**Supplementary Material**

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| **A.** |
| **D:\Triple Burden of Malnutrition\Data and Syntax\Analysis_December\sig_stunting.png** |
| **B.** |
| **D:\Triple Burden of Malnutrition\Data and Syntax\Analysis_December\sig_overweight.png** |
| **C.** |
| **D:\Triple Burden of Malnutrition\Data and Syntax\Analysis_December\sig_anemia.png** |
| **Figure S 1.** Univariate LISA significance map of (a) stunting (b) overweight and (c) anaemia among children aged 6-59 months across 707 districts in India, National Family Health Survey (NFHS-5), 2019-21. |

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| **Table S2.** Ordinary Least Square andSpatial Auto Regressive (SAR) models for malnutrition outcomes (a) stunting (b) overweight and (c) anaemia among children aged 6-59 months across 707 districts, India, National Family Health Survey (NFHS-5), 2019-21. | | | |
| **Predictors** | **Coefficient (p-value)** | | |
| **Ordinary Least Square (OLS)** | **Spatial Lag Model (SLM)** | **Spatial Error Model (SEM)** |
| **Stunting** |  |  |  |
| Rural | -0.029 (0.029) | -0.019 (0.145) | -0.026 (0.059) |
| Poorest | 0.046 (0.063) | 0.037 (0.118) | 0.066 (0.058) |
| Scheduled Castes/Tribes | -0.013 (0.379) | 0.002 (0.914) | 0.001 (0.951) |
| Ten or more years of Schooling | 0.013 (0.527) | 0.018 (0.313) | 0.005 (0.827) |
| Exposure to Mass Media | 0.004 (0.893) | 0.020 (0.463) | 0.024 (0.432) |
| Muslim | 0.009 (0.521) | 0.025 (0.084) | 0.015 (0.390) |
| Female Child | 0.171 (0.011) | 0.142 (0.023) | 0.132 (0.032) |
| Three or more Birth Order | 0.364 (0.000) | 0.290 (0.000) | 0.327 (0.000) |
| Children under 6 months exclusively breastfed | 0.009 (0.333) | 0.008 (0.362) | 0.009 (0.253) |
| Children 6-23 months receiving an adequate diet | -0.028 (0.443) | -0.010 (0.767) | -0.044 (0.238) |
| Women with Body Mass Index<18.5 kg/m2 | 0.353 (0.000) | 0.277 (0.000) | 0.310 (0.000) |
| Household with Improved Sanitation | -0.061 (0.004) | -0.052 (0.009) | -0.064 (0.008) |
| Constant | 15.90 (0.000) | 6.01 (0.122) | 17.38 (0.000) |
| Number of Observations | 707 | 707 | 707 |
| Log likelihood | -2299.98 | -2267.47 | -2267.66 |
| AIC | 4625.97 | 4562.95 | 4561.32 |
| Adjusted R square | 0.53 | 0.595 | 0.597 |
| Lag (Rho) Coefficient |  | 0.317 |  |
| Error (Lambda) Coefficient |  |  | 0.406 |
| **Overweight** |  |  |  |
| Urban | 0.004 (0.597) | 0.007 (0.227) | 0.005 (0.022) |
| Richest | -0.018 (0.057) | -0.012 (0.162) | -0.011 (0.379) |
| Scheduled Castes/Tribes | 0.035 (0.000) | 0.023 (0.000) | 0.026 (0.000) |
| Ten or more years of Schooling | 0.002 (0.805) | 0.005 (0.589) | 0.0097 (0.414) |
| Exposure to Mass Media | -0.015 (0.141) | -0.014 (0.135) | -0.019 (0.104) |
| Muslim | 0.031 (0.000) | 0.019 (0.003) | 0.029 (0.001) |
