Comparison of analyses performed on non-imputed data with the maximum and minimum extreme scenarios (missings on outcome are replaced by 90p and 10p value, respectively)

| Model I (PCS as outcome) | | | | | | | | | | |
|-----------------------------------|----------|------|----------|-------|--------|------|-------------|-------------|------------|-------------|
| | | | | | Max | | | | | |
| | Actual d | ata | Min scei | nario | scenar | io | | Change | Change (%) | Change |
| | | | | | | | Change (%) | (absolute) | real to | (absolute) |
| | Beta | P>t | Beta | P>t | Beta | P>t | real to min | real to min | max | real to max |
| Musculoskeletal diseases | | | | | | | | | | |
| No education/lowest school vs. | | | | | | | | | | |
| University education | -5.71 | 0.00 | -4.76 | 0.00 | -2.34 | 0.06 | 17% | -0.96 | 144% | -3.37 |
| Lower professional school vs. | | | | | | | | | | |
| University education | -2.96 | 0.00 | -2.93 | 0.00 | -1.58 | 0.08 | 1% | -0.03 | 87% | -1.38 |
| Middle or professional secondary | | | | | | | | | | |
| school vs. University education | -2.44 | 0.00 | -2.43 | 0.00 | -2.11 | 0.00 | 0% | -0.01 | 16% | -0.33 |
| Secondary school vs. University | | | | | | | | | | |
| education | -1.89 | 0.05 | -1.60 | 0.07 | -2.32 | 0.03 | 15% | -0.28 | -19% | 0.43 |
| Age (years) | -0.14 | 0.00 | -0.15 | 0.00 | -0.03 | 0.12 | -2% | 0.00 | 341% | -0.11 |
| Female vs. male | -2.71 | 0.00 | -2.43 | 0.00 | -2.02 | 0.00 | 10% | -0.28 | 34% | -0.69 |
| Number of comorbidities | -2.77 | 0.00 | -2.30 | 0.00 | -2.19 | 0.00 | 17% | -0.47 | 26% | -0.58 |
| Overweight vs Normal | 0.34 | 0.59 | 0.39 | 0.49 | 0.18 | 0.78 | -14% | -0.05 | 88% | 0.16 |
| Obese vs Normal | -1.80 | 0.03 | -1.67 | 0.02 | -2.92 | 0.00 | 8% | -0.14 | -38% | 1.11 |
| Smoking (current vs. never) | -2.80 | 0.00 | -2.85 | 0.00 | -2.29 | 0.01 | -2% | 0.05 | 23% | -0.52 |
| Smoking (smoked before vs. never) | -0.89 | 0.16 | -1.08 | 0.06 | -1.26 | 0.06 | -21% | 0.19 | -29% | 0.37 |
| Cardio-vascular diseases | | | | | | | | | | |
| No education/lowest school vs. | | | | | | | | | | |
| University education | -6.66 | 0.00 | -6.02 | 0.00 | -3.13 | 0.00 | 10% | -0.64 | 113% | -3.53 |
| Lower professional school vs. | | | | | | | | | | |
| University education | -3.06 | 0.00 | -3.53 | 0.00 | -0.93 | 0.24 | -15% | 0.47 | 230% | -2.14 |
| Middle or professional secondary | | | | | | | | | | |
| school vs. University education | -1.89 | 0.00 | -1.92 | 0.00 | -1.52 | 0.02 | -1% | 0.02 | 25% | -0.37 |

| Secondary school vs. University | 1 | | | | | ì | | | | |
|--|-------|------|-------|------|-------|------|-------|-------|-------|-------|
| education | -1.85 | 0.04 | -1.44 | 0.09 | -2.29 | 0.01 | 22% | -0.41 | -19% | 0.44 |
| Age (years) | -0.19 | 0.00 | -0.22 | 0.00 | -0.09 | 0.00 | -15% | 0.03 | 119% | -0.11 |
| Female vs. male | -1.74 | 0.00 | -1.60 | 0.00 | -1.28 | 0.02 | 8% | -0.14 | 36% | -0.46 |
| Number of comorbidities | -4.99 | 0.00 | -4.16 | 0.00 | -4.09 | 0.00 | 17% | -0.83 | 22% | -0.90 |
| Overweight vs Normal | 0.60 | 0.31 | 0.44 | 0.41 | 0.60 | 0.31 | 27% | 0.16 | 0% | 0.00 |
| Obese vs Normal | -1.73 | 0.02 | -1.72 | 0.01 | -2.10 | 0.01 | 1% | -0.01 | -18% | 0.37 |
| Smoking (current vs. never) | -1.26 | 0.12 | -1.24 | 0.10 | -1.64 | 0.05 | 1% | -0.02 | -23% | 0.38 |
| Smoking (smoked before vs. never) | 0.39 | 0.50 | 0.30 | 0.57 | -0.34 | 0.56 | 24% | 0.09 | -215% | 0.73 |
| Diabetes | • | | | | | | | | | |
| No education/lowest school vs. University education | -4.62 | 0.01 | -5.13 | 0.00 | 0.56 | 0.76 | -11% | 0.50 | -926% | -5.18 |
| Lower professional school vs. University education | -0.99 | 0.48 | -2.66 | 0.03 | 1.59 | 0.28 | -170% | 1.68 | -162% | -2.58 |
| Middle or professional secondary school vs. University education | 0.33 | 0.78 | -0.50 | 0.66 | 1.74 | 0.20 | 250% | 0.83 | -81% | -1.40 |
| Secondary school vs. University education | -0.10 | 0.95 | -0.85 | 0.57 | 0.20 | 0.91 | -769% | 0.75 | -148% | -0.30 |
| Age (years) | -0.20 | 0.00 | -0.20 | 0.00 | -0.10 | 0.01 | -1% | 0.00 | 91% | -0.09 |
| Female vs. male | -3.45 | 0.00 | -2.52 | 0.01 | -2.82 | 0.01 | 27% | -0.92 | 22% | -0.63 |
| Number of comorbidities | -4.01 | 0.00 | -3.24 | 0.00 | -2.82 | 0.00 | 19% | -0.77 | 42% | -1.20 |
| Overweight vs Normal | -1.26 | 0.29 | -0.02 | 0.98 | -1.64 | 0.19 | 98% | -1.24 | -23% | 0.38 |
| Obese vs Normal | -3.49 | 0.01 | -2.38 | 0.04 | -4.21 | 0.00 | 32% | -1.11 | -17% | 0.71 |
| Smoking (current vs. never) | -1.99 | 0.17 | -2.16 | 0.09 | -2.30 | 0.13 | -9% | 0.17 | -13% | 0.31 |
| Smoking (smoked before vs. never) | -1.60 | 0.14 | -1.07 | 0.26 | -2.36 | 0.04 | 33% | -0.52 | -32% | 0.76 |
| Mental | • | l l | | I | · | | | | | |
| No education/lowest school vs. University education | -6.62 | 0.00 | -5.93 | 0.01 | -3.51 | 0.12 | 10% | -0.69 | 89% | -3.11 |
| Lower professional school vs. University education | -8.66 | 0.00 | -8.46 | 0.00 | -6.89 | 0.00 | 2% | -0.21 | 26% | -1.77 |
| Middle or professional secondary school vs. University education | -2.31 | 0.03 | -2.30 | 0.03 | -1.83 | 0.10 | 0% | 0.00 | 26% | -0.47 |

