**Appendix**

**Table A1. Demographics of the included sample by study site**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | Total  (n=1073) | Edmonton  (n=290) | Vancouver  (n=265) | Hamilton  (n=260) | Montreal  (n=258) |
| Mean age (SD), years | 47.1(17.6) | 47.8(17.5) | 49.4(19.2) | 45.4(17.1) | 45.5(15.9) |
| Female | 595(55.5) | 162(55.9) | 139(52.5) | 127(48.9) | 167(64.7) |
| Marital status |  |  |  |  |  |
| Married/common law partner | 574(53.5) | 177(61.0) | 113(42.6) | 149(57.3) | 135(52.3) |
| Single | 319(29.7) | 68(23.4) | 110(41.5) | 66(25.4) | 75(29.1) |
| Separated | 28(2.6) | 6(2.1) | 4(0.4) | 12(4.6) | 6(2.3) |
| Divorced | 108(10.1) | 25(8.6) | 21(9.2) | 24(9.2) | 38(14.7) |
| Widowed | 40(3.7) | 14(4.9) | 16(6.0) | 6(2.3) | 4(1.6) |
| Education |  |  |  |  |  |
| High school or lower | 374(34.9) | 96(33.1) | 95(35.9) | 95(36.5) | 88(34.1) |
| College diploma | 337(31.4) | 92(31.7) | 74(27.9) | 92(35.4) | 79(30.6) |
| University or higher | 358(33.4) | 102(35.2) | 92(34.7) | 73(28.1) | 91(35.3) |
| Full-time employment | 359(33.5) | 107(36.9) | 61(23.0) | 100(38.5) | 91(35.3) |
| Annual household income |  |  |  |  |  |
| <$15,000 | 107(10.0) | 10(3.5) | 37(14.0) | 24(9.2) | 36(14.0) |
| $15,000-$45,000 | 278(25.9) | 49(16.9) | 57(21.5) | 68(26.2) | 104(40.3) |
| $45,000-$75,000 | 237(22.1) | 67(23.1) | 59(22.3) | 58(22.3) | 53(20.5) |
| >$75,000 | 334(31.1) | 142(49.0) | 73(27.6) | 85(32.7) | 34(13.2) |
| Born in Canada | 806(75.1) | 230(79.3) | 180(67.9) | 216(83.1) | 180(69.8) |
| Rural dwellers | 174(14.4) | 54(18.6) | 12(4.5) | 52(20.0) | 56(21.7) |
| language spoken at home-English | 729(67.9) | 249(85.9) | 226(85.3) | 246(94.6) | 8(3.1) |
| # Chronic conditions  None  1  2  ≥3 | 471 (43.9)  264 (24.6)  168 (15.7)  170 (15.8) | 124(42.7)  73(25.2)  42(14.5)  51(17.6) | 110(41.5)  66(24.9)  45(17.0)  44(16.6) | 115(44.2)  53(20.4)  43(16.5)  49(18.9) | 122(47.3)  72(27.9)  38(14.7)  26(10.1) |
| Self-reported EQ-VAS | 82.7(13.6) | 81.6(13.9) | 81.0(14.0) | 83.0(13.7) | 85.5(12.3) |

**Table A2. Sensitivity analyses results**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Variable | **Preferred model**  (Censored at zero, with consistent participants) | Censored below zero, with consistent participants | Censored at zero with all participants | Censored below zero, with all participants |
| Intercept | **1.1351(0.01712)** | 1.1163(0.01503) | 1.0836(0.01740) | 1.0703(0.01525) |
| MO | **-0.0389(0.00478)** | -0.0341(0.00417) | -0.0347(0.00457) | -0.0299(0.00400) |
| SC | **-0.0458(0.00453)** | -0.0394(0.00402) | -0.0396(0.00438) | -0.0337(0.00388) |
| UA | **-0.0195(0.00435)** | -0.0180(0.00389) | -0.0145(0.00420) | -0.0137(0.00375) |
| PD | **-0.0444(0.00442)** | -0.0390(0.00392) | -0.0391(0.00423) | -0.0343(0.00374) |
| AD | **-0.0376(0.00492)** | -0.0373(0.00433) | -0.0355(0.00480) | -0.0352(0.00423) |
| MO45 | **-0.0510(0.01597)** | -0.0698(0.01394) | -0.0479(0.01518) | -0.0660(0.01327) |
| SC45 | **-0.0584(0.01513)** | -0.0809(0.01345) | -0.0562(0.01434) | -0.0771(0.01273) |
| UA45 | **-0.1103(0.01433)** | -0.1134(0.01274) | -0.1079(0.01372) | -0.1087(0.01218) |
| PD45 | **-0.1409(0.01455)** | -0.1465(0.01264) | -0.1311(0.01384) | -0.1349(0.01203) |
| AD45 | **-0.1277(0.01539)** | -0.1238(0.01343) | -0.1090(0.01477) | -0.1060(0.01289) |
| Num45sq | **0.0085(0.00156)** | 0.0158(0.00124) | 0.0047(0.00152) | 0.0114(0.00123) |
|  |  |  |  |  |
| MAE\* | **0.0443** | 0.0779 | 0.0557 | 0.0989 |

Standard errors are given in parentheses. MO, SC, UA, PD, and AD were linear variables for the 5 domains; MO45, SC45, UA45, PD45, and AD45 were dummy variables for whether or not there exists any level 4 or level 5 within a domain; Num45 was defined as the number of level 4 or level 5 beyond one across the five domains; Num45sq was defined as Num45 squared.

MAE=mean absolute error which was calculated without using leave-a-state-out cross validation approach.

**Table A3. An illustration of using the coefficients from the preferred model to calculate utilities for EQ-5D-5L health state**

|  |  |
| --- | --- |
| **Health State 23145** |  |
| Intercept | 1.1351 |
| Mobility, level 2, (MO=2) | -0.0389\*2 = -0.0778 |
| Self-care, level 3, (SC=3) | -0.0458\*3 = -0.1374 |
| Usual activities, level 1, (UA=1) | -0.0195\*1 = -0.0195 |
| Pain/discomfort, level 4, (PD=4) | -0.0444\*4 = -0.1776 |
| Anxiety/depression, level 5, (AD=5) | -0.0376\*5 = -0.1880 |
| Mobility, level 4 or level 5, (MO45=0) | -0.0510\*0 = 0 |
| Self-care, level 4 or level 5, (SC45=0) | -0.0584\*0 = 0 |
| Usual activities, level 4 or level 5, (UA45=0) | -0.1103\*0 = 0 |
| Pain/discomfort, level 4 or level 5, (PD45=1) | -0.1409\*1 = -0.1409 |
| Anxiety/depression, level 4 or level 5, (AD45=1) | -0.1277\*1 = -0.1277 |
| Num45sq, (=(2-1)\*(2-1)=1) | 0.0085\*1 = 0.0085 |

Health utility for 23145 =1.1351 - 0.0778 - 0.1374 - 0.0195 - 0.1776 - 0.1880 – 0 – 0 – 0 - 0.1409 - 0.1277 + 0.0085 = 0.2747.

For the full value set, please visit [www.phenomresearch.ca](http://www.phenomresearch.ca)