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## **Supplemental Material**

# **Association of Dietary Intake and Biomarker Levels of Arsenic, Cadmium, Lead, and Mercury among Asian Populations in the U.S.: NHANES 2011–2012**

Hiroshi Awata, Stephen Linder, Laura E. Mitchell, and George L. Delclos

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Table S1 - Per Capita Intake of Food (g-food/kg-BW/day) Across Race and Ethnic Groups

Food Category	Non-Hispanic White N=2153				Non-Hispanic Black N=1738				Mexican American N=788				Other Hispanic N=636				Non-Hispanic Asian N=785								
	(%) <sup>a</sup>	Mean	SE	Percentile		(%) <sup>a</sup>	Mean	SE	Percentile		(%) <sup>a</sup>	Mean	SE	Percentile		(%) <sup>a</sup>	Mean	SE	Percentile						
				50 <sup>th</sup>	95 <sup>th</sup>				50 <sup>th</sup>	95 <sup>th</sup>				50 <sup>th</sup>	95 <sup>th</sup>				50 <sup>th</sup>	95 <sup>th</sup>					
Vegetables	(100.0)	3.69	0.123	3.06	8.30	(100.0)	3.07	0.080	2.41	7.66	(100.0)	3.55	0.080	3.05	7.52	(100.0)	3.41	0.168	2.75	8.13	(100.0)	4.63	0.115	4.14	10.16
Fruits	(98.6)	3.00	0.124	2.04	9.05	(98.7)	2.85	0.108	1.81	9.58	(98.3)	3.51	0.172	2.28	12.08	(98.4)	3.70	0.238	2.53	11.18	(99.4)	3.90	0.229	2.80	11.39
Mushroom	(19.9)	0.05	0.005	--	0.31	(11.6)	0.03	0.004	--	0.18	(14.6)	0.03	0.006	--	0.18	(13.1)	0.04	0.007	--	0.24	(32.0)	0.11	0.016	--	0.57
Nuts	(59.4)	0.12	0.014	<0.01	0.61	(52.2)	0.07	0.011	<0.01	0.31	(54.3)	0.07	0.008	<0.01	0.33	(47.5)	0.16	0.073	--	0.34	(64.7)	0.24	0.040	0.02	0.87
Herbs/Spices	(98.5)	0.01	0.001	0.01	0.03	(96.7)	0.01	0.001	0.01	0.04	(95.5)	0.02	0.001	0.01	0.04	(93.8)	0.02	0.002	0.01	0.05	(94.5)	0.01	0.001	0.01	0.04
Cereal Grains	(100.0)	2.98	0.055	2.53	6.55	(100.0)	2.97	0.090	2.37	7.15	(100.0)	3.60	0.126	3.26	7.55	(99.2)	3.11	0.151	2.64	7.07	(100.0)	3.40	0.080	3.07	6.77
Rice, white	(42.8)	0.23	0.016	--	1.01	(44.5)	0.29	0.029	--	1.29	(52.9)	0.32	0.022	0.02	1.36	(70.8)	0.53	0.048	0.42	1.71	(84.3)	1.09	0.034	0.97	2.73
Rice, brown	(12.2)	0.04	0.006	--	0.22	(8.4)	0.05	0.010	--	0.28	(8.7)	0.03	0.007	--	0.08	(9.6)	0.05	0.012	--	0.47	(20.4)	0.14	0.022	--	0.90
Beef	(86.4)	0.85	0.044	0.63	2.62	(86.9)	0.80	0.071	0.51	2.56	(86.5)	1.10	0.093	0.78	3.40	(79.0)	0.84	0.062	0.55	2.60	(76.8)	0.79	0.053	0.34	3.00
Pork	(79.6)	0.43	0.023	0.21	1.54	(80.7)	0.45	0.040	0.24	1.67	(85.5)	0.44	0.021	0.28	1.29	(78.1)	0.43	0.033	0.23	1.56	(71.3)	0.56	0.055	0.15	2.08
Poultry	(72.4)	0.93	0.031	0.75	3.00	(84.3)	1.25	0.031	1.03	3.55	(76.4)	1.09	0.049	0.80	3.19	(76.2)	1.26	0.092	1.00	3.72	(82.2)	1.23	0.074	0.98	3.87
Other Meat	(13.9)	0.02	0.004	--	0.01	(21.3)	0.02	0.010	--	0.02	(12.2)	0.02	0.014	--	0.01	(12.8)	0.03	0.018	--	0.01	(16.8)	0.04	0.008	--	0.02
Fish	(28.9)	0.36	0.046	--	1.94	(32.9)	0.47	0.063	--	2.54	(26.9)	0.43	0.052	--	2.80	(28.3)	0.43	0.075	--	2.61	(52.9)	0.84	0.058	0.01	3.52
Fish-freshwater	(6.2)	0.07	0.015	--	0.03	(7.4)	0.11	0.023	--	0.60	(2.9)	0.05	0.019	--	--	(8.1)	0.08	0.030	--	0.05	(16.5)	0.15	0.027	--	1.37
Fish-saltwater	(18.1)	0.20	0.032	--	1.37	(20.0)	0.29	0.039	--	1.80	(16.8)	0.27	0.049	--	1.81	(16.7)	0.23	0.055	--	1.53	(40.5)	0.58	0.062	--	3.09
Fish-shellfish	(11.4)	0.12	0.016	--	0.79	(13.8)	0.11	0.021	--	0.77	(13.2)	0.13	0.033	--	0.71	(12.6)	0.14	0.040	--	0.92	(27.3)	0.25	0.038	--	1.46
Dairy	(99.9)	4.17	0.134	2.63	13.66	(99.8)	2.69	0.216	1.36	9.98	(100.0)	4.70	0.203	3.07	14.60	(99.9)	4.04	0.192	2.46	12.11	(99.2)	3.85	0.207	2.09	13.72
Egg	(95.3)	0.38	0.017	0.17	1.40	(96.8)	0.38	0.019	0.19	1.43	(94.8)	0.57	0.033	0.30	1.87	(93.3)	0.50	0.039	0.19	1.83	(90.8)	0.47	0.017	0.26	1.67
Oil	(99.9)	0.06	0.002	0.04	0.18	(100.0)	0.06	0.003	0.04	0.19	(100.0)	0.07	0.006	0.04	0.23	(99.2)	0.04	0.003	0.03	0.12	(99.9)	0.05	0.003	0.03	0.14

