

SUPPLEMENTARY MATERIAL

Table S1. Cigarettes per day (CPD), urinary trans-3'-hydroxy-cotinine (3OH-cotinine) [$\mu\text{g/L}$], and correlations of $\ln(\text{CPD})$ and 3-OH-cotinine in subgroups

	Men						Women					
	n	CPD ^b	IQR	3OH-cotinine ^b	IQR	r ^a	n	CPD ^b	IQR	3OH-cotinine ^b	IQR	r ^a
Total	437	20	12-25	6146	3521-10,524	0.34	386	19	10-20	4815	2418-9692	0.32
Age group												
<50	80	20	15-25	7372	4596-10,871	0.42	87	20	15-22	4874	2265-9451	0.34
50-59	191	20	15-30	7184	3921-11,898	0.25	194	19	10-20	4815	2722-9976	0.26
60-69	136	19	10-25	5071	2861-8482	0.37	84	15	9-20	5743	2418-10,041	0.37
>=70	30	11	6-20	4059	2160-7585	0.41	21	10	5-15	2608	1106-4170	0.51
ISEI												
High	85	19	10-30	5939	3593-10,854	0.49	71	19	10-25	4950	2359-8950	0.38
Intermediate	249	20	12-25	6346	3644-10,376	0.30	231	19	10-20	4713	2509-9802	0.36
Low	99	20	11-25	5765	2826-9619	0.32	77	19	10-20	4874	2053-9825	0.16
Missing	4	18	14-25	9026	4235-10,606		7	20	18-20	4494	3979-11,459	
Blue-/white-collar												
White collar	239	20	12-30	6819	3666-10,834	0.37	320	19	10-20	4707	2374-9437	0.33
Blue collar	192	20	12-25	5583	3314-9370	0.33	59	19	12-25	5869	2788-10,497	0.24
Missing	6	18	15-20	9026	3644-11,554		7	20	18-20	4494	3979-11,459	
Education												
>=18 years	34	20	10-30	7758	4080-12,267	0.40	24	20	9-20	2363	1636-6906	0.47
14-17 years	107	20	15-25	6334	3567-11,304	0.39	50	17	10-20	4841	2258-8647	0.36
11-13 years	262	20	12-25	6134	3418-10,001	0.33	256	19	10-20	4707	2628-9455	0.33
<=10 years	33	20	15-30	4996	3719-7874	0.29	56	19	11-20	6808	2510-11,825	0.23
Missing	1						0					

IQR – interquartile range, CI – confidence interval, ISEI – International Socio-Economic Index of occupational status

^a Pearson correlation coefficient for $\ln(\text{CPD})$ and trans-3'-hydroxy-cotinine

^b Median

Table S2. Estimated parameters of a multiple linear regression model for potential predictors of urinary trans-3'-hydroxy-cotinine [$\mu\text{g/L}$] in current smokers

Men (n=395 ^a)	$\hat{\beta}$	95% LCL ^b	95% UCL ^b	adjusted R ²
Intercept	-1401.54	-6322.51	3519.42	0.309
Ln(cigarettes per day)	2586.03	1917.75	3254.31	
Age [years/10]	-660.77	-1329.41	7.86	
Creatinine in urine [mg/L]	3.86	3.09	4.63	
ISEI ^c	34.17	-224.46	292.79	
Women (n=341 ^a)				
Intercept	-1820.41	-7228.33	3587.51	0.350
Ln(cigarettes per day)	2625.94	1874.46	3377.43	
Age [years/10]	-565.11	-1319.34	189.11	
Creatinine in urine [mg/L]	5.03	4.14	5.93	
ISEI ^c	-125.13	-406.40	156.13	

^a 42 men and 45 women excluded because of missing values

^b Lower and upper confidence limit

^c International Socio-Economic Index of occupational status, continuous variable with range divided by 10: 1 (low) to 9 (high)

Table S3. Variations of the multiple linear regression model for potential predictors^a of urinary cotinine [µg/L] in current smokers

	Men				Women			
	$\hat{\beta}$	95% LCL	95% UCL	Adjusted R ²	$\hat{\beta}$	95% LCL	95% UCL	Adjusted R ²
Including weight				0.339				0.335
Including body mass index				0.335				0.334
Including ratio 3OH-cotinine/cotinine				0.396				0.415
Removing creatinine				0.183				0.168
Standardising cotinine by creatinine (instead adjustment)				0.167				0.212
Replacing cotinine with ln(cotinine)				0.280				0.348
Replacing ISEI with education				0.333				0.333
Intercept	484.78	-2154.97	3124.52		1423.28	-1372.97	4219.53	
ln(Cigarettes per day)	1313.90	1022.79	1605.01		1386.21	1056.90	1715.51	
Creatinine [mg/L]	1.53	1.19	1.86		1.72	1.33	2.12	
Age [years/10]	-47.97	-77.00	-18.95		-278.23	-606.79	50.34	
Education [years]	35.87	-63.57	135.31		-135.04	-238.33	-31.74	

