

Supplemental Material: Environmental metal exposures and kidney function of Guatemalan sugarcane workers

Supplement Table 1: Comparison of demographics and clinical data among the study populations at all three time points.

Variables	November, n=208	January, n=83	July, n=49	p-value
	Mean (SD)			
Baseline Age, years	29 (8)	29 (7)	30 (10)	0.91
Baseline BMI, mg/kg ²	23 (2)	23 (2) ^B	24 (3) ^C	0.71
Baseline HbA1c, %	5.4 (0.3)	5.4 (0.3)	5.4 (0.4) ^C	0.26
Baseline systolic blood pressure, mmHg	106 (10)	105 (10) ^B	109 (11) ^C	0.10
Baseline diastolic blood pressure, mmHg	71 (9)	68 (8) ^B	73 (8) ^C	0.01
	N (%)			
Local home of residence (vs. highland)	99 (48%)	44 (53%)	31 (63%)	0.13
Baseline diabetic (≥ 6.5% HbA1c)	1 (1%)	0	1 (1%) ^C	-
Baseline hypertensive	5 (2%)	0 ^B	0 ^C	-
Baseline self-reported current smoker (vs. former/never)	25 (12%)	9 (12%) ^B	7 (16%)	0.81
Recently smoked (≥ 50 ng/mL cotinine concentration) ^A	69 (34%)	25 (30%)	N/A	0.64

^A Measured in only in November and January. ^B N=73. ^C N=45.

Supplement Table 2: Overall relationships based on spearman's correlation coefficient between metals (µg/L), cotinine, and renal biomarkers, n=340.

	Cadmium	Nickel	Cotinine ^A	eGFR	NGAL ^A	Alb ^A
Arsenic	0.76**	0.58**	0.03	-0.08	0.55**	0.16**
Cadmium		0.65**	-0.02	-0.12*	0.54**	0.34**
Nickel			-0.01	0.03	0.48**	0.20**
Cotinine				-0.06	0.01	-0.10
eGFR					-0.18**	-0.02
NGAL						0.11

eGFR: estimated glomerular filtration rate; NGAL: urine neutrophil gelatinase-associated lipocalin; Alb: urine albumin.

^A N=283

** p-value < 0.01 * p-value < 0.05.