

**Table 2: Estimates of what households are willing to pay and their corresponding actual expenditure**

| Cost Items (N)                      | Actual expenditures (N) | Amount they are willing to pay (N) | excess over actual (N) |
|-------------------------------------|-------------------------|------------------------------------|------------------------|
| Treatment – Adult <sup>1,2</sup>    | 685.19                  | 1'112.10                           | 426.91                 |
| Treatment – Child                   | -                       | 1'131.70                           | -                      |
| Bed nets                            | 1'000.90                | 1'325.00                           | 324.10                 |
| Window/Door nets                    | 643.86                  | -                                  | -                      |
| Area spraying (2/year)              | -                       | 1'068.00                           | -                      |
| Room spraying                       | 806.89                  | -                                  | -                      |
| Eradication of malaria <sup>3</sup> | 4'609.19                | 7'324.20                           | 2'715.01               |

**Notes:**

1. Actual is the weighted average cost of obtaining treatment and cure from the three major health-care providers multiplied by average malaria cases per household (1.08). It is calculated that 0.53, 0.07 and 0.40 of patients are treated and cured by self-medication, Herbalist/Spiritualist and Clinic/Hospital respectively.

2. Treatment cost in Clinic/Hospital not involving admission is used.

3. Actual is the sum of protection expenditures, weighted treatment costs and indirect costs – all per household and per month.

**Source:** computed in this study

results in Table 4. In particular, because the model reported in Table 4 has good statistical properties with estimated parameters all having correct a priori signs – good  $R^2$  (0.987), good DW (1.522) and  $F = 15341.9$  – valid inferences could be made from it.

These results indicate that the major determinants of households willingness to pay for malaria eradication and control are their: level of education, income, cost of protection, self assessment of their status relatively to others in the society and total cost of obtaining treatment in the hospital with married households ready to pay more than the singles. Similarly, those currently attending public medical facilities are willing to pay less for malaria control as well as strangers (i.e. those who have not stayed in the community more than one year).

In particular, estimates in Table 4 suggest that a one percentage increase in the number of households' highest

years of schooling will bring about a 0.41 percent increase in the amount they are willing to pay for the control of malaria. Similarly, one percentage increase in the household income level will bring about a 0.41 percent increase in the amount they are willing to pay for the control of malaria. Also, a one percentage increase in the cost of spraying room and in the total cost of obtaining treatment in the clinic/hospital would lead to increases of 0.22 and 0.21 percent respectively in the amount they are willing to pay for malaria control.

Furthermore, the results imply the households with married persons, on average, are ready to pay Naira 1245 (USD 10.4) more than the average of Naira 7,324 (USD 61) while those currently using public medical facilities are willing to pay Naira 916 (USD 7.6) less than the group average, with the effect of stranger-status being negative Naira 2,197 {USD 18.3} less than the average) but this effect being not statistically significant.

**Table 3: Estimates of the linear regression model**

| Model  | Unstandardized coefficients |            | Coefficients Standardized coefficients |        |      |
|--|-----------------------------|------------|--|--------|------|
|  | B                           | Std. error | Beta                                   | T      | Sig. |
| 1 Public medical facilities (PUBMED)   | -2344.933                   | 581.479    | -.130                                  | -4.033 | .000 |
| Stranger (STRANGER)  | 2931.634                    | 1642.068   | .033                                   | 1.785  | .074 |
| Married household (MARRIED)  | 1754.771                    | 1642.068   | .140                                   | 3.132  | .002 |
| Household highest level of education (EDUC)  | 482.817                     | 41.124     | .576                                   | 11.741 | .000 |
| Total household expenditure & savings (Income, Y)  | 1.910E - 03                 | .000       | .134                                   | 6.309  | .000 |
| How much did you spend on sprays?(MPROTEC)   | .976                        | .212       | .109                                   | 4.613  | .000 |
| How do you classify the economic status of your household relative to others in this community? (SELF) | -513.944                    | 184.388    | 1.104                                  | -2.787 | .005 |
| Total hospital treatment cost (MALCOST)  | .339                        | .098       | .078                                   | 3.451  | .001 |

a. Dependent variable: willingness to pay for total eradication of malaria

b. Linear regression through the origin

c. Treatment cost in clinic/hospital not involving admission is used

**Other statistics:**  $R^2 = 0.468$ ; DW = 1.709; F = 173.902