GLOBAL VACCINE ACTION PLAN

MONITORING, EVALUATION & ACCOUNTABILITY
SECRETARIAT ANNUAL REPORT 2019

ANNEX TO THE GLOBAL VACCINE ACTION PLAN REVIEW AND LESSONS LEARNED REPORT

Suggested citation Global Vaccine Action Plan. Monitoring, evaluation & accountability 2019 report. Annex to the Global Vaccine Action Plan review and lessons learned report. Geneva: World Health Organization; 2019. Licence: CC BY-NC-SA 3.0 IGO.

Cataloguing-in-Publication (CIP) data. CIP data are available at http://apps.who.int/iris.

This publication contains the collective views of Strategic Advisory Group of Experts on Immunization and does not necessarily represent the decisions or the policies of WHO.

Layout by Paprika (Annecy, France)

Cover photo by WHO/Anna Ursova.

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Note:

In the context of the preparation of the Immunization Agenda 2030 (IA2030), certain changes have been made to the Global Vaccine Action Plan (GVAP) annual progress reporting mechanism. This year the focus is put on the Global Vaccine Action Plan review and lessons learned report and all other GVAP documents are annexes to the former.

The present report presents a collection of figures and graphs with the latest available data, for a selection of GVAP indicators, mainly covering disease elimination, coverage and equity and the surveillance dimensions.

For some indicators, succinct notes complement the figures. A more comprehensive display of GVAP indicators can be found on the GVAP indicator portal (https://www.who.int/immunization/global_vaccine_action_plan/en/). For indicators which have not been updated this year as well as for all background references and sources please refer to the 2018 GVAP secretariat report.

For indicators related to supply and financing, a Global vaccine market report will be published in September 2019 on the WHO webpage (www.who.int/immunization/MI4A)

Vaccine coverage data displayed in this report are based on the July 2019 revised time series of the WHO-UNICEF estimates of national immunization coverage 2010 to 2018.

The document also includes the Gavi Civil Society Organization Constituency report.

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LIST OF GVAP INDICATORS COVERED IN THE 2019 REPORT

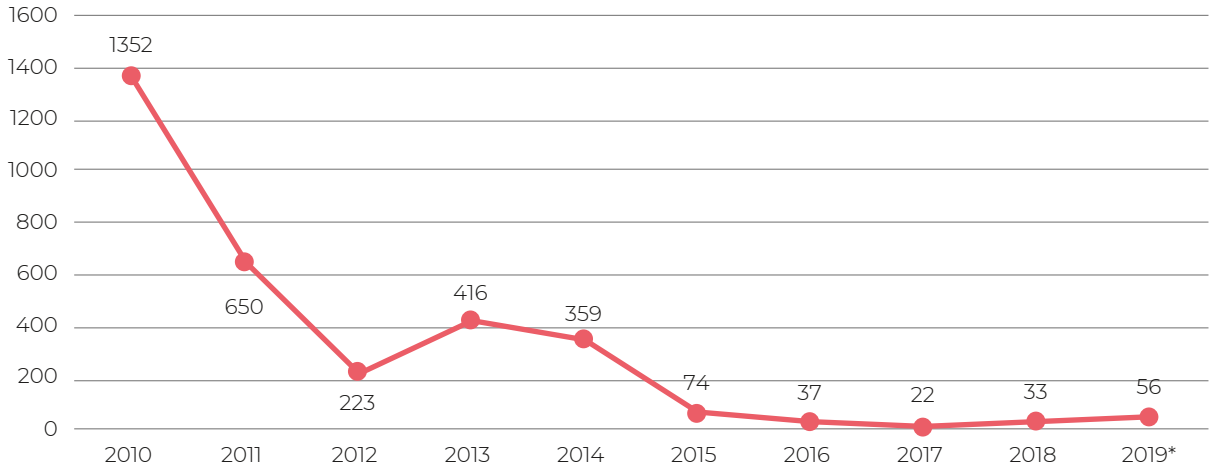
Goal /Strategic objective	Indicators	
GOALS (Gs)		
Achieve a world free of poliomyelitis	G1.1 Interrupt wild poliovirus transmission globally	Figure 1, Figure 2, Figure 3
	G1.2 Certification of poliomyelitis eradication	
Meet global and regional elimination targets	G2.1 Maternal and neonatal tetanus elimination	Figure 4, Figure 5
	G2.2 Measles elimination	Figure 6, Figure 7, Figure 8
	G2.3 Rubella/Congenital rubella syndrome (CRS) elimination	Figure 9
Meet vaccination coverage targets in every region, country and community	G3.1 By 2015, reach 90% national coverage and 80% in every district or equivalent administrative unit with **three doses of diphtheria-tetanus-pertussis**-containing vaccines	Figure 10, Figure 11, Figure 12, Figure 13, Figure 14, Figure 15, Figure 16
	G3.2 By 2020, reach 90% national coverage and 80% in every district or equivalent administrative unit for **all vaccines** in national programmes, unless otherwise recommended	Figure 17, Figure 18, Figure 19, Figure 20
Develop and introduce new and improved vaccines and technologies	G4.3 Number of low-income and middle-income countries that have introduced one or more new or under-utilized vaccines	Figure 21
Exceed the MDG Goal 4 target for reducing child mortality and Integration indicators	G5.1 Reduce under-five mortality rate	Figure 22, Figure 23
STRATEGIC OBJECTIVES (SOs)		
Ensuring country ownership of immunization	SO1.2 Presence of an independent technical advisory group that meets the defined criteria	Figure 24, Figure 25
The benefits of immunization are equitably extended to all people	SO3.1 Percentage of districts with 80% or greater coverage with three doses of diphtheria-tetanus-pertussis-containing vaccine	Figure 15
	SO3.2 Reduction in coverage gaps between wealth quintiles and other appropriate equity indicator(s)	Figure 16
Strong immunization systems are an integral part of a well-functioning health system	SO4.1 Dropout rates between first dose (DTP1) and third dose (DPT3) of diphtheria–tetanus–pertussis-containing vaccines	Figure 11
	SO4.2 Sustained coverage of diphtheria-tetanus-pertussis-containing vaccines 90% or greater for three or more years	Figure 14
	SO4.4 Number of countries meeting established surveillance standards with case-based surveillance for vaccine-preventable diseases and with viral and bacterial laboratory confirmation of suspect or probable cases	Figure 26, Figure 27, Figure 28
Vaccine safety		Figure 29

1. DISEASE ELIMINATION

A) POLIO ERADICATION

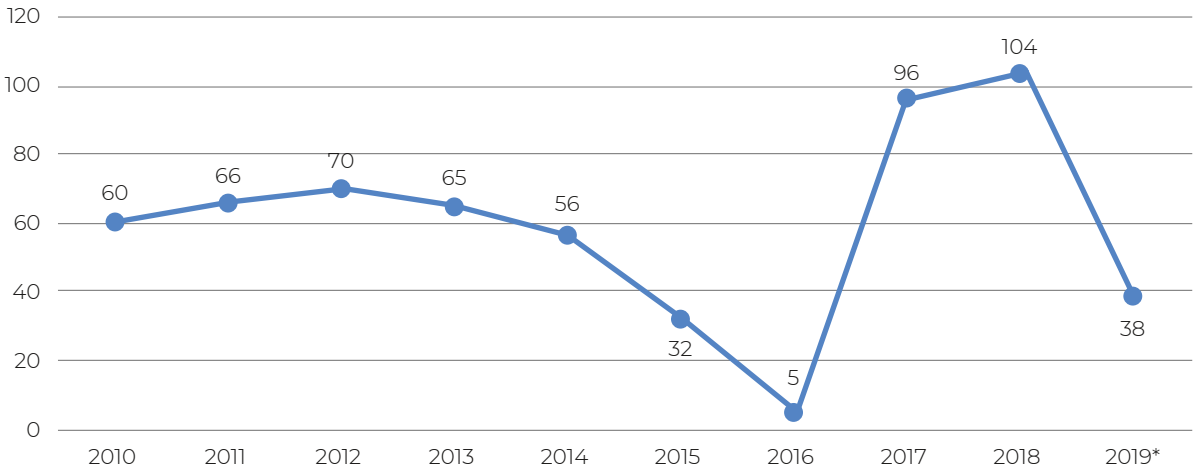
For further information see:
http://polioeradication.org/polio-today/polio-now/
and https://extranet.who.int/polis/public/CaseCount.aspx.

Figure 1: Number of global wild polio virus cases 2010-2019 (* as of 17 July 2019)



In 2018 and 2019: two countries, Afghanistan and Pakistan, account for all new WPV cases.

Figure 2: Number of circulating vaccine derived poliovirus cases (cVDPV) 2010-2019 (* as of 17 July 2019)



In 2018 cVDPV cases have been detected in 7 countries: The Democratic Republic of the Congo, Indonesia, Mozambique, Niger, Nigeria, Papua New Guinea[1] and Somalia.

