

**Supplementary table 1.** Sex segregated association of maternal height and BMI with stunting of children aged under 5 years adjusted for maternal and other covariates showing adjusted odds ratio with 95% confidence intervals

| Covariates                   | Stunting (<-2SD)              |                     |                                |                               |                     |                                |
|------------------------------|-------------------------------|---------------------|--------------------------------|-------------------------------|---------------------|--------------------------------|
|                              | Model 1 <sup>†</sup> (95% CI) |                     |                                | Model 2 <sup>‡</sup> (95% CI) |                     |                                |
|                              | Male                          | Female              | Total (as in Table 5- Model 2) | Male                          | Female              | Total (as in Table 5- Model 3) |
| <b>Maternal covariates</b>   |                               |                     |                                |                               |                     |                                |
| Mother's Height              |                               |                     |                                |                               |                     |                                |
| Normal                       | Ref                           | Ref                 | Ref                            |                               |                     |                                |
| Tall                         | 0.59 (0.55-0.64)***           | 0.59 (0.54-0.64)*** | 0.59 (0.56-0.63)***            |                               |                     |                                |
| Short                        | 1.66 (1.47-1.88)***           | 1.52 (1.34-1.74)*** | 1.60 (1.46-1.75)***            |                               |                     |                                |
| Mother's BMI                 |                               |                     |                                |                               |                     |                                |
| Normal                       |                               |                     |                                | Ref                           | Ref                 | Ref                            |
| Underweight                  |                               |                     |                                | 1.35 (1.23-1.47)***           | 1.39 (1.27-1.54)*** | 1.37 (1.28-1.46)***            |
| Overweight                   |                               |                     |                                | 0.81 (0.73-0.89)***           | 0.78 (0.70-0.87)*** | 0.79 (0.74-0.85)***            |
| Mother's education           |                               |                     |                                |                               |                     |                                |
| No education                 | 1.79 (1.58-2.04)***           | 1.79 (1.56-2.06)*** | 1.80 (1.64-1.98)***            | 1.88 (1.66-2.14)***           | 1.87 (1.63-2.15)*** | 1.88 (1.71-2.07)***            |
| Primary                      | 1.48 (1.29-1.69)***           | 1.64 (1.42-1.90)*** | 1.55 (1.41-1.71)***            | 1.55 (1.36-1.77)***           | 1.75 (1.51-2.02)*** | 1.64 (1.49-1.8)***             |
| Secondary                    | 1.43 (1.29-1.58)***           | 1.37 (1.23-1.53)*** | 1.40 (1.30-1.51)***            | 1.46 (1.32-1.61)***           | 1.42 (1.27-1.58)*** | 1.44 (1.34-1.55)***            |
| Higher                       | Ref                           | Ref                 | Ref                            | Ref                           | Ref                 | Ref                            |
| Mother's employment status   |                               |                     |                                |                               |                     |                                |
| Not working                  | Ref                           | Ref                 | Ref                            | Ref                           | Ref                 | Ref                            |
