**TABLE 1**

**Children Socio Demographics Summaries**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | **Total No. 260** | **Abnormal UmA-RI No. 35** | **Normal UmA-RI No. 225** | **P-value** |
| **Sex** | | | | 0.59 |
| 1 | 126 (48.5%) | 15 (42.9%) | 111 (49.3%) |  |
| 2 | 134 (51.5%) | 20 (57.1%) | 114 (50.7%) |  |
| **Premature** | | | | **0.007** |
| 0 | 236 (90.8%) | 27 (77.1%) | 209 (92.9%) |  |
| 1 | 24 (9.2%) | 8 (22.9%) | 16 (7.1%) |  |
| Birth\_Weight\_kg | 3.1 (±0.5) | 3.0 (±0.7) | 3.1 (±0.5) | **0.021** |
| **Birth\_Length\_cm** | | | | 0.16 |
| Mean (SD) | 50.2 (±2.9) | 49.2 (±3.1) | 50.4 (±2.9) |  |
| Missing | 10 (3.8%) | 4 (11.4%) | 6 (2.7%) |  |
| **Birth\_HC\_cm** | | | | **0.003** |
| Mean (SD) | 34.3 (±1.7) | 33.5 (±2.2) | 34.4 (±1.6) |  |
| Missing | 7 (2.7%) | 3 (8.6%) | 4 (1.8%) |  |
| RI\_Z\_SCORE | 0.2 (±0.9) | 1.7 (±0.8) | 0.0 (±0.6) | **0.012** |
| **WeightZScore** | | | | 0.42 |
| Mean (SD) | -0.4 (±1.1) | -0.7 (±1.0) | -0.4 (±1.1) |  |
| Missing | 1 (0.4%) | 0 (0%) | 1 (0.4%) |  |
| **LengthZScore** | | | | 0.15 |
| Mean (SD) | 0.5 (±1.5) | 0.5 (±1.2) | 0.5 (±1.6) |  |
| Missing | 11 (4.2%) | 3 (8.6%) | 8 (3.6%) |  |
| **HCZScore** | | | | 0.24 |
| Mean (SD) | 0.4 (±1.3) | 0.4 (±1.0) | 0.4 (±1.3) |  |
| Missing | 9 (3.5%) | 2 (5.7%) | 7 (3.1%) |  |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | **Total No. 260** | **Abnormal UmA-RI No. 35** | **Normal UmA-RI No. 225** | **P-value** |
| **infant\_receive\_any\_vitamins\_or\_supplement\_drops** | | | | 0.30 |
| No | 207 (79.6%) | 30 (85.7%) | 177 (78.7%) |  |
| Yes | 51 (19.6%) | 4 (11.4%) | 47 (20.9%) |  |
| Missing | 2 (0.8%) | 1 (2.9%) | 1 (0.4%) |  |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | **Total No. 260** | **Abnormal UmA-RI No. 35** | **Normal UmA-RI No. 225** | **P-value** |
| **Ever\_breastfeed\_or\_try\_to\_breastfeed** | | | | 0.37 |
| 0 | 11 (4.2%) | 0 (0.0%) | 11 (4.9%) |  |
| 1 | 249 (95.8%) | 35 (100.0%) | 214 (95.1%) |  |
| **infant\_feeding\_from\_birth\_until\_6\_months...7** | | | | **0.031** |
| 1 | 41 (15.8%) | 8 (22.9%) | 33 (14.7%) |  |
| 2 | 127 (48.8%) | 13 (37.1%) | 114 (50.7%) |  |
| 3 | 20 (7.7%) | 7 (20.0%) | 13 (5.8%) |  |
| 4 | 31 (11.9%) | 3 (8.6%) | 28 (12.4%) |  |
| 5 | 14 (5.4%) | 0 (0.0%) | 14 (6.2%) |  |
| 6 | 23 (8.8%) | 3 (8.6%) | 20 (8.9%) |  |
| 7 | 3 (1.2%) | 1 (2.9%) | 2 (0.9%) |  |
| Missing | 1 (0.4%) | 0 (0.0%) | 1 (0.4%) |  |
