

Supplementary Table S1. Cardiometabolic disease prevalence by age at menarche under the dichotomous classification (<12 vs. ≥12 years), with unweighted subgroup sizes and event counts, stratified by menopausal status.

Prevalence	Premenopausal women					Postmenopausal women				
	Unweighted, n		OR (95% CI)			Unweighted, n		OR (95% CI)		
	Total	Event	Model 1	Model 2	Model 3	Total	Event	Model 1	Model 2	Model 3
Type 2 diabetes mellitus										
<12	2335	64	0.825 (0.607, 1.121)	1.467 (1.060, 2.030)	0.976 (0.681, 1.400)	244	48	1.054 (0.725, 1.531)	1.371 (0.936, 2.008)	1.324 (0.917, 1.911)
≥12	10418	335	1 (Ref.)	1 (Ref.)	1 (Ref.)	12230	2374	1 (Ref.)	1 (Ref.)	1 (Ref.)
<i>P value</i>			<i>0.217</i>	<i>0.021</i>	<i>0.896</i>			<i>0.784</i>	<i>0.105</i>	<i>0.134</i>
Hypercholesterolemia										
<12	2335	174	0.781 (0.641, 0.951)	1.305 (1.064, 1.600)	1.083 (0.873, 1.344)	244	105	1.124 (0.827, 1.528)	1.241 (0.911, 1.690)	1.171 (0.864, 1.587)
≥12	10418	999	1 (Ref.)	1 (Ref.)	1 (Ref.)	12230	5153	1 (Ref.)	1 (Ref.)	1 (Ref.)
<i>P value</i>			<i>0.014</i>	<i>0.011</i>	<i>0.466</i>			<i>0.454</i>	<i>0.171</i>	<i>0.308</i>
Hyper-LDL cholesterolemia										
<12	2335	158	0.807 (0.654, 0.995)	1.317 (1.056, 1.643)	1.078 (0.851, 1.364)	244	104	1.183 (0.871, 1.607)	1.335 (0.980, 1.819)	1.260 (0.930, 1.708)
≥12	10418	892	1 (Ref.)	1 (Ref.)	1 (Ref.)	12230	5005	1 (Ref.)	1 (Ref.)	1 (Ref.)
<i>P value</i>			<i>0.045</i>	<i>0.015</i>	<i>0.534</i>			<i>0.283</i>	<i>0.067</i>	<i>0.136</i>

Data are odds ratios (95% CI); reference = ≥12 years. Total = unweighted participants per subgroup; Event = number with the disease. Bold indicates the 95% CI excludes 1. P-values are for the <12-vs-≥12 contrast.

Model 1: unadjusted. Model 2: adjusted for age. Model 3: adjusted for age, BMI, education (<13 vs. ≥13 yr), low income, ever smoking, heavy drinking, aerobic physical activity, hypertension; cholesterol outcomes additionally adjusted for diabetes, and diabetes for hypercholesterolemia.

Supplementary Table S2. Cardiometabolic disease control by age at menarche under the dichotomous classification (<12 vs. ≥12 years), with unweighted subgroup sizes and event counts, stratified by menopausal status.

Control	Premenopausal women					Postmenopausal women				
	Unweighted, n		OR (95% CI)			Unweighted, n		OR (95% CI)		
	Total	Event	Model 1	Model 2	Model 3	Total	Event	Model 1	Model 2	Model 3
Type 2 diabetes mellitus										
<12	64	17	0.799 (0.418, 1.529)	0.662 (0.331, 1.322)	0.738 (0.344, 1.587)	48	12	0.821 (0.395, 1.706)	0.849 (0.408, 1.765)	0.796 (0.386, 1.644)
≥12	335	86	1 (Ref.)	1 (Ref.)	1 (Ref.)	2374	645	1 (Ref.)	1 (Ref.)	1 (Ref.)
<i>P value</i>			0.497	0.241	0.436			0.597	0.661	0.537
Hypercholesterolemia										
<12	174	32	0.864 (0.548, 1.363)	1.660 (1.006, 2.738)	1.288 (0.735, 2.259)	105	55	0.727 (0.472, 1.120)	0.960 (0.618, 1.493)	0.878 (0.554, 1.391)
≥12	999	219	1 (Ref.)	1 (Ref.)	1 (Ref.)	5153	3053	1 (Ref.)	1 (Ref.)	1 (Ref.)
<i>P value</i>			0.530	0.047	0.376			0.148	0.857	0.579
Hyper-LDL cholesterolemia										
<12	158	36	0.945 (0.611, 1.461)	1.859 (1.153, 2.997)	1.591 (0.935, 2.708)	104	60	0.634 (0.409, 0.984)	0.840 (0.541, 1.303)	0.744 (0.471, 1.174)
≥12	892	232	1 (Ref.)	1 (Ref.)	1 (Ref.)	5005	3271	1 (Ref.)	1 (Ref.)	1 (Ref.)
<i>P value</i>			0.798	0.011	0.087			0.042	0.436	0.204

Data are odds ratios (95% CI); reference = ≥12 years. Total = unweighted participants per subgroup; Event = number with adequate control. Bold indicates the 95% CI excludes 1. P-values are for the <12-vs-≥12 contrast.

Model 1: unadjusted. Model 2: adjusted for age. Model 3: adjusted for age, BMI, education (<13 vs. ≥13 yr), low income, ever smoking, heavy drinking, aerobic physical activity, hypertension; cholesterol outcomes additionally adjusted for diabetes, and diabetes for hypercholesterolemia.