Electronic Supplementary Material (ESM)

ESM1.

Article title: Inequality and heterogeneity in health-related quality of life: findings based on a large sample of cross-sectional EQ-5D-5L data from the Swedish general population

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CONTENT

SUPPLEMENTARY MATERIAL

Response rate, internal response rates, and information on non-respondents

The survey was sent out to 56,866 individuals aged 30-104 years in the regions/county councils Uppsala, Sörmland, Västmanland, Värmland, and Örebro in mid-Sweden (CDUST Region) [Burström et al., 2020, CDUST Region, 2018]. Potential participants were informed about the study and left with a choice either to participate or to refrain from participation. A returned survey was taken to rest on an informed consent to participate in the survey. The survey was answered by 26,789 individuals, yielding a 47.1% response rate. The response rate varied by age group: 55% (85 years and above); 70% (70-84 years); 53% (50-69 years; 34% (30-49 years) [CDUST Region, 2018]. Women had higher response rate than men, except among those 70 years and above where men had a slight higher response rate. Those born in Sweden had higher response rate than those born outside Sweden and those with higher education had higher response rate than those with lower educational level.

Missing responses on EQ-5D-5L dimensions were 1.4% for mobility, self-care and usual activities, respectively, 1.6% for pain/discomfort, 2.0% for anxiety/depression, and 8.7% for EQ VAS. After exclusion of individuals with missing responses in at least one dimension 3.4% (n=922) the present study used data from 25,867 individuals. Generally, internal non-respondents were older, had worse health status, lower educational level and lower income, and the proportion of women was higher compared to the respondents, however the effect size shows mainly weak level of strength of association between the specified variables and the response status [Burström et al., 2020].

Categorisation of demographic and socioeconomic information, and variables for health-related behaviours, diseases diagnosed by a physician and self-reported conditions

Demographic information was based on sex (men as reference group) and age categorised into 5-year age groups from 30–34 years as reference group until 95–104 years. Socioeconomic characteristics were based on: educational level categorised into low (elementary school 9–10 years) as reference group, medium (secondary school 3–4 years), and high (more than 3–4 years secondary school); individualised annual income divided into five groups of equal size with first quintile (lowest) group as reference group; economic activity only for the ages up to 64 years categorised into employed as reference group, studying/parental leave, unemployed, retired, and sick leave [for details see Burström et al., 2020].

Health-related behaviours included daily smoking (reference group: no or occasional smoking), risk consumption of alcohol (reference group: no risk consumption) [Babor et al., 2001], physical activity less than 150 minutes per week (reference group:150 minutes or more per week,), and number of hours sitting per day dichotomized into sitting 10 hours or more, and sitting less than 10 hours per day (reference group).

Self-reported information on Body Mass Index (BMI) was categorised into underweight (<18.5), normal (reference group: 18.5–24.9), overweight (25.0–29.9), and obesity class I (30.0–34.9), class II (35.0–39.9) or class III (40+) [WHO, 2000]. Respondents answered whether they had specific diseases diagnosed by a physician (reference group: individuals answering not having the specific disease) and whether they had minor or severe conditions (reference group: individuals answering that they did not have the specific condition). Global Self-Rated Health (SRH) was assessed from answers to the question: 'In your opinion, how is your health status? Is it very good, good, neither good nor bad, bad or very bad?' Those answering neither good nor bad, bad or very bad were categorised as having 'less than good SRH'.

Babor, T., Higgins-Biddle, J. C., Aaunders, J. B., & Monteiro, M. G. (2001). Audit. The alcohol disorders identification test. Guidelines for use in primary care. (2nd ed.). World Health Organization.

Burström, K., Teni, F. S., Gerdtham, U, G., Leidl, R., Helgesson, G., Rolfson, O., & Henriksson, M. (2020). Experience-based Swedish TTO and VAS value sets for EQ-5D-5L health states. *PharmacoEconomics, 38*(8), 839–856.

CDUST Region 2018. Liv & hälsa 2017 i Mellansverige: resultat från en undersökning om livsvillkor, levnadsvanor och hälsa (in Swedish). [Life and health 2017: results from a survey on living conditions, health-related behaviours and health]. Available from: https://www.regionvarmland.se/globalassets/global/om-regionen/pressrum/pressmeddelanden/2018/februari/rv-liv-och-halsa-2017.pdf (accessed 8 June 2021).

WHO consultation on obesity. Obesity: Preventing and managing the global epidemic, Report of a WHO Consultation. Geneva, Switzerland, WHO 2000. http://whqlibdoc.who.int/trs/WHO_TRS_894.pdf. (accessed 15 Jan 2021).

Table S1 Sociodemographic characteristics of the populations in Sweden and the CDUST Regions, census data 2017

Variable	Sweden		Uppsala		Södermanland		Västmanland		Värmland		Örebro	
	Men	Women	Men	Women	Men	Women	Men	Women	Men	Women	Men	Women
Proportion of men and women (%)	50.2	49.8	50.0	50.0	50.1	49.9	50.3	49.7	50.3	49.7	50.1	49.9
Average age (years)	41.2		40.1		42.3		49.7		43.5		41.6	
Educational level [a]												
Low	21.2	19.0	19.3	16.5	24.6	23.2	22.8	21.6	22.3	21.5	23.2	21.0
Medium	44.8	40.2	41.9	37.1	49.8	43.6	48.8	43.0	50.8	47.1	49.2	42.7
High	31.1	38.6	36.1	44.4	23.4	31.2	26.0	33.2	24.2	35.1	25.6	34.4
No information	2.9	2.1	2.7	1.9	2.3	1.9	2.3	1.9	2.7	2.1	2.1	1.8
Income (median equivalised) (SEK) [b]	256,600		260,700		244,100		250,200		235,500		240,800	

[a] low= elementary school 9–10 years; medium= secondary school 3–4 years; high= more than 3–4 years secondary school

[b] 1 SEK = 9.63 Euro (2017 prices) (Swedish Riksbank)

Swedish Riksbank. Annual average exchange rates, December, 2017. Accessed 1 August, 2021. https://www.riksbank.se/en-gb/statistics/search-interest--exchange-rates/annual-average-exchange-rates/?y=2017&m=12&s=Dot&f=y

The table is published in Online Resource ESM_1 to the article Burström, K., Teni, F. S., Gerdtham, U, G., Leidl, R., Helgesson, G., Rolfson, O., & Henriksson, M. (2020). Experience-based Swedish TTO and VAS value sets for EQ-5D-5L health states. *PharmacoEconomics, 38*(8), 839–856

Table S2 Characteristics of respondents in Life & Health 2017 (n=25,867)

Variable	%	n
Sex		
Men	47.4	12,249
Women	52.6	13,618
Mean age (years) [SD]		64.3 [16.0]
Age group (years)		
30-34	4.4	1,127
35-39	4.6	1,202
40-44	5.7	1,473
45-49	6.7	1,722
50-54	7.0	1,824
55-59	7.4	1,917
60-64	8.3	2,144
65-69	10.2	2,647
70-74	17.4	4,489
75-79	11.5	2,972
80-84	6.7	1,723
85-89	6.8	1,762
90-94	2.7	703
95-104	0.6	162
Educational level [a]		
Low	23.2	6,005
Medium	42.6	11,027
High	33.6	8,694
Missing	0.6	141
Income		
First quintile (lowest)	19.9	5,159
Second quintile	20.0	5,160
Third quintile	19.9	5,159
Fourth quintile	20.0	5,160
Fifth quintile (highest)	19.9	5,159
Missing	0.3	70
Economic activity (30–64 years)		
Employed	83.7	9,549
Studying/parental leave	3.5	403
Unemployed	3.5	394
Retired	1.1	122
Sick leave	7.3	835
Missing	0.9	106
Self-rated health (SRH)		
Very good	15.7	4,064
Good	48.9	12,650
Neither good or bad	28.5	7,378
Bad	5.1	1,323
Very bad	1.0	262
Missing	0.7	190
Less than good SRH	34.6	9,153
Smoking daily	8.2	2,110
Risk consumption of alcohol	8.8	2,286
Active less than 150 minutes per week	39.9	10,118
Sitting (hours per day)		
More than 12	3.2	829
10 to 12	8.3	2,153
7 to 9	22.6	5,851
4 to 6	43.2	11,169
1 to 3	18.6	4,821
Less than 1	0.9	220
Sit/lie for more than 12 hours due to disability	1.7	434
Missing	1.5	390
BMI (self-reported height and weight)		
Underweight	1.5	383
Normal	37.4	9,685
Overweight	37.8	9,785
Obese class I	13.6	3,519
Obese class II	3.4	886
Obese class III	1.7	436
Missing	4.5	1,173

Diseases diagnosed by a physician		
Asthma	7.0	1,803
COPD	3.4	870
Depression	7.3	1,891
Diabetes	10.0	2,575
Hypertension	32.2	8,321
Number of diseases		
One	31.6	8,182
Two	9.1	2,349
Three	1.5	383
Four	0.2	63
Five	0.1	16
Missing	5.3	1,367
Self-reported conditions		
Headache or migraine		
Minor	15.8	4,077
Severe	2.2	572
Ache/pain in shoulders/neck		
Minor	41.2	10,644
Severe	6.5	1,668
Ache/pain in elbows/legs/knees		
Minor	41.3	10,693
Severe	7.7	1,999
Ache/pain in back/hip or sciatica		
Minor	41.1	10,631
Severe	8.9	2,306
Recurrent stomach/bowel problems		
Minor	21.4	5,523
Severe	3.7	950
Eczema		
Minor	11.9	3,069
Severe	1.1	277
Dejection		
Minor	22.1	5,723
Severe	2.5	649
Anxiety/worry		
Minor	23.4	6,049
Severe	2.9	742
Sleeping difficulties		
Minor	28.7	7,432
Severe	5.9	1,512
Tiredness		
Minor	39.9	10,310
Severe	7.0	1,811
Stress (30–69 years)		
Not at all	43.7	6,142
To some extent	43.9	6,170
Quite a lot	9.1	1,285
Very much	2.8	391
Missing	0.5	68
Sick for more than 29 continuous days in the past 12 months (30–69 years)		
No, I have not been sick for a continuous period of 29 days or more	65.1	9,151
Yes, for problems with my back, neck, joints or muscles	2.3	317
Yes, for exhaustion, fatigue, depression, stress	3.2	455
Yes, for other mental health problems (including insomnia)	0.9	120
Yes, for cardiovascular disease, stroke	0.4	60
Yes, for accidents, injury	1.3	187
Yes, for other reasons	2.5	344
Missing (across all variables)	21.3	3,691
EQ VAS score (mean) [SD]		76.1 [18.7]
EQ VAS score (median) [IQR]		80.0 [20.0]
TTO index value (mean) [SD]		0.892 [0.114]
VAS index value (mean) [SD]		75.9 [14.0]

[a] low= elementary school 9–10 years; medium= secondary school 3–4 years; high= more than 3–4 years secondary school

The table is adapted from Table 2 in Burström, K., Teni, F. S., Gerdtham, U, G., Leidl, R., Helgesson, G., Rolfson, O., & Henriksson, M. (2020). Experience-based Swedish TTO and VAS value sets for EQ-5D-5L health states. *PharmacoEconomics, 38*(8), 839–856.