| Working                      | 1.14 (1.05-1.25)***           | 1.09 (0.99-1.19)*   | 1.12 (1.05-1.19)***            | 1.14 (1.05-1.24)***           | 1.08 (0.99-1.18)*   | 1.11 (1.05-1.18)***            |
| Mother's age                 |                               |                     |                                |                               |                     |                                |
| ≤18 years                    | 0.96 (0.68-1.36)              | 1.16 (0.81-1.67)    | 1.05 (0.82-1.35)               | 0.93 (0.66-1.3)               | 1.13 (0.79-1.62)    | 1.02 (0.8-1.3)                 |
| 19-24                        | 1.31 (1.14-1.51)***           | 1.35 (1.17-1.57)*** | 1.32 (1.20-1.46)***            | 1.21 (1.05-1.38)**            | 1.24 (1.07-1.44)*** | 1.22 (1.1-1.35)***             |
| 25-34                        | 1.20 (1.07-1.36)***           | 1.12 (0.99-1.27)*   | 1.16 (1.07-1.27)***            | 1.15 (1.02-1.30)**            | 1.09 (0.96-1.23)    | 1.12 (1.03-1.22)**             |
| 35+                          | Ref                           | Ref                 | Ref                            | Ref                           | Ref                 | Ref                            |
| Mother's mass media exposure |                               |                     |                                |                               |                     |                                |
| No                           | Ref                           | Ref                 | Ref                            | Ref                           | Ref                 | Ref                            |
| Yes                          | 0.84 (0.76-0.93)***           | 0.93 (0.83-1.03)    | 0.88 (0.82-0.95)***            | 0.85 (0.77-0.94)***           | 0.94 (0.84-1.04)    | 0.89 (0.83-0.96)***            |
| Mother's parity              |                               |                     |                                |                               |                     |                                |
| 1-2                          | Ref                           | Ref                 | Ref                            | Ref                           | Ref                 | Ref                            |
| 3 or more                    | 1.14 (1.04-1.25)***           | 1.34 (1.22-1.49)*** | 1.23 (1.15-1.32)***            | 1.13 (1.03-1.24)**            | 1.31 (1.19-1.45)*** | 1.21 (1.13-1.3)***             |
| <b>Child covariates</b>      |                               |                     |                                |                               |                     |                                |
| Age (in years)               |                               |                     |                                |                               |                     |                                |
| 0-2                          | Ref                           | Ref                 | Ref                            | Ref                           | Ref                 | Ref                            |
| 3-4                          | 0.98 (0.91-1.06)              | 1.29 (1.19-1.4)***  | 1.11 (1.05-1.18)***            | 0.97 (0.9-1.04)               | 1.29 (1.19-1.4)***  | 1.11 (1.05-1.17)***            |
| Morbidity in past 2 weeks    |                               |                     |                                |                               |                     |                                |
| No                           | Ref                           | Ref                 | Ref                            | Ref                           | Ref                 | Ref                            |
| Yes                          | 1.05 (0.98-1.13)              | 0.98 (0.91-1.06)    | 1.02 (0.97-1.08)               | 1.06 (0.99-1.14)              | 0.99 (0.92-1.07)    |                                |
| Breastfed ever               |                               |                     |                                |                               |                     |                                |
| No                           | Ref                           | Ref                 | Ref                            | Ref                           | Ref                 | Ref                            |
| Yes                          | 1.05 (0.98-1.13)              | 0.9 (0.76-1.07)     | 0.98 (0.86-1.10)               | 1.03 (0.87-1.23)              | 0.89 (0.75-1.05)    | 0.96 (0.85-1.09)               |

