## Electronic Supplementary Material


#### Abstract

Title: Population norms of health-related quality of life in Moscow, Russia: the EQ-5D-5L-based survey


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Supplemental Fig. 1 Prevalence of health limitations (any level of severity) for EQ-5D-5L dimensions according to age group and sex: (A) males, (B) females
A
$\cdots \cdots \mathrm{MO} \longrightarrow-\mathrm{SC} \rightarrow-\mathrm{UA}-x-\mathrm{PD} \longrightarrow \cdot \mathrm{AD}$


B


Supplemental Fig. 2 Distribution of (A) EQ-5D-5L index, (B) EQ VAS scores and (C) Level Sum Score among the Moscow population


Supplemental Table 1 Level Sum Score (LSS) according to age group and gender

| Age group (years) | All |  | Male |  | Female |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | n | Mean (SD) [95\%CI] | n | Mean (SD) [95\%CI] | n | Mean (SD) [95\%CI] |
| All ages | 1020 | 7.3 (2.6) [7.2-7.5] | 465 | 7.0 (2.2) [6.7-7.2] | 555 | 7.7 (2.8) [7.4-7.9] |
| 18-24 | 184 | 6.5 (1.9) [6.3-6.8] | 85 | 6.0 (1.4) [5.7-6.3] | 99 | 7.0 (2.1) [6.6-7.4] |
| 25-34 | 190 | 6.6 (1.9) [6.3-6.9] | 83 | 6.6 (1.8) [6.2-7.0] | 107 | 6.6 (2.0) [6.2-7.0] |
| 35-44 | 170 | 6.6 (1.6) [6.3-6.8] | 76 | 6.3 (1.5) [5.9-6.6] | 94 | 6.8 (1.7) [6.5-7.2] |
| 45-54 | 150 | 7.1 (2.1) [6.7-7.4] | 69 | 6.6 (2.0) [6.2-7.1] | 81 | 7.4 (2.1) [7.0-7.9] |
| 55-64 | 126 | 7.4 (2.1) [7.0-7.8] | 59 | 6.8 (1.6) [6.4-7.2] | 67 | 7.9 (2.3) [7.3-7.6] |
| 65-74 | 106 | 8.7 (2.9) [8.2-9.3] | 50 | 8.1 (2.1) [7.5-8.7] | 56 | 9.3 (3.5) [8.3-10.2] |
| 75+ | 94 | 10.7 (3.6) [9.9-11.4] | 43 | 10.2 (2.8) [9.3-11.0] | 51 | 11.0 (4.2) [9.9-12.2] |

Supplemental Table 2 Any problems (\%) within EQ-5D-5L dimensions according to the level of education (secondary or primary, higher) and age group: both sexes

| Both sexes | All ages | Age group |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | 18-24 years | 25-44 years | 45-64 years | 65+ years |
| Secondary or primary education |  |  |  |  |  |
| MO | 37.2 | 12.5 | 29.3 | 42.3 | 89.7 |
| SC | 11.3 | 14.2 | 8.5 | 9.8 | 32.4 |
| UA | 33.8 | 23.6 | 26.8 | 33.3 | 64.7 |
| PD | 49.9 | 44.0 | 45.1 | 53.7 | 82.4 |
| AD | 42.2 | 40.3 | 39.0 | 37.4 | 58.8 |
| Higher education |  |  |  |  |  |
| MO | 34.9 | 15.0 | 17.0 | 37.9 | 75.4 |
| SC | 11.7 | 5.0 | 2.5 | 7.2 | 38.5 |
| UA | 30.6 | 12.5 | 20.7 | 32.0 | 52.3 |
| PD | 47.9 | 52.5 | 37.0 | 52.9 | 63.8 |
| AD | 45.4 | 65.0 | 44.2 | 40.5 | 47.7 |
| Difference (secondary/primary education - higher education)* |  |  |  |  |  |
| MO | 2.3 | -2.5 | 12.3 | 4.4 | 14.3 |
| SC | -0.4 | 9.2 | 6.0 | 2.6 | -6.1 |
| UA | 3.2 | 11.1 | 6.1 | 1.3 | 12.4 |
| PD | 2.0 | -8.5 | 8.1 | 0.8 | 18.6 |
| AD | -3.2 | -24.7 | -5.2 | -3.1 | 11.1 |

