Appendix A. Additional descriptive statistics

Appendix A.1. Statistics for key demographics for asthmatic adults by country

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
|  | Canada | Czech Rep. | France | Poland | Sweden | UK | US |
| Age 18-29 | 23% | 24% | 25% | 26% | 26% | 24% | 13% |
| Age 30-44 | 35% | 37% | 32% | 35% | 30% | 32% | 42% |
| Age 45-59 | 21% | 24% | 27% | 22% | 30% | 29% | 24% |
| Age 60+ | 21% | 15% | 16% | 17% | 14% | 16% | 20% |
| Low and medium education | 52% | 72% | 49% | 58% | 60% | 42% | 42% |
| High education | 48% | 28% | 51% | 42% | 40% | 58% | 58% |
| Male | 36% | 52% | 53% | 45% | 44% | 47% | 45% |
| Female | 63% | 48% | 47% | 55% | 56% | 52% | 55% |
| Non binary and other | 0.3% | 0.0% | 0.7% | 0.7% | 0.0% | 0.9% | 0.3% |

Source: Authors’ own elaboration.

Appendix A.2. Statistics for key demographics for parents of an asthmatic child by country

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
|  | Canada | Czech Rep. | France | Poland | Sweden | UK | US |
| Age 18-29 | 19% | 28% | 27% | 26% | 29% | 12% | 10% |
| Age 30-44 | 62% | 51% | 46% | 51% | 46% | 55% | 75% |
| Age 45-59 | 18% | 20% | 25% | 21% | 24% | 32% | 14% |
| Age 60+ | 1.6% | 1.6% | 2.1% | 2.1% | 0.5% | 1.0% | 0.5% |
| Low and medium education | 47% | 65% | 48% | 48% | 49% | 41% | 17% |
| High education | 53% | 35% | 52% | 52% | 51% | 59% | 83% |
| Male | 42% | 63% | 56% | 38% | 58% | 51% | 63% |
| Female | 57% | 38% | 44% | 61% | 42% | 49% | 38% |
| Non binary and other | 0.5% | 0.0% | 0.0% | 1.1% | 0.0% | 0.0% | 0.0% |

Source: Authors’ own elaboration.

**Appendix A.3. Status of children for non-asthmatic adults by country**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | % sample | No child under 18 | Child with asthma | Child without asthma |
| Canada | 15.8% | 76.8% | 6.1% | 17.1% |
| Czech Rep. | 11.5% | 61.5% | 5.2% | 33.4% |
| France | 15.2% | 69.6% | 5.9% | 24.6% |
| Poland | 14.5% | 60.5% | 4.6% | 34.9% |
| Sweden | 14.7% | 76.2% | 5.2% | 18.7% |
| United Kingdom | 15.2% | 73.7% | 6.3% | 19.9% |
| United States | 13.0% | 72.8% | 4.3% | 22.9% |
|  |  |  |  |  |
| All countries | N = 5 384 | 70.5% | 5.4% | 24.0% |

Source: Authors’ own elaboration.

Appendix A.4. Statistics for key demographics for non-asthmatic adults by country

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
|  | Canada | Czech Rep. | France | Poland | Sweden | UK | US |
| Age 18-29 | 11.9% | 16.8% | 11.6% | 23.4% | 11.9% | 18.9% | 12.8% |
| Age 30-44 | 32.3% | 32.4% | 26.3% | 34.0% | 24.0% | 24.9% | 21.7% |
| Age 45-59 | 29.0% | 31.5% | 31.7% | 25.4% | 32.2% | 31.9% | 36.3% |
| Age 60+ | 26.9% | 19.4% | 30.4% | 17.2% | 32.0% | 24.3% | 29.2% |
| Low-education | 2.6% | 21.9% | 4.2% | 2.0% | 5.4% | 2.7% | 0.3% |
| Medium education | 45.7% | 47.7% | 41.7% | 52.6% | 48.4% | 44.9% | 52.3% |
| High education | 51.7% | 30.3% | 54.2% | 45.3% | 46.2% | 52.4% | 47.4% |
| Male | 42.0% | 50.8% | 52.1% | 52.5% | 46.5% | 48.1% | 43.2% |
| Female | 57.6% | 49.2% | 47.6% | 46.6% | 53.2% | 51.3% | 56.4% |
| Non binary and other | 0.3% | 0.0% | 0.4% | 0.9% | 0.3% | 0.6% | 0.4% |

Source: Authors’ own elaboration.

