Supplementary Material

List of supplementary tables

Table S1 Personal exposure to $PM_{2.5}$ (μg/m³) for all the housewives group

ID	Mean	Stdev	Min	Max	SC	Group
YSI01	246.5	42.9	179.1	340.2	**4C7**	G3
YSI02	279.7	88.5	153.0	481.2	**5B9**	G3
YSI03	178.6	33.7	127.5	263.5	**1C4**	G1
YSI04	201.6	43.9	136.2	285.4	**1C5**	G1
YSI05	369.4	142.6	150.6	832.6	**9B4**	G3
YSI06	263.8	52.3	194.9	378.8	**3A7**	G2
YSI07	205.5	48.8	103.5	301.4	**6C7**	G3
YSI08	219.7	91.6	95.0	567.9	**1B5**	G1
YSI09	243.9	53.4	172.9	366.6	**4C5**	G3
YSI10	192.1	34.8	142.9	269.7	**6B5**	G3
YSI11	226.5	53.4	141.3	341.5	**1B2**	G1
YSI12	219.6	40.3	148.6	315.2	**1A4**	G1
YSI13	223.8	57.6	138.4	376.6	**4B9**	G3
YSI14	399.0	167.0	139.0	696.5	**3D7**	G2
YSI15	224.8	49.2	149.7	316.2	**1C4**	G1
YSI17	235.4	75.2	150.5	555.7	**2B4**	G2
YSI18	237.0	59.3	149.7	367.5	**1B2**	G1
YSI19	224.6	95.3	136.0	503.0	**2B4**	G2
YSI20	302.7	81.9	172.6	428.3	**3B5m**	G2
YSI21	231.7	44.0	160.6	310.2	**5C5**	G3
YSI22	201.9	40.1	131.4	267.2	**1B7**	G1
YSI23	272.5	84.7	154.9	523.6	**1B2m**	G1
YSI24	228.1	48.8	141.2	364.5	**2A5**	G2
YSI25	210.7	42.2	124.3	293.9	**5A5**	G3
YSI26	183.9	37.9	127.6	265.5	**1B7**	G1
YSI27	204.8	38.4	158.7	288.0	**1C5**	G1
YSI28	214.2	45.1	111.6	318.0	**3B5**	G2
YSI29	184.6	41.9	106.8	266.5	**3B7**	G2
YSI30	186.4	43.6	122.1	291.9	**3C4**	G2
YSI31	247.5	54.5	154.9	348.7	**1C4**	G1

With ID, Mean, Stdev, Min, Max, SC and Group (G1, G2, G3) correspond respectively to identifier, arithmetic mean, standard deviation, minimum, maximum, source code and subgroup less expose (G1), moderately expose (G2) and very expose (G3).

Table S2 Personal exposure to $PM_{2.5}$ (µg/m³) for all the charcoal makers group

ID	Mean	Stdev	Min	Max	SC	Group
CAI01	263.2	51.3	196.4	352.6	**4C4**	G2
CAI02	357.1	113.8	218.9	524.0	**4B4m**	G2
CAI03	204.1	48.6	140.5	281.8	**2D6**	G1
CAI04	207.9	64.3	149.2	332.7	**2D3**	G1
CAI05	386.5	113.8	248.3	562.8	**3A4m**	G1
CAI06	445.8	117.5	265.3	599.8	**7B6**	G3
CAI07	253.0	37.2	191.5	321.9	**4C6**	G2
CAI08	320.9	162.3	151.4	521.4	**7C5**	G3
CAI09[a]	*218.6*	*62.6*	*136.9*	*332.3*	***4C2***	*G2*
CAI10	155.7	34.7	114.5	225.3	**4A7**	G2
CAI11	191.4	57.1	127.0	294.5	**4C5**	G2
CAI12	285.5	116.6	161.4	480.7	**3C6**	G1
CAI13	236.0	41.1	156.6	285.1	**5D4**	G2
CAI14	237.9	48.5	165.2	306.4	**4C3**	G2
CAI15[a]	*165.3*	*56.0*	*109.3*	*308.0*	***5C2***	*G2*
CAI16	401.4	233.6	130.8	882.7	**7C4**	G3
CAI17	501.8	76.4	367.5	648.5	**9A1**	G3
CAI18	270.1	66.3	177.3	334.0	**5C3**	G2
CAI19	207.8	66.9	149.7	403.8	**4C7**	G2
CAI20	220.7	40.0	162.9	284.3	**3C5**	G1
CAI21	259.8	43.5	188.6	319.9	**5C4**	G2
CAI22	283.4	70.1	144.9	380.3	**6B5**	G3
CAI24	162.2	44.8	97.7	258.0	**3C3**	G1
CAI25	190.1	29.2	130.4	233.5	**3C2**	G1
CAI26[a]	*210.6*	*68.2*	*136.5*	*380.5*	***5C5***	*G2*
CAI27	227.5	101.4	140.9	517.2	**2C5**	G1
CAI28	250.2	98.8	178.4	394.0	**2B3**	G1
CAI29	204.0	52.1	111.5	282.4	**3C5**	G1
CAI30	281.7	61.6	200.8	384.9	**5B8**	G2
CAI31	309.2	138.0	144.1	541.7	**4B3m**	G2
CAI32	305.3	106.7	163.7	529.9	**5C9m**	G2
CAI33	345.3	93.8	216.2	483.2	**6B5**	G3

