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| **Table S1. Selected characteristics of case and control infants, National Birth Defects Prevention Study, 2000-2005** |
| **Congenital Heart Defect Category a** |
| **Covariable** | **Controls** |  | **TOF** |  | **d-TGA** |  | **HLHS** |  | **CoA** |  | **AS** |  | **PVS** |  | **VSD** |  | **ASD** |
|  | **N** | **(%)** | **N** | **(%)** | **N** | **(%)** | **N** | **(%)** | **N** | **(%)** | **N** | **(%)** | **N** | **(%)** | **N** | **(%)** | **N** | **(%)** |
| Maternal age at Delivery (years) |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  <20 | 82 | (6.8) | 5 | (4.0) | 5 | (6.8) | 2 | (3.3) | 7 | (5.5) | 0 | 0 | 6 | (3.4) | 16 | (5.5) | 39 | (8.4) |
|  20-34 | 936 | (77.2) | 90 | (71.4) | 51 | (68.9) | 50 | (82.0) | 104 | (81.3) | 37 | (86.0) | 143 | (79.9) | 209 | (72.3) | 360 | (77.6) |
|  ≥35 | 194 | (16.0) | 31 | (24.6) | 18 | (24.3) | 9 | (14.8) | 17 | (13.3) | 6 | (14.0) | 30 | (16.8) | 64 | (22.1) | 65 | (14.0) |
| Maternal Race/Ethnicity |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  White NH | 723 | (59.7) | 76 | (60.3) | 54 | (73.0) | 41 | (67.2) | 87 | (68.0) | 35 | (81.4) | 110 | (61.5) | 172 | (59.5) | 218 | (47.0) |
|  Black NH | 169 | (13.9) | 22 | (17.5) | 6 | (8.1) | 7 | (11.5) | 11 | (8.6) | 3 | (7.0) | 35 | (19.6) | 56 | (19.4) | 60 | (12.9) |
|  Hispanic | 234 | (19.3) | 19 | (15.1) | 13 | (17.6) | 12 | (19.7) | 27 | (21.1) | 3 | (7.0) | 24 | (13.4) | 41 | (14.2) | 155 | (33.4) |
|  Other | 78 | (6.4) | 8 | (6.3) | 1 | (1.4) | 1 | (1.6) | 2 | (1.6) | 2 | (4.7) | 9 | (5.0) | 18 | (6.2) | 30 | (6.5) |
| Maternal Education |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  Less than High School | 167 | (13.8) | 15 | (11.9) | 7 | (9.5) | 9 | (14.8) | 19 | (14.8) | 2 | (4.7) | 21 | (11.7) | 43 | (14.9) | 92 | (19.8) |
|  High School | 269 | (22.2) | 31 | (24.6) | 21 | (28.4) | 10 | (16.4) | 22 | (17.2) | 7 | (16.3) | 49 | (27.4) | 61 | (21.1) | 121 | (26.1) |
|  Some College | 312 | (25.7) | 35 | (27.8) | 20 | (27.0) | 16 | (26.2) | 33 | (25.8) | 15 | (34.9) | 42 | (23.5) | 79 | (27.3) | 127 | (27.4) |
|  College Degree | 462 | (38.1) | 45 | (35.7) | 26 | (35.1) | 26 | (42.6) | 54 | (42.2) | 19 | (44.2) | 66 | (36.9) | 106 | (36.7) | 123 | (26.5) |
| Pre-pregnancy BMI (kg/m2) |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  Underweight (<18.5) | 44 | (3.6) | 5 | (4.0) | 4 | (5.4) | 1 | (1.6) | 9 | (7.0) | 4 | (9.3) | 4 | (2.2) | 14 | (4.8) | 31 | (6.7) |
|  Normal (18.5-25.0) | 624 | (51.5) | 58 | (46.0) | 41 | (55.4) | 33 | (54.1) | 61 | (47.7) | 24 | (55.8) | 67 | (37.4) | 148 | (51.2) | 189 | (40.7) |
|  Overweight (25.0-30.0) | 294 | (24.3) | 28 | (22.2) | 15 | (20.3) | 10 | (16.4) | 31 | (24.2) | 8 | (18.6) | 57 | (31.8) | 55 | (19.0) | 109 | (23.5) |
|  Obese (≥30.0) | 199 | (16.4) | 32 | (25.4) | 11 | (14.9) | 14 | (23.0) | 19 | (14.8) | 6 | (14.0) | 42 | (23.5) | 63 | (21.8) | 113 | (24.4) |
| Alcohol consumption during pregnancy |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  Yes | 398 | (32.8) | 53 | (42.1) | 27 | (36.5) | 17 | (27.9) | 46 | (35.9) | 12 | (27.9) | 57 | (31.8) | 104 | (36.0) | 141 | (30.4) |
|  No | 809 | (66.7) | 70 | (55.6) | 47 | (63.5) | 44 | (72.1) | 80 | (62.5) | 30 | (69.8) | 121 | (67.6) | 185 | (64.0) | 322 | (69.4) |
| Cigarette smoking during pregnancy |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  Yes | 178 | (14.7) | 24 | (19.0) | 13 | (17.6) | 7 | (11.5) | 17 | (13.3) | 3 | (7.0) | 30 | (16.8) | 50 | (17.3) | 98 | (21.1) |
|  No | 1033 | (85.2) | 102 | (81.0) | 60 | (81.1) | 54 | (88.5) | 111 | (86.7) | 40 | (93.0) | 148 | (82.7) | 238 | (82.4) | 364 | (78.4) |
| Study Site |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  Arkansas | 161 | (13.3) | 20 | (15.9) | 9 | (12.2) | 11 | (18.0) | 12 | (9.4) | 5 | (11.6) | 40 | (22.3) | 49 | (17.0) | 89 | (19.2) |
|  Iowa | 224 | (18.5) | 23 | (18.3) | 10 | (13.5) | 9 | (14.8) | 18 | (14.1) | 11 | (25.6) | 29 | (16.2) | 46 | (15.9) | 39 | (8.4) |
|  Massachusetts | 185 | (15.3) | 24 | (19.0) | 26 | (35.1) | 8 | (13.1) | 25 | (19.5) | 4 | (9.3) | 29 | (16.2) | 53 | (18.3) | 64 | (13.8) |
|  New York | 31 | (2.6) | 4 | (3.2) | 4 | (5.4) | 1 | (1.6) | 3 | (2.3) | 1 | (2.3) | 4 | (2.2) | 5 | (1.7) | 5 | (1.1) |
|  Texas | 161 | (13.3) | 16 | (12.7) | 7 | (9.5) | 8 | (13.1) | 17 | (13.3) | 4 | (9.3) | 12 | (6.7) | 32 | (11.1) | 162 | (34.9) |
|  Georgia | 206 | (17.0) | 18 | (14.3) | 11 | (14.9) | 11 | (18.0) | 23 | (18.0) | 6 | (14.0) | 26 | (14.5) | 52 | (18.0) | 54 | (11.6) |
|  North Carolina | 170 | (14.0) | 18 | (14.3) | 5 | (6.8) | 5 | (8.2) | 19 | (14.8) | 3 | (7.0) | 20 | (11.2) | 35 | (12.1) | 22 | (4.7) |
|  Utah | 74 | (6.1) | 3 | (2.4) | 2 | (2.7) | 8 | (13.1) | 11 | (8.6) | 9 | (20.9) | 19 | (10.6) | 17 | (5.9) | 29 | (6.3) |

