Table 4. Complementary log-log regression model showing the relationship between households’ willingness to accept and adopt a solar water disinfection system and household characteristics

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Variable** | **Treatment of water before use + Biosocial factors** | | | | | **+ Socio-cultural factors** | | | | | **+ Contextual factors** | | | | |
| **OR** | **SE** | **P value** | **Conf. Interval** | | **OR** | **SE** | **P value** | **Conf. Interval** | | **OR** | **SE** | **P value** | **Conf. Interval** | |
| **Model 1** | | | | | **MODEL 2** | | | | | **MODEL 3** | |  |  |  |
| ***Treat household water before usage (ref: No)*** | | | | | | | | | | | | | | | |
| Yes | 1.682 | 0.326 | **0.007** | 1.151 | 2.4584 | 1.663 | 0.305 | **0.006** | 1.161 | 2.383 | 1.662 | 0.289 | **0.003** | 1.182 | 2.337 |
| ***Sex (ref: Male)*** | | | | | | | | | | | | | | | |
| Female | 0.826 | 0.089 | 0.076 | 0.669 | 1.0201 | 0.846 | 0.101 | 0.163 | 0.669 | 1.070 | 0.802 | 0.097 | 0.068 | 0.633 | 1.017 |
| ***Age group (ref: <25 years)*** | | | | | | | | | | | | | | | |
| 25-30 | 1.0496 | 0.3042 | 0.867 | 0.595 | 1.852 | 0.837 | 0.321 | 0.642 | 0.394 | 1.776 | 0.799 | 0.313 | 0.567 | 0.370 | 1.722 |
| 31-37 | 0.7286 | 0.1776 | 0.194 | 0.452 | 1.175 | 0.410 | 0.155 | **0.019** | 0.195 | 0.861 | 0.374 | 0.149 | **0.014** | 0.171 | 0.817 |
| 38-44 | 0.5836 | 0.1369 | **0.022** | 0.369 | 0.924 | 0.343 | 0.133 | **0.006** | 0.160 | 0.733 | 0.308 | 0.124 | **0.004** | 0.140 | 0.680 |
| 45-54 | 0.6989 | 0.1716 | 0.145 | 0.432 | 1.131 | 0.424 | 0.171 | **0.034** | 0.192 | 0.936 | 0.380 | 0.160 | **0.022** | 0.166 | 0.869 |
| >54 | 0.4601 | 0.1386 | **0.010** | 0.255 | 0.830 | 0.342 | 0.153 | **0.016** | 0.142 | 0.822 | 0.306 | 0.143 | **0.011** | 0.123 | 0.764 |
| ***Household income (ref: Low)*** | | | | | | | | | | | | | | | |
| High |  | | | | | 1.113 | 0.140 | 0.394 | 0.870 | 1.424 | 1.171 | 0.155 | 0.231 | 0.904 | 1.517 |
| ***Marital status (ref: Single)*** | | | | | | | | | | | | | | | |
| Married |  | | | | | 1.996 | 0.521 | **0.008** | 1.197 | 3.330 | 2.048 | 0.558 | **0.009** | 1.200 | 3.493 |
| Divorced/Widow/Widower | 1.702 | 0.562 | 0.107 | 0.891 | 3.252 | 1.791 | 0.625 | 0.095 | 0.904 | 3.548 |
| ***Highest Educational (ref: No formal education)*** | | | | | | | | | | | | | | | |
| Primary |  | | | | | 0.874 | 0.140 | 0.401 | 0.638 | 1.197 | 0.803 | 0.133 | 0.185 | 0.581 | 1.111 |
| Higher | 1.654 | 0.307 | **0.007** | 1.150 | 2.379 | 1.633 | 0.327 | **0.014** | 1.102 | 2.418 |
| ***Household size (ref: Low (0-5))*** | | | | | | | | | | | | | | | |
| Medium (6-10) |  | | | | | 0.948 | 0.118 | 0.667 | 0.743 | 1.209 | 0.919 | 0.118 | 0.509 | 0.715 | 1.181 |
| High (>11) | 0.962 | 0.171 | 0.827 | 0.679 | 1.363 | 0.960 | 0.172 | 0.818 | 0.675 | 1.363 |
| ***Religion (ref: Christian)*** | | | | | | | | | | | | | | | |
| Muslim |  | | | | | 0.754 | 0.106 | **0.044** | 0.573 | 0.992 | 0.736 | 0.109 | **0.039** | 0.550 | 0.985 |
| Traditional | 0.654 | 0.170 | 0.102 | 0.393 | 1.089 | 0.675 | 0.172 | 0.124 | 0.409 | 1.113 |
| ***Communities zones (ref: Sawla)*** | | | | | | | | | | | | | | | |
| Gindabuo |  | | | | | | | | | | 1.043 | 0.159 | 0.784 | 0.773 | 1.406 |
| Kalba | 1.715 | 0.311 | **0.003** | 1.203 | 2.446 |
| Tuna/Sanyeri | 0.996 | 0.132 | 0.976 | 0.769 | 1.291 |
| **n** | **1155** | | | | | **1155** | | | | | **1155** | | | | |