| **infant\_feeding\_from\_birth\_until\_6\_months...8** | | | | **0.015** |
| 1 | 169 (65.0%) | 21 (60.0%) | 148 (65.8%) |  |
| 2 | 15 (5.8%) | 0 (0.0%) | 15 (6.7%) |  |
| 3 | 55 (21.2%) | 7 (20.0%) | 48 (21.3%) |  |
| 4 | 20 (7.7%) | 7 (20.0%) | 13 (5.8%) |  |
| Missing | 1 (0.4%) | 0 (0.0%) | 1 (0.4%) |  |
| **Currently\_breastfeeding** | | | | 0.90 |
| 0 | 194 (74.6%) | 25 (71.4%) | 169 (75.1%) |  |
| 1 | 60 (23.1%) | 7 (20.0%) | 53 (23.6%) |  |
| 7 | 1 (0.4%) | 0 (0.0%) | 1 (0.4%) |  |
| Missing | 5 (1.9%) | 3 (8.6%) | 2 (0.9%) |  |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | **Total No. 260** | **Negative No. 198** | **Positive No. 62** | **P-value** |
| **HCZScore** | | | | 0.44 |
| Mean (SD) | 0.4 (±1.3) | 0.4 (±1.3) | 0.3 (±1.2) |  |
| Missing | 9 (3.5%) | 7 (3.5%) | 2 (3.2%) |  |
| **WeightZScore** | | | | 0.42 |
| Mean (SD) | -0.4 (±1.1) | -0.4 (±1.1) | -0.7 (±1.0) |  |
| Missing | 1 (0.4%) | 1 (0.5%) | 0 (0%) |  |
| **LengthZScore** | | | | 0.69 |
| Mean (SD) | 0.5 (±1.5) | 0.6 (±1.6) | 0.2 (±1.3) |  |
| Missing | 11 (4.2%) | 8 (4.0%) | 3 (4.8%) |  |
| Birth\_Weight\_kg | 3.1 (±0.5) | 3.1 (±0.5) | 3.2 (±0.6) | 0.090 |
| **Birth\_Length\_cm** | | | | 0.36 |
| Mean (SD) | 50.2 (±2.9) | 50.4 (±3.1) | 49.6 (±2.3) |  |
| Missing | 10 (3.8%) | 7 (3.5%) | 3 (4.8%) |  |
| **Birth\_HC\_cm** | | | | 0.78 |
| Mean (SD) | 34.3 (±1.7) | 34.3 (±1.7) | 34.3 (±1.5) |  |
| Missing | 7 (2.7%) | 6 (3.0%) | 1 (1.6%) |  |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | **Total No. 260** | **Negative No. 198** | **Positive No. 62** | **P-value** |
| **infant\_receive\_any\_vitamins\_or\_supplement\_drops** | | | | 0.35 |
| No | 207 (79.6%) | 155 (78.3%) | 52 (83.9%) |  |
| Yes | 51 (19.6%) | 42 (21.2%) | 9 (14.5%) |  |
| Missing | 2 (0.8%) | 1 (0.5%) | 1 (1.6%) |  |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | **Total No. 260** | **Positive No. 62** | **Negative No. 198** | **P-value** |
| **Ever\_breastfeed\_or\_try\_to\_breastfeed** | | | | 0.73 |
| 0 | 11 (4.2%) | 3 (4.8%) | 8 (4.0%) |  |
| 1 | 249 (95.8%) | 59 (95.2%) | 190 (96.0%) |  |
| **infant\_feeding\_from\_birth\_until\_6\_months...7** | | | | **0.006** |
| 1 | 41 (15.8%) | 10 (16.1%) | 31 (15.7%) |  |
| 2 | 127 (48.8%) | 28 (45.2%) | 99 (50.0%) |  |
| 3 | 20 (7.7%) | 11 (17.7%) | 9 (4.5%) |  |
| 4 | 31 (11.9%) | 3 (4.8%) | 28 (14.1%) |  |
| 5 | 14 (5.4%) | 4 (6.5%) | 10 (5.1%) |  |
