

Ending disease in Africa



Status of immunization coverage in Africa as of the end of 2022

Ending disease in Africa: status of immunization coverage in Africa as of the end of 2022

UHC/UCN Cluster
World Health Organization
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Status of immunization coverage in Africa as of the end of 2022

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Data collection and interpretation

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Design and layout

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Abbreviations

CAR	Central African Republic
CoVDP	COVID-19 vaccine delivery partnership
COVID-19	Coronavirus disease 2019
CST	Country support team
DRC	Democratic Republic of the Congo
DTP	Diphtheria tetanus toxoid and pertussis-containing vaccine
IPV	Inactivated polio-containing vaccine
HIB	<i>Haemophilus influenzae</i> type B vaccine
HPV	Human papilloma virus
MCV	Measles-containing vaccine
OPV	Oral polio vaccine
PCV	Pneumococcal conjugate vaccine
RotaC	Rotavirus vaccine completed dose
STP	São Tomé and Príncipe
UNICEF	United Nations International Children's Emergency Fund
WHO	World Health Organization
WUENIC	WHO and UNICEF estimates of national immunization coverage
YFV	Yellow fever vaccine

Key points

Diphtheria, tetanus toxoid and pertussis-containing (DTP) vaccines:

- ▶ Although 13 out of 47 countries achieved the global target of 90% DTP coverage in 2022, coverage remains generally low, with an estimated 80% of children receiving the first dose, and 72% receiving the third dose, in 2022.
- ▶ DTP3 coverage declined in 2022 compared to 2021 in 16 out of 47 (34%) of countries, was unchanged in 16 (34%) countries and increased in 15 (32%) countries.

Zero-dose children:

- ▶ Cumulatively, 28.7 million zero-dose children were recorded in the African Region from 2019 to 2022, accounting for 19% of the cohorts of surviving children.
- ▶ The number of zero-dose children in the African rose to 7.7 million in 2022, from 7.6 million in 2021, and 6.2 million children in 2019.
- ▶ The top 10 countries with the highest number of zero-dose children (Nigeria, Ethiopia, Democratic Republic of the Congo, Angola, United Republic of Tanzania, Madagascar, Mozambique, Mali, Chad, and Cameroon) account for 80.3% of the cumulative number of zero-dose children from 2019 to 2022.

Measles-containing vaccine (MCV):

- ▶ The number of children receiving the first dose (MCV1) is declining, falling from 71% in 2019, to 69% in 2022.

- ▶ However, reporting on MCV2 coverage increased from 24 countries in 2019, to 41 in 2022, due to MCV2 introductions, which resulted in significantly increased coverage, from 33% in 2019 to 45% in 2022.
- ▶ Only 2 countries out of 41 have achieved the global target of at least 90% MCV2 coverage (Seychelles and Mauritius), while 14 countries have recorded less than 50%.

Polio vaccine – oral polio vaccine and inactivated polio-containing vaccine (OPV3 and IPV1):

- ▶ The number of children who had received OPV3 and IPV1 in 2022 was estimated at 71% and 73% respectively.

HPV vaccine for girls:

- ▶ Only 12 countries reported HPV coverage for adolescent girls in 2022, including 3 with 90% coverage for the first dose.

Administrative and WUENIC coverage:

- ▶ A comparison of administrative and WUENIC coverage in 2022 using DPT3 vaccine as a tracer has shown 16 countries (47%) with percentage change between -10% and 10% (not significant), 19 countries (40%) with over 10% change (WUENIC coverage <administrative coverage) and 6 countries (13%) with below -10% change (WUENIC coverage >administrative coverage).

Overall :

- The 2022 WUENIC estimates have shown that immunization services in the African Region have not yet fully recovered from the disruptions caused by the COVID-19 pandemic.
- The 2022 WUENIC estimates highlight the need for all countries in the African Region to speed up implementation of the immunization recovery plan.

The following recommendations can be made from the 2022 WUENIC data in the African Region:

- Speed up development and/or implementation of the immunization recovery plan for catch-up immunization in children un- or under-immunized since 2019.
- Implement the African Union Heads of State and Government Declaration of February 2023 on “Building momentum for routine immunization recovery in Africa” through which Heads of State committed to prioritizing universal access to immunization, as well as increasing and sustaining domestic investments in vaccines delivery.

- Take all appropriate actions to introduce the second dose of IPV into the national schedule to increase protection of children against all polioviruses.
- Give fresh impetus to the implementation of the measles and rubella elimination plans to achieve the set target of 95% or above coverage for MVC1 at national and district levels.
- Take advantage of the Gavi HPV programme relaunch to accelerate quality introduction and adoption of a permissive one-dose schedule for Human Papilloma Virus (HPV) vaccine.



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1. Background

In 2020 and 2021, the COVID-19 pandemic severely disrupted the health system and routine immunization in the African Region, leading to a significant decline in immunization coverage. It is well known that routine immunization programmes rely on functioning health facilities and stable communities.

In 2022, the African Region recorded 1 662 545 new COVID-19 cases and 18 248 new deaths compared to 5 348 384 new cases and 113 102 new deaths in 2021, a 69% decline in the number of new cases and 84% in the number of deaths. However, greater efforts were made to increase COVID-19 vaccine uptake across the region, with the support of WHO and partners through the WHO Regional Office for Africa country support team initiative (CST) and the global COVID-19 vaccine delivery partnership

(CoVDP). This intensification of COVID-19 vaccination rollout efforts probably helped to shift often limited resources away from routine immunization at a time when the region might have started to recover from the decline in routine immunization recorded during the COVID-19 pandemic.

On 18 July 2022, the 2022 revision of the WHO and UNICEF estimates of national immunization coverage (WUENIC) was published. This report summarizes the status of routine immunization in the African Region as of the end of 2022, in terms of immunization coverage, number, and percentage of un- and under-immunized children as per the 2022 WUENIC revision.





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2. WUENIC methods and processes

Each year, WHO and UNICEF jointly review reports submitted by Member States regarding national immunization coverage, finalized survey reports, as well as data from published and grey literature. Based on these data, with due consideration of potential biases and views of local experts, WHO and UNICEF attempt to distinguish between situations where the available empirical data accurately reflect immunization system performance and those where the data are likely to be compromised and present a misleading view of immunization coverage, while jointly estimating the most likely coverage levels for each country.

WHO and UNICEF estimates are country-specific; each country's data are reviewed individually, and data are not borrowed from other countries in case of lack of data. Estimates are not based on ad hoc adjustments to reported data; in some instances, empirical data are available from a single source, usually the nationally reported coverage data. In cases where no data are available for a given country/vaccine/year combination, data are considered from earlier and later years and interpolated to estimate coverage for the missing years. In cases where data sources are mixed and show large variations, an attempt is made to identify the most likely estimate, with consideration of the possible biases in available data.





3. Immunization coverage, un-and under-immunized children

3.1 Diphtheria tetanus toxoid and pertussis-containing vaccine (DTP)

3.1.1 DP1 and DTP3 coverage

In 2022, 30.79 million children were immunized with the first dose of DTP compared to 30.44 million in 2021, with about 350 000 additional children immunized. The number of children who had received the first and third doses of DTP in the African Region in 2022 was estimated at 80% for DTP1 and 72% for DTP3. DTP1 coverage declined from 83% in 2018 and 2019 to 81% in 2020, before plateauing at 80% in 2021 and 2022. Figure 1 presents the distribution of DTP1 and DTP3 coverage over time.

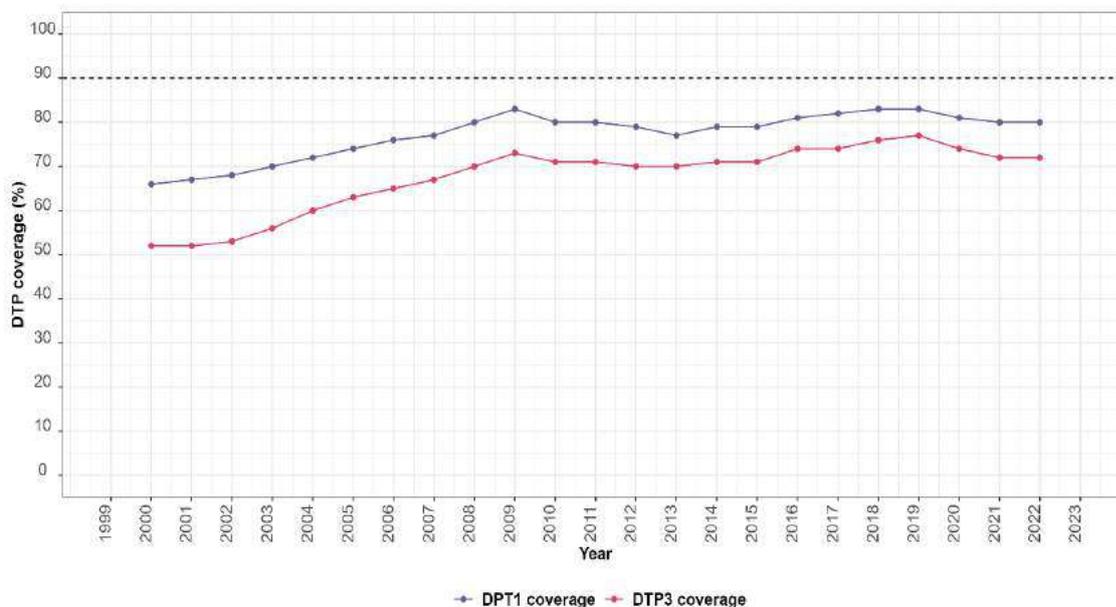


Figure 1: DTP1 and DTP3 coverage by year in the African Region (source: 2022 WUENIC)

DTP3 median coverage in 2022 was 82% [range: 82%; 99%]. Thirteen countries out of 47 (28%) in the African Region achieved the global target coverage of 90% or above for DTP3 in 2022. Three countries (Angola, Central African Republic, and Guinea) recorded a DTP3 coverage estimated at less than 50%. Figure 2 presents the distribution of DTP3 coverage in 2022 in the African Region.

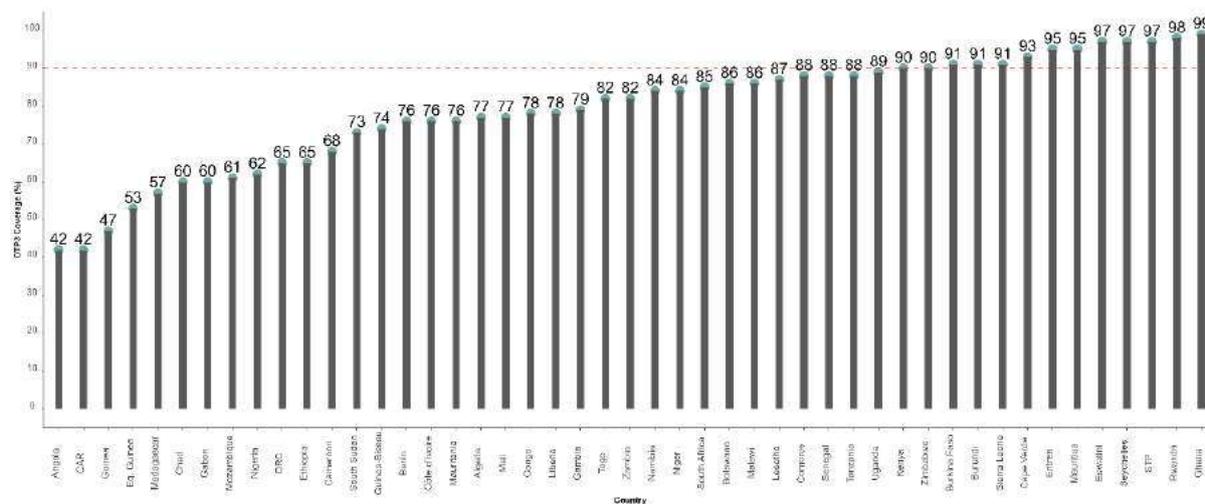


Figure 2: DTP3 coverage in 2022 in the African Region (source: 2022 WUENIC)

DTP3 coverage declined in 2022 compared to 2021 in 16 countries out of 47 (34%), but remained unchanged in 16 other countries (34%) and increased in 15 countries (32%). Figure 3 presents the percentage change of DTP3 coverage in 2022 compared to 2021 in the African Region.

