**Supplementary material**

**Supplemental Table 1.** Coverage of vitamin A supplementation among children aged 6-59 months according to maternal age, education and working status by country\*

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|   | **Maternal age, years** |  | **Maternal education** |  | **Working status** |  |
|   | 15-19 | 20-24 | 25-29 | 30-34 | 35+ | p  |  No education | Primary | Sec and above | p | Not working | Working  | p |
| Benin | 45.1 | 47.1 | 50.1 | 48.6 | 48.3 | 0.162 | 45.1 | 54.9 | 61.7 | <0.001 | 40.4 | 51.5 | <0.001 |
| Congo DR | 59.9 | 67.9 | 70.7 | 72.0 | 73.0 | <0.001 | 65.2 | 66.4 | 77.7 | <0.001 | 73.2 | 69.7 | <0.001 |
| Congo | 64.2 | 58.9 | 66.5 | 66.8 | 67.9 | <0.001 | 58.4 | 61.3 | 67.4 | <0.001 | 65.5 | 64.6 | 0.455 |
| Cote d voire | 55.3 | 57.6 | 61.7 | 61.6 | 64.1 | 0.001 | 57.1 | 65.2 | 72.7 | <0.001 | 56.7 | 62.1 | <0.001 |
| Cameroon | 53.5 | 53.9 | 54.2 | 56.5 | 58.5 | 0.013 | 60.7 | 54.7 | 51.7 | <0.001 | 53.4 | 56.0 | 0.031 |
| Gabon | 43.8 | 57.1 | 51.6 | 51.2 | 59.1 | <0.001 | 51.3 | 57.1 | 52.7 | 0.032 | 50.9 | 56.8 | <0.001 |
| Ghana | 66.9 | 64.2 | 66.0 | 66.1 | 64.3 | 0.773 | 57.7 | 64.9 | 69.2 | <0.001 | 62.9 | 65.7 | 0.122 |
| Gambia | 71.1 | 69.7 | 65.9 | 68.3 | 71.2 | 0.010 | 68.6 | 66.6 | 70.0 | 0.205 | 69.8 | 67.8 | 0.094 |
| Guinea | 39.7 | 40.4 | 41.7 | 42.1 | 39.8 | 0.709 | 38.3 | 47.7 | 51.9 | <0.001 | 37.9 | 41.5 | 0.034 |
| Kenya | 68.1 | 71.5 | 71.5 | 72.9 | 72.0 | 0.114 | 60.0 | 72.0 | 75.8 | <0.001 | 69.2 | 73.8 | <0.001 |
| Liberia | 56.8 | 60.8 | 60.7 | 62.0 | 58.8 | 0.295 | 57.0 | 61.5 | 63.7 | <0.001 | 53.9 | 64.3 | <0.001 |
| Mali | 62.2 | 58.0 | 60.3 | 59.9 | 64.8 | 0.001 | 59.3 | 66.8 | 71.5 | <0.001 | 57.6 | 64.6 | <0.001 |
| Mozambique | 75.6 | 76.3 | 76.7 | 76.1 | 68.9 | <0.001 | 67.6 | 76.4 | 89.3 | <0.001 | 74.9 | 74.3 | 0.503 |
| Nigeria | 29.4 | 35.9 | 42.0 | 45.4 | 42.9 | <0.001 | 24.9 | 47.3 | 62.0 | <0.001 | 32.3 | 44.9 | <0.001 |
| Niger | 55.1 | 57.1 | 60.6 | 59.6 | 61.8 | 0.003 | 58.2 | 69.2 | 65.6 | <0.001 | 56.3 | 68.0 | <0.001 |
| Namibia | 74.3 | 83.9 | 82.8 | 84.5 | 85.3 | 0.003 | 77.8 | 84.7 | 83.7 | 0.028 | 84.6 | 82.5 | 0.070 |
| Rwanda | 73.5 | 82.0 | 86.4 | 87.9 | 88.7 | <0.001 | 86.1 | 87.0 | 83.3 | 0.012 | 84.6 | 86.5 | 0.254 |
| Sierra Leone | 81.3 | 81.5 | 82.1 | 85.4 | 84.5 | 0.001 | 82.1 | 84.1 | 87.0 | <0.001 | 81.4 | 83.6 | 0.031 |
| Senegal | 87.0 | 86.6 | 86.4 | 88.9 | 91.4 | <0.001 | 87.8 | 90.8 | 87.8 | 0.017 | 85.8 | 90.1 | <0.001 |
| Chad | 41.3 | 43.7 | 43.0 | 45.8 | 45.2 | 0.028 | 37.0 | 55.9 | 62.9 | <0.001 | 34.5 | 52.3 | <0.001 |
| Togo | 77.8 | 81.1 | 81.8 | 80.1 | 83.8 | 0.055 | 79.1 | 82.8 | 84.9 | <0.001 | 81.1 | 81.9 | 0.549 |
| Zambia | 70.3 | 75.8 | 78.3 | 77.8 | 75.8 | <0.001 | 71.3 | 74.8 | 81.3 | <0.001 | 74.9 | 77.6 | 0.001 |
| Zimbabwe | 73.5 | 67.1 | 68.2 | 65.9 | 65.1 | 0.072 | 68.9 | 62.7 | 69.1 | <0.001 | 66.5 | 67.5 | 0.448 |

