

Table 2.
Levels of Metals^a (µg/L)^b in Urine and Blood of People Living in the United States and People Living in Churchill County, Nevada

Metal	United States ^c		Churchill County		Comparison
	Geometric Mean (95% Confidence Interval) ^d	95 th Percentile	Geometric Mean (95% Confidence Interval)	% > U.S. 95 th or Health Value	
Antimony	0.11 (0.10–0.13)	0.41 (0.39–0.46)	0.15 (0.14–0.16)	4.4	H ^e
Arsenic	NA ^f	50.0 ^g	34.61 (28.07–42.68)	34.0 ^g	H
Barium	1.15 (0.96–1.38)	6.60 (6.0–8.30)	2.45 (2.10–2.85)	14.3	H
Cadmium (urine)	0.33 (0.31–0.35)	2.0 ^h	0.31 (0.28–0.34)	0.0	— ⁱ
Cadmium (blood)	0.41 (0.39–0.44)	5.0 ^h	NC ⁱ	0.0	L ^k
Cesium	4.34 (4.06–4.63)	11.40 (10.30–12.50)	5.98 (5.43–6.58)	11.8	H
Chromium	NA	NA	NC	NA	NA
Cobalt	0.37 (0.35–0.40)	1.32 (1.16–1.45)	0.56 (0.50–0.62)	7.4	H
Lead (urine)	0.76 (0.71–0.81)	25.0 ^h	0.68 (0.61–0.76)	0.0	—
Lead (blood)	1.66 (1.58–1.73)	10.0 ^g	1.11 (1.02–1.21)	0.0	L
Manganese	NA	NA	0.73 (0.67–0.80)	NA	NA
Mercury (urine)	0.72 (0.64–0.81)	20.0 ^g	0.38 (0.32–0.44)	0.0	L
Mercury (blood)	0.34 (0.30–0.39) 1-5 yrs	10.0 ^g	0.32 (0.22–0.45)	0.0	—
	1.02 (0.81–1.22) 16-49 yrs		0.76 (0.65–0.88)	0.0	
Molybdenum	34.3 (29.4–40.1)	174 (153–201)	62.14 (53.52–72.15)	9.9	H
Nickel	NA	5.0 ^l	NC	3.5	L
Selenium (serum)	NA	179.0 ^m	121.02 (118.56–123.50)	0.0	L
Thallium	0.17 (0.16–0.18)	0.45 (0.42–0.47)	0.16 (0.15–0.18)	2.0	—
Tungsten	0.08 (0.07–0.09)	0.48 (0.41–0.55)	1.19 (0.89–1.59)	68.5	H
Uranium	0.007 (0.006–0.008)	0.05 (0.04–0.05)	0.02 (0.02–0.03)	23.7	H

- a Urine levels are noncreatinine adjusted. Blood levels are not lipid-adjusted.
- b Micrograms per liter
- c U.S. values are from the *Second National Report on Human Exposure to Environmental Chemicals*, 2003.
- d The interval of numbers in which we are 95% assured the value is contained.
- e The lower boundary of the Churchill County confidence interval (CI) was higher than the upper boundary of the CI for the U.S. level or, b) more than 10% of the Churchill County participants had a value above the U.S. 95th percentile.
- f Not available. This metal was not included in the *Second National Report on Human Exposure to Environmental Chemicals*, 2003.
- g Goldfrank L. *Goldfrank's Toxicologic Emergencies* 7th ed. 2002. McGraw Hill; New York and Haddad L, Shannon M, Winchester J. *Haddad's Clinical Management of Poisoning and Drug Overdose*. 3rd ed. 1998. WB Saunders Company; Philadelphia.
- h Lauwerys R, Hoet P. In *Industrial Chemical Exposure: Guidelines for Biological Monitoring* 3rd ed. 2001. Lewis Publishers; Boca Raton, Florida.
- i The Churchill County geometric mean is consistent with national estimates.
- j Not Calculated was used when less than 60% of the study population had detectable levels of this chemical.
- k The upper boundary of the Churchill County CI was below the lower boundary of the CI for the U.S. level and b) less than 10% of the Churchill County participants had a value above the U.S. 95th percentile.
- l White M, Sabbioni E. Trace element reference values in tissues from inhabitants of the European Union. *Sci Total Environ* 1998;216:253-70.
- m Hogberg, J. Selenium. In *Handbook on the Toxicology of Metals*. 2nd ed.; 1986.