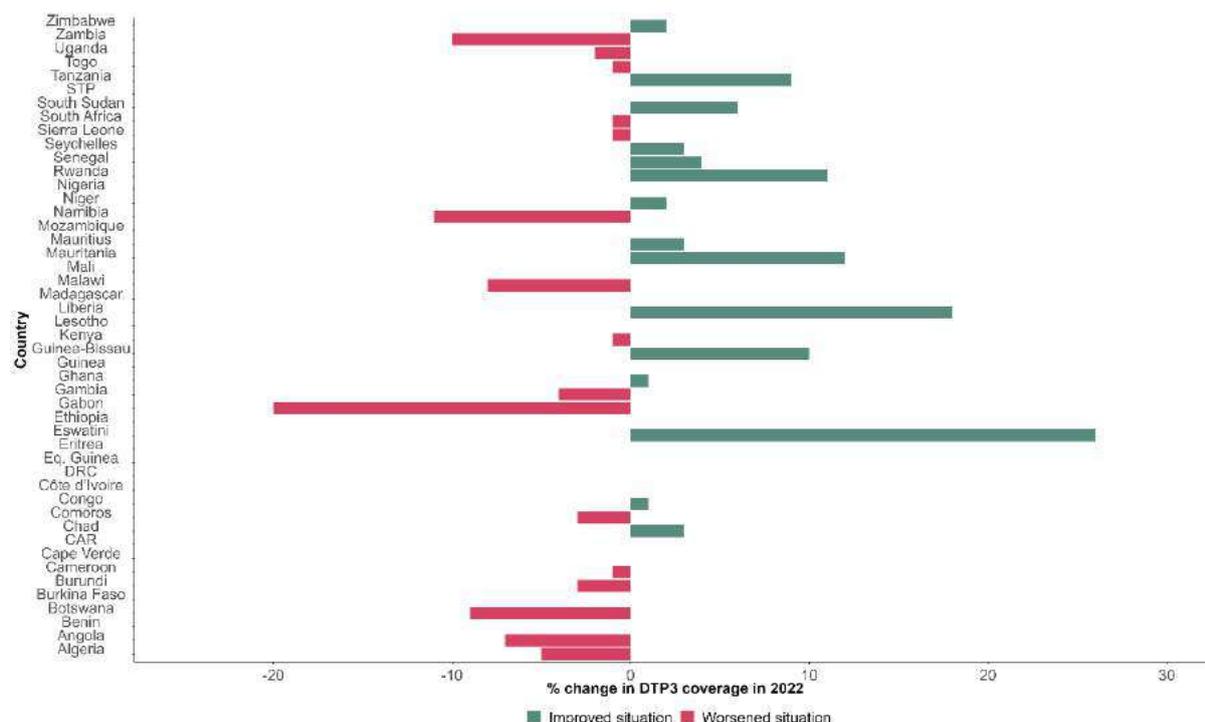


Figure 3: Percentage of change in DTP3 coverage in 2022 compared to 2021 in the African Region (source: 2022 WUENIC revision)

3.1.2 Zero-dose and under-immunized children

In 2022, the number of surviving children (aged 12 to 23 months) who have never received a single dose of vaccine, known as zero-dose children, was estimated at 7.7 million (20% of surviving children), compared to 7.6 million (20% of surviving children) in 2021, 7.1 million (19% of surviving children) in 2020, and 6.2 million (17% of surviving children) in 2019. Figure 4 presents the distribution of the number of zero-dose children and under-immunized children (dropout for DTP3) in the African Region per year. The under-immunized children accounted for 7% of surviving children in 2022 compared to 8% in 2021.

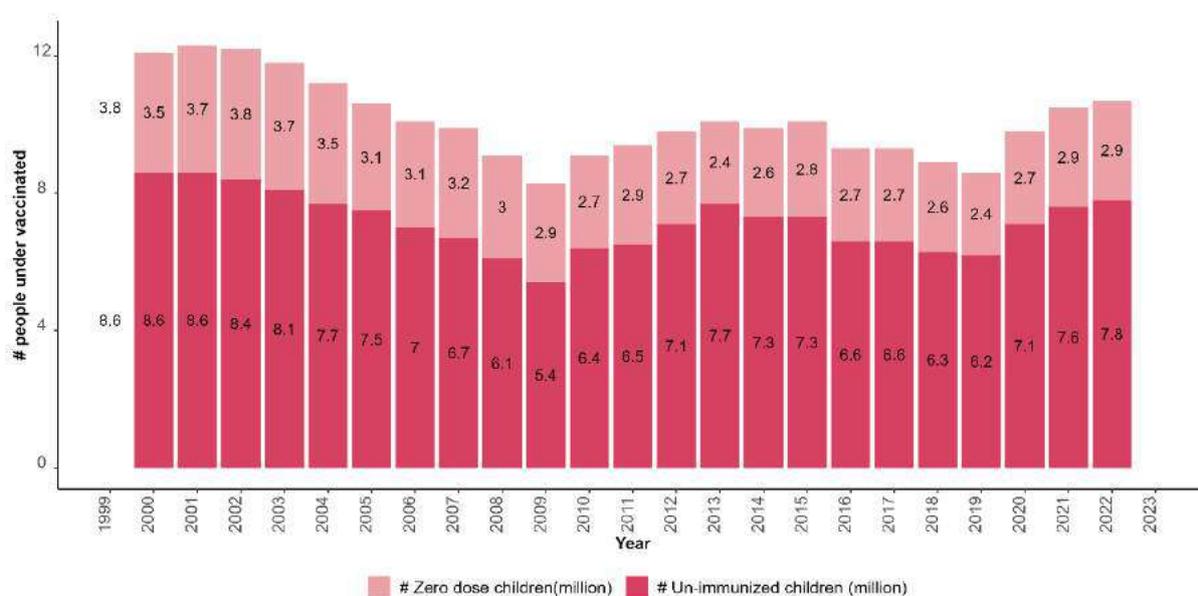


Figure 4: Number of zero-dose and under-immunized children for DTP3 per year in the African Region (source: WUENIC)

Cumulatively, the number of zero-dose children from 2019 to 2022 in the African Region is estimated at 28.7 million children, accounting for 19.0% of the four cohorts of surviving children.

Table I: Estimated number of zero-dose children in the African Region from 2019 to 2022
(source: WUENIC)

Year	# Surviving children	Estimated # Vaccinated with DTP1	Estimated # zero-dose children	% zero-dose children
2019	36 995 277	30 763 363	6 231 914	16.8
2020	37 521 132	30 463 727	7 057 405	18.8
2021	38 080 516	30 439 539	7 640 977	20.1
2022	38 567 250	30 791 574	7 775 676	20.2
Cumulative 2019-2022	151 164 175	122 458 203	28 705 972	19.0

The top 10 countries with the highest number of zero-dose children (Nigeria, Ethiopia, Democratic Republic of the Congo, Angola, United Republic of Tanzania, Madagascar, Mozambique, Mali, Chad, and Cameroon) accounted for 80.3% of the total zero-dose children from 2019 to 2022 (Figure 5).

Figure 6 presents the geographical distribution of the cumulative number of zero dose children by country (2019-2022) in the African region.

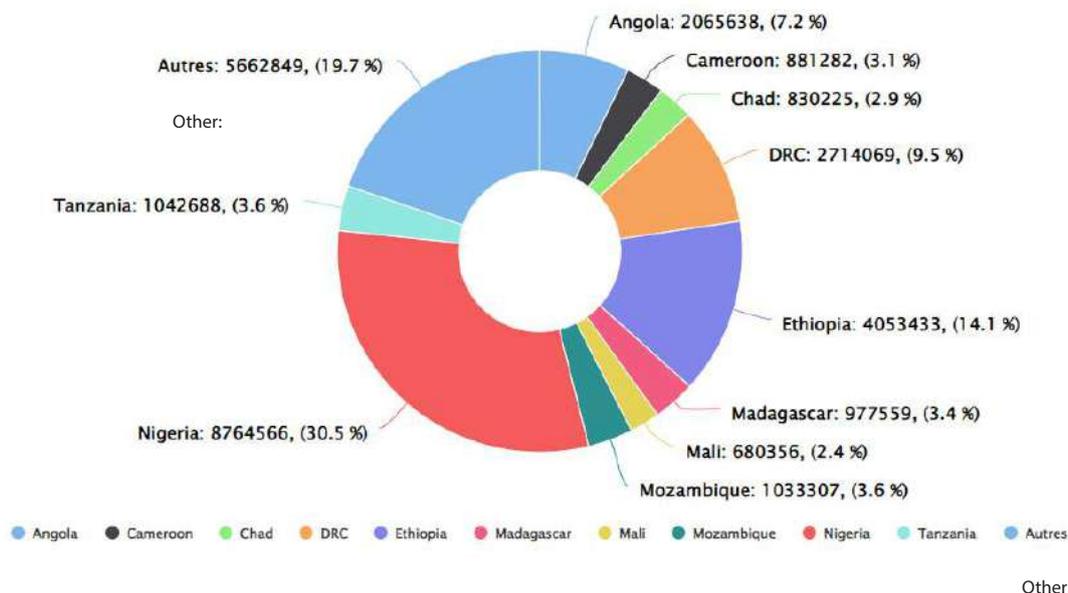


Figure 5: Distribution of the cumulative number of zero-dose children from 2019 to 2022 by country in the African Region

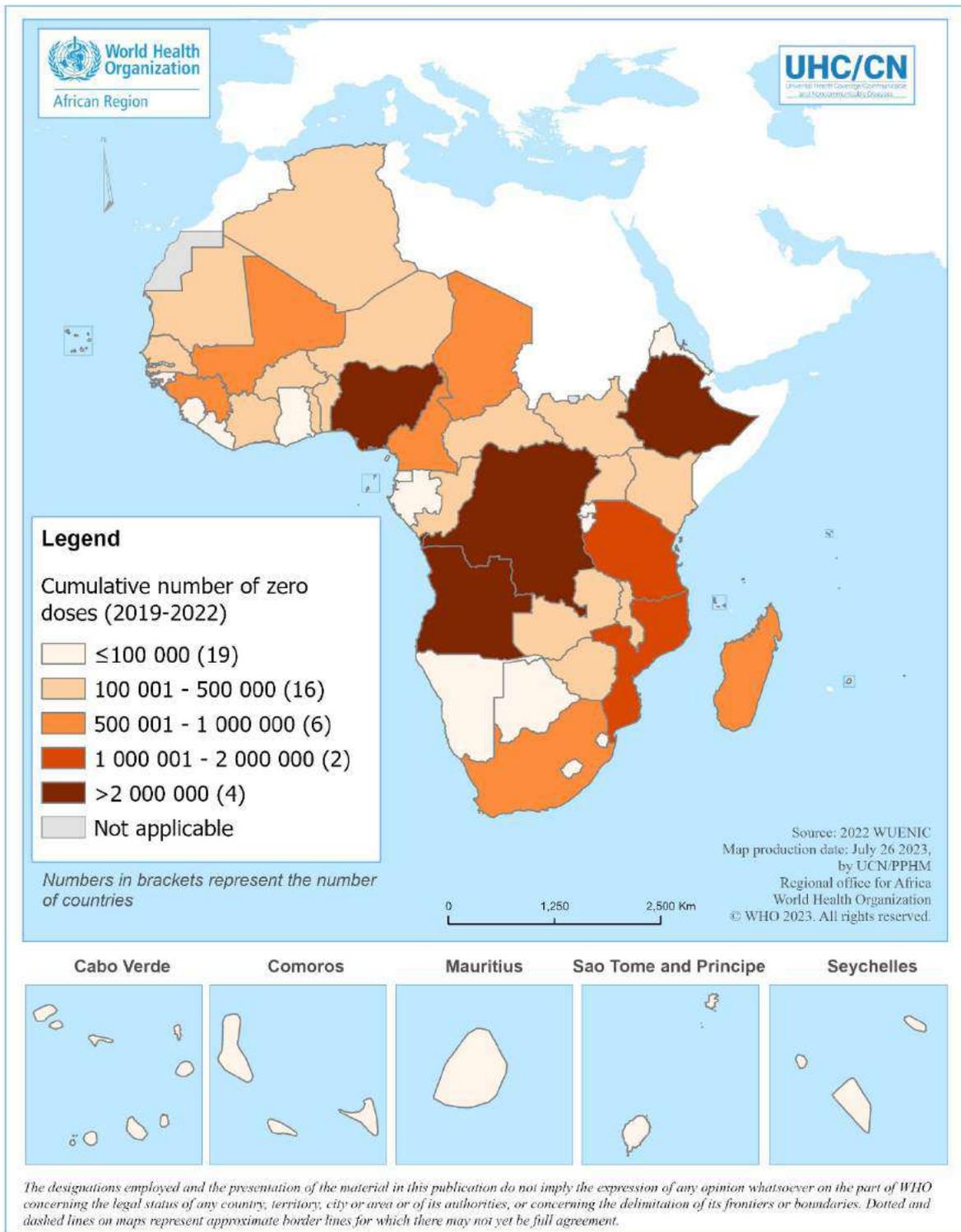


Figure 6: Geographical distribution of cumulative zero-dose children from 2019 to 2022 in the African Region (source: 2022 WUENIC revision)

