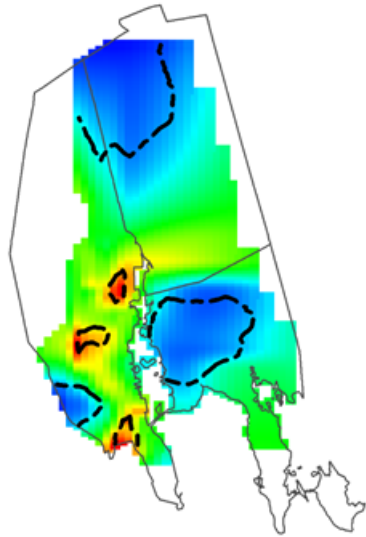


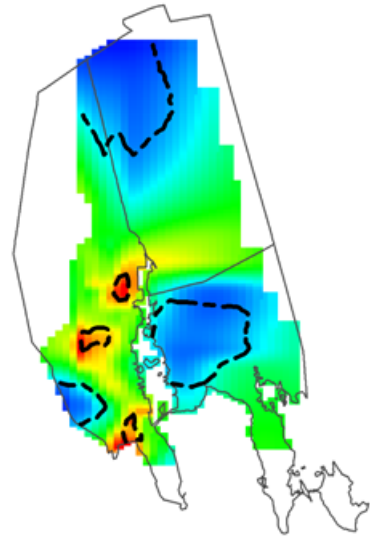
**Web Figure 1. Spatial distribution of predicted DSM-IV Total raw scores adjusted for chemical exposures, New Bedford Cohort, Massachusetts.** Spatial variability of DSM-IV Total raw scores among NBC children is predicted for an 8-year-old boy with adjustment for chemical exposures. Location remains statistically significant and contour lines denote areas of significant increased and decreased raw scores for umbilical cord serum  $\sum\text{PCB}_4$  (Figure 1a,  $P = 0.002$ ), cord serum  $p,p'$ -DDE (Figure 1b,  $P = 0.004$ ), peripartum maternal hair mercury (Figure 1c,  $P = 0.001$ ), and child peak 12- to 36-month blood lead (Figure 1d,  $P = 0.001$ ).

a)



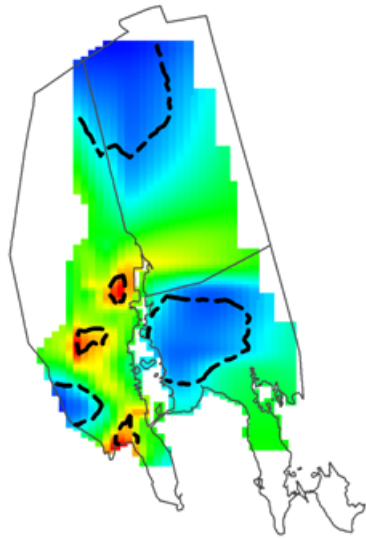
$\Sigma$ PCB4, Age and Sex Adjusted Values  
5 20 3 km

b)



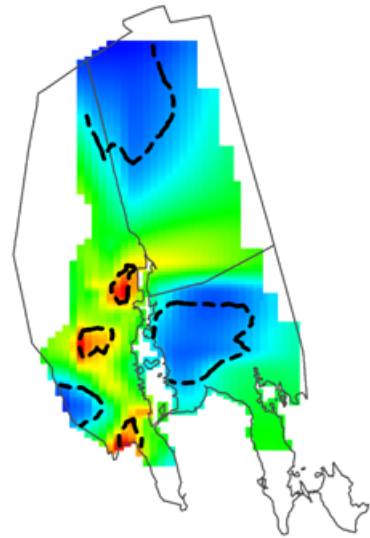
p,p'-DDE, Age and Sex Adjusted Values  
5 20 3 km

c)



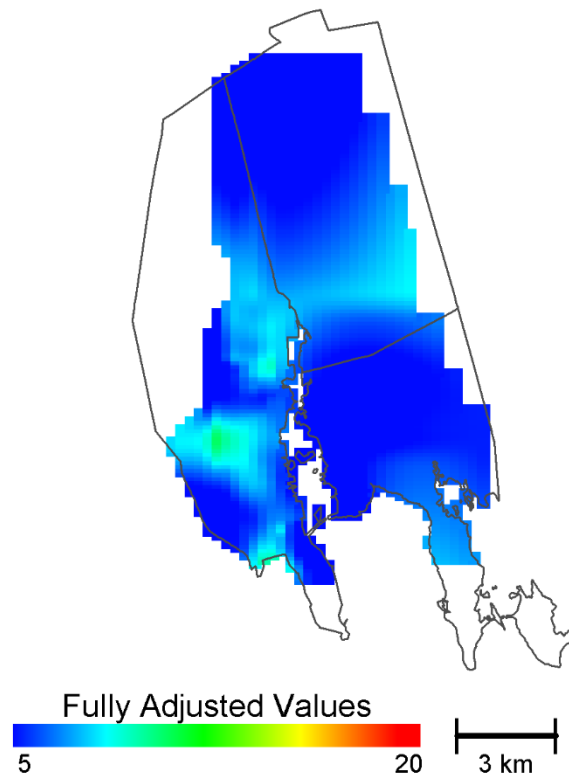
Hg, Age and Sex Adjusted Values  
5 20 3 km

d)



