**Socio-demographics Summaries**

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|  | **Total No. 260** | **CHEU Abnormal UmA-RI No. 15** | **CHEU Normal UmA-RI No. 47** | **CHUU Abnormal UmA-RI No. 20** | **CHUU Normal UmA-RI No. 178** | **P-value** |
| **Marital\_status** | | | | | | **0.33** |
| 1 | 105 (40.4%) | 6 (40.0%) | 17 (36.2%) | 4 (20.0%) | 78 (43.8%) |  |
| 2 | 98 (37.7%) | 5 (33.3%) | 17 (36.2%) | 12 (60.0%) | 64 (36.0%) |  |
| 3 | 57 (21.9%) | 4 (26.7%) | 13 (27.7%) | 4 (20.0%) | 36 (20.2%) |  |
| **Premature** | | | | | | **0.012** |
| 0 | 236 (90.8%) | 13 (86.7%) | 45 (95.7%) | 14 (70.0%) | 164 (92.1%) |  |
| 1 | 24 (9.2%) | 2 (13.3%) | 2 (4.3%) | 6 (30.0%) | 14 (7.9%) |  |
| RI\_Z\_SCORE | 0.2 (±0.9) | 1.7 (±0.7) | -0.1 (±0.6) | 1.7 (±0.9) | 0.0 (±0.7) | < 0.0001 |
| **HCZScore** | | | | | | **0.95** |
| Mean (SD) | 0.4 (±1.3) | 0.5 (±1.1) | 0.3 (±1.2) | 0.3 (±0.9) | 0.4 (±1.3) |  |
| Missing | 9 (3.5%) | 1 (6.7%) | 1 (2.1%) | 1 (5.0%) | 6 (3.4%) |  |
| **WeightZScore** | | | | | | **0.096** |
| Mean (SD) | -0.4 (±1.1) | -1.0 (±0.8) | -0.6 (±1.0) | -0.4 (±1.1) | -0.3 (±1.1) |  |
| Missing | 1 (0.4%) | 0 (0%) | 0 (0%) | 0 (0%) | 1 (0.6%) |  |
| **Access\_to\_running\_water** | | | | | | **0.14** |
| 1 | 45 (17.3%) | 2 (13.3%) | 9 (19.1%) | 3 (15.0%) | 31 (17.4%) |  |
| 2 | 84 (32.3%) | 6 (40.0%) | 11 (23.4%) | 2 (10.0%) | 65 (36.5%) |  |
| 3 | 131 (50.4%) | 7 (46.7%) | 27 (57.4%) | 15 (75.0%) | 82 (46.1%) |  |
| **Mothers\_highest\_level\_of\_education** | | | | | | **0.51** |
| 1 | 24 (9.2%) | 2 (13.3%) | 3 (6.4%) | 0 (0.0%) | 19 (10.7%) |  |
| 2 | 179 (68.8%) | 11 (73.3%) | 35 (74.5%) | 17 (85.0%) | 116 (65.2%) |  |
| 3 | 57 (21.9%) | 2 (13.3%) | 9 (19.1%) | 3 (15.0%) | 43 (24.2%) |  |
| **Mothers\_current\_employment** | | | | | | **0.93** |
| 0 | 157 (60.4%) | 10 (66.7%) | 28 (59.6%) | 11 (55.0%) | 108 (60.7%) |  |
| 1 | 103 (39.6%) | 5 (33.3%) | 19 (40.4%) | 9 (45.0%) | 70 (39.3%) |  |
| **Partners\_highest\_level\_of\_education** | | | | | | **0.66** |
| 1 | 10 (3.8%) | 1 (6.7%) | 2 (4.3%) | 0 (0.0%) | 7 (3.9%) |  |
| 2 | 165 (63.5%) | 10 (66.7%) | 26 (55.3%) | 16 (80.0%) | 113 (63.5%) |  |
| 3 | 49 (18.8%) | 3 (20.0%) | 10 (21.3%) | 2 (10.0%) | 34 (19.1%) |  |
| 6 | 1 (0.4%) | 0 (0.0%) | 0 (0.0%) | 0 (0.0%) | 1 (0.6%) |  |
| 99 | 26 (10.0%) | 1 (6.7%) | 9 (19.1%) | 1 (5.0%) | 15 (8.4%) |  |
| Missing | 9 (3.5%) | 0 (0.0%) | 0 (0.0%) | 1 (5.0%) | 8 (4.5%) |  |
| **Partners\_current\_employment** | | | | | | **0.75** |
| 0 | 40 (15.4%) | 1 (6.7%) | 8 (17.0%) | 2 (10.0%) | 29 (16.3%) |  |
| 1 | 211 (81.2%) | 14 (93.3%) | 39 (83.0%) | 18 (90.0%) | 140 (78.7%) |  |
| Missing | 9 (3.5%) | 0 (0.0%) | 0 (0.0%) | 0 (0.0%) | 9 (5.1%) |  |
| **Partners\_HIV\_status** | | | | | | **0.042** |
| 0 | 43 (16.5%) | 3 (20.0%) | 11 (23.4%) | 1 (5.0%) | 28 (15.7%) |  |
| 1 | 190 (73.1%) | 8 (53.3%) | 29 (61.7%) | 18 (90.0%) | 135 (75.8%) |  |
| 2 | 25 (9.6%) | 4 (26.7%) | 7 (14.9%) | 1 (5.0%) | 13 (7.3%) |  |
| Missing | 2 (0.8%) | 0 (0.0%) | 0 (0.0%) | 0 (0.0%) | 2 (1.1%) |  |
| **Monthly\_household\_income** | | | | | | **0.100** |
| 1 | 45 (17.3%) | 0 (0.0%) | 7 (14.9%) | 1 (5.0%) | 37 (20.8%) |  |
| 2 | 64 (24.6%) | 6 (40.0%) | 13 (27.7%) | 8 (40.0%) | 37 (20.8%) |  |
| 3 | 61 (23.5%) | 3 (20.0%) | 8 (17.0%) | 6 (30.0%) | 44 (24.7%) |  |
| 4 | 18 (6.9%) | 3 (20.0%) | 6 (12.8%) | 0 (0.0%) | 9 (5.1%) |  |
| 5 | 58 (22.3%) | 2 (13.3%) | 11 (23.4%) | 4 (20.0%) | 41 (23.0%) |  |
| 6 | 12 (4.6%) | 1 (6.7%) | 1 (2.1%) | 1 (5.0%) | 9 (5.1%) |  |
| Missing | 2 (0.8%) | 0 (0.0%) | 1 (2.1%) | 0 (0.0%) | 1 (0.6%) |  |
| **Access\_to\_internet** | | | | | | **0.007** |
| 0 | 43 (16.5%) | 0 (0.0%) | 11 (23.4%) | 4 (20.0%) | 28 (15.7%) |  |
| 1 | 35 (13.5%) | 1 (6.7%) | 8 (17.0%) | 8 (40.0%) | 18 (10.1%) |  |
| 2 | 17 (6.5%) | 2 (13.3%) | 3 (6.4%) | 0 (0.0%) | 12 (6.7%) |  |
| 3 | 160 (61.5%) | 11 (73.3%) | 24 (51.1%) | 7 (35.0%) | 118 (66.3%) |  |
| Missing | 5 (1.9%) | 1 (6.7%) | 1 (2.1%) | 1 (5.0%) | 2 (1.1%) |  |
| **drink\_alcohol** | | | | | | **0.012** |
| 0 | 190 (73.1%) | 15 (100.0%) | 30 (63.8%) | 17 (85.0%) | 128 (71.9%) |  |
| 1 | 67 (25.8%) | 0 (0.0%) | 16 (34.0%) | 2 (10.0%) | 49 (27.5%) |  |
| Missing | 3 (1.2%) | 0 (0.0%) | 1 (2.1%) | 1 (5.0%) | 1 (0.6%) |  |
| **abortion\_miscariages** | | | | | | **0.28** |
| 0 | 195 (75.0%) | 12 (80.0%) | 31 (66.0%) | 17 (85.0%) | 135 (75.8%) |  |
| 1 | 59 (22.7%) | 3 (20.0%) | 16 (34.0%) | 2 (10.0%) | 38 (21.3%) |  |
| 2 | 6 (2.3%) | 0 (0.0%) | 0 (0.0%) | 1 (5.0%) | 5 (2.8%) |  |
| **Access\_to\_toilet** | | | | | | **0.65** |
| 1 | 178 (68.5%) | 9 (60.0%) | 31 (66.0%) | 15 (75.0%) | 123 (69.1%) |  |
| 2 | 80 (30.8%) | 6 (40.0%) | 16 (34.0%) | 4 (20.0%) | 54 (30.3%) |  |
| Missing | 2 (0.8%) | 0 (0.0%) | 0 (0.0%) | 1 (5.0%) | 1 (0.6%) |  |
| **Do\_you\_smoke\_cigarettes** | | | | | | **0.83** |
| 0 | 253 (97.3%) | 15 (100.0%) | 45 (95.7%) | 19 (95.0%) | 174 (97.8%) |  |
| 1 | 6 (2.3%) | 0 (0.0%) | 2 (4.3%) | 0 (0.0%) | 4 (2.2%) |  |
| Missing | 1 (0.4%) | 0 (0.0%) | 0 (0.0%) | 1 (5.0%) | 0 (0.0%) |  |
| **Pre\_eclampsia\_eclampsia** | | | | | | **0.57** |
| 0 | 42 (16.2%) | 6 (40.0%) | 6 (12.8%) | 11 (55.0%) | 19 (10.7%) |  |
| 1 | 2 (0.8%) | 0 (0.0%) | 1 (2.1%) | 0 (0.0%) | 1 (0.6%) |  |
| Missing | 216 (83.1%) | 9 (60.0%) | 40 (85.1%) | 9 (45.0%) | 158 (88.8%) |  |
| **mode\_of\_birth** | | | | | | **0.17** |
| 1 | 167 (64.2%) | 6 (40.0%) | 31 (66.0%) | 11 (55.0%) | 119 (66.9%) |  |
| 2 | 1 (0.4%) | 0 (0.0%) | 0 (0.0%) | 0 (0.0%) | 1 (0.6%) |  |
| 3 | 2 (0.8%) | 0 (0.0%) | 0 (0.0%) | 0 (0.0%) | 2 (1.1%) |  |
| 4 | 37 (14.2%) | 5 (33.3%) | 3 (6.4%) | 3 (15.0%) | 26 (14.6%) |  |
| 5 | 50 (19.2%) | 3 (20.0%) | 13 (27.7%) | 6 (30.0%) | 28 (15.7%) |  |
| 9 | 3 (1.2%) | 1 (6.7%) | 0 (0.0%) | 0 (0.0%) | 2 (1.1%) |  |
| Birth\_Weight\_g | 3098.9 (±502.0) | 3177.0 (±781.6) | 3184.6 (±475.7) | 2952.0 (±600.3) | 3086.1 (±466.7) | 0.31 |
| **Birth\_Length\_cm** | | | | | | **0.040** |
| Mean (SD) | 50.2 (±2.9) | 49.6 (±2.5) | 49.6 (±2.3) | 48.9 (±3.5) | 50.6 (±3.0) |  |
| Missing | 10 (3.8%) | 1 (6.7%) | 2 (4.3%) | 3 (15.0%) | 4 (2.2%) |  |
| **Birth\_HC\_cm** | | | | | | **0.002** |
| Mean (SD) | 34.3 (±1.7) | 34.4 (±1.7) | 34.3 (±1.5) | 32.8 (±2.4) | 34.4 (±1.6) |  |
| Missing | 7 (2.7%) | 1 (6.7%) | 0 (0%) | 2 (10.0%) | 4 (2.2%) |  |
| **LengthZScore** | | | | | | **0.40** |
| Mean (SD) | 0.5 (±1.5) | 0.4 (±1.3) | 0.2 (±1.3) | 0.6 (±1.2) | 0.6 (±1.6) |  |
| Missing | 11 (4.2%) | 1 (6.7%) | 2 (4.3%) | 2 (10.0%) | 6 (3.4%) |  |
| **GA\_at\_birth\_weeks** | 39.1 (±2.0) | 39.1 (±2.7) | 39.2 (±1.2) | 37.7 (±2.2) | 39.2 (±2.0) | 0.012 |
| **parity** | 2.3 (±1.0) | 2.7 (±1.2) | 2.4 (±1.1) | 1.9 (±0.7) | 2.2 (±1.0) | 0.079 |
| **Gravidity** | 2.5 (±1.2) | 2.9 (±1.3) | 2.8 (±1.2) | 2.2 (±1.0) | 2.5 (±1.1) | 0.11 |
| **Latest\_CD4** | | | | | | **0.49** |
| Mean (SD) | 428.8 (±293.8) | 336.0 (±232.3) | 455.3 (±311.4) | (±) | (±) |  |
| Missing | 242 (93.1%) | 11 (73.3%) | 33 (70.2%) | 20 (100.0%) | 178 (100.0%) |  |
| **Latest\_Viral\_load** | | | | | | **0.31** |
| Mean (SD) | 18.4 (±59.1) | 4.1 (±14.1) | 25.3 (±70.7) | (±) | (±) |  |
| Missing | 223 (85.8%) | 3 (20.0%) | 22 (46.8%) | 20 (100.0%) | 178 (100.0%) |  |
| **Current\_ART** | | | | | | **1.0** |
| 1 | 39 (15.0%) | 9 (60.0%) | 30 (63.8%) | 0 (0.0%) | 0 (0.0%) |  |
| 2 | 15 (5.8%) | 4 (26.7%) | 11 (23.4%) | 0 (0.0%) | 0 (0.0%) |  |
| Missing | 206 (79.2%) | 2 (13.3%) | 6 (12.8%) | 20 (100.0%) | 178 (100.0%) |  |