3.2 First and third doses of measles-containing vaccine (MCV)

3.2.1 MCV1 and MCV2 coverage

In 2022, 26.50 million and 16.31 million children were immunized with the first dose and second dose of MCV respectively, compared to 26.01 million for MCV1 and 14.75 million for MCV2 in 2021, with about 484 000 (for MCV1) and 1.55 million (for MCV2) additional children immunized.

The percentage of children having received MCV1 in 2022 was estimated at 69%. This coverage declined from 71% in 2019 to 70% in 2020, before fluctuating between 68% in 2021 and 69% in 2022. MCV2 coverage significantly increased from 33% in 2019 to 45% in 2022, as the number of countries reporting on MCV2 coverage increased from 24 countries in 2019 to 41 in 2022 (Figure 9). Six countries are yet to fully introduce the second dose of MCV, as evidenced by reports to WHO and UNICEF on MCV2 coverage, namely Benin, Central African Republic, Democratic Republic of the Congo, Gabon, Mauritania, and São Tomé and Príncipe.

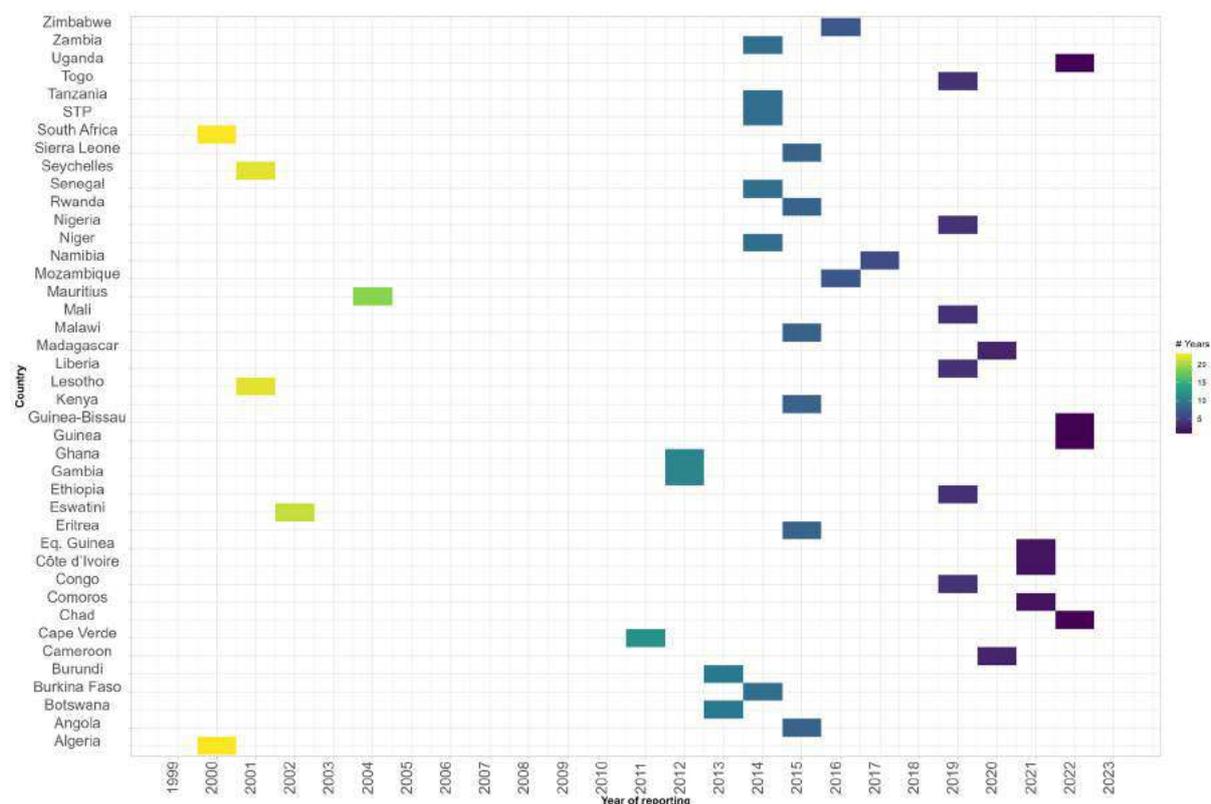


Figure 9: Distribution of countries by year of first reporting to WHO and UNICEF on MCV2 coverage (source: 2022 WUENIC)

Figure 10 presents the distribution of MCV1 and MCV2 coverage over time in the African Region.

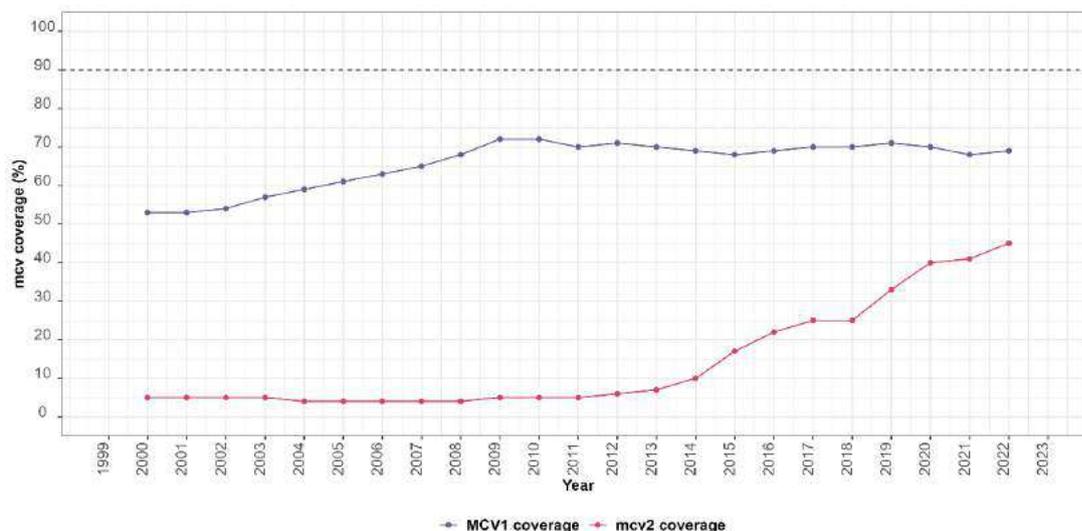


Figure 10: MCV1 and MCV2 coverage by year in the African Region (source: 2022 WUENIC)

The median MCV1 coverage in 2022 was 79% [range: 37%; 98%]. Only five countries in 2022 achieved the target coverage of 95% or above for MCV1 as set in the measles elimination plan. Four countries recorded an estimated MCV1 coverage below 50%. Figure 11 presents the distribution of MCV1 coverage in 2022 by country in the African Region.

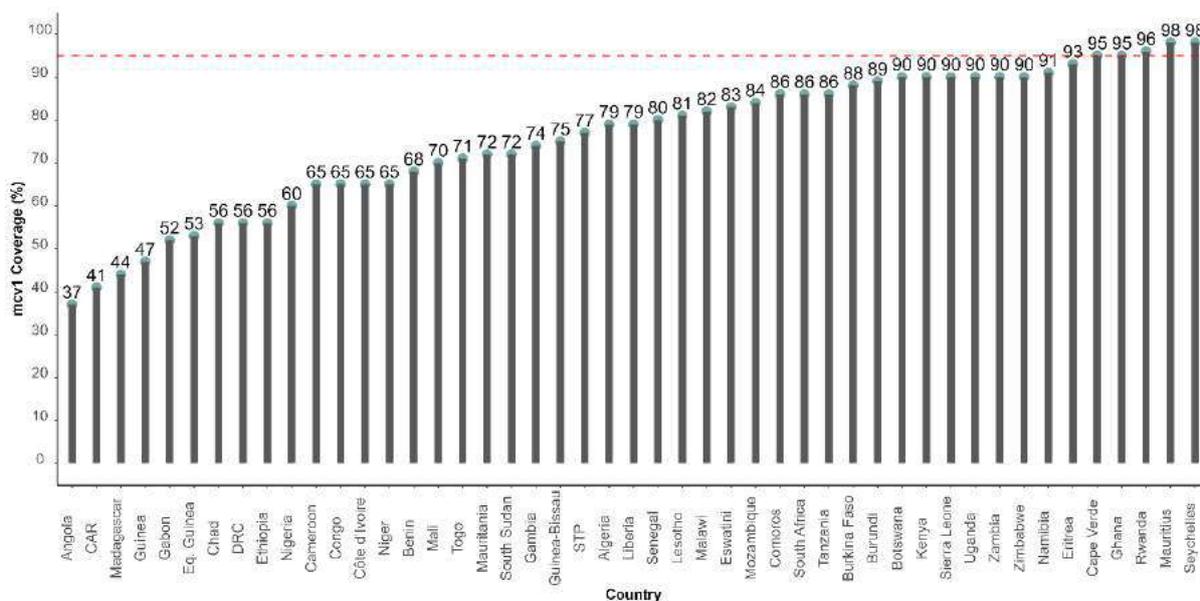


Figure 11: MCV1 coverage in 2022 in the African Region (source: 2022 WUENIC)

The median MCV2 coverage in 2022 was 69% [range: 1%; 98%]. Only two countries out of 41 achieved the global target of at least 90% MCV2 coverage (Seychelles and Mauritius), while 14 countries recorded less than 50% coverage for MCV2 (Figure 12). Most of the latter countries have recently introduced the second dose of MCV into their schedule, as reporting to WHO and UNICEF on MCV2 started in the past four years.