Units are presented in g-food/kg-body weight/day. <sup>a</sup> Individuals who consumed any food commodities within food category were identified as Consumer. -- Not calculated due to high frequency of non-detected results (below limit of detection). SE - Standard Error, BW- Body Weight.

Table S2 - Per Capita Intake of Food (g-food/kg-BW/day) Across Asian Subgroups

Food Category	Chinese					Asian Indian					Other Asian				
	(%) <sup>a</sup>	Mean	SE	Percentile		(%) <sup>a</sup>	Mean	SE	Percentile		(%) <sup>a</sup>	Mean	SE	Percentile	
				50 <sup>th</sup>	95 <sup>th</sup>				50 <sup>th</sup>	95 <sup>th</sup>				50 <sup>th</sup>	95 <sup>th</sup>
Vegetables	(100.0)	5.62	0.316	5.22	10.45	(100.0)	4.63	0.344	4.19	8.37	(100.0)	4.35	0.152	3.65	10.21
Fruits	(99.4)	5.20	0.564	4.40	12.28	(100.0)	3.72	0.424	2.76	9.57	(99.2)	3.59	0.260	2.71	11.06
Mushroom	(45.0)	0.15	0.028	--	0.67	(25.9)	0.06	0.013	--	0.28	(30.5)	0.12	0.023	--	0.57
Nuts	(48.6)	0.10	0.016	--	0.52	(76.2)	0.23	0.049	0.08	0.82	(65.3)	0.28	0.053	0.02	1.25
Herbs/Spices	(91.3)	0.01	0.002	0.01	0.05	(95.7)	0.01	0.002	0.01	0.06	(94.9)	0.01	0.001	0.01	0.03
Cereal Grains	(100.0)	3.16	0.176	2.80	5.65	(100.0)	3.65	0.173	3.31	7.48	(100.0)	3.38	0.107	3.07	6.77
Rice, white	(90.8)	1.03	0.067	0.99	2.20	(77.5)	1.09	0.091	0.96	2.75	(84.9)	1.11	0.062	0.95	2.79
Rice, brown	(17.4)	0.09	0.051	--	0.36	(27.4)	0.16	0.028	--	1.33	(18.8)	0.15	0.029	--	0.84
Beef	(77.7)	0.90	0.130	0.50	2.98	(59.6)	0.34	0.058	<0.01	2.08	(82.6)	0.92	0.095	0.56	3.36
Pork	(83.1)	0.95	0.115	0.72	2.63	(56.4)	0.07	0.010	<0.01	0.35	(73.2)	0.61	0.064	0.23	2.05
Poultry	(79.6)	1.18	0.161	0.97	3.59	(69.7)	1.05	0.187	0.50	3.53	(87.3)	1.30	0.064	1.11	3.96
Other Meat	(20.1)	0.01	0.012	--	0.02	(10.1)	0.08	0.033	--	0.18	(18.2)	0.03	0.008	--	0.01
Fish	(59.4)	0.86	0.107	0.29	3.59	(31.4)	0.51	0.166	--	3.04	(58.7)	0.95	0.085	0.27	3.51
Fish-freshwater	(19.5)	0.15	0.036	--	1.40	(11.9)	0.08	0.040	--	0.52	(17.3)	0.17	0.040	--	1.38
Fish-saltwater	(44.9)	0.55	0.067	--	3.24	(24.8)	0.43	0.170	--	3.04	(44.7)	0.63	0.071	--	3.07
Fish-shellfish	(38.5)	0.35	0.105	--	1.71	(11.1)	0.03	0.014	--	0.19	(29.8)	0.30	0.047	--	1.56
Dairy	(100.0)	4.14	0.452	2.71	11.61	(98.4)	5.83	0.622	3.51	20.23	(99.3)	3.07	0.217	1.73	11.69
Egg	(95.4)	0.66	0.061	0.34	2.07	(81.4)	0.37	0.052	0.14	1.31	(92.8)	0.45	0.013	0.25	1.43
Oil	(100.0)	0.06	0.008	0.04	0.18	(100.0)	0.04	0.005	0.03	0.11	(99.8)	0.05	0.003	0.03	0.14

Units are presented in g-food/kg-body weight/day. <sup>a</sup> Individuals who consumed any food commodities within food category were identified as Consumer. -- Not calculated due to high frequency of non-detected results (below limit of detection). SE - Standard Error, BW- Body Weight.