\*\*\* $p<0.01$ , \*\* $p<0.05$ , \* $p<0.1$ .

<sup>†</sup>Model 1: (excluding mother's BMI): Adjusted for maternal covariates - age, education, access to information, parity, and employment status. Child Covariates - age, sex, morbidity, and breastfeeding status. Household level covariates- wealth index, place of residence and caste. <sup>‡</sup>Model 2: (excluding mother's height): Adjusted for maternal covariates - age, education, access to information, parity, and employment status. Child Covariates - age, sex, morbidity, and breastfeeding status. Household level covariates- wealth index, place of residence and caste.

**Supplementary table 1.** Sex segregated association of maternal height and BMI with stunting of children aged under 5 years adjusted for maternal and other covariates showing adjusted odds ratio with 95% confidence intervals (cont.)

| Covariates                | Stunting (<-2SD)                |                                 |                                 |                                 |                                 |                                 |
|---------------------------|---------------------------------|---------------------------------|---------------------------------|---------------------------------|---------------------------------|---------------------------------|
|                           | Model 1 <sup>†</sup> (95% CI)   |                                 | Model 2 <sup>‡</sup> (95% CI)   |                                 |                                 |                                 |
| Household characteristics |                                 |                                 |                                 |                                 |                                 |                                 |
| Wealth index              |                                 |                                 |                                 |                                 |                                 |                                 |
| Richest                   | Ref                             | Ref                             | Ref                             | Ref                             | Ref                             | Ref                             |
| Rich                      | 1.95 (1.62-2.35) <sup>***</sup> | 2.32 (1.92-2.80) <sup>***</sup> | 1.33 (1.23-1.43) <sup>***</sup> | 2.00 (1.68-2.39) <sup>***</sup> | 2.37 (1.96-2.85) <sup>***</sup> | 2.15 (1.90-2.45) <sup>***</sup> |
| Middle                    | 1.64 (1.40-1.91) <sup>***</sup> | 1.96 (1.68-2.30) <sup>***</sup> | 1.47 (1.34-1.61) <sup>***</sup> | 1.71 (1.48-1.98) <sup>***</sup> | 1.94 (1.66-2.28) <sup>***</sup> | 1.81 (1.63-2.01) <sup>***</sup> |
| Poor                      | 1.45 (1.28-1.65) <sup>***</sup> | 1.53 (1.34-1.74) <sup>***</sup> | 1.76 (1.57-1.97) <sup>***</sup> | 1.51 (1.34-1.70) <sup>***</sup> | 1.54 (1.35-1.76) <sup>***</sup> | 1.52 (1.39-1.66) <sup>***</sup> |
| Poorest                   | 1.30 (1.17-1.44) <sup>***</sup> | 1.38 (1.23-1.55) <sup>***</sup> | 2.07 (1.81-2.38) <sup>***</sup> | 1.33 (1.20-1.47) <sup>***</sup> | 1.42 (1.27-1.59) <sup>***</sup> | 1.37 (1.27-1.47) <sup>***</sup> |
| Place of residence        |                                 |                                 |                                 |                                 |                                 |                                 |
| Rural                     | Ref                             | Ref                             | Ref                             | Ref                             | Ref                             | Ref                             |
| Urban                     | 0.94 (0.87-1.02)                | 1.0 (0.91-1.09)                 | 0.96 (0.91-1.02)                | 0.99 (0.91-1.07)                | 1.05 (0.96-1.14)                | 1.02 (0.96-1.08)                |
| Caste                     |                                 |                                 |                                 |                                 |                                 |                                 |
| Scheduled Caste/Tribe     | 1.13 (1.05-1.22) <sup>***</sup> | 1.08 (1.00-1.17) <sup>*</sup>   | 1.11 (1.05-1.17) <sup>***</sup> | 1.16 (1.08-1.25) <sup>***</sup> | 1.11 (1.02-1.20) <sup>**</sup>  | 1.13 (1.07-1.20) <sup>***</sup> |
| Others/OBC                | Ref                             | Ref                             | Ref                             | Ref                             | Ref                             | Ref                             |

\*\*\*  $p < 0.01$ , \*\*  $p < 0.05$ , \*  $p < 0.1$ .

<sup>†</sup>Model 1: (excluding mother's BMI): Adjusted for maternal covariates - age, education, access to information, parity, and employment status. Child Covariates - age, sex, morbidity, and breastfeeding status. Household level covariates- wealth index, place of residence and caste.

<sup>‡</sup>Model 2: (excluding mother's height): Adjusted for maternal covariates - age, education, access to information, parity, and employment status. Child Covariates - age, sex, morbidity, and breastfeeding status. Household level covariates- wealth index, place of residence and caste.

**Supplementary table 2.** Sex segregated association of maternal height and BMI with wasting of children aged under 5 years adjusted for maternal and other covariates showing adjusted odds ratio with 95% confidence intervals

