

**Supplemental Table 1.** Analytic variability, intra-individual variability, reference change values of TSH, fT4 and fT3

	<b>CV1 (low)</b>	<b>CV2 (high)</b>	<b>CV<sub>A</sub> (%)</b>	<b>CV<sub>i</sub> (%)</b>	<b>RCV (%)</b>
<b>TSH</b>	4.23	5.82	7.2	17.7	53.3
<b>fT4</b>	5.17	2.23	5.63	4.9	20.7
<b>fT3</b>	4.12	2.07	4.61	5.0	18.9

CV1 and CV2 are percent coefficients of variations (SD/mean) with 2 levels (low and high) control sera for 20 days. CV<sub>A</sub> is calculated by the formula  $\sqrt{(\text{CV of Level 1})^2 + (\text{CV of Level 2})^2}$ . CV<sub>i</sub> is inter individual variations from EFLM website. RCV is calculated according to the formula  $2^{1/2} \times Z \times (\text{CV}_A^2 + \text{CV}_i^2)^{1/2}$  (a Z value of 1.96 was selected for 95% probability corresponding to a significant change). TSH - thyroid stimulating hormone. fT4 - free thyroxine. fT3 - free triiodothyronine. RCV – reference change value. CV<sub>A</sub> – analytical coefficient of variation. CV<sub>i</sub> - intra-individual coefficient of variation.

**Supplemental Table 2.** Comparison of the statistic z and calculated z (z\*) values according to gender for the analysed thyroid parameters

Age group (years)	TSH	fT4	fT3
18-30			
z	6.64	<b>36.47</b>	<b>15.52</b>
z*	15.20	16.26	6.49
31-40			
z	11.28	<b>26.73</b>	<b>15.62</b>
z*	13.98	15.16	5.99
41-50			
z	13.46	<b>16.17</b>	<b>16.14</b>
z*	14.32	14.77	6.61
61-60			
z	11.28	6.27	<b>7.62</b>
z*	13.99	14.12	6.56
61-70			
z	8.89	1.01	<b>6.17</b>
z*	12.27	12.62	5.78
> 70			
z	4.17	1.83	1.69
z*	9.42	9.79	4.67
All			
z	25.88	<b>38.43</b>	<b>18.98</b>
z*	32.66	34.16	14.83

Bolded values are statistically significant (P < 0.05). TSH - thyroid stimulating hormone. fT4 - free thyroxine. fT3 - free triiodothyronine.

**Supplemental Table 3.** Comparison of the statistic z and calculated z (z\*) values according to the decades of life for the analysed thyroid parameters for the males group

Age group (years)	TSH	FT4	FT3
<b>18-30 vs 31-40</b>			
z	8.06	8.32	<b>7.18</b>
z*	12.44	12.46	5.40
<b>18-30 vs 41-50</b>			
z	10.43	13.19	<b>9.35</b>
z*	13.47	13.28	5.83
<b>18-30 vs 51-60</b>			
z	9.82	<b>14.40</b>	<b>17.17</b>
z*	13.87	13.66	5.96
<b>18-30 vs 61-70</b>			
z	9.67	<b>16.11</b>	<b>22.02</b>
z*	13.18	13.21	5.67
<b>18-30 vs &gt; 70</b>			
z	7.76	<b>14.17</b>	<b>26.85</b>
z*	11.61	11.64	5.05

Bolded values are statistically significant (P < 0.05). TSH - thyroid stimulating hormone. fT4 - free thyroxine. fT3 - free triiodothyronine.

**Supplemental Table 4.** Comparison of the statistic z and calculated z (z\*) values according to the decades of life for the analysed thyroid parameters for the females group.

Age group (years)	TSH	FT4	FT3
<b>18-30 vs 31-</b>			
40	3.68	2.16	5.79
z	16.48	18.41	6.99
z*			
<b>18-30 vs 41-</b>			
50	3.04	5.96	<b>11.75</b>
z	15.95	17.50	7.19
z*			
<b>18-30 vs 51-</b>			
60	3.51	14.47	<b>11.81</b>
z	15.31	16.64	7.04
z*			
<b>18-30 vs 61-</b>			
70	4.40	<b>17.30</b>	<b>15.89</b>
z	14.42	15.78	6.58
z*			
<b>18-30 vs &gt; 70</b>			
z	5.98	14.52	<b>19.86</b>
z*	13.59	14.98	6.19

Bolded values are statistically significant (P < 0.05). TSH - thyroid stimulating hormone. fT4 - free thyroxine. fT3 - free triiodothyronine.