Multicollinearity diagnostics for adjusted logistic regression for dichotomised self-rated health regressed against fitted variables.

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| VIF, r | | Bedbug infestation | | | Physical appearance | | | Spending money on medication or doctor consultation | | | No. bites in past month | | | Time of bites |  | Age | | | Education level | | Monthly household income | | | |
| **Sometimes** | **Often** | **Very often** | **Slight** | **Moderate** | **Severe** | **Slight** | **Moderate** | **Severe** | **1-4** | **5-10** | **>10** | **Irregularly** | **Female** | **0-24** | **25-44** | **45-64** | **Primary education or below** | **Secondary education** | **<HKD10,000** | **HKD10,000-30,000** | **HKD30,001-50,000** | **HKD50,001-80,000** |
| Bedbug infestation | **Sometimes** |  | 1.2, -0.163\*\*\* | 1.24, -0.169\*\*\* | 1.58, 0.115\* | 1.58, 0.013 | 1.58, -0.128\*\* | 1.57, 0.12\* | 1.53, 0.084 | 1.58, -0.165\*\*\* | 1.57, 0.109\* | 1.58, 0.027 | 1.57, -0.103\* | 1.57, 0.021 | 1.57, -0.065 | 1.57, -0.009 | 1.57, 0.096\* | 1.54, -0.068 | 1.58, 0.013 | 1.58, 0.035 | 1.58, -0.05 | 1.58, 0.035 | 1.58, -0.004 | 1.58, -0.016 |
| **Often** | 1.51, -0.163\*\*\* |  | 1.33, -0.17\*\*\* | 1.99, -0.026 | 1.98, 0.117\* | 1.99, 0.066 | 1.97, 0.069 | 1.9, 0.078 | 1.92, 0.086 | 1.97, -0.116\* | 1.92, 0.229\*\*\* | 1.93, 0.043 | 1.95, 0.038 | 1.98, -0.023 | 1.93, -0.037 | 1.91, -0.007 | 1.86, -0.146\*\*\* | 1.96, 0.14\*\*\* | 1.99, 0.001 | 1.95, 0.188\*\*\* | 1.96, 0.037 | 1.97, -0.062 | 1.99, -0.085\* |
| **Very often** | 1.9, -0.169\*\*\* | 1.62, -0.17\*\*\* |  | 2.42, -0.023 | 2.41, 0.134\*\* | 2.4, 0.296\*\*\* | 2.42, -0.183\*\*\* | 2.33, 0.169\*\*\* | 2.31, 0.357\*\*\* | 2.35, -0.107\* | 2.36, -0.086 | 2.18, 0.426\*\*\* | 2.39, 0.026 | 2.42, 0.046 | 2.38, -0.112\*\* | 2.38, -0.032 | 2.38, 0.004 | 2.42, 0.244\*\*\* | 2.42, 0.045 | 2.41, 0.094\* | 2.4, 0.173\*\*\* | 2.41, -0.078\* | 2.42, -0.149\*\*\* |
| Physical appearance | **Slight** | 2, 0.115\* | 2.01, -0.026 | 2.01, -0.023 |  | 1.31, -0.319\*\*\* | 1.52, -0.214\*\*\* | 1.82, 0.3\*\*\* | 1.83, -0.01 | 1.82, -0.008 | 1.94, 0.114\* | 1.89, 0.072 | 1.89, 0.058 | 2, 0.132\*\* | 1.96, 0.119\* | 1.99, 0.03 | 1.99, 0.05 | 1.99, -0.032 | 2.01, -0.017 | 2, -0.033 | 1.98, -0.018 | 1.98, -0.009 | 1.97, 0.123\* | 2, -0.012 |