[^0]Supplemental Table 3 Any problems (\%) within EQ-5D-5L dimensions according to the level of education (secondary or primary, higher) and age group: males

| Males | All ages |  | Age group |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- |
|  |  | $18-24$ years | $25-44$ years | $45-64$ years | $65+$ years |
| Secondary or primary education |  |  |  |  |  |
| MO | 31.3 | 11.3 | 29.5 | 30.2 | 88.9 |
| SC | 7.3 | 0.0 | 2.3 | 6.3 | 37.0 |
| UA | 26.3 | 16.9 | 25.0 | 23.8 | 59.3 |
| PD | 40.0 | 18.3 | 45.5 | 41.3 | 85.2 |
| AD | 33.2 | 25.4 | 31.8 | 33.3 | 55.6 |
| Higher education |  |  |  |  |  |
| MO | 32.4 | 14.3 | 10.4 | 29.2 | 78.5 |
| SC | 13.1 | 7.1 | 2.6 | 4.6 | 41.5 |
| UA | 17.0 | 21.4 | 18.3 | 23.1 | 47.7 |
| PD | 42.5 | 28.6 | 30.4 | 47.7 | 61.5 |
| AD | 43.2 | 42.9 | 40.9 | 38.5 | 52.3 |
| Difference (secondary/primary | - higher education)* |  |  |  |  |
| MO | -1.1 | -3.0 | 19.1 | 1.0 | 10.4 |
| SC | -5.8 | -7.1 | -0.3 | 1.7 | -4.5 |
| UA | 9.3 | -4.5 | 6.7 | 0.7 | 11.6 |
| PD | -2.5 | -10.3 | 15.1 | -6.4 | 23.7 |
| AD | -10.0 | -17.5 | -9.1 | -5.2 | 3.3 |

[^1]Supplemental Table 4 Any problems (\%) within EQ-5D-5L dimensions according to the level of education (secondary or primary, higher) and age group: females

| Females | All ages | Age group |  |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- |
|  |  |  |  |  |  |
| Secondary or primary education |  |  |  |  |  |
| MO | 42.9 | 13.7 | 28.9 | 55.0 | 90.9 |
| SC | 15.1 | 8.2 | 15.8 | 13.3 | 29.3 |
| UA | 41.0 | 30.1 | 28.9 | 43.3 | 68.3 |
| PD | 59.4 | 50.7 | 44.7 | 66.6 | 80.5 |
| AD | 50.9 | 54.8 | 47.4 | 41.7 | 61.0 |
| Higher education |  |  |  |  |  |
| MO | 36.8 | 15.4 | 21.7 | 44.3 | 72.3 |
| SC | 10.6 | 3.8 | 2.5 | 9.1 | 35.4 |
| UA | 33.3 | 23.1 | 2.4 | 38.6 | 56.9 |
| PD | 52.1 | 65.4 | 41.6 | 43.2 | 66.2 |
| AD | 47.1 | 76.9 | 46.6 | 42.0 | 43.1 |
| Difference (secondary/primary - higher education) |  |  |  |  |  |
| MO | 6.1 | -1.7 | 7.2 | 10.7 | 17.9 |
| SC | 4.5 | 4.4 | 13.3 | 4.2 | -6.1 |
| UA | 7.7 | 7.0 | 26.5 | 4.7 | 11.4 |
| PD | 7.3 | -14.7 | 3.1 | 23.4 | 14.3 |
| AD | 3.8 | -22.1 | 0.8 | -0.3 | 17.9 |