With ID, Mean, Stdev, Min, Max, SC and Group (G1, G2, G3) correspond respectively to identifier, arithmetic mean, standard deviation, minimum, maximum, source code and subgroup less expose (G1), moderately expose (G2) and very expose (G3). [a] refers to the men in the charcoal makers' group.

Table S3 Personal exposure to $PM_{2.5}$ (μg/m³) for all fish-smoking women group

ID	Mean	Stdev	Min	Max	SC	Group
DLI01[a]	*307.4*	*118.9*	*198.7*	*514.3*	***2D5***	*G2*
DLI02[a]	*231.3*	*119.9*	*95.4*	*403.2*	***2A5***	*G2*
DLI03[a]	*271.0*	*143.2*	*104.6*	*484.1*	***2B4***	*G2*
DLI04[a]	*399.3*	*118.8*	*192.4*	*582.5*	***4B8***	*G3*
DLI05[a]	*267.5*	*123.9*	*143.4*	*441.8*	***2B3***	*G2*
DLI06	137.0	52.0	58.9	254.5	**1A6**	G1
DLI07	221.3	80.4	78.1	381.7	**2B4**	G2
DLI08	383.3	386.4	90.6	1708.7	**3B2**	G2
DLI09	116.7	34.9	77.0	203.2	**1A2**	G1
DLI10	149.7	46.4	71.2	230.0	**1B1**	G1
DLI11	522.7	404.7	97.6	1586.9	**2B5m**	G2
DLI12	437.9	265.1	98.4	1154.9	**3B7m**	G2
DLI13	198.8	132.8	71.6	659.2	**1B4**	G1
DLI14	259.2	86.4	97.4	399.5	**1A2m**	G1
DLI15	843.6	550.8	110.2	2216.2	**6C1**	G3
DLI16	159.9	56.7	66.0	254.3	**1B3**	G1
DLI17	313.5	136.3	85.4	608.0	**2B6m**	G2
DLI18	401.4	289.7	53.8	1298.1	**4A3**	G3
DLI19	199.0	109.4	72.1	464.7	**1B3**	G1
DLI20	393.5	234.0	85.1	1016.2	**3B2**	G2
DLI21	1128.5	970.0	63.8	4103.8	**9B3**	G3
DLI22	170.2	82.8	75.1	372.2	**1A3**	G1
DLI23	168.6	116.6	62.7	552.6	**2A4**	G2
DLI24	293.1	162.6	77.9	520.2	**3A2**	G2
DLI25	107.9	44.5	50.5	192.0	**1A3**	G1
DLI26	814.4	639.0	86.3	2737.6	**6B4**	G3
DLI27	585.7	397.5	91.9	1827.7	**5B3**	G3
DLI28	233.2	126.9	55.7	453.3	**2B3**	G2

With ID, Mean, Stdev, Min, Max, SC and Group (G1, G2, G3) correspond respectively to identifier, arithmetic mean, standard deviation, minimum, maximum, source code and subgroup less expose (G1), moderately expose (G2) and very expose (G3). [a] represent fish-smoking women of neighborhood.

Table S4 Daily personal exposures to PM2.5 for all groups and impact of their domestic and commercial activities.

