

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

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

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

<i>Predictor Measures (All continuous variables reflect standardized values measured at time of diagnosis unless otherwise noted)</i>	Estimate	Posterior S.D.	One-Tailed P-Value	95% C.I. Lower (2.50%)	95% C.I. Upper (2.50%)
Child Characteristics					
Gender and ethnicity of child (omitted=African American male)					
Latina female	-0.61	0.23	0.00	-1.07	-0.18
Latino male	-0.93	0.23	0.00	-1.40	-0.50
African American female	-0.38	0.28	0.08	-0.98	0.12
First born in family (omitted=no)	-0.17	0.19	0.19	-0.53	0.19

Child was low birthweight or extremely premature (omitted=no)	0.54	0.27	0.02	0.05	1.11
Caregiver and Household Characteristics					
Number of siblings in household	-0.17	0.10	0.04	-0.36	0.02
Caregiver reported depressive symptomatology (omitted=no)	0.02	0.21	0.46	-0.37	0.43
Caregiver age	-0.87	0.13	0.00	-1.14	-0.61
Caregiver immigrant status (omitted=no)	-0.31	0.35	0.20	-0.97	0.40
Caregiver history of substance abuse (omitted=no)	-0.17	0.26	0.24	-0.70	0.36
Caregiver disability status (omitted=not disabled)	0.95	0.25	0.00	0.47	1.45
Caregiver educational attainment (omitted=no degree)					
H.S. diploma	0.49	0.20	0.01	0.12	0.90
Post-H.S. technical certificate or college degree	-0.31	0.25	0.09	-0.81	0.18
Caregiver married/partnered (omitted=not married/partnered)	1.12	0.26	0.00	0.65	1.71
Natural log of caregiver earnings (in dollars)	-0.32	0.26	0.10	-0.88	0.13
Caregiver was available to monitor/supervise children FT/PT (omitted=not available)	-0.66	0.51	0.08	-1.82	0.29
Household stressor scale	-0.04	0.10	0.35	-0.23	0.15
Household had health insurance (omitted=no)	-0.35	0.17	0.03	-0.68	0.01
Total number of moves from birth to diagnosis	-0.23	0.11	0.03	-0.44	-0.01
Resided in conventional public housing (omitted=no)	-0.05	0.29	0.43	-0.57	0.51
Neighborhood Characteristics					
Living in neighborhood with negative peers (omitted=no)	0.16	0.23	0.27	-0.30	0.60
Social capital index	0.08	0.10	0.24	-0.12	0.25
Social problems index	0.10	0.13	0.25	-0.16	0.34
Social vulnerability score	-0.22	0.28	0.19	-0.79	0.30
Percent African American residents	-0.13	0.15	0.17	-0.42	0.14
Percent Latino residents	0.22	0.22	0.16	-0.16	0.69
Occupational prestige score	-0.40	0.20	0.03	-0.80	0.03
Percent foreign born residents	-0.49	0.17	0.00	-0.87	-0.20
Percent of residents who moved in preceding 12 months	0.16	0.14	0.13	-0.12	0.43
Living in neighborhood with hospitals and clinics (omitted=no)	0.54	0.27	0.03	-0.02	1.00
Resource factor score	-0.36	0.14	0.00	-0.64	-0.11
Age of housing stock					
Percent of housing built before 1940	0.05	0.14	0.34	-0.24	0.30
Percent of housing built between 1940-1969	-0.03	0.14	0.43	-0.31	0.25
Violent crime rate per 1,000	-0.39	0.21	0.03	-0.79	0.01

Property crime rate per 1,000	0.82	0.17	0.00	0.50	1.16
Child abuse and neglect rate per 1,000	-0.82	0.18	0.00	-1.17	-0.50
Neurological hazards index (rescaled by 100)	0.26	0.17	0.08	-0.10	0.55
Respiratory hazards index	0.00	0.16	0.49	-0.28	0.33
Thresholds					
Ever-Asthma	1.74	0.44	0.00	0.89	2.61

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

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

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

<i>Predictor Measures (All continuous variables reflect standardized values measured at time of diagnosis unless otherwise noted)</i>	Estimate	Posterior S.D.	One-Tailed P-Value	95% C.I. Lower (2.50%)	95% C.I. Upper (2.50%)
Child Characteristics					
Gender and ethnicity of child (omitted=African American male)					
Latina female	-0.78	0.32	0.002	-1.38	-0.16
Latino male	-0.99	0.35	0.001	-1.67	-0.31
African American female	-0.40	0.31	0.134	-0.94	0.30
First born in family (omitted=no)	0.12	0.24	0.329	-0.35	0.59

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 age	-0.72	0.17	0.000	-1.07	-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

Property crime rate per 1,000	3.21	0.47	0.000	2.41	4.07
Child abuse and neglect rate per 1,000	-2.06	0.30	0.000	-2.61	-1.43
Neurological hazards index (rescaled by 100)	0.98	0.31	0.001	0.38	1.61
Respiratory hazards index	-0.55	0.23	0.014	-0.95	-0.06
Thresholds					
Ever-Asthma	2.69	0.58	0.00	1.62	3.84

Notes:

^aThis 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:	<u>Childhood Diagnosis of Asthma</u>
Sample:	<u>MAJORITY in DHA</u>
Type of Model: (e.g., Spline, Stdzd, Unstdzd)	<u>Standardized</u>

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

22.79

Posterior Predictive p -value: 0.61

MODEL RESULTS

<i>Predictor Measures (All continuous variables reflect standardized values measured at time of diagnosis unless otherwise noted)</i>	Estimate	Posterior S.D.	One-Tailed P-Value	95% C.I. Lower (2.50%)	95% C.I. Upper (2.50%)
Child Characteristics					
Gender and ethnicity of child (omitted=African American male)					
Latina female	-0.80	0.32	0.004	-1.46	-0.14
Latino male	-1.02	0.30	0.000	-1.69	-0.47
African American female	-0.40	0.38	0.189	-1.01	0.38
First born in family (omitted=no)	-0.09	0.25	0.366	-0.55	0.43

Child was low birthweight or extremely premature (omitted=no)	0.75	0.36	0.016	0.04	1.47
Caregiver and Household Characteristics					
Number of siblings in household	-0.17	0.17	0.131	-0.56	0.12
Caregiver reported depressive symptomatology (omitted=no)	-0.27	0.29	0.169	-0.85	0.26
Caregiver age	-0.81	0.19	0.000	-1.21	-0.48
Caregiver immigrant status (omitted=no)	-0.18	0.49	0.350	-1.04	0.85
Caregiver history of substance abuse (omitted=no)	-0.83	0.46	0.026	-1.81	0.01
Caregiver disability status (omitted=not disabled)	0.84	0.43	0.034	-0.07	1.64
Caregiver educational attainment (omitted=no degree)					
H.S. diploma	0.18	0.26	0.246	-0.32	0.70
Post-H.S. technical certificate or college degree	-0.97	0.35	0.001	-1.67	-0.34
Caregiver married/partnered (omitted=not married/partnered)	1.21	0.39	0.000	0.49	2.05
Natural log of caregiver earnings (in dollars)	-0.15	0.31	0.311	-0.78	0.42
Caregiver was available to monitor/supervise children FT/PT (omitted=not available)	-0.23	0.60	0.351	-1.63	0.82
Household stressor scale	-0.03	0.12	0.424	-0.26	0.21
Household had health insurance (omitted=no)	-0.01	0.27	0.484	-0.51	0.55
Total number of moves from birth to diagnosis	-0.31	0.14	0.011	-0.62	-0.06
Resided in conventional public housing (omitted=no)	0.40	0.50	0.239	-0.56	1.38
Neighborhood Characteristics					
Living in neighborhood with negative peers (omitted=no)	0.54	0.34	0.053	-0.13	1.23
Social capital index	0.20	0.14	0.093	-0.07	0.48
Social problems index	0.28	0.15	0.040	-0.02	0.58
Social vulnerability score	-0.88	0.43	0.016	-1.69	-0.09
Percent African American residents	-0.63	0.21	0.000	-1.03	-0.21
Percent Latino residents	-0.05	0.35	0.451	-0.73	0.62
Occupational prestige score	-1.05	0.32	0.000	-1.67	-0.45
Percent foreign born residents	-1.05	0.31	0.000	-1.72	-0.50
Percent of residents who moved in preceding 12 months	0.56	0.22	0.006	0.12	0.99
Living in neighborhood with hospitals and clinics (omitted=no)	0.72	0.49	0.066	-0.26	1.64
Resource factor score	-0.57	0.20	0.000	-1.01	-0.21
Age of housing stock					
Percent of housing built before 1940	0.18	0.19	0.200	-0.20	0.54
Percent of housing built between 1940-1969	0.09	0.21	0.309	-0.28	0.59
Violent crime rate per 1,000	-0.92	0.32	0.003	-1.53	-0.31