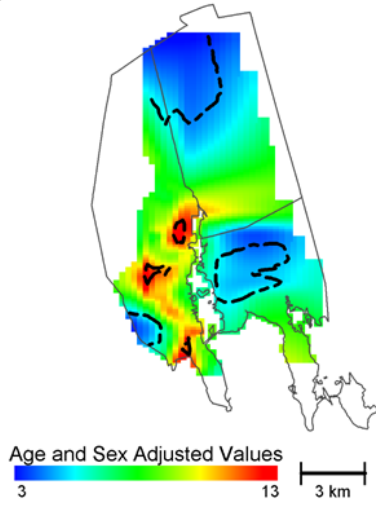
Pb, Age and Sex Adjusted Values  
5 20 3 km

**Web Figure 2. Fully adjusted spatial analysis of predicted DSM-IV Total raw scores for the New Bedford Cohort, Massachusetts.** Spatial variability of DSM-IV Total raw scores among NBC children are predicted for an 8-year-old boy whose mother at the time of birth was 26.5 years old, nonsmoking, college-educated, and married to a college-educated father with a household income >\$40,000 and HOME score at the 95th percentile (higher HOME scores are indicative of a positive home environment). Location is no longer significant in the full adjusted analysis ( $P = 0.561$ ).

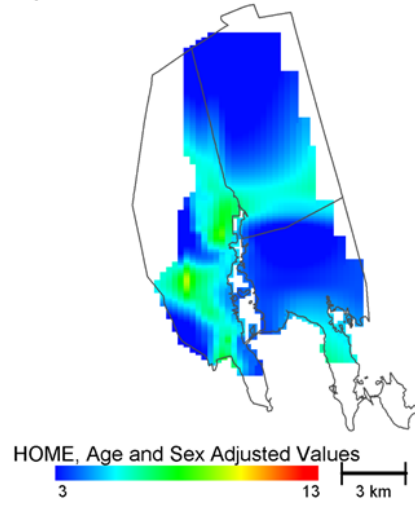


**Web Figure 3. Spatial distribution of predicted ADHD-related behavior raw scores for the New Bedford Cohort, Massachusetts.** Underlying spatial variability of ADHD-related behavior raw scores among NBC children are predicted for an 8-year-old boy. Location is statistically significant and contour lines denote areas of significant increased and decreased raw scores for Connors' ADHD Index (Figure 3a,  $P = 0.032$ ), DSM-IV Inattentive (Figure 3c,  $P = 0.011$ ), and DSM-IV Hyperactive-Impulsive subscales (Figure 3e,  $P = 0.017$ ). Additional adjustment for umbilical cord serum  $\sum\text{PCB}_4$ , cord serum  $\rho,\rho'$ -DDE, peripartum maternal hair mercury, or child peak 12- to 36-month blood lead levels does not change the results. Location is no longer significant after adjusting for HOME score (predicted at the 95th percentile), and spatial variability in predicted raw scores for Connors' ADHD Index (Figure 3b,  $P = 0.380$ ), DSM-IV Inattentive (Figure 3d,  $P = 0.375$ ), and DSM-IV Hyperactive-Impulsive subscales (Figure 3f,  $P = 0.223$ ) are attenuated. Higher HOME scores are indicative of a positive home environment. Adjustment by other sociodemographic factors produces similar results.

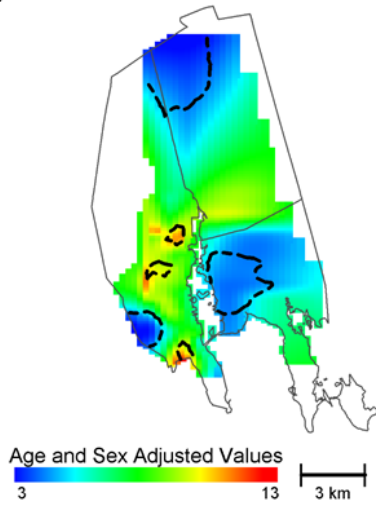
a)



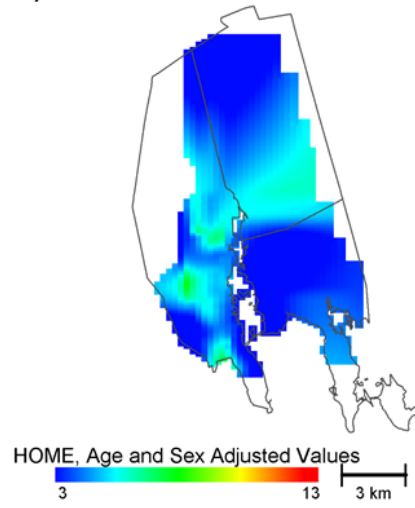
b)