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|  | **Total No. 260** | **Negative No. 198** | **Positive No. 62** | **P-value** |
| **Marital\_status** | | | | **0.51** |
| 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%) |  |
| **Premature** | | | | **0.46** |
| 0 | 236 (90.8%) | 178 (89.9%) | 58 (93.5%) |  |
| 1 | 24 (9.2%) | 20 (10.1%) | 4 (6.5%) |  |
| **RI\_Z\_SCORE** | 0.2 (±0.9) | 0.2 (±0.9) | 0.3 (±1.0) | 0.66 |
| **HCZScore** | | | | **0.70** |
| 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** | | | | **0.031** |
| Mean (SD) | -0.4 (±1.1) | -0.4 (±1.1) | -0.7 (±1.0) |  |
| Missing | 1 (0.4%) | 1 (0.5%) | 0 (0%) |  |
| **Access\_to\_running\_water** | | | | **0.66** |
| 1 | 45 (17.3%) | 34 (17.2%) | 11 (17.7%) |  |
| 2 | 84 (32.3%) | 67 (33.8%) | 17 (27.4%) |  |
| 3 | 131 (50.4%) | 97 (49.0%) | 34 (54.8%) |  |
| **Mothers\_highest\_level\_of\_education** | | | | **0.60** |
| 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%) |  |
| **Partners\_highest\_level\_of\_education** | | | | **0.38** |
| 1 | 10 (3.8%) | 7 (3.5%) | 3 (4.8%) |  |
| 2 | 165 (63.5%) | 129 (65.2%) | 36 (58.1%) |  |
| 3 | 49 (18.8%) | 36 (18.2%) | 13 (21.0%) |  |
| 6 | 1 (0.4%) | 1 (0.5%) | 0 (0.0%) |  |
| 99 | 26 (10.0%) | 16 (8.1%) | 10 (16.1%) |  |
| Missing | 9 (3.5%) | 9 (4.5%) | 0 (0.0%) |  |
| **Partners\_current\_employment** | | | | **0.84** |
| 0 | 40 (15.4%) | 31 (15.7%) | 9 (14.5%) |  |
| 1 | 211 (81.2%) | 158 (79.8%) | 53 (85.5%) |  |
| Missing | 9 (3.5%) | 9 (4.5%) | 0 (0.0%) |  |
| **Partners\_HIV\_status** | | | | **0.011** |
| 0 | 43 (16.5%) | 29 (14.6%) | 14 (22.6%) |  |
| 1 | 190 (73.1%) | 153 (77.3%) | 37 (59.7%) |  |
| 2 | 25 (9.6%) | 14 (7.1%) | 11 (17.7%) |  |
| Missing | 2 (0.8%) | 2 (1.0%) | 0 (0.0%) |  |
| **Monthly\_household\_income** | | | | **0.062** |
| 1 | 45 (17.3%) | 38 (19.2%) | 7 (11.3%) |  |
| 2 | 64 (24.6%) | 45 (22.7%) | 19 (30.6%) |  |
| 3 | 61 (23.5%) | 50 (25.3%) | 11 (17.7%) |  |
| 4 | 18 (6.9%) | 9 (4.5%) | 9 (14.5%) |  |
| 5 | 58 (22.3%) | 45 (22.7%) | 13 (21.0%) |  |
| 6 | 12 (4.6%) | 10 (5.1%) | 2 (3.2%) |  |
| Missing | 2 (0.8%) | 1 (0.5%) | 1 (1.6%) |  |
| **Access\_to\_internet** | | | | **0.81** |
| 0 | 43 (16.5%) | 32 (16.2%) | 11 (17.7%) |  |
| 1 | 35 (13.5%) | 26 (13.1%) | 9 (14.5%) |  |
| 2 | 17 (6.5%) | 12 (6.1%) | 5 (8.1%) |  |
| 3 | 160 (61.5%) | 125 (63.1%) | 35 (56.5%) |  |
| Missing | 5 (1.9%) | 3 (1.5%) | 2 (3.2%) |  |
| **drink\_alcohol** | | | | **1.0** |
| 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%) |  |
| **abortion\_miscariages** | | | | **0.12** |
| 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%) |  |
| **Access\_to\_toilet** | | | | **0.43** |
| 1 | 178 (68.5%) | 138 (69.7%) | 40 (64.5%) |  |
| 2 | 80 (30.8%) | 58 (29.3%) | 22 (35.5%) |  |
| Missing | 2 (0.8%) | 2 (1.0%) | 0 (0.0%) |  |
| **Do\_you\_smoke\_cigarettes** | | | | **0.63** |
| 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%) |  |
| **Pre\_eclampsia\_eclampsia** | | | | **0.51** |
| 0 | 42 (16.2%) | 30 (15.2%) | 12 (19.4%) |  |
| 1 | 2 (0.8%) | 1 (0.5%) | 1 (1.6%) |  |
| Missing | 216 (83.1%) | 167 (84.3%) | 49 (79.0%) |  |
| **mode\_of\_birth** | | | | **0.64** |
| 1 | 167 (64.2%) | 130 (65.7%) | 37 (59.7%) |  |
| 2 | 1 (0.4%) | 1 (0.5%) | 0 (0.0%) |  |
| 3 | 2 (0.8%) | 2 (1.0%) | 0 (0.0%) |  |
| 4 | 37 (14.2%) | 29 (14.6%) | 8 (12.9%) |  |
| 5 | 50 (19.2%) | 34 (17.2%) | 16 (25.8%) |  |
| 9 | 3 (1.2%) | 2 (1.0%) | 1 (1.6%) |  |
| **Birth\_Weight\_g** | 3098.9 (±502.0) | 3072.6 (±481.8) | 3182.7 (±557.6) | 0.10 |
| **Birth\_Length\_cm** | | | | **0.037** |
| 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** | | | | **0.88** |
| Mean (SD) | 34.3 (±1.7) | 34.3 (±1.7) | 34.3 (±1.5) |  |
| Missing | 7 (2.7%) | 6 (3.0%) | 1 (1.6%) |  |
| **LengthZScore** | | | | **0.058** |
| Mean (SD) | 0.5 (±1.5) | 0.6 (±1.6) | 0.2 (±1.3) |  |
| Missing | 11 (4.2%) | 8 (4.0%) | 3 (4.8%) |  |
| **GA\_at\_birth\_weeks** | 39.1 (±2.0) | 39.0 (±2.0) | 39.2 (±1.7) | 0.72 |