| **Moderate** | 2.22, 0.013 | 2.22, 0.117\* | 2.22, 0.134\*\* | 1.46, -0.319\*\*\* |  | 1.61, -0.205\*\*\* | 2.12, -0.049 | 1.8, 0.415\*\*\* | 2.01, -0.014 | 2.19, -0.067 | 2.11, 0.09 | 2.1, 0.188\*\*\* | 2.23, 0.064 | 2.21, 0.056 | 2.19, -0.004 | 2.2, 0.049 | 2.21, -0.063 | 2.23, 0.011 | 2.22, -0.014 | 2.2, 0.103\* | 2.22, 0.028 | 2.23, -0.062 | 2.23, -0.06 |
| **Severe** | 2.1, -0.128\*\* | 2.1, 0.066 | 2.08, 0.296\*\*\* | 1.59, -0.214\*\*\* | 1.52, -0.205\*\*\* |  | 2.04, -0.118\* | 1.95, -0.027 | 1.63, 0.502\*\*\* | 2.08, -0.114\* | 2.03, 0.05 | 2.02, 0.233\*\*\* | 2.1, 0.034 | 2.1, -0.11\* | 2.08, -0.021 | 2.09, -0.011 | 2.1, -0.103\* | 2.1, 0.172\*\*\* | 2.1, -0.015 | 2.09, 0.051 | 2.09, 0.096\* | 2.09, -0.049 | 2.1, -0.084 |
| Spending money on medication or doctor consultation | **Slight** | 1.86, 0.12\* | 1.86, 0.069 | 1.87, -0.183\*\*\* | 1.7, 0.3\*\*\* | 1.78, -0.049 | 1.82, -0.118\* |  | 1.34, -0.299\*\*\* | 1.5, -0.217\*\*\* | 1.7, 0.193\*\*\* | 1.75, 0.073 | 1.75, 0.009 | 1.87, 0.094 | 1.87, 0.001 | 1.87, -0.022 | 1.88, 0.069 | 1.87, -0.041 | 1.87, 0.015 | 1.88, -0.017 | 1.88, 0.031 | 1.88, -0.04 | 1.87, 0.043 | 1.87, 0.046 |
| **Moderate** | 2.17, 0.084 | 2.15, 0.078 | 2.16, 0.169\*\*\* | 2.05, -0.01 | 1.82, 0.415\*\*\* | 2.09, -0.027 | 1.61, -0.299\*\*\* |  | 1.59, -0.224\*\*\* | 2.22, -0.069 | 2.21, 0.091 | 2.2, 0.168\*\*\* | 2.21, 0.147\*\* | 2.25, 0.037 | 2.24, -0.086 | 2.25, 0.082 | 2.25, -0.035 | 2.25, -0.013 | 2.25, -0.002 | 2.24, 0.052 | 2.24, 0.02 | 2.25, -0.016 | 2.25, -0.072 |
| **Severe** | 2.3, -0.165\*\*\* | 2.23, 0.086 | 2.2, 0.357\*\*\* | 2.09, -0.008 | 2.09, -0.014 | 1.79, 0.502\*\*\* | 1.85, -0.217\*\*\* | 1.63, -0.224\*\*\* |  | 2.29, -0.115\* | 2.28, 0.051 | 2.28, 0.249\*\*\* | 2.31, 0.024 | 2.29, -0.103\* | 2.3, -0.054 | 2.31, -0.072 | 2.31, -0.055 | 2.29, 0.233\*\*\* | 2.31, -0.02 | 2.3, 0.057 | 2.31, 0.098\* | 2.31, -0.046 | 2.31, -0.092 |
| No. bites in past month | **1-4** | 2.16, 0.109\* | 2.16, -0.116\* | 2.11, -0.107\* | 2.1, 0.114\* | 2.13, -0.067 | 2.15, -0.114\* | 1.98, 0.193\*\*\* | 2.15, -0.069 | 2.16, -0.115\* |  | 1.36, -0.286\*\*\* | 1.28, -0.397\*\*\* | 2.15, 0.02 | 2.17, -0.061 | 2.17, 0.072 | 2.18, 0.044 | 2.18, 0.1\* | 2.17, -0.229\*\*\* | 2.18, 0.033 | 2.17, -0.106\* | 2.17, 0 | 2.18, 0.049 | 2.17, 0.089 |
| **5-10** | 2.5, 0.027 | 2.42, 0.229\*\*\* | 2.44, -0.086 | 2.36, 0.072 | 2.38, 0.09 | 2.42, 0.05 | 2.34, 0.073 | 2.46, 0.091 | 2.48, 0.051 | 1.57, -0.286\*\*\* |  | 1.33, -0.35\*\*\* | 2.45, 0.136\*\* | 2.51, -0.032 | 2.49, -0.006 | 2.48, 0.027 | 2.42, -0.155\*\* | 2.5, -0.04 | 2.51, 0.024 | 2.49, -0.053 | 2.51, 0.075 | 2.5, -0.01 | 2.5, -0.074 |
