**Supplemental Table 1.** Trend in the prevalence of early initiation of breastfeeding in Bangladesh during 2004-2018.

|  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Characteristics** | | **BDHS 2004** | | **BDHS 2007** | | **BDHS 2011** | | **BDHS 2014** | | **BDHS 2017-18** | |
|  |  | n (%) | p-value | n (%) | p-value | n (%) | p-value | n (%) | p-value | n (%) | p-value |
| ***Individual-level*** | | | | | | | | | | | |
| Child sex | |  |  |  |  |  |  |  |  |  |  |
|  | Male | 337 (27.1) | 0.147 | 488 (43.5) | 0.825 | 794 (48.6) | 0.307 | 851 (52.1) | 0.762 | 1107 (60.4) | 0.929 |
|  | Female | 315 (24.6) |  | 491 (43.9) |  | 730 (46.5) |  | 752 (52.8) |  | 1030 (60.5) |  |
| Child birth order | |  |  |  |  |  |  |  |  |  |  |
|  | 1 | 211 (27.7) | 0.001\* | 338 (41.5) | 0.163 | 521 (44.8) | 0.103 | 620 (49.5) | 0.104 | 730 (55.9) | < 0.001\* |
|  | 2 | 196 (29.9) |  | 267 (43.3) |  | 465 (49.6) |  | 531 (56.8) |  | 704 (59.7) |  |
|  | 3+ | 245 (22.2) |  | 374 (46.2) |  | 538 (48.8) |  | 452 (52.2) |  | 703 (66.9) |  |
| Mother’s age (years) | |  |  |  |  |  |  |  |  |  |  |
|  | 15-24 | 407 (26.7) | 0.213 | 593 (44.0) | 0.746 | 939 (48.6) | 0.401 | 953 (53.6) | 0.454 | 1128 (57.9) | 0.015\* |
|  | 25-34 | 214 (25.4) |  | 338 (43.8) |  | 522 (46.4) |  | 578 (50.7) |  | 885 (63.4) |  |
|  | 35-49 | 31 (20.4) |  | 48 (40.3) |  | 63 (43.6) |  | 71 (53.6) |  | 124 (64.1) |  |
| Mother’s education | |  |  |  |  |  |  |  |  |  |  |
|  | No education | 183 (22.0) | < 0.001\* | 214 (42.1) | 0.122 | 256 (47.6) | 0.083 | 238 (58.0) | 0.025\* | 142 (61.9) | < 0.001\* |
|  | Primary | 185 (23.4) |  | 309 (45.2) |  | 472 (49.6) |  | 483 (56.2) |  | 636 (66.3) |  |
|  | Secondary | 237 (31.8) |  | 398 (44.0) |  | 709 (47.6) |  | 739 (50.4) |  | 1032 (59.7) |  |
|  | Higher | 47 (31.5) |  | 58 (35.2) |  | 87 (38.4) |  | 143 (44.9) |  | 327 (52.8) |  |
| Mother currently working | |  |  |  |  |  |  |  |  |  |  |
|  | No | 557 (25.9) | 0.985 | 779 (43.6) | 0.824 | 1424 (47.3) | 0.310 | 1240 (51.6) | 0.248 | 1360 (58.4) | 0.004\* |
|  | Yes | 95 (25.8) |  | 200 (44.2) |  | 100 (51.4) |  | 363 (55.6) |  | 778 (64.3) |  |
| No. of antenatal care visits | |  |  |  |  |  |  |  |  |  |  |
|  | No visit | 212 (21.0) | < 0.001\* | 337 (42.1) | 0.045\* | 161 (47.6) | 0.739 | 354 (57.6) | 0.003\* | 196 (69.4) | 0.007\* |
|  | 1-3 | 284 (27.4) |  | 417 (46.6) |  | 387 (45.9) |  | 807 (54.4) |  | 969 (61.0) |  |
|  | 4+ | 137 (32.3) |  | 205 (40.4) |  | 266 (48.3) |  | 442 (46.2) |  | 923 (58.5) |  |
| Place of delivery | |  |  |  |  |  |  |  |  |  |  |