\*Based on individual countries sample weights

**Supplemental Table 2.** Coverage of vitamin A supplementation among children aged 6-59 months according to place of residence, exposure to mass mediaand sex of household head by country\*

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | **Place of residence** |  | **Mass media exposure score** |  | **Sex of household head** |  |
|   | Urban  | Rural | p | 0 | 1-3 | 4 and above | p | Male  | Female | p |
| Benin | 53.6 | 45.3 | <0.001 | 40.3 | 48.0 | 61.7 | <0.001 | 48.0 | 53.0 | 0.001 |
| Congo DR | 82.4 | 65.0 | <0.001 | 64.3 | 77.5 | 81.6 | <0.001 | 70.6 | 69.3 | 0.157 |
| Congo | 67.2 | 61.3 | <0.001 | 62.6 | 63.2 | 69.8 | <0.001 | 64.0 | 68.1 | 0.004 |
| Cote d voire | 70.6 | 54.8 | <0.001 | 50.7 | 63.4 | 74.3 | <0.001 | 60.1 | 64.7 | 0.010 |
| Cameroon | 51.3 | 58.4 | <0.001 | 59.2 | 53.2 | 53.1 | <0.001 | 55.9 | 52.5 | 0.013 |
| Gabon | 52.3 | 61.8 | <0.001 | 62.5 | 51.9 | 54.2 | 0.006 | 53.3 | 55.0 | 0.299 |
| Ghana | 62.2 | 67.7 | <0.001 | 54.3 | 67.8 | 64.4 | <0.001 | 64.8 | 66.6 | 0.239 |
| Gambia | 65.7 | 71.5 | <0.001 | 70.8 | 67.8 | 69.4 | 0.199 | 69.3 | 65.6 | 0.015 |
| Guinea | 50.7 | 37.1 | <0.001 | 34.7 | 40.5 | 53.0 | <0.001 | 40.3 | 44.4 | 0.040 |
| Kenya | 75.4 | 69.7 | <0.001 | 65.0 | 70.6 | 76.7 | <0.001 | 71.7 | 71.8 | 0.970 |
| Liberia | 65.5 | 54.9 | <0.001 | 49.1 | 64.8 | 64.0 | <0.001 | 60.1 | 60.5 | 0.758 |
| Mali | 72.9 | 57.9 | <0.001 | 52.7 | 61.1 | 69.3 | <0.001 | 60.6 | 64.9 | 0.044 |
| Mozambique | 85.0 | 70.6 | <0.001 | 64.1 | 76.4 | 88.9 | <0.001 | 73.4 | 77.4 | <0.001 |
| Nigeria | 53.2 | 34.6 | <0.001 | 24.9 | 43.4 | 59.7 | <0.001 | 39.9 | 54.0 | <0.001 |
| Niger | 70.3 | 57.9 | <0.001 | 53.6 | 61.8 | 69.6 | <0.001 | 60.9 | 49.7 | <0.001 |
| Namibia | 79.8 | 87.3 | <0.001 | 85.8 | 85.8 | 80.4 | <0.001 | 82.4 | 84.6 | 0.056 |
| Rwanda | 83.8 | 86.9 | 0.005 | 83.4 | 87.3 | 86.4 | 0.002 | 86.8 | 84.8 | 0.038 |
| Sierra Leone | 85.7 | 82.4 | <0.001 | 77.7 | 87.0 | 89.3 | <0.001 | 83.2 | 83.4 | 0.776 |
| Senegal | 88.8 | 88.2 | 0.502 | 86.8 | 89.2 | 87.5 | 0.095 | 88.4 | 88.4 | 0.948 |
| Chad | 50.1 | 42.7 | <0.001 | 41.6 | 47.7 | 61.9 | <0.001 | 44.8 | 40.4 | <0.001 |
| Togo | 81.4 | 81.9 | 0.600 | 79.7 | 81.5 | 85.0 | 0.001 | 81.5 | 82.8 | 0.358 |
| Zambia | 79.8 | 74.8 | <0.001 | 70.2 | 77.4 | 82.5 | <0.001 | 76.4 | 77.0 | 0.525 |
| Zimbabwe | 66.1 | 67.5 | 0.290 | 62.2 | 67.7 | 71.5 | <0.001 | 66.5 | 68.0 | 0.254 |