	DPE_{CA} (µg/m³)	DPE_O (µg/m³)	DPE_T (µg/m³)	% CA
G1-YSI	60.1 ±14.1	186.0 ± 42.9	246.1 ± 37.3	25 ± 7
G2-YSI	91.7 ± 38.9	231.7 ± 130.8	323.5 ± 151.2	30 ± 11
G3-YSI	100.9 ± 69.7	188.9 ± 20.7	289.8 ± 88.6	32 ± 10
YSI	81.9 ± 46.6	200.6 ± 77.2	282.4 ± 100.4	29 ± 10
G1-CAI	85.9 ± 49.3	181.8 ± 49.4	267.7 ± 83.2	31 ± 11
G2-CAI	93.3 ± 24.2	216.0 ± 93.9	309.3 ± 101.5	31 ± 8
G3-CAI	208.1 ± 78.8	292.4 ± 74.2	500.6 ± 97.6	41 ± 13
CAI	112.5 ± 64.7	219.6 ± 85.8	332.2 ± 125.0	33 ± 10
G1-DLI	57.1 ± 58.2	252.0 ± 242.1	309.1 ± 278.8	18 ± 16
G2-DLI	318.4 ± 165.0	188.2 ± 112.0	506.6 ± 204.5	62 ± 17
G3-DLI	698.5 ± 316.0	249.2 ± 93.8	947.8 ± 300.4	71 ± 18
DLI	315.9 ± 294.0	221.8 ± 160.0	537.6 ± 337.0	50 ± 28

With: DPE_{CA}, the daily personal exposure related to the domestic and commercial combustion activity; DPE_O, the daily personal exposure related to other activities; DPE_T, the total daily personal exposure; % CA, the fraction of DPE_{CA} to DPE_T ; YSI refer to housewives; CAI to charcoal makers; DLI to fish-smoking women and G1, G2, G3 the subgroups (G1-YSI refer to subgroup G1 of housewives).

List of supplementary figures

Fig.S1 Linear regression representing optical sensor concentrations as a function of filtration system concentrations case of housewives.

Fig.S2 Linear regression representing optical sensor concentrations as a function of filtration system concentrations case of charcoal makers.

Fig.S3 Linear regression representing optical sensor concentrations as a function of filtration system concentrations case of fish-smoking women.

Fig.S4 Representation of the mean daily personal exposure to $PM_{2.5}$ of each participant according to the source code sorted in ascending order based on road traffic for : a) Housewives; b) Charcoal makers; c) Fish-smoking women

Fig.S5 Representation of the mean daily personal exposure to $PM_{2.5}$ of each participant according to the source code sorted in ascending order based on indirect sources for : a) Housewives; b) Charcoal makers; c) Fish-smoking women.

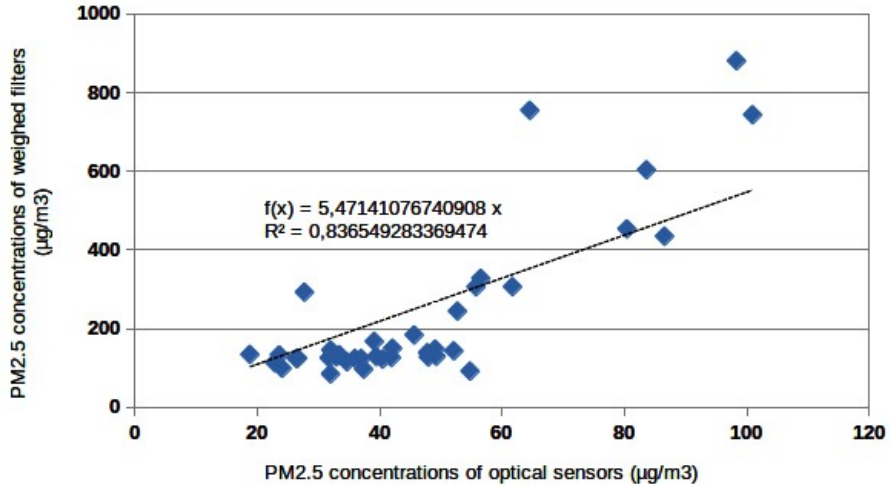

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Fig.S1 Linear regression representing optical sensor concentrations as a function of filtration system concentrations case of housewives (y= 5.5x, R^2= 0.8, p< 10^{-10}).