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| --- | --- | --- |
|  | **Negative** | **Positive** |
| **Latest\_CD4** | | |
| Median (IQR) | ( - ) | 362.0 (155.8 - 600.0) |
| Missing | 198 (100.0%) | 44 (71.0%) |
| **Latest\_Viral\_load** | | |
| Median (IQR) | ( - ) | 0.0 (0.0 - 0.0) |
| Missing | 198 (100.0%) | 25 (40.3%) |
| **Current\_ART** | | |
| 1 | 0 (0.0%) | 39 (62.9%) |
| 2 | 0 (0.0%) | 15 (24.2%) |
| Missing | 198 (100.0%) | 8 (12.9%) |

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| --- | --- | --- | --- | --- |
|  | **Total** | **Negative** | **Positive** | **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 |

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|  | **Total No. 260** | **Abnormal UmA-RI No. 35** | **Normal UmA-RI No. 225** | **P-value** |
| **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%) |  |
| **Premature** | | | | **0.007** |
| 0 | 236 (90.8%) | 27 (77.1%) | 209 (92.9%) |  |
| 1 | 24 (9.2%) | 8 (22.9%) | 16 (7.1%) |  |
| **RI\_Z\_SCORE** | 0.2 (±0.9) | 1.7 (±0.8) | 0.0 (±0.6) | < 0.0001 |
| **HCZScore** | | | | **0.91** |
| Mean (SD) | 0.4 (±1.3) | 0.4 (±1.0) | 0.4 (±1.3) |  |
| Missing | 9 (3.5%) | 2 (5.7%) | 7 (3.1%) |  |
| **WeightZScore** | | | | **0.15** |
| Mean (SD) | -0.4 (±1.1) | -0.7 (±1.0) | -0.4 (±1.1) |  |
| Missing | 1 (0.4%) | 0 (0%) | 1 (0.4%) |  |
| **Access\_to\_running\_water** | | | | **0.29** |
| 1 | 45 (17.3%) | 5 (14.3%) | 40 (17.8%) |  |
| 2 | 84 (32.3%) | 8 (22.9%) | 76 (33.8%) |  |
| 3 | 131 (50.4%) | 22 (62.9%) | 109 (48.4%) |  |
| **Mothers\_highest\_level\_of\_education** | | | | **0.36** |
| 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%) |  |
| **Partners\_highest\_level\_of\_education** | | | | **0.73** |
| 1 | 10 (3.8%) | 1 (2.9%) | 9 (4.0%) |  |
| 2 | 165 (63.5%) | 26 (74.3%) | 139 (61.8%) |  |
| 3 | 49 (18.8%) | 5 (14.3%) | 44 (19.6%) |  |
| 6 | 1 (0.4%) | 0 (0.0%) | 1 (0.4%) |  |
| 99 | 26 (10.0%) | 2 (5.7%) | 24 (10.7%) |  |
| Missing | 9 (3.5%) | 1 (2.9%) | 8 (3.6%) |  |
| **Partners\_current\_employment** | | | | **0.32** |
| 0 | 40 (15.4%) | 3 (8.6%) | 37 (16.4%) |  |
| 1 | 211 (81.2%) | 32 (91.4%) | 179 (79.6%) |  |
| Missing | 9 (3.5%) | 0 (0.0%) | 9 (4.0%) |  |
| **Partners\_HIV\_status** | | | | **0.46** |
| 0 | 43 (16.5%) | 4 (11.4%) | 39 (17.3%) |  |
| 1 | 190 (73.1%) | 26 (74.3%) | 164 (72.9%) |  |
| 2 | 25 (9.6%) | 5 (14.3%) | 20 (8.9%) |  |
| Missing | 2 (0.8%) | 0 (0.0%) | 2 (0.9%) |  |
| **Monthly\_household\_income** | | | | **0.047** |
| 1 | 45 (17.3%) | 1 (2.9%) | 44 (19.6%) |  |
| 2 | 64 (24.6%) | 14 (40.0%) | 50 (22.2%) |  |
| 3 | 61 (23.5%) | 9 (25.7%) | 52 (23.1%) |  |
| 4 | 18 (6.9%) | 3 (8.6%) | 15 (6.7%) |  |
| 5 | 58 (22.3%) | 6 (17.1%) | 52 (23.1%) |  |
| 6 | 12 (4.6%) | 2 (5.7%) | 10 (4.4%) |  |
| Missing | 2 (0.8%) | 0 (0.0%) | 2 (0.9%) |  |
| **Access\_to\_internet** | | | | **0.13** |
| 0 | 43 (16.5%) | 4 (11.4%) | 39 (17.3%) |  |
| 1 | 35 (13.5%) | 9 (25.7%) | 26 (11.6%) |  |
| 2 | 17 (6.5%) | 2 (5.7%) | 15 (6.7%) |  |
| 3 | 160 (61.5%) | 18 (51.4%) | 142 (63.1%) |  |
| Missing | 5 (1.9%) | 2 (5.7%) | 3 (1.3%) |  |
| **drink\_alcohol** | | | | **0.003** |
| 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%) |  |
| **abortion\_miscariages** | | | | **0.41** |
| 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%) |  |
| **Access\_to\_toilet** | | | | **1.0** |
| 1 | 178 (68.5%) | 24 (68.6%) | 154 (68.4%) |  |
| 2 | 80 (30.8%) | 10 (28.6%) | 70 (31.1%) |  |
| Missing | 2 (0.8%) | 1 (2.9%) | 1 (0.4%) |  |
| **Do\_you\_smoke\_cigarettes** | | | | **1.0** |
| 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%) |  |
| **Pre\_eclampsia\_eclampsia** | | | | **0.51** |
| 0 | 42 (16.2%) | 17 (48.6%) | 25 (11.1%) |  |
| 1 | 2 (0.8%) | 0 (0.0%) | 2 (0.9%) |  |
| Missing | 216 (83.1%) | 18 (51.4%) | 198 (88.0%) |  |
| **mode\_of\_birth** | | | | **0.19** |
| 1 | 167 (64.2%) | 17 (48.6%) | 150 (66.7%) |  |
| 2 | 1 (0.4%) | 0 (0.0%) | 1 (0.4%) |  |
| 3 | 2 (0.8%) | 0 (0.0%) | 2 (0.9%) |  |
| 4 | 37 (14.2%) | 8 (22.9%) | 29 (12.9%) |  |
| 5 | 50 (19.2%) | 9 (25.7%) | 41 (18.2%) |  |
| 9 | 3 (1.2%) | 1 (2.9%) | 2 (0.9%) |  |
| **Birth\_Weight\_g** | 3098.9 (±502.0) | 3048.4 (±682.4) | 3106.7 (±469.3) | 0.86 |
| **Birth\_Length\_cm** | | | | **0.049** |
| 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** | | | | **0.034** |
| Mean (SD) | 34.3 (±1.7) | 33.5 (±2.2) | 34.4 (±1.6) |  |
| Missing | 7 (2.7%) | 3 (8.6%) | 4 (1.8%) |  |
| **LengthZScore** | | | | **0.87** |
| Mean (SD) | 0.5 (±1.5) | 0.5 (±1.2) | 0.5 (±1.6) |  |
| Missing | 11 (4.2%) | 3 (8.6%) | 8 (3.6%) |  |
| **GA\_at\_birth\_weeks** | 39.1 (±2.0) | 38.3 (±2.5) | 39.2 (±1.8) | **0.045** |

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| --- | --- | --- | --- | --- |
|  | **Total** | **Abnormal UmA-RI** | **Normal UmA-RI** | **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 |
| **Latest\_Viral\_load** | | | | **0.48** |
| Median (IQR) | 0.0 (0.0 - 0.0) | 0.0 (0.0 - 0.0) | 0.0 (0.0 - 0.0) |  |
| Missing | 223 (85.8%) | 23 (65.7%) | 200 (88.9%) |  |
| **Latest\_CD4** | | | | **0.56** |
| Median (IQR) | 362.0 (155.8 - 600.0) | 307.0 (146.5 - 496.5) | 381.0 (175.2 - 750.0) |  |
| Missing | 242 (93.1%) | 31 (88.6%) | 211 (93.8%) |  |