LCL – lower confidence limit, UCL – upper confidence limit, 3OH-cotinine – trans-3'-hydroxy-cotinine, ISEI – International Socio-Economic Index of occupational status

^a Original model: ln(cigarettes per day), creatinine, age, ISEI

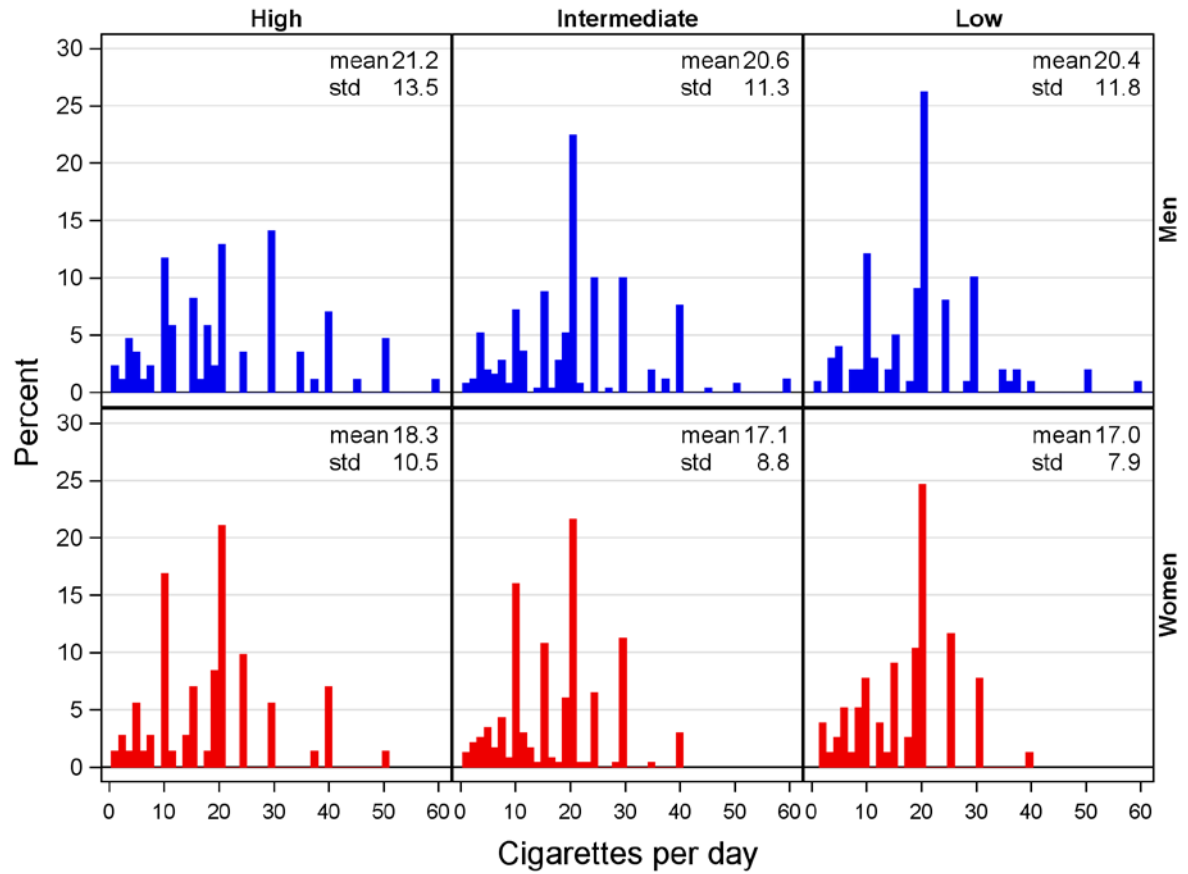


Figure S1. Histograms of cigarettes per day including means and standard deviations (std) by International Socio-Economic Index of occupational status (ISEI) and gender

