**Supplementary Materials**

## APPENDIX

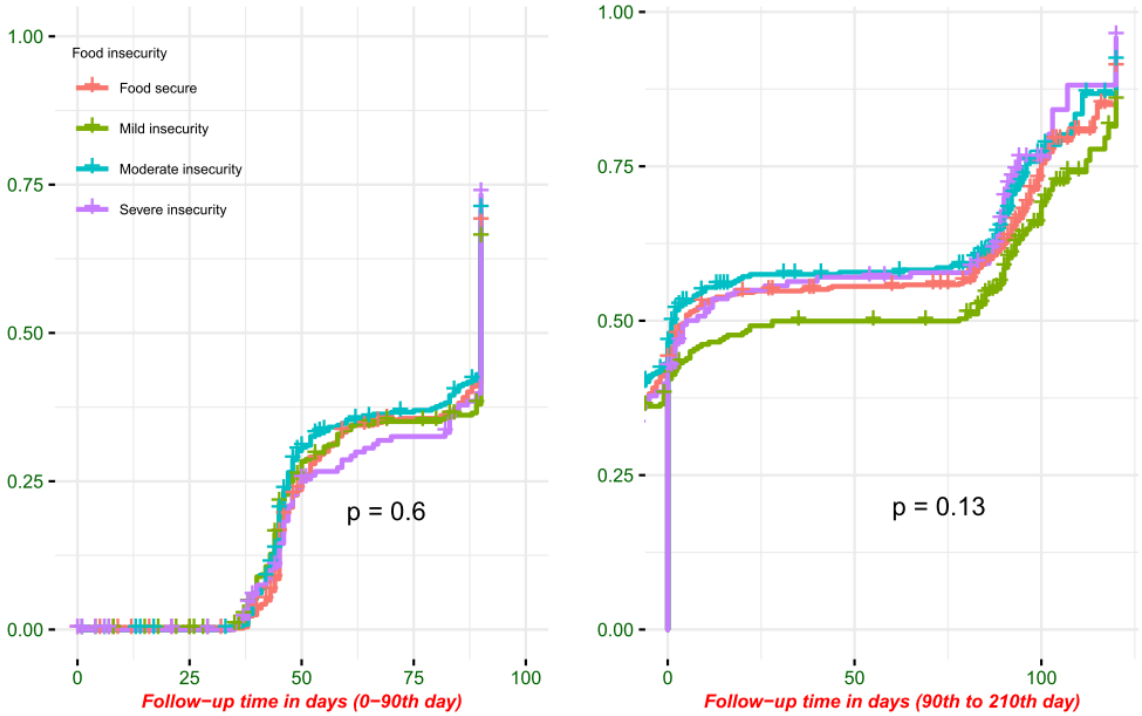



Figure S1. Plot for food insecurity over time

**Models from The Sensitivity Analysis**

*Model 1: Individual missing follow-up MUAC considered as censored*

*Model 2: Complete case analysis*

*Model 3: Mixed-effects Cox proportional hazards model, accounting for random effect by study site*

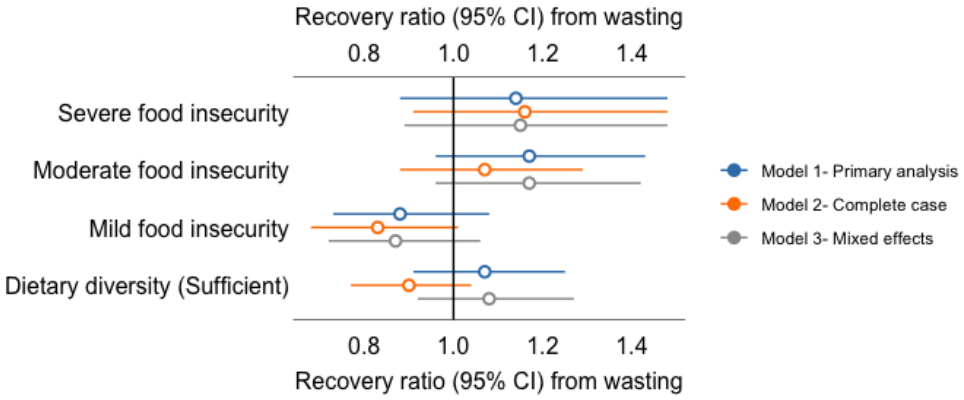



**Figure S2:** Sensitivity analysis for the effect of food insecurity and dietary diversity on recovery from acute malnutrition