Appendix A.5. Status of parents of the non-asthmatic children by country

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | Canada | Czech Rep. | France | Poland | Sweden | UK | US | All countries |
| % sample | 10.8% | 15.9% | 14.6% | 20.6% | 12.2% | 13.2% | 12.7% | N = 1 556 |
| Non-asthmatic parent | 88.7% | 83.9% | 90.7% | 88.2% | 82.6% | 82.9% | 86.8% | 86.4% |

Source: Authors’ own elaboration.

**Appendix A.6.** **Statistics for key demographics for parents of a non-asthmatic child by country**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
|  | Canada | Czech Rep. | France | Poland | Sweden | UK | US |
| Age 18-29 | 6.0% | 13.3% | 11.5% | 19.3% | 11.1% | 18.5% | 10.7% |
| Age 30-44 | 61.9% | 55.2% | 52.0% | 54.5% | 45.3% | 49.3% | 50.3% |
| Age 45-59 | 31.0% | 28.6% | 32.2% | 23.1% | 38.4% | 28.8% | 32.5% |
| Age 60+ | 1.2% | 2.8% | 4.4% | 3.1% | 5.3% | 3.4% | 6.6% |
| Low-education | 0.0% | 18.1% | 1.3% | 1.9% | 4.2% | 3.4% | 0.5% |
| Medium education | 36.3% | 48.8% | 40.1% | 50.2% | 42.1% | 34.6% | 40.1% |
| High education | 63.7% | 33.1% | 58.6% | 48.0% | 53.7% | 62.0% | 59.4% |
| Male | 35.1% | 50.0% | 48.9% | 44.5% | 43.2% | 50.7% | 45.7% |
| Female | 64.9% | 50.0% | 50.7% | 55.5% | 56.8% | 49.0% | 53.8% |
| Non binary and other | 0.0% | 0.0% | 0.4% | 0.0% | 0.0% | 0.0% | 0.5% |

Source: Authors’ own elaboration.

Appendix A.7. Share of serial status quo for non-asthmatic adults and parents of the non-asthmatic children by country

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | Canada | Czech Rep. | France | Poland | Sweden | UK | US | All countries |
| Non-asthmatic adults | 26.3% | 11.6% | 19.6% | 14.0% | 22.8% | 33.1% | 20.1% | 21.5% |
| Parents of non-asthmatic children | 20.2% | 13.3% | 15.9% | 15.0% | 19.5% | 24.9% | 19.3% | 17.8% |

Source: Authors’ own elaboration.

Appendix A.8. Share of asthmatic adults and parents of an asthmatic child who thought they could save on medical cost by reducing asthma severity

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | Canada | Czech Rep. | France | Poland | Sweden | UK | US | Total |
| Asthmatic adults | 28% | 30% | 37% | 27% | 42% | 28% | 53% | 35% |
| Parents of an asthmatic child | 37% | 33% | 42% | 37% | 31% | 31% | 59% | 39% |

Source: Authors’ own elaboration.

Appendix A.9. Proportion of respondents considering that a risk reduction of getting asthma leads to a reduction of their medical bills

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
|  | Canada | France | Poland | Sweden | UK | US | Total |
| Share of adults who thought about saving on medical bills | 25.4% | 26.7% | 33.6% | 18.0% | 13.9% | 35.8% | 25.3% |
| Share of parents who thought about saving on medical bills | 34.5% | 22.0% | 39.6% | 19.5% | 26.3% | 42.6% | 31.4% |

Note: Non-asthmatic adults, all countries without Czech Republic.

Source: Authors’ own elaboration.

