

## Additional file 2

### Factors influencing access of pregnant women and their infants to their local healthcare system: a prospective, multi-centre, observational study

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#### Supplementary Methods

Odds ratios were calculated by fitting the following fixed effect logistic model:

$$\text{logit}(y_{ij}) = \beta_0 + \sum_{k=1}^n \beta_{kl} x_{ijk} I_{[x_{ijk}=l]} + \sum_{k=n+1}^{n+m} \gamma_k x_{ijk}$$

Where the  $\text{logit}(y_{ij})$  is the  $P(Y=1)/[1-P(Y=1)]$ ,  $\beta_0$  is the intercept parameter,  $\beta_{kl}$  is the vector of regression parameter for the  $l$ -th level of the categorical variable  $x_{ijk}$ ,  $k=1, 2, \dots, n$ ,  $l=1, 2, \dots, L_k - 1$  where  $L_k$  is the reference group; and,  $\gamma_k$  is the slope parameter for the continuous variable  $x_{ijk}$ ,  $k=n+1, n+2, \dots, n+m$ . Note that  $I_{[x_{ijk}=l]}$  is the indicator that the categorical variable  $x_{ijk}$  is the value of the  $l$ -th level.