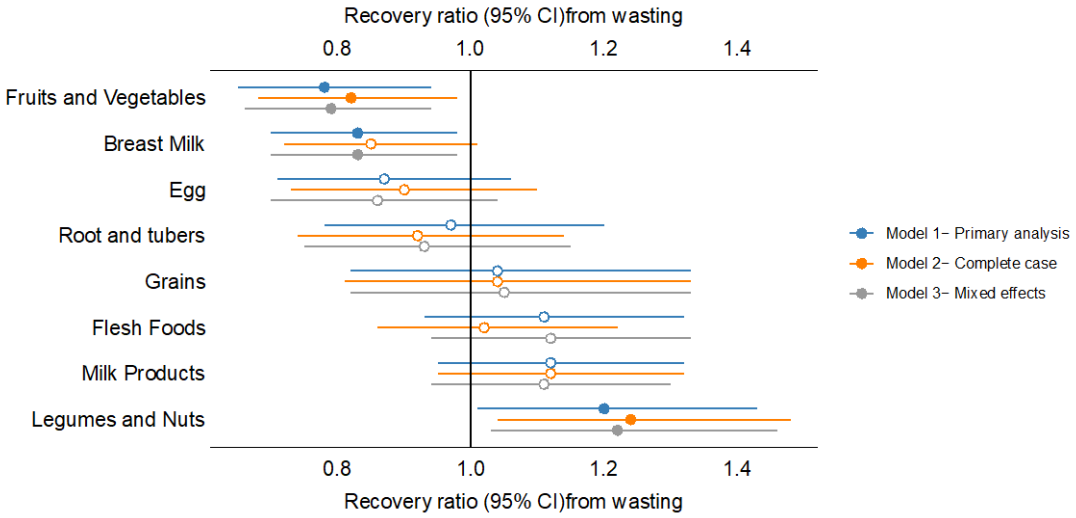



**Figure S3:** Sensitivity analysis for the effect of specific food groups on recovery from wasting

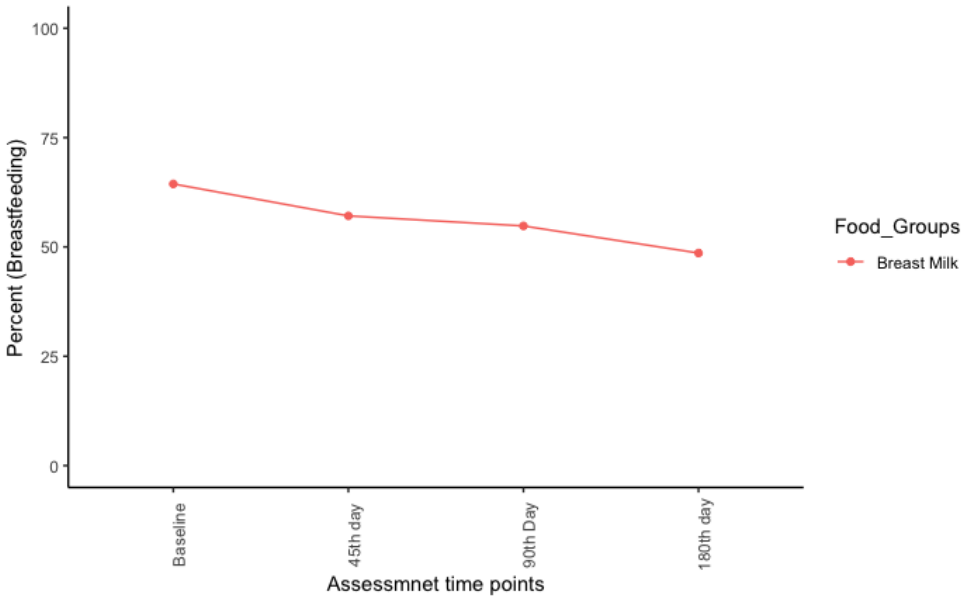



Figure S4. The trend of breastfeeding overtime

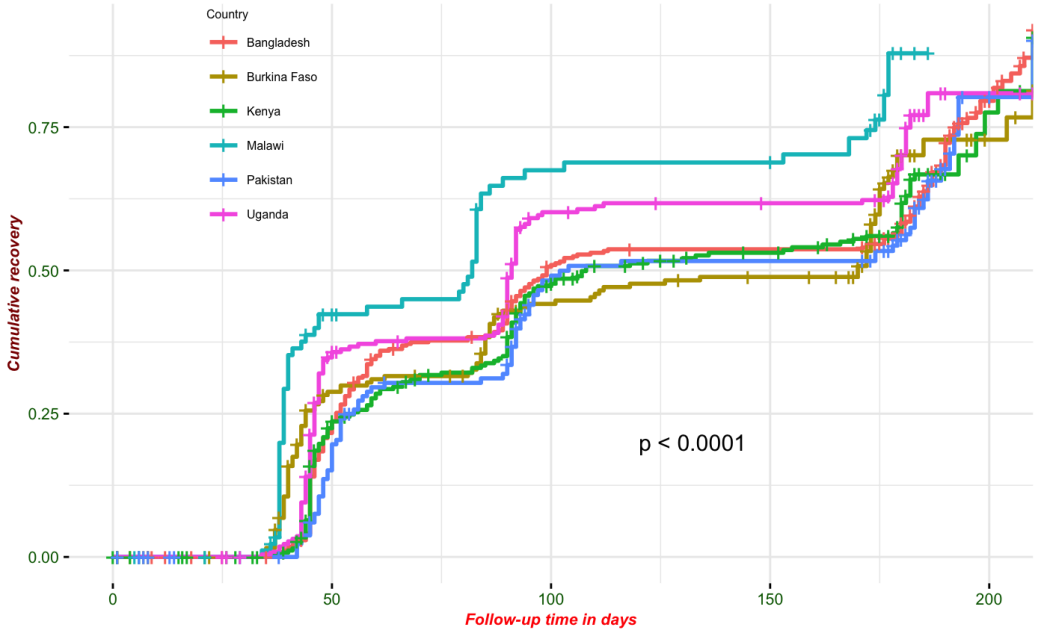



Figure S5. A Kaplan-Meier curve of recovery by country

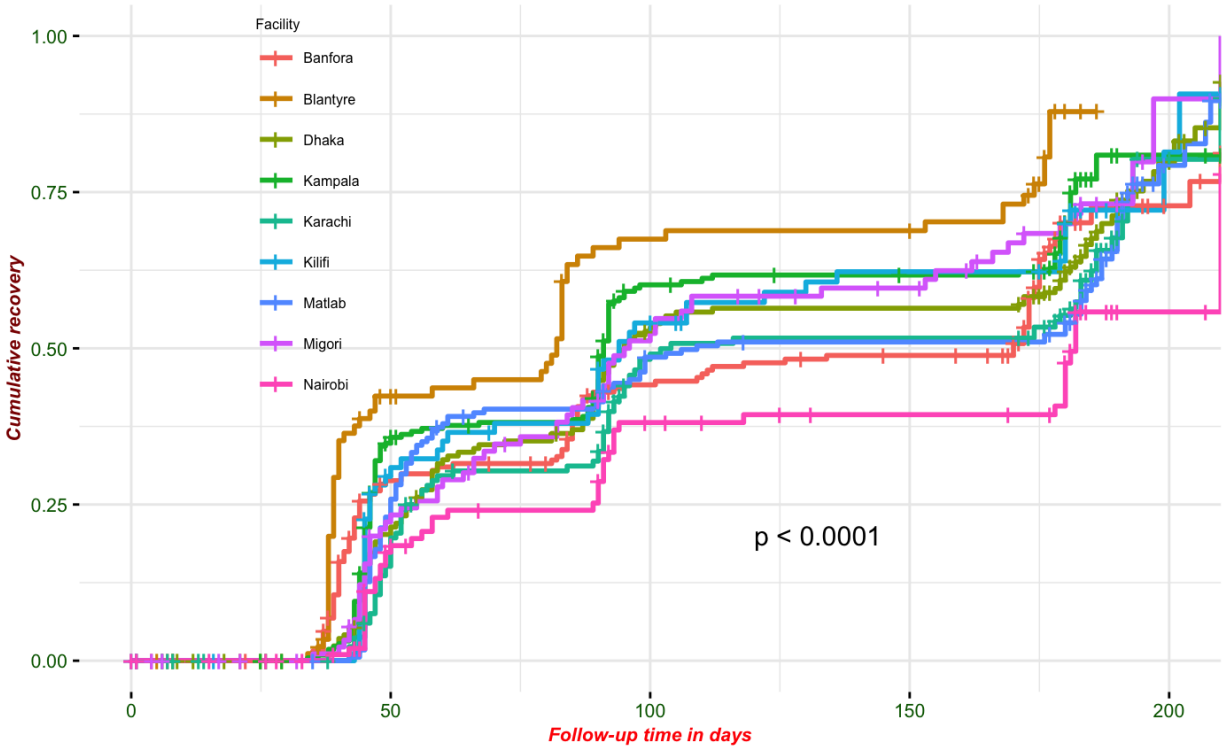



Figure S6. A Kaplan-Meier curve of recovery by country

Table S1: The association of food insecurity with dietary diversity

| Characteristic | Overall, N = 1,286 | Food secure, N = 460 | Mild food insecurity, N = 307 | Moderate food insecurity, N = 349 | Severe food insecurity, N = 170 | p-value[1] |
|---|---|---|---|---|---|---|
| **Sufficient dietary diversity, n (%)** | 622 (48%) | 274 (60%) | 149 (49%) | 141 (40%) | 58 (34%) | <0.001 |