**Appendix B. Additional estimations**

**Appendix B.1. Estimation of WTP to reduce asthma severity with all baseline severity levels**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | Adult |  |  | Childhood |  |
|  | Odd ratios | Marginal effect (baseline = mild) USD per year |  | Odd ratios | Marginal effect (baseline = mild) USD per year |
| Has mild plus asthma (0/1) | 0.083 | +50 |  | 0.244\* | +274 |
|  | (0.067) |  |  | (0.096) |  |
| Has moderate asthma (0/1) | 0.474\*\*\* | +359 |  | 0.348\*\*\* | +413 |
|  | (0.065) |  |  | (0.091) |  |
| Has moderate plus asthma (0/1) | 0.636\*\*\* | +530 |  | 0.488\*\* | +626 |
|  | (0.132) |  |  | (0.187) |  |
| Has severe asthma (0/1) | 0.573\* | +460 |  | 0.488 | +626 |
|  | (0.229) |  |  | (0.414) |  |
| Log(Cost) | -0.533\*\*\* |  |  | -0.447\*\*\* |  |
|  | (0.012) |  |  | (0.015) |  |
| Spike | 0.042\*\*\* |  |  | 0.050\*\*\* |  |
|  | (0.003) |  |  | (0.005) |  |
| Observations | 2 194 |  |  | 1 339 |  |
| Country dummies | No |  |  | No |  |
| Country dummies x weights | Yes |  |  | Yes |  |
| Log-likelihood | -3 204 |  |  | -1 807 |  |
| LR statistics | 108 |  |  | 66 |  |
| AIC | 6 435 |  |  | 3 640 |  |
| BIC | 6 509 |  |  | 3 708 |  |
| **Mean WTP (USD per year over 10 years) for one-step reduction in severity** | | | | | |
| Actual severity levels in the sample | 536 |  |  | 949 |  |
| Assuming all respondents have mild | 381 |  |  | 705 |  |
| Assuming all respondents have mild plus | 431 |  |  | 979 |  |
| Assuming all respondents have moderate | 740 |  |  | 1 118 |  |
| Assuming all respondents have moderate plus | 911 |  |  | 1 331 |  |
| Assuming all respondents have severe | 841 |  |  | 1 331 |  |

Note: Signif. codes: ‘\*\*\*’ 0.001 ‘\*\*’ 0.01 ‘\*’ 0.05 ‘+’ 0.1 ‘ ’ 1. The baseline estimation corresponds to a maximum likelihood estimation of the joint probabilities assuming a Weibull distribution with a spike configuration. All columns exclude very slow respondents as well as speeders. Base group: mild asthmatic, American, aged 18-29, male with low and medium education. The intercept, country dummies and country dummies interacted with the sampling weight are included as regressors but not reported in the table for clarity.

Source: Authors’ own elaboration.

Appendix B.2. The determinants of the willingness to pay to reduce adult asthma severity, without missing income dummy

|  |  |
| --- | --- |
| Has mild plus or moderate asthma (0/1) | 0.216\*\*\* |
|  | (0.056) |
| Has moderate plus or severe asthma (0/1) | 0.575\*\*\* |
|  | (0.120) |
| Female (0/1) | -0.173\*\*\* |
|  | (0.120) |
| Aged 30-44 (0/1) | -0.181\* |
|  | (0.077) |
| Aged 45-59 (0/1) | -0.283\*\*\* |
|  | (0.078) |
| Aged 60+ (0/1) | -0.237\*\* |
|  | (0.090) |
| Log(Income) | 0.245\*\*\* |
|  | (0.040) |
| High education (0/1) | 0.125\* |
|  | (0.058) |
| Health expenditure out of my pocket (0/1) | 0.192\* |
|  | (0.095) |
| Health perceived below average (0/1) | -0.048 |
|  | (0.066) |
| Health perceived above average (0/1) | 0.049 |
|  | (0.064) |
| Not diagnosed with chronic diseases (0/1) | -0.220\*\*\* |
|  | (0.060) |
| Was diagnosed with COVID-19 (0/1) | 0.077 |
|  | (0.060) |
| Relative was diagnosed with COVID-19 (0/1) | 0.066 |
|  | (0.053) |
| Log(Cost) | -0.540\*\*\* |
|  | (0.012) |
| Spike | 0.041\*\*\* |
|  | (0.003) |
| Observations | 2 194 |
| Country dummies x sample weights | Yes |
| Log-likelihood | -3 165 |
| LR statistics | 186 |
| AIC | 6 376 |
| BIC | 6 507 |
| Mean WTP truncated at the maximum bid with adjustment (USD per year over 10 years) | 554 |
| Median WTP (USD per year over 10 years) | 229 |

Note: Signif. codes: 0 ‘\*\*\*’ 0.001 ‘\*\*’ 0.01 ‘\*’ 0.05 ‘+’ 0.1 ‘ ’ 1. The baseline estimation corresponds to a maximum likelihood estimation of the joint probabilities assuming a Weibull distribution with a spike configuration. All columns exclude very slow respondents as well as speeders. Base group: mild asthmatic child, American, male with non-asthmatic parent. Country dummies interacted with the sampling weight are included as regressors but not reported in the table for clarity. a For income, the marginal effect equals the increase in mean WTP due to an increase of average income by USD 500 per month.

Source: Authors’ own elaboration.

