

Table S1. Associations between thyroid markers and related factors by generalized estimating equation (GEE).

Variables	$\beta_1(95\%CI)$	$\beta_2(95\%CI)$	$\beta_3(95\%CI)$	$\beta_4(95\%CI)$
Age	-0.007 -0.003	(-0.012, -0.06 (-0.08, -0.03)	0.18 (-0.26, 0.63)	0.02 (-0.01, 0.04)
Body Mass Index	0.03 (0.02, 0.03)	-0.08 (-0.10, -0.06)	3.14 (2.67, 3.63)	0.01 (-0.02, 0.03)
Gestational Week	0.01 (0.01, 0.01)	-0.17 (-0.18, -0.17)	2.94 (2.87, 3.01)	0.01 (0.00, 0.02)
Seasonality				
Spring	Ref	Ref	Ref	
Summer	0.04 (0.01, 0.07)	0.40 (0.25, 0.56)	-2.46 (-5.09, 0.17)	-0.06 (-0.19, 0.06)
Fall	0.02 (-0.01, 0.05)	-0.13 (-0.28, 0.01)	4.57 (1.73, 7.41)	0.02 (-0.07, 0.12)
Winter	0.04 (0.01, 0.07)	0.29 (0.14, 0.44)	-1.33 (-4.02, 1.36)	-0.03 (-0.14, 0.08)
Education				
Primary school or below	Ref	Ref	Ref	
Middle school	-0.05 (-0.19, 0.10)	0.20 (-0.37, 0.78)	-7.89 (-21.52, 5.75)	0.35 (-0.15, 0.85)
High school	-0.06 (-0.20, 0.09)	0.24 (-0.33, 0.81)	-9.25 (-22.80, 4.30)	0.24 (-0.22, 0.71)
Junior college	-0.07 (-0.21, 0.08)	0.11 (-0.45, 0.69)	-8.02 (-21.54, 5.50)	0.13 (-0.32, 0.59)
Undergraduate or above	-0.10 (-0.26, 0.04)	0.14 (-0.44, 0.71)	-11.48 (-25.11, 2.16)	0.06 (-0.40, 0.52)
Income				
<1000	Ref	Ref	Ref	
1000, 2500	0.07 (-0.05, 0.18)	0.21 (-0.24, 0.66)	3.39 (-6.67, 13.66)	0.03 (-0.49, 0.55)
2500, 4000	0.04 (-0.07, 0.16)	0.10 (-0.34, 0.55)	2.74 (-7.37, 12.86)	-0.19 (-0.67, 0.30)
>4000	0.05 (-0.07, 0.16)	0.06 (-0.39, 0.51)	3.94 (-6.26, 14.14)	-0.13 (-0.62, 0.37)
Residence				
Urban	Ref	Ref	Ref	
Suburb	0.04 (-0.02, 0.09)	0.06 (-0.13, 0.26)	1.27 (-3.31, 5.65)	-0.08 (-0.26, 0.10)
Town	0.01 (-0.10, 0.13)	-0.20 (-0.64, 0.24)	4.23 (-5.29, 13.76)	-0.19 (-0.67, 0.30)
Rural	0.02 (-0.04, 0.08)	0.11 (-0.14, 0.37)	0.20 (-4.90, 5.30)	-0.13 (-0.62, 0.37)
Smoking				
No	Ref	Ref	Ref	
Yes	0.08 (0.00, 0.16)	-0.33 (-0.68, -0.03)	11.82 (4.62, 19.02)	0.11 (-0.24, 0.46)
Drinking				
Never	Ref	Ref	Ref	
Occasionally	0.06 (0.003, 0.12)	-0.04 (-0.26, 0.18)	5.37 (0.32, 10.42)	-0.04 (-0.25, 0.18)
Regularly	0.46 (0.07, 0.84)	-1.03 (-2.29, 0.21)	48.81 (30.02, 67.59)	1.47 (-0.67, 3.62)
Parity				
Nulliparous	Ref	Ref	Ref	
Multiparous	0.01 (-0.04, 0.07)	0.27 (0.05, 0.50)	-4.35 (-9.09, 0.39)	-0.18 (-0.42, 0.06)

Abbreviations: CI, confidence interval

$\beta$  adjusted for all the variables listed except the variable itself.

$\beta_1$  is for T3;  $\beta_2$  is for fT4;  $\beta_3$  is for T3/ft4;  $\beta_4$  is for TSH.