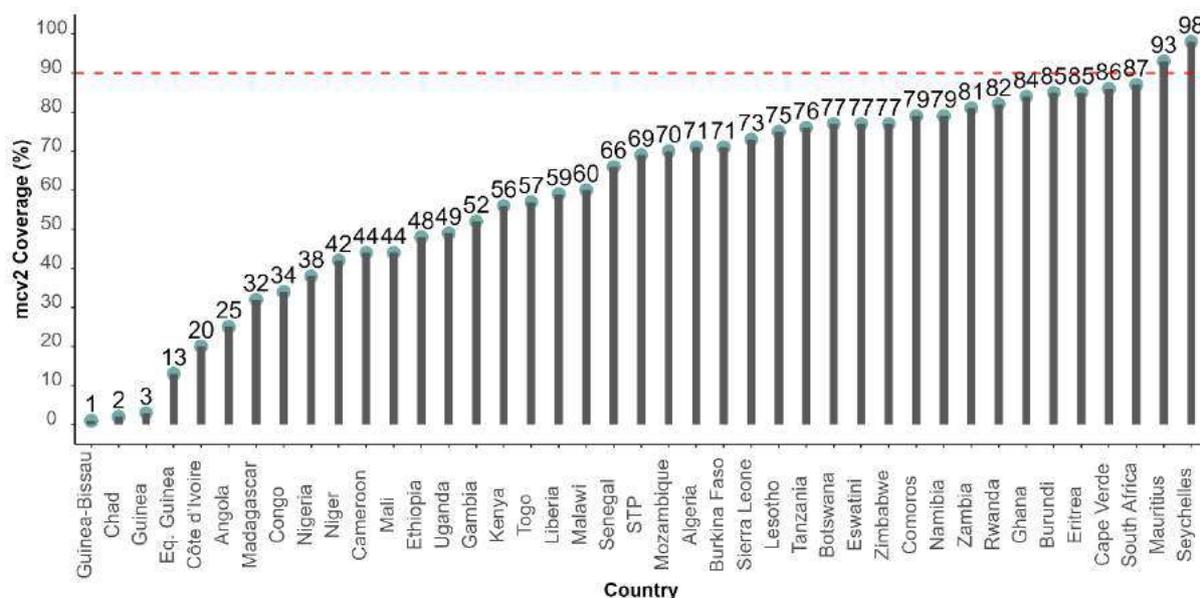
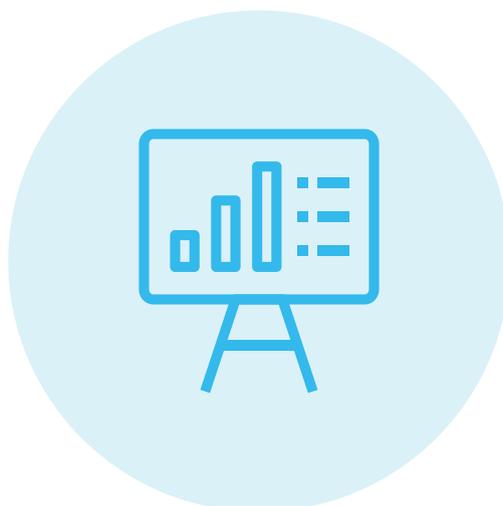


Figure 12: MCV2 coverage in 2022 in the African Region (source: WUENIC)

MCV1 coverage declined in 2022 compared to 2021 in 13 countries out of 47 (28%), but remained unchanged in 16 other countries (34%) and increased in 18 countries (38%). Figure 13 presents the percentage change of MCV1 coverage in 2022 compared to 2021 in the African Region.



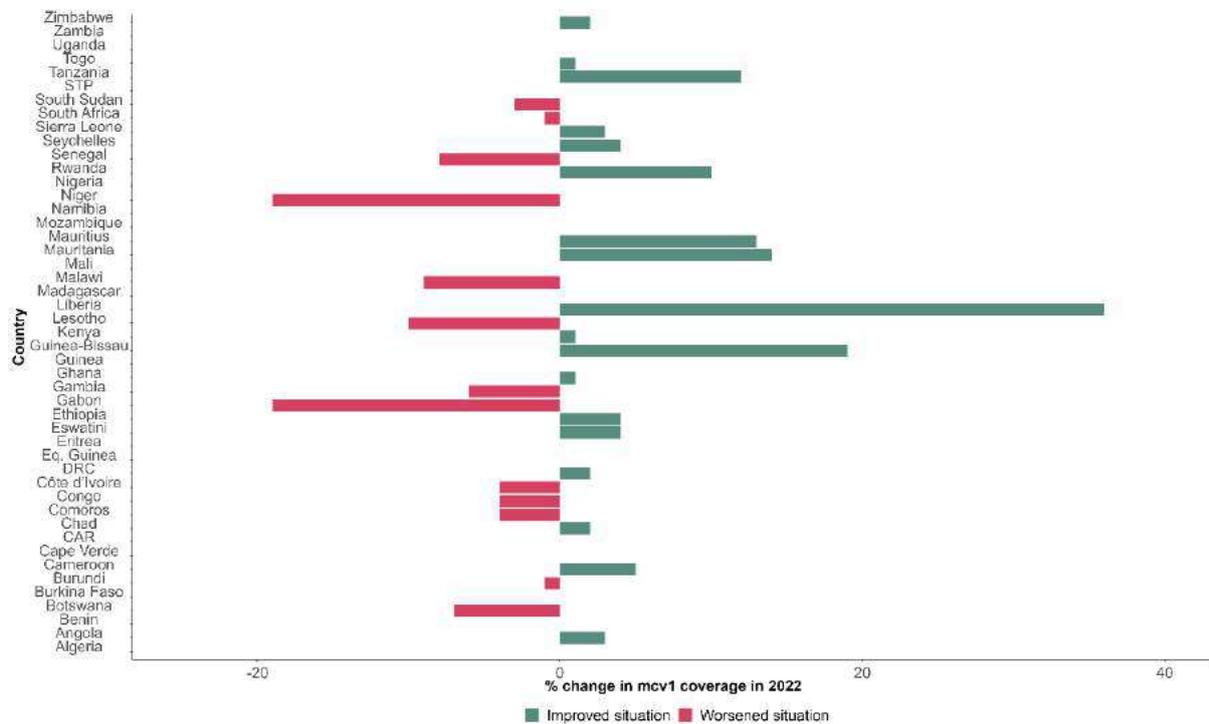


Figure 13: Percentage of MCV1 coverage in 2022 compared to 2021 by country in the African Region (source: 2022 WUENIC)

3.2.2 Un- and under-immunized children with MCV-containing vaccines

In 2022, the number of surviving children who had never received a single dose of MCV was estimated at 12.1 million (31% of surviving children), compared to 10.8 million (29% of surviving children) in 2019. Figure 14 presents the distribution of the number of MCV1 unimmunized and under-immunized children (having missed MCV2) over time.

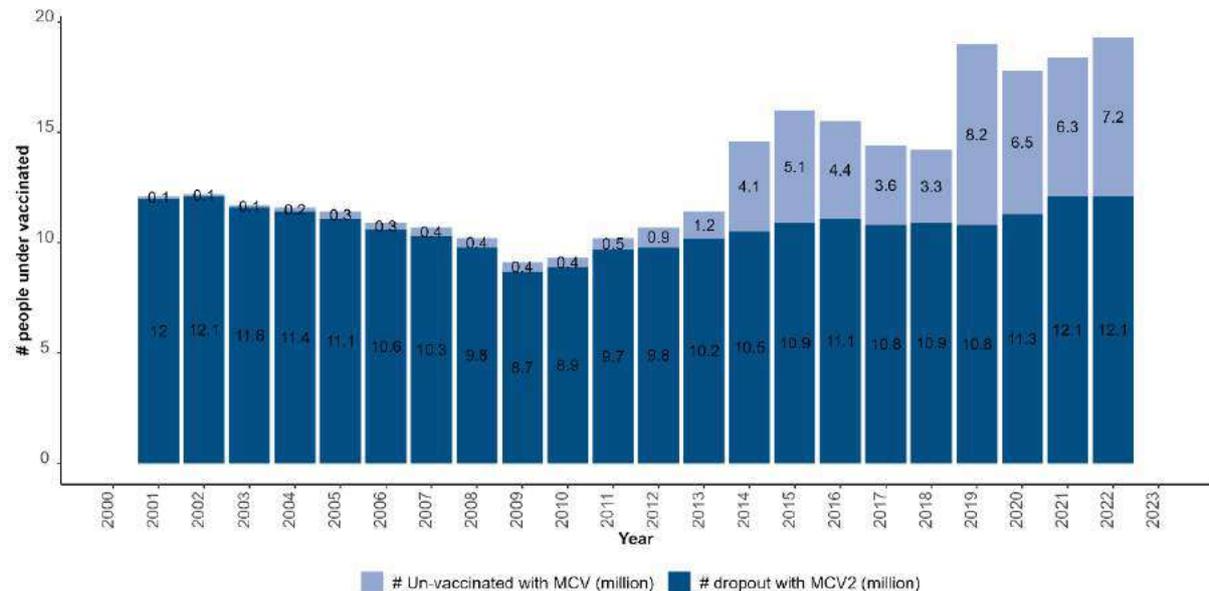


Figure 14: Number of MCV un-immunized and under-immunized children per year in the African Region (source: 2022 WUENIC)

In 2022, 34 countries out of 47 recorded over 10% of surviving children who were un-immunized with MCV in 2022 (Figure 15). The average proportion of children un-immunized and under-immunized with MCV was 21% [range: 2%; 63%] and 16% [range: 0%; 74%] respectively.

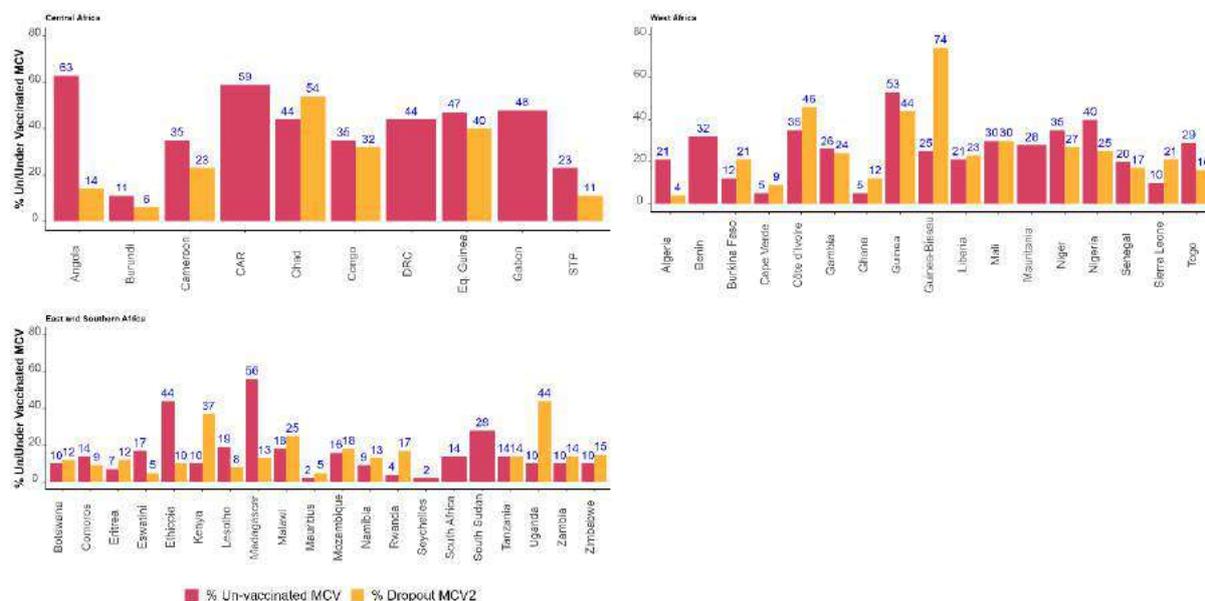


Figure 15: Percentage of children un-immunized and under-immunized with MCV by country in 2022 in the African Region.

Figure 16 presents the percentage of MCV un-immunized children in 2019 and 2022, which shows a decline in 2022 in 27 countries out of 47 (57%).

