

Figure 1: Routine immunization coverage of selected vaccines in the African Region, WUENIC 1980-2015

Table 1: Routine immunization coverage in African Region, WUENIC, 2016

Vaccine	Coverage by Year				
	2012	2011	2014	2015	2016
BCG	80	79	82	80	81
HepB_BD	9	9	9	9	10
Penta1	81	82	84	83	83
Penta3	72	73	74	74	74
MCV1	71	71	72	72	72
MCV2	6	7	11	18	24
YFV	36	40	45	45	45
PCV3	21	35	50	59	65
OPV3	72	72	74	73	73
RCV1	0	4	9	12	13
Rotac	4	12	29	40	45
IPV1				19	41

As per the country reports to WHO and UNICEF, in 2016, only 8 countries funded 100% of their vaccine costs while 3 countries covered routine immunization costs up to 100%. One country was reported to have not funded routine immunization cost at all.

Status of Polio Eradication

Overall, there has been significant decrease in number of polio cases and environmental samples; and improved access and supplementary immunization activities (SIA)

quality. The last reported case of WPV1 in the Region was in Nigeria with date of onset on 24 July 2014. WPV2 was globally eradicated in 1999 and WPV3 was last reported in Nigeria with date of onset on 10 November 2012. Between July 2014 and July 2016 there was no reported WPV in the Region. However, recent improvement in access to previously insecure areas of Borno, Nigeria, has revealed in 2016 four new cases, most of which were never vaccinated hitherto, due to security challenges.

In terms of circulating vaccine derived polio virus type 2 (cVDPV2) outbreaks there are three major sources of concern in the Region, namely Guinea, Nigeria and DRC. Guinea poses medium to high risk of continuation beyond the switch from the trivalent oral polio vaccine (tOPV) to bivalent oral polio vaccine (bOPV) with risk of spread to neighbouring areas while undetected transmission in Nigeria for over one year remains a great concern in the Lake Chad region.

All the 47 member states have effectively switched from tOPV to bOPV and post switch issues are currently being addressed. Some of the issues include global IPV shortage, intradermal fractional IPV dose use in campaign setting as well as risk of using a live vaccine (mOPV2) with a threat of de-novo VDPV2 emergence. There is also the concern with ensuring high quality mOPV2 responses to VDPVs¹³.

As the polio eradication initiative nears completion, transition planning is developed to protect a polio free

world and to ensure that the huge polio investment and assets generated in the course of the initiative contribute to future health goals. Countries, where the most investments were made are encouraged to develop transition plans. Some of the milestones have been reached with polio transition planning. These include the finalization of inventory and mapping of all polio assets; finalization of transitional plans and the start of implementation of transitional plans by January 2017. The main issue here is to ensure government ownership and leadership of the process. WHO is currently giving support to countries for the implementation of the developed milestone to ensure greater ownership of country plans.

The remaining challenges include closing surveillance gaps and ensuring quality outbreak responses; stopping cVDPV/VDPV type 2 emergence and addressing the global shortage of IPV. Other remaining challenges include strengthening national polio certification committees and ensuring government ownership and leadership of the polio transitioning process.

Progress on New Vaccine Introduction

The Region has recorded significant progress in the introduction of new vaccines. The GVAP target at least 90 low- and middle-income countries introducing one or more new or underutilized vaccines³. The success recorded on this target is largely driven by African countries in

partnership with Gavi, The Vaccine Alliance. Table 2 reveals that many countries in Africa have introduced multiple new vaccines, such as pneumococcal conjugate vaccine and rotavirus vaccine, at the same time. Pentavalent vaccine (DTP-HepB-Hib), for instance, has been introduced into the routine immunization programmes of all the Member states of WHO African Region. This highlights the high priority of vaccination among political leaders in Africa. The ultimate impact of new vaccines in Africa—as measured by lives saved and illnesses averted—is dependent on the number of children immunized. Countries will need to continue improving routine immunization coverage to achieve the full promise of these vaccines¹.

Progress in Disease Control Initiatives

Some successes have been recorded in the control of diseases like meningitis, measles, maternal and neonatal tetanus and yellow fever. This is in spite of the various challenges and public health emergencies and frequent disease outbreaks in the African Region.