[1] The outbreak of a circulating vaccine-derived poliovirus type 1 was confirmed, in Papua New Guinea in June 2018.

Figure 3: Global wild poliovirus and circulating vaccine derived poliovirus cases in 2018

WPV1 (*Afghanistan: 21; Pakistan: 12*)
cVDPV2 cases (*Nigeria: 34; Niger: 10; Mozambique: 1; DRC: 20; Somalia: 6*)
cVDPV1 cases (*PNG: 26; Indonesia: 1*)
cVDPV3 cases (*Somalia: 7*)
Endemic country (WPV1)

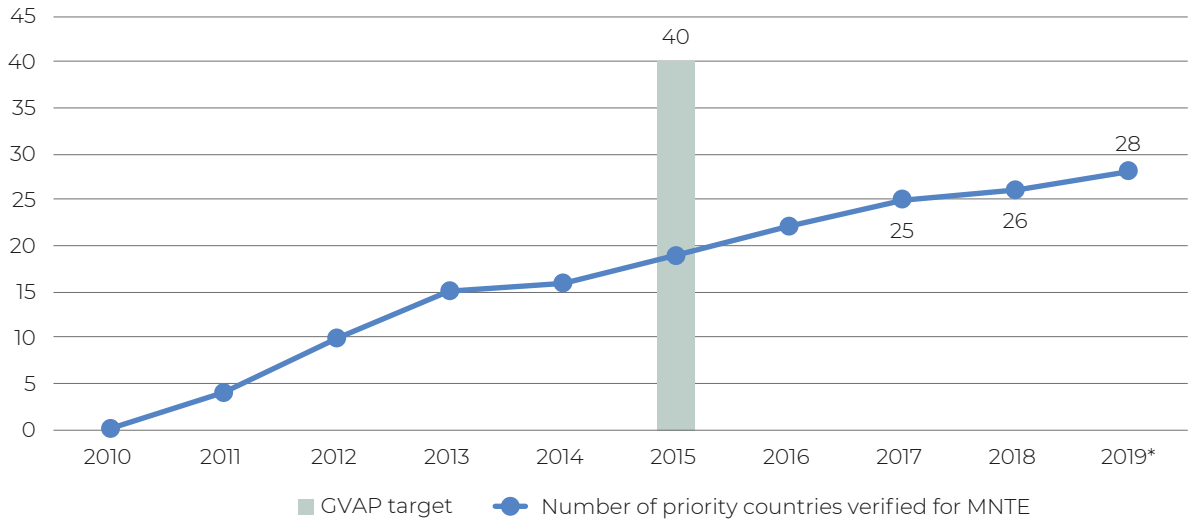
Note: Somalia cVDPV case count includes one case of co-infection with both type 1 and 2.

Source: WHO database, 30 April 2019

B) MATERNAL AND NEONATAL TETANUS ELIMINATION

For further details see:
https://www.who.int/immunization/diseases/MNTE_initiative/en/index4.html.

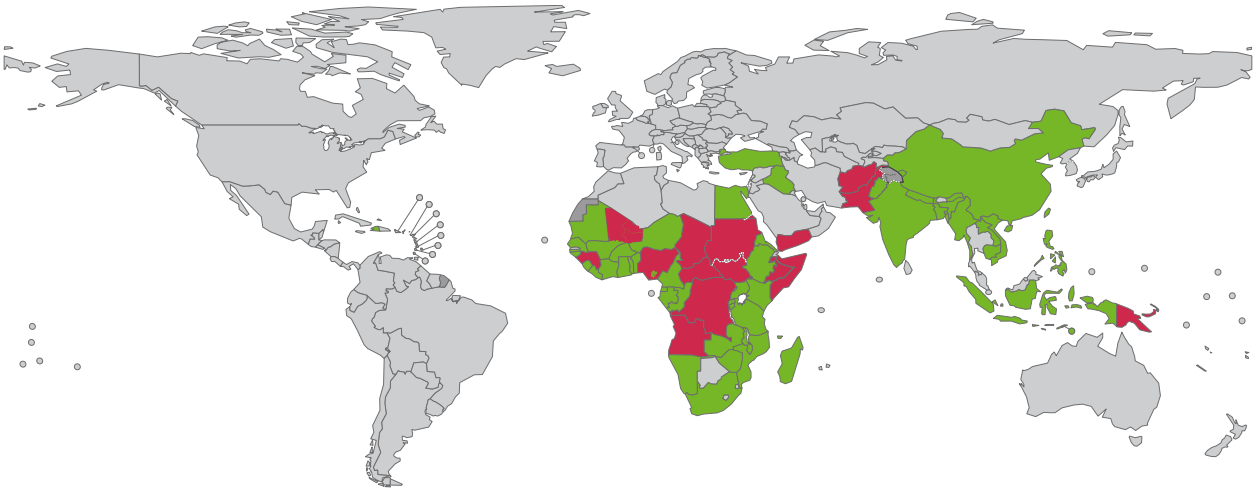
Figure 4: Number of countries with validated maternal and neonatal tetanus elimination (MNTE) by year (baseline 2010: 40 countries still to attain MNTE), *as of 31 July 2019



In 2018, Kenya, has been validated as having eliminated MNT and no country lost its MNTE status. This brings the number of remaining countries to achieve global MNTE down to 14 as of 31 December 2018.

Of note, Chad and DRC have been validated for MNTE in 2019. This leaves 12 countries yet to be validated as of 31 July 2019. In addition, six southern regions in Mali and the Southwest zone in Nigeria were validated between November 2018 and July 2019.

Figure 5: Member States with validated elimination of neonatal tetanus (as of 31 December 2018)



Not eliminated
Eliminated between Jan. 2000 and Dec. 2018
Eliminated prior to 2000

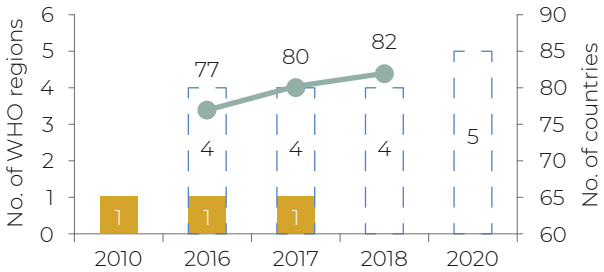
Source: WHO-UNICEF database, May 2019

C) MEASLES AND RUBELLA/CONGENITAL RUBELLA SYNDROME ELIMINATION

For further detail see:
http://www.who.int/immunization/monitoring_surveillance/burden/vpd/surveillance_type/active/measles_monthlydata/en/.

https://www.who.int/immunization/monitoring_surveillance/burden/vpd/surveillance_type/active/Global_MR_Update_April_2019.pptx?ua=1.

Figure 6: Number of regions and countries verified as free of endemic measles

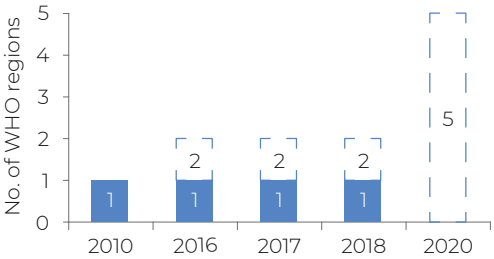


82 countries verified as having eliminated measles

In 2018, no WHO region is verified anymore as having eliminated measles.

GVAP target

Figure 7: Number of regions verified as free of endemic rubella



In 2018, only the region of the Americas is verified as having eliminated rubella

GVAP target

Figure 8: Measles containing vaccine coverage estimates (first and second dose) and measles incidence by WHO region, in 2010, 2017 and 2018

WHO region	WHO-UNICEF estimates for MCV1 national coverage (%)			WHO-UNICEF estimates for MCV2 national coverage (%)			Measles incidence per million population			Percentage of Member States with incidence <5 per million population		
	2010	2017	2018	2010	2017	2018	2010	2017	2018	2010	2017	2018
African	73	75	74	4	25	26	232	70	118	30	53	47
Americas	93	88	90	67	76	82	0	1	24	100	97	91
Easter Mediterranean	77	83	82	52	75	74	17	56	93	40	55	35
European	93	95	95	80	90	91	34	26	98	69	58	34
South-East Asia	83	89	89	15	79	80	30	15	18	36	45	36
Western Pacific	96	95	95	87	91	91	27	6	15	68	80	77
All	**84**	**86**	**86**	**42**	**68**	**69**	**50**	**24**	**49**	**60**	**65**	**54**

As of 31 December 2018, 82 countries have been verified as having eliminated measles. Figure 8 shows a significant increase of measles outbreaks globally in 2018 which continues in 2019. 2018 saw the most measles cases in a year since 2011. During the first six months of 2019, there has been almost a 200% increase of the number of reported cases compared with the same period in 2018, with outbreaks ongoing in all regions.

