**Appendix**

Supplemental Table 1. Rotavirus vaccine use and coverage in 2018 among countries included in the analysis

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Country** | **Sub-Region** | **Year of Vaccine Introduction** | **Rotavirus Vaccine Introduced** | **Vaccine Coverage in 2018** |
| Angola | Central | 2014 | Rotarix | 65 |
| Benin | West |  |  |  |
| Botswana | East & South | 2012 | Rotarix | 87 |
| Burkina Faso | West | 2013 | RotaTeq | 91 |
| Cameroon | Central | 2014 | Rotarix | 78 |
| Central African Republic (the) | Central |  |  |  |
| Côte d'Ivoire | West | 2017 | RotaTeq | 59 |
| Democratic Republic of the Congo (the) | Central |  |  |  |
| Eritrea | East & South | 2014 | Rotarix | 96 |
| Eswatini | East & South | 2015 | Rotarix | 90 |
| Ethiopia | East & South | 2013 | Rotarix | 79 |
| Gambia | West | 2013 | RotaTeq\* | 93 |
| Ghana | West | 2012 | Rotarix | 94 |
| Guinea-Bissau | West | 2015 | Rotarix | 88 |
| Kenya | East & South | 2014 | Rotarix | 78 |
| Lesotho | East & South | 2017 | Rotarix | 70 |
| Madagascar | East & South | 2014 | Rotarix | 78 |
| Mauritius | East & South | 2015 | Rotarix | 95 |
| Mozambique | East & South | 2015 | Rotarix | 80 |
| Namibia | East & South | 2014 | Rotarix | 92 |
| Niger (the) | West | 2014 | Rotarix | 79 |
| Nigeria | West |  |  |  |
| Rwanda | East & South | 2012 | RotaTeq\*\* | 98 |
| Senegal | West | 2014 | Rotarix | 80 |
| Seychelles | East & South | 2017 | Rotarix | 99 |
| Sierra Leone | West | 2014 | Rotarix | 92 |
| South Sudan | East & South |  |  |  |
| Togo | West | 2014 | Rotarix | 89 |
| Uganda | East & South | 2018 | Rotarix | 36 |
| United Republic of Tanzania (the) | East & South | 2013 | Rotarix | 98 |
| Zambia | East & South | 2013 | Rotarix | 91 |
| Zimbabwe | East & South | 2014 | Rotarix | 90 |

\*The Gambia introduced RotaTeq in 2013 and then switched to Rotarix in 2017

\*\*Rwanda introduced RotaTeq in 2012 and then switched to Rotarix in 2017

Supplemental Table 2. Rotavirus ELISA testing and positivity by region and rotavirus vaccine introduction status — World Health Organization African Region, 2008-2018.1

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| a. Sensitivity analysis 1: Sites meeting inclusion criteria and reporting data from both pre- and post- vaccine introduction periods | | | | | | | |
| **WHO Region** | **RVV intro.**  **status** | **No. countries** | **No. site-years** | **No. tested** | **No. rotavirus positive** | **Percent rotavirus positive** | **% Reduction in % rotavirus positive**  **(95% CI)** |
| Overall | Pre | 9 | 45 | 19518 | 7450 | 38.2% | - |
| Post | 13 | 51 | 20648 | 5022 | 24.3% | **36.3% (33.9-38.6)** |
| West Africa | Pre | 2 | 4 | 1906 | 913 | 47.9% | - |
| Post | 4 | 9 | 1974 | 531 | 26.9% | **43.8% (37.6-50.1)** |
| Central Africa | Pre | 1 | 6 | 3422 | 1390 | 40.6% | - |
| Post | 1 | 3 | 1829 | 382 | 20.9% | **48.6% (42.5-54.7)** |
| Eastern & Southern Africa | Pre | 6 | 35 | 14190 | 5147 | 36.3% | - |
| Post | 8 | 39 | 16845 | 4109 | 24.4% | **32.8% (29.9-35.6)** |
| b. Sensitivity analysis 2: Sites meeting inclusion criteria for the pre-vaccine introduction period and sites with national full-dose RVV coverage >=80% in the post-vaccine introduction period2 | | | | | | | |
| Overall | Pre | 19 | 93 | 37041 | 14516 | 39.2% | - |
| Post | 12 | 65 | 24619 | 6283 | 25.5% | **34.9% (33.0-36.8)** |
| West Africa | Pre | 7 | 28 | 9202 | 3976 | 43.2% | **-** |
| Post | 6 | 21 | 3998 | 1039 | 26.0% | **39.9% (35.9-43.8)** |
| Central Africa | Pre | 3 | 15 | 5797 | 2760 | 47.6% | **-** |
| Post | 1 | 2 | 1542 | 328 | 21.3% | **55.3% (50.3-60.4)** |
| Eastern & Southern Africa | Pre | 9 | 50 | 22042 | 7780 | 35.3% | - |
| Post | 5 | 42 | 19079 | 4916 | 25.8% | **27.0% (24.5-29.5)** |
| c. Sensitivity analysis 3: Sites enrolling and testing 80 or more children per year and for a minimum of 11 months during the surveillance period | | | | | | | |
| Overall | Pre | 20 | 115 | 40627 | 16038 | 39.5% | - |
| Post | 18 | 100 | 31271 | 7862 | 25.1% | **36.3% (34.6-38.0)** |
| West Africa | Pre | 7 | 36 | 10649 | 4575 | 43.0% | - |
| Post | 6 | 24 | 4341 | 1110 | 25.6% | **40.5% (36.8-44.2)** |
| Central Africa | Pre | 3 | 18 | 6418 | 3139 | 48.9% | - |
| Post | 2 | 6 | 2329 | 512 | 22.0% | **55.1% (50.8-59.3)** |
| Eastern & Southern Africa | Pre | 10 | 61 | 23560 | 8324 | 35.3% | - |
| Post | 10 | 70 | 24601 | 6240 | 25.4% | **28.2% (25.9-30.5)** |

1Year of vaccine introduction excluded from the analysis. 2Coverage estimates obtained from 2018 WHO/UNICEF published data. Analysis limited to countries who introduced rotavirus into their national immunization plan.