| **>10** | 3.39, -0.103\* | 3.31, 0.043 | 3.07, 0.426\*\*\* | 3.21, 0.058 | 3.21, 0.188\*\*\* | 3.28, 0.233\*\*\* | 3.18, 0.009 | 3.34, 0.168\*\*\* | 3.37, 0.249\*\*\* | 2, -0.397\*\*\* | 1.81, -0.35\*\*\* |  | 3.36, 0.09 | 3.41, 0.059 | 3.41, -0.071 | 3.4, 0.023 | 3.41, -0.151\*\* | 3.36, 0.353\*\*\* | 3.41, -0.065 | 3.41, 0.232\*\*\* | 3.4, 0.046 | 3.41, -0.074 | 3.41, -0.121\* |
| Time of bites | **Irregularly** | 1.18, 0.021 | 1.16, 0.038 | 1.17, 0.026 | 1.18, 0.132\*\* | 1.18, 0.064 | 1.18, 0.034 | 1.18, 0.094 | 1.17, 0.147\*\* | 1.18, 0.024 | 1.17, 0.02 | 1.16, 0.136\*\* | 1.17, 0.09 |  | 1.16, -0.122\* | 1.18, -0.002 | 1.17, -0.047 | 1.17, -0.097\* | 1.18, 0.098\* | 1.18, 0.022 | 1.17, 0.133\*\* | 1.17, 0.056 | 1.18, -0.041 | 1.18, -0.103\* |
| Female |  | 1.12, -0.065 | 1.13, -0.023 | 1.13, 0.046 | 1.1, 0.119\* | 1.12, 0.056 | 1.13, -0.11\* | 1.13, 0.001 | 1.13, 0.037 | 1.12, -0.103\* | 1.13, -0.061 | 1.13, -0.032 | 1.13, 0.059 | 1.11, -0.122\* |  | 1.13, 0.054 | 1.13, -0.055 | 1.13, -0.002 | 1.12, -0.013 | 1.13, -0.073 | 1.12, 0.035 | 1.13, -0.017 | 1.13, -0.03 | 1.13, 0.044 |
| Age | **0-24** | 2.9, -0.009 | 2.83, -0.037 | 2.87, -0.112\*\* | 2.89, 0.03 | 2.87, -0.004 | 2.9, -0.021 | 2.91, -0.022 | 2.9, -0.086 | 2.91, -0.054 | 2.91, 0.072 | 2.89, -0.006 | 2.92, -0.071 | 2.91, -0.002 | 2.92, 0.054 |  | 1.33, -0.331\*\*\* | 1.36, -0.349\*\*\* | 2.25, -0.158\*\*\* | 2.87, -0.114\*\* | 2.9, -0.115\*\* | 2.92, 0.043 | 2.88, 0.096\* | 2.91, -0.03 |
| **25-44** | 3.56, 0.096\* | 3.45, -0.007 | 3.52, -0.032 | 3.55, 0.05 | 3.54, 0.049 | 3.57, -0.011 | 3.58, 0.069 | 3.58, 0.082 | 3.58, -0.072 | 3.58, 0.044 | 3.55, 0.027 | 3.57, 0.023 | 3.53, -0.047 | 3.57, -0.055 | 1.64, -0.331\*\*\* |  | 1.32, -0.441\*\*\* | 2.65, -0.202\*\*\* | 3.58, 0.039 | 3.53, -0.157\*\*\* | 3.58, 0.037 | 3.57, 0.062 | 3.58, 0.074 |
| **45-64** | 3.73, -0.068 | 3.6, -0.146\*\*\* | 3.77, 0.004 | 3.81, -0.032 | 3.8, -0.063 | 3.83, -0.103\* | 3.83, -0.041 | 3.83, -0.035 | 3.84, -0.055 | 3.84, 0.1\* | 3.71, -0.155\*\* | 3.83, -0.151\*\* | 3.8, -0.097\* | 3.83, -0.002 | 1.78, -0.349\*\*\* | 1.41, -0.441\*\*\* |  | 3.02, -0.173\*\*\* | 3.83, 0.108\*\* | 3.72, -0.164\*\*\* | 3.83, -0.017 | 3.84, 0 | 3.84, 0.116\*\* |
