**Appendix Results of regression analysis and detailed breakdown of CCI**

***Table S1 Regression analysis of factors associated with care utilisation among people with dementia***

|  |  |  |  |
| --- | --- | --- | --- |
|   | **Informal care** | **Formal care** | **Unmet care needs** |
|   | **Linear probability model** | **Linear probability model** | **Linear regression model** |
| **Need factors** |  |  |  |
| Age | 0.0002 (0.003) | 0.008\* (0.004) | -0.005 (0.018) |
| Female | 0.033 (0.039) | 0.003 (0.047) | -0.576\* (0.238) |
| Functional limitations | 0.226\*\*\* (0.014) | 0.060\*\*\* (0.018) | 0.234 (0.121) |
| Functional limitations^2 | -0.014\*\*\* (0.001) | -0.001 (0.001) | -0.001 (0.01) |
| Fair health | -0.062 (0.051) | -0.012 (0.053) | 0.236 (0.204) |
| Poor health | -0.093 (0.058) | -0.074 (0.070) | 0.052 (0.30) |
| Long-term illness | 0.021 (0.073) | 0.017 (0.06) | 0.222 (0.317) |
| Depressive symptoms | -0.012 (0.010) | -0.010 (0.011) | 0.181\*\* (0.058) |
| **Non-need factors** |  |  |  |
| Married | 0.142\*\*\* (0.042) | -0.166\*\* (0.058) | -0.392 (0.255) |
| Living with children | 0.051 (0.049) | -0.081 (0.068) | 0.238 (0.262) |
| Secondary education | -0.040 (0.042) | 0.030 (0.053) | 0.191 (0.223) |
| Higher education | -0.036 (0.049) | 0.018 (0.056) | -0.045 (0.355) |
| Log-income | -0.029 (0.028) | -0.003 (0.049) | -0.097 (0.188) |
| Joint significance | F=40.7\*\*\* | F=15.9\*\*\* | F=8.1\*\*\* |
| R2 | 0.44 | 0.29 | 0.21 |

Note: Sample size=412; Cluster-robust standard errors in parenthesis; \*p<0.05, \*\*p<0.01, \*\*\*p<0.001.

***Table S2 Decomposition of income based CCI of care utilisation among people with dementia***

|  |  |  |  |
| --- | --- | --- | --- |
|   | **Informal care** | **Formal care** | **Unmet care needs** |
| **Need factors** |  |  |  |
| Age | 0.000 | -0.025 | 0.001 |
| Female | -0.001 | 0.000 | 0.002 |
| Functional limitations | -0.292 | -0.077 | -0.014 |
| Functional limitations^2 | 0.206 | 0.016 | 0.001 |
| Fair health | 0.002 | 0.000 | 0.000 |
| Poor health | 0.017 | 0.014 | -0.001 |
| Long-term illness | 0.000 | 0.000 | 0.000 |
| Depressive symptoms | -0.005 | -0.004 | 0.006 |
| **Non-need factors** |  |  |  |
| Married | 0.046 | -0.053 | -0.011 |
| Living with children | -0.003 | 0.005 | -0.001 |
| Secondary education | -0.002 | 0.002 | 0.000 |
| Higher education | -0.006 | 0.003 | -0.001 |
| Log-income | -0.027 | -0.021 | -0.019 |
| Residual | 0.038 | 0.024 | -0.011 |

***Table S3 Regression analysis of factors associated with care utilisation among people without dementia***

|  |  |  |  |
| --- | --- | --- | --- |
|   | **Informal care** | **Formal care** | **Unmet care needs** |
|   | **Linear probability model** | **Linear probability model** | **Linear regression model** |
| **Need factors** |  |  |  |
| Age | 0.004\*\*\* (0.0004) | 0.006\*\*\* (0.0004) | -0.018\*\*\* (0.003) |
| Female | 0.039\*\*\* (0.005) | 0.020\*\*\* (0.004) | -0.154\*\*\* (0.035) |
| Functional limitations | 0.140\*\*\* (0.003) | 0.028\*\*\* (0.002) | 0.864\*\*\* (0.031) |
| Functional limitations^2 | -0.006\*\*\* (0.0003) | 0.001\*\*\* (0.0002) | -0.044\*\*\* (0.003) |
| Fair health | 0.031\*\*\* (0.008) | -0.003 (0.006) | -0.066\* (0.029) |
| Poor health | 0.108\*\*\* (0.015) | -0.008 (0.013) | -0.078 (0.06) |
| Long-term illness | 0.020\*\*\* (0.004) | 0.012\*\* (0.003) | -0.039 (0.026) |
| Depressive symptoms | 0.001 (0.002) | -0.004\*\*\* (0.002) | 0.017 (0.012) |
| **Non-need factors** |  |  |  |
| Married | 0.036\*\*\* (0.006) | -0.055\*\*\* (0.005) | -0.246\*\*\* (0.037) |
| Living with children | 0.049\*\*\* (0.009) | -0.025\*\*\* (0.006) | -0.114\* (0.053) |
| Secondary education | -0.029\*\*\* (0.007) | 0.008 (0.005) | 0.076\* (0.038) |
| Higher education | -0.030\*\*\* (0.007) | 0.018\*\*\* (0.006) | 0.090\* (0.040) |
| Log-income | 0.007 (0.005) | 0.023\*\*\* (0.004) | -0.069\* (0.028) |
| Joint significance | F=426\*\*\* | F=68\*\*\* | F=270\*\*\* |
| R2 | 0.44 | 0.22 | 0.50 |

Note: Sample size=16,046; Cluster-robust standard errors in parenthesis; \*p<0.05, \*\*p<0.01, \*\*\*p<0.001.