Yellow Fever

Thirty three of the 47 countries in the Africa Region are currently at high risk of yellow fever transmission. The burden of yellow fever, as of 2016, is put at between 840,000 to 1.7 million infections with 84,000 to 170,000 cases and 29,000 to 60,000 deaths. The assumption is that

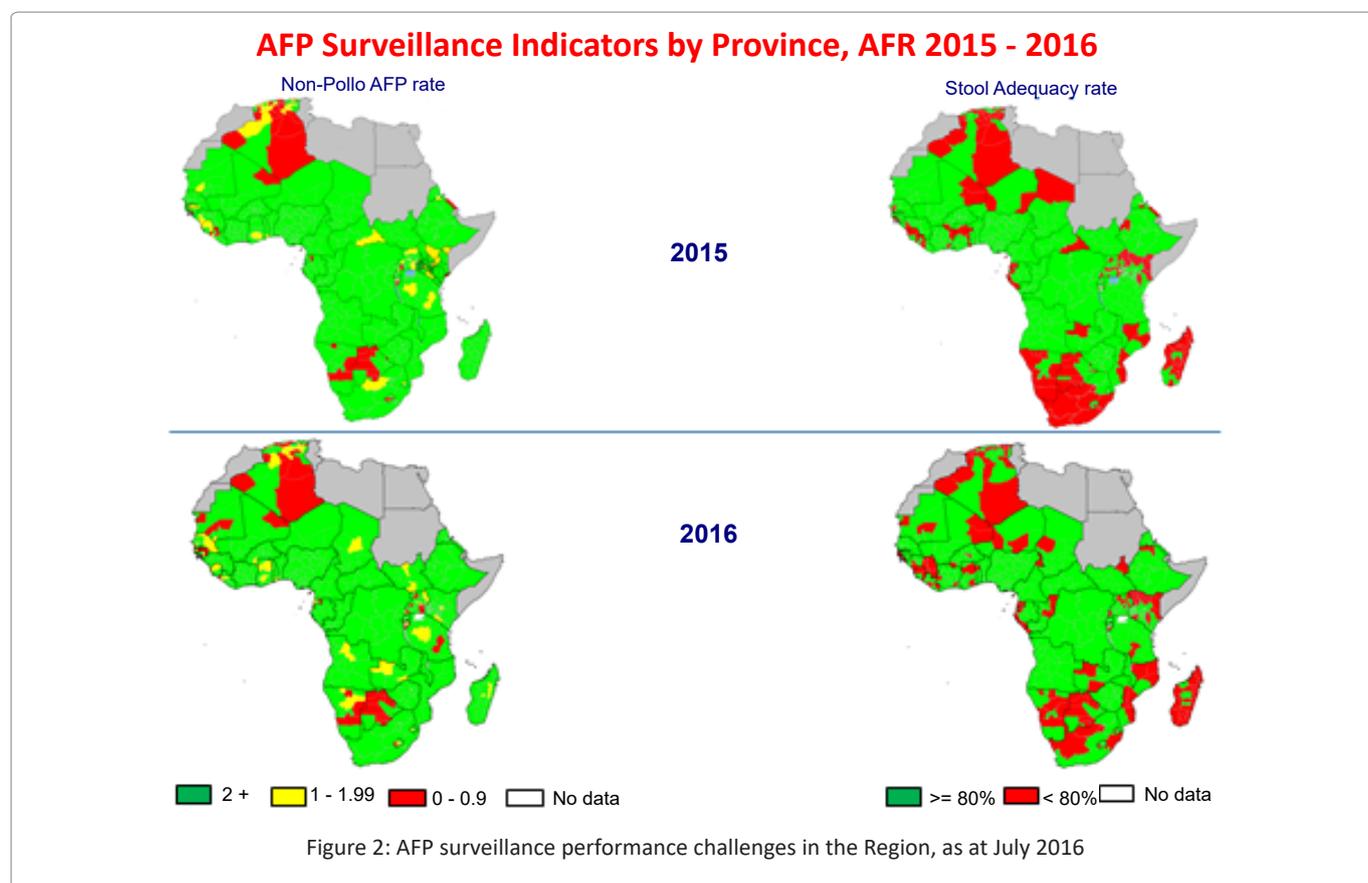


Table 2. Status of introduction of new vaccine in countries of the African Region, 2016