Table S3 Proportion of health states reported by ten or more respondents (n=174) and the health state '55555'

Health state	n	%	Cumulative %
11111	6234	24.1	24.1
11121	4445	17.2	41.3
11122	1987	7.7	49.0
11112	1213	4.7	53.7
11131	778	3.0	56.7
21121	751	2.9	59.6
21221	461	1.8	61.3
11132	441	1.7	63.1
21231	409	1.6	64.6
11221	334	1.3	65.9
21232	353	1.4	67.3
21122	300	1.2	68.5
11222	296	1.1	69.6
21131	290	1.1	70.7
21222	288	1.1	71.8
31231	212	0.8	72.6
11123	194	0.7	73.4
11232	186	0.7	74.1
31232	172	0.7	74.8
21132	168	0.6	75.4
11231	153	0.6	76.0
31331	141	0.5	76.6
21111	133	0.5	77.1
31332	129	0.5	77.6
11113	118	0,5	78.0
31131	113	0.4	78.5
11133	108	0.4	78.9
31221	94	0.4	79.3
32332	84	0.3	79.6
22232	77	0.3	79.9
31121	70	0.3	80.1
32232	70	0.3	80.4
21233	69	0.3	80.7
11223	68	0.3	80.9
21211	66	0.3	81.2
22222	64	0.2	81.5
22221	62	0.2	81.7
31132	62	0.2	81.9
31222	57	0.2	82.2
22231	56	0.2	82.4
11233	55	0.2	82.6
11211	54	0.2	82.8
11212	54	0.2	83.0
32231	53	0.2	83.2
21331	50	0.2	83.4
32331	49	0.2	83.6
21332	47	0.2	83.8
33332	41	0.2	83.9
21223	39	0.2	84.1
31321	36	0.1	84.2
11332	35	0.1	84.4
31342	35	0.1	84.5
33331	35	0.1	84.6
21112	32	0.1	84.7
41231	32	0.1	84.9
31211	31	0.1	85.0
31233	31	0.1	85.1
11124	30	0.1	85.2
11141	30	0.1	85.3
21242	30	0.1	85.5
12221	29	0.1	85.6

55532	29	0.1	85.7
11331	28	0.1	85.8
21212	28	0.1	85.9
32222	28	0.1	86.0
43442	28	0.1	86.1
31122	26	0.1	86.2
31242	26	0.1	86.3
31333	26	0.1	86.4
43332	26	0.1	86.5
44443	26	0.1	86.6
21123	25	0.1	86.7
22332	25	0.1	86.8
31241	25	0.1	86.9
32342	25	0.1	87.0
33333	24	0.1	87.1
42331	24	0.1	87.2
11322	23	0.1	87.3
42442	23	0.1	87.4
44442	23	0.1	87.5
21133	22	0.1	87.5
21321	22	0.1	87.6
21322	22	0.1	87.7
31341	22	0.1	87.8
12121	21	0.1	87.9
12231	21	0.1	88.0
31322	21	0.1	88.0
32233	21	0.1	88.1
41332	21	0.1	88.2
11333	20	0.1	88.3
21241	20	0.1	88.4
32333	20	0.1	88.4
41331	20	0.1	88.5
43432	20	0.1	88.6
43443	20	0.1	88.7
11321	19	0.1	88.7
41232	19	0.1	88.8
43331	19	0.1	88.9
11234	18	0.1	89.0
21333	18	0.1	89.0
31111	18	0.1	89.1
31431	18	0.1	89.2
41441	18	0.1	89.2
43342	18	0.1	89.3
11114	17	0.1	89.4
11134	17	0.1	89.4
11242	17	0.1	89.5
11323	17	0.1	89.6
21234	17	0.1	89.6
22331	17	0.1	89.7
22333	17	0.1	89.8
32221	17	0.1	89.8
42432	17	0.1	89.9
11142	16	0.1	90.0
12232	16	0.1	90.0
22233	16	0.1	90.1
41241	16	0.1	90.1
41342	16	0.1	90.2
55522	16	0.1	90.3
11213	15	0.1	90.3
21142	15	0.1	90.4
21243	15	0.1	90.4
32241	15	0.1	90.5
32322	15	0.1	90.6
33443	15	0.1	90.6
41341	15	0.1	90.7

11313	14	0.1	90.7
21141	14	0.1	90.8
21342	14	0.1	90.8
22322	14	0.1	90.9
31243	14	0.1	90.9
31343	14	0.1	91.0
41432	14	0.1	91.1
42332	14	0.1	91.1
42342	14	0.1	91.2
43444	14	0.1	91.2
44444	14	0.1	91.3
55533	14	0.1	91.3
11241	13	0.1	91.4
32242	13	0.1	91.4
32321	13	0.1	91.5
32341	13	0.1	91.5
32432	13	0.1	91.6
33342	13	0.1	91.6
42443	13	0.1	91.7
43433	13	0.1	91.7
44432	13	0.1	91.8
55531	13	0.1	91.8
11334	12	0.0	91.9
22223	12	0.0	91.9
31311	12	0.0	92.0
31442	12	0.0	92.0
33431	12	0.0	92.1
41242	12	0.0	92.1
41443	12	0.0	92.1
43431	12	0.0	92.2
12111	11	0.0	92.2
21341	11	0.0	92.3
21432	11	0.0	92.3
22211	11	0.0	92.4
31432	11	0.0	92.4
32442	11	0.0	92.4
33322	11	0.0	92.5
43333	11	0.0	92.5
11143	10	0.0	92.6
11343	10	0.0	92.6
22242	10	0.0	92.7
32433	10	0.0	92.7
32443	10	0.0	92.7
33432	10	0.0	92.8
41132	10	0.0	92.8
41442	10	0.0	92.8
44433	10	0.0	92.9
55542	10	0.0	92.9
…	…	…	…
55555	6	0.0	–

In total 896 health states were reported in Life & Health 2017
174 health states were reported by ten or more respondents
291 health states were reported by five or more respondents

Table S4 Problems in EQ-5D-5L dimensions (%), mean and median EQ VAS score, mean TTO index value, and mean VAS index value, total sample, by age group (n=25,867)

EQ-5D-5L dimension	Men and women age group (years)														
	Total	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	80-84	85-89	90-94	95-104
	n=25,867	n=1,127	n=1,202	n=1,473	n=1,722	n=1,824	n=1,917	n=2,144	n=2,647	n=4,489	n=2,972	n=1,723	n=1,762	n=703	n=162
Mobility															
No problems	67.6	89.1	89.7	87.7	84.5	80.1	76.3	73.0	72.0	67.5	58.0	45.7	31.5	21.8	11.7
Slight problems	17.2	8.0	8.0	8.6	11.2	12.1	14.1	17.2	17.4	18.5	22.3	25.2	28.0	24.9	19.1
Moderate problems	9.7	2.2	1.7	2.6	3.1	5.6	6.6	6.9	6.8	9.7	13.2	18.6	23.6	29.6	21.6
Severe problems	4.4	0.5	0.6	1.0	1.0	2.0	2.8	2.5	3.2	3.4	5.7	8.4	12.9	16.8	26.5
Extreme problems	1.2	0.2	0.1	0.1	0.2	0.2	0.2	0.4	0.6	1.0	0.9	2.2	4.0	7.0	21.0
Self-care															
No problems	89.2	96.4	98.3	96.2	95.6	93.4	92.1	92.7	93.1	91.1	88.0	81.0	72.4	55.5	34.0
Slight problems	6.0	2.9	1.3	2.6	3.0	4.8	5.7	4.8	4.5	5.8	7.3	10.4	11.3	16.1	15.4
Moderate problems	2.8	0.7	0.2	0.7	1.0	1.5	1.7	1.6	1.6	1.9	3.0	4.9	9.1	15.2	14.8
Severe problems	1.1	0.0	0.0	0.4	0.2	0.2	0.4	0.6	0.7	0.6	1.1	2.2	4.2	6.5	16.0
Extreme problems	0.8	0.0	0.1	0.1	0.1	0.0	0.1	0.3	0.1	0.6	0.6	1.6	3.1	6.7	19.8
Usual activities															
No problems	69.2	81.1	83.0	81.2	78.9	76.9	73.6	72.3	75.3	73.4	64.4	52.8	41.3	28.6	19.1
Slight problems	18.2	13.3	11.2	12.1	14.5	13.9	17.0	18.9	17.2	17.1	21.9	26.0	27.6	24.9	22.2
Moderate problems	7.1	4.0	3.7	4.2	3.9	5.2	5.1	5.2	4.4	6.1	8.5	12.9	16.2	20.5	13.0
Severe problems	3.6	2.0	1.8	2.0	2.2	3.1	3.4	3.0	2.5	2.1	3.6	4.8	8.7	13.7	16.7
Extreme problems	2.0	0.6	0.3	0.5	0.6	1.0	0.9	0.6	0.6	1.3	1.6	3.5	6.2	12.4	29.0
Pain/discomfort															
No problems	32.0	49.2	49.2	42.4	40.3	34.6	31.4	30.0	30.1	32.1	26.8	22.7	20.0	16.5	15.4
Slight problems	39.8	36.6	37.5	40.7	37.8	40.7	41.1	42.1	43.0	40.2	40.8	38.3	36.2	35.7	32.1
Moderate problems	22.5	10.8	10.7	13.2	17.1	18.1	20.8	22.7	22.7	22.5	26.6	31.2	34.3	37.3	39.5
Severe problems	5.2	3.1	2.3	3.5	4.1	5.9	6.1	4.9	4.0	4.7	5.3	7.2	8.6	9.8	11.1
Extreme problems	0.4	0.3	0.2	0.1	0.7	0.7	0.6	0.3	0.2	0.4	0.4	0.6	0.8	0.7	1.8
Anxiety/depression															
No problems	62.8	48.4	54.2	55.3	59.5	58.0	64.3	67.3	71.6	68.7	65.8	63.0	57.1	54.5	43.8
Slight problems	28.8	35.6	34.6	33.1	30.8	31.8	26.3	26.1	23.6	25.9	27.9	28.4	32.4	34.8	34.6
Moderate problems	6.0	10.5	7.9	8.5	6.6	7.0	6.5	4.4	3.7	4.0	5.2	6.0	7.8	7.4	16.0
Severe problems	2.0	4.2	2.6	2.4	2.5	2.8	2.4	1.8	0.9	1.3	0.8	2.3	2.2	3.3	4.9
Extreme problems	0.4	1.3	0.7	0.7	0.6	0.4	0.4	0.5	0.2	0.2	0.3	0.3	0.5	0.0	0.6
EQ VAS score (mean) [SD]	76.1 [18.7]	79.0 [16.0]	78.6 [16.0]	78.4 [16.7]	78.1 [17.1]	77.6 [17.8]	78.0 [18.2]	78.8 [17.1]	79.8 [16.9]	78.3 [17.8]	74.6 [18.5]	70.0 [20.0]	64.9 [21.2]	60.1 [22.6]	55.1 [24.1]
EQ VAS score (median) [IQR]	80.0 [20.0]	80.0 [19.0]	80.0 [20.0]	80.0 [20.0]	80.0 [20.0]	80.0 [20.0]	80.0 [20.0]	80.0 [20.0]	85.0 [15.0]	80.0 [20.0]	80.0 [25.0]	75.0 [25.0]	70.0 [30.0]	60.0 [30.0]	55.0 [40.0]
TTO index value (mean) [SD]	0.892 [0.114]	0.911 [0.099]	0.922 [0.086]	0.916 [0.093]	0.913 [0.100]	0.903 [0.109]	0.901 [0.111]	0.904 [0.103]	0.912 [0.094]	0.904 [0.103]	0.887 [0.110]	0.858 [0.130]	0.824 [0.143]	0.783 [0.149]	0.718 [0.164]
VAS index value (mean) [SD]	75.9 [14.0]	78.4 [12.3]	79.8 [11.0]	78.9 [11.7]	78.6 [12.2]	77.4 [13.2]	77.1 [13.4]	77.4 [12.7]	78.2 [12.0]	77.3 [13.0]	75.0 [13.7]	71.5 [15.6]	67.4 [16.8]	62.7 [17.2]	54.6 [18.9]