| 6 | 23 (8.8%) | 4 (6.5%) | 19 (9.6%) |  |
| 7 | 3 (1.2%) | 2 (3.2%) | 1 (0.5%) |  |
| Missing | 1 (0.4%) | 0 (0.0%) | 1 (0.5%) |  |
| **infant\_feeding\_from\_birth\_until\_6\_months...8** | | | | **0.004** |
| 1 | 169 (65.0%) | 39 (62.9%) | 130 (65.7%) |  |
| 2 | 15 (5.8%) | 4 (6.5%) | 11 (5.6%) |  |
| 3 | 55 (21.2%) | 8 (12.9%) | 47 (23.7%) |  |
| 4 | 20 (7.7%) | 11 (17.7%) | 9 (4.5%) |  |
| Missing | 1 (0.4%) | 0 (0.0%) | 1 (0.5%) |  |
| **Currently\_breastfeeding** | | | | **0.038** |
| 0 | 194 (74.6%) | 53 (85.5%) | 141 (71.2%) |  |
| 1 | 60 (23.1%) | 7 (11.3%) | 53 (26.8%) |  |
| 7 | 1 (0.4%) | 0 (0.0%) | 1 (0.5%) |  |
| Missing | 5 (1.9%) | 2 (3.2%) | 3 (1.5%) |  |

**Maternal Socio Demographics Summaries**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | **Total No. 260** | **Abnormal UmA-RI No. 35** | **Normal UmA-RI No. 225** | **P-value** |
| **RI\_Z\_SCORE** | 0.2 (±0.9) | 1.7 (±0.8) | 0.0 (±0.6) | **0.012** |
| **Birth\_Weight\_kg** | 3.1 (±0.5) | 3.0 (±0.7) | 3.1 (±0.5) | **0.021** |
| **abortion\_miscariages** | | | | 0.44 |
| 0 | 195 (75.0%) | 29 (82.9%) | 166 (73.8%) |  |
| 1 | 59 (22.7%) | 5 (14.3%) | 54 (24.0%) |  |
| 2 | 6 (2.3%) | 1 (2.9%) | 5 (2.2%) |  |
| **Iron\_supplement/ferrous\_sulphate** | | | | 0.096 |
| No | 211 (81.2%) | 25 (71.4%) | 186 (82.7%) |  |
| Yes | 44 (16.9%) | 10 (28.6%) | 34 (15.1%) |  |
| Missing | 5 (1.9%) | 0 (0.0%) | 5 (2.2%) |  |
| **Folic\_acid\_supplementation** | | | | **0.022** |
| No | 218 (83.8%) | 25 (71.4%) | 193 (85.8%) |  |
| Yes | 37 (14.2%) | 10 (28.6%) | 27 (12.0%) |  |
| Missing | 5 (1.9%) | 0 (0.0%) | 5 (2.2%) |  |
| **Maternal\_TB\_status** | | | | 0.58 |
| Never | 240 (92.3%) | 32 (91.4%) | 208 (92.4%) |  |
| Previous | 4 (1.5%) | 0 (0.0%) | 4 (1.8%) |  |
| Unknown | 4 (1.5%) | 1 (2.9%) | 3 (1.3%) |  |
| Missing | 12 (4.6%) | 2 (5.7%) | 10 (4.4%) |  |
| **Latest\_CD4** | | | | 0.51 |
| Mean (SD) | 428.8 (±293.8) | 336.0 (±232.3) | 455.3 (±311.4) |  |
| Missing | 242 (93.1%) | 31 (88.6%) | 211 (93.8%) |  |
| **Latest\_Viral\_load** | | | | 0.54 |
| Mean (SD) | 18.4 (±59.1) | 4.1 (±14.1) | 25.3 (±70.7) |  |
| Missing | 223 (85.8%) | 23 (65.7%) | 200 (88.9%) |  |
| **drink\_alcohol** | | | | **0.008** |
| 0 | 190 (73.1%) | 32 (91.4%) | 158 (70.2%) |  |
| 1 | 67 (25.8%) | 2 (5.7%) | 65 (28.9%) |  |
| Missing | 3 (1.2%) | 1 (2.9%) | 2 (0.9%) |  |
| **Do\_you\_smoke\_cigarettes** | | | | 0.72 |