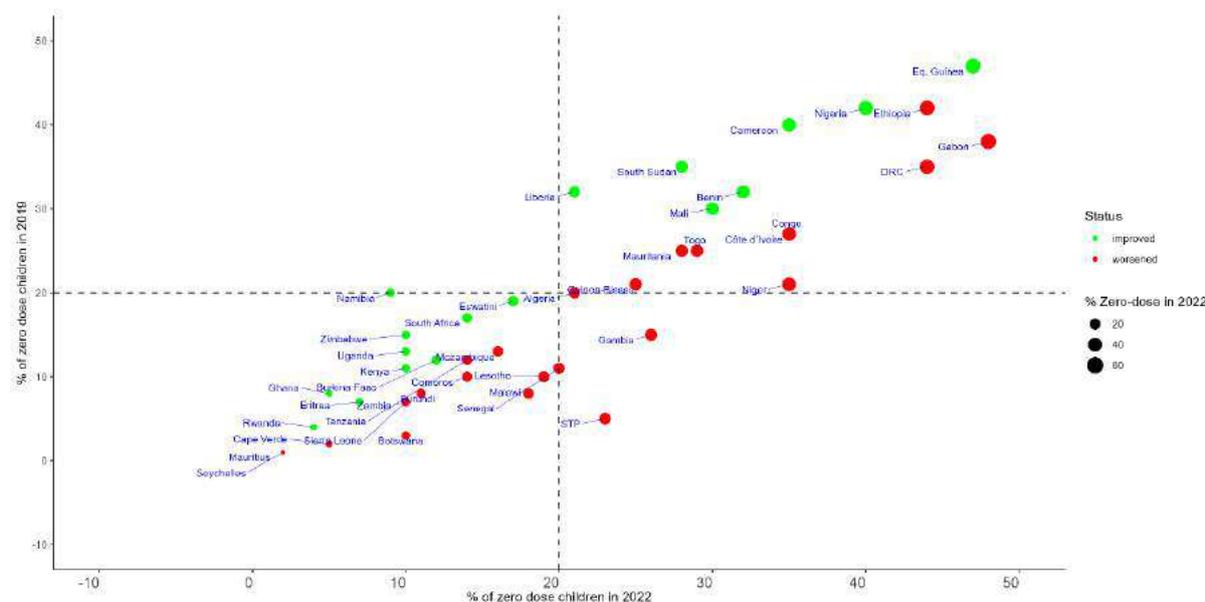


Figure 16: Percentage of children un-immunized with MCV in 2022 compared to 2019 in the African Region (source: 2022 WUENIC).

3.3 Third dose of the oral poliovirus vaccine (OPV3) and first dose of the inactivated polio-containing vaccine (IPV1).

In 2022, 27.50 million and 28.08 million children were immunized with OPV3 and IPV1 respectively, compared to 27.26 million with OPV3 and 27.60 million with IPV1 in 2021, an increase of 290 000 children vaccinated with OPV3 and 479 000 with IPV1.

The percentage of children who had received OPV3 and IPV1 in the African Region in 2022 was estimated at 71% and 73% respectively. OPV3 coverage declined from 77% in 2019 to 73% in 2020, 72% in 2021, and 71% in 2022. Figure 17 presents the distribution of OPV3 and IPV1 coverage over time.

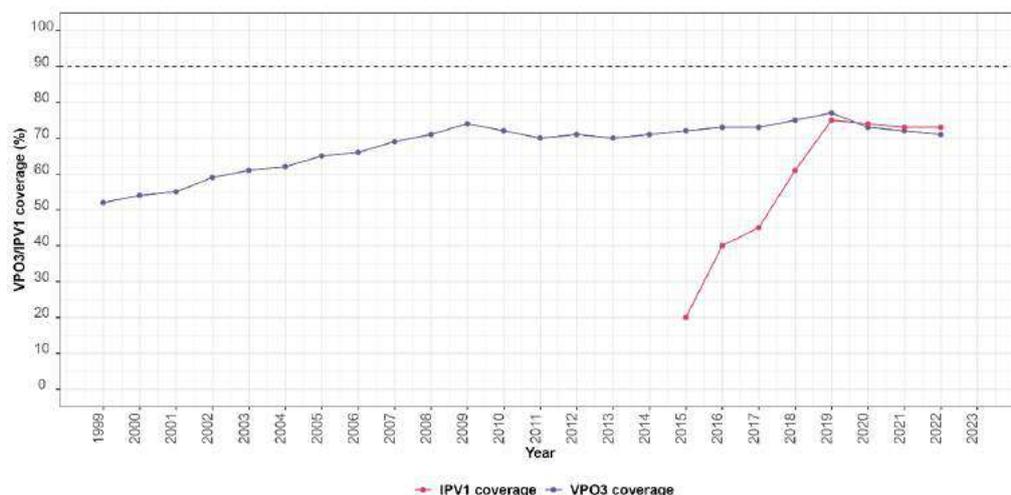


Figure 17: OPV3 and IPV1 coverage by year in the African Region (source: 2022 WUENIC)

Following the introduction of IPV into national immunization schedules, countries started to report IPV1 coverage to WHO and UNICEF in 2015. The number of countries that reported IPV1 coverage increased from 12 in 2015 to 47 (all countries) in 2019 (Figure 18).

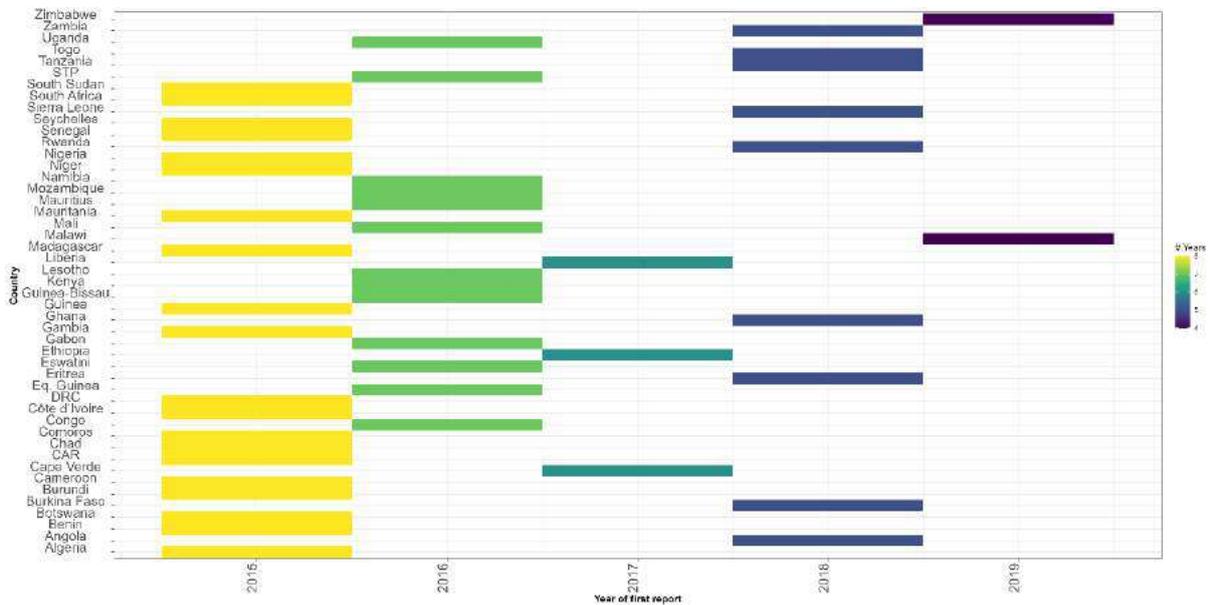


Figure 18: Distribution of countries by year of first reporting of IPV1 coverage to WHO and UNICEF (source: 2022 WUENIC).

The median IPV1 and OPV3 coverage in 2022 was 80% [range: 38%; 99%] and 77% [range: 41%; 98%] respectively. Twelve countries achieved the target of 90% or above coverage for IPV1, while three countries recorded IPV1 coverage estimated at less than 50% in 2022. Figure 19 presents the distribution of OPV3 and IPV1 coverage in 2022 in the African Region.

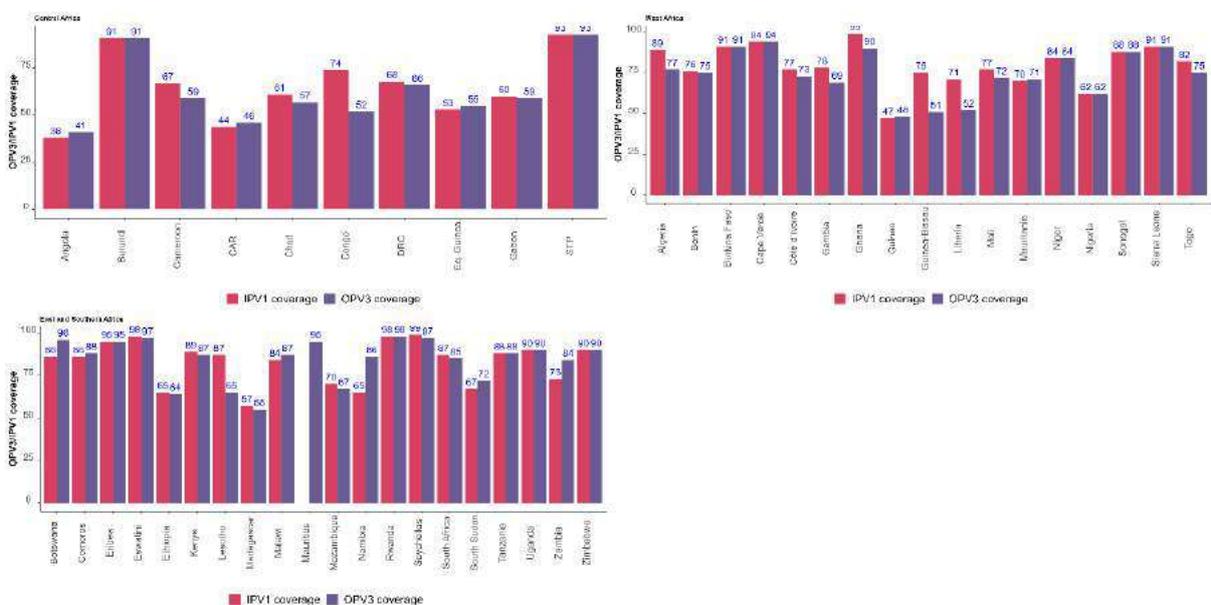


Figure 19: OPV3 and IPV1 coverage by country in 2022 in the African Region (source: 2022 WUENIC)

3.4. Third dose of the *Haemophilus influenzae* type B vaccine (HIB3), third dose of the pneumococcal conjugate vaccine (PCV3) and last dose of the rotavirus vaccine (ROTAC).

Vaccine coverage declined in 2020 compared to 2019 before plateauing in 2021 and 2022 for Hib3, PCV3, and RotaC (figure 20).

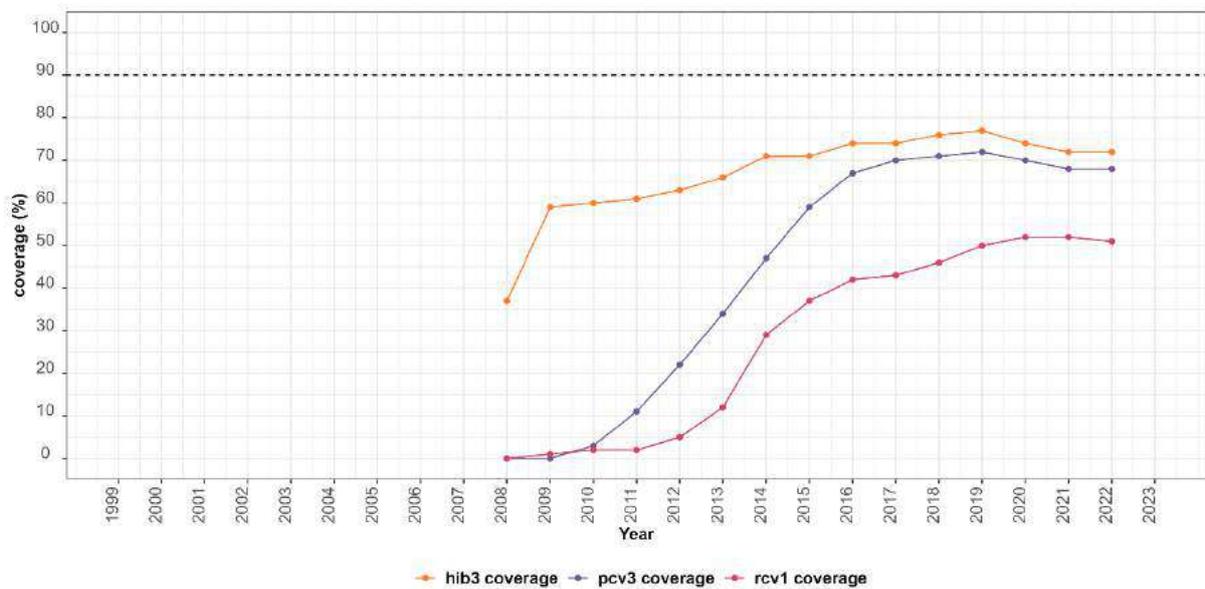


Figure 20: Hib3, PCV3, and RotaC coverage by year in the African Region (source: 2022 WUENIC)

The number of countries that reported on vaccine coverage in 2022 was 38 for RotaC, 40 for PCV3, and 47 for Hib3. Figure 21 presents the distribution of countries in the African Region by year of first reporting to WHO and UNICEF on Hib3, PCV3, and RotaC coverage.