\*Based on individual countries sample weights

**Supplemental Table 3.** Coverage of vitamin A supplementation among children aged 6-59 months according to marital status, sex of child and age of child by country\*

|  |  |  |  |
| --- | --- | --- | --- |
|  | **Marital status** | **Sex of child** | **Age of child, months** |
|   | Never in a union/formerly in a union | Currently in union/living with a man | p | Male | Female | p | 6-11 | 12-23 | 24-35 | 36-47 | 48-59 | p |
| Benin | 48.8 | 48.6 | 0.947 | 48.8 | 48.4 | 0.641 | 46.5 | 53.5 | 48.1 | 47.2 | 46.8 | <0.001 |
| Congo DR | 68.9 | 70.6 | 0.134 | 70.2 | 70.5 | 0.677 | 62.5 | 72.6 | 73.0 | 71.4 | 68.5 | <0.001 |
| Congo | 64.1 | 65.1 | 0.458 | 65.1 | 64.6 | 0.682 | 62.8 | 67.1 | 66.5 | 65.0 | 61.4 | 0.007 |
| Cote d voire | 60.9 | 60.8 | 0.948 | 60.9 | 60.7 | 0.924 | 57.7 | 64.7 | 63.0 | 59.0 | 57.8 | <0.001 |
| Cameroon | 48.3 | 56.3 | <0.001 | 55.5 | 55.2 | 0.747 | 61.7 | 59.1 | 51.4 | 54.9 | 51.5 | <0.001 |
| Gabon | 54.4 | 53.6 | 0.611 | 51.3 | 56.4 | 0.001 | 47.4 | 58.1 | 52.8 | 55.4 | 53.0 | 0.001 |
| Ghana | 62.8 | 65.7 | 0.144 | 65.3 | 65.1 | 0.877 | 68.2 | 77.4 | 65.8 | 59.9 | 54.9 | <0.001 |
| Gambia | 67.8 | 68.8 | 0.673 | 68.1 | 69.3 | 0.303 | 72.0 | 85.4 | 71.6 | 60.5 | 51.9 | <0.001 |
| Guinea | 41.9 | 40.8 | 0.658 | 42.1 | 39.5 | 0.053 | 40.0 | 42.8 | 42.6 | 40.5 | 37.8 | 0.067 |
| Kenya | 72.3 | 71.6 | 0.487 | 71.6 | 71.9 | 0.614 | 74.1 | 77.4 | 70.2 | 69.7 | 68.5 | <0.001 |
| Liberia | 56.6 | 61.4 | 0.002 | 60.2 | 60.2 | 0.977 | 59.3 | 64.4 | 59.5 | 61.1 | 55.9 | 0.001 |
| Mali | 66.5 | 60.7 | 0.106 | 60.9 | 60.8 | 0.946 | 54.7 | 64.4 | 62.1 | 62.0 | 58.4 | <0.001 |
| Mozambique | 80.5 | 73.5 | <0.001 | 75.4 | 73.7 | 0.054 | 63.3 | 79.3 | 75.2 | 75.0 | 75.1 | <0.001 |
| Nigeria | 52.5 | 40.8 | <0.001 | 41.5 | 41.1 | 0.450 | 36.0 | 44.8 | 42.5 | 40.2 | 40.6 | <0.001 |
| Niger | 52.9 | 59.8 | 0.037 | 58.8 | 60.5 | 0.074 | 57.5 | 63.1 | 59.7 | 59.0 | 57.9 | 0.002 |
| Namibia | 83.0 | 84.2 | 0.278 | 82.7 | 84.5 | 0.121 | 80.3 | 89.3 | 83.9 | 82.7 | 79.8 | <0.001 |
| Rwanda | 83.1 | 87.1 | <0.001 | 86.5 | 86.4 | 0.922 | 62.0 | 91.2 | 90.4 | 89.1 | 89.7 | <0.001 |
| Sierra Leone | 84.7 | 83.0 | 0.126 | 82.9 | 83.5 | 0.455 | 76.2 | 86.6 | 84.5 | 84.3 | 81.1 | <0.001 |
| Senegal | 87.4 | 88.4 | 0.579 | 88.1 | 88.7 | 0.502 | 75.9 | 90.8 | 90.7 | 88.9 | 89.7 | <0.001 |
| Chad | 47.2 | 43.9 | 0.035 | 44.0 | 44.2 | 0.793 | 35.4 | 46.6 | 45.7 | 44.4 | 44.5 | <0.001 |
| Togo | 86.0 | 81.4 | 0.016 | 82.1 | 81.4 | 0.493 | 74.2 | 84.2 | 84.3 | 81.0 | 81.4 | <0.001 |
| Zambia | 77.2 | 76.4 | 0.434 | 76.5 | 76.5 | 0.991 | 56.8 | 80.0 | 80.4 | 78.4 | 77.2 | <0.001 |
| Zimbabwe | 72.0 | 66.3 | 0.002 | 68.0 | 66.2 | 0.164 | 66.7 | 80.9 | 70.9 | 59.4 | 57.4 | <0.001 |

\*Based on individual countries sample weights