| Covariates                   | Wasting (<-2SD)               |                     |                                |                               |                     |                                |
|------------------------------|-------------------------------|---------------------|--------------------------------|-------------------------------|---------------------|--------------------------------|
|                              | Model 1 <sup>†</sup> (95% CI) |                     |                                | Model 2 <sup>‡</sup> (95% CI) |                     |                                |
|                              | Male                          | Female              | Total (as in Table 6- Model 2) | Male                          | Female              | Total (as in Table 6- Model 3) |
| <b>Maternal covariates</b>   |                               |                     |                                |                               |                     |                                |
| Mother's Height              |                               |                     |                                |                               |                     |                                |
| Normal                       | Ref                           | Ref                 | Ref                            |                               |                     |                                |
| Tall                         | 0.91 (0.82-1.01)*             | 0.96 (0.86-1.07)    | 0.93 (0.87-1.01)*              |                               |                     |                                |
| Short                        | 1.19 (1.02-1.39)**            | 1.2 (1.01-1.42)**   | 1.2 (1.07-1.34)**              |                               |                     |                                |
| Mother's BMI                 |                               |                     |                                |                               |                     |                                |
| Normal                       |                               |                     |                                | Ref                           | Ref                 | Ref                            |
| Underweight                  |                               |                     |                                | 1.52 (1.36-1.69)***           | 1.58 (1.41-1.77)*** | 1.54 (1.43-1.67)***            |
| Overweight                   |                               |                     |                                | 0.67 (0.59-0.76)***           | 0.6 (0.52-0.69)***  | 0.64 (0.58-0.70)***            |
| Mother's education           |                               |                     |                                |                               |                     |                                |
| No education                 | 1.11 (0.94-1.3)               | 1.24 (1.04-1.47)**  | 1.16 (1.03-1.31)**             | 1.09 (0.93-1.28)              | 1.19 (1-1.41)*      | 1.13 (1.01-1.28)**             |
| Primary                      | 1.18 (1-1.39)**               | 1.2 (1-1.43)*       | 1.19 (1.05-1.34)**             | 1.17 (0.99-1.38)*             | 1.18 (0.99-1.42)*   | 1.18 (1.04-1.33)**             |
| Secondary                    | 1.16 (1.03-1.31)**            | 1.21 (1.07-1.38)*** | 1.18 (1.09-1.29)***            | 1.15 (1.02-1.3)**             | 1.2 (1.05-1.36)**   | 1.17 (1.07-1.28)***            |
| Higher                       | Ref                           | Ref                 | Ref                            | Ref                           | Ref                 | Ref                            |
| Mother's employment status   |                               |                     |                                |                               |                     |                                |
| Not working                  | Ref                           | Ref                 | Ref                            | Ref                           | Ref                 | Ref                            |
| Working                      | 0.95 (0.86-1.06)              | 0.99 (0.88-1.11)    | 0.97 (0.9-1.05)                | 0.94 (0.84-1.05)              | 0.98 (0.87-1.1)     | 0.96 (0.88-1.03)               |
| Mother's age                 |                               |                     |                                |                               |                     |                                |
| ≤18 years                    | 0.99 (0.65-1.5)               | 1.14 (0.74-1.76)    | 1.06 (0.78-1.43)               | 0.88 (0.58-1.33)              | 1 (0.65-1.55)       | 0.93 (0.69-1.26)               |
| 19-24                        | 1.11 (0.93-1.31)              | 1.1 (0.92-1.33)     | 1.11 (0.98-1.25)               | 0.98 (0.82-1.16)              | 0.97 (0.81-1.17)    | 0.98 (0.86-1.11)               |
| 25-34                        | 1.13 (0.97-1.31)              | 1.18 (1-1.38)**     | 1.15 (1.03-1.28)**             | 1.06 (0.92-1.24)              | 1.12 (0.95-1.31)    | 1.09 (0.98-1.22)               |
| 35+                          | Ref                           | Ref                 | Ref                            | Ref                           | Ref                 | Ref                            |
| Mother's mass media exposure |                               |                     |                                |                               |                     |                                |
| No                           | Ref                           | Ref                 | Ref                            | Ref                           | Ref                 | Ref                            |
| Yes                          | 0.94 (0.83-1.06)              | 0.82 (0.72-0.93)*** | 0.88 (0.8-0.96)**              | 0.95 (0.84-1.08)              | 0.84 (0.73-0.95)**  | 0.9 (0.82-0.98)**              |
| Mother's parity              |                               |                     |                                |                               |                     |                                |
| 1-2                          | Ref                           | Ref                 | Ref                            | Ref                           | Ref                 | Ref                            |
| 3 or more                    | 0.92 (0.82-1.03)              | 1.08 (0.95-1.23)    | 0.99 (0.91-1.08)               | 0.92 (0.82-1.04)              | 1.08 (0.95-1.23)    | 1 (0.91-1.09)                  |
| <b>Child covariates</b>      |                               |                     |                                |                               |                     |                                |
| Age (in years)               |                               |                     |                                |                               |                     |                                |
| 0-2                          | Ref                           | Ref                 | Ref                            | Ref                           | Ref                 | Ref                            |
| 3-4                          | 0.85 (0.78-0.93)***           | 0.89 (0.81-0.99)**  | 0.87 (0.82-0.93)***            | 0.86 (0.78-0.94)***           | 0.91 (0.83-1.01)*   | 0.89 (0.83-0.95)***            |
| Morbidity in past 2 weeks    |                               |                     |                                |                               |                     |                                |
| No                           | Ref                           | Ref                 | Ref                            | Ref                           | Ref                 | Ref                            |
| Yes                          | 1.07 (0.98-1.17)              | 1.05 (0.96-1.16)    | 1.07 (1-1.14)*                 | 1.06 (0.97-1.16)              | 1.05 (0.96-1.16)    | 1.06 (0.99-1.13)*              |
| Breastfed ever               |                               |                     |                                |                               |                     |                                |
| No                           | Ref                           | Ref                 | Ref                            | Ref                           | Ref                 | Ref                            |
| Yes                          | 1.15 (0.92-1.44)              | 1.3 (1.02-1.66)**   | 1.22 (1.03-1.44)**             | 1.12 (0.9-1.41)               | 1.28 (1-1.63)*      | 1.19 (1.01-1.41)**             |