| 0 | 253 (97.3%) | 34 (97.1%) | 219 (97.3%) |  |
| 1 | 6 (2.3%) | 0 (0.0%) | 6 (2.7%) |  |
| Missing | 1 (0.4%) | 1 (2.9%) | 0 (0.0%) |  |
| **Marital\_status** | | | | 0.26 |
| 1 | 105 (40.4%) | 10 (28.6%) | 95 (42.2%) |  |
| 2 | 98 (37.7%) | 17 (48.6%) | 81 (36.0%) |  |
| 3 | 57 (21.9%) | 8 (22.9%) | 49 (21.8%) |  |
| **Mothers\_highest\_level\_of\_education** | | | | 0.31 |
| 1 | 24 (9.2%) | 2 (5.7%) | 22 (9.8%) |  |
| 2 | 179 (68.8%) | 28 (80.0%) | 151 (67.1%) |  |
| 3 | 57 (21.9%) | 5 (14.3%) | 52 (23.1%) |  |
| **Mothers\_current\_employment** | | | | 1.0 |
| 0 | 157 (60.4%) | 21 (60.0%) | 136 (60.4%) |  |
| 1 | 103 (39.6%) | 14 (40.0%) | 89 (39.6%) |  |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | **Total No. 260** | **Abnormal UmA-RI No. 35** | **Normal UmA-RI No. 225** | **P-value** |
| **parity** | 2.0 (2.0 - 3.0) | 2.0 (2.0 - 3.0) | 2.0 (2.0 - 3.0) | **0.83** |
| **Gravidity** | 2.0 (2.0 - 3.0) | 2.0 (2.0 - 3.0) | 2.0 (2.0 - 3.0) | **0.77** |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | **Total No. 260** | **Negative No. 198** | **Positive No. 62** | **P-value** |
| **RI\_Z\_SCORE** | 0.2 (±0.9) | 0.2 (±0.9) | 0.3 (±1.0) | 0.32 |
| **Birth\_Weight\_kg** | 3.1 (±0.5) | 3.1 (±0.5) | 3.2 (±0.6) | 0.090 |
| **abortion\_miscariages** | | | | 0.11 |
| 0 | 195 (75.0%) | 152 (76.8%) | 43 (69.4%) |  |
| 1 | 59 (22.7%) | 40 (20.2%) | 19 (30.6%) |  |
| 2 | 6 (2.3%) | 6 (3.0%) | 0 (0.0%) |  |
| **Iron\_supplement/ferrous\_sulphate** | | | | **0.0004** |
| No | 211 (81.2%) | 171 (86.4%) | 40 (64.5%) |  |
| Yes | 44 (16.9%) | 24 (12.1%) | 24 (38.7%) |  |
| Missing | 5 (1.9%) | 3 (1.5%) | 2 (3.2%) |  |
| **Folic\_acid\_supplementation** | | | | **< 0.0001** |
| No | 218 (83.8%) | 177 (89.4%) | 41 (66.1%) |  |
| Yes | 37 (14.2%) | 18 (9.1%) | 19 (30.6%) |  |
| Missing | 5 (1.9%) | 3 (1.5%) | 2 (3.2%) |  |
| **Maternal\_TB\_status** | | | | 0.41 |
| Never | 240 (92.3%) | 187 (94.4%) | 53 (85.5%) |  |
| Previous | 4 (1.5%) | 2 (1.0%) | 2 (3.2%) |  |
| Unknown | 4 (1.5%) | 3 (1.5%) | 1 (1.6%) |  |
| Missing | 12 (4.6%) | 6 (3.0%) | 6 (9.7%) |  |
| **drink\_alcohol** | | | | 1.00 |
| 0 | 190 (73.1%) | 145 (73.2%) | 45 (72.6%) |  |
| 1 | 67 (25.8%) | 51 (25.8%) | 16 (25.8%) |  |
| Missing | 3 (1.2%) | 2 (1.0%) | 1 (1.6%) |  |
| **Do\_you\_smoke\_cigarettes** | | | | 0.95 |
| 0 | 253 (97.3%) | 193 (97.5%) | 60 (96.8%) |  |
| 1 | 6 (2.3%) | 4 (2.0%) | 2 (3.2%) |  |