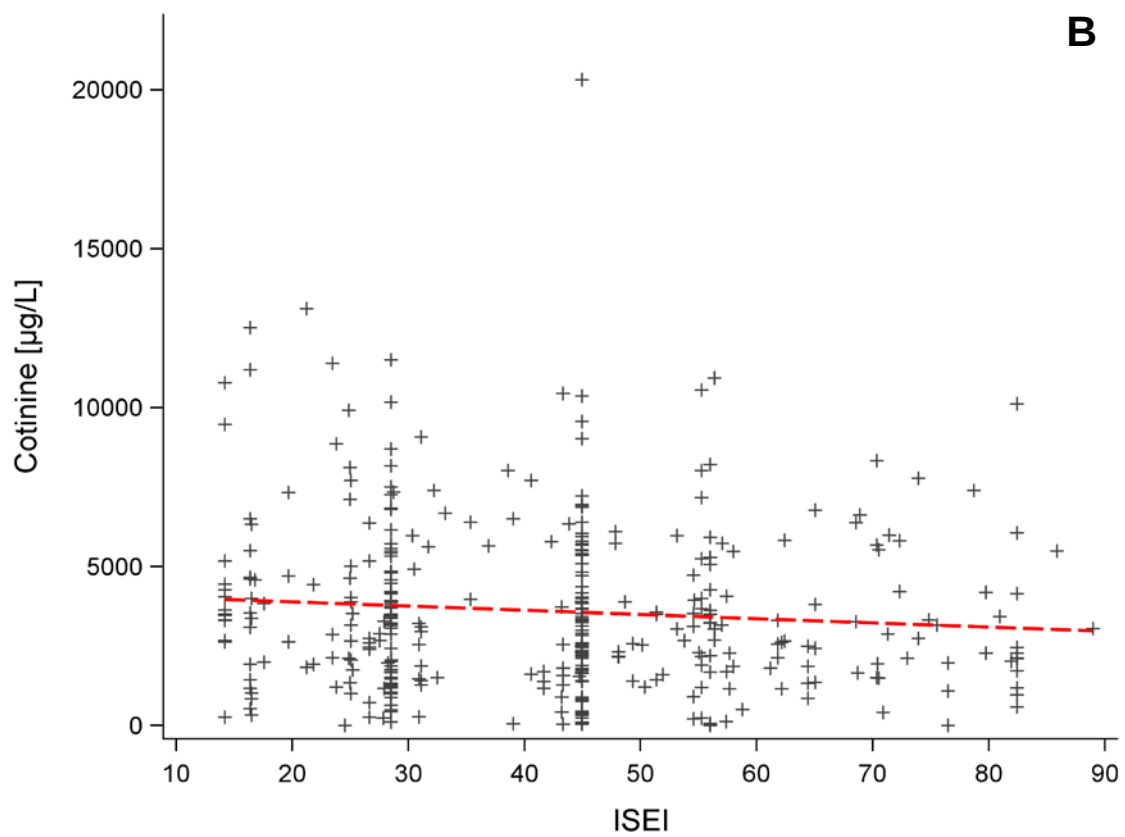
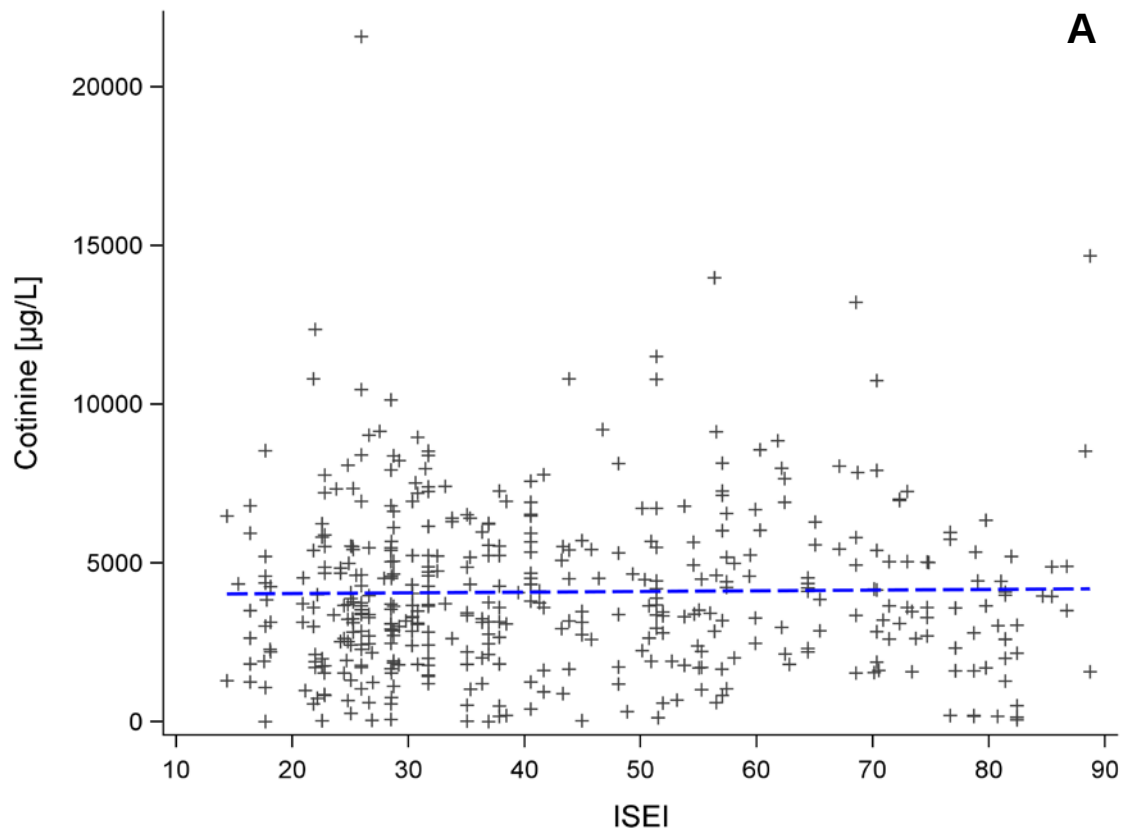