Property crime rate per 1,000	1.23	0.23	0.000	0.77	1.66
Child abuse and neglect rate per 1,000	-1.01	0.20	0.000	-1.40	-0.61
Neurological hazards index (rescaled by 100)	1.09	0.28	0.000	0.53	1.64
Respiratory hazards index	-0.69	0.25	0.003	-1.17	-0.22
Thresholds					
Ever-Asthma	2.61	0.78	0.000	1.15	4.15

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

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

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

<i>Predictor Measures (All continuous variables reflect standardized values measured at time of diagnosis unless otherwise noted)</i>	Estimate	Posterior S.D.	One-Tailed P-Value	95% C.I. Lower (2.50%)	95% C.I. Upper (2.50%)
Child Characteristics					
Gender and ethnicity of child (omitted=African American male)					
Latina female	-0.90	0.36	0.003	-1.61	-0.25
Latino male	-1.12	0.44	0.001	-1.98	-0.30
African American female	-0.19	0.39	0.320	-1.00	0.60
First born in family (omitted=no)	0.09	0.27	0.369	-0.42	0.59

Child was low birthweight or extremely premature (omitted=no)	1.33	0.39	0.000	0.56	2.03
Caregiver and Household Characteristics					
Number of siblings in household	-0.05	0.15	0.379	-0.36	0.23
Caregiver reported depressive symptomatology (omitted=no)	-0.40	0.36	0.109	-1.11	0.28
Caregiver age	-1.19	0.25	0.000	-1.64	-0.68
Caregiver immigrant status (omitted=no)	-0.52	0.54	0.165	-1.63	0.45
Caregiver history of substance abuse (omitted=no)	-0.36	0.39	0.210	-1.13	0.40
Caregiver disability status (omitted=not disabled)	1.70	0.48	0.000	0.68	2.55
Caregiver educational attainment (omitted=no degree)					
H.S. diploma	0.88	0.32	0.003	0.34	1.58
Post-H.S. technical certificate or college degree	-0.70	0.40	0.054	-1.44	0.12
Caregiver married/partnered (omitted=not married/partnered)	2.04	0.45	0.000	1.15	2.93
Natural log of caregiver earnings (in dollars)	-0.30	0.29	0.148	-0.90	0.23
Caregiver was available to monitor/supervise children FT/PT (omitted=not available)	-0.31	0.59	0.277	-1.63	0.72
Household stressor scale	-0.04	0.14	0.391	-0.30	0.26
Household had health insurance (omitted=no)	0.02	0.33	0.469	-0.68	0.71
Total number of moves from birth to diagnosis	-0.79	0.22	0.000	-1.23	-0.37
Resided in conventional public housing (omitted=no)	0.01	0.39	0.492	-0.82	0.72
Neighborhood Characteristics					
Living in neighborhood with negative peers (omitted=no)	0.53	0.33	0.049	-0.11	1.24
Social capital index	0.16	0.14	0.125	-0.12	0.42
Social problems index	0.01	0.18	0.474	-0.34	0.37
Social vulnerability score	-0.58	0.40	0.065	-1.40	0.11
Percent African American residents	0.06	0.21	0.396	-0.42	0.44
Percent Latino residents	0.52	0.38	0.080	-0.18	1.35
Occupational prestige score	-0.35	0.31	0.123	-0.94	0.23
Percent foreign born residents	-0.88	0.34	0.000	-1.62	-0.31
Percent of residents who moved in preceding 12 months	0.65	0.22	0.000	0.23	1.08
Living in neighborhood with hospitals and clinics (omitted=no)	0.78	0.45	0.033	-0.06	1.76
Resource factor score	-0.57	0.20	0.000	-0.95	-0.20
Age of housing stock					
Percent of housing built before 1940	0.22	0.20	0.140	-0.19	0.62
Percent of housing built between 1940-1969	0.41	0.23	0.015	0.04	0.94
Violent crime rate per 1,000	-0.48	0.32	0.063	-1.12	0.14

Property crime rate per 1,000	1.07	0.25	0.000	0.63	1.57
Child abuse and neglect rate per 1,000	-0.94	0.27	0.000	-1.54	-0.52
Neurological hazards index (rescaled by 100)	0.26	0.24	0.117	-0.23	0.74
Respiratory hazards index	-0.14	0.22	0.277	-0.52	0.32
Thresholds					
Ever-Asthma	3.68	0.75	0.00	2.26	5.23

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
24.89

Posterior Predictive p -value: 0.60

MODEL RESULTS

<i>Predictor Measures (All continuous variables reflect standardized values measured at time of diagnosis unless otherwise noted)</i>	Estimate	Posterior S.D.	One-Tailed P-Value	95% C.I. Lower (2.50%)	95% C.I. Upper (2.50%)
Child Characteristics					
African American	0.98	0.31	0.000	0.49	1.67
First born in family (omitted=no)	-0.08	0.32	0.395	-0.69	0.56
Child was low birthweight or extremely premature (omitted=no)	0.80	0.35	0.012	0.08	1.41
Caregiver and Household Characteristics					

Number of siblings in household	-0.17	0.17	0.170	-0.46	0.18
Caregiver reported depressive symptomatology (omitted=no)	-0.06	0.25	0.408	-0.52	0.43
Caregiver age	-0.93	0.19	0.000	-1.39	-0.60
Caregiver immigrant status (omitted=no)	-0.58	0.52	0.105	-1.71	0.37
Caregiver history of substance abuse (omitted=no)	-0.29	0.47	0.238	-1.42	0.42
Caregiver disability status (omitted=not disabled)	0.63	0.46	0.063	-0.12	1.64
Caregiver educational attainment (omitted=no degree)					
H.S. diploma	0.48	0.28	0.042	-0.06	1.00
Post-H.S. technical certificate or college degree	-0.67	0.36	0.015	-1.36	-0.08
Caregiver married/partnered (omitted=not married/partnered)	0.68	0.39	0.038	-0.10	1.42
Natural log of caregiver earnings (in dollars)	-0.31	0.33	0.155	-0.95	0.35
Caregiver was available to monitor/supervise children FT/PT (omitted=not available)	-0.58	0.65	0.150	-2.00	0.67
Household stressor scale	-0.16	0.14	0.130	-0.41	0.13
Household had health insurance (omitted=no)	-0.15	0.29	0.327	-0.70	0.48
Total number of moves from birth to diagnosis	-0.33	0.20	0.063	-0.72	0.07
Resided in conventional public housing (omitted=no)	-0.39	0.38	0.147	-1.20	0.38
Neighborhood Characteristics					
Living in neighborhood with negative peers (omitted=no)	-0.07	0.34	0.410	-0.76	0.56
Social capital index	-0.03	0.15	0.433	-0.29	0.26
Social problems index	0.19	0.17	0.117	-0.13	0.53
Social vulnerability score	-0.86	0.38	0.003	-1.64	-0.21
Percent African American residents	-0.48	0.23	0.030	-0.90	0.02
Percent Latino residents	0.13	0.37	0.352	-0.48	1.01
Occupational prestige score	-0.44	0.34	0.110	-1.08	0.23
Percent foreign born residents	-0.47	0.28	0.038	-1.04	0.03
Percent of residents who moved in preceding 12 months	0.16	0.17	0.182	-0.19	0.50
Living in neighborhood with hospitals and clinics (omitted=no)	0.38	0.39	0.160	-0.36	1.20
Resource factor score	-0.28	0.18	0.055	-0.60	0.07
Age of housing stock					
Percent of housing built before 1940	-0.22	0.22	0.160	-0.70	0.20
Percent of housing built between 1940-1969	-0.13	0.23	0.252	-0.58	0.34
Violent crime rate per 1,000	0.19	0.30	0.263	-0.37	0.77
Property crime rate per 1,000	1.00	0.24	0.000	0.55	1.51
Child abuse and neglect rate per 1,000	-0.77	0.20	0.000	-1.19	-0.37