| Missing | 1 (0.4%) | 1 (0.5%) | 0 (0.0%) |  |
| **Marital\_status** | | | | 0.49 |
| 1 | 105 (40.4%) | 82 (41.4%) | 23 (37.1%) |  |
| 2 | 98 (37.7%) | 76 (38.4%) | 22 (35.5%) |  |
| 3 | 57 (21.9%) | 40 (20.2%) | 17 (27.4%) |  |
| **Mothers\_highest\_level\_of\_education** | | | | 0.57 |
| 1 | 24 (9.2%) | 19 (9.6%) | 5 (8.1%) |  |
| 2 | 179 (68.8%) | 133 (67.2%) | 46 (74.2%) |  |
| 3 | 57 (21.9%) | 46 (23.2%) | 11 (17.7%) |  |
| **Mothers\_current\_employment** | | | | 0.88 |
| 0 | 157 (60.4%) | 119 (60.1%) | 38 (61.3%) |  |
| 1 | 103 (39.6%) | 79 (39.9%) | 24 (38.7%) |  |

|  |  |  |  |
| --- | --- | --- | --- |
|  | **Total No. 260** | **Negative No. 198** | **Positive No. 62** |
| **Latest\_CD4** | | | |
| Mean (SD) | 428.8 (±293.8) | (±) | 428.8 (±293.8) |
| Missing | 242 (93.1%) | 198 (100.0%) | 44 (71.0%) |
| **Latest\_Viral\_load** | | | |
| Mean (SD) | 18.4 (±59.1) | (±) | 18.4 (±59.1) |
| Missing | 223 (85.8%) | 198 (100.0%) | 25 (40.3%) |
| **Current\_ART** | | | |
| 1 | 39 (15.0%) | 0 (0.0%) | 39 (62.9%) |
| 2 | 15 (5.8%) | 0 (0.0%) | 15 (24.2%) |
| Missing | 206 (79.2%) | 198 (100.0%) | 8 (12.9%) |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | **Total No. 260** | **Negative No. 198** | **Positive No. 62** | **P-value** |
| **parity** | 2.0 (2.0 - 3.0) | 2.0 (1.0 - 3.0) | 2.0 (2.0 - 3.0) | **0.040** |
| **Gravidity** | 2.0 (2.0 - 3.0) | 2.0 (2.0 - 3.0) | 3.0 (2.0 - 3.0) | **0.054** |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | **Total No. 260** | **Abnormal UmA-RI No. 35** | **Normal UmA-RI No. 225** | **P-value** |
| **Age (years)** | | | | **0.015** |
| Mean (SD) | 30.6 (±5.4) | 32.1 (±6.5) | 30.3 (±5.2) |  |
| Missing | 8 (3.1%) | 1 (2.9%) | 7 (3.1%) |  |
| **Weight (kg)** | | | | 0.19 |
| Mean (SD) | 76.6 (±20.8) | 67.1 (±18.1) | 78.1 (±20.8) |  |
| Missing | 8 (3.1%) | 1 (2.9%) | 7 (3.1%) |  |
| **Height (cm)** | | | | 0.34 |
| Mean (SD) | 160.2 (±6.7) | 158.0 (±5.2) | 160.6 (±6.8) |  |
| Missing | 8 (3.1%) | 1 (2.9%) | 7 (3.1%) |  |
| **BMI (kg/m²)** | | | | 0.47 |
| Mean (SD) | 29.8 (±7.8) | 26.8 (±6.5) | 30.3 (±7.9) |  |
| Missing | 8 (3.1%) | 1 (2.9%) | 7 (3.1%) |  |
| **MUAC (cm):** | | | | 0.42 |
| Mean (SD) | 31.8 (±5.2) | 29.6 (±4.6) | 32.1 (±5.2) |  |
| Missing | 8 (3.1%) | 1 (2.9%) | 7 (3.1%) |  |
| **Maternal Triceps Skin Fold Thickness (mm)** | | | | 0.86 |
| Mean (SD) | 20.2 (±5.5) | 19.6 (±4.5) | 20.3 (±5.7) |  |
