Supplemental Table 3: Adjusted Odds Ratios (aORs) between Disinfection By-Product (DBP) Exposures and Cleft Palate without Cleft Lip Stratified by Sex

| **DBP Metrics (μg/L)** | | **na** | | **Total Population aOR (95% CI)** | | **n** | | **Male aOR (95% CI)** | | **n** | | **Female aOR (95% CI)** |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| THM4b | | | | | | | | | | | | |
| 0.00-20.27 | | 21 | | Ref | | 13 | | Ref | | 8 | | Ref |
| >20.27–37.69 | | 24 | | 1.03 (0.35, 3.03) | | 12 | | 2.18 (0.43, 11.03) | | 12 | | 0.88 (0.15, 5.17) |
| >37.69–49.90 | | 32 | | 1.67 (0.55, 5.06) | | 13 | | 1.86 (0.34, 9.98) | | 19 | | 1.48 (0.24, 9.03) |
| >49.90–63.86 | | 22 | | 1.06 (0.33, 3.41) | | 9 | | 1.67 (0.28, 10.09) | | 13 | | 0.90 (0.15, 5.63) |
| >63.86-118.35 | | 31 | | 1.91 (0.56, 6.58) | | 14 | | 2.80 (0.41, 18.91) | | 17 | | 1.04 (0.16, 6.81) |
| THMBrc | | | | | | | | | | | | |
| 0.00-5.16 | | 43 | | Ref | | 22 | | Ref | | 21 | | Ref |
| >5.16-8.11 | | 37 | | 0.84 (0.45, 1.56) | | 15 | | 0.63 (0.24, 1.63) | | 22 | | 0.67 (0.26, 1.73) |
| >8.11-35.68 | | 50 | | 1.18 (0.65, 2.15) | | 24 | | 1.22 (0.47, 3.16) | | 26 | | 0.70 (0.27, 1.78) |
| Chloroformb | | | | | | | | | | | | |
| 0.00-10.88 | | 21 | | Ref | | 13 | | Ref | | 8 | | Ref |
| >10.88–29.91 | | 21 | | 0.83 (0.28, 2.43) | | 12 | | 0.60 (0.11, 3.18) | | 9 | | 0.91 (0.16, 5.07) |
| >29.91–41.89 | | 38 | | 1.72 (0.56, 5.27) | | 14 | | 1.00 (0.17, 5.97) | | 24 | | 2.97 (0.52, 17.08) |
| >41.89–54.53 | | 24 | | 0.93 (0.29, 3.05) | | 12 | | 0.50 (0.07, 3.60) | | 12 | | 1.15 (0.18, 7.41) |
| >54.53-99.49 | | 26 | | 1.33 (0.39, 4.56) | | 10 | | 0.66 (0.08, 5.13) | | 16 | | 1.48 (0.23, 9.50) |
| Bromodichloromethane (BDCM)c | | | | | | | | | | | | |
| 0.00-4.84 | | 45 | | Ref | | 23 | | Ref | | 22 | | Ref |
| >4.84–7.06 | | 34 | | 0.64 (0.35, 1.19) | | 13 | | 0.47 (0.17, 1.33) | | 21 | | 0.43 (0.18, 1.05) |
| >7.06-34.90 | | 51 | | 1.04 (0.60, 1.80) | | 25 | | 1.20 (0.48, 3.02) | | 26 | | 0.57 (0.25, 1.31) |
| Dibromochloromethane (DBCM)c | | | | | | | | | | | | |
| 0.00 | | 43 | | Ref | | 23 | | Ref | | 20 | | Ref |
| >0.00-14.24 | | 87 | | 1.11 (0.62, 1.99) | | 38 | | 0.76 (0.31, 1.89) | | 49 | | 0.70 (0.29, 1.71) |
| Bromoformc | | | | | | | | | | | | |
| 0.00 | | 117 | | Ref | | 50 | | Ref | | 67 | | Ref |
| >0.00-5.91 | | 13 | | 0.84 (0.41, 1.69) | | 11 | | 1.82 (0.70, 4.72) | | 2 | | 0.19 (0.04, 0.91) |
| HAA5d | | | | | | | | | | | | |
| 0.00 – 7.38 | 19 | | Ref | | 13 | | Ref | | 6 | | Ref | |
| >7.38–19.62 | 25 | | 1.92 (0.54, 6.87) | | 12 | | 0.65 (0.12, 3.51) | | 13 | | NE | |
| >19.62–26.34 | 24 | | 1.97 (0.51, 7.64) | | 10 | | 0.97 (0.16, 5.93) | | 14 | | NE | |
| >26.34–34.20 | 33 | | 2.95 (0.72, 12.04) | | 12 | | 1.43 (0.20, 10.10) | | 21 | | NE | |
| >34.20-94.62 | 30 | | 2.91 (0.70, 12.06) | | 15 | | 1.91 (0.25, 14.58) | | 15 | | NE | |