Figure 9: Rubella incidence and rubella containing vaccine (RCV) coverage by WHO region, in 2010, 2017 and 2018

WHO region	Rubella incidence per million population				RCV1 coverage* (%)			
	2010	2017	2018	% change 2010-2018	2010	2017	2018	% change 2010-2018
African	4	7	11	187	0	26	32	-
Americas	0	0	0	-84	93	88	90	-3
Easter Mediterranean	4	1	2	-32	37	46	45	22
European	14	1	1	-93	93	95	95	2
South-East Asia	26	2	2	-91	3	21	83	2667
Western Pacific	27	2	4	-86	61	95	94	54
All	**15**	**2**	**4**	**-76**	**35**	**52**	**69**	**97**

There has not been a significant change in global rubella incidence patterns in 2018 compared to 2017. SEARO has increased very significantly its RCV1 coverage in 2018 (Figure 9).

2. IMMUNIZATION COVERAGE AND EQUITY

For further detail see:
https://www.who.int/immunization/monitoring_surveillance/data/en/.

http://www.who.int/entity/immunization/monitoring_surveillance/SlidesGlobalImmunization.pptx?ua=1.

http://www.who.int/immunization/monitoring_surveillance/who-immuniz.pdf?ua=1.

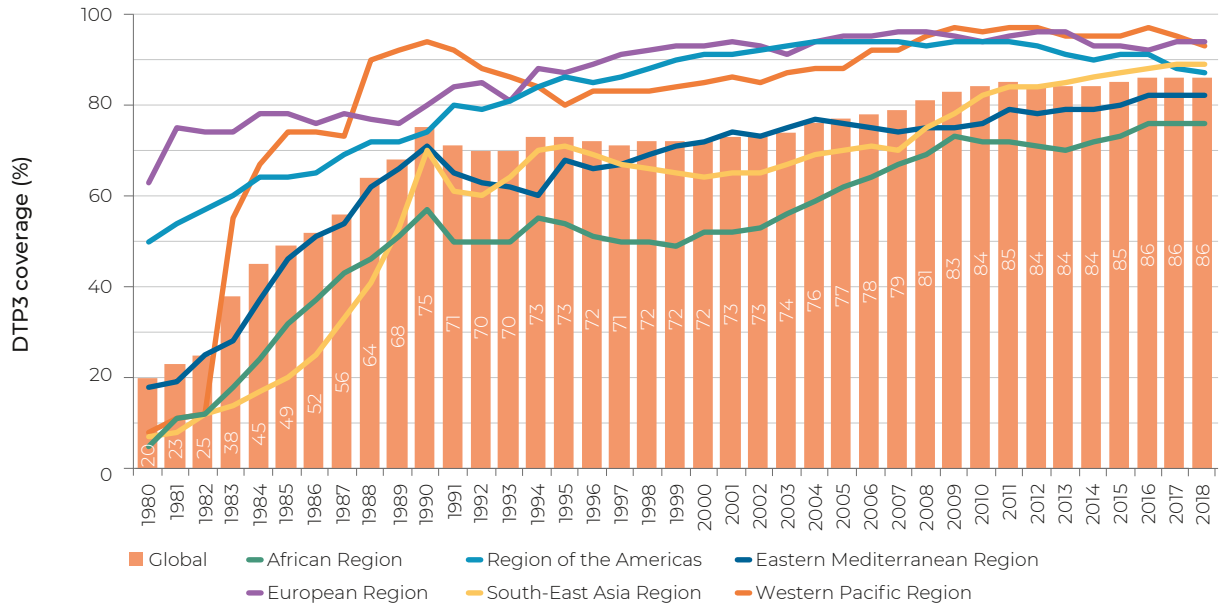
A) NATIONAL-LEVEL DTP3 COVERAGE

In 2018, 129 (66%) Member States have achieved a national DTP3 coverage rate of 90% or above. District data was available for 173 (89%) of countries, and valid in 133 (69%) of countries. Overall only 63 (32%) of the countries had national DTP3 coverage above ≥90% and valid district data above 80% in all districts.

Important increases in coverage (≥10%) between 2017 and 2018 were seen in the Dominican Republic, Kenya, Saint Lucia, Suriname and Trinidad and Tobago.

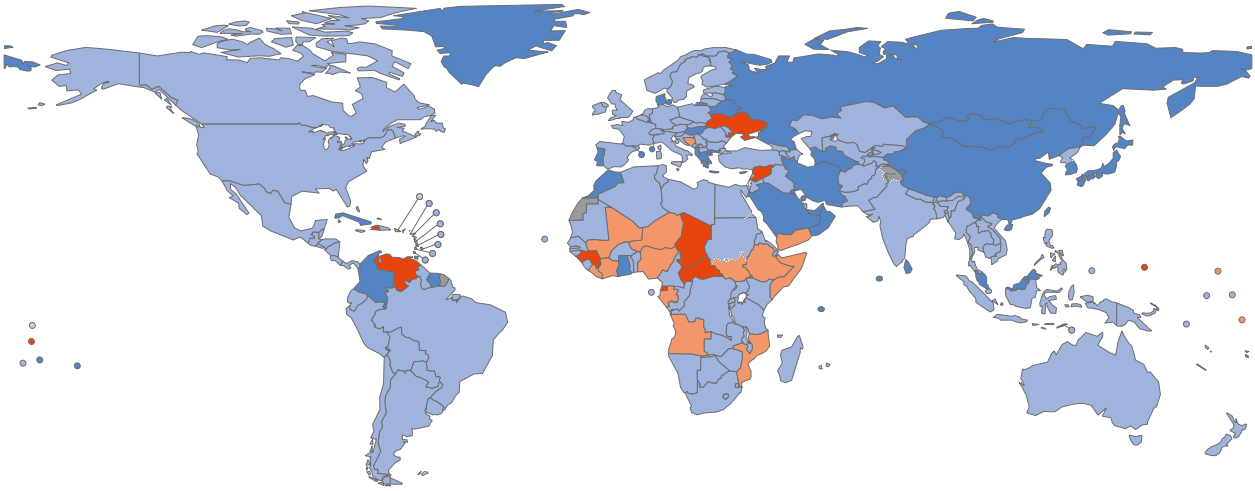
Nine countries had a DTP3 coverage estimate of 50% or less in 2018: The Central African Republic, Chad, Equatorial Guinea, Guinea, Samoa, Somalia, South Sudan, the Syrian Arab Republic and Ukraine.

Figure 10: Global and regional average coverage rates (%) with DTP3, 1980-2018



Globally, in 2018, the coverage rate with three doses of DTP-containing vaccine (DTP3) remained, compared to 2017, unchanged at 86%. The coverage patterns across WHO regions were also comparable to the previous year (Figure 10). WPRO has seen a 2% decline in average coverage in 2018, due mainly to the declines in the Philippines (coverage declined from 72% in 2017 to 65% in 2018) and Viet Nam (significant decline in DTP3 coverage from 94% in 2017 to 75% in 2018).

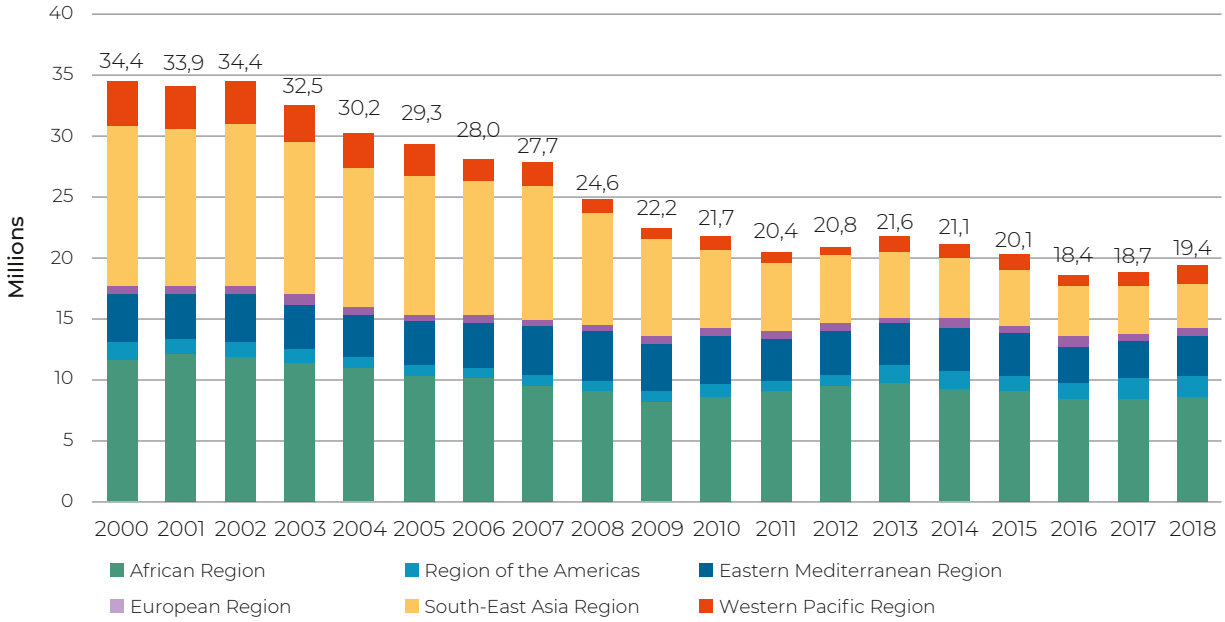
Figure 11: Dropout rates (in percentage points) between first dose (DTP1) and third dose (DPT3) of diphtheria–tetanus–pertussis-containing vaccines, 2018