| Secondary school vs. University | | | | | | | | | | |
|--|--------|------|-------|------|-------|------|-------|-------|-------|-------|
| education | -3.91 | 0.00 | -3.62 | 0.01 | -3.75 | 0.01 | 7% | -0.29 | 4% | -0.16 |
| Age (years) | -0.11 | 0.00 | -0.12 | 0.00 | -0.07 | 0.06 | -6% | 0.01 | 68% | -0.04 |
| Female vs. male | -1.53 | 0.11 | -1.50 | 0.11 | -1.27 | 0.21 | 2% | -0.04 | 21% | -0.26 |
| Number of comorbidities | -4.04 | 0.00 | -3.65 | 0.00 | -3.64 | 0.00 | 10% | -0.40 | 11% | -0.40 |
| Overweight vs Normal | -2.87 | 0.01 | -2.88 | 0.01 | -2.74 | 0.01 | 0% | 0.01 | 5% | -0.13 |
| Obese vs Normal | -1.05 | 0.40 | -1.37 | 0.25 | -1.46 | 0.26 | -31% | 0.32 | -28% | 0.41 |
| Smoking (current vs. never) | -2.92 | 0.01 | -2.45 | 0.02 | -2.29 | 0.04 | 16% | -0.47 | 27% | -0.63 |
| Smoking (smoked before vs. never) | 1.79 | 0.09 | 1.80 | 0.08 | 1.75 | 0.11 | -1% | -0.01 | 3% | 0.04 |
| Cancer | | | | | | | | | | |
| No education/lowest school vs. University education | -3.60 | 0.28 | -3.73 | 0.16 | -0.21 | 0.95 | -4% | 0.13 | 1657% | -3.40 |
| Lower professional school vs. University education | 0.53 | 0.84 | -0.91 | 0.67 | 3.82 | 0.13 | 273% | 1.43 | -86% | -3.29 |
| Middle or professional secondary school vs. University education | -0.10 | 0.96 | -0.72 | 0.68 | 1.77 | 0.38 | -629% | 0.62 | -106% | -1.86 |
| Secondary school vs. University education | 2.99 | 0.21 | 2.83 | 0.19 | 2.39 | 0.35 | 5% | 0.16 | 25% | 0.59 |
| Age (years) | -0.07 | 0.35 | -0.10 | 0.07 | 0.03 | 0.70 | -57% | 0.04 | -352% | -0.09 |
| Female vs. male | -2.93 | 0.07 | -2.50 | 0.07 | -2.20 | 0.17 | 15% | -0.43 | 33% | -0.73 |
| Number of comorbidities | -3.27 | 0.00 | -2.42 | 0.00 | -2.05 | 0.00 | 26% | -0.84 | 59% | -1.22 |
| Overweight vs Normal | -2.36 | 0.17 | -2.10 | 0.15 | -1.33 | 0.44 | 11% | -0.26 | 77% | -1.03 |
| Obese vs Normal | -0.67 | 0.77 | -0.96 | 0.63 | -1.00 | 0.66 | -44% | 0.29 | -33% | 0.33 |
| Smoking (current vs. never) | -3.47 | 0.14 | -2.94 | 0.15 | -2.90 | 0.22 | 15% | -0.53 | 20% | -0.57 |
| Smoking (smoked before vs. never) | 0.43 | 0.80 | 0.70 | 0.63 | -0.28 | 0.87 | -64% | -0.27 | -255% | 0.71 |
| Respiratory diseases | • | | | | | | | | | |
| No education/lowest school vs. University education | -10.89 | 0.00 | -9.03 | 0.00 | -4.05 | 0.03 | 17% | -1.86 | 169% | -6.84 |
| Lower professional school vs. University education | -4.52 | 0.00 | -4.49 | 0.00 | -2.97 | 0.03 | 1% | -0.03 | 52% | -1.55 |
| Middle or professional secondary school vs. University education | -2.08 | 0.06 | -2.47 | 0.02 | -1.42 | 0.23 | -19% | 0.40 | 47% | -0.66 |

