**Supplemental Materials**

**Table S1**. Unadjusted and adjusted odds ratios of hysterectomy for child marriage and adolescent childbirth by household wealth index quintiles

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | Q1: Poorest | Q2: Poorer | Q3: Middle | Q4: Richer | Q5: Richest |
|  |  |  |  |  |  |
| **A. Unadjusted** |  |  |  |  |  |
| CM0 ACB0 | Ref. | Ref. | Ref. | Ref. | Ref. |
| CM0 ACB1 | 1.328\*\* | 1.526\*\*\* | 1.650\*\*\* | 1.636\*\*\* | 2.331\*\*\* |
|  | (1.094, 1.613) | (1.299, 1.794) | (1.409, 1.931) | (1.375, 1.946) | (1.922, 2.828) |
| CM1 ACB0 | 1.605\*\*\* | 2.157\*\*\* | 2.098\*\*\* | 2.216\*\*\* | 2.813\*\*\* |
|  | (1.394, 1.847) | (1.886, 2.468) | (1.837, 2.396) | (1.904, 2.579) | (2.357, 3.357) |
| CM1 ACB1 | 1.742\*\*\* | 2.267\*\*\* | 2.717\*\*\* | 3.207\*\*\* | 3.431\*\*\* |
|  | (1.573, 1.929) | (2.068, 2.484) | (2.494, 2.960) | (2.927, 3.514) | (3.096, 3.802) |
|  |  |  |  |  |  |
| Obs. | 110,758 | 116,251 | 110,315 | 101,772 | 89,720 |
|  |  |  |  |  |  |
| **B. Adjusted** |  |  |  |  |  |
| CM0 ACB0 | Ref. | Ref. | Ref. | Ref. | Ref. |
| CM0 ACB1 | 1.429\*\*\* | 1.569\*\*\* | 1.490\*\*\* | 1.396\*\*\* | 1.772\*\*\* |
|  | (1.165, 1.754) | (1.321, 1.864) | (1.256, 1.766) | (1.162, 1.677) | (1.442, 2.179) |
| CM1 ACB0 | 1.207\* | 1.535\*\*\* | 1.343\*\*\* | 1.372\*\*\* | 1.559\*\*\* |
|  | (1.039, 1.403) | (1.330, 1.771) | (1.164, 1.550) | (1.161, 1.621) | (1.279, 1.901) |
| CM1 ACB1 | 1.609\*\*\* | 1.857\*\*\* | 1.851\*\*\* | 1.917\*\*\* | 1.998\*\*\* |
|  | (1.443, 1.794) | (1.679, 2.053) | (1.681, 2.037) | (1.731, 2.123) | (1.767, 2.259) |
|  |  |  |  |  |  |
| Obs. | 107,976 | 113,731 | 107,662 | 98,629 | 84,950 |
|  |  |  |  |  |  |

Note: *CM0* denotes “married as adult”, *CM1* denotes “married as child”, *ACB0* denotes “no adolescent childbirth”, and *ACB1* denotes “adolescent childbirth”. Estimates were obtained using complex survey weights. \*\*\* p<0.001, \*\* p<0.01, \* p<0.05. 95% confidence intervals are in parenthesis. Adjustments were made for age, education, religion, caste, urban/rural residence, BMI, parity (i.e., number of children born), and state fixed effects.

**Table S2**. Unadjusted and adjusted odds ratios of hysterectomy for child marriage and adolescent childbirth by education and residence

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | Education | | | | Residence | |
|  | No education | Primary | Secondary | Higher | Urban | Rural |
|  |  |  |  |  |  |  |
| **A. Unadjusted** |  |  |  |  |  |  |
| CM0 ACB0 | Ref. | Ref. | Ref. | Ref. | Ref. | Ref. |
| CM0 ACB1 | 1.444\*\*\* | 1.462\*\*\* | 1.365\*\*\* | 1.692\* | 1.676\*\*\* | 1.657\*\*\* |
|  | (1.290, 1.617) | (1.217, 1.756) | (1.180, 1.578) | (1.018, 2.811) | (1.404, 2.001) | (1.517, 1.809) |
| CM1 ACB0 | 1.421\*\*\* | 1.419\*\*\* | 1.827\*\*\* | 2.120\*\* | 2.132\*\*\* | 2.035\*\*\* |
|  | (1.302, 1.551) | (1.210, 1.663) | (1.611, 2.072) | (1.353, 3.322) | (1.803, 2.520) | (1.899, 2.180) |
| CM1 ACB1 | 1.744\*\*\* | 1.973\*\*\* | 2.152\*\*\* | 2.181\*\*\* | 2.493\*\*\* | 2.544\*\*\* |
|  | (1.641, 1.854) | (1.775, 2.193) | (1.998, 2.318) | (1.525, 3.119) | (2.272, 2.736) | (2.428, 2.666) |
|  |  |  |  |  |  |  |
| Obs. | 158,098 | 75,723 | 236,784 | 58,211 | 128,480 | 400,336 |
|  |  |  |  |  |  |  |
| **B. Adjusted** |  |  |  |  |  |  |
| CM0 ACB0 | Ref. | Ref. | Ref. | Ref. | Ref. | Ref. |
| CM0 ACB1 | 1.254\*\*\* | 1.247\* | 1.112 | 1.361 | 1.505\*\*\* | 1.530\*\*\* |
|  | (1.115, 1.410) | (1.034, 1.506) | (0.958, 1.291) | (0.804, 2.304) | (1.247, 1.815) | (1.394, 1.680) |
| CM1 ACB0 | 1.309\*\*\* | 1.388\*\*\* | 1.769\*\*\* | 2.103\*\* | 1.427\*\*\* | 1.398\*\*\* |
|  | (1.195, 1.434) | (1.178, 1.637) | (1.550, 2.019) | (1.343, 3.294) | (1.193, 1.707) | (1.297, 1.506) |
| CM1 ACB1 | 1.369\*\*\* | 1.550\*\*\* | 1.661\*\*\* | 1.495\* | 1.873\*\*\* | 1.853\*\*\* |
|  | (1.284, 1.460) | (1.383, 1.737) | (1.532, 1.801) | (1.020, 2.192) | (1.681, 2.087) | (1.759, 1.952) |
|  |  |  |  |  |  |  |
| Obs. | 153,583 | 73,902 | 230,494 | 55,110 | 122,618 | 390,754 |
|  |  |  |  |  |  |  |