≥ 20 points or more (10 Member States or 5%)
10 to <20 points (16 Member States or 8%)
>0 to <10 points (132 Member States or 68%)
no dropout (36 Member States or 19%)
Not applicable

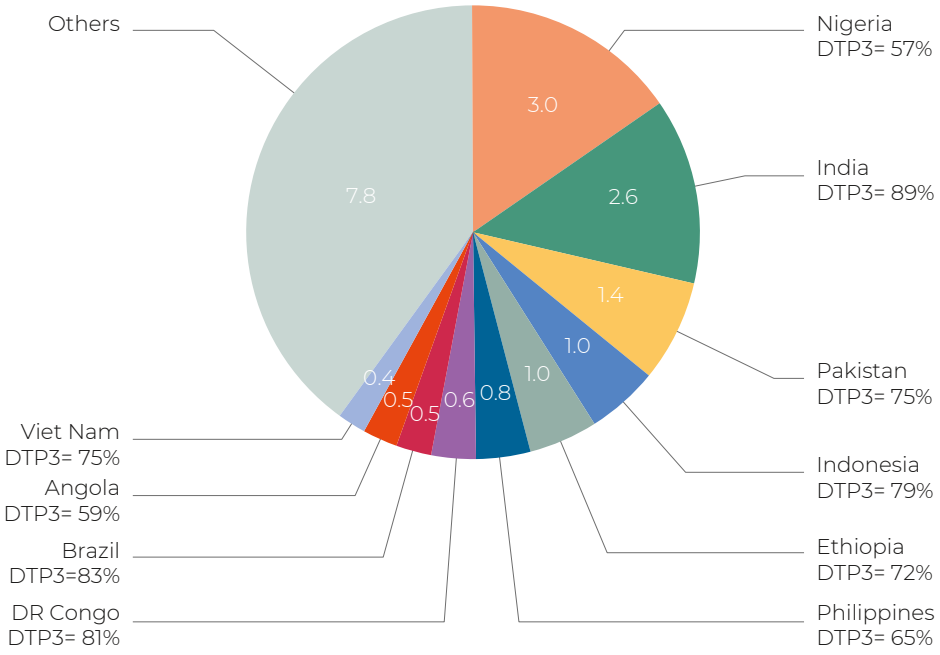
Drop-out rates of 65 countries where DTP3 coverage was below 90% have been analyzed. Twenty-six countries with DTP3 coverage between 50-89% experience in 2018 a drop out by 10 points or more. Among those, ten countries had a drop out over or equal to 20 points (Figure 11).

Figure 12: Number of un- or under-vaccinated with DTP by year and WHO region, 2000-2018



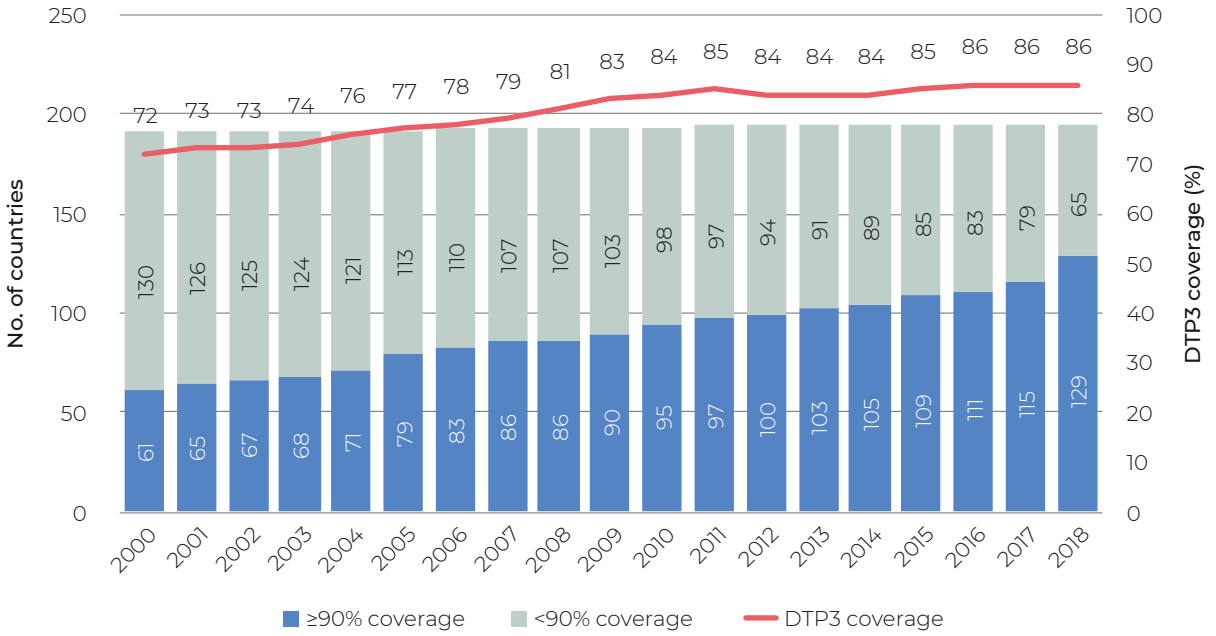
Among the 19.4 million un- and under- vaccinated children, 8.5 million live in the African Region (Figure 12).

Figure 13: Countries with the highest number of un- or under-vaccinated children (in millions) with DTP containing vaccines, and their respective DTP3 coverage rate in 2018



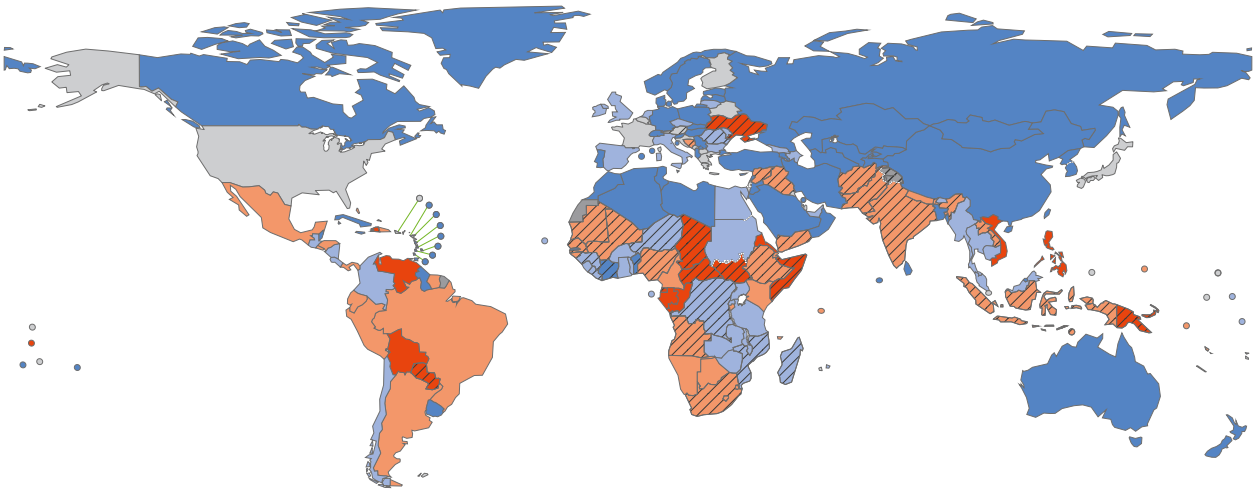
Ten countries account for 11.7 of the 19.4 million un- and under- vaccinated children in the world (60%). This list includes countries across five WHO Regions with a large variability in birth cohort size and coverage levels: Angola, Brazil, the Democratic Republic of the Congo, Ethiopia, India, Indonesia, Nigeria, Pakistan, the Philippines and Viet Nam.