\*\*\*  $p < 0.01$ , \*\*  $p < 0.05$ , \*  $p < 0.1$ .

<sup>†</sup>Model 1: (excluding mother's BMI): Adjusted for maternal covariates - age, education, access to information, parity, and employment status. Child Covariates - age, sex, morbidity, and breastfeeding status. Household level covariates- wealth index, place of residence and caste. <sup>‡</sup>Model 2: (excluding mother's height): Adjusted for maternal covariates - age, education, access to information, parity, and employment status. Child Covariates - age, sex, morbidity, and breastfeeding status. Household level covariates- wealth index, place of residence and caste.

**Supplementary Table 2.** Sex segregated association of maternal height and BMI with wasting of children aged under 5 years adjusted for maternal and other covariates showing adjusted odds ratio with 95% confidence intervals (cont.)

| Covariates                | Wasting (<-2SD)                 |                                 |                                 |                                 |                                |                                 |
|---------------------------|---------------------------------|---------------------------------|---------------------------------|---------------------------------|--------------------------------|---------------------------------|
|                           | Model 1 <sup>†</sup> (95% CI)   |                                 | Model 2 <sup>‡</sup> (95% CI)   |                                 |                                |                                 |
| Household characteristics |                                 |                                 |                                 |                                 |                                |                                 |
| Wealth index              |                                 |                                 |                                 |                                 |                                |                                 |
| Richest                   | Ref                             | Ref                             | Ref                             | Ref                             | Ref                            | Ref                             |
| Rich                      | 2.15 (1.73-2.67) <sup>***</sup> | 1.66 (1.31-2.09) <sup>***</sup> | 1.91 (1.63-2.24) <sup>***</sup> | 1.83 (1.47-2.28) <sup>***</sup> | 1.4 (1.11-1.76) <sup>**</sup>  | 1.62 (1.38-1.9) <sup>***</sup>  |
| Middle                    | 1.83 (1.53-2.19) <sup>***</sup> | 1.31 (1.07-1.59) <sup>**</sup>  | 1.57 (1.37-1.79) <sup>***</sup> | 1.66 (1.38-1.99) <sup>***</sup> | 1.11 (0.91-1.35)               | 1.38 (1.21-1.58) <sup>***</sup> |
| Poor                      | 1.41 (1.21-1.63) <sup>***</sup> | 1.2 (1.02-1.41) <sup>**</sup>   | 1.31 (1.17-1.46) <sup>***</sup> | 1.29 (1.11-1.5) <sup>***</sup>  | 1.06 (0.9-1.25)                | 1.18 (1.06-1.32) <sup>***</sup> |
| Poorest                   | 1.23 (1.09-1.4) <sup>***</sup>  | 1.14 (0.99-1.31) <sup>*</sup>   | 1.19 (1.09-1.31) <sup>***</sup> | 1.18 (1.04-1.33) <sup>**</sup>  | 1.08 (0.94-1.24)               | 1.13 (1.03-1.24) <sup>**</sup>  |
| Place of residence        |                                 |                                 |                                 |                                 |                                |                                 |
| Rural                     | Ref                             | Ref                             | Ref                             | Ref                             | Ref                            | Ref                             |
| Urban                     | 1.22 (1.1-1.34) <sup>***</sup>  | 1.11 (1.00-1.23) <sup>*</sup>   | 1.17 (1.08-1.25) <sup>***</sup> | 1.27 (1.15-1.40) <sup>***</sup> | 1.16 (1.04-1.29) <sup>**</sup> | 1.22 (1.14-1.31) <sup>***</sup> |
| Caste                     |                                 |                                 |                                 |                                 |                                |                                 |
| Scheduled Caste/Tribe     | 0.87 (0.79-0.96) <sup>***</sup> | 0.92 (0.83-1.02)                | 0.89 (0.83-0.96) <sup>***</sup> | 0.87 (0.79-0.95) <sup>***</sup> | 0.92 (0.83-1.02)               | 0.89 (0.83-0.96) <sup>***</sup> |
| Others/OBC                | Ref                             | Ref                             | Ref                             | Ref                             | Ref                            | Ref                             |