[^2]Supplemental Table 5 EQ VAS according to the level of education (secondary or primary, higher), age group and sex

|  | All ages | Age group |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | 18-24 years | 25-44 years | 45-64 years | 65+ years |
| Both sexes |  |  |  |  |  |
| Secondary or primary education | 73.2 (19.2) | 78.4 (15.8) | 76.3 (16.6) | 74.0 (18.9) | 56.8 (20.7) |
| Higher education | 74.6 (15.9) | 79.8 (10.7) | 79.7 (12.7) | 75.5 (13.5) | 61.4 (18.4) |
| Difference (higher - secondary/primary)* | 1.4 | 1.4 | 3.4 | 1.5 | 4.6 |
| Males |  |  |  |  |  |
| Secondary or primary education | 76.2 (18.5) | 83.1 (12.4) | 76.3 (16.7) | 76.8 (18.7) | 56.3 (21.3) |
| Higher education | 74.6 (16.5) | 83.9 (11.0) | 80.9 (11.6) | 74.8 (13.5) | 61.0 (19.3) |
| Difference (higher - secondary/primary)* | -1.6 | 0.8 | 4.6 | -2.0 | 4.7 |
| Females |  |  |  |  |  |
| Secondary or primary education | 70.3 (19.4) | 73.9 (17.5) | 76.3 (16.8) | 71.1 (18.8) | 57.1 (20.6) |
| Higher education | 74.7 (15.5) | 77.6 (10.1) | 78.8 (13.4) | 76.0 (13.6) | 61.8 (17.7) |
| Difference (higher - secondary/primary)* | 4.4 | 3.7 | 2.5 | 4.9 | 4.7 |

* Green colour means that respondents with higher education have higher EQ VAS values than respondents with secondary/primary education.

Red colour means the opposite - respondents with higher education have lower EQ VAS values than respondents with secondary/primary education.

Supplemental Table 6 EQ-5D-5L index according to the level of education (secondary or primary, higher), age group and sex

|  | All ages | Age group |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | 18-24 years | 25-44 years | 45-64 years | $65+$ years |
| Both sexes |  |  |  |  |  |
| Secondary or primary education | 0.901 (0.121) | 0.936 (0.096) | 0.925 (0.080) | 0.907 (0.097) | 0.784 (0.171) |
| Higher education | 0.911 (0.094) | 0.925 (0.061) | 0.942 (0.065) | 0.916 (0.068) | 0.837 (0.135) |
| Difference (higher - secondary/primary)* | 0.010 | -0.011 | 0.017 | 0.009 | 0.053 |
| Males |  |  |  |  |  |
| Secondary or primary education | 0.927 (0.085) | 0.963 (0.057) | 0.932 (0.072) | 0.930 (0.077) | 0.821 (0.102) |
| Higher education | 0.921 (0.082) | 0.949 (0.049) | 0.949 (0.063) | 0.933 (0.063) | 0.852 (0.094) |
| Difference (higher - secondary/primary)* | -0.006 | -0.014 | 0.017 | 0.003 | 0.031 |
| Females |  |  |  |  |  |
| Secondary or primary education | 0.875 (0.143) | 0.911 (0.118) | 0.916 (0.088) | 0.883 (0.109) | 0.760 (0.202) |
| Higher education | 0.904 (0.103) | 0.913 (0.064) | 0.937 (0.065) | 0.903 (0.069) | 0.822 (0.165) |
| Difference (higher - secondary/primary)* | 0.029 | 0.002 | 0.021 | 0.020 | 0.062 |

* Green colour means that respondents with higher education have higher EQ-5D-5L index values than respondents with secondary/primary education.

Red colour means the opposite - respondents with higher education have lower EQ-5D-5L index values than respondents with secondary/primary education.

Supplemental Table 7 Any problems (\%) within EQ-5D-5L dimensions according to smoking status (current smoker, no smoking) and age group

|  | All ages | Age group |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | 18-24 years | 25-44 years | 45-64 years | 65+ years |
| Current smoker |  |  |  |  |  |
| MO | 30.1 | 18.5 | 21.9 | 29.1 | 86.2 |
| SC | 10.1 | 1.9 | 5.3 | 12.7 | 37.9 |
| UA | 31.9 | 37.0 | 26.3 | 31.6 | 44.8 |
| PD | 42.0 | 35.2 | 36.0 | 43.0 | 75.9 |
| AD | 41.3 | 50.0 | 38.6 | 34.2 | 55.2 |
| No smoking |  |  |  |  |  |
| MO | 38.0 | 10.9 | 18.9 | 44.2 | 79.6 |
| SC | 12.1 | 15.5 | 3.3 | 6.6 | 36.5 |
| UA | 32.1 | 18.0 | 20.1 | 33.0 | 59.3 |
| PD | 51.5 | 39.8 | 40.2 | 57.4 | 70.1 |
| AD | 45.4 | 44.5 | 45.1 | 41.1 | 51.5 |


