

## From Five MAUI onto QWB

### (1) From 15D to QWB (Based on OLS)

$$\text{QWB Utility} = -0.9125937 \times 15D + 1.139509 \times 15D^2 + 0.0191699 \times \text{Male} + 0.5601718$$

### (2) From AQoL-8D to QWB (Based on GLM)

(STEP1)

$$\begin{aligned} \text{QWB Utility}^* = & \exp(0.9064992 \times \text{AQOL8D\_IL} + 0.2819776 \times \text{AQOL8D\_MH} + 0.2341322 \times \text{AQOL8D\_COP} + \\ & 0.0599259 \times \text{AQOL8D\_REL} - 0.3133053 \times \text{AQOL8D\_IL}^2 + 0.146828 \times \text{AQOL8D\_PAIN}^2 + \\ & 0.1100045 \times \text{AQOL8D\_SEN}^2 + 0.0235749 \times \text{Male} - 1.57938) / (1 + \exp(0.9064992 \times \text{AQOL8D\_IL} + \\ & 0.2819776 \times \text{AQOL8D\_MH} + 0.2341322 \times \text{AQOL8D\_COP} + 0.0599259 \times \text{AQOL8D\_REL} - \\ & 0.3133053 \times \text{AQOL8D\_IL}^2 + 0.146828 \times \text{AQOL8D\_PAIN}^2 + 0.1100045 \times \text{AQOL8D\_SEN}^2 + 0.0235749 \times \text{Male} - \\ & 1.57938)) \end{aligned}$$

(STEP2)

$$\text{QWB Utility} = (\text{QWB Utility}^* + 0.0006195/0.9990448) \times 0.9990448$$

### (3) From EQ-5D to QWB (Based on MM-estimator)

(STEP1)

$$\begin{aligned} \text{QWB Utility}^* = & 0.4184386 \times \text{EQ5D} - 0.4967512 \times \text{Canada\_EQ5D} - 0.24728 \times \text{UK\_EQ5D} - \\ & 0.4237826 \times \text{USA\_EQ5D} + 0.4172274 \times \text{Canada\_EQ5D}^2 + 0.2142964 \times \text{UK\_EQ5D}^2 + 0.4091186 \times \text{USA\_EQ5D}^2 \\ & + 0.0187378 \times \text{Male} + 0.1293617 \times \text{Canada} + 0.0586094 \times \text{UK} + 0.0832049 \times \text{USA} + 0.3040603 \end{aligned}$$

(STEP2)

$$\text{QWB Utility} = (\text{QWB Utility}^* - 0.0087973/1.021426) \times 1.021426$$

**(4) From HUI3 to QWB (Based on MM-estimator)**

(STEP1)

$$\text{QWB Utility}^* = 0.1097625 \times \text{HUI3} + 0.2255364 \times \text{HUI3}^2 + 0.0284167 \times \text{Male} + 0.4061084$$

(STEP2)

$$\text{QWB Utility} = (\text{QWB Utility}^* - 0.0195435/1.042099) \times 1.042099$$

**(5) From SF-6D To QWB (Based on OLS)**

$$\begin{aligned} \text{QWB Utility} = & 0.0816493 \times \text{SF6D\_GH} + 0.1049211 \times \text{SF6D\_BP} + 0.0466717 \times \text{SF6D\_SF} - \\ & 0.1120493 \times \text{SF6D\_RE} + 0.1413346 \times \text{SF6D\_MH} + 0.0951096 \times \text{SF6D\_PF}^2 + 0.1186549 \times \text{SF6D\_VT}^2 + \\ & 0.1214186 \times \text{SF6D\_RE}^2 - 0.0712151 \times \text{SF6D\_MH}^2 + 0.0118878 \times \text{Male} + 0.3179229 \end{aligned}$$