\*\*\*  $p < 0.01$ , \*\*  $p < 0.05$ , \*  $p < 0.1$ .

<sup>†</sup>Model 1: (excluding mother's BMI): Adjusted for maternal covariates - age, education, access to information, parity, and employment status. Child Covariates - age, sex, morbidity, and breastfeeding status. Household level covariates- wealth index, place of residence and caste.

<sup>‡</sup>Model 2: (excluding mother's height): Adjusted for maternal covariates - age, education, access to information, parity, and employment status. Child Covariates - age, sex, morbidity, and breastfeeding status. Household level covariates- wealth index, place of residence and caste.

**Supplementary table 3.** Sex segregated association of maternal height and BMI with underweight of children aged under 5 years adjusted for maternal and other covariates showing adjusted odds ratio with 95% confidence intervals

| Covariates                   | Underweight (<-2SD)           |                     |                                |                               |                     |                                |
|------------------------------|-------------------------------|---------------------|--------------------------------|-------------------------------|---------------------|--------------------------------|
|                              | Model 1 <sup>†</sup> (95% CI) |                     |                                | Model 2 <sup>‡</sup> (95% CI) |                     |                                |
|                              | Male                          | Female              | Total (as in Table 6- Model 2) | Male                          | Female              | Total (as in Table 6- Model 3) |
| Maternal covariates          |                               |                     |                                |                               |                     |                                |
| Mother's Height              |                               |                     |                                |                               |                     |                                |
| Normal                       | Ref                           | Ref                 | Ref                            |                               |                     |                                |
| Tall                         | 0.62 (0.57-0.68)***           | 0.66 (0.6-0.72)***  | 0.64 (0.6-0.68)***             |                               |                     |                                |
| Short                        | 1.5 (1.33-1.7)***             | 1.53 (1.34-1.75)*** | 1.52 (1.39-1.67)***            |                               |                     |                                |
| Mother's BMI                 |                               |                     |                                |                               |                     |                                |
| Normal                       |                               |                     |                                | Ref                           | Ref                 | Ref                            |
| Underweight                  |                               |                     |                                | 1.8 (1.64-1.96)***            | 1.93 (1.76-2.12)*** | 1.85 (1.74-1.98)***            |
| Overweight                   |                               |                     |                                | 0.68 (0.61-0.75)***           | 0.69 (0.62-0.77)*** | 0.68 (0.63-0.74)***            |
| Mother's education           |                               |                     |                                |                               |                     |                                |
| No education                 | 1.71 (1.5-1.95)***            | 1.64 (1.43-1.89)*** | 1.68 (1.53-1.85)***            | 1.76 (1.54-2.01)***           | 1.66 (1.44-1.91)*** | 1.72 (1.56-1.89)***            |
| Primary                      | 1.51 (1.31-1.73)***           | 1.45 (1.25-1.68)*** | 1.48 (1.34-1.64)***            | 1.54 (1.35-1.77)***           | 1.52 (1.31-1.76)*** | 1.53 (1.39-1.69)***            |
| Secondary                    | 1.43 (1.29-1.58)***           | 1.35 (1.21-1.51)*** | 1.39 (1.29-1.5)***             | 1.44 (1.3-1.59)***            | 1.36 (1.22-1.52)*** | 1.4 (1.3-1.51)***              |
| Higher                       | Ref                           | Ref                 | Ref                            | Ref                           | Ref                 | Ref                            |
| Mother's employment status   |                               |                     |                                |                               |                     |                                |