**Appendix B.3. The determinants of the willingness to pay to reduce childhood asthma severity, without missing income dummy**

|  |  |
| --- | --- |
| Child has mild plus or moderate asthma (0/1) | 0.190\* |
|  | (0.088) |
| Child has moderate plus or severe asthma (0/1) | 0.378\* |
|  | (0.182) |
| Child asthma is completely controlled (0/1) | -0.216\*\* |
|  | (0.083) |
| Female child (0/1) | -0.171\* |
|  | (0.076) |
| Child age | -0.020\*\* |
|  | (0.008) |
| Asthmatic parent (0/1) | -0.024 |
|  | (0.079) |
| Log(Income) | 0.327\*\*\* |
|  | (0.058) |
| Health expenditure out of my pocket (0/1) | -0.061 |
|  | (0.141) |
| Child health perceived as good or very good (0/1) | 0.276\*\* |
|  | (0.094) |
| Child health perceived above average (0/1) | -0.114 |
|  | (0.081) |
| Child diagnosed with other chronic diseases (0/1) | 0.326\*\*\* |
|  | (0.095) |
| Log(Cost) | -0.458\*\*\* |
|  | (0.016) |
| Spike | 0.047\*\*\* |
|  | (0.005) |
| Observations | 1 339 |
| Country dummies x sample weights | Yes |
| Log-likelihood | -1 775 |
| LR statistics | 132 |
| AIC | 3 589 |
| BIC | 3 693 |
| Mean WTP truncated at the maximum bid with adjustment (USD per year over 10 years) | 1 002 |
| Median WTP (USD per year over 10 years) | 516 |

Note: Signif. codes: 0 ‘\*\*\*’ 0.001 ‘\*\*’ 0.01 ‘\*’ 0.05 ‘+’ 0.1 ‘ ’ 1. The baseline estimation corresponds to a maximum likelihood estimation of the joint probabilities assuming a Weibull distribution with a spike configuration. All columns exclude very slow respondents as well as speeders. Base group: mild asthmatic child, American, male with non-asthmatic parent. Country dummies interacted with the sampling weight are included as regressors but not reported in the table for clarity. a For income, the marginal effect equals the increase in mean WTP due to an increase of average income by USD 500 per month.

Source: Authors’ own elaboration.

Appendix B.4. Country-level parametric estimations of WTP to reduced adult asthma severity

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
|  | Canada | Czech Rep. | France | Poland | Sweden | UK | US |
| Has mild plus or | 0.426\*\* | 0.144 | 0.266+ | 0.177 | 0.106 | 0.555\*\*\* | 0.408\*\* |
| moderate asthma (0/1) | (0.142) | (0.148) | (0.144) | (0.157) | (0.132) | (0.140) | (0.154) |
| Has moderate plus | 1.009\*\* | 0.376 | 0.605\* | 0.506 | 0.719+ | 0.637\* | 0.526\* |
| or severe asthma (0/1) | (0.331) | (0.338) | (0.308) | (0.317) | (0.393) | (0.277) | (0.260) |
| Log(Cost) | -0.568\*\*\* | -0.593\*\*\* | -0.540\*\*\* | -0.560\*\*\* | -0.517\*\*\* | -0.465\*\*\* | -0.524\*\*\* |
|  | (0.034) | (0.037) | (0.033) | (0.037) | (0.029) | (0.027) | (0.034) |
| Sample weight | 0.372\* | -0.549\*\* | -0.168 | -0.205 | -0.014 | -0.053 | -0.112 |
|  | (0.166) | (0.201) | (0.142) | (0.238) | (0.094) | (0.172) | (0.117) |
| Spike | 0.044\*\*\* | 0.023\*\*\* | 0.046\*\*\* | 0.031\*\*\* | 0.052\*\*\* | 0.069\*\*\* | 0.039\*\*\* |
|  | (0.009) | (0.005) | (0.010) | (0.007) | (0.010) | (0.012) | (0.008) |
| Observations | 288 | 343 | 294 | 293 | 334 | 323 | 319 |
| Log-likelihood | -419 | -464 | -441 | -411 | -507 | -497 | -451 |
| LR statistics | 22 | 10 | 8 | 3 | 4 | 19 | 11 |
| AIC | 849 | 937 | 893 | 831 | 1 025 | 1 004 | 914 |
| BIC | 867 | 956 | 911 | 849 | 1 044 | 1 023 | 933 |
| **WTP (USD per year over 10 years)** |  |  |  |  |  |  |  |
| Mean WTP (truncated at the maximum bid with adjustment) | 374 | 672 | 414 | 608 | 439 | 492 | 648 |
| Median WTP (mean of median) | 150 | 323 | 154 | 262 | 148 | 156 | 259 |

Note: Signif. codes: ‘\*\*\*’ 0.001 ‘\*\*’ 0.01 ‘\*’ 0.05 ‘+’ 0.1 ‘ ’ 1. The baseline estimation corresponds to a maximum likelihood estimation of the joint probabilities assuming a Weibull distribution with a spike configuration. All columns exclude very slow respondents as well as speeders. Base group: mild asthmatic. Intercepts are not included in the table for clarity.