PCV	Rota	HPV In RI	HPV in Demonstration	HepB	Penta	IPV
Angola	Angola	Botswana	Benin	Algeria	Algeria	Algeria
Benin	Botswana	Lesotho	Burkina Faso	Angola	Angola	Benin
Botswana	Burkina Faso	Rwanda	Burundi	Botswana	Benin	Botswana
Burkina Faso	Burundi	Seychelles	Cameroon	Cabo Verde	Botswana	Burundi
Burundi	Cameroon	South Africa	Cote D'Ivoire	Gambia	Burkina Faso	Cameroon
Cameroon	Congo	Uganda	Ethiopia	Mauritania	Burundi	CAR
Congo	Eritrea		Gambia	Namibia	Cabo Verde	Chad
Cote d'Ivoire	Ethiopia		Ghana	Nigeria	Cameroon	Comoros
C AR	Gambia		Kenya	Sao Tome & Principe	C AR	Congo
DRC	Ghana		Liberia	Senegal	Chad	Cote D'Ivoire
Eritrea	Guinea Bissau		Madagascar		Comoros	DRC
Ethiopia	Kenya		Malawi		Congo	Equatorial Guinea
Gambia	Liberia		Mali		Cote D'Ivoire	Ethiopia
Ghana	Madagascar		Mozambique		DRC	Gabon
Guinea Bissau	Malawi		Niger		Equatorial Guinea	Gambia
Kenya	Mali		Senegal		Eritrea	Guinea
Lesotho	Mauritania		Sierra Leaoe		Ethiopia	Guinea Bissau
Liberia	Mauritius		Tanzania		Gabon	Kenya
Madagascar	Mozambique		Togo		Ghana	Lesotho
Malawi	Namibia		Zambia		Guinea	Madagascar
Mali	Niger		Zimbabwe		Guinea Bissau	Mauritania
Mauritania	Rwanda				Kenya	Mozambique
Mauritius	Senegal				Lesotho	Namibia
Mozambique	Sierra Leone				Liberia	Niger
Namibia	Sao Tome & Principe				Madagascar	Nigeria
Niger	South Africa				Malawi	Sao Tome & Principe
Nigeria	Swaziland				Mali	Senega;
Rwanda	Tanzania				Mauritania	Seychelles
Sao Tome & Principe	Togo				Mauritius	South Africa
Senegal	Zambia				Mozambique	South Sudan
Sierra Leone	Zimbabwe				Namibia	Swaziland
South Africa					Niger	Uganda
Swaziland					Nigeria	
Tanzania					Rwanda	
Togo					Sao Tome & Principe	
Uganda					Senegal	
Zambia					Seychelles	
Zimbabwe					Sierra Leone	
					South Africa	
					South Sudan	
					Swaziland	
					Tanzania	
					The Gambia	
					Togo	
					Uganda	
					Zambia	
					Zimbabwe	

Table 3. Performance of Measles Elimination by Targets

Introduce Rubella Vaccine	Conducted Wide Age MR SIAs	Countries with measles incidence <1/1000000	Countries with surveillance network meeting target
Burkina Faso	Botswana	Botswana	Botswana
Cabo Verde	Cameroon	Cabo Verde	Cameroon
Ghana	Gambia	Comoros	Chad
Mauritius	Kenya	Guinea Bissau	Congo
Rwanda	Namibia	Madagascar	Gabon
Senegal	Sao Tome and Principe	Malawi	Guinea
Seychelles	Swaziland	South Africa	Kenya
Tanzania	Zambia	Swaziland	Lesotho
Zimbabwe		Tanzania	Madagascar
		Zambia	Mali
		Zimbabwe	Mozambique
			Rwanda
			Senegal
			Sierra Leone
			South Africa
			Swaziland
			Togo
			Uganda
			Zimbabwe

maternal and neonatal tetanus (MNT) include promotion of clean delivery practices, immunization of women against tetanus targeting pregnant and those in child bearing age group (15-44 years) with a tetanus toxoid-containing vaccine in routine immunization, or provision of at least 3 doses of tetanus toxoid (TT) vaccine through supplemental immunization activities' (SIAs) targeting women of reproductive age that reside in areas classified as being at high risk for MNT, and case-based surveillance to identify NT cases and deaths as well as the assessment of the risk-status of the area¹⁵.