Figure 14: Number of countries that reached and sustained ≥90% coverage for DTP3 from 2000 to 2018 and global DTP3 coverage



B) DISTRICT-LEVEL DTP3 COVERAGE

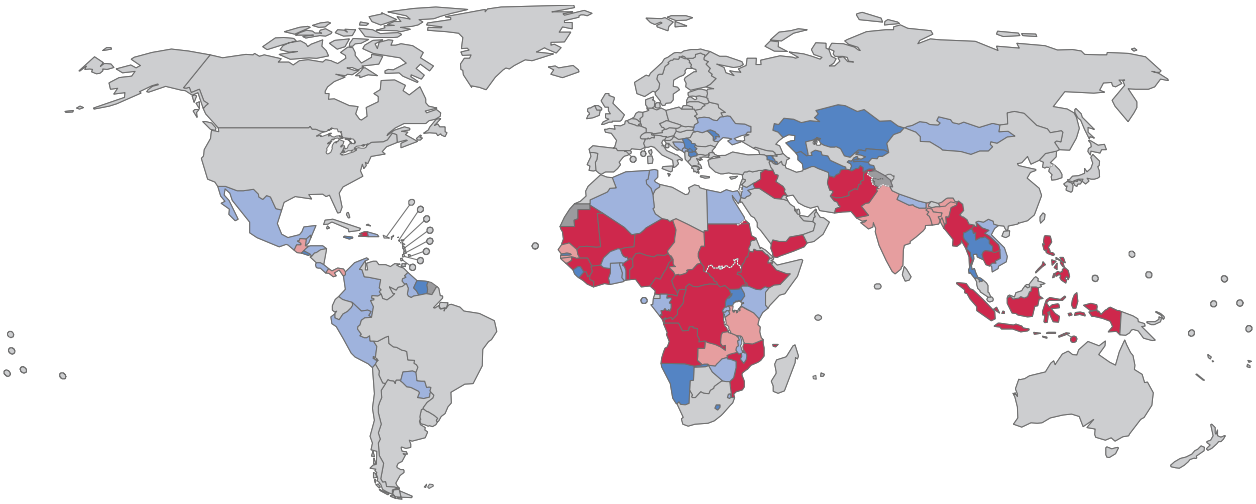
Figure 15: Member States by the percentage of districts with DTP3 coverage ≥ 80% and valid data, 2018



All districts (67 Member States (35%), 4 of which have administrative coverage DTP3 data considered not valid)
80–99% (46 Member States (24%), 7 of which have administrative coverage DTP3 data considered not valid)
50–79% (43 Member States (22%), 19 of which have administrative coverage DTP3 data considered not valid)
< 50% (17 Member States (9%), 10 of which have administrative coverage DTP3 data considered not valid)
WHO-UNICEF (WUENIC) estimate is < 90% or differs from country administrative coverage reported on the JFR and therefore **district data are not considered valid** (43 Member States or 22%)
Not available (21 Member States (11%), 3 of which have administrative coverage DTP3 data considered not valid)
Not applicable

C) BENEFITS OF IMMUNIZATION ARE EQUITABLY EXTENDED TO ALL PEOPLE

Figure 16: Member States with DTP3 coverage data by wealth quintiles available between 2010 and 2017



17 countries having a quintile differential of <0%*
30 countries having a quintile differential of ≥0% and <10%
9 countries having a quintile differential of ≥10% and <20%
29 countries having a quintile differential of ≥20%
Not available
Not applicable

* Poorest quintile has a higher DTP vaccine coverage rate that the wealthiest quintile

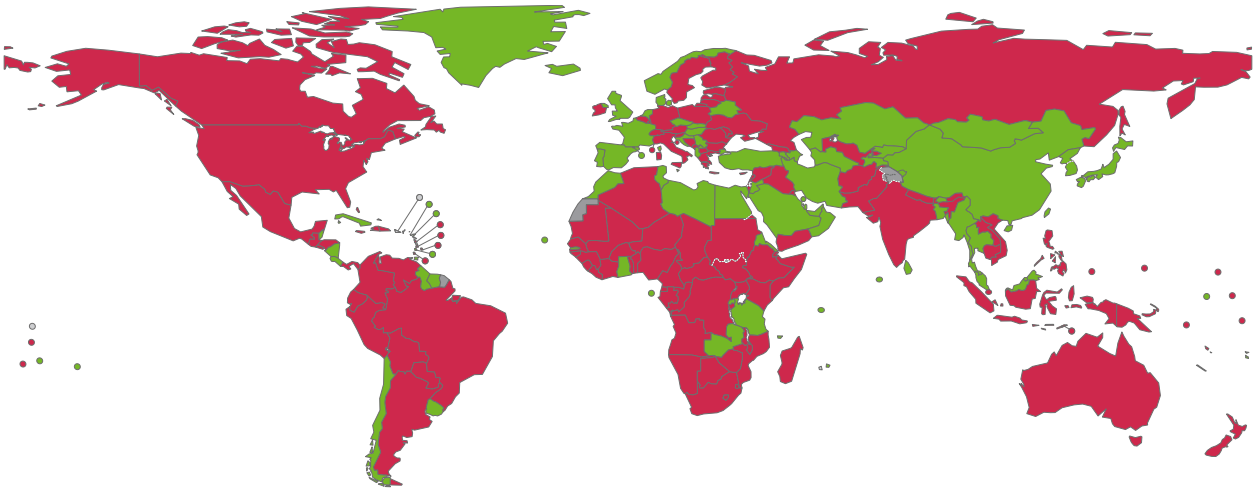
Data from Demographic and Health Surveys (DHS) or Multiple Indicator Cluster Surveys (MICS) conducted between 2010 and 2017 on DTP3 coverage rates by wealth quintiles were available for 85/194 Member States (44%). Coverage in 68/85 Member States (80%) was generally higher in the wealthiest quintile than in the poorest quintile (Figure 16). Of the 85 countries with available data, 56 (66%) have met the target of <20% difference in immunization coverage between the highest and lowest wealth quintiles (including 17 for which DTP3 national coverage for the richest is lower than for the poorest population). Twenty-nine countries (34%) had a quintile differential ≥ 20% and have thus failed to meet the target. This confirms trends described in previous reports.

D) NATIONAL AND DISTRICT-LEVEL COVERAGE FOR ALL VACCINES IN THE NATIONAL PROGRAMME

Figure 17: Number of countries (%) meeting the GVAP target for national level coverage for all vaccines in the national schedule, and district-level coverage for DTP3, 2018

National coverage of all vaccines	No. of countries where district DTP3 data valid and ≥ 80% in all districts	No. of countries where district DTP3 data valid, but not achieving 80% in all districts	No. of countries where district DTP3 data not valid or not reported	Total
≥ 90%	63 (32%)	48 (25%)	18 (10%)	129 (66%)
< 90%	0	22 (11%)	43 (22%)	65 (34%)
Total	63 (32%)	70 (36%)	61 (32%)	194 (100%)

Figure 18: Number of countries that have reached and sustained ≥90% coverage for all vaccines included in the national infant schedule in 2018



Yes (75 Member States or 39%)
No (119 Member States or 61%)
Not available
Not applicable

In 2018, 75 countries (37%) had achieve the national coverage of ≥ 90% for all vaccines included in the national infant immunization schedule, to be compared with 85 (43%) countries in 2010. However, between 2010 and 2018 most national schedules have expanded significantly the list of vaccines included which renders time series difficult to interpret.

Figure 19: Global coverage estimates of vaccines (BCG, DTP1, DTP3, Pol3)[a], 1980-2018