Figure S2. Cotinine and ISEI (International Socio-Economic Index of occupational status) including linear regression line for men (**A**) and women (**B**)

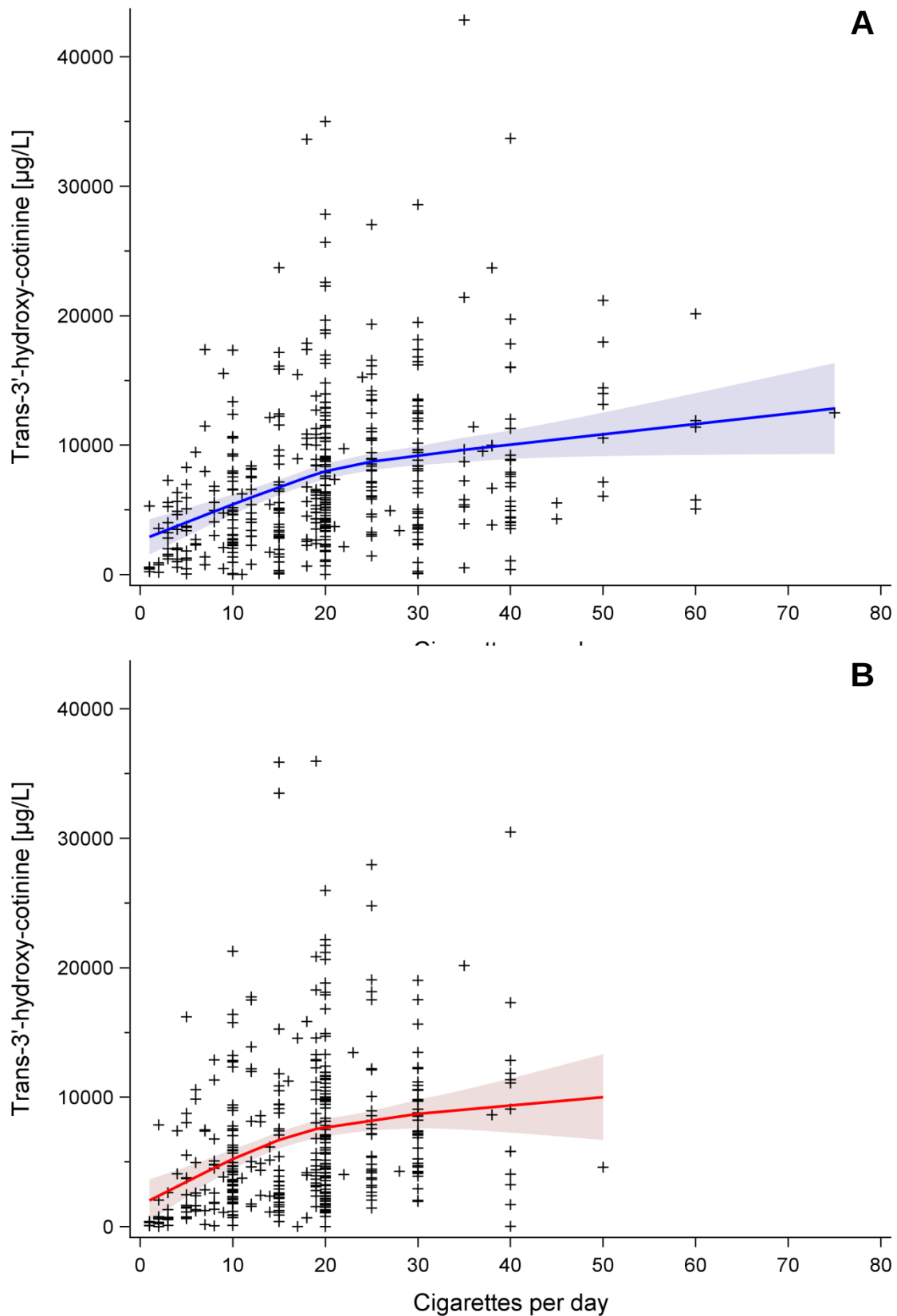


Figure S3. Trans-3'-hydroxy-cotinine and cigarettes per day including loess fit curve with 95% confidence interval in **(A)** men (smoothing parameter 0.94) and **(B)** women (smoothing parameter 0.86)