|  | Home | 383 (23.7) | 0.001\* | 573 (46.1) | 0.010\* | 1138 (51.2) | < 0.001\* | 1118 (60.7) | < 0.001\* | 1217 (70.1) | < 0.001\* |
|  | Health facility | 269 (29.7) |  | 406 (40.7) |  | 386 (39.4) |  | 485 (39.9) |  | 921 (51.1) |  |
| Mode of delivery | |  |  |  |  |  |  |  |  |  |  |
|  | Vaginal | 623 (26.0) | 0.482 | 921 (45.7) | < 0.001\* | 1365 (52.0) | < 0.001\* | 1383 (59.8) | < 0.001\* | 1607 (69.1) | < 0.001\* |
|  | Caesarean section | 29 (23.2) |  | 58 (25.9) |  | 159 (27.6) |  | 220 (29.7) |  | 529 (43.8) |  |
| Wealth index | |  |  |  |  |  |  |  |  |  |  |
|  | Poor | 228 (20.6) | < 0.001\* | 410 (43.3) | 0.356 | 650 (48.5) | 0.301 | 701 (56.1) | 0.048\* | 982 (66.7) | < 0.001\* |
|  | Middle | 151 (27.7) |  | 205 (46.7) |  | 315 (49.5) |  | 320 (51.5) |  | 388 (56.9) |  |
|  | Rich | 273 (31.5) |  | 364 (42.6) |  | 559 (45.6) |  | 582 (49.1) |  | 767 (55.5) |  |
| Family size | |  |  |  |  |  |  |  |  |  |  |
|  | ≤ 4 | 181 (28.1) | 0.134 | 260 (43.4) | 0.870 | 430 (51.0) | 0.047\* | 487 (53.3) | 0.680 | 598 (59.3) | 0.466 |
|  | 5+ | 471 (25.1) |  | 719 (43.8) |  | 1094 (46.3) |  | 1116 (52.1) |  | 1540 (60.9) |  |
| Sex of the household head | |  |  |  |  |  |  |  |  |  |  |
|  | Male | 608 (25.7) | 0.614 | 883 (43.6) | 0.863 | 1430 (48.2) | 0.018\* | 1468 (52.7) | 0.600 | 1884 (61.3) | 0.046\* |
|  | Female | 44 (27.6) |  | 96 (44.2) |  | 94 (39.6) |  | 135 (50.3) |  | 253 (54.9) |  |
| ***Community-level*** | | | | | | | | | | | |
| Type of place of residence | |  |  |  |  |  |  |  |  |  |  |
|  | Urban | 114 (23.6) | 0.203 | 193 (39.3) | 0.027\* | 328 (45.3) | 0.215 | 368 (46.6) | 0.008\* | 544 (58.5) | 0.273 |
|  | Rural | 538 (26.4) |  | 786 (44.9) |  | 1196 (48.2) |  | 1235 (54.5) |  | 1594 (61.1) |  |
| Division | |  |  |  |  |  |  |  |  |  |  |
|  | Barisal | 34 (21.6) | < 0.001\* | 67 (50.4) | < 0.001\* | 76 (44.8) | 0.017\* | 96 (53.5) | < 0.001\* | 129 (61.4) | 0.001\* |
|  | Chittagong | 114 (20.2) |  | 180 (35.1) |  | 368 (46.8) |  | 310 (46.9) |  | 408 (55.0) |  |
|  | Dhaka | 185 (24.7) |  | 325 (45.5) |  | 417 (43.3) |  | 598 (53.1) |  | 561 (62.8) |  |
|  | Khulna | 81 (29.8) |  | 94 (50.8) |  | 139 (46.2) |  | 97 (41.3) |  | 166 (51.2) |  |
|  | Rajshahi | 170 (30.0) |  | 221 (43.7) |  | 231 (53.8) |  | 167 (54.9) |  | 234 (58.9) |  |
|  | Rangpur | - |  | - |  | 167 (51.2) |  | 173 (61.1) |  | 252 (66.3) |  |
|  | Sylhet | 68 (32.1) |  | 92 (48.4) |  | 126 (55.2) |  | 162 (60.8) |  | 189 (67.0) |  |
|  | Mymensingh | - |  | - |  | - |  | - |  | 194 (64.8) |  |

*\* Significant p-value (p < 0.05)*