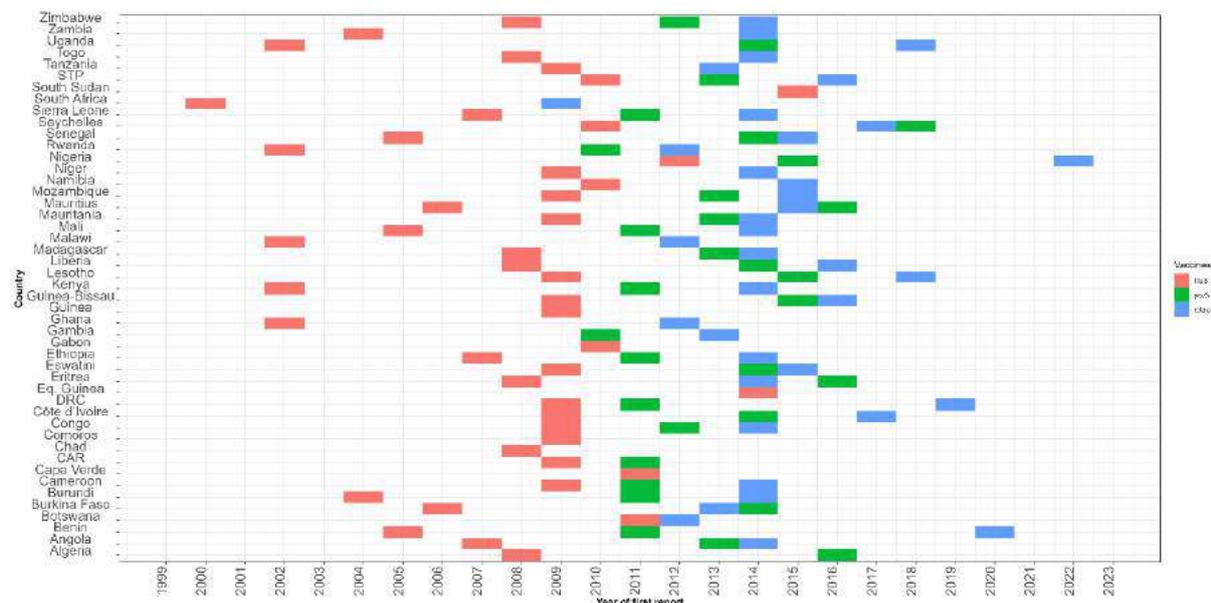


Figure 21: Distribution of countries by year of first reporting to WHO and UNICEF on Hib3, PCV3, and RotaC coverage (source: 2022 WUENIC)

The median coverage in 2022 was 82% [range:24%; 99%] for PCV3, 82% [range:42%; 99%] for Hib3 and 76% [range:12%; 99%] for RotaC. The number of countries in the African Region that achieved the target coverage of 90% or above in 2022 was 12 for PCV3, 13 for Hib3, and six for RotaC.

Figure 22 presents the distribution of PCV3, Hib3, and RotaC coverage by country in 2022 in the African Region.

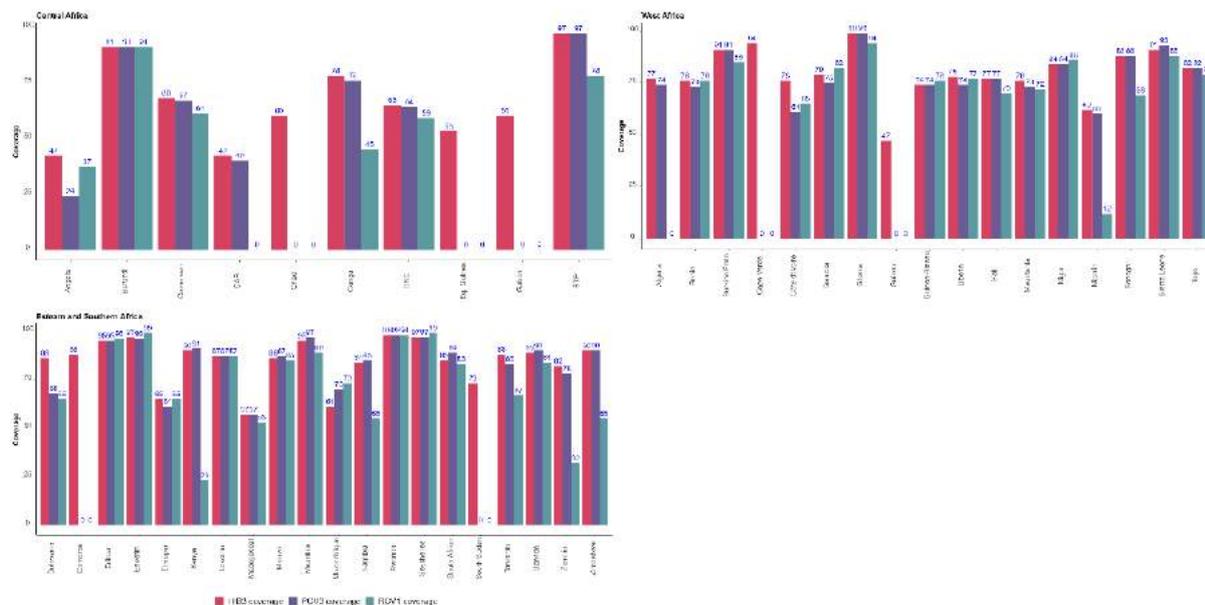


Figure 22: PCV3, Hib3, and RotaC coverage by country in 2022 in the African Region (source: 2022 WUENIC)

3.5. Yellow fever vaccine

Yellow fever vaccine coverage declined slightly from 47% in 2019 to 45% in 2022 (Figure 21).

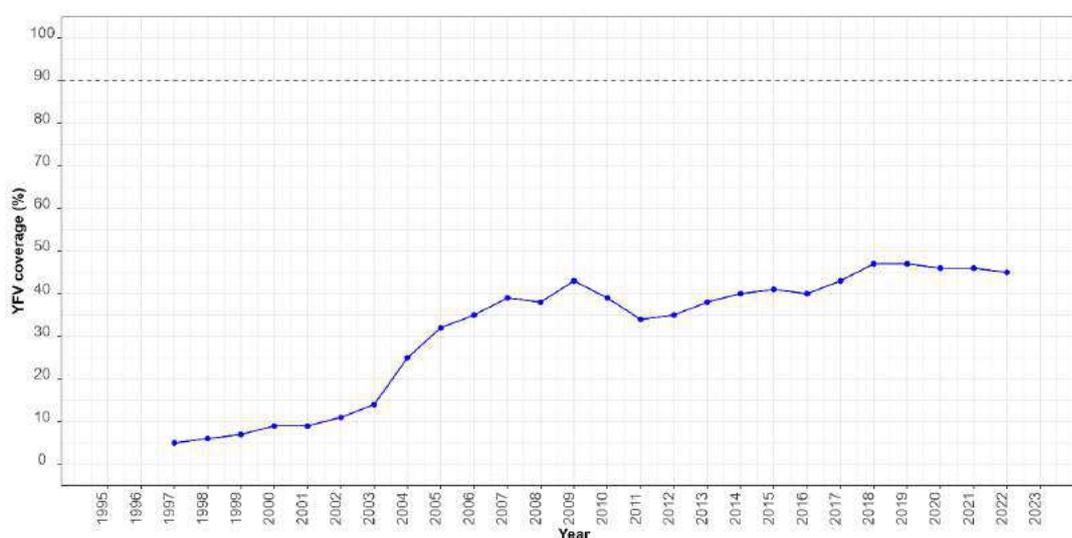


Figure 23: Yellow fever vaccine coverage by year in the African Region (source: 2022 WUENIC)

As of the end of 2022, 25 countries had introduced the yellow fever vaccine African Region, as evidenced by reports to WHO and UNICEF. Most did so before 2005 (Figure 24).

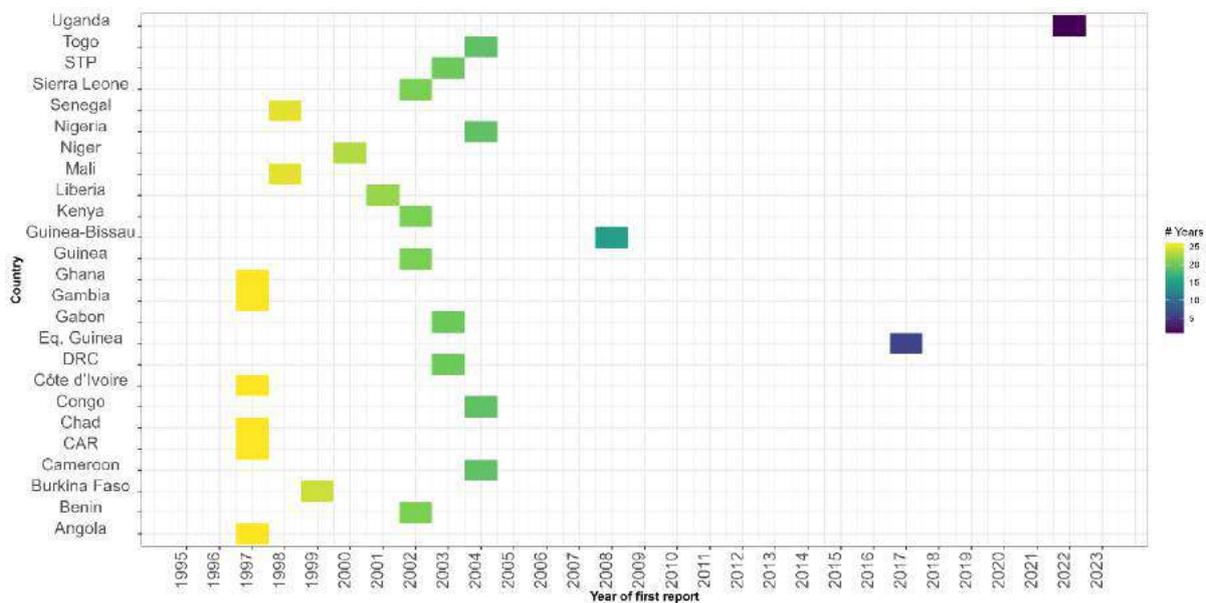


Figure 24: Distribution of countries by year of first reporting to WHO and UNICEF on yellow fever vaccine coverage (source: 2022 WUENIC)

The median yellow fever vaccine coverage in 2022 was 60% [range: 4%; 95%]. Only one country (Ghana) achieved the global target of at least 90% coverage, while six countries recorded less than 50% coverage for the yellow fever vaccine (Figure 23).