| Secondary school vs. University | | | | | | | | | | |
|--|-------|------|-------|------|-------|------|------|-------|--------|-------|
| education | 0.60 | 0.69 | 0.16 | 0.91 | 0.59 | 0.72 | 74% | 0.44 | 1% | 0.01 |
| Age (years) | -0.14 | 0.00 | -0.14 | 0.00 | -0.05 | 0.15 | -5% | 0.01 | 195% | -0.09 |
| Female vs. male | -0.47 | 0.62 | -0.35 | 0.69 | 0.36 | 0.72 | 26% | -0.12 | -229% | -0.83 |
| Number of comorbidities | -3.94 | 0.00 | -3.27 | 0.00 | -3.31 | 0.00 | 17% | -0.67 | 19% | -0.63 |
| Overweight vs Normal | -2.33 | 0.02 | -1.63 | 0.07 | -2.02 | 0.06 | 30% | -0.69 | 15% | -0.31 |
| Obese vs Normal | -2.52 | 0.04 | -2.20 | 0.05 | -3.06 | 0.02 | 13% | -0.32 | -18% | 0.54 |
| Smoking (current vs. never) | -2.40 | 0.06 | -3.09 | 0.01 | -3.34 | 0.01 | -29% | 0.69 | -28% | 0.93 |
| Smoking (smoked before vs. never) | 0.71 | 0.48 | -0.03 | 0.98 | -0.06 | 0.96 | 104% | 0.74 | -1329% | 0.77 |
| Healthy population (no disease repo | rted) | | | | | | | | | |
| No education/lowest school vs. University education | -3.97 | 0.00 | -5.72 | 0.00 | -2.51 | 0.00 | -44% | 1.74 | 58% | -1.46 |
| Lower professional school vs. University education | -1.13 | 0.00 | -2.07 | 0.00 | -0.75 | 0.01 | -84% | 0.95 | 51% | -0.38 |
| Middle or professional secondary school vs. University education | -0.72 | 0.00 | -0.93 | 0.00 | -0.65 | 0.00 | -29% | 0.21 | 11% | -0.07 |
| Secondary school vs. University education | -0.19 | 0.48 | -0.27 | 0.40 | -0.15 | 0.56 | -41% | 0.08 | 24% | -0.04 |
| Age (years) | -0.05 | 0.00 | -0.09 | 0.00 | -0.03 | 0.00 | -83% | 0.04 | 46% | -0.02 |
| Female vs. male | -0.82 | 0.00 | -0.87 | 0.00 | -0.73 | 0.00 | -6% | 0.05 | 13% | -0.09 |
| Overweight vs Normal | -0.62 | 0.00 | -0.36 | 0.09 | -0.63 | 0.00 | 41% | -0.25 | -3% | 0.02 |
| Obese vs Normal | -2.11 | 0.00 | -2.51 | 0.00 | -1.78 | 0.00 | -19% | 0.40 | 18% | -0.33 |
| Smoking (current vs. never) | -0.27 | 0.24 | -0.26 | 0.34 | -0.30 | 0.18 | 4% | -0.01 | -11% | 0.03 |
| Smoking (smoked before vs. never) | -0.19 | 0.31 | 0.06 | 0.78 | -0.27 | 0.14 | 132% | -0.26 | -29% | 0.08 |

| Model I (MCS as outcome) | | | | | | | | | | |
|--|----------|------|----------|-------|---------------|------|---------------------------|-------------------------------------|------------------------------|-------------------------------------|
| | Actual d | ata | Min scei | nario | Max scenar | io | | _ | | |
| | Beta | P>t | Beta | P>t | Beta | P>t | Change (%) real to min | Change (absolute) real to min | Change (%) real to max | Change (absolute) real to max |
| Musculoskeletal diseases | | | | | | | | | | |
| No education/lowest school vs. University education | -3.14 | 0.01 | -5.06 | 0.00 | -1.54 | 0.11 | -61% | 1.92 | 104% | -1.60 |
| Lower professional school vs. University education | -1.92 | 0.01 | -2.95 | 0.00 | -1.15 | 0.10 | -54% | 1.03 | 68% | -0.77 |
| Middle or professional secondary school vs. University education | -0.51 | 0.40 | -2.63 | 0.00 | -0.41 | 0.48 | -415% | 2.12 | 25% | -0.10 |
| Secondary school vs. University education | -1.47 | 0.09 | -1.95 | 0.03 | -1.65 | 0.04 | -32% | 0.47 | -11% | 0.18 |
| Age (years) | 0.12 | 0.00 | -0.12 | 0.00 | 0.15 | 0.00 | 202% | 0.24 | -21% | -0.03 |
| N of comorbidities | -2.35 | 0.00 | -2.45 | 0.00 | -1.96 | 0.00 | -4% | 0.10 | 20% | -0.40 |
| Smoking (current vs. never) | -2.04 | 0.00 | -2.38 | 0.00 | -1.64 | 0.01 | -17% | 0.34 | 24% | -0.40 |
| Smoking (smoked before vs. never) | 0.46 | 0.40 | -0.53 | 0.35 | 0.31 | 0.54 | 215% | 0.98 | 48% | 0.15 |
| Cardio-vascular diseases | | | | | | | | | | |
| No education/lowest school vs. University education | -3.62 | 0.00 | -6.37 | 0.00 | -1.71 | 0.04 | -76% | 2.75 | 112% | -1.92 |
| Lower professional school vs. University education | -2.15 | 0.00 | -3.58 | 0.00 | -0.75 | 0.24 | -67% | 1.43 | 185% | -1.39 |
| Middle or professional secondary school vs. University education | -0.70 | 0.23 | -2.21 | 0.00 | -0.50 | 0.36 | -214% | 1.51 | 42% | -0.21 |
| Secondary school vs. University education | -0.14 | 0.86 | -1.93 | 0.02 | -0.39 | 0.60 | -1286% | 1.80 | -65% | 0.25 |
| Age (years) | 0.08 | 0.00 | -0.19 | 0.00 | 0.11 | 0.00 | 337% | 0.26 | -32% | -0.04 |
| N of comorbidities | -2.13 | 0.00 | -4.41 | 0.00 | -1.73 | 0.00 | -107% | 2.28 | 24% | -0.41 |
| Smoking (current vs. never) | -1.40 | 0.05 | -0.80 | 0.27 | -1.43 | 0.03 | 43% | -0.60 | -2% | 0.03 |
| Smoking (smoked before vs. never) | 0.46 | 0.36 | 0.66 | 0.18 | 0.12 | 0.80 | -45% | -0.20 | 287% | 0.34 |