| Trichloroacetic acid (TCAA)d | | | | | | | | | | | | |
| 0.00-4.85 | 23 | | Ref | | 14 | | Ref | | 9 | | Ref | |
| >4.85–11.27 | 36 | | 1.78 (0.71, 4.47) | | 20 | | 1.72 (0.44, 6.74) | | 16 | | 2.54 (0.60, 10.80) | |
| >11.27–16.42 | 30 | | 1.51 (0.53, 4.32) | | 11 | | 1.21 (0.22, 6.57) | | 19 | | 3.77 (0.79, 18.14) | |
| >16.42-67.69 | 41 | | 2.66 (0.90, 7.80) | | 17 | | 2.04 (0.36, 11.57) | | 24 | | 6.37 (1.23, 32.94) | |
| Dichloroacetic acid (DCAA)d | | | | | | | | | | | | |
| 0.00-4.99 | 25 | | Ref | | 16 | | Ref | | 9 | | Ref | |
| >4.99–10.72 | 26 | | 1.11 (0.47, 2.61) | | 9 | | 0.84 (0.22, 3.26) | | 17 | | 1.78 (0.41, 7.62) | |
| >10.72–14.01 | 44 | | 2.34 (0.93, 5.85) | | 23 | | 5.62 (1.23, 25.73) | | 21 | | 3.61 (0.73, 17.76) | |
| >14.01-38.89 | 35 | | 2.05 (0.78, 5.42) | | 14 | | 3.04 (0.61, 15.13) | | 21 | | 5.36 (1.04, 27.62) | |
| Monochloroacetic acid (MCAA)d | | | | | | | | | | | | |
| 0.00 | 56 | | Ref | | 31 | | Ref | | 25 | | Ref | |
| >0.00-35.89 | 74 | | 0.99 (0.65, 1.52) | | 31 | | 0.82 (0.41, 1.65) | | 43 | | 1.66 (0.88, 3.15) | |
| Dibromoacetic acid (DBAA)d | | | | | | | | | | | | |
| 0.00 | 110 | | Ref | | 50 | | Ref | | 60 | | Ref | |
| >0.00-14.72 | 20 | | 0.55 (0.32, 0.95) | | 12 | | 0.68 (0.30, 1.54) | | 8 | | 0.37 (0.15, 0.90) | |
| DBP9e | | | | | | | | | | | | |
| 0.00-30.66 | 20 | | Ref | | 12 | | Ref | | 8 | | Ref | |
| >30.66–59.96 | 22 | | 1.41 (0.45, 4.43) | | 10 | | 2.01 (0.33, 12.27) | | 12 | | 1.14 (0.21, 6.12) | |
| >59.96–78.69 | 33 | | 2.71 (0.87, 8.46) | | 18 | | 4.97 (0.83, 29.66) | | 15 | | 2.58 (0.46, 14.40) | |
| >78.69–96.32 | 25 | | 2.06 (0.64, 6.59) | | 9 | | 2.58 (0.39, 17.06) | | 16 | | 2.15 (0.40, 11.52) | |
| >96.32-166.20 | 30 | | 3.52 (1.07, 11.60) | | 12 | | 4.60 (0.72, 29.53) | | 18 | | 3.28 (0.60, 18.01) | |

Note: aOR = adjusted odds ratios; CI = confidence interval; DBP9 = sum of chloroform, BDCM, DBCM, bromoform, MCAA, DCAA, TCAA, MBAA, and DBAA; HAA5 = sum of MCAA, DCAA, TCAA, MBAA, and DBAA; *n* = sample size; REF = referent; THM4 = sum of chloroform, BDCM, DBCM, and bromoform; THMBr = sum of BDCM, DBCM, and bromoform; NE = not estimable.

aThe numbers represent the TOF case distribution across exposure groups prior to modeling and stratification.

bCleft palate & THM4/chloroform: Models adjusted for water source and treatment type, zip code income, trimester prenatal care began, maternal race, number of prenatal care visits, HAA5

cCleft palate & THMBr/BDCM/DBCM/bromoform: Models adjusted for water source and treatment type, census tract income, number of prenatal care visits, HAA5

dCleft palate & HAA5/TCAA/DCAA/MCAA/DBAA: Models adjusted for water source and treatment type, zip code income, maternal race, THM4

eCleft palate & DBP9: Models adjusted for water source and treatment type, zip code income, maternal race, number of prenatal care visits