Source: Authors’ own elaboration.

Appendix B.5. Country-level parametric estimations of WTP to reduced childhood asthma severity

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
|  | Canada | Czech Rep. | France | Poland | Sweden | UK | US |
| Has mild plus or | 0.645\*\* | 0.142 | 0.348+ | -0.093 | 0.244 | 0.647\*\*\* | 0.009 |
| moderate asthma (0/1) | (0.204) | (0.213) | (0.205) | (0.216) | (0.189) | (0.196) | (0.255) |
| Has moderate plus | 0.427 | 1.302+ | 0.824 | 0.360 | -0.620+ | 0.658 | 0.783+ |
| or severe asthma (0/1) | (0.383) | (0.732) | (0.601) | (0.599) | (0.355) | (0.428) | (0.463) |
| Log(Cost) | -0.482\*\*\* | -0.485\*\*\* | -0.442\*\*\* | -0.439\*\*\* | -0.455\*\*\* | -0.438\*\*\* | -0.421\*\*\* |
|  | (0.043) | (0.046) | (0.039) | (0.042) | (0.037) | (0.037) | (0.042) |
| Sample weight | -0.256 | -0.202 | -0.450\*\* | -0.126 | -0.375\* | -0.400 | -0.137 |
|  | (0.234) | (0.172) | (0.143) | (0.147) | (0.169) | (0.320) | (0.113) |
| Spike | 0.044\*\*\* | 0.034\*\*\* | 0.059\*\*\* | 0.046\*\*\* | 0.060\*\*\* | 0.060\*\*\* | 0.042\*\*\* |
|  | (0.012) | (0.010) | (0.015) | (0.013) | (0.014) | (0.014) | (0.012) |
| Observations | 188 | 192 | 192 | 188 | 193 | 194 | 192 |
| Log-likelihood | -255 | -241 | -259 | -247 | -280 | -265 | -246 |
| LR statistics | 12 | 7 | 14 | 1 | 11 | 14 | 6 |
| AIC | 521 | 492 | 528 | 504 | 570 | 541 | 502 |
| BIC | 537 | 509 | 544 | 520 | 587 | 557 | 518 |
| **WTP (USD per year over 10 years)** |  |  |  |  |  |  |  |
| Mean WTP (truncated at the maximum bid with adjustment) | 809 | 1 070 | 762 | 1 035 | 682 | 799 | 1 489 |
| Median WTP (mean of median) | 361 | 700 | 337 | 488 | 246 | 327 | 994 |

Note: Signif. codes: 0 ‘\*\*\*’ 0.001 ‘\*\*’ 0.01 ‘\*’ 0.05 ‘+’ 0.1 ‘ ’ 1. The baseline estimation corresponds to a maximum likelihood estimation of the joint probabilities assuming a Weibull distribution with a spike configuration. All columns exclude very slow respondents as well as survey and valuation speeders. Base group: mild asthmatic. Intercepts are not included in the table for clarity.

Source: Authors’ own elaboration.

Appendix B.6. WTP to reduce asthma severity in adults and medical cost

|  |  |  |
| --- | --- | --- |
|  | Baseline | Medical cost saving |
|  | (1) | (2) |
| Has mild plus or moderate | 0.308\*\*\* | 0.271\*\*\* |
| asthma (0/1) | (0.054) | (0.054) |
| Has moderate plus or severe | 0.619\*\*\* | 0.621\*\*\* |
| asthma (0/1) | (0.116) | (0.117) |
| Thought could save on medical |  | 0.553\*\*\* |
| expenditure (0/1) |  | (0.059) |
| Log(Cost) | -0.530\*\*\* | -0.538\*\*\* |
|  | (0.012) | (0.012) |
| Spike | 0.043\*\*\* | 0.041\*\*\* |
|  | (0.003) | (0.003) |
| Observations | 2 194 | 2 194 |
| Country dummies | No | No |
| Country dummies x weights | Yes | Yes |
| Log-likelihood | -3 218 | -3 170 |
| LR statistics | 81 | 176 |
| AIC | 6 457 | 6 364 |
| BIC | 6 520 | 6 433 |
| **WTP (USD per year over 10 years)** |  |  |
| Mean WTP (truncated at the maximum bid with adjustment) | 529 | 556 |
| Median WTP (mean of median) | 200 | 230 |