| Missing | 13 (5.0%) | 1 (2.9%) | 12 (5.3%) |  |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | **Total No. 260** | **Negative No. 198** | **Positive No. 62** | **P-value** |
| **Age (years)** | | | | 0.16 |
| Mean (SD) | 30.6 (±5.4) | 30.0 (±5.1) | 32.5 (±5.8) |  |
| Missing | 8 (3.1%) | 6 (3.0%) | 2 (3.2%) |  |
| **Weight (kg)** | | | | 0.43 |
| Mean (SD) | 76.6 (±20.8) | 76.9 (±19.8) | 75.6 (±23.9) |  |
| Missing | 8 (3.1%) | 6 (3.0%) | 2 (3.2%) |  |
| **Height (cm)** | | | | 0.20 |
| Mean (SD) | 160.2 (±6.7) | 159.9 (±6.1) | 161.3 (±8.1) |  |
| Missing | 8 (3.1%) | 6 (3.0%) | 2 (3.2%) |  |
| **BMI (kg/m²)** | | | | 0.47 |
| Mean (SD) | 29.8 (±7.8) | 30.1 (±7.7) | 28.8 (±8.1) |  |
| Missing | 8 (3.1%) | 6 (3.0%) | 2 (3.2%) |  |
| **MUAC (cm):** | | | | 0.53 |
| Mean (SD) | 31.8 (±5.2) | 32.0 (±5.0) | 31.1 (±5.7) |  |
| Missing | 8 (3.1%) | 6 (3.0%) | 2 (3.2%) |  |
| **Maternal Triceps Skin Fold Thickness (mm)** | | | | 0.44 |
| Mean (SD) | 20.2 (±5.5) | 20.0 (±5.4) | 20.8 (±5.9) |  |
| Missing | 13 (5.0%) | 9 (4.5%) | 4 (6.5%) |  |

**Table 2**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | **Total No. 260** | **Abnormal UmA-RI No. 35** | **Normal UmA-RI No. 225** | **P-value** |
| **Age\_(m)** | 18.6 (±0.8) | 18.5 (±0.7) | 18.6 (±0.9) | 0.93 |
| **Weight\_(kg)** | 10.8 (±1.6) | 10.4 (±1.7) | 10.8 (±1.6) | 0.045 |
| **Length\_(cm)** | 81.4 (±3.8) | 79.8 (±4.1) | 81.7 (±3.7) | **0.006** |
| **MUAC\_(cm)** | | | | 0.74 |
| Mean (SD) | 16.1 (±1.5) | 16.2 (±1.6) | 16.1 (±1.5) |  |
| Missing | 1 (0.4%) | 0 (0%) | 1 (0.4%) |  |
| **HC\_(cm)** | | | | 0.46 |
| Mean (SD) | 48.1 (±1.7) | 47.9 (±1.7) | 48.1 (±1.7) |  |
| Missing | 6 (2.3%) | 1 (2.9%) | 5 (2.2%) |  |
| **WHZ** | 0.1 (±1.3) | 0.0 (±1.1) | 0.1 (±1.3) | 0.77 |
| **HAZ** | -0.2 (±1.3) | -0.7 (±1.5) | -0.1 (±1.3) | **0.020** |
| **WAZ** | 0.0 (±1.2) | -0.3 (±1.3) | 0.0 (±1.2) | 0.11 |
| **HCZ** | | | | 0.70 |
| Mean (SD) | 0.9 (±1.2) | 0.8 (±1.3) | 0.9 (±1.2) |  |
| Missing | 6 (2.3%) | 1 (2.9%) | 5 (2.2%) |  |
| **MUACZ** | | | | 0.57 |
| Mean (SD) | 1.1 (±1.1) | 1.2 (±1.2) | 1.1 (±1.1) |  |
| Missing | 1 (0.4%) | 0 (0%) | 1 (0.4%) |  |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | **Total No. 260** | **Negative No. 198** | **Positive No. 62** | **P-value** |
| **Age\_(m)** | 18.6 (±0.8) | 18.5 (±0.8) | 18.6 (±0.8) | 0.18 |
| **Weight\_(kg)** | 10.8 (±1.6) | 10.9 (±1.6) | 10.5 (±1.7) | 0.13 |