Table S5 Problems in EQ-5D-5L dimensions (%), mean and median EQ VAS score, mean TTO index value, and mean VAS index value, by sex, 30–64 years, by economic activity (n=11,303)

EQ-5D-5L dimension	Total sample (%)					Men (%)					Women (%)				
	Employed	Studying /parental leave	Unemployed	Retired	Sick leave	Employed	Studying /parental leave	Unemployed	Retired	Sick leave	Employed	Studying /parental leave	Unemployed	Retired	Sick leave
	n=9,549	n=403	n=394	n=122	n=835	n=4,252	n=107	n=183	n=59	n=257	n=5,297	n=296	n=211	n=63	n=578
Mobility															
No problems	85.3	86.6	61.7	72.1	48.7	86.5	85.1	65.6	76.3	48.6	84.3	87.2	58.3	68.3	48.8
Slight problems	10.8	7.9	20.6	18.0	22.3	10.0	8.4	16.4	17.0	19.1	11.5	7.8	24.2	19.1	23.7
Moderate problems	3.1	3.0	12.4	5.7	17.7	2.8	3.7	11.5	1.7	19.8	3.3	2.7	13.3	9.5	16.8
Severe problems	0.7	2.5	4.8	4.1	9.3	0.7	2.8	6.0	5.1	10.9	0.8	2.4	3.8	3.2	8.7
Extreme problems	0.1	0.0	0.5	0.0	1.9	0.1	0.0	0.6	0.0	1.6	0.1	0.0	0.5	0.0	2.1
Self-care															
No problems	96.9	97.5	84.5	95.1	71.7	96.7	95.3	85.8	93.2	69.3	97.1	98.3	83.4	96.8	72.8
Slight problems	2.6	1.5	10.7	2.5	16.7	2.8	2.8	8.7	5.1	18.3	2.5	1.0	12.3	0.0	15.9
Moderate problems	0.4	0.5	3.8	1.6	8.3	0.5	0.9	3.8	1.7	10.5	0.4	0.3	3.8	1.6	7.3
Severe problems	0.1	0.5	0.8	0.0	2.5	0.1	0.9	1.1	0.0	1.2	0.1	0.3	0.5	0.0	3.1
Extreme problems	0.0	0.0	0.3	0.8	0.8	0.0	0.0	0.6	0.0	0.8	0.0	0.0	0.0	1.6	0.9
Usual activities															
No problems	81.8	80.7	57.4	73.8	35.5	84.4	82.2	60.1	79.7	36.6	79.7	80.1	55.0	68.3	35.0
Slight problems	13.7	12.9	21.3	21.3	23.7	12.1	9.4	21.3	15.3	28.0	15.0	14.2	21.3	27.0	21.8
Moderate problems	3.2	4.7	11.4	3.3	17.7	2.3	6.5	10.4	5.1	14.0	3.8	4.1	12.3	1.6	19.4
Severe problems	1.1	1.7	8.1	1.6	17.6	0.9	1.9	6.0	0.0	15.2	1.3	1.7	10.0	3.2	18.7
Extreme problems	0.2	0.0	1.8	0.0	5.5	0.3	0.0	2.2	0.0	6.2	0.2	0.0	1.4	0.0	5.2
Pain/discomfort															
No problems	39.9	48.4	28.9	32.0	16.7	44.2	56.1	35.5	40.7	19.5	36.5	45.6	23.2	23.8	15.4
Slight problems	41.6	34.2	35.3	41.8	24.6	40.6	31.8	31.2	33.9	26.9	42.4	35.1	38.9	49.2	23.5
Moderate problems	15.6	13.4	22.8	24.6	32.9	13.0	9.4	20.8	23.7	32.3	17.7	14.9	24.6	25.4	33.2
Severe problems	2.7	3.5	10.2	1.6	22.6	2.0	2.8	9.8	1.7	18.3	3.3	3.7	10.4	1.6	24.6
Extreme problems	0.1	0.5	2.8	0.0	3.2	0.1	0.0	2.7	0.0	3.1	0.1	0.7	2.8	0.0	3.3
Anxiety/depression															
No problems	62.6	52.6	32.2	77.9	36.1	68.7	57.0	36.6	79.7	37.7	57.8	51.0	28.4	76.2	35.3
Slight problems	30.0	33.3	39.3	21.3	30.9	25.7	33.6	32.2	20.3	29.6	33.5	33.1	45.5	22.2	31.5
Moderate problems	5.7	9.4	15.7	0.8	17.8	4.3	6.5	16.9	0.0	21.4	6.8	10.5	14.7	1.6	16.3
Severe problems	1.5	4.2	8.1	0.0	11.7	1.2	2.8	8.2	0.0	9.0	1.7	4.7	8.1	0.0	13.0
Extreme problems	0.2	0.5	4.6	0.0	3.5	0.2	0.0	6.0	0.0	2.3	0.2	0.7	3.3	0.0	4.0
EQ VAS score (mean) [SD]	80.3 [14.8]	77.7 [17.6]	68.1 [23.1]	80.9 [13.4]	59.4 [24.3]	81.3 [14.0]	80.6 [15.3]	66.8 [25.0]	80.2 [15.1]	61.8 [24.4]	79.6 [15.5]	76.7 [18.3]	69.2 [21.4]	81.6 [11.7]	58.4 [24.2]
EQ VAS score (median) [IQR]	83.0 [15.0]	80.0 [20.0]	75.0 [35.0]	85.0 [20.0]	60.0 [40.0]	85.0 [15.0]	85.0 [15.0]	75.0 [38.5]	80.0 [20.0]	69.5 [40.0]	80.0 [17.0]	80.0 [20.0]	75.0 [35.0]	85.0 [20.0]	60.0 [40.0]
TTO index value (mean) [SD]	0.924 [0.077]	0.912 [0.095]	0.832 [0.159]	0.921 [0.077]	0.768 [0.171]	0.932 [0.073]	0.920 [0.090]	0.836 [0.165]	0.928 [0.075]	0.782 [0.169]	0.918 [0.080]	0.909 [0.097]	0.828 [0.154]	0.914 [0.079]	0.762 [0.172]
VAS index value (mean) [SD]	79.9 [10.2]	78.5 [12.0]	68.8 [18.0]	79.4 [10.5]	61.6 [18.7]	81.1 [9.6]	79.7 [11.4]	69.3 [18.9]	80.4 [10.4]	63.1 [18.6]	78.9 [10.5]	78.1 [12.3]	68.4 [17.3]	78.4 [10.6]	61.0 [18.7]

Table S6 Problems in EQ-5D-5L dimensions (%), mean and median EQ VAS score, mean TTO index value, and mean VAS index value, total sample, by diseases diagnosed by a physician and by self-reported conditions, 30–104 years

EQ-5D-5L dimension	Diseases diagnosed by a physician					Self-reported conditions									
	Asthma	COPD	Depression	Diabetes	Hyper-tension	Headache or migraine	Ache/pain in shoulders/neck	Ache/pain in elbows/legs/knees	Ache/pain in back/hip	Recurrent stomach/bowel problems	Eczema	Dejection	Anxiety/worry	Tiredness	Sleeping difficulties
	n=1,803	n=870	n=1,891	n=2,575	n=8,321	n=4,649	n=12,312	n=12,692	n=12,937	n=6,473	n=3,346	n=6,372	n=6,791	n=12,121	n=8,944
Mobility															
No problems	58.0	33.9	47.0	46.8	53.2	65.1	61.4	52.7	55.8	53.4	62.2	53.1	56.4	54.7	56.8
Slight problems	20.5	27.1	20.2	23.8	23.1	18.7	20.1	24.6	22.9	22.7	19.6	20.7	19.8	21.7	21.6
Moderate problems	13.2	22.1	18.6	16.7	15.2	9.7	12.0	14.5	13.7	13.8	10.3	14.9	13.5	14.3	13.3
Severe problems	6.6	13.5	10.5	10.1	7.2	5.2	5.2	6.9	6.4	7.7	6.6	8.5	7.9	7.4	6.9
Extreme problems	1.7	3.5	3.8	2.6	1.4	1.3	1.3	1.5	1.3	2.4	1.4	2.9	2.5	1.9	1.4
Self-care															
No problems	85.2	71.8	70.9	78.2	84.3	86.3	85.8	84.1	85.0	80.6	85.5	78.2	80.2	82.1	84.0
Slight problems	8.4	14.9	13.9	12.1	8.8	7.4	8.1	8.9	8.6	10.1	7.6	10.8	9.9	9.6	8.8
Moderate problems	3.8	7.6	8.5	5.3	4.2	3.8	3.8	4.3	4.0	5.1	4.0	6.0	5.3	4.8	4.5
Severe problems	1.6	3.1	4.4	2.8	1.6	1.7	1.5	1.6	1.5	2.4	1.6	2.9	2.7	2.0	1.7
Extreme problems	1.0	2.5	2.3	1.6	1.0	0.8	0.9	1.0	1.0	1.8	1.2	2.1	2.0	1.5	1.0
Usual activities															
No problems	56.9	37.6	35.0	52.8	59.0	60.1	60.9	56.2	58.0	52.3	62.6	48.3	51.5	53.2	55.8
Slight problems	24.4	30.5	28.3	24.9	23.7	21.6	22.9	25.4	24.5	24.6	20.6	25.2	24.3	25.5	24.3
Moderate problems	10.2	16.4	17.0	11.7	9.8	9.5	9.4	10.5	9.8	12.0	8.8	13.3	12.0	11.6	11.1
Severe problems	6.1	10.6	13.6	6.8	5.0	6.2	4.7	5.4	5.4	7.0	5.5	8.6	7.9	6.4	6.3
Extreme problems	2.5	4.9	6.1	3.7	2.5	2.5	2.2	2.5	2.3	4.0	2.5	4.6	4.3	3.3	2.6
Pain/discomfort															
No problems	20.0	15.4	13.5	20.9	22.2	19.7	14.8	10.9	12.0	14.7	23.5	17.3	18.8	18.8	19.4
Slight problems	38.6	31.4	30.4	36.5	40.3	38.9	44.7	45.7	45.2	38.6	41.7	36.9	37.7	39.5	38.4
Moderate problems	30.6	39.8	37.5	32.0	29.5	29.5	31.7	34.0	33.2	34.4	25.9	33.1	31.8	31.7	31.4
Severe problems	9.2	11.2	15.9	9.7	7.5	10.7	8.1	8.7	8.8	11.3	8.1	11.3	10.4	9.1	9.8
Extreme problems	1.6	2.3	2.7	0.9	0.6	1.2	0.7	0.8	0.8	1.0	0.8	1.3	1.2	0.9	1.0
Anxiety/depression															
No problems	53.6	49.1	5.1	60.1	61.9	42.1	53.1	55.1	54.7	43.6	54.2	5.1	7.4	42.5	43.1
Slight problems	32.8	36.1	39.3	29.8	29.4	39.3	35.2	33.7	34.0	39.1	32.9	64.4	64.1	42.1	40.4
Moderate problems	9.2	10.2	33.8	7.0	6.3	12.2	8.0	7.9	7.9	11.8	9.1	21.5	21.0	10.8	11.2
Severe problems	3.7	3.5	17.3	2.7	2.0	5.1	3.1	2.9	2.9	4.5	3.3	7.5	7.0	3.8	4.3
Extreme problems	0.6	1.2	4.4	0.4	0.4	1.3	0.6	0.5	0.5	0.9	0.7	1.5	1.5	0.8	1.0
EQ VAS score (mean) [SD]	70.2 (20.2)	61.0 (21.7)	57.1 (22.1)	68.4 (20.0)	71.8 (19.4)	69.6 (20.8)	71.9 (19.3)	71.1 (19.6)	71.4 (19.4)	67.4 (20.8)	72.1 (20.1)	64.0 (20.9)	65.5 (21.0)	68.2 (19.9)	69.3 (19.8)
EQ VAS score (median) [IQR]	75.0 [25.0]	60.0 [30.0]	60.0 [35.0]	70.0 [30.0]	75.0 [25.0]	75.0 [25.0]	75.0 [25.0]	75.0 [25.0]	75.0 [25.0]	70.0 [33.5]	75.0 [30.0]	70.0 [30.0]	70.0 [30.0]	75.0 [25.0]	75.0 [25.0]
TTO index value (mean) [SD]	0.857 (0.136)	0.809 (0.151)	0.744 (0.169)	0.849 (0.137)	0.869 (0.125)	0.852 (0.141)	0.866 (0.126)	0.857 (0.128)	0.861 (0.127)	0.837 (0.142)	0.868 (0.134)	0.805 (0.147)	0.815 (0.146)	0.846 (0.134)	0.848 (0.136)
VAS index value (mean) [SD]	71.4 (15.9)	65.4 (17.3)	58.2 (17.6)	70.4 (16.2)	72.8 (15.0)	70.8 (16.2)	72.3 (14.7)	71.1 (14.9)	71.5 (14.8)	68.7 (16.3)	72.8 (15.7)	64.6 (16.1)	65.8 (16.1)	69.7 (15.6)	70.1 (15.6)