| Difference (current smoker - no smoking)* |  |  |  |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- |
| MO | -7.9 | 7.6 | 3.0 | -15.1 | 6.6 |
| SC | -2.0 | -13.6 | 2.0 | 6.1 | 1.4 |
| UA | -0.2 | 19.0 | 6.2 | -1.4 | -14.5 |
| PD | -9.5 | -4.6 | -4.2 | -14.4 | 5.8 |
| AD | -4.1 | 5.5 | -6.5 | -6.9 | 3.7 |

[^3]Supplemental Table 8 EQ VAS and EQ-5D-5L index according to smoking status (current smoker, no smoking) and age group

|  | All ages | Age group |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | 18-24 years | 25-44 years | 45-64 years | 65+ years |
| EQ VAS, mean (SD) |  |  |  |  |  |
| Current smoker | 76.2 (18.1) | 78.6 (16.5) | 79.2 (15.5) | 78.4 (15.2) | 53.6 (22.0) |
| Non-smoker | 73.2 (17.0) | 78.7 (14.2) | 78.8 (12.9) | 73.4 (16.2) | 60.8 (18.8) |
| Difference (non-smoker - current smoker)* | -3.0 | 0.1 | -0.4 | -5.0 | 7.2 |
| EQ-5D-5L index, mean (SD) |  |  |  |  |  |
| Current smoker | 0.914 (0.101) | 0.911 (0.127) | 0.934 (0.077) | 0.919 (0.092) | 0.828 (0.113) |
| Non-smoker | 0.904 (0.108) | 0.943 (0.067) | 0.940 (0.064) | 0.909 (0.078) | 0.815 (0.156) |
| Difference (non-smoker - current smoker)* | -0.010 | 0.032 | 0.006 | -0.010 | -0.013 |

* Green colour means that non-smokers have higher EQ VAS / EQ-5D-5L index values than current smokers.

Red colour means the opposite - non-smokers have lower EQ VAS / EQ-5D-5L index values than current smokers.

Supplemental Table 9 Any problems (\%) within EQ-5D-5L dimensions according to monthly income group

| EQ-5D-5L <br> dimension | $\leq 15,000$ | $15,001-30,000$ | $30,001-50,000$ | $50,001-80,000$ | $>80,000$ | Refused to <br> answer |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
|  | 39.2 | 53.7 | 36.2 | 32.0 | 17.6 | 27.3 |
| SC | 16.7 | 22.4 | 5.7 | 4.1 | 6.1 | 9.7 |
| UA | 32.4 | 44.3 | 39.1 | 29.9 | 14.5 | 23.6 |
| PD | 47.1 | 59.8 | 52.3 | 44.9 | 38.2 | 43.1 |
| AD | 50.0 | 49.2 | 43.1 | 36.7 | 50.4 | 37.5 |

Supplemental Fig. 3 Any problems (\%) within EQ-5D-5L dimensions according to monthly income group


Supplemental Fig. 4 EQ VAS according to monthly income group


Supplemental Fig. 5 EQ-5D-5L index according to monthly income group


Supplemental Fig. 6 Any problems (\%) within EQ-5D-5L dimensions according to Internet usage
■ MO ■ SC ■ UA ■ PD ■ AD


Supplemental Fig. 7 EQ VAS according to Internet usage


Supplemental Fig. 8 EQ-5D-5L index according to Internet usage



[^0]:    * Green colour means that respondents with higher education have less problems than respondents with secondary/primary education. Red colour means the opposite - respondents with higher education have more problems than respondents with secondary/primary education.

[^1]:    * Green colour means that respondents with higher education have less problems than respondents with secondary/primary education. Red colour means the opposite - respondents with higher education have more problems than respondents with secondary/primary education.

[^2]:    * Green colour means that respondents with higher education have less problems than respondents with secondary/primary education. Red colour means the opposite - respondents with higher education have more problems than respondents with secondary/primary education.

[^3]:    * Green colour means that non-smoking respondents have less problems than current smokers.

    Red colour means the opposite - non-smoking respondents have more problems than current smokers.

