

Supplemental Table S2. Metal concentrations from the studies using mixtures analysis methods

Source	Exposure matrix	Metal concentrations		
		Median (IQR)	Mean (SD)	GM (GSD)
Kupsco et al. 2019	Blood (µg/dL)		As: 0.085 (0.058) Cd: 0.029 (0.019) Co: 0.022 (0.024) Cr: 0.080 (0.128) Cs: 0.310 (0.135) Cu: 158 (32) Mn: 1.5 (0.50) Pb: 3.7 (2.7) Sb: 0.38 (0.10) Se: 25 (4.5) Zn: 613 (130)	
Warembourg et al. 2019	Blood (µg/L)	As: 1.2 (0.3, 2.3) Cd: 0.2 (0.1, 0.3) Co: 0.2 (0.1, 0.3) Cs: 1.6 (1.2, 2.1) Cu: 1420 (1270, 1610) Hg: 1.9 (1.0, 3.4) Mn: 11.1 (8.5, 14.3) Mo: 0.6 (0.5, 0.8) Pb: 9.7 (7.1, 13.2) Tl: 2.0 (2.0, 2.0)		
Zanobetti et al. 2020	Air (ng/m ³)		2-day average Al: 56.63 (36.33) Si: 85.60 (66.48) K: 40.27 (20.25) Ca: 33.33 (18.41) Ti: 3.91 (2.16) Fe: 73.40 (33.51) Mg: 58.09 (22.91) As: 0.62 (0.54) Cu: 3.69 (1.74) Zn: 13.78 (14.09) Br: 0.63 (1.35) Pb: 6.55 (4.12) V: 4.71 (3.35) Ni: 4.26 (3.76) Na: 208.34 (111.18) 7-day average Al: 57.61 (31.36) Si: 87.77 (59.24) K: 40.09 (13.54) Ca: 34.31 (13.94) Ti: 3.93 (1.51) Fe: 74.77 (23.90) Mg: 58.32 (15.05) As: 0.62 (0.30) Cu: 3.70 (1.02) Zn: 13.89 (7.66) Br: 0.60 (0.75) Pb: 6.60 (2.67) V: 4.79 (2.28) Ni: 4.42 (2.98) Na: 209.36 (76.19)	
Howe et al. 2021	Urine (µg/L for Co, Se, Mo, As,	Mg: 71.3 (50.5, 100.9) ^a Co: 0.46 (0.28, 1.01) ^a Se: 21.8 (17.3, 27.0) ^a Mo: 64.9 (50.5, 86.7) ^a		Mg: 66.9 (61.3, 72.9) ^a Co: 0.54 (0.48, 0.61) ^a Se: 21.72 (20.72, 22.77) ^a Mo: 65.26 (61.13, 69.66) ^a

	Cd, Sb, and Pb; mg/L for Mg)	As: 12.2 (5.2, 34.5) ^a Cd: 0.47 (0.30, 0.69) ^a Sb: 0.05 (0.04, 0.07) ^a Pb: 1.00 (0.69, 1.48) ^a	As: 15.21 (12.50, 18.49) ^a Cd: 0.45 (0.41, 0.50) ^a Sb: 0.05 (0.05, 0.06) ^a Pb: 0.92 (0.82, 1.04) ^a
Zhang et al. 2021	Blood (µg/dL)	Pb: 2.42 (1.65, 3.68) Hg: 2.15 (1.06, 3.70) Cd: 0.69 (0.46, 1.04) Se: 278.00 (248.00, 316.00) Mn: 37.30 (28.80, 48.00)	Pb: 3.29 (3.03) Hg: 3.15 (3.60) Cd: 0.86 (0.68) Se: 289.50 (60.49) Mn: 39.57 (15.28)

Al, Aluminum; As, Arsenic; Br, Bromine; Ca, Calcium; Cd, Cadmium; Co, Cobalt; Cr, Chromium; Cs, Cesium; Cu, Copper; Fe, Iron; GM, geometric mean; GSD, geometric standard deviation; Hg, Mercury; IQR, interquartile range; K, Potassium; Mg, Magnesium; Mn, Manganese; Mo, Molybdenum; Na, Sodium; Ni, Nickel; Pb, Lead; Sb, Antimony; SD, standard deviation; Se, Selenium; Si, Silicon; Ti, Titanium; Tl, Thallium; V, Vanadium; Zn, Zinc

^a Specific gravity-adjusted median or geometric mean