

Appendix 1: median (25th – 75th) of TSH (mIU/L) based on age-BMI cross-sectional populations in men and women

| Agegroup (number) | underweight | Normal | overweight | Obesity |
|----------------------|------------------|------------------|------------------|------------------|
| Male | | | | |
| 20 (6147) | 1.89 (1.35-2.47) | 1.82 (1.33-2.49) | 1.91 (1.41-2.62) | 2.02 (1.53-2.66) |
| 30 (11229) | 1.67 (1.23-2.16) | 1.80 (1.32-2.42) | 1.85 (1.34-2.50) | 1.92 (1.42-2.63) |
| 40 (13310) | 1.55 (1.19-2.34) | 1.80 (1.29-2.46) | 1.89 (1.37-2.58) | 1.94 (1.41-2.62) |
| 50 (8770) | 1.64 (1.15-2.98) | 1.87 (1.32-2.54) | 1.99 (1.42-2.71) | 2.02 (1.45-2.73) |
| 60 (4220) | 2.07 (1.53-2.61) | 1.93 (1.38-2.61) | 2.00 (1.44-2.75) | 2.05 (1.46-2.76) |
| 70 (1752) | 1.79 (1.26-2.79) | 2.04 (1.49-2.87) | 2.15 (1.56-2.99) | 2.14 (1.64-3.04) |
| Female | | | | |
| 20 (6472) | 2.13 (1.54-2.90) | 2.12 (1.54-2.87) | 2.20 (1.61-2.97) | 2.38 (1.75-3.09) |
| 30 (8702) | 2.02 (1.43-2.86) | 2.08 (1.50-2.83) | 2.21 (1.62-3.04) | 2.38 (1.73-3.24) |
| 40 (8745) | 2.16 (1.56-2.79) | 2.22(1.61-3.03) | 2.29 (1.63-3.13) | 2.35 (1.73-3.29) |
| 50 (5347) | 2.34 (1.65-2.96) | 2.32 (1.66-3.13) | 2.32 (1.63-3.19) | 2.32 (1.65-3.08) |
| 60 (2645) | 2.26 (1.45-3.15) | 2.24 (1.55-3.03) | 2.31 (1.60-3.09) | 2.31 (1.65-3.19) |
| 70(832) | 1.90 (1.18-2.62) | 2.37 (1.47-3.27) | 2.43 (1.61-3.24) | 2.48 (1.67-3.23) |

Appendix 2: median (25th – 75th) of FT3 (pmol/L) based on age-BMI cross-sectional populations in men and women

| Agegroup (number) | Underweight | Normal | overweight | obesity |
|-------------------|------------------|------------------|------------------|------------------|
| Male | | | | |
| 20 (6147) | 4.83 (4.45-5.16) | 4.85 (4.49-5.18) | 4.89 (4.56-5.22) | 5.02 (4.66-5.33) |
| 30 (11229) | 4.75 (4.38-5.05) | 4.77 (4.42-5.10) | 4.83 (4.49-5.18) | 4.91 (4.58-5.23) |
| 40 (13310) | 4.61 (4.24-4.97) | 4.73 (4.38-5.08) | 4.77 (4.41-5.12) | 4.82 (4.44-5.15) |
| 50 (8770) | 4.59 (4.27-4.87) | 4.65 (4.3-5.01) | 4.70 (4.34-5.05) | 4.76 (4.39-5.11) |
| 60 (4220) | 4.40 (3.93-4.83) | 4.57 (4.20-4.95) | 4.63 (4.26-4.98) | 4.7 (4.28-5.05) |
| 70 (1752) | 4.25 (3.70-4.67) | 4.40 (4.04-4.76) | 4.44 (4.07-4.81) | 4.4 (4.03-4.78) |
| Female | | | | |
| 20 (6472) | 4.53 (4.17-4.86) | 4.52 (4.16-4.86) | 4.58 (4.28-4.89) | 4.61 (4.32-4.88) |
| 30 (8702) | 4.39 (4.06-4.72) | 4.39 (4.06-4.72) | 4.47 (4.10-4.79) | 4.46 (4.13-4.78) |
| 40 (8745) | 4.40 (4.01-4.68) | 4.35 (4.00-4.69) | 4.38 (4.04-4.74) | 4.44 (4.10-5.43) |
| 50 (5347) | 4.32 (3.99-4.75) | 4.46 (4.10-4.82) | 4.52 (4.14-4.87) | 4.5 (4.17-4.89) |
| 60 (2645) | 4.41 (4.12-4.88) | 4.50 (4.13-4.84) | 4.55 (4.21-4.92) | 4.49 (4.14-4.91) |
| 70(832) | 4.31 (4.01-4.66) | 4.34 (4.02-4.73) | 4.46 (4.08-4.83) | 4.40 (4.03-4.81) |

Appendix 3: median (25th – 75th) of FT4 (pmol/L) based on age-BMI cross-sectional populations in men and women

| Agegroup (number) | Underweight | Normal | overweight | obesity |
|----------------------|----------------------|----------------------|-----------------------|---------------------|
| Male | | | | |
| 20 (6147) | 13.83 (12.73-14.77) | 13.11 (12.2-14.09) | 12.74 (11.86-13.64) | 12.84 (11.91-13.7) |
| 30 (11229) | 13.37 (12.55-14.41) | 12.89 (11.99-13.82) | 12.63 (11.73-13.52) | 12.58 (11.65-13.49) |
| 40 (13310) | 13.00 (12.02-14.21) | 12.71 (11.81-13.68) | 12.45 (11.58-13.4) | 12.36 (11.46-13.38) |
| 50 (8770) | 12.95 (12.13-13.71) | 12.57 (11.66-13.54) | 12.36 (11.46-13.35) | 12.3 (11.41-13.25) |
| 60 (4220) | 13.02 (11.95-14.55) | 12.51 (11.52-13.54) | 12.37 (11.42-13.33) | 12.29 (11.39-13.10) |
| 70 (1752) | 13.31 (12.29-14.79) | 12.62 (11.6-13.74) | 12.46 (11.32-13.5) | 12.52 (11.32-13.49) |
| Female | | | | |
| 20 (6472) | 13.06 (12.25-13.94) | 12.81 (11.98-13.68) | 12.56 (11.66-13.48) | 12.27 (11.43-13.10) |
| 30 (8702) | 12.83 (12.00-13.65) | 12.61 (11.79-13.46) | 12.32 (11.56-13.23) | 12.32 (11.55-13.10) |
| 40 (8745) | 12.96 (12.09-14.04) | 12.53 (11.72-13.43) | 12.29 (11.39-13.21) | 12.18 (11.33-13.14) |
| 50 (5347) | 12.82 (11.88-13.87) | 12.60 (11.80-13.66) | 12.43 (11.61-13.38) | 12.41 (11.55-13.41) |
| 60 (2645) | 12.92 (11.88– 13.77) | 12.84(11.96 –13.86) | 12.61(11.64 – 13.64) | 12.49 (11.56-13.44) |
| 70(832) | 13.69(12.59– 14.72) | 12.98(12.01– 13.86) | 12.68(11.55 – 13.82) | 12.57 (11.70-13.69) |