[1]Pearson's Chi-squared test

Table S2. Summary of Kaplan-Meir non-recovery probabilities

| Time | At risk pop. | Recovered | Non-recovery probability | 95% CI Lower | 95% CI Upper |
|---|---|---|---|---|---|
| 0 | 1286 | 0 | 1 | *NA* | *NA* |
| 15 | 1263 | 0 | 1 | *NA* | *NA* |
| 30 | 1249 | 0 | 1 | *NA* | *NA* |
| 45 | 1079 | 226 | 0.817 | 0.794 | 0.837 |
| 60 | 793 | 184 | 0.664 | 0.637 | 0.690 |
| 75 | 759 | 22 | 0.645 | 0.618 | 0.672 |
| 90 | 686 | 95 | 0.564 | 0.535 | 0.591 |
| 105 | 526 | 104 | 0.472 | 0.443 | 0.500 |
| 120 | 501 | 19 | 0.455 | 0.426 | 0.483 |
| 135 | 490 | 5 | 0.450 | 0.422 | 0.479 |
| 150 | 486 | 1 | 0.449 | 0.421 | 0.478 |
| 165 | 477 | 4 | 0.446 | 0.417 | 0.474 |
| 180 | 321 | 80 | 0.362 | 0.333 | 0.390 |

Median survival time was 96 days (95% CI: 92, 106).