| Education level | **Primary education or below** | 2.73, 0.013 | 2.7, 0.14\*\*\* | 2.73, 0.244\*\*\* | 2.73, -0.017 | 2.73, 0.011 | 2.73, 0.172\*\*\* | 2.72, 0.015 | 2.73, -0.013 | 2.7, 0.233\*\*\* | 2.72, -0.229\*\*\* | 2.72, -0.04 | 2.69, 0.353\*\*\* | 2.72, 0.098\* | 2.7, -0.013 | 2.1, -0.158\*\*\* | 2.02, -0.202\*\*\* | 2.15, -0.173\*\*\* |  | 2.48, -0.236\*\*\* | 2.66, 0.455\*\*\* | 2.73, -0.057 | 2.72, -0.187\*\*\* | 2.72, -0.142\*\*\* |
| **Secondary education** | 1.33, 0.035 | 1.34, 0.001 | 1.33, 0.045 | 1.33, -0.033 | 1.33, -0.014 | 1.33, -0.015 | 1.34, -0.017 | 1.34, -0.002 | 1.34, -0.02 | 1.33, 0.033 | 1.34, 0.024 | 1.34, -0.065 | 1.34, 0.022 | 1.33, -0.073 | 1.31, -0.114\*\* | 1.34, 0.039 | 1.33, 0.108\*\* | 1.21, -0.236\*\*\* |  | 1.25, 0.032 | 1.25, 0.224\*\*\* | 1.3, -0.075 | 1.32, -0.132\*\*\* |
| Monthly household income | **<HKD10,000** | 4.22, -0.05 | 4.15, 0.188\*\*\* | 4.22, 0.094\* | 4.17, -0.018 | 4.18, 0.103\* | 4.2, 0.051 | 4.23, 0.031 | 4.22, 0.052 | 4.22, 0.057 | 4.22, -0.106\* | 4.2, -0.053 | 4.22, 0.232\*\*\* | 4.17, 0.133\*\* | 4.17, 0.035 | 4.2, -0.115\*\* | 4.17, -0.157\*\*\* | 4.1, -0.164\*\*\* | 4.12, 0.455\*\*\* | 3.97, 0.032 |  | 1.7, -0.33\*\*\* | 2.27, -0.231\*\*\* | 2.59, -0.175\*\*\* |
| **HKD10,000-30,000** | 5.43, 0.035 | 5.37, 0.037 | 5.38, 0.173\*\*\* | 5.37, -0.009 | 5.41, 0.028 | 5.41, 0.096\* | 5.43, -0.04 | 5.42, 0.02 | 5.43, 0.098\* | 5.42, 0 | 5.43, 0.075 | 5.41, 0.046 | 5.39, 0.056 | 5.42, -0.017 | 5.43, 0.043 | 5.43, 0.037 | 5.42, -0.017 | 5.43, -0.057 | 5.07, 0.224\*\*\* | 2.18, -0.33\*\*\* |  | 1.73, -0.437\*\*\* | 2.36, -0.331\*\*\* |
| **HKD30,001-50,000** | 3.8, -0.004 | 3.76, -0.062 | 3.77, -0.078\* | 3.73, 0.123\* | 3.79, -0.062 | 3.78, -0.049 | 3.79, 0.043 | 3.79, -0.016 | 3.8, -0.046 | 3.8, 0.049 | 3.79, -0.01 | 3.79, -0.074 | 3.78, -0.041 | 3.79, -0.03 | 3.75, 0.096\* | 3.79, 0.062 | 3.8, 0 | 3.79, -0.187\*\*\* | 3.7, -0.075 | 2.03, -0.231\*\*\* | 1.21, -0.437\*\*\* |  | 1.82, -0.232\*\*\* |
| **HKD50,001-80,000** | 2.77, -0.016 | 2.78, -0.085\* | 2.78, -0.149\*\*\* | 2.76, -0.012 | 2.78, -0.06 | 2.78, -0.084 | 2.77, 0.046 | 2.78, -0.072 | 2.78, -0.092 | 2.78, 0.089 | 2.78, -0.074 | 2.78, -0.121\* | 2.78, -0.103\* | 2.77, 0.044 | 2.78, -0.03 | 2.78, 0.074 | 2.78, 0.116\*\* | 2.77, -0.142\*\*\* | 2.76, -0.132\*\*\* | 1.7, -0.175\*\*\* | 1.21, -0.331\*\*\* | 1.33, -0.232\*\*\* |  |

Note: \*\*\*p<0.001; \*\*p<0.01; \*p>0.05

Multicollinearity diagnostics for adjusted logistic regression for dichotomised average hours of sleep per day regressed against fitted variables.

