Supplementary Table SIV Multivariable adjusted odds ratios (95%CI) for an interquartile range increase in high school total suspended particulate exposure (45  $\mu$ g/m³) on several menstrual irregularity phenotypes among 34 832 women in the Nurses' Health Study II (NHSII), stratified by age in 1989, age at menarche, or region of residence during high school.

Effect modifier	Moderate irregularity OR (95%CI)	Persistent irregularity OR (95%CI)	Moderate irregularity with androgen excess OR (95%CI)
Age (years) in 1989			
24.75–31.32	1.08 (0.95, 1.21)	1.09 (0.94, 1.27)	1.13 (0.85, 1.51)
31.33–34.99	1.09 (0.98, 1.21)	1.05 (0.92, 1.20)	1.13 (0.87, 1.46)
35.00-38.49	1.09 (1.00, 1.20)	1.08 (0.96, 1.21)	1.23 (0.99, 1.52)
38.50-44.25	1.06 (0.97, 1.16)	1.08 (0.98, 1.20)	0.96 (0.77, 1.21)
P-value for interaction	0.53	0.21	0.26
Age at menarche			
<12	1.05 (0.93, 1.17)	1.00 (0.87, 1.14)	1.16 (0.90, 1.48)
12	1.08 (0.98, 1.19)	1.07 (0.95, 1.20)	1.22 (0.97, 1.53)
13	1.11 (1.01, 1.22)	1.09 (0.97, 1.22)	1.05 (0.82, 1.36)
≥14	1.10 (1.00, 1.21)	1.15 (1.02, 1.29)	0.99 (0.77, 1.27)
P-value for interaction	0.71	0.40	0.44
Region of residence			
Northeast	1.10 (1.03, 1.19)	1.09 (1.00, 1.19)	1.14 (0.94, 1.36)
Midwest	1.06 (0.96, 1.17)	1.08 (0.96, 1.22)	0.95 (0.74, 1.22)
West	1.08 (0.94, 1.25)	1.03 (0.86, 1.23)	1.05 (0.76, 1.45)
South	1.09 (0.94, 1.26)	1.09 (0.91, 1.30)	I.24 (0.88, I.73)
P-value for interaction	0.84	0.53	0.18

<sup>&</sup>lt;sup>a</sup>Multivariable models adjusted for age, race, BMI at age 18, smoking during high school and physical activity during high school.