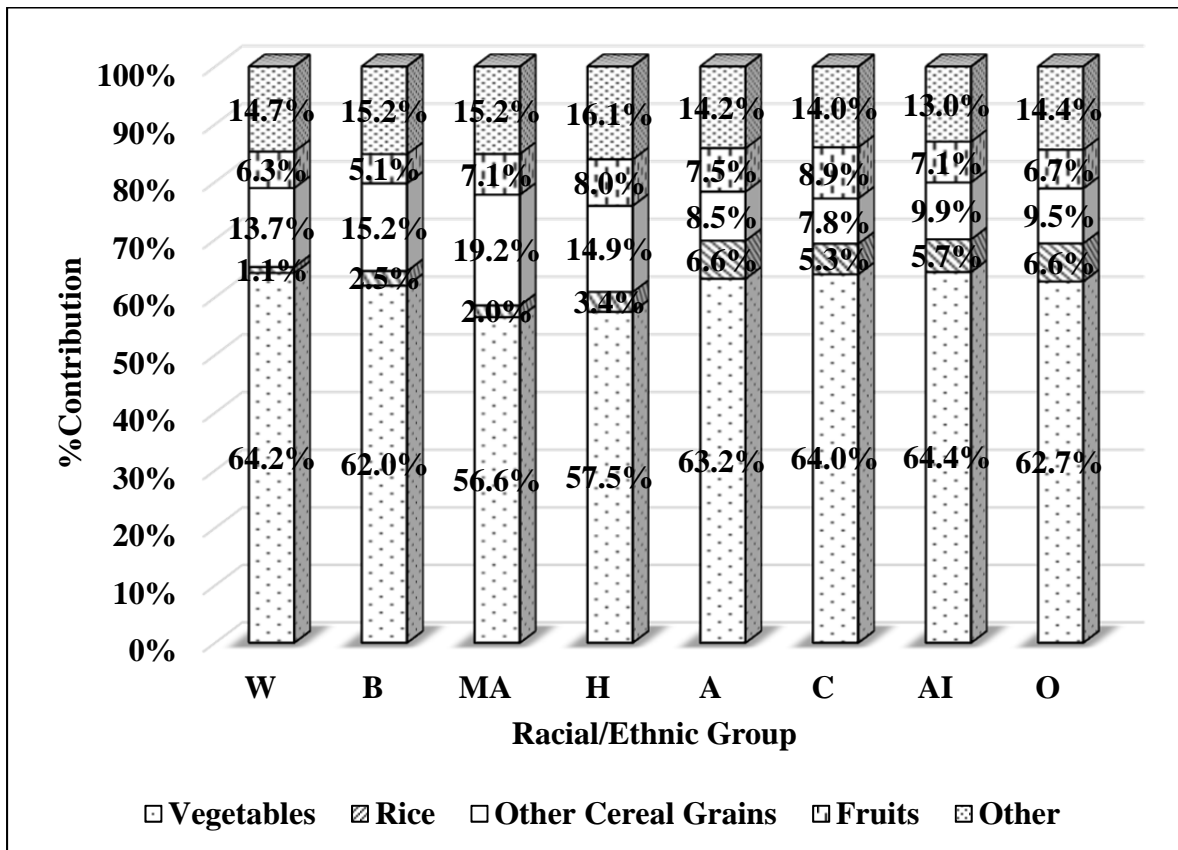


Figure S1. Food-category-specific %contribution to dietary cadmium intake by race/ethnicity

