

Supplementary Materials: Biomonitoring of Urinary Benzene Metabolite SPMA in the General Population in Central Italy

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Table S1. Urinary SPMA concentrations (µg/L).

Group	N.	Geometric mean (GSD)	5 th percentile	50 th percentile	95 th percentile	Min-Max
All subjects	1076	0.144 (7.861)	< LOD	0.170	3.626	< LOD–14.450
Smokers						
All	296	1.072 (4.699)	0.066	1.498	6.401	< LOD–14.450
Gender	Males	117	0.691 (4.669)	0.053	0.710	< LOD–15.487
	Females	179	1.120 (4.612)	0.078	1.505	< LOD–11.917
Age group (years)	35–44	78	0.800 (4.699)	0.052	1.101	< LOD–10.972
	45–54	93	0.806 (4.729)	0.069	0.967	< LOD–9.887
	55–64	90	1.262 (4.392)	0.107	1.701	< LOD–15.487
	>65	35	0.841 (5.283)	0.081	1.259	< LOD–11.917
Occupation	Employed	173	0.767 (4.628)	0.06	0.940	< LOD–15.487
	Unemployed	19	0.846 (7.116)	< LOD	0.979	< LOD–7.948
	Housewives	58	1.533 (4.827)	0.095	2.447	< LOD–11.917
	Retired	46	0.785 (4.245)	0.102	1.103	< LOD–5.702
Non Smokers						
All	780	0.068 (5.236)	< LOD	0.097	0.699	< LOD–2.667
Gender	Males	344	0.059 (5.522)	< LOD	0.088	< LOD–2.667
	Females	436	0.075 (4.985)	< LOD	0.103	< LOD–2.380
Age group (years)	35–44	155	0.059 (5.475)	< LOD	0.079	< LOD–1.480
	45–54	242	0.058 (5.479)	< LOD	0.089	< LOD–1.283
	55–64	233	0.081 (4.668)	< LOD	0.115	< LOD–2.380
	>65	150	0.075 (5.400)	< LOD	0.098	< LOD–2.667
Occupation	Employed	403	0.061 (5.399)	< LOD	0.094	< LOD–1.283
	Unemployed	34	0.080 (5.224)	< LOD	0.117	< LOD–1.480
	Housewives	159	0.077 (4.471)	< LOD	0.099	< LOD–1.463
	Retired	184	0.080 (5.149)	< LOD	0.105	< LOD–2.667

Table S2. Summary of the population studies published from the year 2011.

Subjects	SPMA	Analytical technique	Country	Reference
395 Children	Mean (SD) 0.62 (0.56); 5–95th perc. 0.11–1.83; GM 0.44; Range (0.06–4.35)	HPLC-MS/MS µg/g creatinine	Italy	[1]

Women non smoking	GM 0.12; Range (0.10–0.14)	HPLC-MS/MS µg/g creatinine	China	[2]
99 aged 45–54				
125 aged 55–64	GM 0.12; Range (0.10–0.13)			
104 aged 65–74	GM 0.13; Range (0.12–0.15)			
All: 220	Mean 1.3; Median 1.0; 95th perc. 8.1; GM 1.0; Range (0.1–9.6)			
141 Non-smokers	Mean 0.6; Median 0.5; 95th perc. 7.2; GM 0.3; Range (0.1–8.2)			
79 Smokers	Mean 2.1; Median 1.6; 95th perc. 9.0; GM 1.7; Range (0.8–9.6)			
111 Females	Mean 1.4; Median 1.3; 95th perc. 8.2; GM 1.2; Range (0.1–9.6)	HPLC-MS/MS µg/L	Africa	[3]
109 Males	Mean 1.1; Median 0.9; 95th perc. 8.0; GM 0.9; Range (0.1–9.0)			
50 aged 6–14	Mean 0.8; Median 0.6; 95th perc. 7.0; GM 0.4; Range (0.1–8.2)			
170 aged >14	Mean 1.9; Median 1.5; 95th perc. 9.3; GM 1.6; Range (0.1–9.6)			
All: 103	Mean 0.54; Median <0.10 5 - 95th perc. <0.10–3.83	HPLC-MS/MS µg/L	Italy	[4]

GM: geometric mean

Table S3. Summary of the occupational exposure studies published from the year 2011 (data of controls).

Controls	SPMA	Analytical technique	Country	Reference
All: 108	Median <0.10; 5–95th perc. <0.10–1.79	HPLC-MS/MS µg/g creatinine	Italy	[5]
Non-smokers: 65	Median <0.10; 5–95th perc. <0.10–0.18			
Smokers: 43	Median 0.24; 5–95th perc. <0.10–1.89			
All: 31	Mean (SD) 0.65 (1.00) Median 0.22; Range (0.03–4.48)	HPLC-MS/MS µg/g creatinine	Italy	[6]
All: 65	Median 0.2; Range (<0.1–0.3)	HPLC/MS µg/L	Italy	[7]
Non-smokers: 51	Median 0.1; Range (<0.1–0.2)			
Smokers: 14	Median 0.5; Range (<0.2–1.5)			

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