**Supplemental Table 2.** Trend in the prevalence of exclusive breastfeeding in Bangladesh during 2004-2018.

|  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Characteristics** | | **BDHS 2004** | | **BDHS 2007** | | **BDHS 2011** | | **BDHS 2014** | | **BDHS 2017-18** | |
|  |  | n (%) | p-value1 | n (%) | p-value1 | n (%) | p-value | n (%) | p-value | n (%) | p-value |
| ***Individual-level*** | | | | | | | | | | | |
| Child sex | |  |  |  |  |  |  |  |  |  |  |
|  | Male | 113 (32.9) | 0.097 | 90 (36.3) | 0.002\* | 266 (63.3) | 0.729 | 217 (59.6) | 0.873 | 348 (67.8) | 0.846 |
|  | Female | 129 (39.1) |  | 120 (50.0) |  | 252 (64.7) |  | 164 (58.8) |  | 317 (67.2) |  |
| Child birth order | |  |  |  |  |  |  |  |  |  |  |
|  | 1 | 53 (26.9) | 0.003\* | 70 (42.2) | 0.799 | 196 (64.3) | 0.100 | 151 (50.8) | 0.028\* | 240 (68.8) | 0.836 |
|  | 2 | 80 (43.2) |  | 67 (45.3) |  | 162 (69.4) |  | 114 (65.1) |  | 222 (67.1) |  |
|  | 3+ | 108 (37.2) |  | 72 (41.9) |  | 160 (58.9) |  | 116 (68.0) |  | 202 (66.5) |  |
| Mother’s age (years) | |  |  |  |  |  |  |  |  |  |  |
|  | 15-24 | 164 (36.2) | 0.384 | 132 (43.3) | 0.049\* | 357 (66.4) | 0.046\* | 242 (57.1) | 0.364 | 390 (69.5) | 0.122 |
|  | 25-34 | 71 (36.6) |  | 74 (45.1) |  | 150 (60.8) |  | 128 (64.7) |  | 256 (66.2) |  |
|  | 35-49 | 6 (23.1) |  | 3 (15.8) |  | 11 (43.1) |  | 10 (51.2) |  | 19 (52.1) |  |
| Mother’s education | |  |  |  |  |  |  |  |  |  |  |
|  | No education | 83 (41.5) | 0.158 | 39 (36.4) | 0.212 | 78 (56.7) | 0.117 | 51 (63.2) | 0.826 | 40 (66.3) | 0.363 |
|  | Primary | 75 (34.1) |  | 69 (46.3) |  | 141 (61.8) |  | 110 (56.2) |  | 176 (63.5) |  |
|  | Secondary | 71 (34.3) |  | 81 (41.8) |  | 259 (66.1) |  | 168 (59.9) |  | 324 (68.3) |  |
|  | Higher | 12 (26.1) |  | 20 (54.1) |  | 40 (76.25) |  | 52 (60.4) |  | 124 (72.4) |  |
| Mother currently working | |  |  |  |  |  |  |  |  |  |  |
|  | No | 218 (37.3) | 0.059 | 181 (43.7) | 0.393 | 496 (63.9) | 0.456 | 311 (58.1) | 0.391 | 498 (69.9) | 0.025\* |
|  | Yes | 24 (27.0) |  | 28 (38.4) |  | 22 (64.8) |  | 70 (64.8) |  | 167 (61.3) |  |
| No. of antenatal care visit | |  |  |  |  |  |  |  |  |  |  |
|  | No visit | 110 (40.3) | 0.144 | 64 (40.0) | 0.626 | 40 (58.2) | 0.776 | 66 (64.5) | 0.461 | 59 (66.8) | 0.873 |
|  | 1-3 | 98 (34.4) |  | 97 (44.5) |  | 143 (61.8) |  | 200 (59.8) |  | 302 (67.4) |  |
|  | 4+ | 34 (30.6) |  | 48 (44.9) |  | 80 (61.1) |  | 115 (55.7) |  | 302 (69.0) |  |
| Place of delivery | |  |  |  |  |  |  |  |  |  |  |