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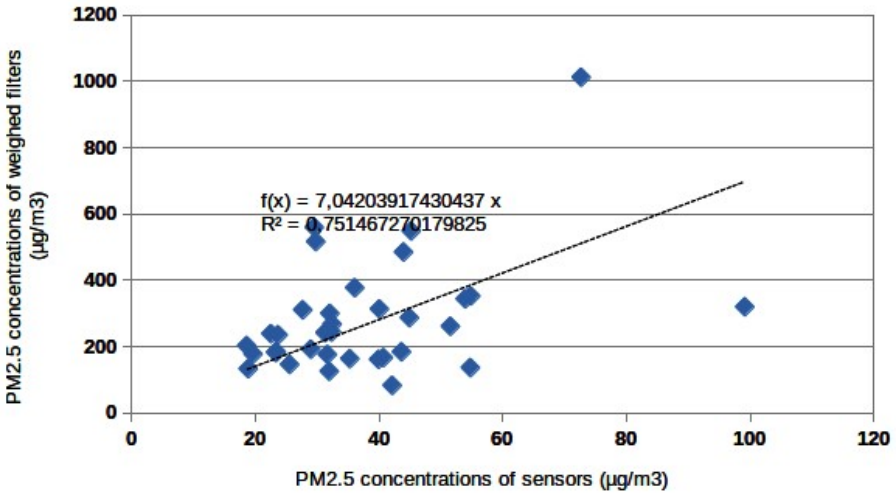

Fig.S2 Linear regression representing optical sensor concentrations as a function of filtration system concentrations case of charcoal makers (y= 7.04x, R^2=0.8, p< 10^{-10}).

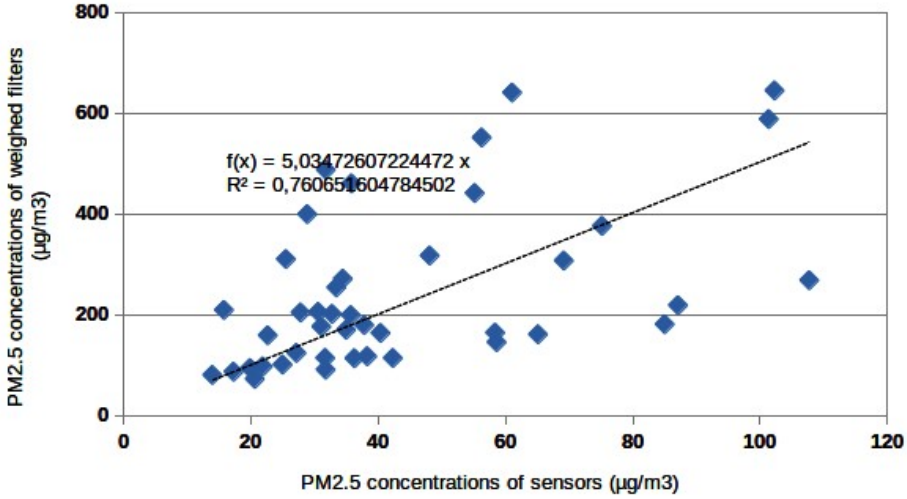

Fig.S3 Linear regression representing optical sensor concentrations as a function of filtration system concentrations case of fish-smoking women ($y= 5.03x$, $R^2= 0.8$, $p< 10^{-10}$).