Table S3. Summary of Kaplan-Meir non-recovery probabilities by dietary diversity

| | Sufficient dietary diversity – YES<br>Medians survival time – 98(95% CI:92,130) | | | | | Sufficient dietary diversity – No<br>Medians survival time – 94(95% CI:91,1 07) | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Time | At risk pop. | Recovered | Non-recovery probability | 95% CI Lower | 95% CI Upper | At risk pop. | Recovered | Non-recovery probability | 95% CI Lower | 95% CI Upper |
| 0 | 622 | 0 | 1.000 | NA | NA | 664 | 0 | 1 | 1 | 1 |
| 15 | 612 | 0 | 1.000 | NA | NA | 651 | 0 | 1 | NA | NA |
| 30 | 605 | 0 | 1.000 | NA | NA | 644 | 0 | 1 | NA | NA |
| 45 | 533 | 107 | 0.821 | 0.788 | 0.850 | 546 | 119 | 0.812 | 0.78 | 0.841 |
| 60 | 380 | 97 | 0.655 | 0.615 | 0.692 | 413 | 87 | 0.672 | 0.634 | 0.707 |
| 75 | 361 | 11 | 0.636 | 0.596 | 0.673 | 398 | 11 | 0.654 | 0.615 | 0.69 |
| 90 | 334 | 38 | 0.569 | 0.528 | 0.608 | 352 | 57 | 0.559 | 0.519 | 0.597 |
| 105 | 264 | 49 | 0.481 | 0.439 | 0.521 | 262 | 55 | 0.464 | 0.423 | 0.503 |
| 120 | 249 | 11 | 0.461 | 0.419 | 0.501 | 252 | 8 | 0.449 | 0.409 | 0.489 |
| 135 | 243 | 2 | 0.457 | 0.416 | 0.497 | 247 | 3 | 0.444 | 0.404 | 0.483 |
| 150 | 242 | 1 | 0.455 | 0.414 | 0.495 | 244 | 0 | 0.444 | 0.404 | 0.483 |
| 165 | 240 | 2 | 0.451 | 0.410 | 0.492 | 237 | 2 | 0.44 | 0.4 | 0.48 |
| 180 | 184 | 35 | 0.379 | 0.338 | 0.420 | 137 | 45 | 0.345 | 0.305 | 0.385 |

Table S4. Summary of Kaplan-Meir non-recovery probabilities by nutritional status

| | MW (MUAC 11.5-12.5)<br>Medians survival time – 81(95% CI:59,89) | | | | | SWK (MUAC<11.5 or edema)<br>Medians survival time – 182(95% CI:180,186) | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Time | At risk pop. | Recovered | Non-recovery probability | 95% CI Lower | 95% CI Upper | At risk pop. | Recovered | Non-recovery probability | 95% CI Lower | 95% CI Upper |
| 0 | 699 | 0 | 1 | *NA* | *NA* | 587 | 0 | 1 | *NA* | *NA* |
| 15 | 690 | 0 | 1 | *NA* | *NA* | 573 | 0 | 1 | *NA* | *NA* |
| 30 | 685 | 0 | 1 | *NA* | *NA* | 564 | 0 | 1 | *NA* | *NA* |
| 45 | 573 | 170 | 0.751 | 0.717 | 0.782 | 506 | 56 | 0.899 | 0.87 | 0.921 |
| 60 | 353 | 149 | 0.528 | 0.49 | 0.565 | 440 | 35 | 0.833 | 0.799 | 0.862 |
| 75 | 330 | 16 | 0.504 | 0.466 | 0.541 | 429 | 6 | 0.822 | 0.787 | 0.851 |
| 90 | 292 | 53 | 0.422 | 0.385 | 0.46 | 394 | 42 | 0.74 | 0.701 | 0.776 |
| 105 | 208 | 60 | 0.328 | 0.292 | 0.364 | 318 | 44 | 0.653 | 0.61 | 0.692 |
| 120 | 189 | 14 | 0.306 | 0.271 | 0.341 | 312 | 5 | 0.642 | 0.599 | 0.682 |
| 135 | 183 | 3 | 0.301 | 0.266 | 0.336 | 307 | 2 | 0.638 | 0.595 | 0.678 |
| 150 | 180 | 1 | 0.299 | 0.264 | 0.335 | 306 | 0 | 0.638 | 0.595 | 0.678 |
| 165 | 179 | 0 | 0.299 | 0.264 | 0.335 | 298 | 4 | 0.63 | 0.587 | 0.67 |
| 180 | 122 | 39 | 0.228 | 0.195 | 0.262 | 199 | 41 | 0.531 | 0.485 | 0.575 |

