

TableS1 Characteristics of the study population by lipid status (Mean (SE)/ n (%))

Variables	Total (n=12860)	Dyslipidemia n=5158(39.5)	Normal lipid n=7702(60.5)	$t/\chi^2$	<i>P</i>
Age, years				49.33	<0.001
20-39	5339(43.8)	1982(40.4)	3357(46.1)		
40-59	4389(37.7)	1902(41.2)	2487(35.4)		
≥60	3132(18.5)	1274(18.4)	1858(18.5)		
Sex				21.85	0.001
Male	6322(48.3)	2388(45.8)	3934(50.0)		
Female	6538(51.7)	2770(54.2)	3768(50.0)		
Race				32.27	<0.001
Mexican American	2188(8.2)	993(9.3)	1195(7.5)		
Other Hispanic	1096(5.3)	490(5.7)	606(5.0)		
Non-Hispanic White	5938(69.6)	2435(70.0)	3503(69.4)		
Non-Hispanic Black	2482(10.3)	825(9.0)	1657(11.1)		
Other Races	1156(6.6)	415(6.0)	741(7.0)		
Educational level				62.24	<0.001
High School and below	5902(38.6)	2632(42.8)	3270(35.9)		
Above high school	6958(61.4)	2526(57.2)	4432(64.1)		
Smoking status				51.32	<0.001
Never	7149(54.6)	2724(37.7)	4425(56.2)		
Former	2845(22.9)	1119(22.1)	1726(23.4)		
Current	2866(22.5)	1315(25.8)	1551(20.4)		
Drinking status				84.52	<0.001
Never	1647(10.3)	699(11.5)	948(9.5)		
Former	2094(14.1)	969(17.0)	1125(12.1)		

Current	9119(75.6)	3490(71.5)	5629(78.4)		
BMI				731.18	<0.001
< 25.0 kg/m <sup>2</sup>	4348(35.5)	1140(22.1)	3208(44.2)		
25.0kg/m <sup>2</sup> ≤BMI					
<30.0 kg/m <sup>2</sup>	4418(33.6)	1886(36.8)	2532(31.5)		
≥30.0 kg/m <sup>2</sup>	4094(30.9)	2132(41.1)	1962(24.3)		
Hypertension	3295(23.7)	1466(27.8)	1829(21.0)	77.87	<0.001
Below Vitamin K DRI	9338(70.2)	3915(74.7)	5423(67.3)	80.09	<0.001
IR	3450(24.9)	2031(37.7)	1419(16.6)	732.47	<0.001
L-insulin	0.93(0.01)	1.04(0.01)	0.86(0.01)	25.44	<0.001
L-HOMA-IR	0.31(0.01)	0.43(0.01)	0.24(0.01)	25.35	<0.001
Energy intake, Kcal/day	2215.49(11.24)	2156.68(18.30)	2253.85(16.29)	9.89	<0.001

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BMI: body mass index; DRI: dietary reference intakes; IR: Insulin resistance; L-insulin: log of insulin;

L-HOMA-IR: log of HOMA-IR.

TableS2 The Association of Vitamin K Intake, IR and High TC in US Adults

Variables	Model1		Model2		Model3	
	<i>P</i>	OR (95%CI)	<i>P</i>	OR (95%CI)	<i>P</i>	OR (95%CI)
Vitamin K intake						
Below DRI		1		1		1
Met DRI	0.246	0.90(0.76,1.07)	0.035	0.83(0.69, 0.99)	0.114	0.87(0.72, 1.04)
IR						
Yes		1		1		1
No	0.615	0.96(0.81,1.13)	0.524	0.95(0.80, 1.12)	0.667	0.96(0.79, 1.16)
Model1: Vitamin K intake + IR						
Model2: Model1+ age +sex + race + education level						
Model3: Model2 + smoking status + drinking status + hypertension + BMI + energy intake						

TableS3 The Association of Vitamin K intake, IR and High LDL-C in US Adults

Variables	Model1		Model2		Model3	
	<i>P</i>	OR (95%CI)	<i>P</i>	OR (95%CI)	<i>P</i>	OR (95%CI)
Vitamin K intake						
Below DRI		1		1		1
Met DRI	0.381	0.92(0.75,1.12)	0.283	0.90(0.74, 1.09)	0.613	0.95(0.78, 1.16)
IR						
Yes		1		1		1
No	0.035	0.83(0.70,0.99)	0.054	0.84(0.70, 1.00)	0.427	0.92(0.74, 1.14)
Model1: Vitamin K intake + IR						
Model2: Model1+ age +sex + race + education level						
Model3: Model2 + smoking status + drinking status + hypertension + BMI + energy intake						