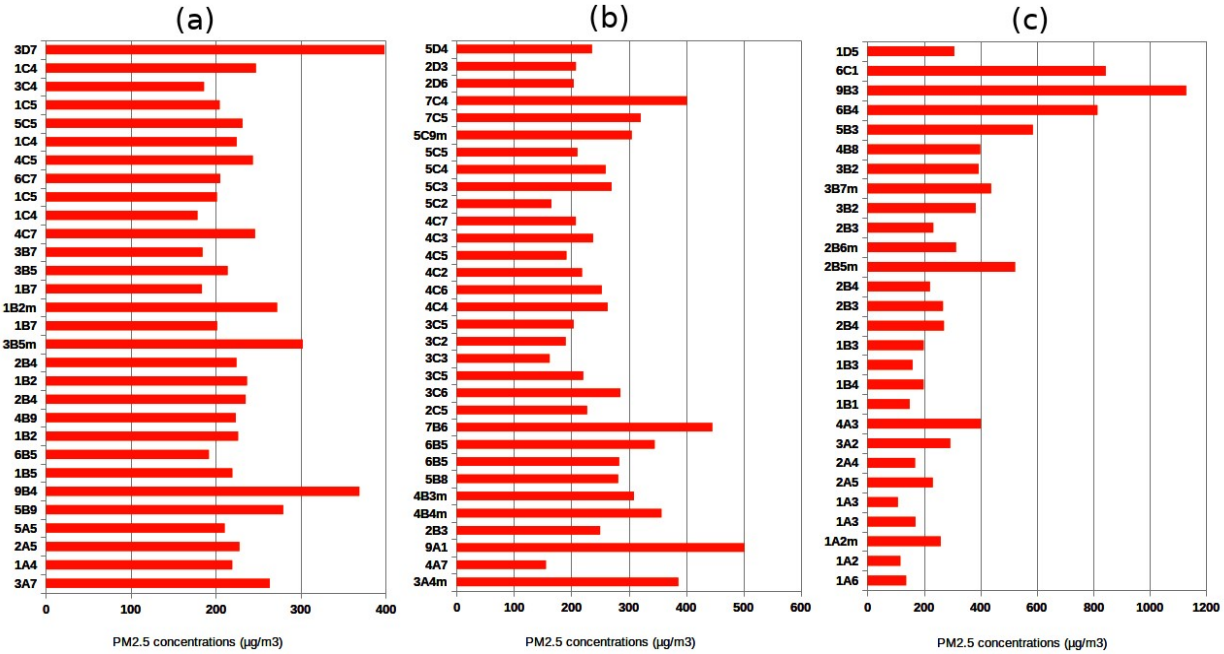

Fig.S4 Representation of the mean daily personal exposure to $PM_{2.5}$ of each participant according to the source code sorted in ascending order based on road traffic for : a) Housewives; b) Charcoal makers; c) Fish-smoking women

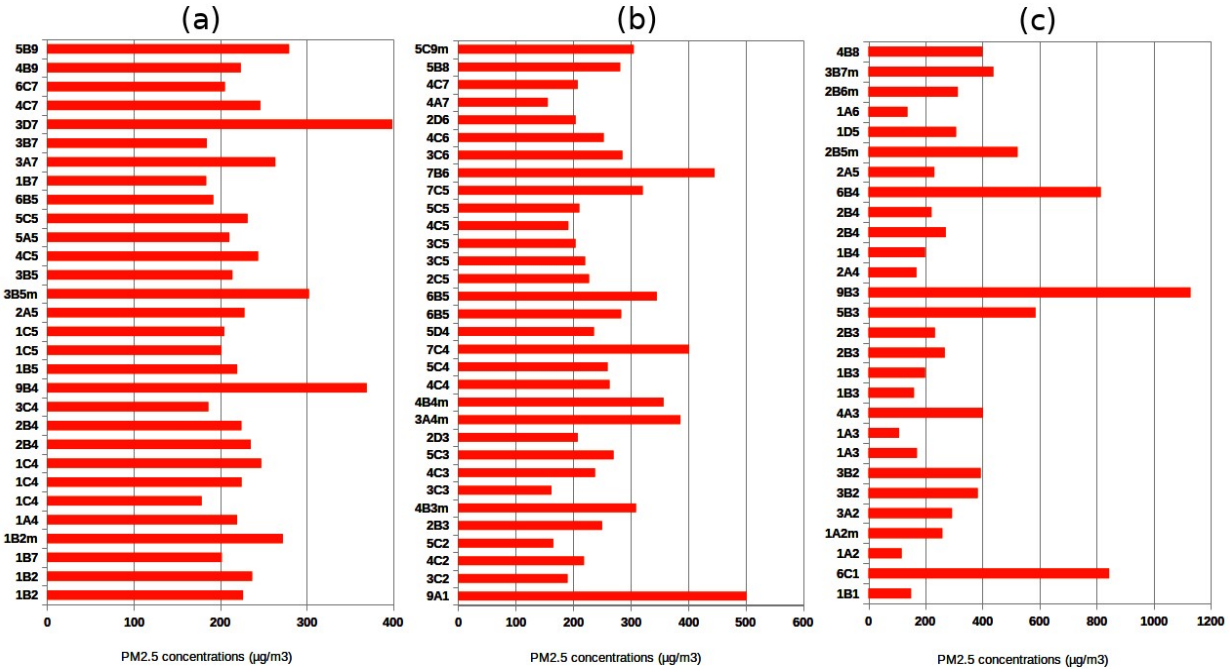

Fig.S5 Representation of the mean daily personal exposure to $PM_{2.5}$ of each participant according to the source code sorted in ascending order based on indirect sources for : a) Housewives; b) Charcoal makers; c) Fish-smoking women.