| Diabetes | | | | | | | | | | |
|--|-------|------|-------|------|-------|------|--------|-------|--------|-------|
| No education/lowest school vs. University education | -1.98 | 0.25 | -5.88 | 0.00 | 0.43 | 0.77 | -197% | 3.90 | -562% | -2.41 |
| Lower professional school vs. University education | -1.79 | 0.17 | -2.66 | 0.03 | 0.15 | 0.90 | -48% | 0.87 | -1315% | -1.94 |
| Middle or professional secondary school vs. University education | -0.49 | 0.67 | -0.90 | 0.42 | 0.21 | 0.85 | -85% | 0.41 | -334% | -0.69 |
| Secondary school vs. University education | 1.34 | 0.37 | -1.79 | 0.23 | 1.39 | 0.32 | 233% | 3.13 | -4% | -0.05 |
| Age (years) | 0.07 | 0.05 | -0.16 | 0.00 | 0.10 | 0.00 | 326% | 0.23 | -28% | -0.03 |
| N of comorbidities | -1.66 | 0.00 | -3.52 | 0.00 | -1.18 | 0.00 | -112% | 1.86 | 41% | -0.49 |
| Smoking (current vs. never) | -0.58 | 0.66 | -1.59 | 0.20 | -0.57 | 0.64 | -173% | 1.01 | 3% | -0.02 |
| Smoking (smoked before vs. never) | 0.11 | 0.91 | -0.73 | 0.43 | -0.43 | 0.62 | 765% | 0.84 | -125% | 0.54 |
| Mental | | | | | | | | | | |
| No education/lowest school vs. University education | -4.86 | 0.07 | -5.95 | 0.01 | -1.77 | 0.51 | -23% | 1.09 | 174% | -3.08 |
| Lower professional school vs. University education | -1.76 | 0.32 | -8.45 | 0.00 | -0.20 | 0.91 | -381% | 6.70 | 766% | -1.55 |
| Middle or professional secondary school vs. University education | -0.77 | 0.53 | -2.62 | 0.01 | -0.34 | 0.80 | -241% | 1.85 | 128% | -0.43 |
| Secondary school vs. University education | 1.18 | 0.46 | -4.02 | 0.00 | 1.01 | 0.55 | 441% | 5.20 | 17% | 0.18 |
| Age (years) | 0.09 | 0.02 | -0.11 | 0.00 | 0.14 | 0.00 | 214% | 0.20 | -31% | -0.04 |
| N of comorbidities | -0.31 | 0.48 | -3.87 | 0.00 | -0.24 | 0.60 | -1132% | 3.56 | 28% | -0.07 |
| Smoking (current vs. never) | -2.16 | 0.09 | -2.55 | 0.02 | -1.85 | 0.16 | -18% | 0.38 | 17% | -0.31 |
| Smoking (smoked before vs. never) | -1.58 | 0.19 | 1.42 | 0.16 | -1.46 | 0.25 | 190% | -3.00 | 8% | -0.12 |
| Cancer | • | | | | | | | | | |
| No education/lowest school vs. University education | -3.06 | 0.24 | -3.96 | 0.12 | -0.28 | 0.90 | -29% | 0.90 | 989% | -2.78 |
| Lower professional school vs. University education | -3.30 | 0.12 | -1.08 | 0.60 | -0.29 | 0.87 | 67% | -2.22 | 1050% | -3.01 |
| Middle or professional secondary school vs. University education | -1.51 | 0.32 | -1.09 | 0.51 | -0.27 | 0.85 | 28% | -0.42 | 460% | -1.24 |

| Secondary school vs. University | | | | | | | | | | |
|--|-------|------|-------|------|-------|------|--------|-------|--------|-------|
| education | 0.18 | 0.92 | 2.66 | 0.21 | -0.09 | 0.96 | -1352% | -2.47 | -305% | 0.27 |
| Age (years) | 0.11 | 0.05 | -0.06 | 0.26 | 0.12 | 0.01 | 159% | 0.17 | -14% | -0.02 |
| N of comorbidities | -0.59 | 0.26 | -2.40 | 0.00 | -0.26 | 0.56 | -310% | 1.82 | 128% | -0.33 |
| Smoking (current vs. never) | -5.35 | 0.01 | -2.77 | 0.16 | -4.25 | 0.01 | 48% | -2.57 | 26% | -1.09 |
| Smoking (smoked before vs. never) | -0.10 | 0.94 | 0.88 | 0.54 | -0.43 | 0.73 | 1019% | -0.98 | -77% | 0.33 |
| Respiratory diseases | | | | | | | | | | |
| No education/lowest school vs. | | | | | | | | | | |
| University education | -2.53 | 0.15 | -8.63 | 0.00 | 0.24 | 0.87 | -242% | 6.11 | -1145% | -2.77 |
| Lower professional school vs. | | | | | | | | | | |
| University education | -1.96 | 0.11 | -4.61 | 0.00 | -0.92 | 0.41 | -135% | 2.65 | 112% | -1.04 |
| Middle or professional secondary | | | | | | | | | | |
| school vs. University education | 0.91 | 0.36 | -2.65 | 0.01 | 1.15 | 0.22 | 392% | 3.56 | -21% | -0.25 |
| Secondary school vs. University | 0.00 | 0.54 | 0.25 | 0.00 | 4.40 | 0.40 | | | | |
| education | 0.90 | 0.51 | 0.25 | 0.86 | 1.12 | 0.40 | 72% | 0.65 | -19% | -0.21 |
| Age (years) | 0.15 | 0.00 | -0.13 | 0.00 | 0.17 | 0.00 | 186% | 0.28 | -10% | -0.02 |
| N of comorbidities | -1.97 | 0.00 | -3.41 | 0.00 | -1.69 | 0.00 | -73% | 1.44 | 17% | -0.28 |
| Smoking (current vs. never) | -3.60 | 0.00 | -2.57 | 0.02 | -3.30 | 0.00 | 29% | -1.03 | 9% | -0.30 |
| Smoking (smoked before vs. never) | -1.09 | 0.24 | 0.03 | 0.98 | -1.05 | 0.23 | 103% | -1.12 | 4% | -0.04 |
| Healthy population (no disease repo | rted) | | | | | | | | | |
| No education/lowest school vs. | | | | | | | | | | |
| University education | -1.04 | 0.21 | -5.45 | 0.00 | -0.06 | 0.93 | -422% | 4.40 | 1566% | -0.98 |
| Lower professional school vs. | 0.03 | 0.00 | 2.12 | 0.00 | 0.21 | 0.42 | 02000/ | 2.40 | 4.070/ | 0.22 |
| University education Middle or professional secondary | -0.02 | 0.96 | -2.12 | 0.00 | 0.31 | 0.43 | -9290% | 2.10 | -107% | -0.33 |
| school vs. University education | 0.42 | 0.11 | -1.09 | 0.00 | 0.47 | 0.06 | 358% | 1.51 | -11% | -0.05 |
| Secondary school vs. University | 0.42 | 0.11 | 1.03 | 0.00 | 0.47 | 0.00 | 33870 | 1.51 | -11/0 | -0.03 |
| education | -0.45 | 0.23 | -0.34 | 0.26 | -0.42 | 0.25 | 23% | -0.10 | 6% | -0.03 |
| Age (years) | 0.08 | 0.00 | -0.08 | 0.00 | 0.10 | 0.00 | 196% | 0.17 | -11% | -0.01 |
| Smoking (current vs. never) | -1.30 | 0.00 | -0.14 | 0.59 | -1.23 | 0.00 | 89% | -1.16 | 5% | -0.07 |
| Smoking (smoked before vs. never) | -0.07 | 0.78 | 0.06 | 0.78 | -0.14 | 0.57 | 180% | -0.13 | -50% | 0.07 |