| Female Child | 0.072 (0.011) | 0.059 (0.026) | 0.049 (0.057) |
| Three or more Birth Order | -0.049 (0.000) | -0.028 (0.034) | -0.021 (0.218) |
| Children under 6 months exclusively breastfed | 0.003 (0.371) | 0.004 (0.322) | 0.003 (0.460) |
| Children 6-23 months receiving an adequate diet | -0.009 (0.572) | -0.009 (0.507) | 0.000 (0.999) |
| Women with Body Mass Index<18.5 kg/m2 | -0.149 (0.000) | -0.103 (0.000) | -0.127 (0.000) |
| Births delivered by Caesarean Section | 0.011 (0.304) | 0.008 (0.369) | 0.022 (0.079) |
| Constant | 3.55 (0.027) | 1.58 (0.284) | 3.41 (0.022) |
| Number of Observations | 707 | 707 | 707 |
| Log likelihood | -1724.98 | -1682.25 | -1685 |
| AIC | 3475.96 | 3392.5 | 3396.01 |
| Adjusted R square | 0.26 | 0.378 | 0.38 |
| Lag (Rho) Coefficient |  | 0.41 |  |
| Error (Lambda) Coefficient |  |  | 0.46 |
| **Anaemia** |  |  |  |
| Rural | -0.018 (0.287) | -0.007 (0.674) | -0.013 (0.484) |
| Poorest | -0.271 (0.000) | 0174 (0.000) | -0.109 (0.005) |
| Scheduled Castes/Tribes | 0.034 (00.106) | 0.023 (0.162) | 0.001 (0.951) |
| Ten or more years of Schooling | -0.124 (0.000) | -0.060 (0.011) | -0.068 (0.057) |
| Exposure to Mass Media | -0.060 (0.116) | -0.017 (0.618) | 0.021 (0.605) |
| Muslim | 0.035 (0.084) | 0.038 (0.036) | 0.046 (0.069) |
| Female Child | 0.248 (0.005) | 0.282 (0.000) | 0.199 (0.011) |
| Three or more Birth Order | 0.000 (0.991) | 0.031 (0.400) | 0.064 (0.191) |
| Children under 6 months exclusively breastfed | 0.033 (0.004) | 0.028 (0.006) | 0.023 (0.024) |
| Children 6-23 months receiving an adequate diet | -0.215 (0.000) | -0.135 (0.002) | -0.059 (0.219) |
| Women with Body Mass Index<18.5 kg/m2 | 0.195 (0.000) | 0.084 (0.0611) | 0.060 (0.291) |
| Household with Improved Sanitation | 0.110 (0.000) | 0.083 (0.001) | -0.085 (0.009) |
| Anaemic Mothers | 0.566 (0.000) | 0.465 (0.000) | 0.583 (0.000) |
| Constant | 43.69 (0.000) | 13.51 (0.012) | 30.22 (0.000) |
| Number of Observations | 707 | 707 | 707 |
| Log likelihood | -2491.62 | -2438.06 | -2449.29 |
| AIC | 5011.25 | 4906.12 | 4926.59 |
| Adjusted R square | 0.57 | 0.64 | 0.64 |
| Lag (Rho) Coefficient |  | 0.36 |  |
| Error (Lambda) Coefficient |  |  | 0.55 |

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| **Table S3.** Result of quantile regression with proportion of children who were stunted, underweight and anaemia by some selected characteristics in 707 districts of India, NFHS-5 (2019-21) | | | | |
| **Childhood Stunting** | **q25** | **q50** | **q75** | **q90** |
| Rural | -0.0437\*\*\* | -0.0213 | -0.0222 | -0.00588 |
| Poorest | -0.000407 | -0.00157 | 0.0377 | 0.0205 |
| Scheduled Castes/Tribes | 0.0154 | 0.0128 | -0.0086 | -0.0169 |
| Ten or more years of Schooling | 0.029 | -0.0109 | -0.017 | -0.0224 |
