Appendix Table 1. Mean value of 95th and 90th percentiles of the universal apparent maximum temperature in the summer season, NBDPS, 1997-2007

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| --- | --- | --- | --- | --- | --- |
| **Climate region** | **Weather Monitoring Stations** | **Mean UATmax95% (ºF)** | **P value\*** | **Mean UATmax90% (ºF)** | **P value\*** |
|  | **N** | **Cases** | **Controls** |  | **Cases** | **Controls** |  |
| South (AR, TX) | 67 | 98.98 | 98.96 | 0.98 | 97.24 | 97.15 | 0.88 |
| Southeast (NC, GA) | 31 | 96.38 | 96.34 | 0.94 | 94.56 | 94.42 | 0.81 |
| Northeast (NY) | 16 | 86.91 | 86.15 | 0.48 | 83.56 | 82.70 | 0.45 |
| Southwest (UT) | 10 | 90.07 | 93.58 | 0.005 | 87.37 | 90.91 | 0.008 |
| West (CA) | 20 | 100.40 | 99.43 | 0.16 | 97.48 | 96.41 | 0.17 |
| Upper Midwest (IA) | ---§ | 90.93 | 90.75 | 0.83 | 87.25 | 87.87 | 0.92 |
| **Overall NBDPS** | 144 | 95.37 | 95.14 | 0.51 | 92.90 | 92.67 | 0.54 |

\*Two-sample t-test; UATmax95% = 95th percentile of the mean daily universal apparent maximum temperature distribution in the summer season; UATmax90% = 90th percentile of the mean daily universal apparent maximum temperature distribution in the summer season; ºF = degrees Fahrenheit; AR = Arkansas; TX = Texas; NC = North Carolina; GA = Georgia; NY = New York; UT = Utah; CA = California; IA = Iowa; NBDPS = National Birth Defects Prevention Study

§Due to IRB restrictions on sharing geocoded information in IA, the number of weather monitoring stations could not be assessed.

Appendix Table 2. Adjusted odds ratio estimates of the association between EHE95/EHE90 and orofacial clefts among selected subgroups, NBDPS, 1997-2007

|  |  |  |
| --- | --- | --- |
| **Subsets of data** | **EHE95** | **EHE90** |
|  | **aOR (95% CI)§** | **aOR (95% CI)§** |
| Cleft palate (overall NBDPS) | 1.08 (0.79, 1.48) | 1.14 (0.83, 1.57) |
| South (AR, TX) | 1.28 (0.63, 2.60) | 0.95 (0.47, 1.92) |
| Southeast (NC, GA) | 1.22 (0.68, 2.19) | 1.14 (0.65, 2.02) |
| Northeast (NY) | 1.37 (0.63, 2.97) | 1.32 (0.63, 2.78) |
| Southwest (UT) | 0.25 (0.04, 1.39) | 0.42 (0.08, 2.16) |
| West (CA) | 0.84 (0.34, 2.08) | 1.40 (0.45, 4.38) |
| Upper Midwest (IA) | 0.67 (0.32, 1.40) | 1.02 (0.45, 2.34) |
| Cleft lip with or without cleft palate (overall NBDPS) | 0.97 (0.77, 1.22) | 0.88 (0.70, 1.10) |
| South (AR, TX) | 0.75 (0.49, 1.16) | 0.73 (0.47, 1.16) |
| Southeast (NC, GA) | 1.58 (0.91, 2.72) | 0.97 (0.60, 1.58) |
| Northeast (NY) | 0.88 (0.49, 1.58) | 0.97 (0.56, 1.72) |
| Southwest (UT) | 0.63 (0.12, 3.37) | 0.57 (0.17, 2.32) |
| West (CA) | 0.78 (0.42, 1.43) | 1.10 (0.54, 2.29) |
| Upper Midwest (IA) | 0.75 (0.43, 1.32) | **0.54 (0.31, 0.92)** |
|  |  |  |
| Complete residence history | 1.02 (0.83, 1.27) | 0.96 (0.77, 1.18) |
|  |  |  |
| Geographic radius around weather station |  |  |
|  10 miles | 0.79 (0.59, 1.04) | 0.80 (0.60, 1.06) |
|  20 miles | 0.96 (0.68, 1.31) | 0.89 (0.70, 1.14) |
|  30 miles | 1.00 (0.80, 1.25) | 0.90 (0.72, 1.14) |
|  |  |  |
| Occupation with potential exposure to elevated environmental temperature | 0.96 (0.76, 1.21) | 0.93 (0.74, 1.17) |
|  |  |  |
| No diuretic medication use in the first trimester | 1.03 (0.83, 1.28) | 0.97 (0.78, 1.20) |
|  |  |  |
| No fever in the first trimester | 0.99 (0.80, 1.22) | 0.93 (0.76, 1.14) |

§Adjusted for maternal age, maternal race/ethnicity, body mass index, and smoking (maternal and secondhand smoking)

EHE95 = extreme heat event defined as at least two consecutive days with daily universal apparent maximum temperature above the 95th percentile of the universal apparent maximum temperature distribution for the summer season and for climate region; EHE90 = extreme heat event defined as at least three consecutive days with daily universal apparent maximum temperature above the 90th percentile of the universal apparent maximum temperature distribution for the summer season and for climate region; NBDPS = National Birth Defects Prevention Study; aOR = adjusted odds ratio; CI = confidence interval; AR = Arkansas; TX = Texas; NC = North Carolina; GA = Georgia; NY = New York; UT = Utah; CA = California; IA = Iowa