Neurological hazards index (rescaled by 100)	0.22	0.20	0.152	-0.22	0.56
Respiratory hazards index	0.06	0.20	0.372	-0.35	0.41
Thresholds					
Ever-Asthma	2.34	0.66	0.000	1.17	3.77

Appendix F-IV-1f Standardized Bayesian Spline Logit Models Predicting Childhood Diagnosis of Asthma

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

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

<i>Predictor Measures (All continuous variables reflect standardized values measured at time of diagnosis unless otherwise noted)</i>	Estimate	Posterior S.D.	One-Tailed P-Value	95% C.I. Lower (2.50%)	95% C.I. Upper (2.50%)
Child Characteristics					
Gender and ethnicity of child (omitted=African American male)					
Latina female	-0.80	0.27	0.000	-1.34	-0.27
Latino male	-1.05	0.28	0.000	-1.62	-0.47
African American female	-0.82	0.31	0.003	-1.44	-0.22
First born in family (omitted=no)	-0.31	0.23	0.072	-0.78	0.13

Child was low birthweight or extremely premature (omitted=no)	0.76	0.30	0.005	0.16	1.36
Caregiver and Household Characteristics					
Number of siblings in household	-0.23	0.12	0.023	-0.47	0.00
Caregiver reported depressive symptomatology (omitted=no)	-0.03	0.24	0.467	-0.49	0.48
Caregiver age	-1.27	0.19	0.000	-1.68	-0.97
Caregiver immigrant status (omitted=no)	0.00	0.39	0.498	-0.74	0.81
Caregiver history of substance abuse (omitted=no)	-0.31	0.33	0.174	-1.00	0.29
Caregiver disability status (omitted=not disabled)	0.92	0.33	0.001	0.29	1.55
Caregiver educational attainment (omitted=no degree)					
H.S. diploma	0.59	0.22	0.006	0.14	1.02
Post-H.S. technical certificate or college degree	-0.41	0.28	0.075	-0.94	0.14
Caregiver married/partnered (omitted=not married/partnered)	1.28	0.30	0.000	0.71	1.89
Natural log of caregiver earnings (in dollars)	-0.26	0.28	0.170	-0.88	0.24
Caregiver was available to monitor/supervise children FT/PT (omitted=not available)	-0.62	0.54	0.111	-1.77	0.37
Household stressor scale	0.08	0.11	0.226	-0.13	0.30
Household had health insurance (omitted=no)	-0.38	0.22	0.039	-0.78	0.04
Total number of moves from birth to diagnosis	-0.24	0.14	0.021	-0.53	-0.01
Resided in conventional public housing (omitted=no)	-0.12	0.33	0.357	-0.73	0.54
Neighborhood Characteristics					
Living in neighborhood with negative peers (omitted=no)	0.31	0.30	0.170	-0.28	0.89
Social capital index	0.71	0.24	0.001	0.25	1.18
Spline-Social capital index	-1.24	0.42	0.001	-2.04	-0.41
Social problems index	-0.01	0.32	0.481	-0.65	0.58
Spline-Social problems index	0.21	0.42	0.293	-0.56	1.04
Social vulnerability score	0.10	0.60	0.444	-1.07	1.24
Spline-Social vulnerability score	-0.77	0.78	0.157	-2.30	0.83
Percent African American residents	-0.04	0.74	0.472	-1.49	1.38
Spline-Percent African American residents	-0.51	0.86	0.269	-2.21	1.16
Percent Latino residents	-0.92	0.49	0.058	-1.75	0.23
Spline-Percent Latino residents	0.60	0.66	0.181	-0.67	1.95
Occupational prestige score	-0.02	0.41	0.479	-0.80	0.82
Spline-Occupational prestige score	-1.62	0.63	0.004	-2.91	-0.45
Percent foreign born residents	0.76	0.50	0.083	-0.30	1.63
Spline-Percent foreign born residents	-1.56	0.65	0.014	-2.66	-0.16

Percent of residents who moved in preceding 12 months	0.61	0.38	0.060	-0.14	1.32
Spline-Percent of residents who moved in preceding 12 months	-1.13	0.54	0.033	-2.08	0.08
Living in neighborhood with hospitals and clinics (omitted=no)	0.70	0.32	0.017	0.07	1.30
Resource factor score	-0.54	0.35	0.057	-1.23	0.10
Spline-Resource factor score	0.10	0.55	0.446	-0.95	1.14
Age of housing stock					
Percent of housing built before 1940	1.11	0.49	0.015	0.12	2.04
Spline-Percent of housing built before 1940	-1.39	0.64	0.021	-2.63	-0.07
Percent of housing built between 1940-1969	0.47	0.41	0.131	-0.34	1.27
Spline-Percent of housing built between 1940-1969	-0.81	0.59	0.089	-1.95	0.44
Violent crime rate per 1,000	-1.88	0.58	0.000	-3.02	-0.80
Spline-Violent crime rate per 1,000	2.65	0.70	0.000	1.34	4.01
Property crime rate per 1,000	1.66	0.57	0.001	0.66	2.84
Spline-Property crime rate per 1,000	-0.61	0.68	0.193	-2.00	0.69
Child abuse and neglect rate per 1,000	-1.46	0.49	0.002	-2.37	-0.36
Spline-Child abuse and neglect rate per 1,000	0.74	0.54	0.089	-0.36	1.75
Neurological hazards index (rescaled by 100)	0.47	0.40	0.123	-0.34	1.21
Spline-Neurological hazards index (rescaled by 100)	-0.82	0.60	0.092	-1.97	0.47
Respiratory hazards index	-0.41	0.24	0.048	-0.87	0.05
Spline-Respiratory hazards index	1.52	0.48	0.000	0.65	2.50
Thresholds					
Ever-Asthma	0.19	0.95	0.42	-1.73	1.98

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

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:
-28.62
23.08
 Posterior Predictive p -value: 0.50

MODEL RESULTS

<i>Predictor Measures (All continuous variables reflect standardized values measured at time of diagnosis unless otherwise noted)</i>	Estimate	Posterior S.D.	One-Tailed P-Value	95% C.I. Lower (2.50%)	95% C.I. Upper (2.50%)
Child Characteristics					
Gender and ethnicity of child (omitted=African American male)					
Latina female	-0.95	0.34	0.001	-1.75	-0.37
Latino male	-0.17	0.25	0.247	-0.65	0.31
African American female	-0.42	0.26	0.053	-0.96	0.07

First born in family (omitted=no)	-0.37	0.19	0.027	-0.75	0.01
Child was low birthweight or extremely premature (omitted=no)	0.29	0.28	0.160	-0.34	0.79
Caregiver and Household Characteristics					
Number of siblings in household	-0.25	0.11	0.012	-0.47	-0.03
Caregiver reported depressive symptomatology (omitted=no)	0.19	0.21	0.181	-0.24	0.57
Caregiver age	-0.73	0.12	0.000	-0.97	-0.50
Caregiver immigrant status (omitted=no)	0.32	0.34	0.178	-0.32	1.01
Caregiver history of substance abuse (omitted=no)	0.15	0.24	0.272	-0.34	0.60
Caregiver disability status (omitted=not disabled)	0.00	0.34	0.498	-0.67	0.68
Caregiver educational attainment (omitted=no degree)					
H.S. diploma	0.27	0.21	0.104	-0.17	0.68
Post-H.S. technical certificate or college degree	0.39	0.24	0.048	-0.08	0.89
Caregiver married/partnered (omitted=not married/partnered)	0.06	0.21	0.400	-0.36	0.47
Natural log of caregiver earnings (in dollars)	-0.10	0.21	0.302	-0.53	0.26
Caregiver was available to monitor/supervise children FT/PT (omitted=not available)	-0.20	0.40	0.306	-1.02	0.49
Household stressor scale	-0.02	0.09	0.441	-0.18	0.17
Household had health insurance (omitted=no)	-0.23	0.19	0.136	-0.58	0.19
Total number of moves from birth to diagnosis	-0.10	0.09	0.137	-0.29	0.08
Neighborhood Characteristics					
Living in neighborhood with negative peers (omitted=no)	-0.07	0.25	0.394	-0.57	0.38
Social capital index	-0.09	0.09	0.141	-0.29	0.09
Social problems index	0.17	0.12	0.078	-0.05	0.41
Social vulnerability score	0.79	0.35	0.011	0.13	1.45
Percent African American residents	-0.15	0.15	0.177	-0.43	0.16
Percent Latino residents	0.27	0.24	0.120	-0.23	0.72
Occupational prestige score	-0.54	0.24	0.008	-1.04	-0.10
Percent foreign born residents	-0.54	0.18	0.003	-0.89	-0.20
Percent of residents who moved in preceding 12 months	0.03	0.15	0.419	-0.27	0.33
Living in neighborhood with hospitals and clinics (omitted=no)	0.39	0.28	0.088	-0.25	0.88
Resource factor score	-0.09	0.15	0.293	-0.37	0.20
Age of housing stock					
Percent of housing built before 1940	0.08	0.16	0.316	-0.25	0.40
Percent of housing built between 1940-1969	-0.10	0.17	0.252	-0.48	0.19
Violent crime rate per 1,000	-1.28	0.27	0.000	-1.79	-0.75