| Not working                  | Ref                           | Ref                 | Ref                            | Ref                           | Ref                 | Ref                            |
| Working                      | 1.13 (1.04-1.24)***           | 1.08 (0.98-1.19)    | 1.11 (1.04-1.18)***            | 1.12 (1.02-1.22)**            | 1.07 (0.97-1.17)    | 1.09 (1.02-1.16)**             |
| Mother's age                 |                               |                     |                                |                               |                     |                                |
| ≤18 years                    | 0.69 (0.47-1.01)*             | 1.14 (0.78-1.66)    | 0.88 (0.67-1.15)               | 0.62 (0.42-0.9)**             | 1.05 (0.72-1.52)    | 0.79 (0.61-1.04)*              |
| 19-24                        | 1.23 (1.07-1.42)***           | 1.38 (1.19-1.61)*** | 1.29 (1.17-1.43)***            | 1.06 (0.92-1.23)              | 1.21 (1.04-1.4)**   | 1.12 (1.01-1.24)**             |
| 25-34                        | 1.18 (1.04-1.33)**            | 1.26 (1.11-1.43)*** | 1.21 (1.11-1.32)***            | 1.09 (0.97-1.24)              | 1.2 (1.05-1.36)**   | 1.14 (1.04-1.24)***            |
| 35+                          | Ref                           | Ref                 | Ref                            | Ref                           | Ref                 | Ref                            |
| Mother's mass media exposure |                               |                     |                                |                               |                     |                                |
| No                           | Ref                           | Ref                 | Ref                            | Ref                           | Ref                 | Ref                            |
| Yes                          | 0.98 (0.88-1.09)              | 0.85 (0.76-0.94)*** | 0.91 (0.85-0.98)**             | 0.99 (0.9-1.1)                | 0.86 (0.78-0.96)**  | 0.93 (0.86-1)*                 |
| Mother's parity              |                               |                     |                                |                               |                     |                                |
| 1-2                          | Ref                           | Ref                 | Ref                            | Ref                           | Ref                 | Ref                            |
| 3 or more                    | 1 (0.91-1.1)                  | 1.15 (1.04-1.28)**  | 1.07 (1-1.15)*                 | 1 (0.91-1.1)                  | 1.15 (1.03-1.27)**  | 1.06 (0.99-1.14)*              |
| Child covariates             |                               |                     |                                |                               |                     |                                |
| Age (in years)               |                               |                     |                                |                               |                     |                                |
| 0-2                          | Ref                           | Ref                 | Ref                            | Ref                           | Ref                 | Ref                            |
| 3-4                          | 1.11 (1.03-1.2)**             | 1.56 (1.44-1.7)***  | 1.3 (1.23-1.38)***             | 1.11 (1.03-1.2)**             | 1.6 (1.48-1.74)***  | 1.32 (1.25-1.39)***            |
| Morbidity in past 2 weeks    |                               |                     |                                |                               |                     |                                |
| No                           | Ref                           | Ref                 | Ref                            | Ref                           | Ref                 | Ref                            |
| Yes                          | 1.14 (1.06-1.23)***           | 1.12 (1.03-1.21)**  | 1.13 (1.07-1.19)***            | 1.14 (1.06-1.23)***           | 1.12 (1.04-1.21)*** | 1.13 (1.07-1.19)***            |
| Breastfed ever               |                               |                     |                                |                               |                     |                                |
| No                           | Ref                           | Ref                 | Ref                            | Ref                           | Ref                 | Ref                            |
| Yes                          | 1.02 (0.85-1.22)              | 1.08 (0.9-1.29)     | 1.05 (0.92-1.19)               | 0.99 (0.83-1.18)              | 1.05 (0.88-1.26)    | 1.02 (0.9-1.16)                |

\*\*\*  $p < 0.01$ , \*\*  $p < 0.05$ , \*  $p < 0.1$ .