**Child Anthropometry**

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|  | **Total No. 260** | **CHEU Abnormal UmA-RI No. 15** | **CHEU Normal UmA-RI No. 47** | **CHUU Abnormal UmA-RI No. 20** | **CHUU Normal UmA-RI No. 178** | **P-value** |
| Age\_(d) | 564.9 (±27.3) | 574.3 (±36.4) | 565.7 (±26.8) | 554.5 (±6.4) | 565.1 (±27.9) | 0.19 |
| Age\_(m) | 18.6 (±0.8) | 18.8 (±0.9) | 18.6 (±0.8) | 18.2 (±0.2) | 18.6 (±0.9) | 0.23 |
| Weight\_(kg) | 10.8 (±1.6) | 9.9 (±1.0) | 10.7 (±1.8) | 10.8 (±1.9) | 10.9 (±1.6) | 0.15 |
| Length\_(cm) | 81.4 (±3.8) | 78.2 (±3.5) | 80.8 (±3.1) | 81.0 (±4.1) | 81.9 (±3.8) | 0.001 |
| **MUAC\_(cm)** | | | | | | **0.73** |
| Mean (SD) | 16.1 (±1.5) | 16.0 (±1.4) | 16.2 (±1.7) | 16.4 (±1.7) | 16.1 (±1.4) |  |
| Missing | 1 (0.4%) | 0 (0%) | 1 (2.1%) | 0 (0%) | 0 (0%) |  |
| **HC\_(cm)** | | | | | | **0.12** |
| Mean (SD) | 48.1 (±1.7) | 47.1 (±1.2) | 48.1 (±1.9) | 48.5 (±1.9) | 48.1 (±1.6) |  |
| Missing | 6 (2.3%) | 0 (0%) | 0 (0%) | 1 (5.0%) | 5 (2.8%) |  |
| WHZ | 0.1 (±1.3) | 0.0 (±0.8) | 0.2 (±1.5) | 0.1 (±1.3) | 0.1 (±1.2) | 0.97 |
| HAZ | -0.2 (±1.3) | -1.3 (±1.3) | -0.5 (±1.1) | -0.2 (±1.5) | -0.1 (±1.3) | 0.002 |
| WAZ | 0.0 (±1.2) | -0.6 (±0.9) | -0.1 (±1.3) | 0.0 (±1.5) | 0.0 (±1.2) | 0.22 |
| **HCZ** | | | | | | **0.16** |
| Mean (SD) | 0.9 (±1.2) | 0.3 (±0.7) | 0.9 (±1.3) | 1.3 (±1.5) | 0.9 (±1.2) |  |
| Missing | 6 (2.3%) | 0 (0%) | 0 (0%) | 1 (5.0%) | 5 (2.8%) |  |
| **MUACZ** | | | | | | **0.74** |
| Mean (SD) | 1.1 (±1.1) | 1.0 (±1.0) | 1.2 (±1.3) | 1.3 (±1.3) | 1.1 (±1.1) |  |
| Missing | 1 (0.4%) | 0 (0%) | 1 (2.1%) | 0 (0%) | 0 (0%) |  |

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|  | **Total No. 260** | **Negative No. 198** | **Positive No. 62** | **P-value** |
| Age\_(d) | 564.9 (±27.3) | 564.0 (±26.7) | 567.8 (±29.3) | 0.18 |
| 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%) |  |

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|  | **Total No. 260** | **Abnormal UmA-RI No. 35** | **Normal UmA-RI No. 225** | **P-value** |
| Age\_(d) | 564.9 (±27.3) | 563.0 (±25.8) | 565.2 (±27.6) | 0.93 |
| 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%) |  |

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|  | **Total No. 225** | **CHEU Normal UmA-RI No. 47** | **CHUU Normal UmA-RI No. 178** | **P-value** |
| **Weight\_(kg)** | 10.8 (±1.6) | 10.7 (±1.8) | 10.9 (±1.6) | 0.61 |
| **Length\_(cm)** | 81.7 (±3.7) | 80.8 (±3.1) | 81.9 (±3.8) | 0.25 |
| **MUAC\_(cm)** | | | | **0.67** |
| Mean (SD) | 16.1 (±1.5) | 16.2 (±1.7) | 16.1 (±1.4) |  |
| Missing | 1 (0.4%) | 1 (2.1%) | 0 (0%) |  |
| **HC\_(cm)** | | | | **0.88** |
| Mean (SD) | 48.1 (±1.7) | 48.1 (±1.9) | 48.1 (±1.6) |  |
| Missing | 5 (2.2%) | 0 (0%) | 5 (2.8%) |  |
| **WHZ** | 0.1 (±1.3) | 0.2 (±1.5) | 0.1 (±1.2) | 0.93 |
| **HAZ** | -0.1 (±1.3) | -0.5 (±1.1) | -0.1 (±1.3) | 0.19 |
| **WAZ** | 0.0 (±1.2) | -0.1 (±1.3) | 0.0 (±1.2) | 0.65 |
| **HCZ** | | | | **0.96** |
| Mean (SD) | 0.9 (±1.2) | 0.9 (±1.3) | 0.9 (±1.2) |  |
| Missing | 5 (2.2%) | 0 (0%) | 5 (2.8%) |  |
| **MUACZ** | | | | **0.66** |
| Mean (SD) | 1.1 (±1.1) | 1.2 (±1.3) | 1.1 (±1.1) |  |
| Missing | 1 (0.4%) | 1 (2.1%) | 0 (0%) |  |

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|  | **Total No. 193** | **CHEU Abnormal UmA-RI No. 15** | **CHUU Normal UmA-RI No. 178** | **P-value** |
| **Weight\_(kg)** | 10.8 (±1.5) | 9.9 (±1.0) | 10.9 (±1.6) | 0.009 |
| **Length\_(cm)** | 81.6 (±3.9) | 78.2 (±3.5) | 81.9 (±3.8) | 0.0009 |
| **MUAC\_(cm)** | 16.1 (±1.4) | 16.0 (±1.4) | 16.1 (±1.4) | 0.79 |
| **HC\_(cm)** | | | | **0.011** |
| Mean (SD) | 48.0 (±1.6) | 47.1 (±1.2) | 48.1 (±1.6) |  |
| Missing | 5 (2.6%) | 0 (0%) | 5 (2.8%) |  |
| **WHZ** | 0.1 (±1.2) | 0.0 (±0.8) | 0.1 (±1.2) | 0.74 |
| **HAZ** | -0.1 (±1.3) | -1.3 (±1.3) | -0.1 (±1.3) | 0.001 |
| **WAZ** | 0.0 (±1.2) | -0.6 (±0.9) | 0.0 (±1.2) | 0.019 |
| **HCZ** | | | | **0.020** |
| Mean (SD) | 0.8 (±1.1) | 0.3 (±0.7) | 0.9 (±1.2) |  |
| Missing | 5 (2.6%) | 0 (0%) | 5 (2.8%) |  |
| **MUACZ** | 1.1 (±1.1) | 1.0 (±1.0) | 1.1 (±1.1) | 0.98 |

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|  | **Total No. 198** | **CHUU Abnormal UmA-RI No. 20** | **CHUU Normal UmA-RI No. 178** | **P-value** |
| Weight\_(kg) | 10.9 (±1.6) | 10.8 (±1.9) | 10.9 (±1.6) | 0.47 |
| Length\_(cm) | 81.8 (±3.8) | 81.0 (±4.1) | 81.9 (±3.8) | 0.31 |
| MUAC\_(cm) | 16.1 (±1.5) | 16.4 (±1.7) | 16.1 (±1.4) | 0.41 |
| **HC\_(cm)** | | | | **0.21** |
| Mean (SD) | 48.1 (±1.6) | 48.5 (±1.9) | 48.1 (±1.6) |  |
| Missing | 6 (3.0%) | 1 (5.0%) | 5 (2.8%) |  |
| **WHZ** | 0.1 (±1.2) | 0.1 (±1.3) | 0.1 (±1.2) | 0.89 |
| **HAZ** | -0.1 (±1.3) | -0.2 (±1.5) | -0.1 (±1.3) | 0.56 |
| **WAZ** | 0.0 (±1.2) | 0.0 (±1.5) | 0.0 (±1.2) | 0.70 |
| **HCZ** | | | | **0.14** |
| Mean (SD) | 0.9 (±1.2) | 1.3 (±1.5) | 0.9 (±1.2) |  |
| Missing | 6 (3.0%) | 1 (5.0%) | 5 (2.8%) |  |
| **MUACZ** | 1.1 (±1.1) | 1.3 (±1.3) | 1.1 (±1.1) | 0.37 |

**Maternal Anthropometrics**

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|  | **Total No. 253** | **CHEU Abnormal UmA-RI No. 15** | **CHEU Normal UmA-RI No. 46** | **CHUU Abnormal UmA-RI No. 19** | **CHUU Normal UmA-RI No. 173** | **P-value** |
| **UmbiBaby group** | | | | | | **< 0.0001** |
| HR-PEDF | 34 (13.4%) | 15 (100.0%) | 0 (0.0%) | 19 (100.0%) | 0 (0.0%) |  |
| LR-FT | 204 (80.6%) | 0 (0.0%) | 45 (97.8%) | 0 (0.0%) | 159 (91.9%) |  |
| LR-Prem | 15 (5.9%) | 0 (0.0%) | 1 (2.2%) | 0 (0.0%) | 14 (8.1%) |  |
| **UmA-RI** | | | | | | **< 0.0001** |
| Abnormal UmA-RI | 34 (13.4%) | 15 (100.0%) | 0 (0.0%) | 19 (100.0%) | 0 (0.0%) |  |
| Normal UmA-RI | 219 (86.6%) | 0 (0.0%) | 46 (100.0%) | 0 (0.0%) | 173 (100.0%) |  |
| Age (years) | 30.5 (±5.4) | 36.6 (±6.1) | 30.9 (±5.3) | 28.5 (±4.5) | 30.1 (±5.1) | < 0.0001 |
| Weight (kg) | 76.5 (±20.8) | 63.1 (±15.4) | 79.8 (±24.6) | 69.7 (±20.2) | 77.5 (±19.7) | 0.019 |
| Height (cm) | 160.2 (±6.7) | 158.3 (±5.3) | 162.2 (±8.6) | 157.8 (±5.3) | 160.1 (±6.2) | 0.050 |
| Height (m) | 1.6 (±0.1) | 1.6 (±0.1) | 1.6 (±0.1) | 1.6 (±0.1) | 1.6 (±0.1) | 0.050 |
| BMI (kg/m²) | 29.8 (±7.8) | 25.1 (±5.2) | 30.1 (±8.4) | 27.9 (±7.4) | 30.3 (±7.7) | 0.056 |
| MUAC (cm): | 31.7 (±5.2) | 28.0 (±4.0) | 32.2 (±5.7) | 30.6 (±5.0) | 32.0 (±5.1) | 0.023 |
| **Maternal Triceps Skin Fold Thickness (mm)** | | | | | | **0.057** |
| Mean (SD) | 20.1 (±5.5) | 18.5 (±3.6) | 22.1 (±7.2) | 19.9 (±5.3) | 19.8 (±5.1) |  |
| Missing | 5 (2.0%) | 0 (0%) | 2 (4.3%) | 0 (0%) | 3 (1.7%) |  |