Property crime rate per 1,000	0.57	0.16	0.000	0.25	0.88
Child abuse and neglect rate per 1,000	-0.66	0.15	0.000	-0.96	-0.37
Neurological hazards index (rescaled by 100)	0.33	0.17	0.039	-0.06	0.65
Respiratory hazards index	-0.11	0.16	0.252	-0.42	0.21
Thresholds					
Ever-Neurodevelopmental Disorders	2.08	0.44	0.000	1.15	2.92

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

Number of observations:

Number of clusters:

MODEL FIT INFORMATION

Number of Free Parameters:

Bayesian Posterior Predictive Checking Using Chi-Square:

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

Posterior Predictive p -value:

MODEL RESULTS

<i>Predictor Measures (All continuous variables reflect standardized values measured at time of diagnosis unless otherwise noted)</i>	Estimate	Posterior S.D.	One-Tailed P-Value	95% C.I. Lower (2.50%)	95% C.I. Upper (2.50%)
Child Characteristics					
Gender and ethnicity of child (omitted=African American male)					
Latina female	-1.15	0.34	0.000	-1.75	-0.44
Latino male	-0.40	0.27	0.078	-0.90	0.14

African American female	-0.61	0.29	0.005	-1.24	-0.11
First born in family (omitted=no)	-0.28	0.27	0.137	-0.88	0.20
Child was low birthweight or extremely premature (omitted=no)	-0.01	0.33	0.487	-0.60	0.71
Caregiver and Household Characteristics					
Number of siblings in household	-0.24	0.13	0.028	-0.50	0.01
Caregiver reported depressive symptomatology (omitted=no)	0.20	0.23	0.155	-0.21	0.65
Caregiver age	-0.31	0.14	0.003	-0.59	-0.05
Caregiver immigrant status (omitted=no)	0.11	0.37	0.362	-0.74	0.79
Caregiver history of substance abuse (omitted=no)	0.04	0.27	0.445	-0.52	0.52
Caregiver disability status (omitted=not disabled)	0.42	0.37	0.145	-0.38	1.10
Caregiver educational attainment (omitted=no degree)					
H.S. diploma	0.11	0.27	0.367	-0.51	0.56
Post-H.S. technical certificate or college degree	0.38	0.27	0.080	-0.19	0.91
Caregiver married/partnered (omitted=not married/partnered)	0.30	0.26	0.153	-0.25	0.73
Natural log of caregiver earnings (in dollars)	-0.14	0.25	0.312	-0.62	0.37
Caregiver was available to monitor/supervise children FT/PT (omitted=not available)	-0.39	0.50	0.197	-1.45	0.66
Household stressor scale	-0.10	0.10	0.143	-0.32	0.09
Household had health insurance (omitted=no)	-0.15	0.24	0.255	-0.65	0.30
Total number of moves from birth to diagnosis	0.04	0.09	0.363	-0.15	0.20
Neighborhood Characteristics					
Living in neighborhood with negative peers (omitted=no)	-0.20	0.27	0.243	-0.79	0.28
Social capital index	-0.09	0.11	0.168	-0.30	0.13
Social problems index	0.22	0.15	0.055	-0.07	0.51
Social vulnerability score	0.59	0.51	0.140	-0.50	1.56
Percent African American residents	-0.47	0.17	0.000	-0.86	-0.16
Percent Latino residents	0.03	0.39	0.475	-0.78	0.72
Occupational prestige score	-1.87	0.45	0.000	-2.82	-1.16
Percent foreign born residents	-1.05	0.25	0.000	-1.61	-0.60
Percent of residents who moved in preceding 12 months	0.20	0.18	0.123	-0.12	0.58
Living in neighborhood with hospitals and clinics (omitted=no)	0.83	0.36	0.007	0.14	1.59
Resource factor score	-0.29	0.20	0.082	-0.68	0.12
Age of housing stock					
Percent of housing built before 1940	0.13	0.20	0.277	-0.22	0.56

Percent of housing built between 1940-1969	-0.54	0.23	0.022	-0.92	-0.02
Violent crime rate per 1,000	-2.67	0.41	0.000	-3.48	-1.90
Property crime rate per 1,000	1.64	0.33	0.000	1.09	2.37
Child abuse and neglect rate per 1,000	-1.27	0.26	0.000	-1.78	-0.77
Neurological hazards index (rescaled by 100)	1.02	0.27	0.000	0.59	1.65
Respiratory hazards index	-0.47	0.19	0.003	-0.84	-0.13
Thresholds					
Ever-Neurodevelopmental Disorders	2.09	0.49	0.000	1.16	2.98

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

Number of observations:
 Number of clusters:

MODEL FIT INFORMATION

Number of Free Parameters:

Bayesian Posterior Predictive Checking Using Chi-Square:

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

Posterior Predictive p -value:

MODEL RESULTS

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

Gender and ethnicity of child (omitted=African American male)					
Latina female	-1.39	0.41	0.000	-2.26	-0.64
Latino male	-0.19	0.30	0.252	-0.76	0.45
African American female	-0.36	0.28	0.083	-0.95	0.15
First born in family (omitted=no)	-0.43	0.30	0.078	-1.02	0.19
Child was low birthweight or extremely premature (omitted=no)	-0.16	0.38	0.355	-0.90	0.56
Caregiver and Household Characteristics					
Number of siblings in household	-0.14	0.16	0.177	-0.44	0.17
Caregiver reported depressive symptomatology (omitted=no)	0.44	0.27	0.058	-0.10	0.95
Caregiver age	-0.50	0.14	0.000	-0.79	-0.23
Caregiver immigrant status (omitted=no)	0.11	0.39	0.378	-0.61	0.94
Caregiver history of substance abuse (omitted=no)	0.31	0.35	0.180	-0.37	1.02
Caregiver disability status (omitted=not disabled)	0.10	0.37	0.408	-0.71	0.76
Caregiver educational attainment (omitted=no degree)					
H.S. diploma	-0.13	0.28	0.332	-0.67	0.43
Post-H.S. technical certificate or college degree	0.15	0.31	0.318	-0.40	0.82
Caregiver married/partnered (omitted=not married/partnered)	0.12	0.32	0.325	-0.43	0.80
Natural log of caregiver earnings (in dollars)	-0.26	0.28	0.167	-0.86	0.22
Caregiver was available to monitor/supervise children FT/PT (omitted=not available)	-0.57	0.58	0.168	-1.71	0.50
Household stressor scale	-0.06	0.12	0.313	-0.28	0.18
Household had health insurance (omitted=no)	-0.60	0.29	0.023	-1.19	-0.01
Total number of moves from birth to diagnosis	-0.10	0.11	0.183	-0.32	0.10
Neighborhood Characteristics					
Living in neighborhood with negative peers (omitted=no)	-0.19	0.34	0.300	-0.83	0.45
Social capital index	-0.12	0.13	0.190	-0.37	0.13
Social problems index	0.19	0.17	0.145	-0.14	0.51
Social vulnerability score	0.70	0.60	0.110	-0.42	2.02
Percent African American residents	-0.40	0.20	0.018	-0.82	-0.02
Percent Latino residents	-0.16	0.44	0.387	-0.97	0.69
Occupational prestige score	-1.29	0.41	0.000	-2.21	-0.59
Percent foreign born residents	-0.79	0.27	0.000	-1.27	-0.25
Percent of residents who moved in preceding 12 months	0.19	0.23	0.187	-0.20	0.65
Living in neighborhood with hospitals and clinics (omitted=no)	0.50	0.36	0.072	-0.19	1.25