| **Length\_(cm)** | 81.4 (±3.8) | 81.8 (±3.8) | 80.2 (±3.4) | **0.023** |
| **MUAC\_(cm)** | | | | 0.90 |
| Mean (SD) | 16.1 (±1.5) | 16.1 (±1.5) | 16.2 (±1.6) |  |
| Missing | 1 (0.4%) | 0 (0%) | 1 (1.6%) |  |
| **HC\_(cm)** | | | | 0.24 |
| Mean (SD) | 48.1 (±1.7) | 48.1 (±1.6) | 47.9 (±1.8) |  |
| Missing | 6 (2.3%) | 6 (3.0%) | 0 (0%) |  |
| **WHZ** | 0.1 (±1.3) | 0.1 (±1.2) | 0.1 (±1.3) | 0.95 |
| **HAZ** | -0.2 (±1.3) | -0.1 (±1.3) | -0.7 (±1.2) | **0.014** |
| **WAZ** | 0.0 (±1.2) | 0.0 (±1.2) | -0.2 (±1.3) | 0.17 |
| **HCZ** | | | | 0.23 |
| Mean (SD) | 0.9 (±1.2) | 0.9 (±1.2) | 0.7 (±1.2) |  |
| Missing | 6 (2.3%) | 6 (3.0%) | 0 (0%) |  |
| **MUACZ** | | | | 0.79 |
| Mean (SD) | 1.1 (±1.1) | 1.1 (±1.1) | 1.1 (±1.2) |  |
| Missing | 1 (0.4%) | 0 (0%) | 1 (1.6%) |  |

**Table 4**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | **Child Hemoglobin concentration** | | **Maternal hemoglobin concentration** | |
|  | **Correlation coefficient (r)** | **P-value** | **Correlation coefficient (r)** | **P-value** |
| **Total population** |  |  |  |  |
| Child hemoglobin concentration |  |  | 0.108 | 0.0835 |
| Cognitive domain | 0.029 | 0.6431 | -0.048 | 0.4488 |
| Language domain | -0.0001 | 0.9982 | -0.080 | 0.2101 |
| Motor domain | 0.011 | 0.8653 | -0.161 | **0.0109** |
| **CHUU** |  |  |  |  |
| Child hemoglobin concentration |  |  | 0.052 | 0.4776 |
| Cognitive domain | 0.081 | 0.2584 | -0.082 | 0.2603 |
| Language domain | 0.117 | 0.1043 | -0.042 | 0.5639 |
| Motor domain | 0.157 | **0.0300** | -0.163 | **0.0247** |
| **CHEU** |  |  |  |  |
| Child hemoglobin concentration |  |  | 0.286 | **0.0279** |
| Cognitive domain | -0.173 | 0.1857 | 0.046 | 0.727 |
| Language domain | -0.400 | **0.0015** | -0.185 | 0.1601 |
| Motor domain | -0.399 | **0.0016** | -0.202 | 0.1247 |
| **Normal UmA-RI** |  |  |  |  |
| Child hemoglobin concentration |  |  | 0.118 | 0.0791 |
| Cognitive domain | 0.030 | 0.6554 | -0.082 | 0.2317 |
| Language domain | -0.014 | 0.8320 | -0.068 | 0.3242 |
| Motor domain | -0.020 | 0.7595 | -0.170 | **0.0128** |
| **Abnormal UmA-RI** |  |  |  |  |
| Child hemoglobin concentration |  |  | 0.140 | 0.4223 |
| Cognitive domain | -0.010 | 0.9558 | 0.074 | 0.6837 |
| Language domain | 0.080 | 0.6567 | -0.157 | 0.3839 |
| Motor domain | 0.236 | 0.1851 | -0.180 | 0.3162 |

**Visualization of the data (Correlation)**

