Note: *CM0* denotes “married as adult”, *CM1* denotes “married as child”, *ACB0* denotes “no adolescent childbirth”, and *ACB1* denotes “adolescent childbirth”. Estimates were obtained using complex survey weights. \*\*\* p<0.001, \*\* p<0.01, \* p<0.05. 95% confidence intervals are in parenthesis. Adjustments were made for age, household wealth, religion, caste, urban/rural residence (for education groups), education (for urban/rural residence), BMI, parity (i.e., number of children born), and state fixed effects.

**Table S3**. Unadjusted and adjusted odds ratios of hysterectomy for child marriage and adolescent childbirth by geographic regions

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | North  (HP: 3.4%) | Central  (HP: 3.6%) | East  (HP: 5.0%) | Northeast  (HP: 1.5%) | West  (HP: 3.8%) | South  (HP: 5.7%) |
|  |  |  |  |  |  |  |
| **A. Unadjusted** |  |  |  |  |  |  |
| CM0 ACB0 | Ref. | Ref. | Ref. | Ref. | Ref. | Ref. |
| CM0 ACB1 | 1.516\*\*\* | 1.632\*\*\* | 1.319\*\* | 1.276 | 1.903\*\*\* | 1.926\*\*\* |
|  | (1.249, 1.841) | (1.388, 1.919) | (1.111, 1.567) | (0.908, 1.794) | (1.550, 2.337) | (1.652, 2.246) |
| CM1 ACB0 | 1.816\*\*\* | 2.080\*\*\* | 1.914\*\*\* | 1.063 | 2.365\*\*\* | 2.294\*\*\* |
|  | (1.498, 2.202) | (1.847, 2.342) | (1.681, 2.181) | (0.681, 1.661) | (2.017, 2.773) | (1.981, 2.655) |
| CM1 ACB1 | 2.254\*\*\* | 2.427\*\*\* | 1.980\*\*\* | 1.210 | 2.621\*\*\* | 3.537\*\*\* |
|  | (2.023, 2.511) | (2.225, 2.648) | (1.806, 2.171) | (0.986, 1.486) | (2.364, 2.906) | (3.251, 3.849) |
|  |  |  |  |  |  |  |
| Obs. | 73,788 | 119,978 | 87,632 | 73,537 | 85,684 | 88,197 |
|  |  |  |  |  |  |  |
| **B. Adjusted** |  |  |  |  |  |  |
| CM0 ACB0 | Ref. | Ref. | Ref. | Ref. | Ref. | Ref. |
| CM0 ACB1 | 1.411\*\* | 1.400\*\*\* | 1.357\*\* | 1.619\*\* | 1.820\*\*\* | 1.616\*\*\* |
|  | (1.142, 1.742) | (1.183, 1.657) | (1.131, 1.629) | (1.135, 2.308) | (1.477, 2.242) | (1.370, 1.907) |
| CM1 ACB0 | 1.299\* | 1.398\*\*\* | 1.201\* | 1.277 | 1.914\*\*\* | 1.285\*\* |
|  | (1.052, 1.606) | (1.232, 1.585) | (1.044, 1.381) | (0.803, 2.030) | (1.622, 2.258) | (1.095, 1.509) |
| CM1 ACB1 | 1.731\*\*\* | 1.758\*\*\* | 1.646\*\*\* | 1.556\*\*\* | 2.192\*\*\* | 1.987\*\*\* |
|  | (1.525, 1.966) | (1.599, 1.934) | (1.487, 1.824) | (1.240, 1.952) | (1.961, 2.451) | (1.806, 2.187) |
|  |  |  |  |  |  |  |
| Obs. | 70,574 | 115,282 | 85,685 | 72,679 | 83,734 | 85,418 |
|  |  |  |  |  |  |  |

Note: *HP* denotes hysterectomy prevalence in the region. *CM0* denotes “married as adult”, *CM1* denotes “married as child”, *ACB0* denotes “no adolescent childbirth”, and *ACB1* denotes “adolescent childbirth”. Other causes include uterine prolapse, severe post-partum hemorrhage, cervical discharge, and any other issues. Estimates were obtained using complex survey weights. \*\*\* p<0.001, \*\* p<0.01, \* p<0.05. 95% confidence intervals are in parenthesis. Adjustments were made for age, household wealth, education, religion, caste, urban/rural residence, BMI, parity (i.e., number of children born), and state fixed effects.