Table S5. Summary of Kaplan-Meir non-recovery probabilities by food insecurity

| | Food secure<br>Medians survival time – 95(95% CI:91, 113) | | | | | Mild food insecurity<br>Medians survival time – 168(95% CI:96, 179) | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Time | At risk pop. | Recovered | Non-recovery probability | 95% CI Lower | 95% CI Upper | At risk pop. | Recovered | Non-recovery probability | 95% CI Lower | 95% CI Upper |
| 0 | 460 | 0 | 1 | *NA* | *NA* | 307 | 0 | 1 | 1 | 1 |
| 15 | 450 | 0 | 1 | *NA* | *NA* | 304 | 0 | 1 | *NA* | *NA* |
| 30 | 447 | 0 | 1 | *NA* | *NA* | 296 | 0 | 1 | *NA* | *NA* |
| 45 | 403 | 72 | 0.837 | 0.800 | 0.869 | 242 | 62 | 0.786 | 0.735 | 0.829 |
| 60 | 287 | 77 | 0.660 | 0.614 | 0.703 | 188 | 35 | 0.664 | 0.606 | 0.715 |
| 75 | 274 | 7 | 0.644 | 0.597 | 0.687 | 182 | 4 | 0.649 | 0.591 | 0.701 |
| 90 | 249 | 35 | 0.562 | 0.514 | 0.607 | 168 | 15 | 0.594 | 0.535 | 0.649 |
| 105 | 191 | 42 | 0.462 | 0.414 | 0.508 | 141 | 18 | 0.527 | 0.467 | 0.584 |
| 120 | 184 | 4 | 0.452 | 0.404 | 0.498 | 133 | 7 | 0.501 | 0.441 | 0.558 |
| 135 | 179 | 3 | 0.444 | 0.397 | 0.491 | 132 | 0 | 0.501 | 0.441 | 0.558 |
| 150 | 179 | 0 | 0.444 | 0.397 | 0.491 | 131 | 0 | 0.501 | 0.441 | 0.558 |
| 165 | 175 | 1 | 0.442 | 0.394 | 0.488 | 130 | 0 | 0.501 | 0.441 | 0.558 |
| 180 | 121 | 25 | 0.372 | 0.325 | 0.419 | 88 | 20 | 0.414 | 0.354 | 0.473 |
| | Moderate food insecurity<br>Medians survival time – 92(95% CI:90, 100) | | | | | Severe food insecurity<br>Medians survival time – 95(95% CI:90, 155) | | | | |
| 0 | 349 | 0 | 1 | 1 | 1 | 170 | 0 | 1 | *NA* | *NA* |
| 15 | 345 | 0 | 1 | *NA* | *NA* | 164 | 0 | 1 | *NA* | *NA* |
| 30 | 344 | 0 | 1 | *NA* | *NA* | 162 | 0 | 1 | *NA* | *NA* |
| 45 | 294 | 69 | 0.798 | 0.751 | 0.837 | 140 | 23 | 0.855 | 0.790 | 0.901 |
| 60 | 209 | 50 | 0.646 | 0.592 | 0.695 | 109 | 22 | 0.714 | 0.636 | 0.778 |
| 75 | 200 | 5 | 0.630 | 0.576 | 0.680 | 103 | 6 | 0.675 | 0.595 | 0.742 |
| 90 | 178 | 30 | 0.535 | 0.479 | 0.587 | 91 | 15 | 0.575 | 0.494 | 0.649 |
| 105 | 128 | 28 | 0.443 | 0.387 | 0.496 | 66 | 16 | 0.465 | 0.383 | 0.542 |
| 120 | 121 | 5 | 0.425 | 0.370 | 0.479 | 63 | 3 | 0.443 | 0.363 | 0.521 |
| 135 | 118 | 0 | 0.425 | 0.370 | 0.479 | 61 | 2 | 0.429 | 0.349 | 0.507 |
| 150 | 117 | 1 | 0.421 | 0.367 | 0.475 | 59 | 0 | 0.429 | 0.349 | 0.507 |
| 165 | 114 | 2 | 0.414 | 0.359 | 0.468 | 58 | 1 | 0.422 | 0.342 | 0.500 |
| 180 | 75 | 20 | 0.331 | 0.277 | 0.386 | 37 | 15 | 0.301 | 0.226 | 0.379 |

Table S6: Comparison of individuals with a follow-up MUAC and without a follow-up MUAC

| | | Overall | Have at least 1 MUAC | No follow-up MUAC |
|---|---|---|---|---|
| n | | 1286 | 1180 | 106 |
| Age | | | | |
| | 6-11 months | 627 (49) | 574 (49) | 53 (50) |
| | 12-17 months | 436 (34) | 400 (34) | 36 (34) |
| | 18-23 months | 223 (17) | 206 (17) | 17 (16) |
| HIV-Positive | | 67 (5) | 59 (5) | 8 (8) |
| Wasting | | | | |
| | Discharge to 45 days | 47 (4) | 2 (0) | 45 (42) |
| | 45-90 days | 29 (2) | 16 (1) | 13 (12) |
| | 90-180 days | 546 (42) | 531 (45) | 15 (14) |
| | >180 days | 664 (52) | 631 (53) | 33 (31) |
| Died | | 91 (7) | 37 (3) | 54 (51) |
| Baseline MUAC | | | | |
| | SWK (MUAC<11.5) | 748 (58) | 675 (57) | 73 (69) |
| | MW (MUAC11.5-12.5) | 502 (39) | 475 (40) | 27 (25) |
| | No wasting (MUAC>12.5) | 36 (3) | 30 (3) | 6 (6) |
| Stunting | | | | |
| | Severe | 469 (36) | 429 (36) | 40 (38) |
| | Moderate | 376 (29) | 358 (30) | 18 (17) |
| | Mild | 439 (34) | 392 (33) | 47 (44) |
| | Missing | 2 (0) | 1 (0) | 1 (1) |
| Wasting | | | | |
| | Severe | 586 (46) | 532 (45) | 54 (51) |
| | Moderate | 391 (30) | 363 (31) | 28 (26) |
| | Mild | 307 (24) | 284 (24) | 23 (22) |
| | Missing | 2 (0) | 1 (0) | 1 (1) |
| Died | | 91 (7) | 37 (3) | 54 (51) |
| Death likelihood at discharge | | | | |
| | Almost certainly not | 310 (24) | 284 (24) | 26 (25) |
| | Very unlikely | 514 (40) | 476 (40) | 38 (36) |
| | Quite unlikely | 324 (25) | 298 (25) | 26 (25) |
| | Unsure | 107 (8) | 93 (8) | 14 (13) |
| | Quite likely | 9 (1) | 9 (1) | 0 (0) |
| | Very likely | 1 (0) | 1 (0) | 0 (0) |
| | Almost certainly | 1 (0) | 1 (0) | 0 (0) |
| | NA | 20 (2) | 18 (2) | 2 (2) |
| Lost to follow up status | | | | |
| | Withdrew post-discharge | 13 (1) | 4 (0) | 9 (8) |
| | Lost after discharge | 9 (1) | 4 (0) | 5 (5) |
| | Did not withdraw/ltfu | 1264 (98) | 1172 (99) | 92 (87) |
| Dietary diversity (sufficient) | | | | |
| | No | 664 (52) | 613(52) | 51 (48) |