Comparing proportions of any problems (chi-square tests) and mean EQ VAS scores, TTO index values and VAS index values (independent t-tests) between groups with a specific disease or condition with groups without having the specific disease or condition showed statistically significant differences in all comparisons. Slight, moderate, severe and extreme problems were collapsed into any problems for the chi-square test.

Table S7 Problems in EQ-5D-5L dimensions (%), mean and median EQ VAS score, mean TTO index value, and mean VAS index value, by sex, by Body Mass Index (BMI) groups, 30–104 years (n=24,694)

EQ-5D-5L dimension	Total sample (%) BMI						Men (%) BMI						Women (%) BMI					
	Underweight	Normal	Overweight	Obese class I	Obese class II	Obese class III	Underweight	Normal	Overweight	Obese class I	Obese class II	Obese class III	Underweight	Normal	Overweight	Obese class I	Obese class II	Obese class III
	n=383	n=9,685	n=9,785	n=3,519	n=886	n=436	n=134	n=4,087	n=5,307	n=1,684	n=373	n=178	n=249	n=5,598	n=4,478	n=1,835	n=513	n=258
Mobility																		
No problems	58.8	76.2	68.3	56.3	46.5	40.6	53.0	73.7	70.3	59.3	49.1	39.3	61.9	78.1	66.0	53.5	44.6	41.5
Slight problems	18.0	13.3	17.8	22.6	23.7	26.8	17.2	13.6	16.4	19.6	20.6	28.1	18.5	13.0	19.3	25.3	25.9	26.0
Moderate problems	10.4	6.7	9.5	13.8	18.1	17.7	17.2	7.8	8.9	13.4	17.4	16.9	6.8	5.9	10.2	14.1	18.5	18.2
Severe problems	7.8	2.9	3.5	6.3	9.9	12.6	9.0	3.9	3.5	6.6	11.5	12.9	7.2	2.2	3.6	6.0	8.8	12.4
Extreme problems	5.0	0.9	0.9	1.1	1.8	2.3	3.7	1.0	0.9	1.1	1.3	2.8	5.6	0.8	0.9	1.1	2.1	1.9
Self-care																		
No problems	78.3	91.9	90.6	86.4	80.0	77.3	73.1	90.3	90.4	85.9	77.8	73.0	81.1	93.0	90.8	86.9	81.7	80.2
Slight problems	8.9	4.4	5.7	8.0	12.4	12.4	11.2	5.5	6.0	8.0	15.3	14.0	7.6	3.6	5.3	8.0	10.3	11.2
Moderate problems	6.3	2.2	2.3	3.7	4.6	5.7	9.0	2.4	2.1	4.2	4.3	6.2	4.8	2.0	2.5	3.2	4.9	5.4
Severe problems	2.9	0.9	0.9	1.2	1.8	2.8	3.7	1.1	0.9	1.1	1.9	3.4	2.4	0.8	0.9	1.2	1.8	2.3
Extreme problems	3.7	0.7	0.6	0.8	1.1	1.8	3.0	0.7	0.6	0.8	0.8	3.4	4.0	0.6	0.6	0.7	1.4	0.8
Usual activities																		
No problems	58.5	75.0	70.9	60.9	51.6	49.1	57.5	74.3	73.4	63.7	54.4	49.4	59.0	75.5	67.9	58.3	49.5	48.8
Slight problems	18.0	15.0	18.2	24.1	25.7	26.6	18.7	15.2	16.6	22.2	22.3	25.3	17.7	14.8	20.1	25.8	28.3	27.5
Moderate problems	11.0	5.8	6.7	8.2	11.2	12.8	10.5	6.0	6.1	7.2	11.5	11.2	11.2	5.7	7.3	9.1	10.9	14.0
Severe problems	7.3	2.5	2.8	4.8	8.8	8.7	8.2	2.6	2.4	4.9	9.4	9.0	6.8	2.5	3.3	4.6	8.4	8.5
Extreme problems	5.2	1.7	1.5	2.1	2.7	2.8	5.2	1.9	1.5	2.0	2.4	5.1	5.2	1.6	1.4	2.1	2.9	1.2
Pain/discomfort																		
No problems	33.2	38.0	31.3	23.6	17.3	17.4	36.6	40.2	35.7	28.6	22.0	21.9	31.3	36.4	26.2	19.0	13.8	14.3
Slight problems	35.3	40.3	40.8	39.1	37.0	37.6	29.9	39.9	40.4	39.1	36.2	37.1	38.2	40.6	41.2	39.1	37.6	38.0
Moderate problems	21.9	17.6	23.1	29.6	33.1	28.7	22.4	15.9	20.5	26.0	29.0	27.0	21.7	18.9	26.3	32.9	36.1	29.8
Severe problems	8.6	3.7	4.5	7.1	11.5	15.4	9.7	3.7	3.2	5.8	11.5	12.9	8.0	3.7	5.9	8.4	11.5	17.1
Extreme problems	1.0	0.3	0.3	0.6	1.1	0.9	1.5	0.3	0.2	0.5	1.3	1.1	0.8	0.3	0.4	0.7	1.0	0.8
Anxiety/depression																		
No problems	57.4	63.8	65.0	60.3	55.0	45.6	64.9	69.3	69.6	67.0	63.0	47.8	53.4	59.7	59.5	54.2	49.1	44.2
Slight problems	28.7	28.8	27.6	29.9	29.9	40.6	20.2	24.7	24.7	24.9	23.3	38.8	33.3	31.8	31.1	34.4	34.7	41.9
Moderate problems	10.2	5.5	5.5	6.5	9.5	8.3	9.7	4.5	4.3	5.5	8.3	6.2	10.4	6.2	6.9	7.5	10.3	9.7
Severe problems	3.7	1.6	1.6	2.6	4.7	4.1	5.2	1.2	1.2	2.0	4.0	5.6	2.8	1.9	2.0	3.2	5.3	3.1
Extreme problems	0.0	0.4	0.3	0.6	0.9	1.4	0.0	0.3	0.2	0.5	1.3	1.7	0.0	0.5	0.4	0.7	0.6	1.2
EQ VAS score (mean) [SD]	70.2 [23.2]	78.7 [17.9]	76.9 [17.6]	72.5 [19.0]	67.2 [19.5]	66.4 [20.2]	65.9 [25.3]	78.4 [18.0]	77.8 [17.1]	74.0 [18.2]	68.1 [19.6]	64.8 [21.7]	72.5 [21.7]	79.0 [17.9]	75.9 [18.2]	71.1 [19.7]	66.6 [19.5]	67.4 [19.2]
EQ VAS score (median) [IQR]	80.0 [37.0]	83.0 [20.0]	80.0 [20.0]	75.0 [25.0]	70.0 [29.0]	70.0 [30.0]	75.0 [35.0]	82.0 [20.0]	80.0 [20.0]	80.0 [23.0]	70.0 [29.0]	70.0 [30.0]	80.0 [30.0]	83.0 [20.0]	80.0 [20.0]	75.0 [25.0]	70.0 [30.0]	70.0 [30.0]
TTO index value (mean) [SD]	0.855 [0.150]	0.907 [0.104]	0.899 [0.105]	0.872 [0.122]	0.839 [0.142]	0.828 [0.147]	0.847 [0.165]	0.908 [0.105]	0.907 [0.099]	0.882 [0.119]	0.846 [0.148]	0.825 [0.159]	0.859 [0.141]	0.906 [0.103]	0.889 [0.111]	0.864 [0.124]	0.835 [0.137]	0.831 [0.138]
VAS index value (mean) [SD]	71.8 [17.6]	77.9 [13.0]	76.6 [13.2]	73.2 [14.7]	69.1 [16.3]	67.8 [17.1]	71.4 [18.9]	78.2 [13.2]	77.8 [12.6]	74.6 [14.6]	70.1 [17.2]	67.8 [17.3]	71.9 [16.9]	77.6 [12.8]	75.2 [13.6]	71.9 [14.8]	68.4 [15.6]	67.8 [16.3]

Table S8 Problems in EQ-5D-5L dimensions (%), mean and median EQ VAS score, mean TTO index value, and mean VAS index value, total sample, by self-reported stress and self-reported sickness (30–69 years), and number of diagnosed diseases (30–104 years)