<sup>†</sup>Model 1: (excluding mother's BMI): Adjusted for maternal covariates - age, education, access to information, parity, and employment status. Child Covariates - age, sex, morbidity, and breastfeeding status. Household level covariates- wealth index, place of residence and caste. <sup>‡</sup>Model 2: (excluding mother's height): Adjusted for maternal covariates - age, education, access to information, parity, and employment status. Child Covariates - age, sex, morbidity, and breastfeeding status. Household level covariates- wealth index, place of residence and caste.

**Supplementary table 3.** Sex segregated association of maternal height and BMI with underweight of children aged under 5 years adjusted for maternal and other covariates showing adjusted odds ratio with 95% confidence intervals

| Covariates                | Underweight (<-2SD)           |                     |                               |                     |                     |                     |
|---------------------------|-------------------------------|---------------------|-------------------------------|---------------------|---------------------|---------------------|
|                           | Model 1 <sup>†</sup> (95% CI) |                     | Model 2 <sup>‡</sup> (95% CI) |                     |                     |                     |
| Household characteristics |                               |                     |                               |                     |                     |                     |
| Wealth index              |                               |                     |                               |                     |                     |                     |
| Richest                   | Ref                           | Ref                 | Ref                           | Ref                 | Ref                 | Ref                 |
| Rich                      | 2.84 (2.38-3.4)***            | 2.72 (2.25-3.29)*** | 2.78 (2.44-3.16)***           | 2.55 (2.13-3.05)*** | 2.51 (2.08-3.04)*** | 2.52 (2.22-2.88)*** |
| Middle                    | 1.75 (1.5-2.03)***            | 1.89 (1.6-2.22)***  | 1.8 (1.62-2.01)***            | 1.68 (1.45-1.96)*** | 1.71 (1.45-2.01)*** | 1.69 (1.51-1.89)*** |
| Poor                      | 1.5 (1.33-1.7)***             | 1.55 (1.35-1.77)*** | 1.52 (1.39-1.67)***           | 1.45 (1.28-1.64)*** | 1.46 (1.27-1.66)*** | 1.45 (1.32-1.59)*** |
| Poorest                   | 1.22 (1.09-1.36)***           | 1.4 (1.25-1.57)***  | 1.3 (1.2-1.41)***             | 1.2 (1.08-1.34)***  | 1.39 (1.24-1.56)*** | 1.28 (1.19-1.39)*** |
| Place of residence        |                               |                     |                               |                     |                     |                     |
| Rural                     | Ref                           | Ref                 | Ref                           | Ref                 | Ref                 | Ref                 |
| Urban                     | 1 (0.92-1.09)                 | 1.03 (0.94-1.12)    | 1.01 (0.95-1.07)              | 1.07 (0.99-1.16)    | 1.1 (1.00-1.20)**   | 1.08 (1.02-1.15)**  |
| Caste                     |                               |                     |                               |                     |                     |                     |
| Scheduled Caste/Tribe     | 0.93 (0.86-1.01)              | 0.9 (0.83-0.98)**   | 0.92 (0.87-0.97)***           | 0.95 (0.88-1.03)    | 0.93 (0.85-1.01)    | 0.94 (0.89-0.99)**  |
| Others/OBC                | Ref                           | Ref                 | Ref                           | Ref                 | Ref                 | Ref                 |

\*\*\*  $p < 0.01$ , \*\*  $p < 0.05$ , \*  $p < 0.1$ .

<sup>†</sup>Model 1: (excluding mother's BMI): Adjusted for maternal covariates - age, education, access to information, parity, and employment status. Child Covariates - age, sex, morbidity, and breastfeeding status. Household level covariates- wealth index, place of residence and caste.

<sup>‡</sup>Model 2: (excluding mother's height): Adjusted for maternal covariates - age, education, access to information, parity, and employment status. Child Covariates - age, sex, morbidity, and breastfeeding status. Household level covariates- wealth index, place of residence and caste.