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|  | **Total No. 253** | **Negative No. 192** | | **Positive No. 61** | **P-value** |
| **UmbiBaby group** | | | **0.007** | | |
| HR-PEDF | 34 (13.4%) | 19 (9.9%) | | 15 (24.6%) |  |
| LR-FT | 204 (80.6%) | 159 (82.8%) | | 45 (73.8%) |  |
| LR-Prem | 15 (5.9%) | 14 (7.3%) | | 1 (1.6%) |  |
| **UmA-RI** | | | **0.008** | | |
| Abnormal UmA-RI | 34 (13.4%) | 19 (9.9%) | | 15 (24.6%) |  |
| Normal UmA-RI | 219 (86.6%) | 173 (90.1%) | | 46 (75.4%) |  |
| Age (years) | 30.5 (±5.4) | 30.0 (±5.1) | | 32.3 (±6.0) | 0.004 |
| Weight (kg) | 76.5 (±20.8) | 76.8 (±19.9) | | 75.7 (±23.7) | 0.47 |
| Height (cm) | 160.2 (±6.7) | 159.9 (±6.1) | | 161.2 (±8.0) | 0.25 |
| Height (m) | 1.6 (±0.1) | 1.6 (±0.1) | | 1.6 (±0.1) | 0.25 |
| BMI (kg/m²) | 29.8 (±7.8) | 30.1 (±7.7) | | 28.9 (±8.0) | 0.22 |
| MUAC (cm): | 31.7 (±5.2) | 31.9 (±5.1) | | 31.2 (±5.6) | 0.29 |
| **Maternal Triceps Skin Fold Thickness (mm)** | | | **0.34** | | |
| Mean (SD) | 20.1 (±5.5) | 19.8 (±5.1) | | 21.2 (±6.6) |  |
| Missing | 5 (2.0%) | 3 (1.6%) | | 2 (3.3%) |  |

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|  | **Total No. 253** | **Abnormal UmA-RI No. 34** | **Normal UmA-RI No. 219** | **P-value** |
| **UmbiBaby group** | | | | **< 0.0001** |
| HR-PEDF | 34 (13.4%) | 34 (100.0%) | 0 (0.0%) |  |
| LR-FT | 204 (80.6%) | 0 (0.0%) | 204 (93.2%) |  |
| LR-Prem | 15 (5.9%) | 0 (0.0%) | 15 (6.8%) |  |
| **UmA-RI** | | | | **< 0.0001** |
| Abnormal UmA-RI | 34 (13.4%) | 34 (100.0%) | 0 (0.0%) |  |
| Normal UmA-RI | 219 (86.6%) | 0 (0.0%) | 219 (100.0%) |  |
| Age (years) | 30.5 (±5.4) | 32.1 (±6.6) | 30.3 (±5.2) | 0.12 |
| Weight (kg) | 76.5 (±20.8) | 66.8 (±18.3) | 78.0 (±20.8) | 0.002 |
| Height (cm) | 160.2 (±6.7) | 158.0 (±5.2) | 160.5 (±6.8) | 0.090 |
| Height (m) | 1.6 (±0.1) | 1.6 (±0.1) | 1.6 (±0.1) | 0.090 |
| BMI (kg/m²) | 29.8 (±7.8) | 26.6 (±6.6) | 30.3 (±7.8) | 0.009 |
| MUAC (cm): | 31.7 (±5.2) | 29.5 (±4.7) | 32.1 (±5.2) | 0.009 |
| **Maternal Triceps Skin Fold Thickness (mm)** | | | | **0.42** |
| Mean (SD) | 20.1 (±5.5) | 19.3 (±4.6) | 20.3 (±5.7) |  |
| Missing | 5 (2.0%) | 0 (0%) | 5 (2.3%) |  |

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|  | **Total No. 188** | **CHEU Abnormal UmA-RI No. 15** | **CHUU Normal UmA-RI No. 173** | **P-value** |
| **UmbiBaby group** | | | | **< 0.0001** |
| HR-PEDF | 15 (8.0%) | 15 (100.0%) | 0 (0.0%) |  |
| LR-FT | 159 (84.6%) | 0 (0.0%) | 159 (91.9%) |  |
| LR-Prem | 14 (7.4%) | 0 (0.0%) | 14 (8.1%) |  |
| **UmA-RI** | | | | **< 0.0001** |
| Abnormal UmA-RI | 15 (8.0%) | 15 (100.0%) | 0 (0.0%) |  |
| Normal UmA-RI | 173 (92.0%) | 0 (0.0%) | 173 (100.0%) |  |
| Age (years) | 30.7 (±5.5) | 36.6 (±6.1) | 30.1 (±5.1) | < 0.0001 |
| Weight (kg) | 76.4 (±19.8) | 63.1 (±15.4) | 77.5 (±19.7) | 0.004 |
| Height (cm) | 159.9 (±6.1) | 158.3 (±5.3) | 160.1 (±6.2) | 0.49 |
| Height (m) | 1.6 (±0.1) | 1.6 (±0.1) | 1.6 (±0.1) | 0.49 |
| BMI (kg/m²) | 29.9 (±7.7) | 25.1 (±5.2) | 30.3 (±7.7) | 0.009 |
| MUAC (cm): | 31.7 (±5.1) | 28.0 (±4.0) | 32.0 (±5.1) | 0.003 |
| **Maternal Triceps Skin Fold Thickness (mm)** | | | | **0.32** |
| Mean (SD) | 19.7 (±5.0) | 18.5 (±3.6) | 19.8 (±5.1) |  |
| Missing | 3 (1.6%) | 0 (0%) | 3 (1.7%) |  |

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|  | **Total No. 192** | **CHUU Abnormal UmA-RI No. 19** | **CHUU Normal UmA-RI No. 173** | **P-value** |
| **UmbiBaby group** | | | | **< 0.0001** |
| HR-PEDF | 19 (9.9%) | 19 (100.0%) | 0 (0.0%) |  |
| LR-FT | 159 (82.8%) | 0 (0.0%) | 159 (91.9%) |  |
| LR-Prem | 14 (7.3%) | 0 (0.0%) | 14 (8.1%) |  |
| **UmA-RI** | | | | **< 0.0001** |
| Abnormal UmA-RI | 19 (9.9%) | 19 (100.0%) | 0 (0.0%) |  |
| Normal UmA-RI | 173 (90.1%) | 0 (0.0%) | 173 (100.0%) |  |
| Age (years) | 30.0 (±5.1) | 28.5 (±4.5) | 30.1 (±5.1) | 0.28 |
| Weight (kg) | 76.8 (±19.9) | 69.7 (±20.2) | 77.5 (±19.7) | 0.071 |
| Height (cm) | 159.9 (±6.1) | 157.8 (±5.3) | 160.1 (±6.2) | 0.17 |
| Height (m) | 1.6 (±0.1) | 1.6 (±0.1) | 1.6 (±0.1) | 0.17 |
| BMI (kg/m²) | 30.1 (±7.7) | 27.9 (±7.4) | 30.3 (±7.7) | 0.17 |
| MUAC (cm): | 31.9 (±5.1) | 30.6 (±5.0) | 32.0 (±5.1) | 0.30 |
| **Maternal Triceps Skin Fold Thickness (mm)** | | | | **0.84** |
| Mean (SD) | 19.8 (±5.1) | 19.9 (±5.3) | 19.8 (±5.1) |  |
| Missing | 3 (1.6%) | 0 (0%) | 3 (1.7%) |  |

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|  | **Total No. 219** | **CHEU Normal UmA-RI No. 46** | **CHUU Normal UmA-RI No. 173** | **P-value** |
| **UmbiBaby group** | | | | **0.20** |
| LR-FT | 204 (93.2%) | 45 (97.8%) | 159 (91.9%) |  |
| LR-Prem | 15 (6.8%) | 1 (2.2%) | 14 (8.1%) |  |
| Age (years) | 30.3 (±5.2) | 30.9 (±5.3) | 30.1 (±5.1) | 0.28 |
| Weight (kg) | 78.0 (±20.8) | 79.8 (±24.6) | 77.5 (±19.7) | 0.72 |
| Height (cm) | 160.5 (±6.8) | 162.2 (±8.6) | 160.1 (±6.2) | 0.14 |
| Height (m) | 1.6 (±0.1) | 1.6 (±0.1) | 1.6 (±0.1) | 0.14 |
| BMI (kg/m²) | 30.3 (±7.8) | 30.1 (±8.4) | 30.3 (±7.7) | 0.73 |
| MUAC (cm): | 32.1 (±5.2) | 32.2 (±5.7) | 32.0 (±5.1) | 0.91 |
| **Maternal Triceps Skin Fold Thickness (mm)** | | | | **0.086** |
| Mean (SD) | 20.3 (±5.7) | 22.1 (±7.2) | 19.8 (±5.1) |  |
| Missing | 5 (2.3%) | 2 (4.3%) | 3 (1.7%) |  |

**Bayles Summaries**

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|  | **Total No. 253** | **CHEU Abnormal UmA-RI No. 14** | **CHEU Normal UmA-RI No. 46** | **CHUU Abnormal UmA-RI No. 19** | **CHUU Normal UmA-RI No. 174** | **P-value** |
| **Sex** | | | | | | **0.37** |
| female | 130 (51.4%) | 10 (71.4%) | 21 (45.7%) | 11 (57.9%) | 88 (50.6%) |  |
| male | 123 (48.6%) | 4 (28.6%) | 25 (54.3%) | 8 (42.1%) | 86 (49.4%) |  |
| **Cognitive:\_Composite\_score** | 99.5 (±10.8) | 93.9 (±12.9) | 99.9 (±10.2) | 98.2 (±11.7) | 100.0 (±10.6) | 0.22 |
| **Language:\_Composite\_score** | 89.3 (±12.3) | 90.9 (±15.8) | 88.2 (±11.3) | 90.6 (±10.6) | 89.4 (±12.4) | 0.84 |
| **Motor:\_Composite\_score** | 99.4 (±12.1) | 95.6 (±14.2) | 99.2 (±13.3) | 97.9 (±11.6) | 99.9 (±11.7) | 0.60 |