| | | | |
|---|---|---|---|
| Yes | 622 (48) | 567 (48) | 55 (52) |
| Food insecurity | | | |
| Mild | 765 (59) | 701 (59) | 64 (60) |
| Moderate | 349 (27) | 326 (28) | 23 (22) |
| Severe | 172 (13) | 153 (13) | 19 (18) |
| Weight for length at admission (mean (SD)) | -2.9 (1.3) | -2.9 (1.2) | -3.2 (1.3) |
| Weight for age at admission (mean (SD)) | -3.5 (1.2) | -3.4 (1.2) | -3.6 (1.5) |
| Length for age at admission (mean (SD)) | -2.6 (1.5) | -2.6 (1.5) | -2.5 (1.9) |
| MUAC at admission (mean (SD)) | 11.3 (1.0) | 11.3 (1.0) | 11.1 (1.1) |
| Weight for length at discharge (mean (SD)) | -2.7 (1.2) | -2.6 (1.2) | -3.1 (1.4) |
| Weight for age at discharge (mean (SD)) | -3.4 (1.2) | -3.3 (1.1) | -3.6 (1.5) |
| Length for age at discharge (mean (SD)) | -2.7 (1.5) | -2.7 (1.5) | -2.6 (1.8) |
| MUAC at discharge (mean (SD)) | 11.4 (1.0) | 11.4 (0.9) | 11.1 (1.2) |

Table S7: The distribution of specific food groups by breastfeeding status

| | Breastfeeding | | |
|---|---|---|---|
| Characteristic | No, N = 458[1] | Yes, N = 828[1] | p-value[2] |
| Grains | 396 (86%) | 703 (85%) | 0.4 |
| Legumes and nuts | 216 (47%) | 341 (41%) | 0.038 |
| Flesh foods | 195 (43%) | 350 (42%) | >0.9 |
| Eggs | 100 (22%) | 271 (33%) | <0.001 |
| Fruits and vegetables | 241 (53%) | 452 (55%) | 0.5 |
| Root and tubers | 221 (48%) | 396 (48%) | 0.9 |
| Milk & Dairy products | 307 (67%) | 447 (54%) | <0.001 |

2Pearson's Chi-squared test

Table S8: The relationship of wealth quintiles with breastfeeding status

| Characteristic | No, N = 458[1] | Yes, N = 828[1] | p-value[2] |
|---|---|---|---|
| **Wealth quintiles** | | | 0.2 |
| Least poor | 73 (16%) | 167 (20%) | |
| Fourth | 111 (24%) | 169 (20%) | |
| Middle | 102 (22%) | 167 (20%) | |
| Second | 88 (19%) | 164 (20%) | |
| Poorest | 84 (18%) | 161 (19%) | |

[1]n (%)

[2]Pearson's Chi-squared test

Table S9: The distribution of specific food groups, food insecurity, dietary diversity, and study setting by fruits and vegetables

| Characteristic | 0, N = 593[1] | 1, N = 693[1] |
|---|---|---|
| **Breast feeding** | 376 (45%) | 452 (55%) |
| **Grains** | 458 (42%) | 641 (58%) |
| **Legumes and nuts** | 138 (25%) | 419 (75%) |
| **Flesh foods** | 146 (27%) | 399 (73%) |
| **Eggs** | 51 (14%) | 320 (86%) |
| **Root and tubers** | 133 (22%) | 484 (78%) |
| **Milk & Diary products** | 302 (40%) | 452 (60%) |
| **Food groups consumed** | | |
| 1 | 73 (100%) | 0 (0%) |
| 2 | 237 (89%) | 29 (11%) |
| 3 | 150 (69%) | 68 (31%) |
| 4 | 76 (46%) | 91 (54%) |
| 5 | 42 (25%) | 127 (75%) |
| 6 | 12 (7.6%) | 145 (92%) |
| 7 | 3 (2.2%) | 135 (98%) |
| 8 | 0 (0%) | 98 (100%) |
| **Sufficient dietary diversity** | 188 (30%) | 434 (70%) |
| **Nutritional status at discharge** | | |
| MAM (MUAC 11.5-12.5) | 298 (43%) | 401 (57%) |
| SAM (MUAC<11.5 or edema) | 295 (50%) | 292 (50%) |
| **Facility** | | |
| Banfora | 166 (85%) | 30 (15%) |
| Blantyre | 39 (42%) | 53 (58%) |
| Dhaka | 96 (55%) | 78 (45%) |
| Kampala | 121 (54%) | 103 (46%) |
| Karachi | 75 (52%) | 68 (48%) |
| Kilifi | 40 (52%) | 37 (48%) |
| Matlab | 11 (6.2%) | 165 (94%) |
| Migori | 40 (42%) | 56 (58%) |
| Nairobi | 5 (4.6%) | 103 (95%) |

