Table S1: Input values for deterministic and probabilistic (Monte Carlo analysis) estimates of lead exposure

Pathway / Symbol	Description (units)	Population	Central	High	Deterministic Source	Distribution	Geometric Mean[a]	Geometric St. Dev.[a]	Probabilistic Source
Soil and soil in dust ingestion									
IR_{Soil}	Soil ingestion rate (mg/day)	Child	50	200	US EPA (2011); adult high estimates based on child high:central ratios	Lognormal	31	2.7	Mean: US EPA (2011); St. Dev.: Williams et al. (2013), van Holderbeke et al. (2008), Ozkaynak et al. (2011)
		Adult gardener	20	80			12	2.7	
		Adult household member	-	-			-	-	
F_{Dust}	Fraction of dust that is garden soil (mg/mg)		0.4	-	Adjusted down by 20% from NYS DEC&DOH 2006; based on Chaney and Mielke, 1986; Allott et al., 1992; Trowbridge and Burmaster, 1997	Point estimate	0.4		Adjusted down by 20% from NYS DEC&DOH 2006; based on Chaney and Mielke, 1986; Allott et al., 1992; Trowbridge and Burmaster, 1997
IR_{Dust}	Dust ingestion rate (mg/day)	Child	60	100	US EPA (2011); adult high estimates based on child high:central ratios	Lognormal	21	4.3	Mean: US EPA (2011); St. Dev.: Williams et al. (2013), Ozkaynak et al. (2011)
		Adult gardener	30	50			10	4.3	
		Adult household member	30	50			10	4.3	
C_{PbSoil}	Lead concentration in garden soil (mg/kg)	Child	444	-	Mitchell et al. (2014) (non-beds, 95% UCL on mean)	Lognormal	207	2.6	Mitchell et al. 2014 (mean non-bed soil)
		Adult gardener	202	-	Mitchell et al. (2014) (508 beds, 95% UCL on mean)		101	2.6	Mitchell et al. 2014 (508 garden bed soil samples)
$C_{PbSoil\text{-}Dust}$	Lead concentration in tracked-in soil (mg/kg) (soil that contributes to indoor dust)	Child	444	-	Mitchell et al. (2014) (non-beds, 95% UCL on mean)	Lognormal	207	2.6	Mitchell et al. 2014 (mean non-bed soil)
		Adult gardener	444	-			207	2.6	
		Adult household member	444	-			207	2.6	
EF_{Soil}	Soil exposure frequency (days/year)	Child	62	186	31 week growing season, 2 d/wk (central) or 6 d/wk (high)	Lognormal	62	2.0	NYSDEC/DOH (2006); Gregory, M, unpublished data / proposed distribution with P95 = 186 d/yr = 6 d/wk
		Adult gardener	62	186	NYSDEC/DOH (2006); Gregory, M, unpublished data		62	2.0	
		Adult household member	-	-			-	-	
EF_{Dust}	Dust exposure frequency (days/year)	Child	217	-	31 week growing season (NYSDEC/DOH, 2006), 7 d/wk	Point estimate	217		31 week growing season (NYSDEC/DOH, 2006), 7 d/wk
		Adult gardener	217	-			217		
		Adult household member	217	-			217		
Produce consumption									
BW	Body weight (kg)	Child (6 to < 11 years)	32	-	US EPA (2011), Table 8-1	Lognormal	29.3	1.3	US EPA 2011, Table 8-3, fitted distributions
		Adult gardener (50-59 years)	80	-	Recommended weights for adult, child 6 - <11 years		80.8	1.3	Age range for gardener = median from Healthy Soils survey; for child = mean & median reported in survey
		Adult household member (40-49 years)	80	-			81.4	1.3	
IR_{Fruit}	Fruiting vegetable consumption rate (mg/kg-day)	Child	110	1024	Survey median & 95th percentile for 46 gardeners, 47 adult household members & 13 children.	Lognormal	134	4.9	Survey median & 95th percentile of **consumers only** among the 46 gardeners, 47 adult household members & 13 children.
		Adult gardener	348	2678			353	4.8	
		Adult household member	196	1483			226	3.2	
IR_{Leafy}	Leafy vegetable consumption rate (mg/kg-day)	Child	62	440	Survey median & 95th percentile for 46 gardeners, 47 adult household members & 13 children.	Lognormal	195	2.4	Survey median & 95th percentile of **consumers only** among the 46 gardeners, 47 adult household members & 13 children.