As of 2016, 37 of the 47 Member States have been validated for MNT elimination. The remaining countries (Angola, Central African Republic, Chad, Democratic Republic of the Congo, Equatorial Guinea, Guinea, Kenya, Mali, Niger, Nigeria and South Sudan, and the Somali region of Ethiopia) are making efforts to complete needed supplemental immunisation activities in high risk districts. Six out of the ten remaining countries are ready to undergo the validation exercise.

Progress towards achieving the goal has, however, been delayed in the African Region, due in part to slow implementation of the recommended strategies. It is estimated that the current reporting system captures less than 10% of cases. This is because the health care seeking behaviour of most of the affected rural communities are difficult to access, populations rely more on traditional and spiritual healers for such diseases of sudden onset, and health facilities are only visited as the last resort, coupled with the fact that the existing surveillance system is focused

more on review of medical records at the health facility level with limited community surveillance component.

Vaccine Research and Development

Research has also been identified and prioritized for its catalytic effect on reaching development goals. Some steps have been taken to advance the course of research and development. A Strategic Framework for Research in Immunization and Implementation Research is put in place to guide research operations of the immunization programmes of Member States. The Region has been supporting implementation researches to strengthen immunization programmes and move them towards attaining the global and regional immunization goals and targets.

In terms of vaccine development, the WHO Product Development for Vaccines Advisory Committee (PDVAC) is working to accelerate vaccine candidates in Phase 2 of clinical evaluation or earlier, for diseases with substantial burden in low and medium income countries (LMICs), but where no vaccines currently exist, through WHO guidance. Specifically, the objectives are to develop the preferred product characteristics (PPCs); WHO preferences for vaccines to be used in LMICs (indications, target groups and desirable clinical data on safety and efficacy); provide early guidance to developers, 5–10 years from vaccine approval; and ensure that, once licensed, data are available for decision-making on use in populations that need it most. Some typical cases where the WHO has pursued these goals are in the development of the first malaria and Ebola vaccines in the Region.

Conclusion

Despite the current inability to reach both global and regional immunisation goals, national immunization programmes in the African Region have made significant strides in protecting the populations against vaccine preventable diseases. New and effective vaccines have been successfully introduced in national immunization programmes. Polio eradication has also been on track, except for the recent detection of WPVs in the previously inaccessible and security compromised zone of Northeast Nigeria, which has also been promptly and effectively responded to. Coverage with other vaccines has also been on a steady increase, albeit, stagnating around 70% for a prolonged period, and failing to reach the desired 90% national coverage and 80% in all the districts, due to multiple logistic, systems and behavioural challenges. Some of the challenges are also linked to weak country ownership, inadequate government support for immunization programmes and community demand for immunization services.

The IVD programme has taken various steps, most of which are yielding positive returns, to push national immunization programmes towards achieving the global and regional targets. Countries are being facilitated to establish NITAG to guide the national immunization programmes. Governments were recently sensitized, through the first ever Ministerial Conference on Immunization in Africa (MCIA), on the situation of immunization programmes in the African continent and their role in moving immunization programmes toward attaining high coverage with equity in access to immunization services as a critical pillar for socioeconomic development of the Region.

On the other hand, communities and individuals are increasingly being sensitized to the benefits of immunization and their right to demand immunization services. Together with UNICEF and other partners, in the Region, WHO is regularly working on boosting demand for immunization services. The planning of CMYPs is increasingly being improved to cover communication issues that drive demand creation. Furthermore, results of various implementation research are being utilized in planning the delivery of immunization services, developing effective communication tools and messages, particularly addressing risk communications resulting from adverse events after immunization.

To enhance the capacity of countries to undertake implementation research in support of the immunization programmes, capacity building workshops were conducted for selected French and English-speaking countries respectively. An implementation research guide has also been produced to help the immunization programme managers on the processes of identifying and initiating

scientific studies to address implementation issues. In addition to this, the IVD programmes in the Regional Office is in the process of producing a strategic framework for research in immunization, which will go beyond providing guide to doing research but also provide a platform for prioritizing research questions and research resource allocation.

With these, the IVD programme is cautiously optimistic of attaining the global and regional immunization goals by the year 2020. However, this will be with the continued support of all stakeholders, the countries and their partners.

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