# Table S1. Risk factors associated with preterm births

| Maternal and household characteristics | Non-preterm (≥ 37 wks) n=8993 | Preterm (<37 wks) n=981 | OR* (95% CI) | Adjusted OR (95% CI) |
|----------------------------------------|-------------------------------|-------------------------|--------------|----------------------|
| **Pregnant woman’s age**               |                               |                         |              |                      |
| 15-19 years                            | 1043 (89.3)                   | 125 (10.7)              | 1.19 (0.97, 1.48) | 1.27 (1.03, 1.58)    |
| 20-34 years                            | 6041 (90.6)                   | 624 (9.4)               | 1.0 (reference) | 1.0 (reference)      |
| 35+ years                              | 945 (92.8)                    | 74 (7.3)                | 0.96 (0.74, 1.24) | 0.89 (0.69, 1.17)    |
| **Pregnant woman’s education**         |                               |                         |              |                      |
| No education                           | 1877 (87.6)                   | 265 (12.4)              | 1.0 (reference) | 1.0 (reference)      |
| 1-6 years                              | 2818 (91.2)                   | 273 (8.8)               | 0.97 (0.70, 1.19) | 1.02 (0.81, 1.27)    |
| 7-12 years                             | 3724 (91.5)                   | 345 (8.5)               | 0.86 (0.71, 1.06) | 0.99 (0.79, 1.25)    |
| 13+ years                              | 99 (94.3)                     | 6 (5.7)                 | 0.63 (0.27, 1.47) | 0.97 (0.42, 2.32)    |
| **Wealth quintile**                    |                               |                         |              |                      |
| Poorest                                | 1617 (89.6%)                  | 187 (10.4%)             | 1.39 (1.10, 1.73) | 1.36 (1.05, 1.77)    |
| Poorer                                 | 1661 (89.6%)                  | 193 (10.4%)             | 1.39 (1.10, 1.74) | 1.36 (1.06, 1.75)    |
| Middle                                 | 1645 (89.8%)                  | 186 (10.2%)             | 1.33 (1.06, 1.67) | 1.28 (1.00, 1.64)    |
| Richer                                 | 1649 (90.8%)                  | 168 (9.3%)              | 1.19 (0.94, 1.50) | 1.16 (0.92, 1.49)    |
| Richest                                | 1702 (92.1%)                  | 146 (7.9%)              | 1.0 (reference) | 1.0 (reference)      |
| **Previous obstetric history**         |                               |                         |              |                      |
| **Previous stillbirth**                |                               |                         |              |                      |
| No                                     | 6065 (91)                     | 597 (9)                 | 1.0 (reference) | 1.0 (reference)      |
| Yes                                    | 581 (84.5)                    | 107 (15.6)              | 1.87 (1.49, 2.35) | 1.84 (1.42, 2.37)    |
| **Previous preterm birth**             |                               |                         |              |                      |
| No                                     | 6443 (90.5)                   | 674 (9.5)               | 1.0 (reference) | 1.0 (reference)      |
| Yes                                    | 125 (82.8)                    | 26 (17.2)               | 1.93 (1.24, 3.00) | 1.96 (1.18, 3.26)    |
| **Morbidity during current pregnancy** |                               |                         |              |                      |
| Antepartum haemorrhage                 |                               |                         |              |                      |
| No                                     | 7496 (91.0)                   | 743 (9.0)               | 1.0 (reference) | 1.0 (reference)      |
| Yes                                    | 113 (87.6)                    | 16 (12.4)               | 1.23 (0.72, 2.13) | 1.24 (0.66, 2.33)    |
| Pre-eclampsia or eclampsia             |                               |                         |              |                      |
| No                                     | 7475 (91.0)                   | 739 (9.0)               | 1.0 (reference) | 1.0 (reference)      |
| Yes                                    | 127 (87.0)                    | 19 (13.0)               | 2.36 (1.42, 3.91) | 2.74 (1.56, 4.84)    |
| Fever before or during delivery        |                               |                         |              |                      |
| No                                     | 6504 (91.7)                   | 587 (8.3)               | 1.0 (reference) | 1.0 (reference)      |
| Yes                                    | 225 (83)                      | 46 (17)                 | 1.65 (1.12, 2.24) | 1.76 (1.18, 2.62)    |
| Multiple birth                         |                               |                         |              |                      |
| Singleton                              | 8861 (91.1)                   | 867 (8.9)               | 1.0 (reference) | 1.0 (reference)      |
| Multiple birth                         | 132 (53.7)                    | 114 (46.3)              | 13.3 (10.0, 17.8) | 14.3 (9.92, 20.52)   |

* The estimate was adjusted for site.

β The estimates were adjusted for the other factors on previous obstetric history, maternal age, maternal education, wealth quintile, and site.

€ Each maternal morbidity-outcome was analyzed in a separate logistic regression model. Each model was adjusted for maternal age, maternal education, wealth quintile, previous obstetric history and site.