[1]n (%)

## RESULTS BY STUDY SITE

Table S10: The distribution of food security and dietary diversity by study site

| Characteristic | Banfora, N = 196[1] | Blantyre, N = 92[1] | Dhaka, N = 174[1] | Kampala, N = 224[1] | Karachi, N = 143[1] | Kilifi, N = 77[1] | Matlab, N = 176[1] | Migori, N = 96[1] | Nairobi, N = 108[1] |
|---|---|---|---|---|---|---|---|---|---|
| **Food security status** | | | | | | | | | |
| Food secure | 77 (39%) | 19 (21%) | 90 (52%) | 38 (17%) | 31 (22%) | 18 (23%) | 130 (74%) | 37 (39%) | 20 (19%) |
| Mild food insecurity | 95 (48%) | 11 (12%) | 29 (17%) | 55 (25%) | 25 (17%) | 20 (26%) | 44 (25%) | 4 (4.2%) | 24 (22%) |
| Moderate food insecurity | 24 (12%) | 33 (36%) | 33 (19%) | 99 (44%) | 56 (39%) | 20 (26%) | 2 (1.1%) | 29 (30%) | 53 (49%) |
| Severe food insecurity | 0 (0%) | 29 (32%) | 22 (13%) | 32 (14%) | 31 (22%) | 19 (25%) | 0 (0%) | 26 (27%) | 11 (10%) |
| **Sufficient dietary diversity** | 56 (29%) | 44 (48%) | 100 (57%) | 70 (31%) | 54 (38%) | 27 (35%) | 159 (90%) | 31 (32%) | 81 (75%) |

[1]n (%)

Table S11: The distribution food types by study site

| Characteristic | Banfora, N = 196[1] | Blantyre, N = 92[1] | Dhaka, N = 174[1] | Kampala, N = 224[1] | Karachi, N = 143[1] | Kilifi, N = 77[1] | Matlab, N = 176[1] | Migori, N = 96[1] | Nairobi, N = 108[1] |
|---|---|---|---|---|---|---|---|---|---|
| **Breast Milk** | 161 (82%) | 53 (58%) | 127 (73%) | 78 (35%) | 82 (57%) | 42 (55%) | 162 (92%) | 41 (43%) | 82 (76%) |
| **Milk Products** | 50 (26%) | 17 (18%) | 102 (59%) | 133 (59%) | 110 (77%) | 30 (39%) | 143 (81%) | 72 (75%) | 97 (90%) |
| **Egg** | 10 (5.1%) | 11 (12%) | 33 (19%) | 51 (23%) | 38 (27%) | 2 (2.6%) | 150 (85%) | 26 (27%) | 50 (46%) |
| **Flesh Foods** | 57 (29%) | 34 (37%) | 35 (20%) | 155 (69%) | 30 (21%) | 9 (12%) | 140 (80%) | 34 (35%) | 51 (47%) |
| **Grains** | 168 (86%) | 91 (99%) | 153 (88%) | 188 (84%) | 68 (48%) | 76 (99%) | 167 (95%) | 85 (89%) | 103 (95%) |
| **Root and tubers** | 13 (6.6%) | 14 (15%) | 81 (47%) | 173 (77%) | 37 (26%) | 11 (14%) | 153 (87%) | 35 (36%) | 100 (93%) |
| **Legumes and Nuts** | 23 (12%) | 53 (58%) | 76 (44%) | 153 (68%) | 22 (15%) | 18 (23%) | 103 (59%) | 36 (38%) | 73 (68%) |
| **Fruits and Vegetables** | 30 (15%) | 53 (58%) | 78 (45%) | 103 (46%) | 68 (48%) | 37 (48%) | 165 (94%) | 56 (58%) | 103 (95%) |

[1]n (%)

Table S12: Proportion of recovery by facility

| Characteristic | Overall, N = 1,286 | 0, N = 461 | Recovered, N = 825 | p-value[1] |
|---|---|---|---|---|
| **Facility, n (%)** | | | | <0.001 |
| Banfora | 196 (15%) | 78 (40%) | 118 (60%) | |
| Blantyre | 92 (7.2%) | 26 (28%) | 66 (72%) | |
| Dhaka | 174 (14%) | 50 (29%) | 124 (71%) | |
| Kampala | 224 (17%) | 72 (32%) | 152 (68%) | |
| Karachi | 143 (11%) | 58 (41%) | 85 (59%) | |
| Kilifi | 77 (6.0%) | 26 (34%) | 51 (66%) | |
| Matlab | 176 (14%) | 58 (33%) | 118 (67%) | |
| Migori | 96 (7.5%) | 32 (33%) | 64 (67%) | |
| Nairobi | 108 (8.4%) | 61 (56%) | 47 (44%) | |

[1]Pearson's Chi-squared test

Table S13: Kaplan Meier test result comparing time to recovery acrsso stusy sites

| Facility | N | Observed | Expected |
|---|---|---|---|
| Banfora | 196 | 118 | 116.1 |
| Blantyre | 92 | 66 | 34.2 |
| Dhaka | 174 | 124 | 128.1 |
| Kampala | 224 | 152 | 127.8 |
| Karachi | 143 | 85 | 102.6 |
| Kilifi | 77 | 51 | 47.6 |
| Matlab | 176 | 118 | 136.7 |
| Migori | 96 | 64 | 58.2 |
| Nairobi | 108 | 47 | 73.7 |
| Chisq= 52.4 on 8 degrees of freedom, p= 1e-08 | | | |