Note: Signif. codes: ‘\*\*\*’ 0.001 ‘\*\*’ 0.01 ‘\*’ 0.05 ‘+’ 0.1 ‘ ’ 1. The baseline estimation corresponds to a maximum likelihood estimation of the joint probabilities assuming a Weibull distribution with a spike configuration. All columns exclude very slow respondents as well as speeders. Base group: mild asthmatic, American, aged 18-29, male with low and medium education. The intercept, country dummies and country dummies interacted with the sampling weight are included as regressors but not reported in the table for clarity.

Source: Authors’ own elaboration.

Appendix B.7. WTP to reduce asthma severity in children and medical cost

|  |  |  |
| --- | --- | --- |
|  | Baseline | Medical cost saving |
|  | (1) | (2) |
| Child has mild plus or moderate | 0.302\*\*\* | 0.287\*\*\* |
| asthma (0/1) | (0.078) | (0.078) |
| Child has moderate plus or severe | 0.486\*\* | 0.434\* |
| asthma (0/1) | (0.174) | (0.174) |
| Thought could save on medical |  | 0.413\*\*\* |
| expenditure (0/1) |  | (0.081) |
| Log(Cost) | -0.447\*\*\* | -0.451\*\*\* |
|  | (0.015) | (0.015) |
| Spike | 0.050\*\*\* | 0.049\*\*\* |
|  | (0.005) | (0.005) |
| Observations | 1 339 | 1 339 |
| Country dummies | No | No |
| Country dummies x sample weights | Yes | Yes |
| Log-likelihood | -1 808 | -1 794 |
| LR statistics | 65 | 93 |
| AIC | 3 637 | 3 612 |
| BIC | 3 695 | 3 674 |
| **WTP (USD per year over 10 years)** |  |  |
| Mean WTP (truncated at the maximum bid with adjustment) | 948 | 976 |
| Median WTP (mean of median) | 416 | 466 |

Note: Signif. codes: 0 ‘\*\*\*’ 0.001 ‘\*\*’ 0.01 ‘\*’ 0.05 ‘+’ 0.1 ‘ ’ 1. The baseline estimation corresponds to a maximum likelihood estimation of the joint probabilities assuming a Weibull distribution with a spike configuration. All columns exclude very slow respondents as well as speeders. Base group: mild asthmatic child, American, male with non-asthmatic parent. Country dummies and country dummies interacted with the sampling weight are included as regressors but not reported in the table for clarity.

Source: Authors’ own elaboration.

Appendix C. Additional WTP values

**Appendix C.1. Recommended Median WTP values for a one-step reduction in asthma severity by surveyed country**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| USD PPP per year | Adult asthma | Adult mild asthma | Adult mild plus or moderate asthma | Adult moderate plus or severe asthma | Childhood asthma | Childhood mild asthma | Childhood mild plus or moderate asthma | Childhood moderate plus or severe asthma |
| Canada | 150 | 100 | 180 | 320 | 330 | 200 | 400 | 600 |
| Czech Republic | 280 | 180 | 320 | 570 | 500 | 300 | 580 | 880 |
| France | 150 | 100 | 180 | 320 | 300 | 170 | 340 | 510 |
| Poland | 250 | 160 | 280 | 500 | 530 | 330 | 650 | 980 |
| Sweden | 170 | 110 | 200 | 350 | 290 | 170 | 340 | 510 |
| United Kingdom | 160 | 100 | 180 | 330 | 270 | 160 | 320 | 490 |
| United States | 230 | 140 | 250 | 450 | 690 | 370 | 730 | 1 110 |
|  |  |  |  |  |  |  |  |  |
| Country currency per year | Adult asthma | Adult mild asthma | Adult moderate asthma | Adult severe asthma | Childhood asthma | Childhood mild asthma | Childhood mild plus or moderate asthma | Childhood moderate plus or severe asthma |
| Canada (CAD) | 190 | 130 | 230 | 410 | 420 | 260 | 510 | 770 |
| Czech Republic (CZK) | 3 400 | 2 200 | 3 900 | 6 900 | 6 000 | 3 600 | 7 000 | 10 600 |
| France (EUR) | 110 | 70 | 130 | 240 | 220 | 130 | 250 | 380 |
| Poland (PLN) | 400 | 300 | 500 | 800 | 900 | 500 | 1 100 | 1 600 |
| Sweden (SEK) | 1 600 | 1 000 | 1 900 | 3 300 | 2 700 | kr.1 600 | 3 200 | 4 800 |
| United Kingdom (GBP) | 120 | 70 | 130 | 250 | 200 | 120 | 240 | 370 |
| United States (USD) | 230 | 140 | 250 | 450 | 690 | 370 | 730 | 1 110 |