EQ-5D-5L dimension	Stress (30-69 years)					Sick for more than 29 continuous days in the past 12 months (30-69 years)							Number of diseases diagnosed by a physician (30-104 years)			
	Quite a lot/very much (combined)	Not at all	To some extent	Quite a lot	Very much	No, I have not been sick for a continuous period of 29 days or more	Yes, for problems with my back, neck, joints or muscles	Yes, for exhaustion, fatigue, depression, stress	Yes, for other mental health problems (including insomnia)	Yes, for cardio-vascular disease, stroke	Yes for accident, injury	Yes for other reasons	One	Two	Three	Four or more
	n=1,676	n=6,142	n=6,170	n=1,285	n=391	n=9,151	n=317	n=455	n=120	n=60	n=187	n=344	n=8,182	n=2,349	n=383	n=79
Mobility																
No problems	64.9	85.4	78.4	67.7	55.5	87.0	42.6	71.4	54.2	43.3	62.0	62.5	59.3	44.9	33.2	16.5
Slight problems	18.5	10.0	14.4	17.6	21.5	9.9	28.1	15.8	23.3	28.3	19.8	21.5	21.4	25.5	21.4	20.3
Moderate problems	11.0	3.2	5.0	10.3	13.6	2.5	20.8	10.8	17.5	16.7	11.2	10.5	12.6	18.5	23.2	25.3
Severe problems	5.0	1.1	2.0	4.0	8.4	0.6	7.9	1.8	3.3	8.3	5.4	5.2	5.5	9.3	18.5	25.3
Extreme problems	0.6	0.3	0.2	0.5	1.0	0.1	0.6	0.2	1.7	3.3	1.6	0.3	1.2	1.8	3.7	12.7
Self-care																
No problems	84.7	96.9	94.3	86.5	79.0	97.6	72.9	87.7	75.0	81.7	86.6	85.8	87.1	79.6	61.9	41.8
Slight problems	9.8	2.2	4.2	9.2	11.8	2.1	18.0	8.4	16.7	13.3	9.1	10.8	7.5	11.3	17.8	27.9
Moderate problems	4.1	0.6	1.2	3.2	6.9	0.3	7.9	3.3	5.8	3.3	3.2	2.9	3.3	5.5	12.8	11.4
Severe problems	1.2	0.2	0.3	1.0	1.8	0.1	1.3	0.0	2.5	0.0	1.1	0.6	1.3	2.6	5.5	8.9
Extreme problems	0.2	0.1	0.1	0.2	0.5	0.0	0.0	0.0	0.0	1.7	0.0	0.0	0.9	1.1	2.1	10.1
Usual activities																
No problems	49.6	86.4	75.0	53.2	37.9	85.5	28.7	39.3	25.0	35.0	48.1	54.1	62.0	49.3	32.4	19.0
Slight problems	24.2	10.3	17.7	24.8	22.0	11.9	32.5	29.2	27.5	28.3	28.3	25.3	22.0	28.7	27.9	26.6
Moderate problems	13.7	2.0	4.6	12.9	16.1	1.9	23.3	18.7	23.3	18.3	12.8	9.3	9.4	11.9	17.0	19.0
Severe problems	10.1	0.9	2.2	7.3	19.2	0.6	12.6	11.0	18.3	11.7	6.4	7.0	4.5	7.1	15.7	21.5
Extreme problems	2.5	0.4	0.4	1.7	4.9	0.1	2.8	1.8	5.8	6.7	4.3	4.4	2.1	3.0	7.1	13.9
Pain/discomfort																
No problems	19.5	45.8	31.9	21.3	13.8	42.2	4.1	21.8	16.7	10.0	13.4	20.6	24.8	16.7	8.4	11.4
Slight problems	32.9	39.2	43.7	35.3	25.1	42.2	22.1	36.3	23.3	36.7	38.5	35.5	41.0	36.9	29.0	19.0
Moderate problems	32.0	12.9	19.8	30.9	35.6	13.7	46.1	29.5	39.2	38.3	34.2	32.3	27.2	35.2	41.0	39.2
Severe problems	13.7	1.9	4.4	11.5	20.7	1.9	26.5	12.1	17.5	11.7	12.3	10.5	6.5	10.6	17.5	25.3
Extreme problems	1.9	0.1	0.2	1.0	4.9	0.1	1.3	0.4	3.3	3.3	1.6	1.2	0.5	0.6	4.2	5.1
Anxiety/depression																
No problems	13.1	89.1	47.5	14.6	8.2	65.9	37.9	17.6	3.3	45.0	55.1	48.6	60.1	51.5	25.6	25.3
Slight problems	38.8	10.3	45.4	43.4	23.5	28.5	39.4	42.2	34.2	31.7	30.5	36.3	29.5	33.1	35.3	32.9
Moderate problems	29.2	0.4	6.1	30.4	25.3	4.5	15.1	22.9	26.7	11.7	11.2	12.5	7.1	10.6	26.4	21.5
Severe problems	15.2	0.2	0.9	10.4	31.0	1.1	6.0	14.1	24.2	6.7	2.7	1.7	2.6	4.3	9.7	16.5
Extreme problems	3.8	0.1	0.1	1.3	12.0	0.1	1.6	3.3	11.7	5.0	0.5	0.9	0.7	0.5	3.1	3.8
EQ VAS score (mean) [SD]	61.7 (21.4)	84.5 (13.6)	77.3 (15.5)	64.8 (19.9)	51.5 (23.1)	81.6 (13.9)	62.2 (21.6)	63.7 (20.8)	54.6 (21.2)	65.3 (20.6)	70.5 (18.3)	68.6 (21.8)	72.8 (19.2)	67.0 (19.8)	54.9 (22.0)	51.2 (23.3)
EQ VAS score (median) [IQR]	65.0 [30.0]	90.0 [15.0]	80.0 [20.0]	70.0 [30.0]	50.0 [35.0]	85.0 [15.0]	65.0 [34.0]	70.0 [30.0]	50.0 [35.0]	70.0 [30.0]	75.0 [23.0]	75.0 [35.0]	77.0 [28.0]	70.0 [30.0]	60.0 [35.0]	50.0 [35.0]
TTO index value (mean) [SD]	0.795 (0.159)	0.943 (0.061)	0.907 (0.087)	0.820 (0.139)	0.710 (0.187)	0.933 (0.066)	0.780 (0.147)	0.803 (0.148)	0.714 (0.171)	0.797 (0.166)	0.848 (0.129)	0.855 (0.124)	0.875 (0.121)	0.839 (0.136)	0.748 (0.179)	0.688 (0.189)
VAS index value (mean) [SD]	64.0 (16.9)	82.8 (8.4)	77.2 (11.2)	66.6 (15.2)	55.3 (19.1)	81.0 (9.0)	62.2 (16.1)	65.3 (16.1)	55.4 (17.5)	64.0 (18.6)	70.0 (15.1)	70.9 (15.0)	73.6 (14.6)	69.0 (15.8)	58.8 (19.0)	52.2 (20.4)

Comparing proportions of any problems (chi-square tests) and mean EQ VAS scores, TTO index values and VAS index values (independent t-tests) between groups with a specific condition with groups without having the specific condition and across different numbers of diseases showed statistically significant differences in all comparisons. Slight, moderate, severe and extreme problems were collapsed into any problems for the chi-square test.

Table S9 Proportion of self-rated health (SRH) levels by sex, by age group (n=25,867)

Self-rated health	Age group (years)														
	Total sample	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	80-84	85-89	90-94	95-104
	n=25,867	n=1,127	n=1,202	n=1,473	n=1,722	n=1,824	n=1,917	n=2,144	n=2,647	n=4,489	n=2,972	n=1,723	n=1,762	n=703	n=162
Total sample															
Very good	15.7	25.6	25.0	23.0	22.2	18.9	18.9	16.5	17.4	15.2	10.6	7.1	5.0	3.6	1.8
Good	48.9	55.2	54.2	55.1	53.5	52.1	49.7	51.6	52.7	51.1	46.0	40.7	34.7	29.9	33.3
Neither good nor bad	28.5	13.4	16.6	16.8	19.0	21.5	25.2	25.9	25.1	28.3	36.3	42.2	47.3	53.1	46.3
Bad	5.1	4.1	3.0	4.1	4.2	6.1	4.7	4.6	4.1	3.7	5.3	7.3	9.5	9.2	11.7
Very bad	0.8	0.7	0.7	0.7	1.0	0.7	1.0	0.7	0.3	0.9	0.9	1.5	2.0	3.1	5.6
Missing	0.7	0.9	0.6	0.3	0.1	0.8	0.5	0.8	0.4	0.8	0.9	1.2	1.4	1.1	1.2
Men															
Very good	15.7	28.4	29.3	26.4	23.1	18.9	17.1	15.5	16.8	15.2	11.8	7.1	5.8	4.4	0.0
Good	50.2	58.1	56.7	56.1	57.1	54.7	54.5	52.7	53.7	51.8	46.1	42.8	36.5	32.7	35.9
Neither good nor bad	27.5	8.0	10.8	13.7	15.9	20.2	22.1	26.0	24.8	27.5	35.2	40.7	44.6	50.3	46.9
Bad	5.0	3.2	2.0	2.9	3.2	4.9	4.6	4.6	4.0	4.1	5.4	7.0	10.0	8.8	14.1
Very bad	1.0	0.9	0.8	0.6	0.7	0.6	1.1	0.6	0.4	0.8	0.9	1.5	2.0	3.3	3.1
Missing	0.6	1.4	0.4	0.2	0.1	0.8	0.6	0.6	0.3	0.6	0.6	0.8	1.2	0.6	0.0
Women															
Very good	15.7	23.9	22.0	20.4	21.5	18.8	20.3	17.3	17.9	15.2	9.3	7.0	4.0	2.6	3.1
Good	47.8	53.3	52.4	54.4	50.7	50.2	46.0	50.7	51.9	50.3	46.0	38.7	32.2	26.8	31.6
Neither good or bad	29.4	16.8	20.7	19.1	21.4	22.5	27.6	25.8	25.3	29.2	37.4	43.7	50.9	56.0	45.9
Bad	5.2	4.6	3.7	4.9	4.9	7.0	4.7	4.5	4.1	3.3	5.2	7.6	9.0	9.7	10.2
Very bad	1.0	0.7	0.6	0.7	1.3	0.7	1.0	0.8	0.2	1.1	1.0	1.5	2.1	3.0	7.1
Missing	0.8	0.6	0.7	0.5	0.1	0.8	0.4	0.9	0.5	0.9	1.2	1.5	1.7	1.8	2.0

Table S10 Problems in EQ-5D-5L dimensions (%), mean and median EQ VAS score, mean TTO index value, and mean VAS index value, total sample, by self-rated health (SRH) level, 30–104 years (n=25,677)

EQ-5D-5L dimension	Self-rated health (SRH)				
	Very good	Good	Neither good nor bad	Bad	Very bad
	n=4,064	n=12,650	n=7,378	n=1,323	n=262
Mobility					
No problems	96.5	81.0	40.0	17.8	12.2
Slight problems	2.7	14.6	29.5	19.0	10.7
Moderate problems	0.5	3.5	21.7	28.0	17.6
Severe problems	0.2	0.7	7.2	29.0	41.6
Extreme problems	0.2	0.3	1.6	6.2	17.9
Self-care					
No problems	99.5	96.9	79.9	48.7	27.5
Slight problems	0.3	2.2	12.4	22.0	16.0
Moderate problems	0.1	0.5	5.2	16.2	19.1
Severe problems	0.0	0.2	1.5	7.9	19.5
Extreme problems	0.0	0.2	1.0	5.3	17.9
Usual activities					
No problems	97.6	84.7	40.2	10.3	4.6
Slight problems	1.9	12.6	35.9	24.0	6.5
Moderate problems	0.2	1.7	16.2	26.1	16.0
Severe problems	0.2	0.6	5.3	26.8	36.3
Extreme problems	0.1	0.4	2.4	12.9	36.6
Pain/discomfort					
No problems	71.1	36.0	9.4	4.4	5.3
Slight problems	25.3	49.8	36.7	13.4	8.0
Moderate problems	3.4	13.1	45.0	44.7	25.6
Severe problems	0.2	1.0	8.6	35.4	41.2
Extreme problems	0.02	0.05	0.4	2.1	19.8
Anxiety/depression					
No problems	89.0	71.5	44.0	15.3	14.1
Slight problems	10.3	25.8	42.7	37.7	21.0
Moderate problems	0.5	2.2	10.7	27.7	24.4
Severe problems	0.1	0.3	2.3	16.5	26.0
Extreme problems	0.02	0.1	0.3	2.9	14.5
EQ VAS score (mean) [SD]	92.0 [8.7]	82.2 [11.3]	64.3 [15.6]	41.5 [16.9]	24.2 [20.3]
EQ VAS score (median) [IQR]	95.0 [8.0]	85.0 [15.0]	67.0 [25.0]	40.0 [20.0]	20.0 [23.0]
TTO index value (mean) [SD]	0.964 [0.029]	0.935 [0.056]	0.833 [0.109]	0.667 [0.140]	0.535 [0.161]
VAS index value (mean) [SD]	86.2 [4.8]	81.1 [8.0]	67.6 [12.7]	49.3 [14.0]	36.1 [16.3]