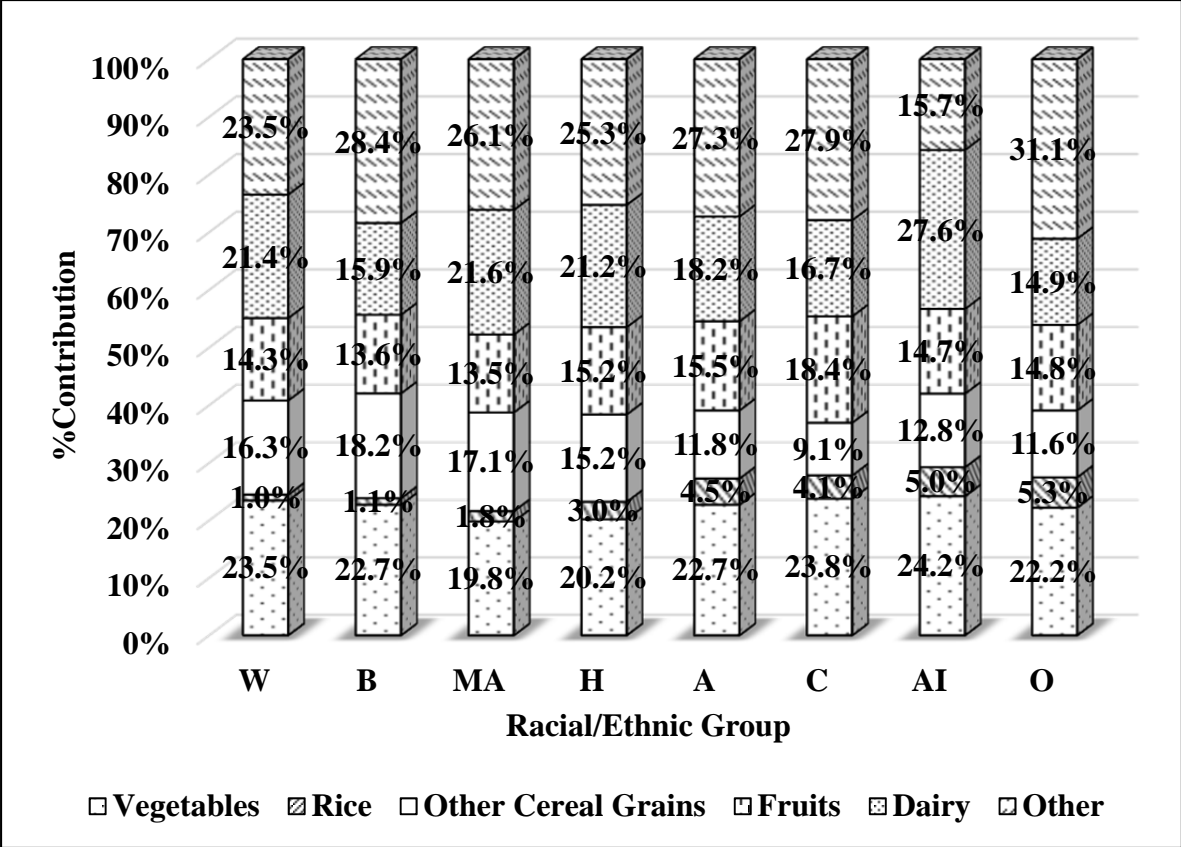
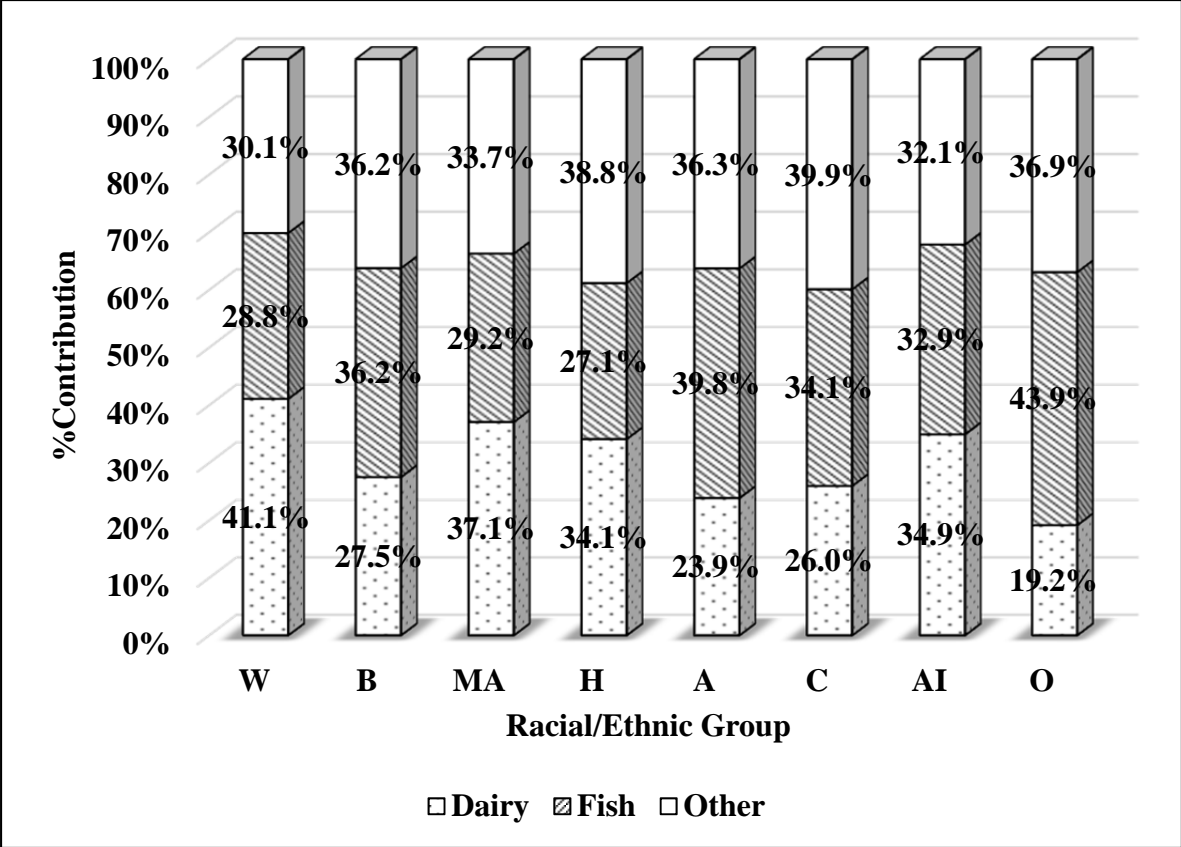


Figure S2. Food-category-specific %contribution to dietary lead intake by race/ethnicity



**Figure S3. Food-category-specific %contribution to dietary mercury intake by race/ethnicity**