**A multilevel Bayesian Markov Chain** **Monte Carlo Poisson modelling of factors associated with components of antenatal care offered to pregnant women in Nigeria**

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Supplementary Table A: Distribution of having all ANC component received during the most recent pregnancyby States and regions in Nigeria

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Region** | **State** | **Had ≥1 ANC Contacts (%)** | **n** | **All 9** |
| North Central |  | **72.2** | **1,420** |  **4.5** |
|  | Plateau | 75.9 | 203 | 2.6 |
|  | Kogi | 82.2 | 147 | 0.4 |
|  | Niger | 59.2 | 271 | 0.8 |
|  | Nasarawa | 77.6 | 185 | 4.8 |
|  | Benue | 74.6 | 356 | 8.3 |
|  | FCT, Abuja | 87.7 | 91 | 3.4 |
|  | Kwara | 74.6 | 167 | 8.6 |
| North East |  | **71.5** | **2,142** |  **3.1** |
|  | Borno | 62.4 | 350 | 0.1 |
|  | Taraba | 79.6 | 280 | 1.3 |
|  | Yobe | 69.8 | 417 | 2.1 |
|  | Bauchi | 66.9 | 493 | 2.4 |
|  | Gombe | 74.5 | 251 | 3.5 |
|  | Adamawa | 84.5 | 351 | 9.3 |
| North West |  | **63.7** | **3,772** |  **1.5** |
|  | Kebbi | 52.1 | 281 | 0.3 |
|  | Kano | 83.6 | 1,106 | 0.6 |
|  | Katsina | 53.0 | 635 | 3.2 |
|  | Kaduna | 70.0 | 787 | 1.4 |
|  | Zamfara | 36.3 | 187 | 0.0 |
|  | Sokoto | 46.9 | 176 | 2.7 |
|  | Jigawa | 79.5 | 600 | 2.1 |
| South East |  | **96.2** | **1,479** |  **8.3** |
|  | Ebonyi | 94.4 | 349 | 6.4 |
|  | Enugu | 96.2 | 222 | 2.4 |
|  | Imo | 97.5 | 277 | 6.7 |
|  | Anambra | 96.6 | 456 | 4.5 |
|  | Abia | 96.2 | 175 | 31.7 |
| South South |  | **81.1** | **1,111** |  **5.8** |
|  | Cross River | 84.0 | 132 | 6.5 |
|  | Edo | 90.0 | 165 | 0.7 |
|  | Bayelsa | 42.3 | 47 | 6.1 |
|  | Rivers | 87.6 | 360 | 4.6 |
|  | Akwa Ibom | 80.7 | 206 | 11.4 |
|  | Delta | 76.7 | 201 | 5.7 |
| South West |  | **94.1** | **1,945** |  **12.2** |
|  | Osun | 98.8 | 236 | 3.6 |
|  | Lagos | 95.4 | 691 | 10.4 |
|  | Ekiti | 93.1 | 145 | 5.4 |
|  | Oyo | 87.9 | 402 | 19.6 |
|  | Ondo | 95.4 | 186 | 1.5 |
|  | Ogun | 96.2 | 285 | 23.5 |
| **Total** |  | **75.2** | **11,867** |  **5.1** |

Supplementary Table B: The BIC and ICCs of the levels of the different models considered.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | Null model | Individual-level alone | Community-level alone | State-level alone | All levels included |
| ICC\* |  |  |  |  |  |
| Individual | 1 | 1 | 1 | 1 | 1 |
| Community | 0.34(0.29-0.44) | 0.34(0.30-0.45) | 0.19(0.13-0.26) | 0.29(0.27-0.36) | 0.10(0.05-0.33) |
| State | 0.14(0.12-0.17) | 0.19(0.12-0.26) | 0.21(0.13-0.28) | 0.06(0.01-0.01) | 0.09(0.05-0.17) |
| BIC | 45898.6 | 43215.9 | 44158.1 | 44211.7 | 41927.3 |
| ICC Intraclass Correlation Coefficient BIC Bayesian Information Criteria \*computed as ratio of the variability in the community and state levels compared with the individual levels  |