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**Table S2. Risk factors associated with spontaneous preterm birth**
| Maternal and household characteristics<sup>¥</sup> | Non-preterm (≥ 37 wks) n=7863 | Preterm (<37 wks) n=761 | OR* (95% CI) | Adjusted OR (95% CI) |
|-----------------------------------------------|-------------------------------|-------------------------|----------------|----------------------|
| 1. Pregnant woman's age                       |                               |                         |                |                      |
| 15-19 years                                   | 916 (89.5)                    | 107 (10.5)              | 1.33 (1.06, 1.67) | 1.41 (1.12, 1.78)    |
| 20-34                                         | 5369 (91.6)                   | 490 (8.4)               | 1.0 (reference) | 1.0 (reference)      |
| 35+                                           | 858 (93.3)                    | 62 (6.7)                | 1.01 (0.76, 1.34) | 0.94 (0.70, 1.26)    |
| 2. Pregnant woman's education                 |                               |                         |                |                      |
| No education                                  | 1729 (88.7)                   | 220 (11.3)              | 1.0 (reference) | 1.0 (reference)      |
| 1-6 years                                     | 2537 (91.8)                   | 228 (8.3)               | 0.95 (0.75, 1.19) | 1.02 (0.80, 1.30)    |
| 7-12 years                                    | 3211 (92.7)                   | 254 (7.3)               | 0.81 (0.65, 1.02) | 0.98 (0.75, 1.26)    |
| 13+ years                                     | 74 (93.7)                     | 5 (6.3)                 | 0.81 (0.32, 2.05) | 1.39 (0.53, 3.62)    |
| 3. Wealth quintile                           |                               |                         |                |                      |
| Poorest                                       | 1519 (90.3%)                  | 164 (9.7%)              | 1.55 (1.19, 2.03) | 1.52 (1.13, 2.04)    |
| Poorer                                        | 1529 (90.1%)                  | 168 (9.9%)              | 1.59 (1.22, 2.07) | 1.55 (1.16, 2.06)    |
| Middle                                        | 1468 (90.8%)                  | 149 (9.2%)              | 1.46 (1.11, 1.91) | 1.39 (1.04, 1.85)    |
| Richer                                        | 1402 (91.9%)                  | 124 (8.1%)              | 1.27 (0.96, 1.68) | 1.26 (0.95, 1.69)    |
| Richest                                       | 1376 (93.6%)                  | 94 (6.4%)               | 1.0 (reference) | 1.0 (reference)      |
| Previous obstetric history<sup>β</sup>        |                               |                         |                |                      |
| 1. Previous stillbirth                        |                               |                         |                |                      |
| No                                            | 5497 (91.9)                   | 483 (8.1)               | 1.0 (reference) | 1.0 (reference)      |
| Yes                                           | 506 (86.1)                    | 82 (14.0)               | 1.81 (1.40, 2.34) | 1.73 (1.30, 2.30)    |
| 2. Previous preterm birth                     |                               |                         |                |                      |
| No                                            | 5824 (91.5)                   | 541 (8.5)               | 1.0 (reference) | 1.0 (reference)      |
| Yes                                           | 108 (84.4)                    | 20 (15.6)               | 2.00 (1.22, 3.28) | 2.00 (1.12, 3.55)    |
| Morbidity during current pregnancy<sup>c</sup> |                               |                         |                |                      |
| 1. Antepartum haemorrhage                     |                               |                         |                |                      |
| No                                            | 6692 (91.7)                   | 603 (8.3)               | 1.0 (reference) | 1.0 (reference)      |
| Yes                                           | 101 (87.8)                    | 14 (12.2)               | 1.35 (0.75, 2.40) | 1.42 (0.73, 2.76)    |
| 2. Pre-eclampsia or eclampsia                 |                               |                         |                |                      |
| No                                            | 6674 (91.7)                   | 605 (8.3)               | 1.0 (reference) | 1.0 (reference)      |
| Yes                                           | 112 (89.6)                    | 13 (10.4)               | 1.91 (1.05, 3.48) | 2.38 (1.25, 4.52)    |
| 3. Fever before or during delivery           |                               |                         |                |                      |
| No                                            | 5956 (92.3)                   | 498 (7.7)               | 1.0 (reference) | 1.0 (reference)      |
| Yes                                           | 200 (83.0)                    | 41 (17.0)               | 1.90 (1.31, 2.75) | 2.11 (1.39, 3.20)    |
| 4. Multiple birth                             |                               |                         |                |                      |
| Singleton                                     | 7757 (91.9)                   | 681 (8.1)               | 1.0 (reference) | 1.0 (reference)      |
| Multiple birth                                | 106 (57.0)                    | 80 (43.0)               | 12.38 (8.92, 17.19) | 13.42 (9.03, 19.95) |

* The estimate was adjusted for site.

<sup>¥</sup> The estimates were adjusted for all other maternal and household characteristics and site.

<sup>β</sup> The estimates were adjusted for the other factors on previous obstetric history, six maternal and household characteristics, and site.
Each maternal morbidity-outcome was analyzed in a separate logistic regression model. Each model was adjusted for maternal and household characteristics, previous obstetric history and site.