Resource factor score	-0.09	0.23	0.360	-0.50	0.37
Age of housing stock					
Percent of housing built before 1940	0.28	0.19	0.093	-0.12	0.61
Percent of housing built between 1940-1969	-0.26	0.20	0.105	-0.66	0.12
Violent crime rate per 1,000	-1.98	0.44	0.000	-2.93	-1.25
Property crime rate per 1,000	0.93	0.22	0.000	0.52	1.38
Child abuse and neglect rate per 1,000	-0.79	0.25	0.000	-1.30	-0.28
Neurological hazards index (rescaled by 100)	0.86	0.28	0.000	0.30	1.38
Respiratory hazards index	-0.37	0.23	0.057	-0.84	0.08
Thresholds					
Ever-Neurodevelopmental Disorders	1.50	0.54	0.002	0.38	2.49

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:
 Number of clusters:

MODEL FIT INFORMATION

Number of Free Parameters:

Bayesian Posterior Predictive Checking Using Chi-Square:

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

Posterior Predictive p -value:

MODEL RESULTS

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

Gender and ethnicity of child (omitted=African American male)					
Latina female	-- ^a				
Latino male	0.29	0.36	0.223	-0.44	0.94
African American female	-0.10	0.42	0.414	-0.93	0.69
First born in family (omitted=no)	-0.21	0.33	0.269	-0.91	0.44
Child was low birthweight or extremely premature (omitted=no)	0.03	0.41	0.481	-0.77	0.82
Caregiver and Household Characteristics					
Number of siblings in household	-0.14	0.18	0.207	-0.52	0.17
Caregiver reported depressive symptomatology (omitted=no)	-0.01	0.33	0.486	-0.71	0.59
Caregiver age	-0.63	0.20	0.000	-1.05	-0.27
Caregiver immigrant status (omitted=no)	-0.85	0.60	0.070	-2.08	0.24
Caregiver history of substance abuse (omitted=no)	0.34	0.42	0.204	-0.59	1.10
Caregiver disability status (omitted=not disabled)	0.23	0.45	0.294	-0.64	1.10
Caregiver educational attainment (omitted=no degree)					
H.S. diploma	0.42	0.33	0.121	-0.25	1.02
Post-H.S. technical certificate or college degree	0.22	0.41	0.268	-0.71	0.99
Caregiver married/partnered (omitted=not married/partnered)	0.33	0.33	0.149	-0.30	1.05
Natural log of caregiver earnings (in dollars)	-0.10	0.33	0.396	-0.84	0.41
Caregiver was available to monitor/supervise children FT/PT (omitted=not available)	-0.51	0.65	0.208	-1.88	0.66
Household stressor scale	-0.20	0.15	0.087	-0.47	0.12
Household had health insurance (omitted=no)	-1.09	0.29	0.000	-1.70	-0.50
Total number of moves from birth to diagnosis	-0.31	0.17	0.031	-0.65	0.01
Neighborhood Characteristics					
Living in neighborhood with negative peers (omitted=no)	-0.45	0.39	0.092	-1.32	0.28
Social capital index	-0.04	0.17	0.394	-0.40	0.28
Social problems index	0.44	0.20	0.012	0.04	0.79
Social vulnerability score	1.59	0.49	0.001	0.69	2.55
Percent African American residents	0.20	0.33	0.294	-0.63	0.71
Percent Latino residents	0.87	0.48	0.050	-0.13	1.72
Occupational prestige score	-0.30	0.34	0.203	-1.04	0.33
Percent foreign born residents	-0.73	0.34	0.017	-1.37	-0.06
Percent of residents who moved in preceding 12 months	-0.16	0.24	0.274	-0.62	0.27
Living in neighborhood with hospitals and clinics (omitted=no)	0.26	0.51	0.284	-0.63	1.35

Resource factor score	-0.10	0.22	0.328	-0.52	0.32
Age of housing stock					
Percent of housing built before 1940	-0.12	0.23	0.302	-0.54	0.35
Percent of housing built between 1940-1969	-0.37	0.25	0.048	-0.89	0.08
Violent crime rate per 1,000	-1.76	0.39	0.000	-2.49	-0.99
Property crime rate per 1,000	0.52	0.31	0.034	-0.04	1.17
Child abuse and neglect rate per 1,000	-1.09	0.30	0.000	-1.80	-0.65
Neurological hazards index (rescaled by 100)	0.38	0.26	0.071	-0.16	0.83
Respiratory hazards index	0.19	0.25	0.204	-0.30	0.67
Thresholds					
Ever-Neurodevelopmental Disorders	1.85	0.65	0.002	0.51	3.08

^aHispanic 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

<i>Predictor Measures (All continuous variables reflect standardized values measured at time of diagnosis unless otherwise noted)</i>	Estimate	Posterior S.D.	One-Tailed P-Value	95% C.I. Lower (2.50%)	95% C.I. Upper (2.50%)
Child Characteristics					
African American	0.00	0.24	0.496	-0.46	0.50
First born in family (omitted=no)	-0.43	0.26	0.041	-0.98	0.07
Child was low birthweight or extremely premature (omitted=no)	0.27	0.32	0.205	-0.39	0.86
Caregiver and Household Characteristics					

Number of siblings in household	-0.18	0.14	0.093	-0.48	0.09
Caregiver reported depressive symptomatology (omitted=no)	0.42	0.25	0.049	-0.09	0.89
Caregiver age	-0.59	0.15	0.000	-0.88	-0.30
Caregiver immigrant status (omitted=no)	0.12	0.38	0.355	-0.59	0.91
Caregiver history of substance abuse (omitted=no)	0.24	0.32	0.229	-0.44	0.83
Caregiver disability status (omitted=not disabled)	0.00	0.38	0.499	-0.78	0.69
Caregiver educational attainment (omitted=no degree)					
H.S. diploma	0.25	0.26	0.169	-0.26	0.75
Post-H.S. technical certificate or college degree	0.29	0.32	0.177	-0.37	0.91
Caregiver married/partnered (omitted=not married/partnered)	0.15	0.27	0.306	-0.40	0.60
Natural log of caregiver earnings (in dollars)	-0.29	0.26	0.121	-0.84	0.19
Caregiver was available to monitor/supervise children FT/PT (omitted=not available)	-0.51	0.52	0.155	-1.57	0.46
Household stressor scale	-0.17	0.12	0.075	-0.41	0.05
Household had health insurance (omitted=no)	-0.40	0.24	0.045	-0.88	0.06
Total number of moves from birth to diagnosis	0.00	0.12	0.494	-0.24	0.22
Neighborhood Characteristics					
Living in neighborhood with negative peers (omitted=no)	-0.02	0.31	0.480	-0.58	0.61
Social capital index	-0.09	0.11	0.189	-0.31	0.13
Social problems index	0.24	0.16	0.065	-0.07	0.53
Social vulnerability score	1.18	0.51	0.007	0.23	2.23
Percent African American residents	-0.07	0.19	0.372	-0.46	0.30
Percent Latino residents	0.22	0.34	0.250	-0.45	0.95
Occupational prestige score	-0.42	0.28	0.081	-0.92	0.17
Percent foreign born residents	-0.46	0.26	0.039	-1.00	0.05
Percent of residents who moved in preceding 12 months	-0.27	0.22	0.111	-0.71	0.14
Living in neighborhood with hospitals and clinics (omitted=no)	0.64	0.38	0.037	-0.06	1.42
Resource factor score	-0.20	0.20	0.161	-0.59	0.19
Age of housing stock					
Percent of housing built before 1940	-0.13	0.19	0.258	-0.51	0.23
Percent of housing built between 1940-1969	-0.20	0.20	0.145	-0.60	0.17
Violent crime rate per 1,000	-1.35	0.36	0.001	-2.04	-0.59
Property crime rate per 1,000	0.34	0.23	0.073	-0.13	0.78
Child abuse and neglect rate per 1,000	-0.60	0.21	0.003	-1.00	-0.17
Neurological hazards index (rescaled by 100)	0.33	0.18	0.035	-0.02	0.67

Respiratory hazards index	-0.07	0.20	0.375	-0.45	0.30
Thresholds					
Ever-Neurodevelopmental Disorders	2.218	0.46	0.000	1.341	3.125

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:
 Number of clusters:

MODEL FIT INFORMATION

Number of Free Parameters:

Bayesian Posterior Predictive Checking Using Chi-Square:

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

Posterior Predictive p -value:

MODEL RESULTS

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

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)					
H.S. diploma	0.20	0.26	0.212	-0.30	0.72
Post-H.S. technical certificate or college degree	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