|  | Home | 153 (36.2) | 0.882 | 105 (39.5) | 0.092 | 336 (63.1) | 0.555 | 213 (57.5) | 0.504 | 430 (55.7) | 0.034\* |
|  | Health facility | 89 (35.6) |  | 104 (47.1) |  | 183 (65.6) |  | 168 (61.6) |  | 235 (67.5) |  |
| Mode of delivery | |  |  |  |  |  |  |  |  |  |  |
|  | Vaginal | 230 (36.2) | 0.424 | 186 (42.7) | 0.631 | 414 (14) | 0.734 | 291 (60.3) | 0.512 | 436 (66.7) | 0.569 |
|  | Caesarean section | 11 (29.7) |  | 24 (46.2) |  | 104 (62.6) |  | 91 (56.1) |  | 228 (69.0) |  |
| Wealth index | |  |  |  |  |  |  |  |  |  |  |
|  | Poor | 100 (35.6) | 0.049\* | 90 (40.9) | 0.138 | 322 (59.3) | 0.173 | 160 (61.5) | 0.547 | 257 (64.8) | 0.414 |
|  | Middle | 68 (43.3) |  | 33 (37.1) |  | 165 (65.8) |  | 76 (54.0) |  | 147 (70.2) |  |
|  | Rich | 73 (31.2) |  | 87 (48.6) |  | 323 (67.7) |  | 144 (59.9) |  | 260 (68.9) |  |
| Family size | |  |  |  |  |  |  |  |  |  |  |
|  | ≤ 4 | 40 (28.4) | 0.035\* | 40 (36.7) | 0.130 | 90 (58.5) | 0.071 | 102 (64.5) | 0.270 | 130 (57.5) | <0.001\* |
|  | 5+ | 202 (38.0) |  | 170 (44.9) |  | 428 (65.2) |  | 279 (57.5) |  | 535 (70.5) |  |
| Sex of the household head | |  |  |  |  |  |  |  |  |  |  |
|  | Male | 224 (35.7) | 0.692 | 185 (42.0) | 0.182 | 485 (64.2) | 0.589 | 350 (58.8) | 0.472 | 594 (68.1) | 0.353 |
|  | Female | 17 (38.6) |  | 24 (52.2) |  | 33 (60.3) |  | 32 (65.1) |  | 71 (63.0) |  |
| ***Community-level*** | | | | | | | | | | | |
| Type of place of residence | |  |  |  |  |  |  |  |  |  |  |
|  | Urban | 39 (31.2) | 0.219 | 38 (39.2) | 0.406 | 119 (63.9) | 0.986 | 98 (59.2) | 0.992 | 167 (62.8) | 0.096 |
|  | Rural | 203 (37.0) |  | 171 (43.8) |  | 399 (64.0) |  | 283 (59.3) |  | 498 (69.3) |  |
| Division | |  |  |  |  |  |  |  |  |  |  |
|  | Barisal | 18 (40.0) | < 0.001\* | 9 (27.3) | 0.004\* | 18 (51.3) | 0.055 | 16 (36.7) | < 0.001\* | 39 (63.5) | <0.001\* |
|  | Chittagong | 79 (50.0) |  | 65 (57.0) |  | 140 (68.9) |  | 92 (65.0) |  | 177 (78.0) |  |
|  | Dhaka | 56 (26.4) |  | 48 (35.0) |  | 142 (57.8) |  | 101 (46.3) |  | 140 (58.2) |  |
|  | Khulna | 22 (27.8) |  | 16 (39.0) |  | 58 (67.5) |  | 34 (72.4) |  | 57 (57.9) |  |
|  | Rajshahi | 45 (36.6) |  | 46 (41.1) |  | 63 (59.4) |  | 36 (63.7) |  | 74 (75.3) |  |
|  | Rangpur | - |  | - |  | 57 (76.1) |  | 56 (79.2) |  | 73 (76.2) |  |
|  | Sylhet | 22 (38.6) |  | 25 (50.0) |  | 37 (68.4) |  | 45 (70.8) |  | 57 (74.2) |  |
|  | Mymensingh | - |  | - |  | - |  | - |  | 46 (55.2) |  |

*\* Significant p-value (p < 0.05)*

**Supplemental Table 3.** Trend in the prevalence of continued breastfeeding up to 2 years in Bangladesh during 2004-2018.