Note: Values are rounded for clarity. The conversions are done using Purchasing Power Parities for actual individual consumption of 2019 since it was used to convert bid levels across countries. Data comes from the OECD Dataset: PPPs and exchange rates as of January 2022.

Source: Authors’ own elaboration.

Appendix C.2. Recommended median values of a statistical case of asthma by surveyed country

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | USD PPP | | National currency | |
| Country | Adult asthma | Childhood asthma | Adult asthma | Childhood asthma |
| Canada | 52 000 | 59 000 | CAD 70 000 | CAD 80 000 |
| France | 39 000 | 70 000 | EUR 30 000 | EUR 50 000 |
| Poland | 54 000 | 66 000 | PLN 90 000 | PLN 110 000 |
| Sweden | 53 000 | 87 000 | SEK 500 000 | SEK 820 000 |
| United Kingdom | 54 000 | 74 000 | GBP 40 000 | GBP 60 000 |
| United States | 54 000 | 94 000 | USD 50 000 | USD 90 000 |

Note: Values are rounded at the ten thousand for clarity. The conversions are done using Purchasing Power Parities for actual individual consumption of 2019 since it was used to convert bid levels across countries. Data comes from the OECD Dataset: PPPs and exchange rates as of January 2022.

Source: Authors’ own elaboration.

**APPENDIX D. Comparison of WTP estimates with previous studies**

Appendix D.1. WTP estimates for a reduction in asthma severity in comparable studies

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Study | Type | Population | Country or group of countries | Total sample size | Reduction in severity | WTP per year derived from the study | WTP in USD2022 per year adjusted for GDP per capita growth and inflation |
| Present study | SP | Adult | 7 OECD countries | 2 194 | Mild to very mild | USD2022 381 | 381 |
| Present study | SP | Adult | 7 OECD countries | 2 194 | Mild plus to very mild | USD2022 812 | 812 |
| Zillich et al. (2002) | SP | Adult | United States | 100 | Complete relief from mild | USD2002 1 080 | 1 895 |
| Dickie and Messman (2004) | SP | Adult | United States | 284 | Complete relief from mild | USD2004 1 901 | 3 132 |
| Present study | SP | Adult | 7 OECD countries | 2 194 | Moderate to very mild | USD2022 1 552 | 1 552 |
| Present study | SP | Adult | 7 OECD countries | 2 194 | Moderate plus to very mild | USD2022 2 463 | 2 463 |
| Zillich et al. (2002) | SP | Adult | United States | 100 | Complete relief from moderate | USD2002 1 572 | 2 758 |
| Present study | SP | Adult | 7 OECD countries | 2 194 | Severe to very mild | USD2022 3 304 | 3 304 |
| Zillich et al. (2002) | SP | Adult | United States | 100 | Complete relief from severe | USD2002 3 972 | 6 969 |
| Dickie and Messman (2004) | SP | Adult | United States | 284 | Complete relief from severe | USD2004 3 224 | 5 311 |
| O’Conor and Blomquist (1997) | SP | Adult | United States | 146 | Complete relief | USD1997 1 500 | 3 042 |
| Belova et al. (2020) | COI | Adult | United States | 9 409 | Complete relief | USD2010 4 000a | 5 659 |
| Present study | SP | Child | 7 OECD countries | 1 339 | Mild to very mild | USD2022 705 | 705 |
| Present study | SP | Child | 7 OECD countries | 1 339 | Mild plus to very mild | USD2022 1 684 | 1 684 |
| Dickie and Messman (2004) | SP | Child | United States | 284 | Complete relief from mild | USD2004 3 620 | 6 086 |
| Present study | SP | Child | 7 OECD countries | 1 339 | Moderate to very mild | USD2022 2 802 | 2 802 |
| Present study | SP | Child | 7 OECD countries | 1 339 | Moderate plus to very mild | USD2022 4 133 | 4 133 |
| Present study | SP | Child | 7 OECD countries | 1 339 | Severe to very mild | USD2022 5 464 | 5 464 |
| Dickie and Messman (2004) | SP | Child | United States | 284 | Complete relief from severe | USD2004 6 144 | 10 330 |
| Belova et al. (2020) | COI | Child | United States | 9 409 | Complete relief | USD2010 4 200a | 6 048 |
| Present study | SP | Adult | 7 OECD countries | 2 194 | Severe to mild | USD2022 2 923 | 2 923 |
| Zillich et al. (2002) | SP | Adult | United States | 100 | Severe to mild | USD2002 3 665 | 6 430 |
| Dickie and Messman (2004) | SP | Adult | United States | 284 | Severe to mild | USD2004 1323 | 2 180 |
| Present study | SP | Child | 7 OECD countries | 1 339 | Severe to mild | USD2022 4 759 | 4 759 |
| Dickie and Messman (2004) | SP | Child | United States | 284 | Severe to mild | USD2004 2 525 | 4 245 |