Spline-Percent Latino residents	1.97	0.62	0.000	0.74	3.22
Occupational prestige score	-0.90	0.46	0.024	-1.80	-0.01
Spline-Occupational prestige score	-1.23	0.60	0.014	-2.54	-0.14
Percent foreign born residents	0.70	0.57	0.087	-0.33	1.92
Spline-Percent foreign born residents	-2.32	0.83	0.004	-4.06	-0.81
Percent of residents who moved in preceding 12 months	0.13	0.47	0.388	-0.81	1.00
Spline-Percent of residents who moved in preceding 12 months	-0.58	0.63	0.178	-1.93	0.67
Living in neighborhood with hospitals and clinics (omitted=no)	0.50	0.37	0.088	-0.19	1.25
Resource factor score	-0.31	0.39	0.205	-1.15	0.46
Spline-Resource factor score	0.23	0.58	0.350	-0.87	1.29
Age of housing stock					
Percent of housing built before 1940	1.58	0.61	0.000	0.41	2.73
Spline-Percent of housing built before 1940	-2.09	0.79	0.001	-3.54	-0.51
Percent of housing built between 1940-1969	-0.87	0.39	0.015	-1.62	-0.08
Spline-Percent of housing built between 1940-1969	0.85	0.66	0.089	-0.47	2.03
Violent crime rate per 1,000	-1.35	0.60	0.012	-2.51	-0.15
Spline-Violent crime rate per 1,000	1.39	0.78	0.040	-0.23	2.91
Property crime rate per 1,000	0.53	0.66	0.228	-0.85	1.74
Spline-Property crime rate per 1,000	0.29	0.74	0.305	-1.04	1.96
Child abuse and neglect rate per 1,000	-1.59	0.55	0.002	-2.66	-0.60
Spline-Child abuse and neglect rate per 1,000	1.30	0.61	0.014	0.19	2.49
Neurological hazards index (rescaled by 100)	0.44	0.36	0.116	-0.28	1.16
Spline-Neurological hazards index (rescaled by 100)	-0.96	0.52	0.026	-2.00	0.03
Respiratory hazards index	-0.15	0.28	0.293	-0.77	0.38
Spline-Respiratory hazards index	0.51	0.59	0.200	-0.66	1.71
Thresholds					
Ever-Neurodevelopmental Disorders	1.25	0.92	0.101	-0.68	2.95

Appendix F-IV-3a. Standardized Bayesian Logit Model Predicting Childhood Diagnosis of Obesity

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

SUMMARY OF DATA

Number of observations:	896
Number of clusters:	468

MODEL FIT INFORMATION

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

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

	-23.31
	25.32
Posterior Predictive p -value:	0.51

MODEL RESULTS

<i>Predictor Measures (All continuous variables reflect standardized values measured at time of diagnosis unless otherwise noted)</i>	Estimate	Posterior S.D.	One-Tailed P-Value	95% C.I. Lower (2.50%)	95% C.I. Upper (2.50%)
Child Characteristics					
Gender and ethnicity of child (omitted=African American male)					
Latina female	0.22	0.28	0.214	-0.30	0.80
Latino male	-0.11	0.27	0.344	-0.61	0.50
African American female	0.34	0.29	0.104	-0.23	0.94
First born in family (omitted=no)	-0.32	0.21	0.043	-0.79	0.07

Caregiver and Household Characteristics

Number of siblings in household	-0.36	0.11	0.000	-0.57	-0.14
Caregiver reported depressive symptomatology (omitted=no)	-0.14	0.21	0.241	-0.55	0.32
Caregiver age	-0.61	0.14	0.000	-0.95	-0.40
Caregiver immigrant status (omitted=no)	0.44	0.27	0.066	-0.12	0.91
Caregiver history of substance abuse (omitted=no)	-0.11	0.29	0.358	-0.64	0.45
Caregiver disability status (omitted=not disabled)	0.42	0.28	0.078	-0.15	0.94
Caregiver educational attainment (omitted=no degree)					
H.S. diploma	-0.03	0.26	0.466	-0.46	0.57
Post-H.S. technical certificate or college degree	0.71	0.25	0.000	0.29	1.29
Caregiver married/partnered (omitted=not married/partnered)	1.74	0.24	0.000	1.28	2.22
Natural log of caregiver earnings (in dollars)	-0.12	0.21	0.268	-0.57	0.24
Caregiver was available to monitor/supervise children FT/PT (omitted=not available)	-0.27	0.43	0.246	-1.23	0.46
Household stressor scale	0.19	0.10	0.019	0.01	0.37
Household had health insurance (omitted=no)	0.17	0.24	0.236	-0.31	0.64
Total number of moves from birth to diagnosis	-0.03	0.10	0.387	-0.22	0.17
Resided in conventional public housing (omitted=no)	0.48	0.29	0.024	0.00	1.14

Neighborhood Characteristics

Living in neighborhood with negative peers (omitted=no)	-0.45	0.30	0.080	-1.04	0.13
Social capital index	0.13	0.10	0.102	-0.07	0.31
Social problems index	0.12	0.16	0.239	-0.20	0.40
Social vulnerability score	0.60	0.36	0.062	-0.12	1.26
Percent African American residents	-0.04	0.15	0.408	-0.32	0.26
Percent Latino residents	-0.08	0.24	0.341	-0.59	0.37
Occupational prestige score	-0.16	0.23	0.242	-0.62	0.29
Percent foreign born residents	-0.13	0.18	0.229	-0.48	0.23
Percent of residents who moved in preceding 12 months	-0.09	0.16	0.279	-0.40	0.20
Living in neighborhood with hospitals and clinics (omitted=no)	0.63	0.34	0.037	-0.12	1.20
Resource factor score	-0.11	0.12	0.183	-0.35	0.13
Age of housing stock					
Percent of housing built before 1940	0.18	0.15	0.116	-0.10	0.47
Percent of housing built between 1940-1969	0.04	0.15	0.393	-0.26	0.37
Violent crime rate per 1,000	-0.64	0.27	0.010	-1.18	-0.11
Property crime rate per 1,000	0.11	0.18	0.282	-0.26	0.48

Child abuse and neglect rate per 1,000	-0.51	0.20	0.004	-0.90	-0.12
Neurological hazards index (rescaled by 100)	0.19	0.16	0.136	-0.13	0.48
Respiratory hazards index	0.14	0.16	0.193	-0.15	0.46
Thresholds					
Ever-Obesity	3.46	0.54	0.000	2.50	4.59

Appendix F-IV-3b. Standardized Bayesian Logit Model Predicting Childhood Diagnosis of Obesity

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

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:

-18.52

19.93

Posterior Predictive p -value: 0.56

MODEL RESULTS

<i>Predictor Measures (All continuous variables reflect standardized values measured at time of diagnosis unless otherwise noted)</i>	Estimate	Posterior S.D.	One-Tailed P-Value	95% C.I. Lower (2.50%)	95% C.I. Upper (2.50%)
Child Characteristics					
Gender and ethnicity of child (omitted=African American male)					
Latina female	0.23	0.36	0.264	-0.42	0.96
Latino male	-0.60	0.52	0.127	-1.59	0.43
African American female	0.29	0.37	0.221	-0.45	1.00
First born in family (omitted=no)	-0.32	0.31	0.164	-0.88	0.35

Caregiver and Household Characteristics

Number of siblings in household	-0.43	0.16	0.000	-0.75	-0.15
Caregiver reported depressive symptomatology (omitted=no)	-0.49	0.34	0.039	-1.26	0.04
Caregiver age	-0.56	0.19	0.001	-0.89	-0.18
Caregiver immigrant status (omitted=no)	1.00	0.42	0.016	0.14	1.77
Caregiver history of substance abuse (omitted=no)	-0.14	0.40	0.341	-1.02	0.60
Caregiver disability status (omitted=not disabled)	0.45	0.44	0.170	-0.34	1.35
Caregiver educational attainment (omitted=no degree)					
H.S. diploma	-0.41	0.33	0.084	-1.12	0.14
Post-H.S. technical certificate or college degree	0.83	0.36	0.001	0.24	1.64
Caregiver married/partnered (omitted=not married/partnered)	3.69	0.57	0.000	2.72	4.88
Natural log of caregiver earnings (in dollars)	-0.72	0.44	0.027	-1.73	0.01
Caregiver was available to monitor/supervise children FT/PT (omitted=not available)	-1.28	0.90	0.036	-3.40	0.17
Household stressor scale	0.29	0.13	0.014	0.03	0.54
Household had health insurance (omitted=no)	-0.04	0.29	0.444	-0.56	0.58
Total number of moves from birth to diagnosis	0.14	0.13	0.134	-0.14	0.38
Resided in conventional public housing (omitted=no)	-- ^a				