| Model II (PCS as outcome) | | | | | | | | | | |
|--|----------|------|----------|------|--------|------|---------------------------|------------------------|------------|---------------------------|
| | Actual d | ata | Actual d | ata | Actual | data | | Change | Change (%) | Change |
| | Beta | P>t | Beta | P>t | Beta | P>t | Change (%) real to min | (absolute) real to min | real to | (absolute) real to max |
| Musculoskeletal diseases | | | | | | | | | | |
| Unemployed vs. Paid work | -1.45 | 0.38 | -1.74 | 0.27 | -0.15 | 0.93 | -20% | 0.29 | 895% | -1.31 |
| Receiving state subsidy vs. Paid work | -5.83 | 0.01 | -5.33 | 0.01 | -2.93 | 0.19 | 8% | -0.50 | 99% | -2.90 |
| Age (years) | -0.06 | 0.10 | -0.06 | 0.09 | -0.05 | 0.19 | -2% | 0.00 | 25% | -0.01 |
| Female vs. male | -1.88 | 0.02 | -1.67 | 0.03 | -1.91 | 0.01 | 11% | -0.22 | -1% | 0.03 |
| N of comorbidities | -1.45 | 0.00 | -1.37 | 0.00 | -1.50 | 0.00 | 6% | -0.08 | -4% | 0.05 |
| No education/lowest school vs. University education | -6.05 | 0.03 | -5.43 | 0.05 | -5.44 | 0.05 | 10% | -0.62 | 11% | -0.61 |
| Lower professional school vs. University education | -4.33 | 0.00 | -4.34 | 0.00 | -3.59 | 0.00 | 0% | 0.01 | 20% | -0.73 |
| Middle or professional secondary school vs. University education | -2.33 | 0.01 | -2.34 | 0.01 | -2.11 | 0.02 | -1% | 0.02 | 10% | -0.22 |
| Secondary school vs. University education | -3.09 | 0.02 | -2.76 | 0.03 | -3.40 | 0.01 | 11% | -0.33 | -9% | 0.32 |
| Smoking (current vs. never) | -0.87 | 0.38 | -1.23 | 0.20 | 0.06 | 0.95 | -42% | 0.36 | -1599% | -0.93 |
| Smoking (smoked before vs. never) | -0.16 | 0.85 | -0.54 | 0.52 | 0.25 | 0.77 | -235% | 0.38 | -164% | -0.41 |
| Cardio-vascular diseases | | | | | | | | | | |
| Unemployed vs. Paid work | 1.73 | 0.35 | 2.41 | 0.20 | 1.41 | 0.44 | -40% | -0.69 | 22% | 0.31 |
| Receiving state subsidy vs. Paid work | -12.03 | 0.00 | -11.67 | 0.00 | -7.53 | 0.01 | 3% | -0.36 | 60% | -4.49 |
| Age (years) | -0.01 | 0.84 | -0.02 | 0.74 | -0.01 | 0.84 | -66% | 0.01 | 4% | 0.00 |
| Female vs. male | 0.10 | 0.90 | 0.47 | 0.57 | -0.03 | 0.97 | -353% | -0.37 | -424% | 0.14 |
| N of comorbidities | -2.92 | 0.00 | -2.90 | 0.00 | -2.96 | 0.00 | 0% | -0.01 | -1% | 0.04 |
| No education/lowest school vs. University education | -6.05 | 0.08 | -6.95 | 0.03 | -6.46 | 0.04 | -15% | 0.90 | -6% | 0.41 |
| Lower professional school vs. University education | -1.13 | 0.39 | -2.03 | 0.11 | -0.53 | 0.67 | -80% | 0.91 | 113% | -0.60 |