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| VIF,  r | | Mental and emotional health | | | Physical reaction to bites | | |  | | | Age | | | Education level | | | Monthly household income | | |
| **Slight** | **Moderate** | **Severe** | | **Difficulties sleeping or restlessness** | **Female** | | **0-24** | **25-44** | **45-64** | **Primary education or below** | **Secondary education** | | **<HKD10,000** | **HKD10,000-30,000** | | **HKD30,001-50,000** | **HKD50,001-80,000** |
| Mental and emotional health | **Slight** |  | 1.17, -0.3\*\*\* | 1.14, -0.291\*\*\* | | 1.44, -0.185\*\*\* | 1.45, -0.057 | | 1.45, -0.008 | 1.45, 0.06 | 1.45, 0.041 | 1.44, -0.093 | 1.45, 0.134\*\* | | 1.45, -0.146\*\* | 1.43, 0.076 | | 1.43, 0.06 | 1.45, -0.011 |
| **Moderate** | 1.4, -0.3\*\*\* |  | 1.2, -0.358\*\*\* | | 1.57, 0.166\*\*\* | 1.75, 0.044 | | 1.74, 0.025 | 1.73, -0.048 | 1.74, -0.017 | 1.74, 0.13\*\* | 1.74, -0.159\*\* | | 1.71, 0.226\*\*\* | 1.72, -0.204\*\*\* | | 1.72, 0.009 | 1.72, 0.069 |
| **Severe** | 1.62, -0.291\*\*\* | 1.42, -0.358\*\*\* |  | | 1.7, 0.391\*\*\* | 2.06, -0.016 | | 2.05, -0.072 | 2.06, 0.057 | 2.04, -0.161\*\*\* | 2.04, 0.136\*\* | 2.06, -0.011 | | 2.05, -0.005 | 1.98, 0.237\*\*\* | | 2, -0.066 | 2.04, -0.168\*\*\* |
| Physical reaction to bites | **Difficulties sleeping or restlessness** | 1.49, -0.185\*\*\* | 1.36, 0.166\*\*\* | 1.25, 0.391\*\*\* | |  | 1.51, -0.025 | | 1.5, -0.067 | 1.49, -0.107\* | 1.51, -0.11\* | 1.51, 0.299\*\*\* | 1.5, -0.123\* | | 1.49, 0.242\*\*\* | 1.5, 0.088 | | 1.51, -0.108\* | 1.51, -0.193\*\*\* |
|  | **Female** | 1.04, -0.057 | 1.04, 0.044 | 1.04, -0.016 | | 1.04, -0.025 |  | | 1.04, 0.054 | 1.04, -0.055 | 1.04, -0.002 | 1.03, -0.013 | 1.03, -0.073 | | 1.02, 0.035 | 1.03, -0.017 | | 1.04, -0.03 | 1.04, 0.044 |
| Age | **0-24** | 2.7, -0.008 | 2.69, 0.025 | 2.68, -0.072 | | 2.68, -0.067 | 2.69, 0.054 | |  | 1.3, -0.331\*\*\* | 1.3, -0.349\*\*\* | 2.07, -0.158\*\*\* | 2.64, -0.114\*\* | | 2.68, -0.115\*\* | 2.69, 0.043 | | 2.65, 0.096\* | 2.69, -0.03 |