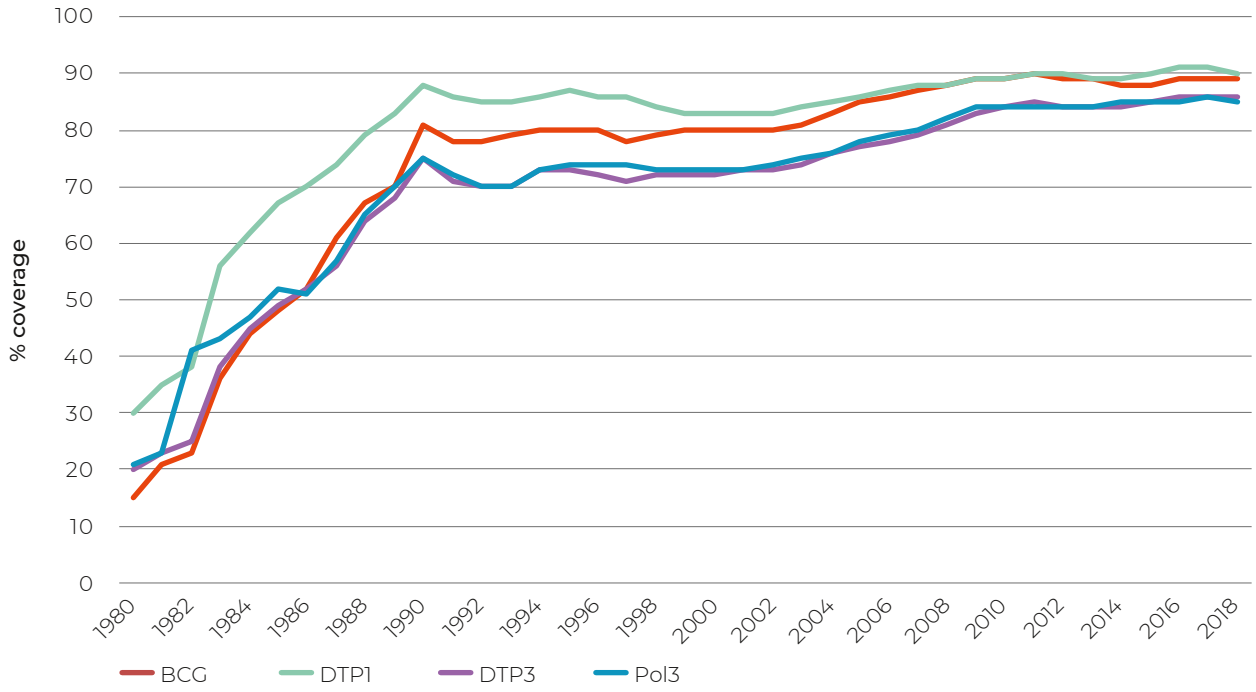
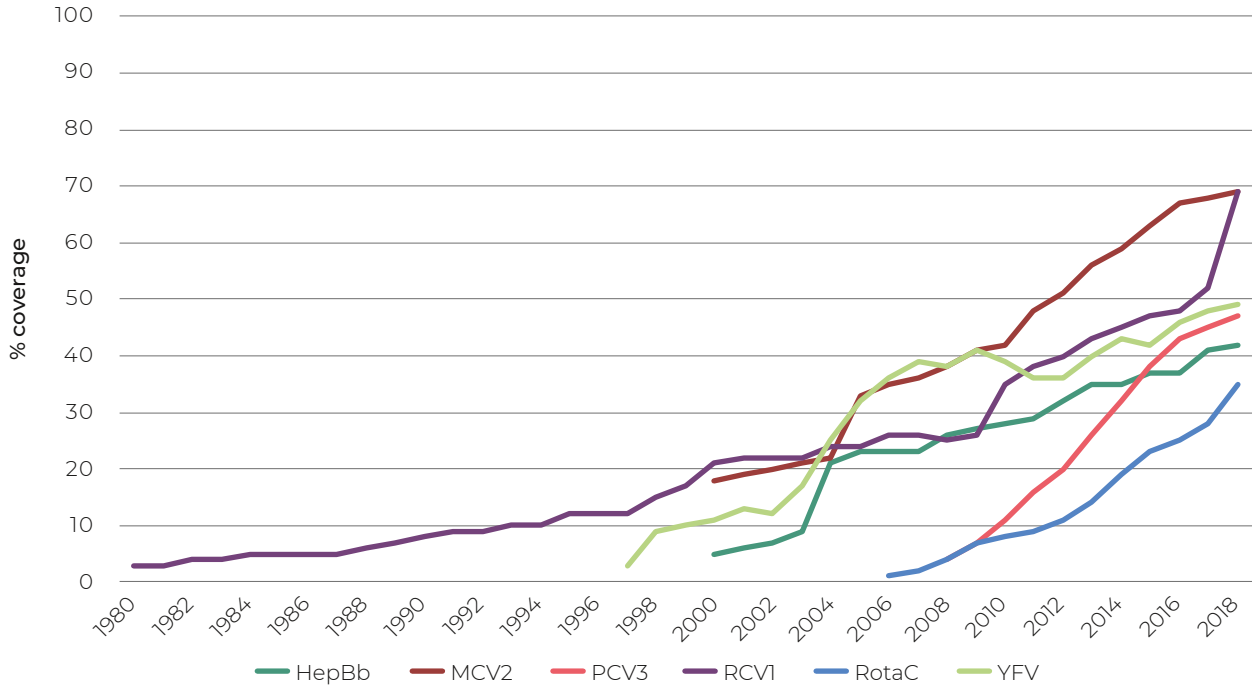


Figure 20: Global coverage estimates (%) of vaccines (HepBb, MCV2, PCV3, RCV1, RotaC, YFV)[b], 1980-2018



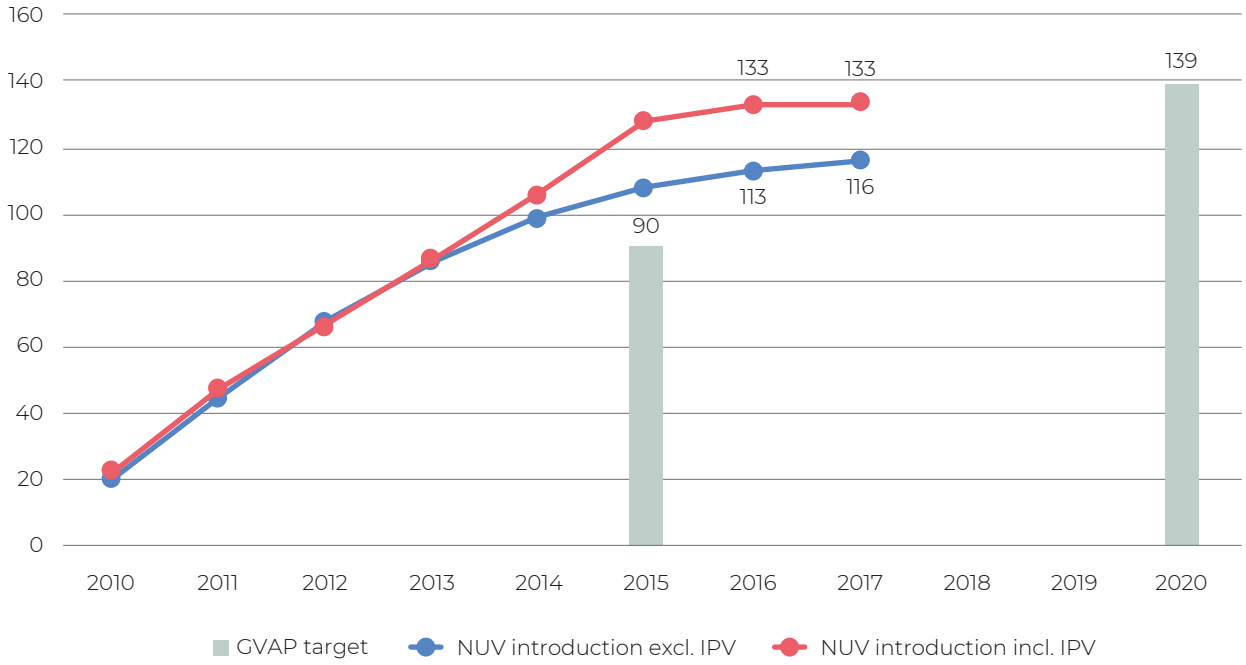
[a] BCG (Bacille Calmette Guérin), DTP1 and DTP3 (Diphtheria, tetanus pertussis containing vaccine first and 3rd dose), Pol3 (poliovirus vaccine 3rd dose - either OPV or IPV).

[b] HepBb (Hepatitis B birth dose), MCV2 (measles containing vaccines second dose), PCV3 (pneumococcus containing vaccine 3rd dose), RCV1 (rubella containing vaccine first dose), RotaC (Rotavirus vaccines completed dose) and YFV (yellow fever vaccine).

E) DEVELOP AND INTRODUCE NEW AND IMPROVED VACCINES AND TECHNOLOGIES

For further detail see:
http://www.who.int/entity/immunization/monitoring_surveillance/VaccineIntroStatus.pptx.

Figure 21: Number of low- and middle-income countries (of a total of 139) that have introduced one of more new or under-utilized vaccines (NUV)* between 2010 and 2017 (and have sustained it for at least one year)