Table S11 Odds Ratios (OR) (multivariable logistic regression) for reporting any problems on the EQ-5D-5L dimensions and respondent's sex, age, educational level and income, 30–104 years (n=25,867)

	Mobility			Self-care			Usual activities			Pain/discomfort			Anxiety/depression		
	OR	95% CI	P-value	OR	95% CI	P-value	OR	95% CI	P-value	OR	95% CI	P-value	OR	95% CI	P-value
Sex[a]															
Women	**1.07**	**1.01-1.14**	**0.0261**	**0.81**	**0.74-0.88**	**<.0001**	**1.10**	**1.04-1.17**	**0.0011**	**1.37**	**1.29-1.45**	**<.0001**	**1.38**	**1.31-1.46**	**<.0001**
Age group[b]															
35-39	1.00	0.77-1.30	0.9943	**0.49**	**0.28-0.83**	**0.0089**	0.95	0.77-1.18	0.6343	1.05	0.89-1.24	0.5641	0.85	0.72-1.00	0.0545
40-44	**1.34**	**1.04-1.71**	**0.0213**	1.29	0.85-1.95	0.2261	1.18	0.97-1.45	0.1027	**1.45**	**1.24-1.70**	**<.0001**	0.89	0.76-1.04	0.1390
45-49	**1.73**	**1.37-2.18**	**<.0001**	1.47	0.99-2.17	0.0544	**1.35**	**1.11-1.64**	**0.0023**	**1.56**	**1.34-1.82**	**<.0001**	**0.75**	**0.64-0.87**	**0.0002**
50-54	**2.27**	**1.82-2.84**	**<.0001**	**2.18**	**1.51-3.14**	**<.0001**	**1.46**	**1.21-1.76**	**<.0001**	**1.93**	**1.65-2.25**	**<.0001**	**0.78**	**0.67-0.91**	**0.0014**
55-59	**2.81**	**2.26-3.49**	**<.0001**	**2.59**	**1.81-3.70**	**<.0001**	**1.72**	**1.43-2.07**	**<.0001**	**2.22**	**1.90-2.59**	**<.0001**	**0.59**	**0.51-0.69**	**<.0001**
60-64	**3.20**	**2.59-3.96**	**<.0001**	**2.22**	**1.56-3.17**	**<.0001**	**1.75**	**1.46-2.10**	**<.0001**	**2.30**	**1.98-2.68**	**<.0001**	**0.50**	**0.43-0.58**	**<.0001**
65-69	**3.04**	**2.47-3.75**	**<.0001**	**1.82**	**1.28-2.58**	**0.0008**	**1.33**	**1.12-1.59**	**0.0015**	**2.16**	**1.87-2.50**	**<.0001**	**0.37**	**0.32-0.43**	**<.0001**
70-74	**3.26**	**2.67-3.99**	**<.0001**	**1.98**	**1.42-2.76**	**<.0001**	**1.26**	**1.06-1.49**	**0.0078**	**1.78**	**1.55-2.04**	**<.0001**	**0.38**	**0.33-0.44**	**<.0001**
75-79	**4.49**	**3.66-5.51**	**<.0001**	**2.46**	**1.76-3.44**	**<.0001**	**1.74**	**1.47-2.07**	**<.0001**	**2.14**	**1.84-2.48**	**<.0001**	**0.40**	**0.34-0.46**	**<.0001**
80-84	**7.07**	**5.71-8.77**	**<.0001**	**4.04**	**2.88-5.69**	**<.0001**	**2.71**	**2.26-3.26**	**<.0001**	**2.57**	**2.17-3.04**	**<.0001**	**0.43**	**0.37-0.51**	**<.0001**
85-89	**12.88**	**10.36-16.01**	**<.0001**	**6.37**	**4.55-8.92**	**<.0001**	**4.31**	**3.59-5.18**	**<.0001**	**3.04**	**2.56-3.61**	**<.0001**	**0.57**	**0.49-0.67**	**<.0001**
90-94	**20.75**	**15.93-27.02**	**<.0001**	**13.28**	**9.33-18.89**	**<.0001**	**7.40**	**5.89-9.29**	**<.0001**	**3.75**	**2.96-4.75**	**<.0001**	**0.61**	**0.50-0.74**	**<.0001**
95-104	**42.19**	**25.13-70.83**	**<.0001**	**32.67**	**20.65-51.67**	**<.0001**	**12.13**	**7.93-18.54**	**<.0001**	**3.81**	**2.43-5.95**	**<.0001**	0.89	0.63-1.25	0.4929
Educational level[c]															
Medium	**0.91**	**0.84-0.97**	**0.0077**	**0.90**	**0.81-0.99**	**0.0385**	0.97	0.91-1.05	0.4657	1.00	0.93-1.08	0.9450	0.99	0.92-1.06	0.7485
High	**0.72**	**0.66-0.78**	**<.0001**	**0.74**	**0.65-0.84**	**<.0001**	**0.76**	**0.70-0.82**	**<.0001**	**0.71**	**0.66-0.78**	**<.0001**	1.00	0.92-1.08	0.9524
Missing	***1.54***	***1.05-2.25***	***0.0271***	***1.95***	***1.28-2.98***	***0.0019***	***1.73***	***1.20-2.50***	***0.0034***	*0.84*	*0.57-1.22*	*0.3514*	*1.27*	*0.90-1.80*	*0.1793*
Income quintile[d]															
Second	1.03	0.95-1.12	0.4372	0.95	0.85-1.06	0.3275	0.98	0.90-1.06	0.6189	1.06	0.97-1.16	0.2246	**0.92**	**0.85-0.99**	**0.033**
Third	**0.78**	**0.71-0.85**	**<.0001**	**0.67**	**0.59-0.76**	**<.0001**	**0.73**	**0.67-0.80**	**<.0001**	**0.85**	**0.78-0.93**	**0.0005**	**0.70**	**0.64-0.76**	**<.0001**
Fourth	**0.59**	**0.53-0.65**	**<.0001**	**0.45**	**0.38-0.53**	**<.0001**	**0.51**	**0.46-0.56**	**<.0001**	**0.73**	**0.66-0.80**	**<.0001**	**0.53**	**0.49-0.58**	**<.0001**
Fifth (highest)	**0.46**	**0.41-0.51**	**<.0001**	**0.32**	**0.27-0.38**	**<.0001**	**0.41**	**0.37-0.45**	**<.0001**	**0.59**	**0.53-0.65**	**<.0001**	**0.44**	**0.40-0.48**	**<.0001**
Missing	*0.88*	*0.48-1.61*	*0.6685*	0.41	0.12-1.34	0.1383	***0.41***	***0.21-0.77***	***0.0063***	***0.43***	***0.26-0.71***	***0.0009***	**0.32**	**0.19-0.54**	**<.0001**
N		25,867			25,867			25,867			25,867			25,867	

Reference groups: [a]Men; [b]30–34 years; [c]Low educational level; [d]First quintile (lowest)
Statistically significant estimates are shown in bold (<0.05)

Women were significantly more likely than men to report problems with mobility, usual activities, pain/discomfort and anxiety/depression and less likely to report problems with self-care. Having high or medium education resulted in statistically significantly lower OR to report problems with mobility and self-care compared to those with low education. Those with high education had significantly lower OR to report problems with usual activities and pain/discomfort. There was no significant difference between educational groups for reporting problems with anxiety/depression. In all dimensions, those in the fifth (highest), fourth and third income quintiles had significantly lower OR to report problems than those in the first (lowest) income quintile. There were no significant difference between those in the next to lowest and lowest income quintiles in any dimension, expect that those in the next to the lowest had significantly higher OR to report problems with anxiety/depression than those in the lowest quintile.

Table S12 Odds Ratios (OR) (multivariable logistic regression) for reporting any problems on the EQ-5D-5L dimensions and respondent's sex, age, educational level, income and economic activity, 30–64 years (n=11,409)