| **25-44** | 3.24, 0.06 | 3.23, -0.048 | 3.25, 0.057 | | 3.21, -0.107\* | 3.25, -0.055 | | 1.56, -0.331\*\*\* |  | 1.27, -0.441\*\*\* | 2.42, -0.202\*\*\* | 3.25, 0.039 | | 3.2, -0.157\*\*\* | 3.25, 0.037 | | 3.23, 0.062 | 3.24, 0.074 |
| **45-64** | 3.32, 0.041 | 3.32, -0.017 | 3.29, -0.161\*\*\* | | 3.31, -0.11\* | 3.32, -0.002 | | 1.6, -0.349\*\*\* | 1.3, -0.441\*\*\* |  | 2.62, -0.173\*\*\* | 3.32, 0.108\*\* | | 3.2, -0.164\*\*\* | 3.31, -0.017 | | 3.32, 0 | 3.32, 0.116\*\* |
| Education level | **Primary education or below** | 2.41, -0.093 | 2.41, 0.13\*\* | 2.41, 0.136\*\* | | 2.42, 0.299\*\*\* | 2.41, -0.013 | | 1.87, -0.158\*\*\* | 1.81, -0.202\*\*\* | 1.92, -0.173\*\*\* |  | 2.21, -0.236\*\*\* | | 2.35, 0.455\*\*\* | 2.43, -0.057 | | 2.42, -0.187\*\*\* | 2.42, -0.142\*\*\* |
| **Secondary education** | 1.35, 0.134\*\* | 1.35, -0.159\*\* | 1.36, -0.011 | | 1.35, -0.123\* | 1.35, -0.073 | | 1.33, -0.114\*\* | 1.36, 0.039 | 1.36, 0.108\*\* | 1.24, -0.236\*\*\* |  | | 1.26, 0.032 | 1.26, 0.224\*\*\* | | 1.32, -0.075 | 1.34, -0.132\*\*\* |
| Monthly household income | **<HKD10,000** | 3.96, -0.146\*\* | 3.87, 0.226\*\*\* | 3.94, -0.005 | | 3.91, 0.242\*\*\* | 3.89, 0.035 | | 3.93, -0.115\*\* | 3.9, -0.157\*\*\* | 3.82, -0.164\*\*\* | 3.84, 0.455\*\*\* | 3.68, 0.032 | |  | 1.71, -0.33\*\*\* | | 2.21, -0.231\*\*\* | 2.47, -0.175\*\*\* |
| **HKD10,000-30,000** | 5.15, 0.076 | 5.16, -0.204\*\*\* | 5.02, 0.237\*\*\* | | 5.19, 0.088 | 5.2, -0.017 | | 5.21, 0.043 | 5.23, 0.037 | 5.21, -0.017 | 5.22, -0.057 | 4.84, 0.224\*\*\* | | 2.26, -0.33\*\*\* |  | | 1.72, -0.437\*\*\* | 2.34, -0.331\*\*\* |
| **HKD30,001-50,000** | 3.58, 0.06 | 3.57, 0.009 | 3.53, -0.066 | | 3.62, -0.108\* | 3.62, -0.03 | | 3.57, 0.096\* | 3.61, 0.062 | 3.62, 0 | 3.62, -0.187\*\*\* | 3.53, -0.075 | | 2.02, -0.231\*\*\* | 1.2, -0.437\*\*\* | |  | 1.77, -0.232\*\*\* |
| **HKD50,001-80,000** | 2.69, -0.011 | 2.66, 0.069 | 2.67, -0.168\*\*\* | | 2.7, -0.193\*\*\* | 2.69, 0.044 | | 2.69, -0.03 | 2.69, 0.074 | 2.7, 0.116\*\* | 2.69, -0.142\*\*\* | 2.68, -0.132\*\*\* | | 1.69, -0.175\*\*\* | 1.21, -0.331\*\*\* | | 1.32, -0.232\*\*\* |  |

Note: \*\*\*p<0.001; \*\*p<0.01; \*p>0.05