**Additional file 1**

**Table S1.** Prevalence and concentration index of suspected developmental delay, with missing income imputed.

|  |  |  |
| --- | --- | --- |
| Domain | Developmental delay N (%) | Concentration index (95% CI) |
| Communication | 303 (11.2) | -0.1318 (-0.1921, -0.0716) |
| Gross motor | 489 (18.1) | -0.0965 (-0.1425, -0.0504) |
| Fine motor | 586 (21.7) | -0.1200 (-0.1600, -0.0801) |
| Problem solving | 505 (18.7) | -0.1527 (-0.1972, -0.1082) |
| Personal-social | 490 (18.2) | -0.1298 (-0.1747, -0.0850) |
| Overall developmental delay | 1061 (39.4) | -0.0803 (-0.1070, -0.0536) |

**Table S2.** Associations of socioeconomic factors with suspected developmental delay, with missing income imputed.

|  |  |  |  |
| --- | --- | --- | --- |
|  | Developmental delay | |  |
|  | OR (95%CI) | *P*-value |  |
| **Household** |  |  |  |
| Region (Guizhou vs. Shanxi) | 1.12 (0.94, 1.35) | 0.211 |  |
| Per capita net income (1000 CNY) | 0.97 (0.95, 0.99) | 0.008 |  |
| **Caregiver** |  |  |  |
| Education (Middle school or above vs. Primary school or below) | 0.85 (0.70, 1.02) | 0.080 |  |
| Depression (Yes vs. No) | 2.21 (1.86, 2.62) | ＜0.001 |  |
| **Child** |  |  |  |
| Age (month) | 0.94 (0.93, 0.95) | ＜0.001 |  |
| Gender (Male vs. Female) | 1.14 (0.96, 1.34) | 0.145 |  |
| Stunting (Yes vs. No) | 1.37 (1.08, 1.74) | 0.010 |  |
| Wasting (Yes vs. No) | 1.37 (0.89, 2.10) | 0.149 |  |
| Learning material (Yes vs. No) | 0.57 (0.44, 0.76) | ＜0.001 |  |
| Support-for-learning (Yes vs. No) | 0.59 (0.47, 0.73) | ＜0.001 |  |

**Table S3.** Contributions of socioeconomic factors to inequality in suspected developmental delay, with missing income imputed.

|  |  |  |  |
| --- | --- | --- | --- |
|  | Contribution | Contribution rate (%) |  |
| **Household** |  |  |  |
| Live in Guizhou | -0.0037 | 4.6 |  |
| Per capita net income (1000 CNY) | -0.0290 | 36.1 |  |
| **Caregiver** |  |  |  |
| Middle school or above | -0.0047 | 5.8 |  |
| Depression | -0.0126 | 15.7 |  |
| **Child** |  |  |  |
| Age (month) | 0.0003 | -0.4 |  |
| Male | -0.0004 | 0.5 |  |
| Stunting | -0.0021 | 2.6 |  |
| Wasting | -0.0006 | 0.8 |  |
| Learning material | -0.0066 | 8.3 |  |
| Support-for-learning | -0.0097 | 12.0 |  |

**Table S4.** Associations of socioeconomic factors with suspected developmental delay, with different cutoff points.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | 10% Cutoff points | |  | 15% Cutoff points | | |
|  | OR (95%CI) | *P*-value |  | OR (95%CI) | *P*-value | |
| **Household** |  |  |  |  | |  |
| Region (Guizhou vs. Shanxi) | 1.05 (0.83, 1.33) | 0.675 |  | 1.07 (0.87, 1.32) | | 0.517 |
| Per capita net income (1000 CNY) | 0.97 (0.94, 1.00) | 0.040 |  | 0.96 (0.94, 0.99) | | 0.004 |
| **Caregiver** |  |  |  |  | |  |
| Education (Middle school or above vs. Primary school or below) | 0.78 (0.61, 0.99) | 0.043 |  | 0.80 (0.64, 0.99) | | 0.042 |
| Depression (Yes vs. No) | 2.96 (2.38, 3.69) | ＜0.001 |  | 2.55 (2.10, 3.09) | | ＜0.001 |
| **Child** |  |  |  |  | |  |
| Age (month) | 1.01 (0.99, 1.02) | 0.409 |  | 1.00 (0.99, 1.01) | | 0.740 |
| Gender (Male vs. Female) | 1.01 (0.81, 1.25) | 0.961 |  | 1.11 (0.92, 1.36) | | 0.275 |
| Stunting (Yes vs. No) | 1.56 (1.16, 2.09) | 0.003 |  | 1.45 (1.10, 1.90) | | 0.007 |
| Wasting (Yes vs. No) | 1.35 (0.76, 2.30) | 0.289 |  | 1.65 (0.99, 2.72) | | 0.051 |
| Learning material (Yes vs. No) | 0.49 (0.35, 0.70) | ＜0.001 |  | 0.57 (0.41, 0.79) | | 0.001 |
| Support-for-learning (Yes vs. No) | 0.74 (0.55, 1.00) | 0.044 |  | 0.75 (0.57, 0.98) | | 0.037 |

**Table S5.** Concentration index of suspected developmental delay, with different cutoff points.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | Concentration index (95% CI) | | | |
|  | | 10% Cutoff points | 15% Cutoff points | |
| Communication | | -0.0903 (-0.1696, -0.0111) | | -0.0936 (-0.1567, -0.0306) |
| Gross motor | | -0.1299 (-0.2079, -0.0519) | | -0.1026 (-0.1658, -0.0394) |
| Fine motor | | -0.2417 (-0.3209, -0.1626) | | -0.2034 (-0.2662, -0.1406) |
| Problem solving | | -0.2173 (-0.3008, -0.1338) | | -0.2009 (-0.2621, -0.1396) |
| Personal-social | | -0.1357 (-0.2170, -0.0545) | | -0.1452 (-0.2067, -0.0837) |
| Overall developmental delay | | -0.1342 (-0.1813, -0.0872) | | -0.1100 (-0.1465, -0.0733) |

**Table S6.** Contributions of socioeconomic factors to inequality in suspected developmental delay, with different cutoff points.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | 10% Cutoff points | |  | 15% Cutoff points | |
|  | Contribution | Contribution rate (%) |  | Contribution | Contribution rate (%) |
| **Household** |  |  |  |  |  |
| Live in Guizhou | -0.0024 | 1.8 |  | -0.0029 | 2.6 |
| Per capita net income (1000 CNY) | -0.0429 | 31.9 |  | -0.0476 | 43.3 |
| **Caregiver** |  |  |  |  |  |
| Middle school or above | -0.0109 | 8.1 |  | -0.0087 | 7.9 |
| Depression | -0.0223 | 16.6 |  | -0.0168 | 15.3 |
| **Child** |  |  |  |  |  |
| Age (month) | 0.0001 | -0.1 |  | 0.0001 | -0.1 |
| Male | -0.0001 | 0.0 |  | -0.0003 | 0.3 |
| Stunting | -0.0050 | 3.7 |  | -0.0036 | 3.3 |
| Wasting | -0.0006 | 0.4 |  | -0.0009 | 0.8 |
| Learning material | 0.0238 | 9.2 |  | -0.0081 | 7.4 |
| Support-for-learning | -0.0062 | 4.6 |  | -0.0052 | 4.7 |