|  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Characteristics** | | **BDHS 2004** | | **BDHS 2007** | | **BDHS 2011** | | **BDHS 2014** | | **BDHS 2017-18** | |
|  |  | n (%) | p-value1 | n (%) | p-value1 | n (%) | p-value | n (%) | p-value | n (%) | p-value |
| ***Individual-level*** | | | | | | | | | | | |
| Child Sex | |  |  |  |  |  |  |  |  |  |  |
|  | Male | 142 (94.2) | 0.694 | 161 (91.5) | 0.927 | 206 (91.8) | 0.158 | 221 (87.8) | 0.974 | 242 (85.8) | 0.825 |
|  | Female | 167 (93.6) |  | 192 (91.2) |  | 215 (87.6) |  | 239 (87.6) |  | 247 (85.0) |  |
| Child birth order | |  |  |  |  |  |  |  |  |  |  |
|  | 1 | 112 (95.9) | 0.196 | 134 (89.4) | 0.506 | 129 (84.7) | 0.082 | 174 (86.4) | 0.664 | 189 (82.5) | 0.096 |
|  | 2 | 70 (91.3) |  | 88 (92.9) |  | 136 (89.5) |  | 150 (87.1) |  | 143 (84.1) |  |
|  | 3+ | 126 (93.6) |  | 131 (92.3) |  | 155 (94.1) |  | 136 (90.0) |  | 157 (90.5) |  |
| Mother’s age (years) | |  |  |  |  |  |  |  |  |  |  |
|  | 15-24 | 171 (96.6) | 0.010\* | 211 (91.6) | 0.639 | 218 (88.4) | 0.211 | 233 (85.8) | 0.372 | 245 (83.8) | 0.541 |
|  | 25-34 | 120 (91.5) |  | 125 (90.5) |  | 172 (89.4) |  | 203 (89.4) |  | 214 (87.4) |  |
|  | 35-49 | 17 (85.4) |  | 17 (94.0) |  | 30 (100.0) |  | 24 (93.3) |  | 30 (84.8) |  |
| Mother’s education | |  |  |  |  |  |  |  |  |  |  |
|  | No education | 115 (95.7) | 0.120 | 77 (92.2) | 0.038\* | 65 (93.0) | 0.002\* | 57 (90.1) | 0.186 | 29 (88.6) | 0.959 |
|  | Primary | 84 (95.2) |  | 119 (96.6) |  | 137 (93.5) |  | 132 (90.9) |  | 136 (84.9) |  |
|  | Secondary | 93 (92.7) |  | 133 (88.2) |  | 188 (89.3) |  | 234 (87.1) |  | 233 (85.1) |  |
|  | Higher | 17 (83.4) |  | 22 (82.1) |  | 29 (70.9) |  | 36 (77.8) |  | 90 (85.8) |  |
| Mother currently working | |  |  |  |  |  |  |  |  |  |  |
|  | No | 263 (93.2) | 0.113 | 265 (89.2) | 0.001\* | 387 (90.0) | 0.397 | 333 (85.9) | 0.071 | 292 (83.4) | 0.128 |
|  | Yes | 46 (98.1) |  | 88 (98.2) |  | 33 (84.9) |  | 127 (92.9) |  | 197 (88.6) |  |
| No. of antenatal care visit | |  |  |  |  |  |  |  |  |  |  |
|  | No visit | 111 (95.9) | 0.161 | 132 (95.2) | 0.002\* | 132 (91.3) | 0.090 | 107 (88.9) | 0.619 | 43 (86.4) | 0.169 |
|  | 1-3 | 120 (93.6) |  | 118 (92.9) |  | 174 (92.2) |  | 212 (88.3) |  | 196 (88.5) |  |
|  | 4+ | 57 (91.1) |  | 82 (82.3) |  | 97 (84.0) |  | 125 (84.5) |  | 222 (82.0) |  |
| Place of delivery | |  |  |  |  |  |  |  |  |  |  |