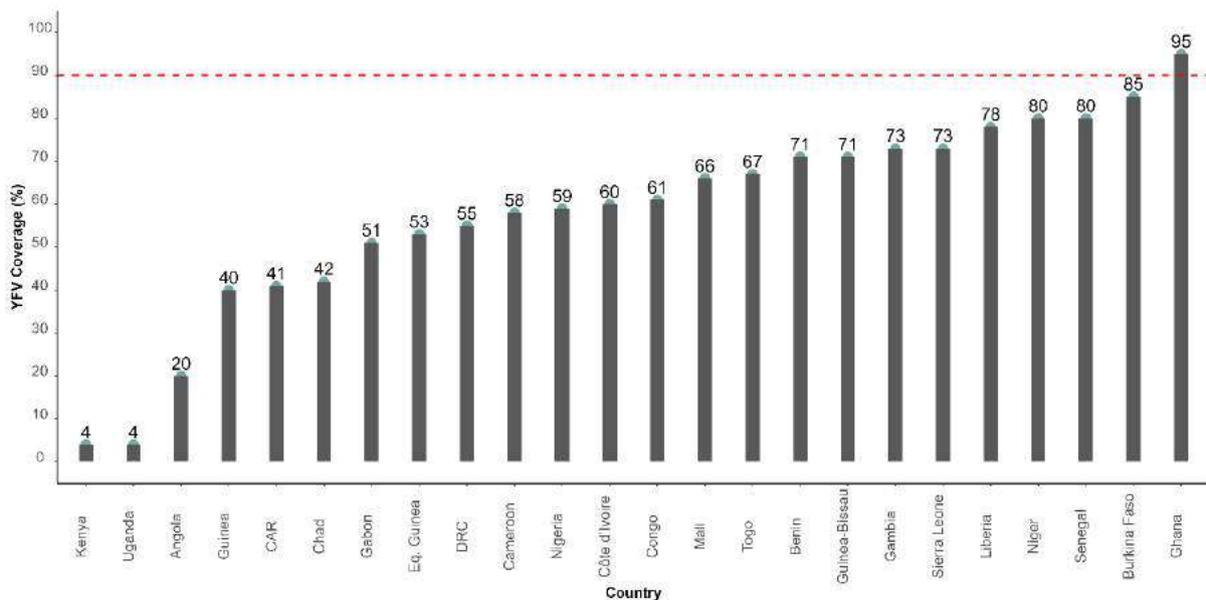


Figure 25: Yellow fever vaccine coverage in 2022 in the African Region (source: 2022 WUENIC)

3.6. Human papilloma virus (HPV) vaccination programme

Twenty-four countries in the African Region are implementing HPV vaccination programmes.

Figure 26 presents the distribution of countries in the African Region by year of reporting on the first dose of HPV vaccination programmes.

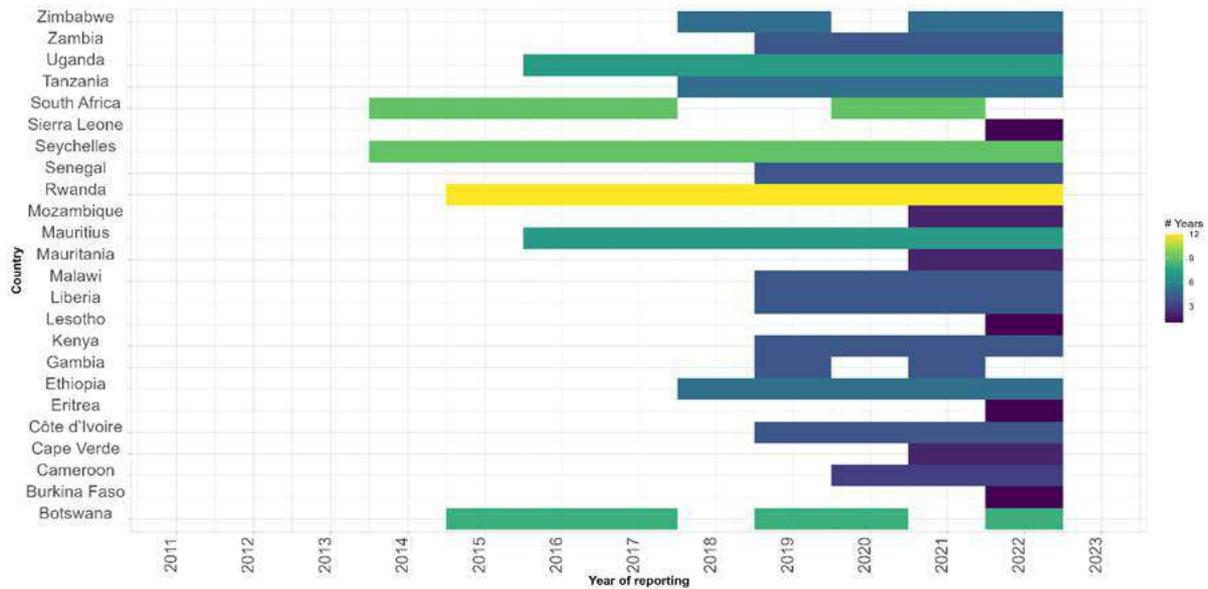


Figure 26: Reporting to WHO and UNICEF on HPV vaccination programme coverage by year in the African Region (source: 2022 WUENIC)

The immunization coverage declined from 75% in 2019 to 63% in 2022 for the first and last doses of the HPV vaccination programmes, and from 66% in 2019 to 37% for the last dose (figure 27).

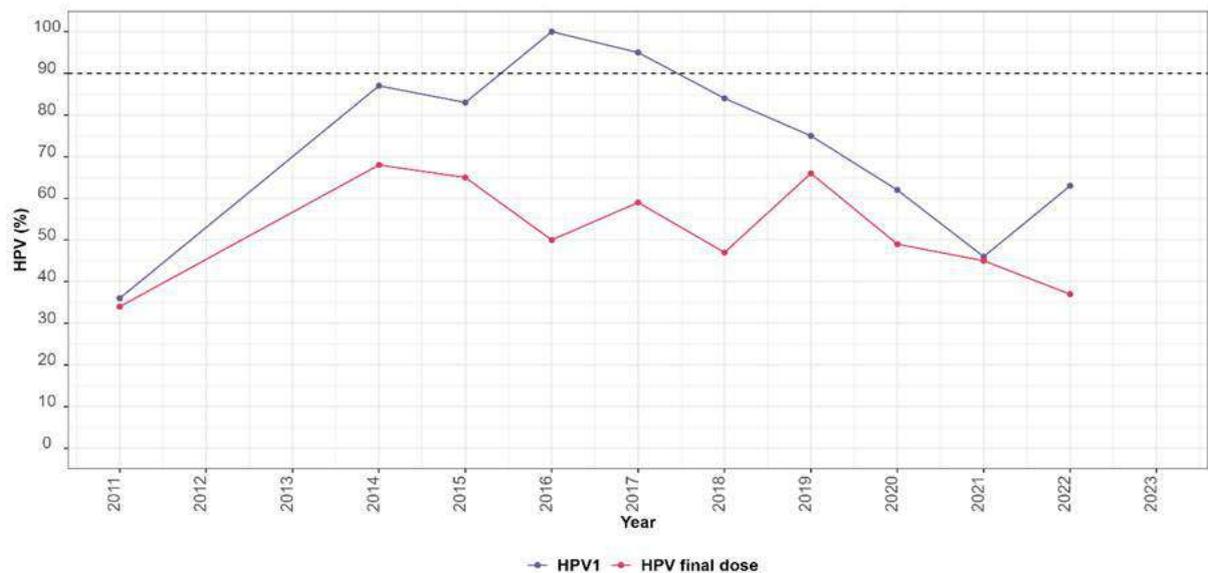


Figure 27: First and last doses of HPV vaccine coverage for females aged 9-14 years by year in the African Region (source: 2022 WUENIC)

Figure 28 presents the distribution of HPV vaccination programmes coverage (first and last doses) by country in 2022 in the African Region. The median coverage for the first and last doses of the HPV vaccination programmes stood at 64% [range: 6%; 99%] and 56% [range:7%; 93%] respectively. Five countries recorded 90% or above coverage for the first dose: Cabo Verde, Ethiopia, Mozambique, Seychelles, and Uganda.

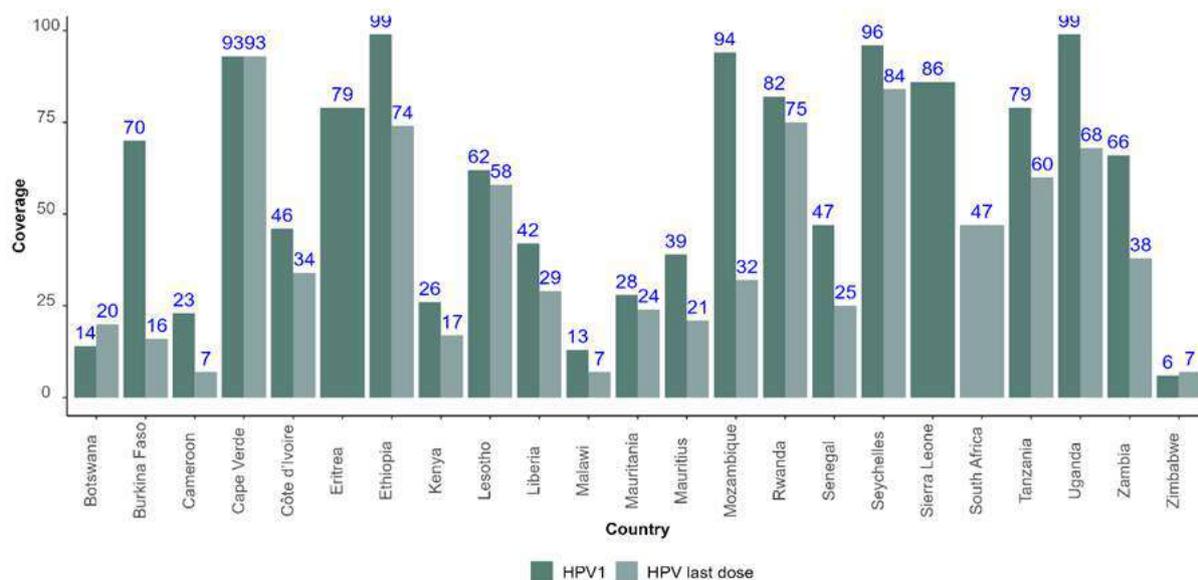


Figure 28: First and last doses of HPV vaccination programmes coverage by country in 2022 in the African region (source: 2022 WUENIC)



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4. Comparison of administrative and WUENIC coverage

A comparison of the administrative and WUENIC coverages in 2022 using DTP3 vaccine as tracer has shown 16 countries (47%) with a percentage change of between -10% and 10% (not significant), 19 countries (40%) with over 10% change (WUENIC coverage < administrative coverage) and six countries (13%) with below -10% change (WUENIC coverage > administrative coverage). Figure 29 presents a comparison of WUENIC and administrative coverage for DTP3 in 2022.

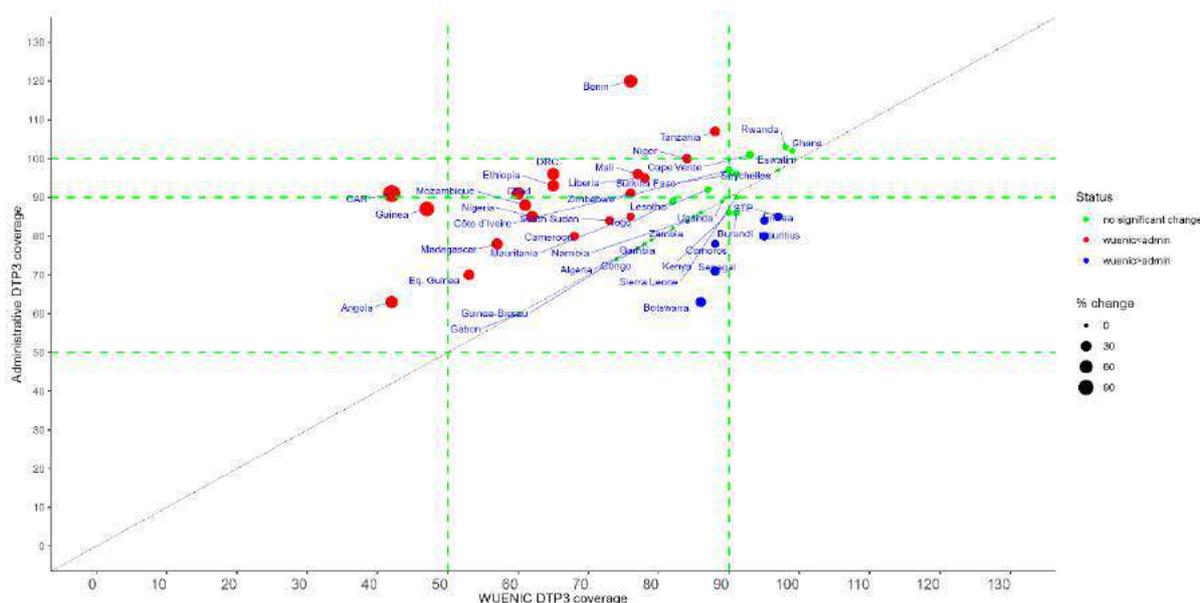


Figure 29: Comparison of WUENIC and administrative coverage in 2022 in 47 countries of the African Region (source: 2022 WUENIC).

