

Supplementary table 1. Modified hazard ratio by correcting the result of Table 3 to 97.25% confidence interval

	Multivariable-adjusted HR (95% CI)		
	Model 1 <sup>a</sup>	Model 2 <sup>b</sup>	Model 3 <sup>c</sup>
<b>Men (n=99,454)</b>			
TSH (μIU/ml)			
Low	3.25 (95% CI; 1.88 - 5.64) (97.5% CI; 2.04-5.18)	2.92 (1.65 - 5.18) (1.80-4.73)	2.95 (1.67 - 5.23) (1.82-4.78)
Normal	1 (reference)	1 (reference)	1 (reference)
High	0.87 (0.54 - 1.41)	0.79 (0.47 - 1.32)	0.79 (0.47 - 1.32)
FT4 (ng/dl)			
Low	0.42 (0.06 - 2.96)	0.47 (0.07 - 3.36)	0.48 (0.07 - 3.41)
Normal	1 (reference)	1 (reference)	1 (reference)
High	1.87 (1.26 - 2.77) (1.34-2.61)	1.88 (1.26 - 2.79) (1.35-2.62)	1.88 (1.27 - 2.8) (1.35-2.62)
FT3 (pg/ml)			
Low	N/A	N/A	N/A
Normal	1 (reference)	1 (reference)	1 (reference)
High	1.26 (0.65 - 2.43)	1.24 (0.64 - 2.4)	1.25 (0.64 - 2.41)
<b>Women (n=65,142)</b>			
TSH (μIU/ml)			
Low	1.66 (0.99 - 2.76)	1.5 (0.89 - 2.56)	1.5 (0.88 - 2.55)
Normal	1 (reference)	1 (reference)	1 (reference)
High	0.95 (0.69 - 1.3)	0.99 (0.72 - 1.37)	0.99 (0.72 - 1.36)
FT4 (ng/dl)			
Low	1.15 (0.76 - 1.74)	1.23 (0.8 - 1.88)	1.25 (0.82 - 1.91)
Normal	1 (reference)	1 (reference)	1 (reference)

High	2.25 (1.3 - 3.89) (1.41-3.59)	2.05 (1.15 - 3.62) (1.26-3.32)	2.01 (1.13 - 3.56) (1.24-3.26)
FT3 (pg/ml)			
Low	N/A	N/A	N/A
Normal	1 (reference)	1 (reference)	1 (reference)
High	2.32 (1.28 - 4.21) (1.41-3.83)	2.02 (1.08 - 3.78) (1.19-3.44)	2 (1.07 - 3.74) (1.17-3.41)

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**Supplementary table 2. the numbers and percentage of subjects who took thyroid ultrasound.**

	men			women		
	Ultrasound (+) (n)	Ultrasound (-) (n)	Percent (%)	Ultrasound (+)	Ultrasound (-)	Percent (%)
Hypothyroidism	32	74	30.1	252	149	62.8
Subclinical hypothyroidism	887	1,987	30.8	1,689	1,391	54.8
Normal	23,011	70,342	24.6	32,205	27,202	54.2
Subclinical hyperthyroidism	89	253	26.0	272	156	63.6
Hyperthyroidism	57	184	23.6	187	126	59.7
Total	24,076	72,840	24.8	34,605	29,024	54.4

**Supplementary table 3. timing of diagnosis according to the clinical impression.**

	Numbers	Person-years	Duration of enrollment to diagnosis(years)
<b>Men (n=96,916)</b>			
Overt hypothyroidism	106	495.43	-
Subclinical hypothyroidism(2874)	2874	13,816.42	4.8
Normal (93353)	93353	438,244.99	4.6
Subclinical hyperthyroidism(342)	342	1,661.87	4.8
Overt hyperthyroidism(241)	241	1,250.09	5.1
<b>Women (n=63,629)</b>			
Overt hypothyroidism(401)	401	1,818.93	4.5
Subclinical hypothyroidism(3080)	3080	13,858.06	4.4
Normal (59407)	59407	266,225.72	4.4
Subclinical hyperthyroidism(428)	428	1,912.02	4.4
Overt hyperthyroidism(313)	313	1,474.11	4.7