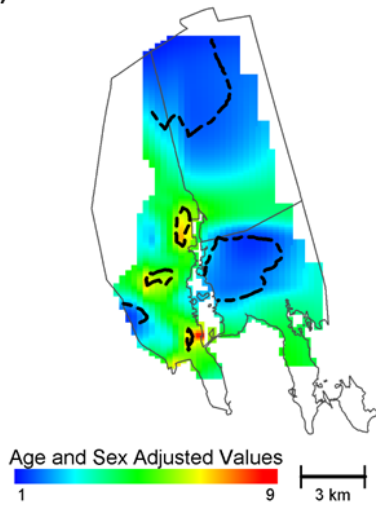
c)



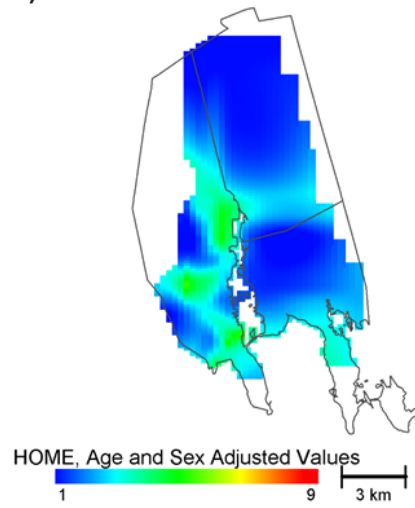
d)



e)

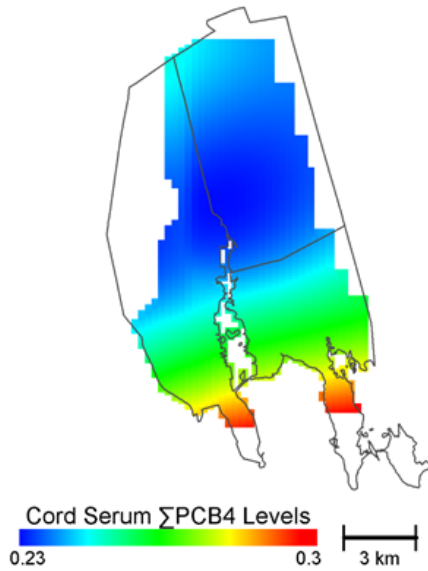


f)

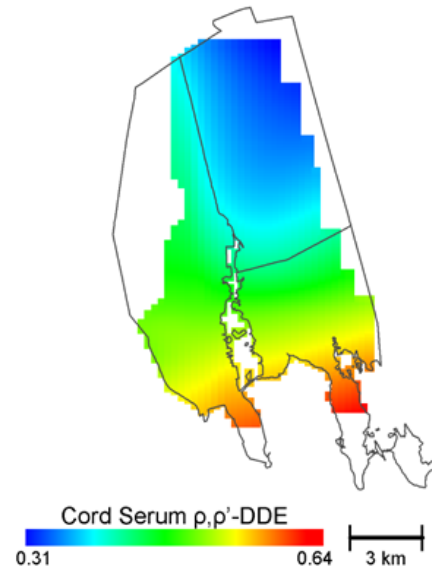


**Web Figure 4. Spatial distribution of pre-natal biomarkers for the New Bedford Cohort, Massachusetts.** Geographic distribution of smoothed a) umbilical cord serum  $\Sigma\text{PCB}_4$  levels (ng/g), b) cord serum  $p,p'$ -DDE (ng/g), c) peripartum maternal hair mercury ( $\mu\text{g/g}$ ), and d) peak 12- to 36-month blood lead levels ( $\mu\text{g/dL}$ ).

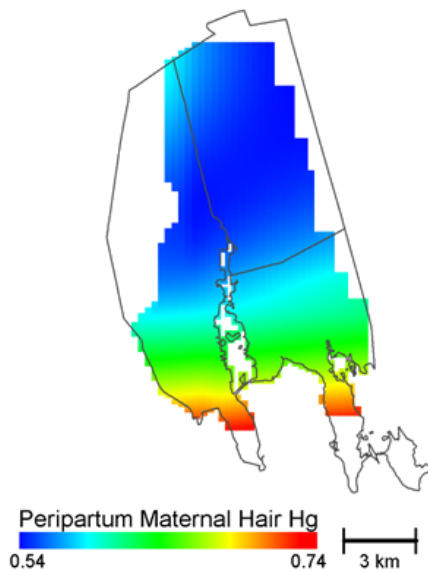
a)



b)



c)



d)