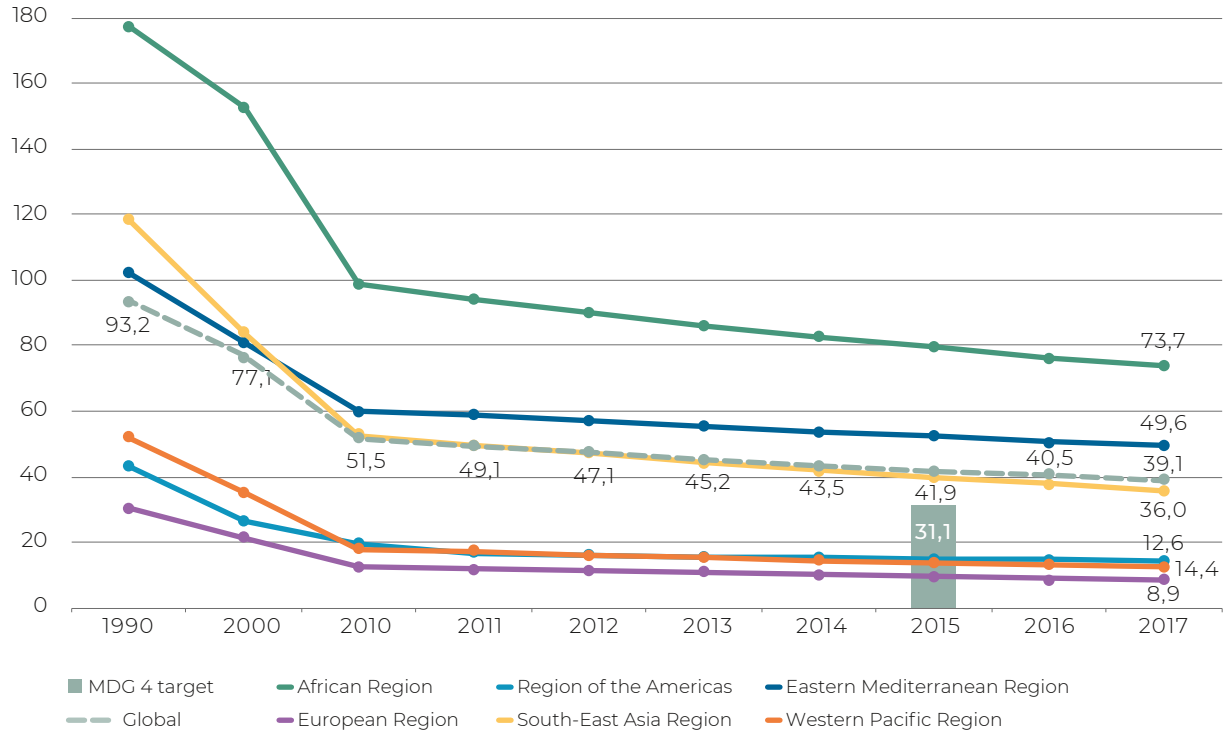
* among the following: Hib-containing vaccine, pneumococcal conjugate vaccine (PCV), rotavirus vaccine, human papillomavirus vaccine (HPV), rubella and Japanese encephalitis. Inactivated poliovirus vaccine (IPV) is in addition to this list included in the red curve.

Among the 116 countries that introduced at least one new vaccine (excluding IPV) between 2010 and 2017, 67 were Gavi-supported countries. Hence, 92% of Gavi-supported countries introduced at least one vaccine, comparted to 75% of non-Gavi supported middle-income countries. When IPV is included in the list, the count increases to 133 countries in 2017.

3. EXCEED THE MILLENNIUM DEVELOPMENT GOAL (MDG) 4 TARGET FOR REDUCING CHILD MORTALITY AND INTEGRATION INDICATORS

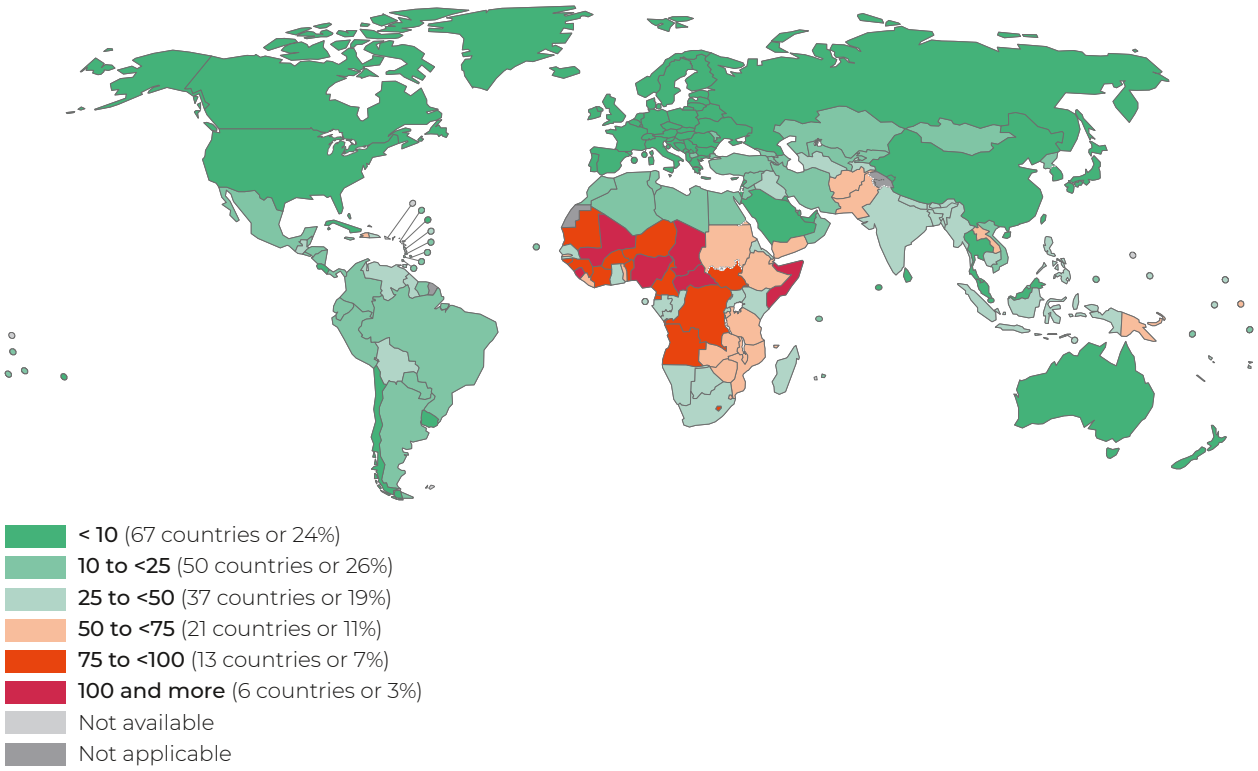
For further detail see:
https://childmortality.org/
and http://apps.who.int/gho/data/node.gswcah?lang=en.

Figure 22: Global and regional under-five mortality rates (per thousand live-births) in 1990, 2000 and from 2010 to 2017



Source: United Nations Inter-Agency Group for Child Mortality Estimates (UN IGME). Levels and Trends in Child Mortality: Report 2017.

Figure 23: Under five mortality rates (per thousand live-births) globally in 2017



Source: United Nations Inter-Agency Group for Child Mortality Estimates (UN IGME). Levels and Trends in Child Mortality: Report 2017

The MDG4 target was attaining by 2015 a two-third reduction in under five global mortality compared with 1990 baseline, i.e. less than 31.1 deaths per 1000 live births. Global under-five mortality was 39.1 in 2017. Each year since 2010 there was a yearly additional reduction of approximately 1.5 to 2 points (per thousand).

4. ENSURING COUNTRY OWNERSHIP OF IMMUNIZATION

PRESENCE OF FUNCTIONAL NATIONAL INDEPENDENT TECHNICAL ADVISORY GROUP

For further detail see:
http://www.who.int/immunization/sage/national_advisory_committees/en/
and http://www.nitag-resource.org/.

Figure 24: Number of countries served by a NITAG meeting all six functionality criteria, 2010-2018