		Adult gardener	165	818			220	3.2	
		Adult household member	69	596			127	2.8	
IR_{Root}	Root vegetable consumption rate (mg/kg-day)	Child	3	233	Survey median & 95th percentile for 46 gardeners, 47 adult household members & 13 children.	Lognormal	21	8.6	Survey median & 95th percentile of **consumers only** among the 46 gardeners, 47 adult household members & 13 children.
		Adult gardener	39	335			85	3.1	
		Adult household member	7	297			45	4.0	
IR_{Herb}	Herb consumption rate (mg/kg-day)	Child	1	103	Survey median & 95th percentile for 46 gardeners, 47 adult household members & 13 children.	Lognormal	4	7.8	Survey median & 95th percentile of **consumers only** among the 46 gardeners, 47 adult household members & 13 children.
		Adult gardener	10	143			39	3.4	
		Adult household member	0	57			11	4.2	
$C_{PbFruit}$	Fruiting vegetable Pb concentration (µg/kg fw)		23	-	McBride et al. (2014) - vegetables from NYC community gardens (fruiting n = 67; leafy n = 53, root n = 23; herb n = 16) (95% UCL on mean)	Lognormal	11	2.1	McBride et al. (2014) - vegetables from NYC community gardens (fruiting n = 67; leafy n = 53, root n = 23; herb n = 16)
$C_{PbLeafy}$	Leafy vegetable Pb concentration (µg/kg fw)		169	-		Lognormal	68	2.4	
C_{PbRoot}	Root vegetable Pb concentration (µg/kg fw)		643	-		Lognormal	111	3.5	
C_{PbHerb}	Herb Pb concentration (µg/kg fw)		724	-		Lognormal	293	2.3	
FC_{Fruit}	Fraction of population consuming garden-grown fruiting vegetables	Child	-	-		Point estimate	1.0		Survey responses for 46 gardeners, 47 adult household members, & 13 children
		Adult gardener	-	-			1.0		
		Adult household member	-	-			0.89		
FC_{Leafy}	Fraction of population consuming garden-grown leafy vegetables	Child	-	-		Point estimate	0.62		Survey responses for 46 gardeners, 47 adult household members, & 13 children
		Adult gardener	-	-			0.83		
		Adult household member	-	-			0.68		
FC_{Root}	Fraction of population consuming garden-grown root vegetables	Child	-	-		Point estimate	0.62		Survey responses for 46 gardeners, 47 adult household members, & 13 children
		Adult gardener	-	-			0.67		
		Adult household member	-	-			0.55		
FC_{Herb}	Fraction of population consuming garden-grown herbs	Child	-	-		Point estimate	0.69		Survey responses for 46 gardeners, 47 adult household members, & 13 children
		Adult gardener	-	-			0.61		
		Adult household member	-	-			0.51		
Egg consumption									
IR_{Egg}	Egg consumption rate (mg/kg-day)		480	1690	US EPA (2011), Table 13-40 (median and 95th percentile)	Lognormal	470	2.3	US EPA (2011) Exposure Factors Handbook, Table13-40
$C_{PbSoil\text{-}Egg}$	Lead concentration in chickens' soil (mg/kg)		428	-	Mitchell et al. (2014) (non-beds, 95% UCL on mean)	Lognormal	207	2.6	Mitchell et al. 2014 (mean non-bed soil)
C_{PbEgg}	Egg lead concentration (µg/kg fw)		40	-	Estimated using 95% UCL on mean non-bed soil from Mitchell et al. (2014) and soil/egg relationship based on Spliethoff et al. (2013)	Calculated as $\log(C_{PbEgg}) = 0.95 * \log(C_{PbSoil\text{-}Egg}) - 0.90$			Calculated from non-bed soil concentration using soil/egg relationship based on Spliethoff et al. (2013)
FC_{Egg}	Fraction of population consuming garden-raised eggs		-	-		Point estimate	0.04		% of NYC community gardens that report having chickens (Gittelman et al., 2010)

[a] Lognormal distributions are defined by geometric mean and geometric standard deviation (based on the arithmetic mean and standard deviation of the normal probability distribution for the log transformed values).