Neighborhood Characteristics

Living in neighborhood with negative peers (omitted=no)	0.00	0.32	0.500	-0.70	0.59
Social capital index	0.29	0.14	0.016	0.03	0.59
Social problems index	-0.05	0.18	0.400	-0.45	0.28
Social vulnerability score	0.25	0.60	0.331	-0.70	1.49
Percent African American residents	-0.66	0.24	0.001	-1.13	-0.20
Percent Latino residents	-0.49	0.38	0.067	-1.30	0.11
Occupational prestige score	-1.07	0.45	0.006	-1.98	-0.24
Percent foreign born residents	-0.65	0.34	0.030	-1.28	0.02
Percent of residents who moved in preceding 12 months	0.06	0.32	0.450	-0.60	0.61
Living in neighborhood with hospitals and clinics (omitted=no)	1.45	0.57	0.003	0.38	2.58
Resource factor score	-0.62	0.32	0.024	-1.28	-0.01
Age of housing stock					
Percent of housing built before 1940	0.44	0.18	0.006	0.10	0.80
Percent of housing built between 1940-1969	0.10	0.25	0.344	-0.36	0.59
Violent crime rate per 1,000	-1.86	0.41	0.000	-2.66	-1.06
Property crime rate per 1,000	1.22	0.32	0.000	0.63	1.80

Child abuse and neglect rate per 1,000	-1.25	0.31	0.000	-1.86	-0.65
Neurological hazards index (rescaled by 100)	1.70	0.40	0.000	0.90	2.44
Respiratory hazards index	-0.99	0.29	0.000	-1.56	-0.46
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:	<u>Childhood Diagnosis of Obesity</u>
Sample:	<u>MAJORITY in DHA</u>
Type of Model: (e.g., Spline, Stdzd, Unstdzd)	<u>Standardized</u>

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

<i>Predictor Measures (All continuous variables reflect standardized values measured at time of diagnosis unless otherwise noted)</i>	Estimate	Posterior S.D.	One-Tailed P-Value	95% C.I. Lower (2.50%)	95% C.I. Upper (2.50%)
Child Characteristics					
Gender and ethnicity of child (omitted=African American male)					
Latina female	0.16	0.37	0.331	-0.57	0.85
Latino male	-0.24	0.39	0.259	-0.99	0.57
African American female	0.14	0.40	0.377	-0.52	1.02
First born in family (omitted=no)	-0.39	0.33	0.133	-0.99	0.25

Caregiver and Household Characteristics

Number of siblings in household	-0.34	0.14	0.007	-0.59	-0.05
Caregiver reported depressive symptomatology (omitted=no)	0.09	0.31	0.361	-0.50	0.69
Caregiver age	-0.31	0.16	0.031	-0.65	0.03
Caregiver immigrant status (omitted=no)	1.02	0.36	0.000	0.32	1.70
Caregiver history of substance abuse (omitted=no)	0.17	0.40	0.326	-0.63	0.94
Caregiver disability status (omitted=not disabled)	-0.05	0.38	0.446	-0.73	0.74
Caregiver educational attainment (omitted=no degree)					
H.S. diploma	0.37	0.33	0.107	-0.31	1.07
Post-H.S. technical certificate or college degree	1.33	0.40	0.000	0.59	2.17
Caregiver married/partnered (omitted=not married/partnered)	2.16	0.37	0.000	1.38	2.86
Natural log of caregiver earnings (in dollars)	-0.38	0.28	0.079	-0.98	0.10
Caregiver was available to monitor/supervise children FT/PT (omitted=not available)	-0.56	0.57	0.140	-1.87	0.42
Household stressor scale	0.46	0.16	0.006	0.12	0.73
Household had health insurance (omitted=no)	0.06	0.34	0.440	-0.53	0.74
Total number of moves from birth to diagnosis	-0.02	0.13	0.451	-0.28	0.22
Resided in conventional public housing (omitted=no)	0.93	0.71	0.080	-0.25	2.56

Neighborhood Characteristics

Living in neighborhood with negative peers (omitted=no)	-0.38	0.41	0.193	-1.10	0.49
Social capital index	0.12	0.14	0.200	-0.14	0.40
Social problems index	0.18	0.18	0.166	-0.17	0.55
Social vulnerability score	0.61	0.62	0.156	-0.60	1.79
Percent African American residents	-0.52	0.22	0.003	-0.96	-0.13
Percent Latino residents	-0.98	0.36	0.001	-1.74	-0.35
Occupational prestige score	-0.92	0.37	0.003	-1.71	-0.28
Percent foreign born residents	-0.05	0.27	0.444	-0.58	0.50
Percent of residents who moved in preceding 12 months	-0.23	0.24	0.139	-0.73	0.16
Living in neighborhood with hospitals and clinics (omitted=no)	0.64	0.50	0.084	-0.30	1.59
Resource factor score	-0.34	0.22	0.074	-0.71	0.17
Age of housing stock					
Percent of housing built before 1940	0.46	0.20	0.014	0.08	0.91
Percent of housing built between 1940-1969	0.24	0.21	0.121	-0.15	0.66
Violent crime rate per 1,000	-0.98	0.45	0.000	-2.00	-0.20
Property crime rate per 1,000	0.33	0.24	0.084	-0.10	0.80

Child abuse and neglect rate per 1,000	-0.15	0.28	0.281	-0.78	0.40
Neurological hazards index (rescaled by 100)	0.69	0.34	0.033	-0.04	1.30
Respiratory hazards index	-0.24	0.27	0.204	-0.70	0.31
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:	<u>Childhood Diagnosis of Obesity</u>
Sample:	<u>MOSTLY in DHA</u>
Type of Model: (e.g., Spline, Stdzd, Unstdzd)	<u>Standardized</u>

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

<i>Predictor Measures (All continuous variables reflect standardized values measured at time of diagnosis unless otherwise noted)</i>	Estimate	Posterior S.D.	One-Tailed P-Value	95% C.I. Lower (2.50%)	95% C.I. Upper (2.50%)
Child Characteristics					
Gender and ethnicity of child (omitted=African American male)					
Latina female	0.69	0.42	0.042	-0.08	1.51
Latino male	0.29	0.43	0.252	-0.58	1.13
African American female	0.62	0.44	0.066	-0.15	1.55
First born in family (omitted=no)	-0.35	0.31	0.120	-0.94	0.25

Caregiver and Household Characteristics

Number of siblings in household	-0.39	0.14	0.005	-0.66	-0.11
Caregiver reported depressive symptomatology (omitted=no)	0.33	0.29	0.131	-0.29	0.89
Caregiver age	-0.36	0.15	0.004	-0.68	-0.08
Caregiver immigrant status (omitted=no)	0.79	0.38	0.009	0.11	1.53
Caregiver history of substance abuse (omitted=no)	-0.29	0.44	0.254	-1.11	0.56
Caregiver disability status (omitted=not disabled)	0.21	0.40	0.305	-0.65	0.97
Caregiver educational attainment (omitted=no degree)					
H.S. diploma	0.98	0.38	0.004	0.25	1.72
Post-H.S. technical certificate or college degree	1.67	0.41	0.000	0.96	2.51
Caregiver married/partnered (omitted=not married/partnered)	2.24	0.36	0.000	1.60	2.96
Natural log of caregiver earnings (in dollars)	-0.25	0.27	0.171	-0.80	0.28
Caregiver was available to monitor/supervise children FT/PT (omitted=not available)	-0.68	0.55	0.104	-1.80	0.44
Household stressor scale	0.18	0.13	0.111	-0.09	0.42
Household had health insurance (omitted=no)	0.13	0.35	0.341	-0.54	0.93
Total number of moves from birth to diagnosis	-0.39	0.19	0.008	-0.80	-0.06
Resided in conventional public housing (omitted=no)	0.28	0.43	0.278	-0.55	1.12