| Middle or professional secondary | | | | | | | | | | |
|--|--------|------|--------|------|-------|------|------|-------|------|-------|
| school vs. University education | -1.25 | 0.17 | -1.33 | 0.15 | -1.13 | 0.21 | -7% | 0.08 | 10% | -0.12 |
| Secondary school vs. University education | -1.35 | 0.29 | -1.07 | 0.41 | -1.51 | 0.24 | 21% | -0.28 | -10% | 0.15 |
| Smoking (current vs. never) | 1.47 | 0.19 | 1.58 | 0.16 | 1.86 | 0.09 | -7% | -0.11 | -21% | -0.39 |
| Smoking (smoked before vs. never) | 1.72 | 0.05 | 1.52 | 0.08 | 1.87 | 0.03 | 12% | 0.20 | -8% | -0.15 |
| Diabetes | | | | | | | | | | |
| Unemployed vs. Paid work | 3.19 | 0.24 | 2.70 | 0.29 | 4.08 | 0.15 | 15% | 0.49 | -22% | -0.89 |
| Receiving state subsidy vs. Paid work | -12.58 | 0.02 | -9.64 | 0.01 | -8.62 | 0.03 | 23% | -2.94 | 46% | -3.96 |
| Age (years) | -0.11 | 0.23 | -0.16 | 0.08 | -0.04 | 0.68 | -43% | 0.05 | 173% | -0.07 |
| Female vs. male | -0.66 | 0.68 | -0.55 | 0.72 | -0.42 | 0.80 | 16% | -0.11 | 56% | -0.24 |
| N of comorbidities | -2.38 | 0.00 | -2.29 | 0.00 | -2.69 | 0.00 | 4% | -0.08 | -12% | 0.31 |
| No education/lowest school vs. University education | -9.98 | 0.21 | -13.88 | 0.00 | -4.52 | 0.37 | -39% | 3.90 | 121% | -5.46 |
| Lower professional school vs. University education | -5.88 | 0.01 | -7.17 | 0.00 | -3.78 | 0.11 | -22% | 1.29 | 55% | -2.09 |
| Middle or professional secondary school vs. University education | -2.41 | 0.18 | -2.30 | 0.20 | -2.32 | 0.23 | 4% | -0.10 | 4% | -0.08 |
| Secondary school vs. University education | -2.34 | 0.34 | -3.24 | 0.18 | -1.74 | 0.51 | -39% | 0.90 | 34% | -0.59 |
| Smoking (current vs. never) | -1.91 | 0.36 | -2.14 | 0.27 | -0.32 | 0.88 | -12% | 0.24 | 498% | -1.59 |
| Smoking (smoked before vs. never) | -0.51 | 0.78 | -0.03 | 0.99 | -0.99 | 0.61 | 95% | -0.49 | -48% | 0.48 |
| Mental | | | | | | | | | | |
| Unemployed vs. Paid work | 0.80 | 0.67 | -0.38 | 0.84 | 1.63 | 0.35 | 148% | 1.19 | -51% | -0.82 |
| Receiving state subsidy vs. Paid work | -7.26 | 0.00 | -6.91 | 0.01 | -7.58 | 0.00 | 5% | -0.35 | -4% | 0.31 |
| Age (years) | -0.10 | 0.06 | -0.07 | 0.18 | -0.09 | 0.07 | 25% | -0.02 | 5% | 0.00 |
| Female vs. male | -1.56 | 0.20 | -1.08 | 0.38 | -2.00 | 0.09 | 31% | -0.47 | -22% | 0.44 |
| N of comorbidities | -3.24 | 0.00 | -3.27 | 0.00 | -3.17 | 0.00 | -1% | 0.03 | 2% | -0.06 |
| No education/lowest school vs. University education | 8.93 | 0.14 | 9.26 | 0.15 | 8.75 | 0.14 | -4% | -0.32 | 2% | 0.18 |
| Lower professional school vs. University education | -7.89 | 0.00 | -7.96 | 0.00 | -7.51 | 0.00 | -1% | 0.06 | 5% | -0.38 |

| Middle or professional secondary | | | | | | | | | | |
|--|-------|------|-------|------|-------|------|--------|-------|-------|-------|
| school vs. University education | -1.74 | 0.16 | -1.74 | 0.18 | -1.37 | 0.26 | 0% | -0.01 | 28% | -0.38 |
| Secondary school vs. University education | -4.75 | 0.01 | -4.26 | 0.02 | -4.73 | 0.01 | 10% | -0.49 | 0% | -0.01 |
| Smoking (current vs. never) | -0.95 | 0.48 | -0.60 | 0.67 | -1.00 | 0.45 | 37% | -0.35 | -5% | 0.05 |
| Smoking (smoked before vs. never) | 3.19 | 0.01 | 2.69 | 0.04 | 3.30 | 0.01 | 16% | 0.50 | -3% | -0.10 |
| Cancer | | | | | | | | | | |
| Unemployed vs. Paid work | 6.74 | 0.27 | 4.53 | 0.41 | 8.36 | 0.13 | 33% | 2.21 | -19% | -1.62 |
| Receiving state subsidy vs. Paid work | n/a | | n/a | | n/a | | n/a | n/a | n/a | n/a |
| Age (years) | 0.00 | 1.00 | -0.04 | 0.81 | 0.04 | 0.83 | -7753% | 0.04 | -101% | -0.04 |
| Female vs. male | 0.77 | 0.80 | 1.02 | 0.73 | 0.52 | 0.86 | -33% | -0.25 | 47% | 0.25 |
| N of comorbidities | -1.90 | 0.23 | -1.84 | 0.22 | -2.02 | 0.18 | 3% | -0.06 | -6% | 0.12 |
| No education/lowest school vs. University education | 3.98 | 0.63 | 4.14 | 0.61 | 3.86 | 0.64 | -4% | -0.15 | 3% | 0.12 |
| Lower professional school vs. University education | -1.65 | 0.72 | -3.70 | 0.39 | 0.25 | 0.95 | -124% | 2.05 | -769% | -1.90 |
| Middle or professional secondary school vs. University education | -0.23 | 0.95 | -0.27 | 0.94 | -0.10 | 0.98 | -17% | 0.04 | 122% | -0.13 |
| Secondary school vs. University education | -0.14 | 0.97 | -0.39 | 0.92 | 0.12 | 0.97 | -188% | 0.26 | -217% | -0.25 |
| Smoking (current vs. never) | -1.11 | 0.79 | -0.04 | 0.99 | -2.09 | 0.60 | 96% | -1.06 | -47% | 0.98 |
| Smoking (smoked before vs. never) | 0.78 | 0.80 | 1.26 | 0.66 | 0.19 | 0.95 | -62% | -0.49 | 302% | 0.58 |
| Respiratory diseases | | | | | | | | | | |
| Unemployed vs. Paid work | -3.12 | 0.22 | -2.27 | 0.39 | -3.57 | 0.16 | 27% | -0.85 | -13% | 0.45 |
| Receiving state subsidy vs. Paid work | -8.57 | 0.02 | -8.94 | 0.01 | -5.92 | 0.08 | -4% | 0.37 | 45% | -2.65 |
| Age (years) | -0.07 | 0.19 | -0.09 | 0.11 | -0.07 | 0.15 | -24% | 0.02 | -6% | 0.00 |
| Female vs. male | -0.14 | 0.90 | 0.24 | 0.83 | -0.26 | 0.82 | 276% | -0.38 | -47% | 0.12 |
| N of comorbidities | -3.38 | 0.00 | -3.12 | 0.00 | -3.62 | 0.00 | 8% | -0.26 | -7% | 0.24 |
| No education/lowest school vs. University education | -6.70 | 0.19 | -6.11 | 0.23 | -8.79 | 0.08 | 9% | -0.59 | -24% | 2.09 |
| Lower professional school vs. University education | -2.44 | 0.15 | -2.25 | 0.19 | -2.19 | 0.19 | 8% | -0.18 | 12% | -0.25 |