Abbreviations: ASD=atrial septal defect; AS=aortic stenosis; BMI=body mass index; CoA=coarctation of the aorta; d-TGA=d-transposition of the great arteries; HLHS=hypoplastic left heart syndrome; NH=non-Hispanic; PVS=pulmonary valve stenosis; TOF=Tetralogy of Fallot; VSD=ventricular septal defect.

a Includes selected congenital heart defect cases and all controls linked to a public water supply for which DBP measurements were available, excludes private well water drinkers.

**Table S2.** Correlations between household DBP exposures among CHD cases and controls in NBDPS, 2000-2005

|  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | **THM4** | **CHLF** | **BRF** | **BDCM** | **DBCM** | **HAA5** | **MBAA** | **MCAA** | **DBAA** | **DCAA** | **TCAA** |
| **THM4** | 1.00 | 0.38 | 0.11 | 0.81 | 0.80 | 0.36 | 0.31 | 0.60 | 0.26 | 0.64 | 0.51 |
| **CHLF** | 0.38 | 1.00 | -0.17 | -0.01 | -0.03 | 0.67 | 0.18 | 0.28 | -0.17 | 0.73 | 0.69 |
| **BRF** | 0.11 | -0.17 | 1.00 | -0.01 | 0.32 | 0.09 | 0.25 | 0.34 | 0.70 | -0.10 | -0.18 |
| **BDCM** | 0.81 | -0.01 | -0.01 | 1.00 | 0.85 | 0.03 | 0.29 | 0.70 | 0.39 | 0.43 | 0.23 |
| **DBCM** | 0.80 | -0.03 | 0.32 | 0.85 | 1.00 | 0.16 | 0.29 | 0.67 | 0.68 | 0.08 | -0.12 |
| **HAA5** | 0.36 | 0.67 | 0.09 | 0.03 | 0.16 | 1.00 | 0.34 | 0.61 | 0.24 | 0.88 | 0.80 |
| **MBAA** | 0.31 | 0.18 | 0.25 | 0.29 | 0.29 | 0.34 | 1.00 | 0.34 | 0.33 | 0.26 | 0.10 |
| **MCAA** | 0.60 | 0.28 | 0.34 | 0.70 | 0.67 | 0.61 | 0.34 | 1.00 | 0.45 | 0.36 | 0.22 |
| **DBAA** | 0.26 | -0.17 | 0.70 | 0.39 | 0.68 | 0.24 | 0.33 | 0.45 | 1.00 | 0.03 | -0.19 |
| **DCAA** | 0.64 | 0.73 | -0.10 | 0.43 | 0.08 | 0.88 | 0.26 | 0.36 | 0.03 | 1.00 | 0.76 |
| **TCAA** | 0.51 | 0.69 | -0.18 | 0.23 | -0.12 | 0.80 | 0.10 | 0.22 | -0.19 | 0.76 | 1.00 |

**Abbreviations:** BRF=bromoform, BDCM=bromodichloromethane, CHD = Congenital Heart Defect, THM4=sum of four trihalomethanes, CHLF=chloroform, DBAA=dibromoacetic acid, DBCM=dibromochloromethane, DBP = Disinfection Byproduct, DCAA=dichloroacetic acid, HAA5= HAA5=group of 5 haloacetic acids most commonly found in drinking water, MBAA=monobromoacetic acid, MCAA=monochloroacetic acid, NBDPS= National Birth Defects Prevention Study, TCAA=trichloroacetic acid,