Note: a This includes medical cost and lost earnings. SP means stated preferences and COI means cost of illness. Based on the results of Appendix B.1. and assuming that the one-step WTP are additive, the WTP equivalent for a reduction of adult asthma severity from severe to mild estimated in the present study equals USD2022 2 923 per year. Substracting WTP for a cure of mild asthma from WTP for a cure of severe asthma, it is possible to compute the WTP equivalent for a reduction of adult asthma severity from severe to mild in Zillich et al. (2002) and Dickie and Messman (2004). Zillich et al. (2002) do not value childhood asthma severity reduction. Estimates from previous studies are transferred over time using equation (23), an income elasticity of 0.3 for adult asthma and an income elasticity of 0.4 for childhood asthma as reported in the present paper. Price indices data come from the OECD Consumer price indices (CPIs) dataset and GDP per capita data come from the OECD Economic outlook (2022).

Source: Authors’ own elaboration.

Appendix D.2. Value of a statistical case of asthma and other diseases in comparable studies

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Study | Type | Population | Country or group of countries | Total sample size | Risk | Value of a statistical case (VSC) derived from the study | VSC in USD2022 adjusted for GDP per capita growth and inflation |
| Present study | SP | Adult | 6 OECD countries | 4 764 | Asthma | USD2022 283 000a | 283 000 |
| Present study | SP | Adult | United States | 702 | Asthma | USD2022 330 000 | 330 000 |
| Viscusi et al. (1991) | SP | Adult | United States | 389 | Chronic bronchitis | USD1991 457 000 | 1 016 000 |
| Krupnick and Cropper (1992) | SP | Adult | United States | 578b | Chronic lung disease[[1]](#footnote-1) | USD1992 1 438 000 | 3 099 000 |
| Priez and Jeanrenaud (1999) | SP | Adult | Switzerland | 757 | Chronic bronchitis | CHF1999 38 500 | 21 355 |
| Belova et al. (2020) | COI | Adult | United States | 9 409 | Asthma | USD2010 32 925c | 44 736 |
| Present study | SP | Child | 6 OECD countries | 1 308 | Asthma | USD2022 430 000a | 430 000 |
| Present study | SP | Child | United States | 197 | Asthma | USD2022 610 000 | 610 000 |
| Belova et al. (2020) | COI | Child | United States | 9 409 | Asthma | USD2010 41 267d | 56 367 |

Note: a simple average across the 6 OECD countries reported in Table 27 b including the 389 respondents from Viscusi et al. (1991). c Average of the present discounted value of the lifetime cost stream for an asthma case assuming a 3% discount rate for adult aged 20 and above reported by Belova et al. (2020) d. Average of the present discounted value of the lifetime cost stream for an asthma case assuming a 3% discount rate for adult aged between 0 and 19 reported by Belova et al. (2020). Estimates from previous studies are transferred over time using equation (23), an income elasticity of 0.07 for adult asthma and an income elasticity of 0.1 for childhood asthma as reported in the present paper.

Source: Authors’ own elaboration.

1. According to the national cancer institute, chronic lung disease is a type of disorder that affects the lungs and other parts of the respiratory system. Types of chronic lung disease include asthma, chronic obstructive pulmonary disease (COPD), pulmonary fibrosis, asbestosis, pneumonitis, and other lung conditions. [↑](#footnote-ref-1)