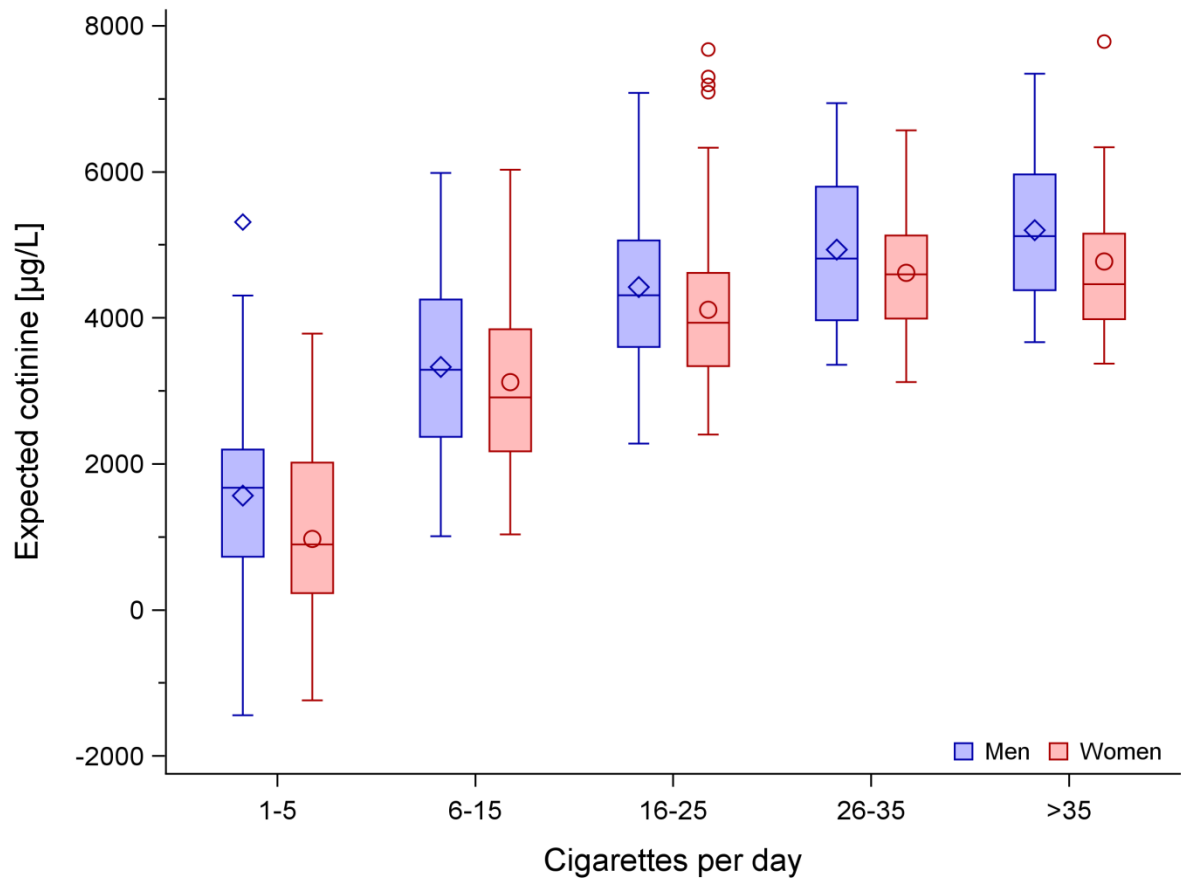


Figure S4. Boxplots for expected values of urinary cotinine (predicted by $\ln(\text{cigarettes per day})$, creatinine, age, and International Socio-Economic Index of occupational status) for categories of cigarettes per day, in men and women. Outliers with >1.5 interquartile range (IQR) distance from IQR bounds displayed separately