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|  | **Total No. 253** | **Negative No. 193** | **Positive No. 60** | **P-value** |
| **Sex** | | | | **1.0** |
| female | 130 (51.4%) | 99 (51.3%) | 31 (51.7%) |  |
| male | 123 (48.6%) | 94 (48.7%) | 29 (48.3%) |  |
| **Cognitive:\_Composite\_score** | 99.5 (±10.8) | 99.8 (±10.7) | 98.5 (±11.1) | 0.91 |
| **Language:\_Composite\_score** | 89.3 (±12.3) | 89.5 (±12.2) | 88.8 (±12.4) | 0.85 |
| **Motor:\_Composite\_score** | 99.4 (±12.1) | 99.7 (±11.7) | 98.4 (±13.5) | 0.52 |

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|  | **Total No. 253** | **Abmormal UmA-RI No. 33** | **Normal UmA-RI No. 220** | **P-value** |
| **Sex** | | | | **0.14** |
| female | 130 (51.4%) | 21 (63.6%) | 109 (49.5%) |  |
| male | 123 (48.6%) | 12 (36.4%) | 111 (50.5%) |  |
| **Cognitive:\_Composite\_score** | 99.5 (±10.8) | 96.4 (±12.2) | 100.0 (±10.5) | 0.23 |
| **Language:\_Composite\_score** | 89.3 (±12.3) | 90.7 (±12.8) | 89.1 (±12.2) | 0.35 |
| **Motor:\_Composite\_score** | 99.4 (±12.1) | 96.9 (±12.6) | 99.7 (±12.0) | 0.53 |

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|  | **Total No. 193** | **CHUU Abnormal UmA-RI No. 19** | **CHUU Normal UmA-RI No. 174** | **P-value** |
| **Sex** | | | | **0.63** |
| female | 99 (51.3%) | 11 (57.9%) | 88 (50.6%) |  |
| male | 94 (48.7%) | 8 (42.1%) | 86 (49.4%) |  |
| **Cognitive:\_Composite\_score** | 99.8 (±10.7) | 98.2 (±11.7) | 100.0 (±10.6) | 0.57 |
| **Language:\_Composite\_score** | 89.5 (±12.2) | 90.6 (±10.6) | 89.4 (±12.4) | 0.59 |
| **Motor:\_Composite\_score** | 99.7 (±11.7) | 97.9 (±11.6) | 99.9 (±11.7) | 0.90 |

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|  | **Total No. 188** | **CHEU Abnormal UmA-RI No. 14** | **CHUU Normal UmA-RI No. 174** | **P-value** |
| **Sex** | | | | **0.17** |
| female | 98 (52.1%) | 10 (71.4%) | 88 (50.6%) |  |
| male | 90 (47.9%) | 4 (28.6%) | 86 (49.4%) |  |
| **Cognitive:\_Composite\_score** | 99.5 (±10.9) | 93.9 (±12.9) | 100.0 (±10.6) | 0.27 |
| **Language:\_Composite\_score** | 89.5 (±12.7) | 90.9 (±15.8) | 89.4 (±12.4) | 0.49 |
| **Motor:\_Composite\_score** | 99.5 (±11.9) | 95.6 (±14.2) | 99.9 (±11.7) | 0.35 |

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|  | **Total No. 220** | **CHEU Normal UmA-RI No. 46** | **CHUU Normal UmA-RI No. 174** | **P-value** |
| **Sex** | | | | **0.62** |
| female | 109 (49.5%) | 21 (45.7%) | 88 (50.6%) |  |
| male | 111 (50.5%) | 25 (54.3%) | 86 (49.4%) |  |
| **Cognitive:\_Composite\_score** | 100.0 (±10.5) | 99.9 (±10.2) | 100.0 (±10.6) | 0.76 |
| **Language:\_Composite\_score** | 89.1 (±12.2) | 88.2 (±11.3) | 89.4 (±12.4) | 0.63 |
| **Motor:\_Composite\_score** | 99.7 (±12.0) | 99.2 (±13.3) | 99.9 (±11.7) | 0.77 |

**Child Hb Summaries**

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|  | **Total No. 260** | **CHEU Abnormal UmA-RI No. 15** | **CHEU Normal UmA-RI No. 47** | **CHUU Abnormal UmA-RI No. 20** | **CHUU Normal UmA-RI No. 178** | **P-value** |
| Child\_Hb\_value\_(g/dL) | 11.0 (±1.2) | 11.1 (±1.1) | 11.0 (±1.1) | 10.9 (±1.4) | 11.0 (±1.2) | 0.98 |
| **Anaemia\_category** | | | | | | **0.56** |
| Mild anaemia | 113 (43.5%) | 5 (33.3%) | 21 (44.7%) | 8 (40.0%) | 79 (44.4%) |  |
| Moderate anaemia | 14 (5.4%) | 1 (6.7%) | 2 (4.3%) | 3 (15.0%) | 8 (4.5%) |  |
| Normal | 133 (51.2%) | 9 (60.0%) | 24 (51.1%) | 9 (45.0%) | 91 (51.1%) |  |
| **UmA\_RI\_Classification** | | | | | | **< 0.0001** |
| Abnormal UmA-RI | 35 (13.5%) | 15 (100.0%) | 0 (0.0%) | 20 (100.0%) | 0 (0.0%) |  |
| Normal UmA-RI | 225 (86.5%) | 0 (0.0%) | 47 (100.0%) | 0 (0.0%) | 178 (100.0%) |  |
| **UmbiBaby\_group** | | | | | | **< 0.0001** |
| HR-PEDF | 35 (13.5%) | 15 (100.0%) | 0 (0.0%) | 20 (100.0%) | 0 (0.0%) |  |
| LR-FT | 210 (80.8%) | 0 (0.0%) | 46 (97.9%) | 0 (0.0%) | 164 (92.1%) |  |
| LR-Prem | 15 (5.8%) | 0 (0.0%) | 1 (2.1%) | 0 (0.0%) | 14 (7.9%) |  |
| **infant\_receive\_any\_vitamins\_or\_supplement\_drops** | | | | | | **0.57** |
| No | 207 (79.6%) | 14 (93.3%) | 38 (80.9%) | 16 (80.0%) | 139 (78.1%) |  |
| Yes | 51 (19.6%) | 1 (6.7%) | 8 (17.0%) | 3 (15.0%) | 39 (21.9%) |  |
| Missing | 2 (0.8%) | 0 (0.0%) | 1 (2.1%) | 1 (5.0%) | 0 (0.0%) |  |
| **If\_Yes\_Vitamin\_D\_drops** | | | | | | **0.28** |
| No | 258 (99.2%) | 15 (100.0%) | 47 (100.0%) | 19 (95.0%) | 177 (99.4%) |  |
| Yes | 2 (0.8%) | 0 (0.0%) | 0 (0.0%) | 1 (5.0%) | 1 (0.6%) |  |
| **If\_Yes\_Iron\_supplement** | | | | | | **0.53** |
| No | 258 (99.2%) | 15 (100.0%) | 46 (97.9%) | 20 (100.0%) | 177 (99.4%) |  |
| Yes | 2 (0.8%) | 0 (0.0%) | 1 (2.1%) | 0 (0.0%) | 1 (0.6%) |  |
| **If\_Yes\_Multivitamin** | | | | | | **0.31** |
| No | 221 (85.0%) | 15 (100.0%) | 41 (87.2%) | 18 (90.0%) | 147 (82.6%) |  |
| Yes | 39 (15.0%) | 0 (0.0%) | 6 (12.8%) | 2 (10.0%) | 31 (17.4%) |  |
| **If\_Yes\_zinc\_supplements** | | | | | | **0.53** |
| No | 254 (97.7%) | 14 (93.3%) | 46 (97.9%) | 20 (100.0%) | 174 (97.8%) |  |
| Yes | 6 (2.3%) | 1 (6.7%) | 1 (2.1%) | 0 (0.0%) | 4 (2.2%) |  |

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|  | **Total No. 260** | **Negative No. 198** | **Positive No. 62** | **P-value** |
| Child\_Hb\_value\_(g/dL) | 11.0 (±1.2) | 11.0 (±1.2) | 11.0 (±1.1) | 0.73 |
| **Anaemia\_category** | | | | **0.94** |
| Mild anaemia | 113 (43.5%) | 87 (43.9%) | 26 (41.9%) |  |
| Moderate anaemia | 14 (5.4%) | 11 (5.6%) | 3 (4.8%) |  |
| Normal | 133 (51.2%) | 100 (50.5%) | 33 (53.2%) |  |
| **UmA\_RI\_Classification** | | | | **0.009** |
| Abnormal UmA-RI | 35 (13.5%) | 20 (10.1%) | 15 (24.2%) |  |
| Normal UmA-RI | 225 (86.5%) | 178 (89.9%) | 47 (75.8%) |  |
| **UmbiBaby\_group** | | | | **0.009** |
| HR-PEDF | 35 (13.5%) | 20 (10.1%) | 15 (24.2%) |  |
| LR-FT | 210 (80.8%) | 164 (82.8%) | 46 (74.2%) |  |
| LR-Prem | 15 (5.8%) | 14 (7.1%) | 1 (1.6%) |  |
| **infant\_receive\_any\_vitamins\_or\_supplement\_drops** | | | | **0.36** |
| 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%) |  |
| **If\_Yes\_Vitamin\_D\_drops** | | | | **1.00** |
| No | 258 (99.2%) | 196 (99.0%) | 62 (100.0%) |  |
| Yes | 2 (0.8%) | 2 (1.0%) | 0 (0.0%) |  |
| **If\_Yes\_Iron\_supplement** | | | | **0.42** |
| No | 258 (99.2%) | 197 (99.5%) | 61 (98.4%) |  |
| Yes | 2 (0.8%) | 1 (0.5%) | 1 (1.6%) |  |
| **If\_Yes\_Multivitamin** | | | | **0.22** |
| No | 221 (85.0%) | 165 (83.3%) | 56 (90.3%) |  |
| Yes | 39 (15.0%) | 33 (16.7%) | 6 (9.7%) |  |
| **If\_Yes\_zinc\_supplements** | | | | **0.63** |
| No | 254 (97.7%) | 194 (98.0%) | 60 (96.8%) |  |
| Yes | 6 (2.3%) | 4 (2.0%) | 2 (3.2%) |  |