Neighborhood Characteristics

Living in neighborhood with negative peers (omitted=no)	-0.71	0.38	0.020	-1.47	-0.04
Social capital index	0.14	0.13	0.122	-0.09	0.41
Social problems index	-0.04	0.18	0.401	-0.38	0.30
Social vulnerability score	1.69	0.56	0.000	0.60	2.85
Percent African American residents	0.09	0.22	0.358	-0.35	0.50
Percent Latino residents	-0.50	0.35	0.060	-1.27	0.11
Occupational prestige score	-0.94	0.32	0.000	-1.53	-0.33
Percent foreign born residents	0.10	0.26	0.359	-0.36	0.63
Percent of residents who moved in preceding 12 months	-0.42	0.20	0.008	-0.82	-0.05
Living in neighborhood with hospitals and clinics (omitted=no)	1.62	0.56	0.001	0.55	2.72
Resource factor score	0.00	0.23	0.492	-0.47	0.44
Age of housing stock					
Percent of housing built before 1940	0.44	0.20	0.021	0.02	0.83
Percent of housing built between 1940-1969	0.02	0.18	0.449	-0.31	0.41
Violent crime rate per 1,000	-1.59	0.43	0.000	-2.49	-0.86
Property crime rate per 1,000	-0.03	0.29	0.474	-0.68	0.46

Child abuse and neglect rate per 1,000	-0.08	0.27	0.393	-0.63	0.43
Neurological hazards index (rescaled by 100)	-0.09	0.26	0.366	-0.66	0.37
Respiratory hazards index	0.51	0.24	0.018	0.03	0.94
Thresholds					
Ever-Obesity	5.59	0.88	0.000	3.69	7.27

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

<i>Predictor Measures (All continuous variables reflect standardized values measured at time of diagnosis unless otherwise noted)</i>	Estimate	Posterior S.D.	One-Tailed P-Value	95% C.I. Lower (2.50%)	95% C.I. Upper (2.50%)
Child Characteristics					
African American	-0.24	0.37	0.261	-0.89	0.55
First born in family (omitted=no)	-0.65	0.47	0.108	-1.52	0.31
Caregiver and Household Characteristics					
Number of siblings in household	-0.47	0.20	0.002	-0.95	-0.14

Caregiver reported depressive symptomatology (omitted=no)	-0.78	0.46	0.038	-1.78	0.09
Caregiver age	-0.78	0.26	0.000	-1.32	-0.34
Caregiver immigrant status (omitted=no)	-0.08	0.58	0.442	-1.29	0.97
Caregiver history of substance abuse (omitted=no)	0.37	0.48	0.218	-0.59	1.33
Caregiver disability status (omitted=not disabled)	0.30	0.43	0.257	-0.57	1.09
Caregiver educational attainment (omitted=no degree)					
H.S. diploma	-0.16	0.43	0.346	-1.17	0.55
Post-H.S. technical certificate or college degree	0.67	0.38	0.050	-0.13	1.38
Caregiver married/partnered (omitted=not married/partnered)	2.15	0.45	0.000	1.29	3.10
Natural log of caregiver earnings (in dollars)	-0.65	0.37	0.047	-1.34	0.10
Caregiver was available to monitor/supervise children FT/PT (omitted=not available)	-1.22	0.73	0.054	-2.56	0.25
Household stressor scale	0.25	0.17	0.069	-0.12	0.57
Household had health insurance (omitted=no)	-0.38	0.33	0.117	-1.03	0.25
Total number of moves from birth to diagnosis	0.02	0.19	0.474	-0.36	0.36
Resided in conventional public housing (omitted=no)	1.12	0.59	0.027	-0.03	2.17
Neighborhood Characteristics					
Living in neighborhood with negative peers (omitted=no)	-0.18	0.49	0.359	-1.13	0.78
Social capital index	0.02	0.18	0.470	-0.28	0.43
Social problems index	0.01	0.25	0.481	-0.44	0.49
Social vulnerability score	0.48	0.64	0.212	-0.70	1.82
Percent African American residents	0.08	0.24	0.389	-0.37	0.55
Percent Latino residents	0.07	0.43	0.428	-0.76	0.96
Occupational prestige score	-0.24	0.41	0.304	-1.01	0.51
Percent foreign born residents	-0.11	0.34	0.382	-0.72	0.60
Percent of residents who moved in preceding 12 months	-0.40	0.24	0.047	-0.87	0.09
Living in neighborhood with hospitals and clinics (omitted=no)	-0.04	0.52	0.468	-1.10	0.91
Resource factor score	0.41	0.21	0.015	0.04	0.89
Age of housing stock					
Percent of housing built before 1940	-0.13	0.22	0.275	-0.60	0.28
Percent of housing built between 1940-1969	-0.38	0.22	0.050	-0.79	0.07
Violent crime rate per 1,000	-0.55	0.52	0.128	-1.71	0.35
Property crime rate per 1,000	0.30	0.30	0.153	-0.24	0.93
Child abuse and neglect rate per 1,000	-1.00	0.31	0.000	-1.56	-0.38
Neurological hazards index (rescaled by 100)	0.44	0.29	0.067	-0.10	1.05

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

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

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

SUMMARY OF DATA

Number of observations: 896

Number of clusters: 468

MODEL FIT INFORMATION

Number of Free Parameters: 54

Bayesian Posterior Predictive Checking Using Chi-Square:

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

-25.29

21.04

Posterior Predictive p -value: 0.52

MODEL RESULTS

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

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

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

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

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

SUMMARY OF DATA

Number of observations:	691
Number of clusters:	393

MODEL FIT INFORMATION

Number of Free Parameters:	30
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Bayesian Posterior Predictive Checking Using Chi-Square:

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

-25.24
29.93

Posterior Predictive p -value:	0.50
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MODEL RESULTS

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

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

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

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

SUMMARY OF DATA

Number of observations:	361
Number of clusters:	241

MODEL FIT INFORMATION

Number of Free Parameters:	30
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Bayesian Posterior Predictive Checking Using Chi-Square:

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

-23.20	-23.20	18.65
18.65		
	0.58	
Posterior Predictive p -value:	0.58	

MODEL RESULTS

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

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

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

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

SUMMARY OF DATA

Number of observations: 495

Number of clusters: 178

MODEL FIT INFORMATION

Number of Free Parameters: 30

Bayesian Posterior Predictive Checking Using Chi-Square:

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

-21.26
22.20

Posterior Predictive p -value: 0.49

MODEL RESULTS

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

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

SUMMARY OF DATA

Number of observations:

Number of clusters:

MODEL FIT INFORMATION

Number of Free Parameters:

Bayesian Posterior Predictive Checking Using Chi-Square:

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

Posterior Predictive p -value:

MODEL RESULTS

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

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

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

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

SUMMARY OF DATA

Number of observations: 374
 Number of clusters: 276

MODEL FIT INFORMATION

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

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

-20.27
19.77

Posterior Predictive p -value: 0.50

MODEL RESULTS

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

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

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

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

SUMMARY OF DATA

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

MODEL FIT INFORMATION

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

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

-28.75
26.85

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

MODEL RESULTS

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

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

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

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

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

SUMMARY OF DATA

Number of observations:	584
Number of clusters:	353

MODEL FIT INFORMATION

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

MODEL RESULTS

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

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

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

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

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

SUMMARY OF DATA

Number of observations:	368
Number of clusters:	248

MODEL FIT INFORMATION

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

MODEL RESULTS

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

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

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

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

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

SUMMARY OF DATA

Number of observations:	297
Number of clusters:	190

MODEL FIT INFORMATION

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

MODEL RESULTS

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

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

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

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

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

SUMMARY OF DATA

Number of observations:	<input type="text" value="374"/>
Number of clusters:	<input type="text" value="232"/>

MODEL FIT INFORMATION

Number of Free Parameters:	<input type="text" value="36"/>
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Bayesian Posterior Predictive Checking Using Chi-Square:

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

<input type="text" value="-19.33"/>
<input type="text" value="25.76"/>

Posterior Predictive p -value:	<input type="text" value="0.52"/>
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MODEL RESULTS

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

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

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

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

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

SUMMARY OF DATA

Number of observations:

Number of clusters:

MODEL FIT INFORMATION

Number of Free Parameters:

Bayesian Posterior Predictive Checking Using Chi-Square:

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

-21.87 25.59

0.56

Posterior Predictive *p*-value:

MODEL RESULTS

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

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

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

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

SUMMARY OF DATA

Number of observations: 584

Number of clusters: 353

MODEL FIT INFORMATION

Number of Free Parameters: 51

Bayesian Posterior Predictive Checking Using Chi-Square:

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

-29.49

27.62

Posterior Predictive *p*-value: 0.62

MODEL RESULTS

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

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

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