| Middle or professional secondary | I | İ | | | | | | | | |
|---------------------------------------|-------|------|-------|------|-------|------|--------|-------|-------|-------|
| school vs. University education | -0.34 | 0.79 | -0.74 | 0.56 | -0.10 | 0.94 | -120% | 0.41 | 235% | -0.24 |
| Secondary school vs. University | | | | | | | | | | |
| education | -1.20 | 0.51 | -0.65 | 0.73 | -1.43 | 0.43 | 46% | -0.55 | -16% | 0.23 |
| Smoking (current vs. never) | -0.42 | 0.79 | -0.47 | 0.77 | -0.10 | 0.95 | -11% | 0.05 | 328% | -0.32 |
| Smoking (smoked before vs. never) | 1.52 | 0.23 | 0.84 | 0.50 | 1.81 | 0.14 | 44% | 0.67 | -16% | -0.30 |
| Healthy population (no disease repo | rted) | | | | | | | | | |
| Unemployed vs. Paid work | -0.76 | 0.14 | -0.80 | 0.19 | -0.71 | 0.16 | -6% | 0.04 | 7% | -0.05 |
| Receiving state subsidy vs. Paid work | -1.02 | 0.47 | -3.60 | 0.02 | -0.26 | 0.84 | -254% | 2.58 | 297% | -0.76 |
| Age (years) | -0.02 | 0.03 | -0.04 | 0.00 | -0.01 | 0.08 | -104% | 0.02 | 31% | 0.00 |
| Female vs. male | -0.53 | 0.00 | -0.40 | 0.05 | -0.52 | 0.00 | 23% | -0.12 | 0% | 0.00 |
| No education/lowest school vs. | | | | | | | | | | |
| University education | -0.23 | 0.79 | -2.51 | 0.01 | 0.25 | 0.75 | -1014% | 2.28 | -191% | -0.47 |
| Lower professional school vs. | 4.0= | | | | | | | | | |
| University education | -1.05 | 0.00 | -1.36 | 0.00 | -0.95 | 0.01 | -30% | 0.32 | 10% | -0.10 |
| Middle or professional secondary | | | | | | | | | | |
| school vs. University education | -0.85 | 0.00 | -1.01 | 0.00 | -0.79 | 0.00 | -19% | 0.16 | 7% | -0.06 |
| Secondary school vs. University | | | | | | | | | | |
| education | -0.34 | 0.25 | -0.27 | 0.43 | -0.35 | 0.23 | 20% | -0.07 | -1% | 0.00 |
| Smoking (current vs. never) | -0.47 | 0.05 | -0.53 | 0.06 | -0.44 | 0.06 | -12% | 0.06 | 6% | -0.03 |
| Smoking (smoked before vs. never) | -0.41 | 0.04 | -0.24 | 0.30 | -0.43 | 0.03 | 40% | -0.16 | -4% | 0.02 |

n/a-sub group size is not enough to compute an estimation

| Model II (MCS as outcome) | | | | | | | | | | |
|---------------------------------------|----------|------|----------|------|--------|------|------------------------|---------------------------|----------------|---------------------------|
| | | | | | | | | | | |
| | Actual d | ata | Actual d | ata | Actual | data | | Change | Change (%) | Change |
| | Beta | P>t | Beta | P>t | Beta | P>t | Change (%) real to min | (absolute) real to min | real to max | (absolute) real to max |
| Musculoskeletal diseases | | | | | | | | | | |
| Unemployed vs. Paid work | 0.96 | 0.53 | -1.89 | 0.22 | 1.69 | 0.25 | 296% | 2.86 | -43% | -0.72 |
| Receiving state subsidy vs. Paid work | -3.10 | 0.15 | -6.83 | 0.00 | -1.16 | 0.55 | -120% | 3.73 | 166% | -1.94 |
| N of comorbidities | -2.60 | 0.00 | -1.61 | 0.00 | -2.59 | 0.00 | 38% | -0.99 | 0% | -0.01 |
| Age (years) | 0.09 | 0.01 | -0.06 | 0.09 | 0.09 | 0.01 | 170% | 0.15 | -2% | 0.00 |
| Smoking (current vs. never) | -2.14 | 0.02 | -1.80 | 0.06 | -1.35 | 0.13 | 16% | -0.34 | 59% | -0.80 |
| Smoking (smoked before vs. never) | 0.21 | 0.79 | -0.31 | 0.71 | 0.59 | 0.44 | 245% | 0.52 | -64% | -0.38 |
| Cardio-vascular diseases | | | | | | | | | | |
| Unemployed vs. Paid work | -2.58 | 0.17 | 2.05 | 0.26 | -2.91 | 0.12 | 180% | -4.63 | -12% | 0.34 |
| Receiving state subsidy vs. Paid work | -3.11 | 0.30 | -13.74 | 0.00 | -0.39 | 0.88 | -342% | 10.63 | 700% | -2.72 |
| N of comorbidities | -2.67 | 0.00 | -3.47 | 0.00 | -2.71 | 0.00 | -30% | 0.81 | -2% | 0.04 |
| Age (years) | 0.08 | 0.09 | 0.00 | 0.95 | 0.07 | 0.09 | 104% | 0.08 | 4% | 0.00 |
| Smoking (current vs. never) | -0.32 | 0.78 | 1.51 | 0.17 | -0.02 | 0.99 | 571% | -1.83 | 1475% | -0.30 |
| Smoking (smoked before vs. never) | 0.80 | 0.36 | 1.61 | 0.06 | 0.98 | 0.25 | -102% | -0.81 | -18% | -0.18 |
| Diabetes | | | | | | | | | | |
| Unemployed vs. Paid work | -5.02 | 0.08 | 3.69 | 0.15 | -4.00 | 0.15 | 174% | -8.71 | 25% | -1.02 |
| Receiving state subsidy vs. Paid work | -8.85 | 0.03 | -15.08 | 0.00 | -4.50 | 0.20 | -70% | 6.23 | 97% | -4.35 |
| N of comorbidities | -1.78 | 0.02 | -1.98 | 0.01 | -2.00 | 0.01 | -11% | 0.20 | -11% | 0.21 |
| Age (years) | 0.03 | 0.76 | -0.18 | 0.05 | 0.08 | 0.43 | 699% | 0.21 | -61% | -0.05 |
| Smoking (current vs. never) | -0.87 | 0.69 | -2.33 | 0.24 | 0.17 | 0.94 | -168% | 1.46 | -619% | -1.04 |
| Smoking (smoked before vs. never) | -0.02 | 0.99 | -0.87 | 0.62 | -0.08 | 0.97 | -4122% | 0.85 | -73% | 0.05 |
| Mental diseases | | | | | | | | | | |
| Unemployed vs. Paid work | 0.86 | 0.73 | 0.94 | 0.61 | 2.88 | 0.23 | -10% | -0.08 | -70% | -2.02 |