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|  | **Total No. 260** | **Abnormal UmA-RI No. 35** | **Normal UmA-RI No. 225** | **P-value** |
| Child\_Hb\_value\_(g/dL) | 11.0 (±1.2) | 11.0 (±1.3) | 11.0 (±1.2) | 0.89 |
| **Anaemia\_category** | | | | **0.20** |
| Mild anaemia | 113 (43.5%) | 13 (37.1%) | 100 (44.4%) |  |
| Moderate anaemia | 14 (5.4%) | 4 (11.4%) | 10 (4.4%) |  |
| Normal | 133 (51.2%) | 18 (51.4%) | 115 (51.1%) |  |
| **UmA\_RI\_Classification** | | | | **< 0.0001** |
| Abnormal UmA-RI | 35 (13.5%) | 35 (100.0%) | 0 (0.0%) |  |
| Normal UmA-RI | 225 (86.5%) | 0 (0.0%) | 225 (100.0%) |  |
| **UmbiBaby\_group** | | | | **< 0.0001** |
| HR-PEDF | 35 (13.5%) | 35 (100.0%) | 0 (0.0%) |  |
| LR-FT | 210 (80.8%) | 0 (0.0%) | 210 (93.3%) |  |
| LR-Prem | 15 (5.8%) | 0 (0.0%) | 15 (6.7%) |  |
| **infant\_receive\_any\_vitamins\_or\_supplement\_drops** | | | | **0.25** |
| 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%) |  |
| **If\_Yes\_Vitamin\_D\_drops** | | | | **0.25** |
| No | 258 (99.2%) | 34 (97.1%) | 224 (99.6%) |  |
| Yes | 2 (0.8%) | 1 (2.9%) | 1 (0.4%) |  |
| **If\_Yes\_Iron\_supplement** | | | | **1.0** |
| No | 258 (99.2%) | 35 (100.0%) | 223 (99.1%) |  |
| Yes | 2 (0.8%) | 0 (0.0%) | 2 (0.9%) |  |
| **If\_Yes\_Multivitamin** | | | | **0.13** |
| No | 221 (85.0%) | 33 (94.3%) | 188 (83.6%) |  |
| Yes | 39 (15.0%) | 2 (5.7%) | 37 (16.4%) |  |
| **If\_Yes\_zinc\_supplements** | | | | **0.58** |
| No | 254 (97.7%) | 34 (97.1%) | 220 (97.8%) |  |
| Yes | 6 (2.3%) | 1 (2.9%) | 5 (2.2%) |  |

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|  | **Total No. 193** | **CHEU Abnormal UmA-RI No. 15** | **CHUU Normal UmA-RI No. 178** | **P-value** |
| Child\_Hb\_value\_(g/dL) | 11.0 (±1.2) | 11.1 (±1.1) | 11.0 (±1.2) | 0.63 |
| **Anaemia\_category** | | | | **0.50** |
| Mild anaemia | 84 (43.5%) | 5 (33.3%) | 79 (44.4%) |  |
| Moderate anaemia | 9 (4.7%) | 1 (6.7%) | 8 (4.5%) |  |
| Normal | 100 (51.8%) | 9 (60.0%) | 91 (51.1%) |  |
| **UmA\_RI\_Classification** | | | | **< 0.0001** |
| Abnormal UmA-RI | 15 (7.8%) | 15 (100.0%) | 0 (0.0%) |  |
| Normal UmA-RI | 178 (92.2%) | 0 (0.0%) | 178 (100.0%) |  |
| **UmbiBaby\_group** | | | | **< 0.0001** |
| HR-PEDF | 15 (7.8%) | 15 (100.0%) | 0 (0.0%) |  |
| LR-FT | 164 (85.0%) | 0 (0.0%) | 164 (92.1%) |  |
| LR-Prem | 14 (7.3%) | 0 (0.0%) | 14 (7.9%) |  |
| **infant\_receive\_any\_vitamins\_or\_supplement\_drops** | | | | **0.32** |
| No | 153 (79.3%) | 14 (93.3%) | 139 (78.1%) |  |
| Yes | 40 (20.7%) | 1 (6.7%) | 39 (21.9%) |  |
| **If\_Yes\_Vitamin\_D\_drops** | | | | **1.0** |
| No | 192 (99.5%) | 15 (100.0%) | 177 (99.4%) |  |
| Yes | 1 (0.5%) | 0 (0.0%) | 1 (0.6%) |  |
| **If\_Yes\_Iron\_supplement** | | | | **1.0** |
| No | 192 (99.5%) | 15 (100.0%) | 177 (99.4%) |  |
| Yes | 1 (0.5%) | 0 (0.0%) | 1 (0.6%) |  |
| **If\_Yes\_Multivitamin** | | | | **0.14** |
| No | 162 (83.9%) | 15 (100.0%) | 147 (82.6%) |  |
| Yes | 31 (16.1%) | 0 (0.0%) | 31 (17.4%) |  |
| **If\_Yes\_zinc\_supplements** | | | | **0.34** |
| No | 188 (97.4%) | 14 (93.3%) | 174 (97.8%) |  |
| Yes | 5 (2.6%) | 1 (6.7%) | 4 (2.2%) |  |

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|  | **Total No. 198** | **CHUU Abnormal UmA-RI No. 20** | **CHUU Normal UmA-RI No. 178** | **P-value** |
| Child\_Hb\_value\_(g/dL) | 11.0 (±1.2) | 10.9 (±1.4) | 11.0 (±1.2) | 0.83 |
| **Anaemia\_category** | | | | **0.18** |
| Mild anaemia | 87 (43.9%) | 8 (40.0%) | 79 (44.4%) |  |
| Moderate anaemia | 11 (5.6%) | 3 (15.0%) | 8 (4.5%) |  |
| Normal | 100 (50.5%) | 9 (45.0%) | 91 (51.1%) |  |
| **UmA\_RI\_Classification** | | | | **< 0.0001** |
| Abnormal UmA-RI | 20 (10.1%) | 20 (100.0%) | 0 (0.0%) |  |
| Normal UmA-RI | 178 (89.9%) | 0 (0.0%) | 178 (100.0%) |  |
| **UmbiBaby\_group** | | | | **< 0.0001** |
| HR-PEDF | 20 (10.1%) | 20 (100.0%) | 0 (0.0%) |  |
| LR-FT | 164 (82.8%) | 0 (0.0%) | 164 (92.1%) |  |
| LR-Prem | 14 (7.1%) | 0 (0.0%) | 14 (7.9%) |  |
| **infant\_receive\_any\_vitamins\_or\_supplement\_drops** | | | | **0.77** |
| No | 155 (78.3%) | 16 (80.0%) | 139 (78.1%) |  |
| Yes | 42 (21.2%) | 3 (15.0%) | 39 (21.9%) |  |
| Missing | 1 (0.5%) | 1 (5.0%) | 0 (0.0%) |  |
| **If\_Yes\_Vitamin\_D\_drops** | | | | **0.19** |
| No | 196 (99.0%) | 19 (95.0%) | 177 (99.4%) |  |
| Yes | 2 (1.0%) | 1 (5.0%) | 1 (0.6%) |  |
| **If\_Yes\_Iron\_supplement** | | | | **1.0** |
| No | 197 (99.5%) | 20 (100.0%) | 177 (99.4%) |  |
| Yes | 1 (0.5%) | 0 (0.0%) | 1 (0.6%) |  |
| **If\_Yes\_Multivitamin** | | | | **0.54** |
| No | 165 (83.3%) | 18 (90.0%) | 147 (82.6%) |  |
| Yes | 33 (16.7%) | 2 (10.0%) | 31 (17.4%) |  |
| **If\_Yes\_zinc\_supplements** | | | | **1.0** |
| No | 194 (98.0%) | 20 (100.0%) | 174 (97.8%) |  |
| Yes | 4 (2.0%) | 0 (0.0%) | 4 (2.2%) |  |

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|  | **Total No. 225** | **CHEU Normal UmA-RI No. 47** | **CHUU Normal UmA-RI No. 178** | **P-value** |
| Child\_Hb\_value\_(g/dL) | 11.0 (±1.2) | 11.0 (±1.1) | 11.0 (±1.2) | 0.89 |
| **Anaemia\_category** | | | | **1.00** |
| Mild anaemia | 100 (44.4%) | 21 (44.7%) | 79 (44.4%) |  |
| Moderate anaemia | 10 (4.4%) | 2 (4.3%) | 8 (4.5%) |  |
| Normal | 115 (51.1%) | 24 (51.1%) | 91 (51.1%) |  |
| **UmbiBaby\_group** | | | | **0.20** |
| LR-FT | 210 (93.3%) | 46 (97.9%) | 164 (92.1%) |  |
| LR-Prem | 15 (6.7%) | 1 (2.1%) | 14 (7.9%) |  |
| **infant\_receive\_any\_vitamins\_or\_supplement\_drops** | | | | **0.55** |
| No | 177 (78.7%) | 38 (80.9%) | 139 (78.1%) |  |
| Yes | 47 (20.9%) | 8 (17.0%) | 39 (21.9%) |  |
| Missing | 1 (0.4%) | 1 (2.1%) | 0 (0.0%) |  |
| **If\_Yes\_Vitamin\_D\_drops** | | | | **1.0** |
| No | 224 (99.6%) | 47 (100.0%) | 177 (99.4%) |  |
| Yes | 1 (0.4%) | 0 (0.0%) | 1 (0.6%) |  |
| **If\_Yes\_Iron\_supplement** | | | | **0.37** |
| No | 223 (99.1%) | 46 (97.9%) | 177 (99.4%) |  |
| Yes | 2 (0.9%) | 1 (2.1%) | 1 (0.6%) |  |
| **If\_Yes\_Multivitamin** | | | | **0.51** |
| No | 188 (83.6%) | 41 (87.2%) | 147 (82.6%) |  |
| Yes | 37 (16.4%) | 6 (12.8%) | 31 (17.4%) |  |
| **If\_Yes\_zinc\_supplements** | | | | **1.0** |
| No | 220 (97.8%) | 46 (97.9%) | 174 (97.8%) |  |
| Yes | 5 (2.2%) | 1 (2.1%) | 4 (2.2%) |  |