|  | Home | 192 (95.3) | 0.109 | 203 (92.0) | 0.599 | 307 (92.0) | 0.016\* | 280 (88.9) | 0.414 | 216 (83.6) | 0.325 |
|  | Health facility | 118 (91.7) |  | 150 (90.4) |  | 113 (83.6) |  | 180 (85.9) |  | 273 (86.9) |  |
| Mode of delivery | |  |  |  |  |  |  |  |  |  |  |
|  | Vaginal | 292 (94.9) | 0.011\* | 322 (92.4) | 0.022\* | 352 (90.3) | 0.339 | 358 (89.7) | 0.016\* | 324 (87.3) | 0.100 |
|  | Caesarean section | 17 (79.2) |  | 30 (80.8) |  | 68 (85.8) |  | 87 (78.7) |  | 164 (81.8) |  |
| Wealth index | |  |  |  |  |  |  |  |  |  |  |
|  | Poor | 116 (98.4) | 0.002\* | 147 (96.5) | 0.052 | 195 (94.0) | 0.014\* | 190 (93.5) | 0.028\* | 211 (89.3) | 0.007\* |
|  | Middle | 79 (95.6) |  | 66 (91.3) |  | 79 (91.6) |  | 102 (85.8) |  | 102 (89.4) |  |
|  | Rich | 114 (88.6) |  | 139 (87.2) |  | 146 (83.3) |  | 168 (83.0) |  | 175 (79.1) |  |
| Family size | |  |  |  |  |  |  |  |  |  |  |
|  | ≤ 4 | 95 (97.3) | 0.009\* | 93 (91.2) | 0.936 | 121 (87.5) | 0.439 | 174 (88.8) | 0.644 | 173 (85.3) | 0.959 |
|  | 5+ | 214 (92.4) |  | 260 (91.4) |  | 300 (90.4) |  | 286 (87.0) |  | 316 (85.5) |  |
| Sex of the household head | |  |  |  |  |  |  |  |  |  |  |
|  | Male | 293 (94.0) | 0.694 | 328 (91.7) | 0.281 | 390 (92.4) | < 0.001\* | 427 (88.8) | 0.076 | 417 (86.5) | 0.132 |
|  | Female | 16 (92.1) |  | 25 (87.2) |  | 30 (64.3) |  | 34 (76.1) |  | 72 (79.7) |  |
| ***Community-level*** | | | | | | | | | | | |
| Type of place of residence | |  |  |  |  |  |  |  |  |  |  |
|  | Urban | 65 (85.7) | < 0.001\* | 90 (89.6) | 0.437 | 92 (79.9) | 0.001\* | 128 (84.5) | 0.282 | 97 (71.7) | < 0.001\* |
|  | Rural | 244 (96.4) |  | 263 (91.9) |  | 329 (92.7) |  | 332 (89.0) |  | 392 (89.6) |  |
| Division | |  |  |  |  |  |  |  |  |  |  |
|  | Barisal | 21 (95.8) | 0.048\* | 15 (97.4) | 0.040\* | 26 (93.3) | < 0.001\* | 34 (92.2) | 0.001\*\* | 32 (92.6) | 0.015\* |
|  | Chittagong | 68 (93.1) |  | 71 (82.7) |  | 83 (75.3) |  | 82 (74.6) |  | 87 (78.4) |  |
|  | Dhaka | 85 (90.8) |  | 133 (92.8) |  | 119 (91.6) |  | 178 (88.9) |  | 110 (79.9) |  |
|  | Khulna | 32 (92.2) |  | 29 (91.7) |  | 40 (100.0) |  | 33 (90.5) |  | 50 (91.8) |  |
|  | Rajshahi | 75 (98.1) |  | 83 (94.6) |  | 67 (96.6) |  | 51 (94.7) |  | 55 (89.5) |  |
|  | Rangpur | - |  | - |  | 47 (95.3) |  | 41 (98.9) |  | 72 (95.6) |  |
|  | Sylhet | 25 (95.3) |  | 19 (98.3) |  | 36 (90.2) |  | 38 (89.6) |  | 42 (86.9) |  |
|  | Mymensingh | - |  | - |  | - |  | - |  | 38 (81.9) |  |

*\* Significant p-value (p < 0.05)*