| Receiving state subsidy vs. Paid work | -3.59 | 0.27 | -8.07 | 0.00 | -4.12 | 0.22 | -124% | 4.47 | -13% | 0.53 |
|---------------------------------------|--------|------|--------|------|-------|------|-------|--------|-------|-------|
| N of comorbidities | -0.67 | 0.37 | -4.41 | 0.00 | -0.68 | 0.38 | -557% | 3.74 | -1% | 0.01 |
| Age (years) | 0.12 | 0.09 | -0.04 | 0.41 | 0.11 | 0.12 | 137% | 0.16 | 8% | 0.01 |
| Smoking (current vs. never) | -2.32 | 0.18 | -0.90 | 0.51 | -2.67 | 0.14 | 61% | -1.42 | -13% | 0.35 |
| Smoking (smoked before vs. never) | -0.67 | 0.68 | 2.24 | 0.08 | -0.03 | 0.99 | 436% | -2.91 | 1995% | -0.64 |
| Cancer | | | | | | | | | | |
| Unemployed vs. Paid work | -8.41 | 0.05 | 5.30 | 0.27 | -6.12 | 0.12 | 163% | -13.72 | 37% | -2.29 |
| Receiving state subsidy vs. Paid work | n/a | | n/a | | n/a | | n/a | n/a | n/a | n/a |
| N of comorbidities | 1.01 | 0.37 | -2.14 | 0.11 | 1.14 | 0.30 | 311% | 3.15 | -11% | -0.12 |
| Age (years) | 0.20 | 0.13 | -0.04 | 0.77 | 0.24 | 0.07 | 123% | 0.24 | -17% | -0.04 |
| Smoking (current vs. never) | -3.00 | 0.34 | -0.24 | 0.95 | -3.85 | 0.22 | 92% | -2.76 | -22% | 0.85 |
| Smoking (smoked before vs. never) | -0.84 | 0.72 | 1.52 | 0.58 | -1.11 | 0.62 | 281% | -2.36 | -24% | 0.27 |
| Respiratory diseases | | | | | | | | | | |
| Unemployed vs. Paid work | -0.72 | 0.78 | -2.95 | 0.25 | -1.13 | 0.67 | -307% | 2.22 | -36% | 0.40 |
| Receiving state subsidy vs. Paid work | -7.23 | 0.03 | -10.74 | 0.00 | -5.26 | 0.09 | -49% | 3.51 | 37% | -1.97 |
| N of comorbidities | -2.01 | 0.00 | -3.20 | 0.00 | -2.23 | 0.00 | -59% | 1.19 | -10% | 0.22 |
| Age (years) | 0.06 | 0.29 | -0.09 | 0.06 | 0.05 | 0.33 | 267% | 0.15 | 11% | 0.01 |
| Smoking (current vs. never) | -2.76 | 0.08 | -1.07 | 0.47 | -2.31 | 0.13 | 61% | -1.69 | 19% | -0.44 |
| Smoking (smoked before vs. never) | 0.25 | 0.85 | 0.79 | 0.52 | 0.70 | 0.58 | -215% | -0.54 | -64% | -0.45 |
| Healthy population (no disease repo | rted) | | | | | | | | | |
| Unemployed vs. Paid work | -2.46 | 0.00 | -0.97 | 0.09 | -2.35 | 0.00 | 61% | -1.50 | 5% | -0.11 |
| Receiving state subsidy vs. Paid work | -10.16 | 0.00 | -3.90 | 0.01 | -6.64 | 0.00 | 62% | -6.26 | 53% | -3.52 |
| Age (years) | 0.08 | 0.00 | -0.04 | 0.00 | 0.09 | 0.00 | 147% | 0.11 | -9% | -0.01 |
| Smoking (current vs. never) | -1.34 | 0.00 | -0.72 | 0.01 | -1.23 | 0.00 | 46% | -0.61 | 9% | -0.11 |
| Smoking (smoked before vs. never) | -0.26 | 0.39 | -0.36 | 0.10 | -0.31 | 0.31 | -38% | 0.10 | -14% | 0.04 |

n/a-sub group size is not enough to compute an estimation