	Mobility			Self-care			Usual activities			Pain/discomfort			Anxiety/depression		
	OR	95% CI	P-value	OR	95% CI	P-value	OR	95% CI	P-value	OR	95% CI	P-value	OR	95% CI	P-value
Sex[a]															
Men	1			1			1			1			1		
Women	1.1	0.98-1.22	0.0980	**0.79**	**0.65-0.94**	**0.0092**	**1.20**	**1.09-1.33**	**0.0004**	**1.36**	**1.25-1.47**	**<0.0001**	**1.36**	**1.26-1.48**	**<0.0001**
Age group[b]															
35-39	1.06	0.81-1.39	0.6917	**0.52**	**0.30-0.91**	**0.0219**	0.99	0.79-1.23	0.9179	1.05	0.89-1.24	0.5591	0.86	0.73-1.02	0.0735
40-44	**1.39**	**1.08-1.79**	**0.0110**	1.30	0.84-1.99	0.2356	1.19	0.96-1.46	0.1096	**1.42**	**1.21-1.67**	**<0.0001**	0.88	0.75-1.03	0.1153
45-49	**1.81**	**1.43-2.30**	**<0.0001**	1.47	0.98-2.22	0.0646	**1.36**	**1.11-1.67**	**0.0026**	**1.52**	**1.30-1.79**	**<0.0001**	**0.73**	**0.63-0.86**	**0.0001**
50-54	**2.31**	**1.83-2.92**	**<0.0001**	**2.02**	**1.37-2.97**	**0.0004**	**1.41**	**1.16-1.72**	**0.0007**	**1.86**	**1.59-2.18**	**<0.0001**	**0.76**	**0.65-0.89**	**0.0005**
55-59	**2.80**	**2.23-3.52**	**<0.0001**	**2.28**	**1.56-3.33**	**<0.0001**	**1.63**	**1.34-1.98**	**<0.0001**	**2.10**	**1.79-2.46**	**<0.0001**	**0.56**	**0.47-0.65**	**<0.0001**
60-64	**2.84**	**2.26-3.56**	**<0.0001**	**1.50**	**1.02-2.19**	**0.0387**	**1.42**	**1.17-1.73**	**0.0004**	**2.08**	**1.77-2.44**	**<0.0001**	**0.45**	**0.38-0.52**	**<0.0001**
Educational level[c]															
Medium	**0.84**	**0.71-1.00**	**0.0460**	0.82	0.63-1.05	0.1176	0.93	0.79-1.10	0.3914	0.90	0.77-1.06	0.1921	1.00	0.86-1.16	0.9615
High	**0.67**	**0.56-0.80**	**<0.0001**	**0.74**	**0.55-0.98**	**0.0346**	**0.74**	**0.62-0.88**	**0.0005**	**0.62**	**0.52-0.72**	**<0.0001**	1.06	0.90-1.23	0.4964
Missing	*1.74*	*0.87-3.50*	*0.1184*	*1.38*	*0.51-3.73*	*0.5320*	*1.16*	*0.56-2.39*	*0.6939*	*0.57*	*0.3-1.1*	*0.0942*	*0.99*	*0.50-1.94*	*0.9733*
Income quintile[d]															
Second	**1.35**	**1.09-1.67**	**0.0067**	**1.43**	**1.06-1.91**	**0.0177**	**1.44**	**1.17-1.77**	**0.0006**	1.18	0.96-1.46	0.1244	1.11	0.92-1.35	0.2767
Third	1.01	0.85-1.21	0.9094	1.13	0.87-1.49	0.3647	1.08	0.91-1.28	0.3834	1.09	0.93-1.28	0.2881	0.92	0.79-1.07	0.2792
Fourth	**0.76**	**0.64-0.91**	**0.0025**	**0.72**	**0.54-0.97**	**0.0279**	**0.75**	**0.63-0.88**	**0.0007**	0.92	0.79-1.07	0.2845	**0.73**	**0.63-0.84**	**<0.0001**
Fifth (highest)	**0.53**	**0.44-0.64**	**<0.0001**	**0.44**	**0.32-0.62**	**<0.0001**	**0.55**	**0.46-0.66**	**<0.0001**	**0.68**	**0.59-0.80**	**<0.0001**	**0.55**	**0.47-0.64**	**<0.0001**
Missing	*0.92*	*0.48-1.77*	*0.7976*	*0.48*	*0.14-1.70*	*0.2572*	***0.43***	***0.21-0.88***	***0.0200***	***0.47***	***0.27-0.81***	***0.0065***	***0.32***	***0.18-0.57***	***0.0001***
Economic activity[e]															
Studying/ parental leave	1.14	0.83-1.55	0.4177	0.96	0.49-1.85	0.8907	1.10	0.84-1.43	0.5073	0.88	0.71-1.09	0.2249	0.98	0.80-1.22	0.8845
Unemployed	**2.68**	**2.13-3.37**	**<0.0001**	**4.02**	**2.91-5.56**	**<0.0001**	**2.53**	**2.03-3.15**	**<0.0001**	**1.37**	**1.08-1.73**	**0.0092**	**3.01**	**2.40-3.78**	**<0.0001**
Retired	1.35	0.89-2.05	0.1567	1.36	0.58-3.18	0.4823	1.29	0.84-1.97	0.2453	0.97	0.65-1.45	0.8814	0.67	0.43-1.05	0.0775
Sick leave	**3.91**	**3.30-4.63**	**<0.0001**	**8.61**	**6.82-10.87**	**<0.0001**	**5.80**	**4.90-6.87**	**<0.0001**	**2.37**	**1.94-2.9**	**<0.0001**	**2.72**	**2.30-3.20**	**<0.0001**
Missing	*1.39*	*0.86-2.27*	*0.1826*	***2.60***	***1.28-5.26***	***0.0082***	*1.33*	*0.84-2.09*	*0.2264*	*1.02*	*0.68-1.53*	*0.9217*	*1.41*	*0.95-2.08*	*0.0896*
N		11,409			11,409			11,409			11,409			11,409	

Reference groups: [a]Men; [b]30–34 years; [c]Low educational level; [d]First quintile (lowest); [e]Employed
Statistically significant estimates are shown in bold (<0.05)

Unemployed respondents, and those on sick leave, had significantly higher OR to report problems in all dimensions than those who were employed.

Table S13 Ordinary Least Square (OLS) regression on mean EQ VAS score adjusted for sex, age, educational level, income and economic activity, 30–64 years (n=10,800)

Variable	EQ VAS score											
	Model 1			Model 2			Model 3			Model 4		
	Estimate	RSE	P-value	Estimate	RSE	P-value	Estimate	RSE	P-value	Estimate	RSE	P-value
Intercept	**76.500**	**0.842**	**<.0001**	**73.831**	**0.772**	**<.0001**	**72.038**	**0.982**	**<.0001**	**79.051**	**0.968**	**<.0001**
Sex[a]												
Women	**-2.772**	**0.329**	**<.0001**	**-1.113**	**0.337**	**0.0010**	**-1.462**	**0.346**	**<.0001**	**-1.075**	**0.332**	**0.0012**
Age group[b]												
35-39	-0.487	0.671	0.4679	-1.277	0.679	0.0599	-1.246	0.676	0.0656	-1.191	0.661	0.0714
40-44	-0.549	0.655	0.4017	**-2.470**	**0.661**	**0.0002**	**-2.285**	**0.661**	**0.0005**	**-1.650**	**0.638**	**0.0098**
45-49	-0.754	0.642	0.2404	**-2.818**	**0.646**	**<.0001**	**-2.540**	**0.648**	**<.0001**	**-1.900**	**0.633**	**0.0027**
50-54	-1.005	0.647	0.1207	**-3.080**	**0.646**	**<.0001**	**-2.662**	**0.651**	**<.0001**	**-1.877**	**0.630**	**0.0029**
55-59	-0.485	0.647	0.4538	**-2.619**	**0.646**	**<.0001**	**-2.146**	**0.649**	**0.0010**	-1.083	0.634	0.0875
60-64	0.457	0.625	0.4651	**-1.366**	**0.618**	**0.0271**	-0.803	0.628	0.2010	**1.344**	**0.630**	**0.0329**
Educational level[c]												
Medium	**2.800**	**0.734**	**0.0001**				1.336	0.709	0.0594	0.423	0.665	0.5251
High	**5.492**	**0.730**	**<.0001**				**3.015**	**0.716**	**<.0001**	**1.360**	**0.676**	**0.0441**
Missing	*-0.011*	*0.033*	*0.7448*				*-0.012*	*0.032*	*0.7028*	*0.021*	*0.033*	*0.5226*
Income (individual) (thousand SEK)[d]												
Second quintile				-0.488	1.039	0.6384	-0.445	1.035	0.6671	**-2.176**	**0.963**	**0.0239**
Third quintile				**5.956**	**0.746**	**<.0001**	**5.908**	**0.743**	**<.0001**	0.495	0.730	0.4981
Fourth quintile				**8.849**	**0.689**	**<.0001**	**8.530**	**0.685**	**<.0001**	**2.227**	**0.680**	**0.0011**
Fifth quintile				**10.309**	**0.691**	**<.0001**	**9.627**	**0.694**	**<.0001**	**3.393**	**0.690**	**<.0001**
Missing				*0.075*	*0.026*	*0.0036*	*0.081*	*0.025*	*0.0011*	*0.055*	*0.026*	*0.0332*
Economic activity[e]												
Studying/parental leave										-1.577	0.950	0.0970
Unemployed										**-10.629**	**1.264**	**<.0001**
Retired										-0.765	1.329	0.5649
Sick leave										**-19.398**	**0.937**	**<.0001**
Missing										*-2.172*	*1.837*	*0.2370*
Adjusted R²	0.0144			0.0477			0.0506			0.1249		
RMSE	17.00			16.71			16.69			16.02		
N	10,800			10,800			10,800			10,800		

Reference groups: [a]Men; [b]30–34 years; [c]Low educational level; [d]First quintile (lowest); [e]Employed
RSE: Robust Standard Error. Statistically significant estimates are shown in bold ((<0.05)

Table S14 Ordinary Least Square (OLS) regression on mean EQ VAS score by health-related behaviours and diseases diagnosed by a physician, adjusted for sex, age, educational level and income, 30–104 years (n=23,899)

Variable	EQ VAS score																	
	Model 1			Model 2			Model 3			Model 4			Model 5			Model 6		
	Estimate	RSE	P-value	Estimate	RSE	P-value	Estimate	RSE	P-value	Estimate	RSE	P-value	Estimate	RSE	P-value	Estimate	RSE	P-value
Intercept	84.371	0.507	<.0001	78.741	0.651	<.0001	81.782	0.634	<.0001	76.074	0.628	<.0001	82.666	0.453	<.0001	77.278	0.603	77.278
Sex[a]																		
Women	**-1.852**	**0.224**	**<.0001**	**-0.825**	**0.235**	**0.0004**	**-1.383**	**0.223**	**<.0001**	-0.388	0.236	0.1008	**-0.965**	**0.220**	**<.0001**	-0.106	0.232	0.6465
Age group[b]																		
35-39	-0.630	0.676	0.3512	-1.187	0.673	0.0778	-0.741	0.644	0.2497	-1.221	0.645	0.0585	-1.005	0.618	0.1039	**-1.412**	**0.621**	**0.0230**
40-44	-0.688	0.655	0.2940	**-1.853**	**0.653**	**0.0046**	-0.806	0.624	0.1965	**-1.870**	**0.626**	**0.0028**	**-1.188**	**0.597**	**0.0466**	**-2.102**	**0.602**	**0.0005**
45-49	-0.963	0.635	0.1294	**-2.079**	**0.633**	**0.0010**	-0.632	0.609	0.2993	**-1.667**	**0.611**	**0.0064**	**-1.278**	**0.582**	**0.0282**	**-2.147**	**0.588**	**0.0003**
50-54	**-1.732**	**0.638**	**0.0066**	**-2.591**	**0.635**	**<.0001**	-0.739	0.610	0.2254	**-1.571**	**0.612**	**0.0103**	**-1.608**	**0.584**	**0.0059**	**-2.274**	**0.589**	**0.0001**
55-59	-0.976	0.638	0.1264	**-1.807**	**0.635**	**0.0044**	0.313	0.612	0.6087	-0.461	0.612	0.4514	-0.585	0.584	0.3166	**-1.199**	**0.587**	**0.0411**
60-64	-0.346	0.614	0.5731	-0.774	0.612	0.2060	**1.890**	**0.591**	**0.0014**	**1.456**	**0.593**	**0.0141**	0.373	0.566	0.5096	0.093	0.571	0.8713
65-69	-0.107	0.588	0.8553	0.260	0.588	0.6584	**3.389**	**0.573**	**<.0001**	**3.653**	**0.576**	**<.0001**	**1.397**	**0.552**	**0.0114**	**1.742**	**0.557**	**0.0018**
70-74	**-1.349**	**0.551**	**0.0143**	0.319	0.558	0.5678	**2.529**	**0.539**	**<.0001**	**4.009**	**0.548**	**<.0001**	0.607	0.519	0.2422	**1.993**	**0.530**	**0.0002**
75-79	**-4.576**	**0.590**	**<.0001**	**-2.148**	**0.606**	**0.0004**	-0.852	0.583	0.1440	**1.381**	**0.601**	**0.0216**	**-2.784**	**0.566**	**<.0001**	-0.741	0.584	0.2044
80-84	**-7.718**	**0.685**	**<.0001**	**-4.987**	**0.704**	**<.0001**	**-5.035**	**0.694**	**<.0001**	**-2.399**	**0.715**	**0.0008**	**-6.804**	**0.670**	**<.0001**	**-4.400**	**0.691**	**<.0001**
85-89	**-11.461**	**0.715**	**<.0001**	**-8.556**	**0.737**	**<.0001**	**-10.210**	**0.727**	**<.0001**	**-7.358**	**0.750**	**<.0001**	**-9.451**	**0.709**	**<.0001**	**-7.358**	**0.733**	**<.0001**
90-94	**-13.788**	**1.006**	**<.0001**	**-10.762**	**1.025**	**<.0001**	**-15.356**	**1.044**	**<.0001**	**-12.291**	**1.065**	**<.0001**	**-17.081**	**1.023**	**<.0001**	**-14.286**	**1.043**	**<.0001**
95-104	**-16.122**	**1.963**	**<.0001**	**-12.984**	**1.975**	**<.0001**	**-20.509**	**2.113**	**<.0001**	**-17.253**	**2.127**	**<.0001**	**-21.284**	**2.109**	**<.0001**	**-18.324**	**2.118**	**<.0001**
Educational level[c]																		
Medium				0.551	0.325	0.0902				**0.908**	**0.329**	**0.0058**				**0.853**	**0.322**	**0.0081**
High				**1.611**	**0.349**	**<.0001**				**1.722**	**0.351**	**<.0001**				**1.749**	**0.344**	**<.0001**
Missing				*0.007*	*0.018*	*0.7026*				*0.004*	*0.018*	*0.8424*				*0.006*	*0.018*	*0.7405*
Income (individual) (thousand SEK)[d]																		
Second quintile				0.434	0.401	0.2785				**0.991**	**0.408**	**0.0151**				**1.001**	**0.398**	**0.0118**
Third quintile				**3.238**	**0.392**	**<.0001**				**3.803**	**0.396**	**<.0001**				**3.431**	**0.386**	**<.0001**
Fourth quintile				**5.387**	**0.407**	**<.0001**				**5.604**	**0.407**	**<.0001**				**4.894**	**0.396**	**<.0001**
Fifth quintile				**6.859**	**0.421**	**<.0001**				**6.502**	**0.420**	**<.0001**				**5.783**	**0.410**	**<.0001**
Missing				*0.092*	*0.023*	*<.0001*				*0.067*	*0.022*	*0.0027*				*0.051*	*0.021*	*0.0168*
Tobacco and alcohol																		
Daily smoking[e]	**-3.322**	**0.535**	**<.0001**	**-2.234**	**0.525**	**<.0001**												
Risk consumption of alcohol[f]	-0.583	0.384	0.1288	**-0.910**	**0.379**	**0.0163**												
Physical exercise[g]																		
Less than 150 minutes/week	**-7.356**	**0.253**	**<.0001**	**-6.650**	**0.254**	**<.0001**												
Sitting[h]																		
Sitting for 10 or more hours/day	**-10.235**	**0.409**	**<.0001**	**-10.480**	**0.403**	**<.0001**												
Diseases diagnosed by a physician[i]																		
Asthma													**-3.343**	**0.479**	**<.0001**	**-3.288**	**0.473**	**<.0001**
COPD													**-11.312**	**0.816**	**<.0001**	**-10.741**	**0.808**	**<.0001**
Depression													**-19.113**	**0.559**	**<.0001**	**-18.221**	**0.554**	**<.0001**
Diabetes													**-5.202**	**0.477**	**<.0001**	**-4.809**	**0.470**	**<.0001**
Hypertension													**-4.055**	**0.287**	**<.0001**	**-3.860**	**0.285**	**<.0001**
Number of diseases[j]																		
One							**-7.298**	**0.271**	**<.0001**	**-6.865**	**0.268**	**<.0001**						
Two							**-13.426**	**0.450**	**<.0001**	**-12.608**	**0.447**	**<.0001**						
Three							**-25.177**	**1.201**	**<.0001**	**-23.673**	**1.174**	**<.0001**						
Four or more							**-29.101**	**2.731**	**<.0001**	**-27.799**	**2.643**	**<.0001**						
Adjusted R²	0.1537			0.1708			0.1465			0.1620			0.1839			0.1962		
RMSE	17.17			17.00			17.25			17.09			16.86			16.74		
N	23,899			23,899			23,899			23,899			23,899			23,899		