| Exposure to Mass Media | -0.0805 | -0.0375 | -0.0111 | 0.0117 |
| Muslim | 0.0206 | 0.0274 | 0.0165 | 0.0213 |
| Female Child | -0.0206 | 0.0977 | 0.0909 | 0.0947 |
| Three or more Birth Order | 0.252\*\*\* | 0.295\*\*\* | 0.372\*\*\* | 0.389\*\*\* |
| Children under 6 months exclusively breastfed | 0.0153 | 0.0105 | 0.0148 | -0.0129 |
| Children 6-23 months receiving an adequate diet | -0.0947 | -0.0278 | -0.0157 | -0.0312 |
| Women with Body Mass Index<18.5 kg/m2 | 0.305\*\*\* | 0.390\*\*\* | 0.342\*\*\* | 0.310\*\*\* |
| Household with Improved Sanitation | -0.122\*\*\* | -0.0708\*\* | -0.0422 | -0.0491 |
| Constant | 36.28\*\*\* | 24.40\*\* | 23.91\*\*\* | 27.30\*\*\* |
| **Childhood Overweight** | **q25** | **q50** | **q75** | **q90** |
| Urban | 0.00565 | 0.00683 | 0.0137 | 0.00905 |
| Richest | -0.0132 | -0.0194\*\* | -0.0341\*\* | -0.0506\* |
| Scheduled Castes/Tribes | 0.00878 | 0.0261\*\*\* | 0.0513\*\*\* | 0.0514\*\*\* |
| Ten or more years of Schooling | -0.00245 | 0.0196\* | 0.0299\* | 0.000993 |
| Exposure to Mass Media | -0.00213 | -0.0116 | -0.0136 | 0.000273 |
| Muslim | 0.0101 | 0.0281\* | 0.0411\*\*\* | 0.0247\* |
| Female Child | 0.0173 | 0.0487 | 0.0990\* | 0.155\* |
| Three or more Birth Order | -0.00903 | -0.0236 | -0.0635\* | -0.102\*\* |
| Children under 6 months exclusively Breastfed | -0.00264 | -0.000952 | -0.000321 | 0.00437 |
| Children 6-23 months receiving an adequate diet | 0.0238 | 0.00363 | 0.0195 | 0.0038 |
| Women with Body Mass Index<18.5 kg/m2 | -0.0870\*\*\* | -0.123\*\*\* | -0.192\*\*\* | -0.266\*\*\* |
| Births delivered by Caesarean Section | 0.0161 | 0.0125 | -0.00922 | -0.0107 |
| Constant | 0.328 | -0.459 | -1.687 | 0.506 |
| **Childhood Anaemia** | **q25** | **q50** | **q75** | **q90** |
| Rural | -0.0118 | -0.0563 | -0.0509\* | -0.0225 |
| Poorest | -0.351\*\*\* | -0.260\*\*\* | -0.233\*\*\* | -0.259\*\*\* |
| Scheduled Castes/Tribes | 0.0184 | 0.0278 | 0.0488 | 0.0702\*\* |
| Ten or more years of Schooling | -0.195\*\*\* | -0.146\*\*\* | -0.181\*\*\* | -0.174\*\*\* |
| Exposure to Mass Media | -0.140\* | -0.0896 | -0.0756 | -0.064 |
| Muslim | 0.029 | 0.0231 | 0.0144 | 0.0249 |
| Female Child | -0.0029 | 0.148 | 0.0804 | -0.0445 |
| Three or more Birth Order | -0.114 | -0.0930\* | -0.147\*\* | -0.122\* |
| Children under 6 months exclusively Breastfed | 0.0451\*\* | 0.0392\*\* | 0.0286 | 0.0258 |
| Children 6-23 months receiving an adequate diet | -0.191\* | -0.164\*\* | -0.257\*\*\* | -0.221\*\*\* |
| Women with Body Mass Index<18.5 kg/m2 | 0.217\*\* | 0.109 | 0.0646 | 0.0638 |
| Household with Improved Sanitation | -0.155\*\*\* | -0.175\*\*\* | -0.152\*\*\* | -0.145\*\*\* |
| Anaemic Mothers | 0.485\*\*\* | 0.528\*\*\* | 0.472\*\*\* | 0.469\*\*\* |
| Constant | 71.29\*\*\* | 65.26\*\*\* | 77.62\*\*\* | 82.85\*\*\* |