**Maternal Hb Summaries**

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|  | **Total No. 256** | **CHEU Abnormal UmA-RI No. 15** | **CHEU Normal UmA-RI No. 46** | **CHUU Abnormal UmA-RI No. 20** | **CHUU Normal UmA-RI No. 175** | **P-value** |
| **Haemoglobin\_category** | | | | | | **0.045** |
| Mild anaemia | 31 (12.1%) | 3 (20.0%) | 6 (13.0%) | 6 (30.0%) | 16 (9.1%) |  |
| Moderate anamia | 36 (14.1%) | 3 (20.0%) | 10 (21.7%) | 2 (10.0%) | 21 (12.0%) |  |
| Normal | 189 (73.8%) | 9 (60.0%) | 30 (65.2%) | 12 (60.0%) | 138 (78.9%) |  |
| **Maternal\_Hb\_Value** | 12.7 (±1.5) | 12.0 (±1.3) | 12.4 (±1.7) | 12.7 (±1.5) | 12.8 (±1.5) | 0.089 |
| **Maternal\_TB\_status** | | | | | | **0.35** |
| Never | 241 (94.1%) | 13 (86.7%) | 41 (89.1%) | 19 (95.0%) | 168 (96.0%) |  |
| Previous | 4 (1.6%) | 0 (0.0%) | 2 (4.3%) | 0 (0.0%) | 2 (1.1%) |  |
| Unknown | 4 (1.6%) | 1 (6.7%) | 0 (0.0%) | 0 (0.0%) | 3 (1.7%) |  |
| Missing | 7 (2.7%) | 1 (6.7%) | 3 (6.5%) | 1 (5.0%) | 2 (1.1%) |  |
| **Iron\_supplement/ferrous\_sulphate** | | | | | | **< 0.0001** |
| No | 211 (82.4%) | 5 (33.3%) | 36 (78.3%) | 19 (95.0%) | 151 (86.3%) |  |
| Yes | 45 (17.6%) | 10 (66.7%) | 10 (21.7%) | 1 (5.0%) | 24 (13.7%) |  |
| **Folic\_acid\_supplementation** | | | | | | **< 0.0001** |
| No | 219 (85.5%) | 5 (33.3%) | 37 (80.4%) | 20 (100.0%) | 157 (89.7%) |  |
| Yes | 37 (14.5%) | 10 (66.7%) | 9 (19.6%) | 0 (0.0%) | 18 (10.3%) |  |

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|  | **Total No. 256** | **Negative No. 195** | **Positive No. 61** | **P-value** |
| **Haemoglobin\_category** | | | | **0.098** |
| Mild anaemia | 31 (12.1%) | 22 (11.3%) | 9 (14.8%) |  |
| Moderate anamia | 36 (14.1%) | 23 (11.8%) | 13 (21.3%) |  |
| Normal | 189 (73.8%) | 150 (76.9%) | 39 (63.9%) |  |
| **Maternal\_Hb\_Value** | 12.7 (±1.5) | 12.8 (±1.5) | 12.3 (±1.6) | 0.014 |
| **Maternal\_TB\_status** | | | | **0.40** |
| Never | 241 (94.1%) | 187 (95.9%) | 54 (88.5%) |  |
| Previous | 4 (1.6%) | 2 (1.0%) | 2 (3.3%) |  |
| Unknown | 4 (1.6%) | 3 (1.5%) | 1 (1.6%) |  |
| Missing | 7 (2.7%) | 3 (1.5%) | 4 (6.6%) |  |
| **Iron\_supplement/ferrous\_sulphate** | | | | **0.0008** |
| No | 211 (82.4%) | 170 (87.2%) | 41 (67.2%) |  |
| Yes | 45 (17.6%) | 25 (12.8%) | 20 (32.8%) |  |
| **Folic\_acid\_supplementation** | | | | **< 0.0001** |
| No | 219 (85.5%) | 177 (90.8%) | 42 (68.9%) |  |
| Yes | 37 (14.5%) | 18 (9.2%) | 19 (31.1%) |  |

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|  | **Total No. 256** | **Abormal UmA-RI No. 35** | **Normal UmA-RI No. 221** | **P-value** |
| **Haemoglobin\_category** | | | | **0.035** |
| Mild anaemia | 31 (12.1%) | 9 (25.7%) | 22 (10.0%) |  |
| Moderate anamia | 36 (14.1%) | 5 (14.3%) | 31 (14.0%) |  |
| Normal | 189 (73.8%) | 21 (60.0%) | 168 (76.0%) |  |
| **Maternal\_Hb\_Value** | 12.7 (±1.5) | 12.4 (±1.4) | 12.7 (±1.5) | 0.17 |
| **Maternal\_TB\_status** | | | | **0.68** |
| Never | 241 (94.1%) | 32 (91.4%) | 209 (94.6%) |  |
| Previous | 4 (1.6%) | 0 (0.0%) | 4 (1.8%) |  |
| Unknown | 4 (1.6%) | 1 (2.9%) | 3 (1.4%) |  |
| Missing | 7 (2.7%) | 2 (5.7%) | 5 (2.3%) |  |
| **Iron\_supplement/ferrous\_sulphate** | | | | **0.030** |
| No | 211 (82.4%) | 24 (68.6%) | 187 (84.6%) |  |
| Yes | 45 (17.6%) | 11 (31.4%) | 34 (15.4%) |  |
| **Folic\_acid\_supplementation** | | | | **0.018** |
| No | 219 (85.5%) | 25 (71.4%) | 194 (87.8%) |  |
| Yes | 37 (14.5%) | 10 (28.6%) | 27 (12.2%) |  |

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|  | **Total No. 190** | **CHEU Abnormal UmA-RI No. 15** | **CHUU Normal UmA-RI No. 175** | **P-value** |
| **Haemoglobin\_category** | | | | **0.18** |
| Mild anaemia | 19 (10.0%) | 3 (20.0%) | 16 (9.1%) |  |
| Moderate anamia | 24 (12.6%) | 3 (20.0%) | 21 (12.0%) |  |
| Normal | 147 (77.4%) | 9 (60.0%) | 138 (78.9%) |  |
| **Maternal\_Hb\_Value** | 12.8 (±1.5) | 12.0 (±1.3) | 12.8 (±1.5) | 0.024 |
| **Iron\_supplement/ferrous\_sulphate** | | | | **< 0.0001** |
| No | 156 (82.1%) | 5 (33.3%) | 151 (86.3%) |  |
| Yes | 34 (17.9%) | 10 (66.7%) | 24 (13.7%) |  |
| **Folic\_acid\_supplementation** | | | | **< 0.0001** |
| No | 162 (85.3%) | 5 (33.3%) | 157 (89.7%) |  |
| Yes | 28 (14.7%) | 10 (66.7%) | 18 (10.3%) |  |

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|  | **Total No. 195** | **CHUU Abnormal UmA-RI No. 20** | **CHUU Normal UmA-RI No. 175** | **P-value** |
| **Haemoglobin\_category** | | | | **0.024** |
| Mild anaemia | 22 (11.3%) | 6 (30.0%) | 16 (9.1%) |  |
| Moderate anamia | 23 (11.8%) | 2 (10.0%) | 21 (12.0%) |  |
| Normal | 150 (76.9%) | 12 (60.0%) | 138 (78.9%) |  |
| **Maternal\_Hb\_Value** | 12.8 (±1.5) | 12.7 (±1.5) | 12.8 (±1.5) | 0.70 |
| **Iron\_supplement/ferrous\_sulphate** | | | | **0.48** |
| No | 170 (87.2%) | 19 (95.0%) | 151 (86.3%) |  |
| Yes | 25 (12.8%) | 1 (5.0%) | 24 (13.7%) |  |
| **Folic\_acid\_supplementation** | | | | **0.23** |
| No | 177 (90.8%) | 20 (100.0%) | 157 (89.7%) |  |
| Yes | 18 (9.2%) | 0 (0.0%) | 18 (10.3%) |  |

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|  | **Total No. 221** | **CHEU Normal UmA-RI No. 46** | **CHUU Normal UmA-RI No. 175** | **P-value** |
| **Haemoglobin\_category** | | | | **0.14** |
| Mild anaemia | 22 (10.0%) | 6 (13.0%) | 16 (9.1%) |  |
| Moderate anamia | 31 (14.0%) | 10 (21.7%) | 21 (12.0%) |  |
| Normal | 168 (76.0%) | 30 (65.2%) | 138 (78.9%) |  |
| **Maternal\_Hb\_Value** | 12.7 (±1.5) | 12.4 (±1.7) | 12.8 (±1.5) | 0.074 |
| **Iron\_supplement/ferrous\_sulphate** | | | | **0.18** |
| No | 187 (84.6%) | 36 (78.3%) | 151 (86.3%) |  |
| Yes | 34 (15.4%) | 10 (21.7%) | 24 (13.7%) |  |
| **Folic\_acid\_supplementation** | | | | **0.13** |
| No | 194 (87.8%) | 37 (80.4%) | 157 (89.7%) |  |
| Yes | 27 (12.2%) | 9 (19.6%) | 18 (10.3%) |  |