Reference groups: [a]Men; [b]30–34 years; [c]Low educational level; [d]First income quintile (lowest); [e]No or occasionally smoking; [f]No risk consumption of alcohol; [g]150 minutes or more/week; [h]Sitting less than 10 hours per day; [ij]Not having the specific disease; [j]No disease. RSE: Robust Standard Error. Statistically significant estimates are shown in bold (<0.05)

Table S15 Ordinary Least Square (OLS) regression on mean EQ VAS score by Body Mass Index (BMI) groups, adjusted for sex, age, educational level and income, 30–104 years (n=23,899)

Variable	EQ VAS score					
	Model 1			Model 2		
	Estimate	RSE	P-value	Estimate	RSE	P-value
Intercept	**82.276**	**0.507**	**<.0001**	**75.719**	**0.665**	**<.0001**
Sex[a]						
Women	**-1.491**	**0.232**	**<.0001**	-0.328	0.245	0.1797
Age group[b]						
35-39	-0.199	0.663	0.7637	-0.800	0.664	0.2282
40-44	-0.384	0.644	0.5508	**-1.661**	**0.645**	**0.0100**
45-49	-0.393	0.628	0.5310	**-1.646**	**0.629**	**0.0088**
50-54	-0.925	0.632	0.1436	**-1.931**	**0.632**	**0.0023**
55-59	-0.305	0.634	0.6303	-1.234	0.632	0.0510
60-64	0.255	0.609	0.6757	-0.225	0.609	0.7119
65-69	1.116	0.583	0.0559	**1.488**	**0.584**	**0.0109**
70-74	-0.319	0.548	0.5601	**1.484**	**0.557**	**0.0077**
75-79	**-3.999**	**0.589**	**<.0001**	**-1.314**	**0.610**	**0.0311**
80-84	**-8.723**	**0.699**	**<.0001**	**-5.559**	**0.722**	**<.0001**
85-89	**-14.095**	**0.725**	**<.0001**	**-10.678**	**0.753**	**<.0001**
90-94	**-19.117**	**1.046**	**<.0001**	**-15.467**	**1.070**	**<.0001**
95-104	**-23.883**	**2.121**	**<.0001**	**-20.066**	**2.135**	**<.0001**
Educational level[c]						
Medium				**0.890**	**0.339**	**0.0086**
High				**1.644**	**0.361**	**<.0001**
Missing				*0.003*	*0.018*	*0.8843*
Income (individual) (thousand SEK)[d]						
Second quintile				**0.890**	**0.421**	**0.0347**
Third quintile				**4.267**	**0.409**	**<.0001**
Fourth quintile				**6.435**	**0.422**	**<.0001**
Fifth quintile				**7.364**	**0.436**	**<.0001**
Missing				*0.069*	*0.024*	*0.0035*
BMI[e]						
Underweight	**-6.655**	**1.210**	**<.0001**	**-6.186**	**1.193**	**<.0001**
Overweight	**-2.294**	**0.257**	**<.0001**	**-1.976**	**0.255**	**<.0001**
Obese class I	**-7.099**	**0.372**	**<.0001**	**-6.418**	**0.369**	**<.0001**
Obese class II	**-12.571**	**0.688**	**<.0001**	**-11.641**	**0.682**	**<.0001**
Obese class III	**-12.872**	**1.064**	**<.0001**	**-11.722**	**1.054**	**<.0001**
Adjusted R²	0.1011			0.1211		
RMSE	17.70			17.50		
N	23,899			23,899		

Reference groups: [a]Men; [b]30–34 years; [c]Low educational level; [d]First income quintile (lowest); [e]Normal weight
RSE: Robust Standard Error. Statistically significant estimates are shown in bold (<0.05)
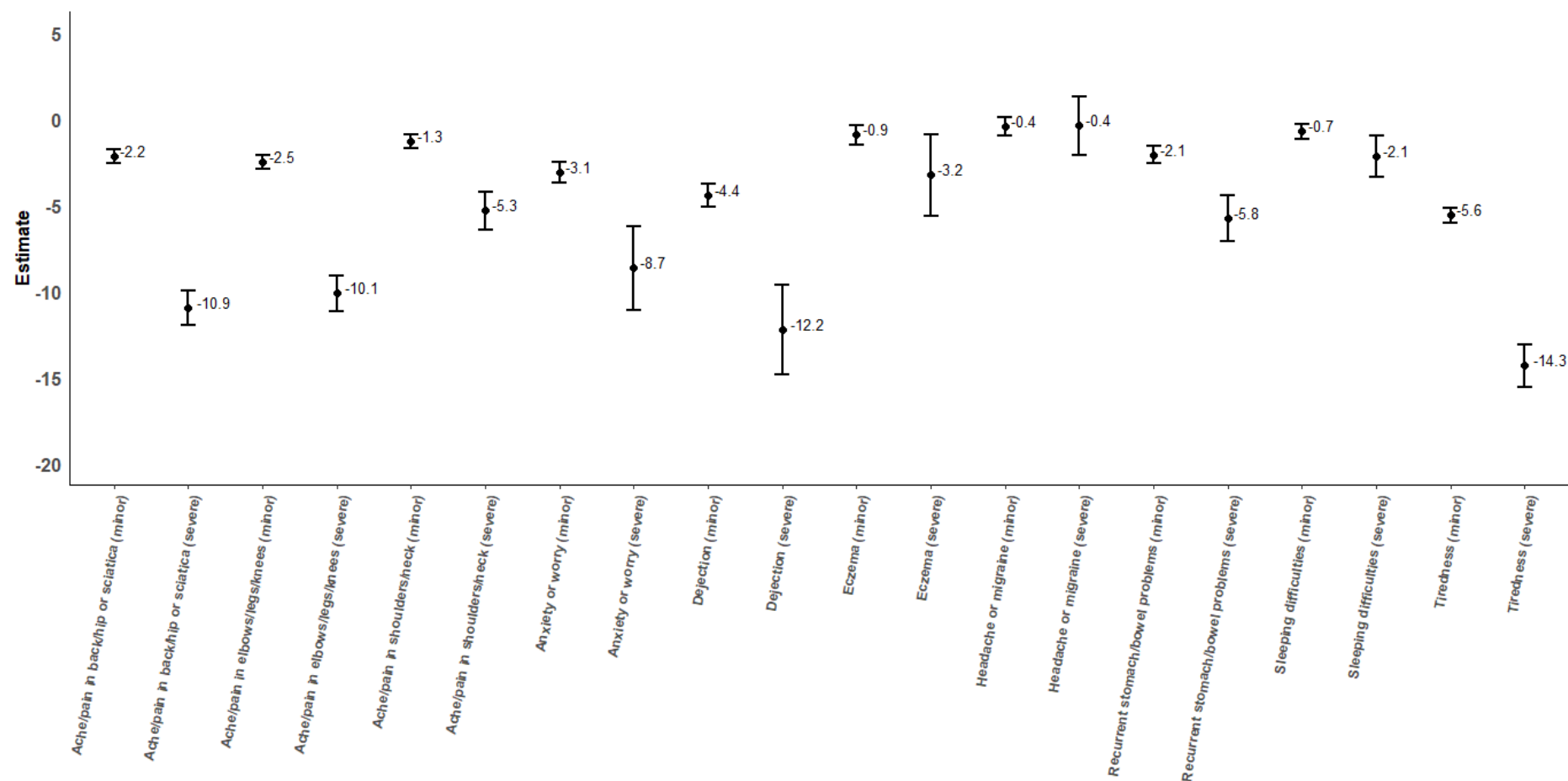
Figure S1 Ordinary Least Square (OLS) regression on mean EQ VAS score by self-reported conditions, adjusted for sex, age, educational level and income, estimates showing reduction in mean EQ VAS score with confidence intervals, 30–104 years (n=23,899)