>
<td>0.55</td>
<td>1.51</td>
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<td>0.18</td>
<td>0.070</td>
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<td>0.60</td>
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<td>Caregiver was available to monitor/supervise children FT/PT (omitted=not available)</td>
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<td>0.35</td>
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<td>0.10</td>
<td>0.114</td>
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<td>0.32</td>
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<tr>
<td>Household had health insurance (omitted=no)</td>
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<td>0.23</td>
<td>0.054</td>
<td>-0.07</td>
<td>0.79</td>
</tr>
<tr>
<td>Total number of moves from birth to diagnosis</td>
<td>-0.16</td>
<td>0.11</td>
<td>0.066</td>
<td>-0.37</td>
<td>0.04</td>
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<td><strong>Neighborhood Characteristics</strong></td>
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<td></td>
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<tr>
<td>Living in neighborhood with negative peers (omitted=no)</td>
<td>0.24</td>
<td>0.27</td>
<td>0.202</td>
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<td>0.77</td>
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<td>0.19</td>
<td>0.076</td>
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<td>0.09</td>
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<td>0.33</td>
<td>0.232</td>
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<td>0.93</td>
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<td>0.024</td>
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<tr>
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<td>Percent of residents who moved in preceding 12 months</td>
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<tr>
<td>Ever-Behavioral Health Service Use</td>
<td>0.21</td>
<td>0.64</td>
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<td>1.53</td>
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