Table S14: Crude HR for the association of study site with recovery

| Facility | HR | 2.50% | 97.50% |
|---|---|---|---|
| Banfora | 0.84 | 0.66 | 1.07 |
| Blantyre | 1.62 | 1.22 | 2.17 |
| Dhaka | 0.8 | 0.63 | 1.02 |
| Karachi | 0.68 | 0.52 | 0.89 |
| Kilifi | 0.9 | 0.65 | 1.23 |
| Matlab | 0.71 | 0.56 | 0.91 |
| Migori | 0.92 | 0.68 | 1.23 |
| Nairobi | 0.53 | 0.38 | 0.73 |
| ***Ref: Kampala – higher sample size*** | | | |

Table S15: The interaction of age with specific food groups, dietary diversity, and food insecurity

| Group | Characteristic | $HR_1$ | $95\%\ CI_1$ | p-value |
|---|---|---|---|---|
| Breastfeeding | **Age** | | | |
| | <12 Months | — | — | |
| | >= 12 Months | 1.58 | 1.25, 2.00 | <0.001 |
| | **Breast Milk** | 1.01 | 0.81, 1.26 | >0.9 |
| | **Age * Breast Milk** | | | |
| | >= 12 Months * Breast Milk | 0.78 | 0.58, 1.04 | 0.088 |
| Milk and dairy products | **Age** | | | |
| | <12 Months | — | — | |
| | >= 12 Months | 1.46 | 1.17, 1.83 | <0.001 |
| | **Milk and dairy products** | 1.06 | 0.85, 1.32 | 0.6 |
| | **Age * Milk and dairy products** | | | |
| | >= 12 Months * Milk and diary products | 0.89 | 0.67, 1.19 | 0.4 |
| Flesh foods | **Age** | | | |
| | <12 Months | — | — | |
| | >= 12 Months | 1.32 | 1.09, 1.59 | 0.004 |
| | **Flesh foods** | 1.09 | 0.88, 1.34 | 0.4 |
| | **Age * Flesh foods** | | | |
| | >= 12 Months * Flesh foods | 1.04 | 0.78, 1.37 | 0.8 |
| Grains | **Age** | | | |
| | <12 Months | — | — | |
| | >= 12 Months | 1.75 | 1.19, 2.57 | 0.004 |
| | **Grains** | 1.36 | 1.03, 1.81 | 0.03 |
| | **Age * Grains** | | | |
| | >= 12 Months * Grains | 0.74 | 0.49, 1.11 | 0.14 |
| Legumes and nuts | **Age** | | | |
| | <12 Months | — | — | |
| | >= 12 Months | 1.26 | 1.04, 1.52 | 0.016 |
| | **Legumes and nuts** | 1.12 | 0.91, 1.37 | 0.3 |
| | **Age * Legumes and nuts** | | | |
| | >= 12 Months * Legumes and nuts | 1.15 | 0.87, 1.53 | 0.3 |
| Egg | **Age** | | | |
| | <12 Months | — | — | |
| | >= 12 Months | 1.44 | 1.22, 1.70 | <0.001 |
| | **Egg** | 0.98 | 0.78, 1.22 | 0.8 |
| | **Age * Egg** | | | |
| | >= 12 Months * Egg | 0.83 | 0.61, 1.13 | 0.2 |
| Fruits and vegetables | **Age** | | | |
| | <12 Months | — | — | |
| | >= 12 Months | 1.19 | 0.97, 1.47 | 0.09 |

| | | | | | |
|---|---|---|---|---|---|
| | **Fruits and vegetables** | | 0.84 | 0.68, 1.03 | 0.088 |
| | **Age * Fruits and vegetables** | | | | |
| | >= 12 Months * Fruits and vegetables | | 1.28 | 0.97, 1.69 | 0.086 |
| Food insecurity | **Age** | | | | |
| | <12 Months | — | | — | |
| | >= 12 Months | | 1.36 | 1.08, 1.71 | 0.01 |
| | **Food insecurity** | | | | |
| | Food secure | — | | — | |
| | Mild food insecurity | | 0.88 | 0.68, 1.16 | 0.4 |
| | Moderate food insecurity | | 1.12 | 0.87, 1.45 | 0.4 |
| | Severe food insecurity | | 1.15 | 0.82, 1.62 | 0.4 |
| | **Age * Food insecurity** | | | | |
| | >= 12 Months * Mild food insecurity | | 1.08 | 0.75, 1.57 | 0.7 |
| | >= 12 Months * Moderate food insecurity | | 0.98 | 0.69, 1.39 | >0.9 |
| | >= 12 Months * Severe food insecurity | | 0.89 | 0.57, 1.38 | 0.6 |
| Dietary diversity | **Age** | | | | |
| | <12 Months | — | | — | |
| | >= 12 Months | | 1.45 | 1.18, 1.77 | <0.001 |
| | **Sufficient dietary diversity** | | | | |
| | No | — | | — | |
| | Yes | | 1.07 | 0.87, 1.32 | 0.5 |
| | **Age * Sufficient dietary diversity** | | | | |
| | >= 12 Months * Yes | | 0.89 | 0.67, 1.18 | 0.4 |

[1]HR = Hazard Ratio, CI = Confidence Interval