***Table S4 Decomposition of income based CCI of care utilisation among people without dementia***

|  |  |  |  |
| --- | --- | --- | --- |
|   | **Informal care** | **Formal care** | **Unmet care needs** |
| **Need factors** |  |  |  |
| Age | -0.012 | -0.017 | 0.003 |
| Female | -0.006 | -0.003 | 0.001 |
| Functional limitations | -0.099 | -0.020 | -0.022 |
| Functional limitations^2 | 0.025 | -0.004 | 0.007 |
| Fair health | -0.004 | 0.000 | 0.000 |
| Poor health | -0.006 | 0.001 | 0.000 |
| Long-term illness | -0.001 | -0.001 | 0.000 |
| Depressive symptoms | -0.001 | 0.002 | -0.001 |
| **Non-need factors** |  |  |  |
| Married | 0.011 | -0.017 | -0.005 |
| Living with children | -0.001 | 0.001 | 0.000 |
| Secondary education | 0.001 | 0.000 | 0.000 |
| Higher education | -0.010 | 0.006 | 0.002 |
| Log-income | 0.006 | 0.031 | -0.006 |
| Residual | 0.001 | 0.005 | -0.004 |

***Table S5 Regression analysis of factors associated with care utilisation among people with dementia (unimputed data)***

|  |  |  |  |
| --- | --- | --- | --- |
|   | **Informal care** | **Formal care** | **Unmet care needs** |
|   | **Linear probability model** | **Linear probability model** | **Linear regression model** |
| **Need factors** |  |  |  |
| Age | 0.001 (0.004) | 0.009\* (0.004) | -0.013 (0.017) |
| Female | 0.063 (0.049) | -0.020 (0.049) | -0.603\* (0.236) |
| Functional limitations | 0.245\*\*\* (0.022) | 0.030 (0.023) | 0.501\*\*\* (0.139) |
| Functional limitations^2 | -0.015\*\*\* (0.002) | 0.001 (0.002) | -0.028\* (0.011) |
| Fair health | -0.012 (0.056) | -0.054 (0.057) | 0.154 (0.268) |
| Poor health | -0.125 (0.07) | -0.059 (0.071) | 0.243 (0.323) |
| Long-term illness | 0.018 (0.065) | -0.022 (0.066) | 0.111 (0.357) |
| Depressive symptoms | -0.022 (0.015) | 0.013 (0.015) | 0.220\*\*\* (0.068) |
| **Non-need factors** |  |  |  |
| Married | 0.23\*\*\* (0.056) | -0.157\*\* (0.056) | -0.236 (0.273) |
| Living with children | 0.087 (0.082) | -0.103 (0.082) | 0.538 (0.381) |
| Secondary education | -0.039 (0.059) | 0.032 (0.059) | 0.196 (0.281) |
| Higher education | 0.01 (0.062) | -0.023 (0.063) | -0.130 (0.312) |
| Log-income | -0.062 (0.054) | -0.012 (0.055) | -0.334 (0.288) |
| Joint significance | F=18.3\*\*\* | F=5.3\*\*\* | F=5.9\*\*\* |
| R2 | 0.35 | 0.23 | 0.31 |

Note: Sample size=243; Cluster-robust standard errors in parenthesis; \*p<0.05, \*\*p<0.01, \*\*\*p<0.001.

***Table S6 Regression analysis of factors associated with care utilisation among people without dementia (unimputed data)***

|  |  |  |  |
| --- | --- | --- | --- |
|   | **Informal care** | **Formal care** | **Unmet care needs** |
|   | **Linear probability model** | **Linear probability model** | **Linear regression model** |
| **Need factors** |  |  |  |
| Age | 0.004\*\*\* (0.0004) | 0.006\*\*\* (0.0003) | -0.018\*\*\* (0.002) |
| Female | 0.038\*\*\* (0.005) | 0.021\*\*\* (0.004) | -0.159\*\*\* (0.029) |
| Functional limitations | 0.139\*\*\* (0.003) | 0.03\*\*\* (0.002) | 0.868\*\*\* (0.019) |
| Functional limitations^2 | -0.006\*\*\* (0.0003) | 0.001\*\* (0.0003) | -0.044\*\*\* (0.002) |
| Fair health | 0.028\*\*\* (0.007) | -0.004 (0.005) | -0.051 (0.032) |
| Poor health | 0.106\*\*\* (0.010) | -0.011 (0.008) | -0.058 (0.045) |
| Long-term illness | 0.020\*\*\* (0.005) | 0.012\*\* (0.004) | -0.041 (0.036) |
| Depressive symptoms | 0.003 (0.002) | -0.003 (0.002) | 0.004 (0.010) |
| **Non-need factors** |  |  |  |
| Married | 0.036\*\*\* (0.005) | -0.052\*\*\* (0.004) | -0.252\*\*\* (0.03) |
| Living with children | 0.051\*\*\* (0.008) | -0.026\*\*\* (0.006) | -0.128\*\* (0.043) |
| Secondary education | -0.030\*\*\* (0.006) | 0.010\* (0.004) | 0.080\* (0.032) |
| Higher education | -0.032\*\*\* (0.006) | 0.019\*\*\* (0.005) | 0.103\*\* (0.035) |
| Log-income | 0.006 (0.004) | 0.024\*\*\* (0.003) | -0.062\* (0.026) |
| Joint significance | F=865.0\*\*\* | F=269.0\*\*\* | F=583.4\*\*\* |
| R2 | 0.43 | 0.19 | 0.52 |

Note: Sample size=15,099; Cluster-robust standard errors in parenthesis; \*p<0.05, \*\*p<0.01, \*\*\*p<0.001.