



**Table S1.** Baseline characteristics of participants according to the presence of allergic rhinitis, atopic dermatitis and asthma.

Variables	Allergic rhinitis			Atopic dermatitis			Asthma		
	No (N <sup>a</sup> =9,147)	Yes (N <sup>a</sup> =1,334)	P- value	No (N <sup>a</sup> =10,034)	Yes (N <sup>a</sup> =447)	P- value	No (N <sup>a</sup> =9,974)	Yes (N <sup>a</sup> =507)	P- value
Age	52.18 ± 16.17 <sup>b</sup>	42.68 ± 14.39 <sup>b</sup>	<0.001	51.38 ± 16.16 <sup>b</sup>	41.81 ± 15.94 <sup>b</sup>	<0.001	50.62 ± 16.15 <sup>b</sup>	57.98 ± 17.10 <sup>b</sup>	<0.001
Sex			0.003			0.386			0.496
Male	3778 (41.3)	494 (37.03)		4081 (40.67)	191 (42.73)		4058 (40.69)	214 (42.21)	
Female	5369 (58.7)	840 (62.97)		5953 (59.33)	256 (57.27)		5916 (59.31)	293 (57.79)	
Residency			<0.001			<0.001			0.304
Urban	7015 (76.69)	1158 (86.81)		7794 (77.68)	379 (84.79)		7787 (78.07)	386 (76.13)	
Rural	2132 (23.31)	176 (13.19)		2240 (22.32)	68 (15.21)		2187 (21.93)	121 (23.87)	
Household income			<0.001			0.004			<0.001
<25%	2038 (22.48)	142 (10.73)		2116 (21.28)	64 (14.41)		1987 (20.10)	193 (38.29)	
25–50%	2316 (25.55)	337 (25.47)		2539 (25.53)	114 (25.68)		2535 (25.65)	118 (23.41)	
50–75%	2400 (26.48)	451 (34.09)		2715 (27.30)	136 (30.63)		2745 (27.77)	106 (21.03)	
>75%	2311 (25.49)	393 (29.71)		2574 (25.88)	130 (29.28)		2617 (26.48)	87 (17.26)	
Smoking			0.003			<0.001			0.822
Current smoker	7376 (80.76)	1121 (84.22)		8164 (81.5)	333 (74.5)		8085 (81.18)	412 (81.58)	
Ex/non-smoker	1757 (19.24)	210 (15.78)		1853 (18.5)	114 (25.5)		1874 (18.82)	93 (18.42)	
Alcohol consumption			<0.001			0.015			0.026
≥1 time a month	4476 (49.27)	574 (43.52)		4861 (48.8)	189 (42.86)		4781 (48.30)	269 (53.37)	
<1 time a month	4608 (50.73)	745 (56.48)		5101 (51.2)	252 (57.14)		5118 (51.70)	235 (46.63)	
Physical activity			0.7294						0.707
>5days/week	8235 (90.23)	1196 (89.92)		9032 (90.23)	399 (89.26)		8978 (90.21)	453 (89.70)	
≤5days/week	892 (9.77)	134 (10.08)		978 (9.77)	48 (10.74)		974 (9.79)	52 (10.30)	

---

BMI	23.67	23.2	<0.001	23.61	23.55	0.7459	23.59	24.02	0.0056
-----	-------	------	--------	-------	-------	--------	-------	-------	--------

<sup>a</sup> number of study population; <sup>b</sup>, mean age ± standard deviation; brackets, percentage of each group population.