Botswana, Comoros, Eritrea, Mauritius, São Tomé and Príncipe, and Senegal are the six countries with WUENIC estimates greater than administrative coverage. In these countries, reported data were considered as incomplete for various reasons, including but not limited to health worker strikes with resultant impacts on data completeness. WUENIC estimates were done based on fluctuation in reported data suggesting poor quality of administrative recording and reporting, and limited inclusion of immunization services in the private sector.

5. Situation interpretation and recommendations

Situation interpretation

The 2022 WUENIC revision show that immunization services in the African Region have not yet fully recovered from the disruptions caused by the COVID-19 pandemic. Immunization coverage for the first and third doses of DTP and the first and second doses of MCV are still below the 2019 levels and have not improved significantly in 2022, compared to 2021. Measles and rubella are targeted for elimination. However, six countries have not yet introduced or started to report on the second dose of MCV coverage to WHO and UNICEF, namely Benin, Central African Republic, Democratic Republic of the Congo, Gabon, Mauritania, and Sao Tome and Principe. Several countries are experiencing vaccine-derived poliovirus outbreaks, and the overall coverage for the third dose of OPV and the first dose of IPV were still below global targets in 2022 at 71% and 73% respectively.

The number of unimmunized children continued to increase in 2022, with 7.7 million zero-dose children recorded in the 2022 cohort, representing 20% of surviving children. Cumulatively, from 2019 to 2022, the Region recorded a total of 28.7 million zero-dose. The 10 countries (Nigeria, Ethiopia, Democratic Republic of the Congo, Angola, United Republic

of Tanzania, Madagascar, Mozambique, Mali, Chad, and Cameroon) account for 80% of zero-dose children recorded from 2019 to 2022. The zero-dose children from the 2019 cohort are aged 48-59 months in 2023. Countries need to update their immunization policies to catch up with all zero-dose children who were missed during the COVID-19 pandemic to comply with life-course immunization principles.

Despite the known effectiveness of HPV vaccines in preventing HPV infections and reducing cervical cancer deaths, only 24 countries have reported on the first and last doses coverage of HPV vaccination programmes. In these 12 countries, the coverage by the first dose of HPV vaccine in national programmes declined from 75% to 63%.

The 2022 WUENIC estimates highlight the need for all countries in the African region to speed up implementation of the immunization recovery plan through a three-pronged approach: (i) **catch-up** on vaccination of children missed since 2019; (ii) **restore** the immunization services to close the gap between current and 2019 pre-pandemic coverage; and (iii) **strengthen** immunization and primary health-care (PHC) systems to ensure that countries get back to the Immunization Agenda 2030 targets.

Building on good practices and lessons learned from managing global health initiatives (e.g. COVID-19 delivery partnership, HIV/AIDS), the planning and implementation of the immunization recovery plan should be guided by the principles of national ownership, recognizing the critical role of governments in coordinating the process of identifying and managing bottlenecks and mobilizing partners.

Greater administrative coverage than WUENIC coverage in 40% of countries in the African Region highlights persistent data quality issues including under-estimation of target populations. The lessons learned from COVID-19 vaccination information systems should be leveraged to strengthen routine immunization information systems.

Recommendations to Member States:

- ▶ speed-up development and/or implementation of the immunization recovery plan to catch-up on children un- or under-immunized since 2019. To that end, Member States are urged to adjust their national policies on routine immunization and promote the use of the “reaching every district” approach to overcome barriers to increasing immunization coverage by empowering districts and communities to plan, implement, and monitor their immunization services and progress in achieving set targets.
- ▶ implement, in their respective countries, the African Union Heads of State and Government Declaration of February 2023 on “Building momentum for routine immunization recovery in Africa” through which they committed to prioritizing universal access to immunization, as well as increasing and sustaining domestic investments in vaccines, and addressing bottlenecks in vaccine delivery.
- ▶ take all appropriate actions to introduce the second dose of IPV into the national schedule to increase protection of children against all polioviruses, including protection against paralysis caused by recombinant vaccine-derived poliovirus.
- ▶ give fresh impetus to the implementation of measles and rubella elimination plans to achieve the set target of 95% or above coverage for MVC1 at national and district level.
- ▶ take advantage of the Gavi HPV programme relaunch to accelerate quality introductions and adoption of a permissive one-dose schedule for HPV vaccine, rapid coverage recovery and sustainability through integration, and support recovery of original and missed cohorts up to 18 years of age for countries with delayed multi-age cohort vaccinations.
- ▶ leverage investments made in COVID-19 vaccination information systems to strengthen routine immunization information systems to close the gap between WUENIC estimates and administrative data.

WHO African Region planned actions

- ▶ WHO African Region intends to organize a strategic meeting with ministers of health and high-level representatives of international organizations to discuss the implications of the 2022 WUENIC estimates of the immunization programme coverage and, more specifically, agree on a roadmap for the implementation of the immunization recovery plan with focus on the 10 countries with the highest burden of zero-dose children. Following this meeting, WHO intends to launch a country support team initiative for catching-up on vaccination of zero-dose children.

- Following the strategic meeting, WHO would like to scale up its support to Member States in the implementation of immunization recovery plans. WHO will support the finalization of catch-up plans, organization of roundtables to raise resources required to reach all children and leaving no one behind, as well as the effective implementation of catch-up plans using the reaching every district (RED) approach.
- WHO African Region will conduct a deep analysis of factors associated with success and failure in achieving the global targets under the Immunization Agenda 2030 framework, to learn from country experiences.



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6. Limitations

- The WUENIC estimates are only made at national level and cannot be used to guide operational decisions at sub-national levels.
- Estimation of un- and under-immunized are derived using WUENIC coverage and latest available United Nations population estimates. This may lead to over- or under-estimation of the number of zero-dose and other under-immunized children.
- The WUENIC estimates are made on a yearly basis; this does not allow for timely decisions to improve the performance of immunization services. By the time the WUENIC estimates are published, the situation for some countries may have already improved or even deteriorated.
- The factors associated with success or failure in achieving set global targets were not analysed, as the WUENIC estimates do not include any qualitative information about countries' vaccination programmes.
- The interpretation of the results of this report should take these limitations into account.

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Annex: 2022 coverage in the African Region for BCG, DTP1, DTP3, MCV1, MCV2, RCV1, IPV1, HIB3, PCV3, HEPBB, HEPB3, YLV and ROTAC vaccines (source: 2022 WUENIC)

Country	BCG	DTP1	DTP3	HEPB3	HEPBB	HIB3	IPV1	MCV1	MCV2	PCV3	RCV1	ROTAC	YFV
Algeria	98	91	77	77	99	77	89	79	71	74	79		
Angola	60	53	42	42		42	38	37	25	24	37	37	20
Benin	88	84	76	76	75	76	76	68		73	68	76	71
Botswana	98	98	86	86	40	86	86	90	77	68	90	65	
Burkina Faso	98	95	91	91	53	91	91	88	71	91	88	85	85
Burundi	94	93	91	91		91	91	89	85	91	89	91	
Cabo Verde	98	97	93	94	96	94	94	95	86	0	95		
Cameroon	65	75	68	68		68	67	65	44	67	65	61	58
Central African Republic	61	54	42	42		42	44	41		40			41
Chad	67	74	60	60		60	61	56	2				42
Comoros	90	90	88	88		88	86	86	79		86		
Congo	67	82	78	78		78	74	65	34	76	65	45	61
Côte d'Ivoire	92	85	76	76	67	76	77	65	20	61	65	65	60
Democratic Republic of the Congo	77	81	65	65		65	68	56		64		59	55
Equatorial Guinea	85	77	53	53		53	53	53	13				53
Eritrea	97	97	95	95		95	95	93	85	95	93	96	
Eswatini	97	99	97	97		97	98	83	77	96	83	99	
Ethiopia	68	70	65	65		65	65	56	48	61		65	0
Gabon	82	65	60	60		60	60	52					51

Country	BCG	DTP1	DTP3	HEPB3	HEPB8	HIB3	IPV1	MCV1	MCV2	PCV3	RCV1	ROTAC	YFV
Gambia	83	85	79	79	26	79	78	74	52	75	74	82	73
Ghana	96	99	99	99		99	99	95	84	99	95	94	95
Guinea	73	62	47	47		47	47	47	3				40
Guinea-Bissau	80	81	74	74		74	75	75	1	74		76	71
Kenya	97	95	90	90		90	89	90	56	91	90	23	4
Lesotho	85	92	87	87		87	87	81	75	87	81	87	
Liberia	67	93	78	78		78	71	79	59	74		77	78
Madagascar	63	66	57	57		57	57	44	32	57		53	
Malawi	84	89	86	86		86	84	82	60	87	82	85	
Mali	83	82	77	77		77	77	70	44	77		70	66
Mauritania	88	84	76	76		76	70	72		73	72	72	
Mauritius	97	96	95	95		95		98	93	97	98	89	
Mozambique	79	67	61	61		61	70	84	70	70	84	73	
Namibia	93	90	84	84	79	84	65	91	79	85	91	55	
Niger	95	96	84	84		84	84	65	42	84		86	80
Nigeria	74	70	62	62	52	62	62	60	38	60		12	59
Rwanda	98	99	98	98		98	98	96	82	98	96	98	
Sao Tome and Principe	93	97	97	97	69	97	93	77	69	97	77	78	
Senegal	87	90	88	88	76	88	88	80	66	88	80	69	80
Seychelles	99	99	97	97		97	99	98	98	97	98	99	
Sierra Leone	73	92	91	91		91	91	90	73	93	90	88	73
South Africa	84	87	85	85		85	87	86	87	89		83	
South Sudan	72	76	73	73		73	67	72					
Togo	91	88	82	82		82	82	71	57	82	71	79	67
Uganda	82	94	89	89		89	90	90	49	90	90	84	4
United Republic of Tanzania	90	91	88	88		88	88	86	76	83	86	67	

Country	BCG	DTP1	DTP3	HEPB3	HEPB8	HIB3	IPV1	MCV1	MCV2	PCV3	RCV1	ROTAC	YFV
Zambia	85	86	82	82		82	73	90	81	78	90	32	
Zimbabwe	96	93	90	90		90	90	90	77	90	90	55	
ESA	81	83	78	78	1	78	78	77	60	76	52	64	2
CA	72	75	62	62		62	63	55	15	52	20	49	48
WA	82	80	72	72	43	72	73	67	44	68	27	39	66
AFRO	80	80	72	72	18	72	73	69	45	68	36	51	45
Total countries that reported	47	47	47	47	11	47	46	47	41	41	32	38	25
Number of countries with 90% or above coverage	20	23	13	13	2	13	12	13	2	13	13	6	1
% of countries with 90% or above coverage	43	49	28	28	18	28	26	28	5	32	41	16	4
Number of countries with less than 50% coverage	0	0	3	3	2	3	3	4	14	3	1	5	7
% of countries with less than 50% coverage	0	0	6	6	18	6	7	9	34	7	3	13	28

Legend:

Immunization coverage	
>=90%	
50%-89%	
>50%	
No report	