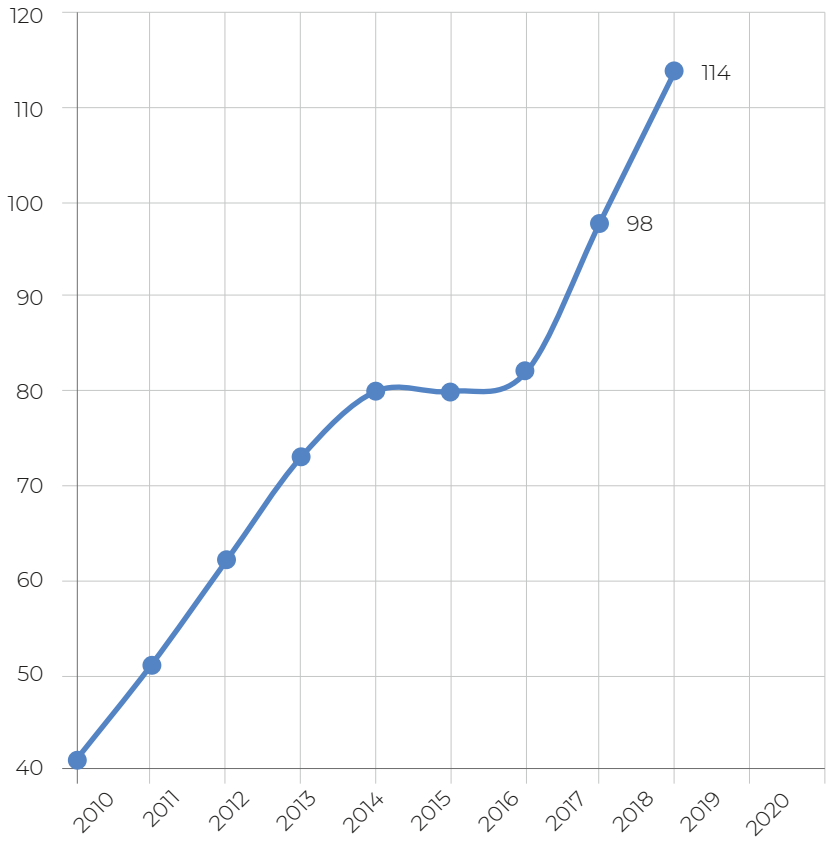
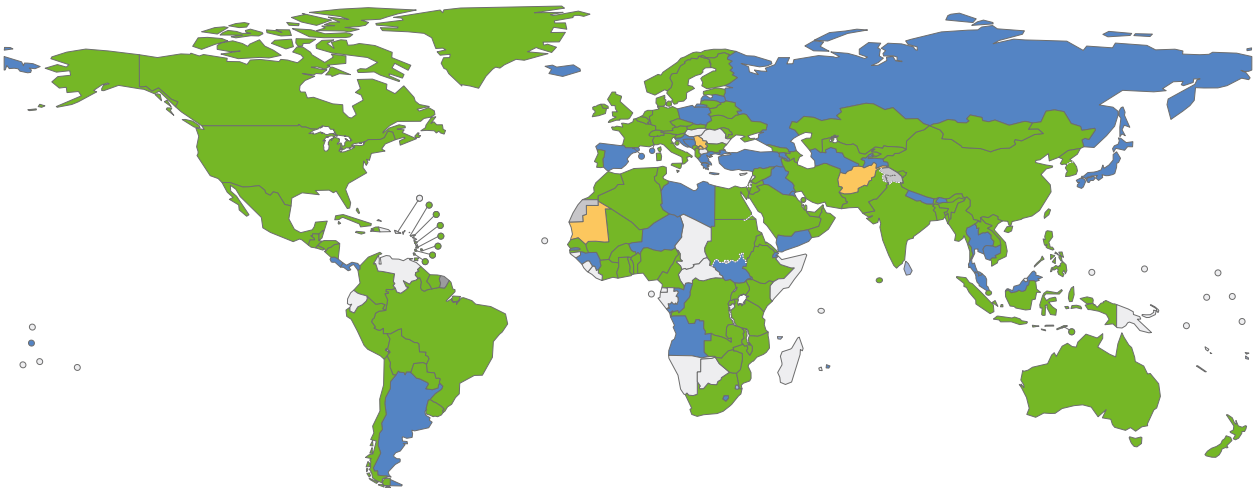


Figure 25: Existence and functionality of NITAGs in 2018



114 countries meeting the six NITAG functionality criteria
151 countries having a NITAG with administrative or legislative basis
153 countries reporting the existence of a NITAG with terms of reference
158 countries reporting the existence of a NITAG
No NITAG / not available
Not applicable

Source: WHO IVB database as of 1 July 2019

In 2018, 114 (59%) countries reported the existence of a NITAG. The 114 NITAGs meeting the 6 functionality criteria in 2018 (16% increase in 2018), cover 85 % of the world population, compared to 52% in 2010. The GVAP target for 2020 is that all countries are served by a functional NITAG.

5. STRONG IMMUNIZATION SYSTEMS ARE AN INTEGRAL PART OF A WELL-FUNCTIONING HEALTH SYSTEM

VACCINE-PREVENTABLE DISEASE SURVEILLANCE

For further detail see:
https://www.who.int/immunization/monitoring_surveillance/resources/NUVI/en/.

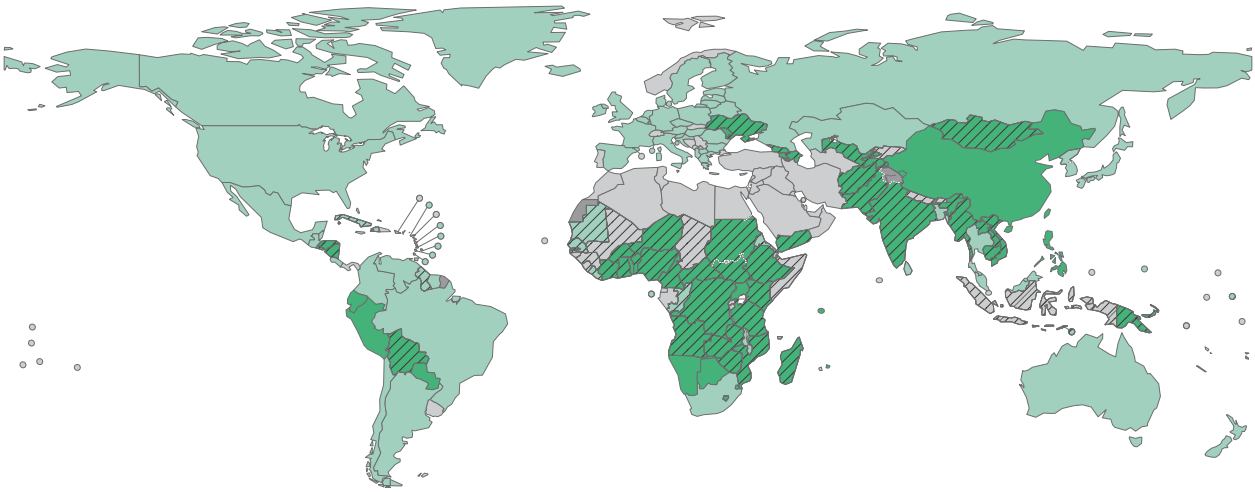
https://www.who.int/immunization/monitoring_surveillance/burden/VPDs/en/.

WHO Global Invasive Bacterial Vaccine-Preventable Disease and Rotavirus and Pediatric Diarrhea Surveillance Networks Bulletin August 2019 : https://mailchi.mp/b217dc802dcc/who-ib-vpd-and-rotavirus-surveillance-bulletin-june-1910809?e=1a39cb4ee9.

Figure 26: Number of countries conducting surveillance for rotavirus and invasive bacterial vaccine-preventable diseases (IB-VPD), 2016-2018

	2016		2017		2018	
	rotavirus	IB-VPD	rotavirus	IB-VPD	rotavirus	IB-VPD
Part of WHO-coordinated global surveillance network	58	57	61	54	54	50
Conducts surveillance but not part of WHO-coordinated global surveillance network	65	86	72	100	78	101
No reported surveillance	71	51	61	40	62	43

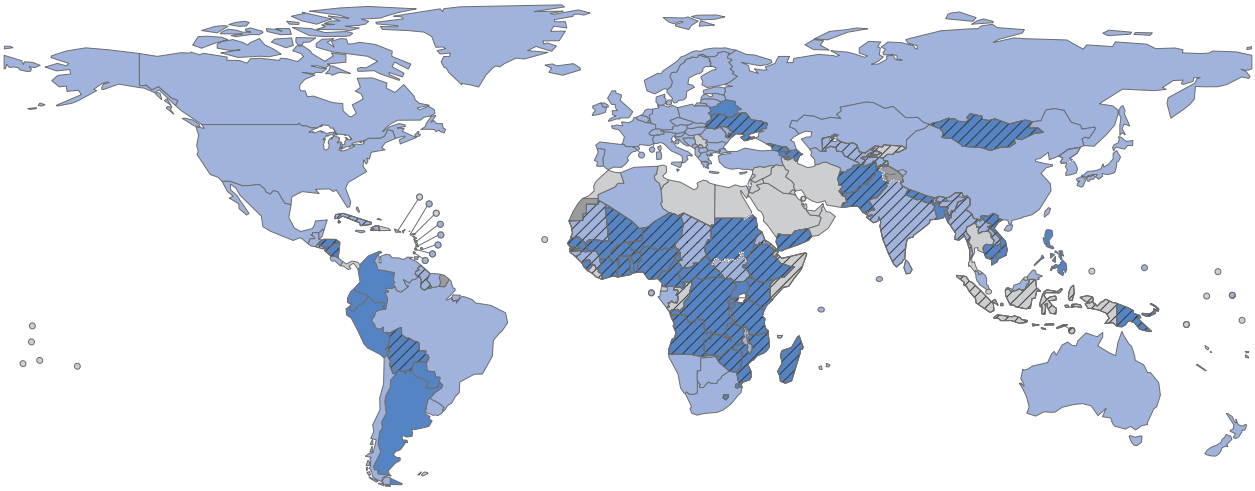
Figure 27: Countries conducting rotavirus surveillance, 2018



Countries conducting Rotavirus Surveillance but not reporting to GRSN (77 countries)
Countries in the WHO Global Rotavirus Surveillance Network (GRSN) (53 countries)
Gavi eligible countries
Not available
Not applicable

Note: Most countries in the WHO African Region report diarrhoea with blood (dysentery) and diarrhoea with dehydration in children less than 5 years of age as part of Integrated Disease Surveillance and Response (IDSR) which triggers investigation and laboratory confirmation of these syndromes.

Figure 28: Countries conducting IB-VPD surveillance, 2018



Countries conducting IB-VPD Surveillance but not reporting to GISN (101 countries)
Countries in the WHO Global IB-VPD Surveillance Network (GISN) (50 countries)
Gavi eligible countries
Not available
Not applicable

Note: Most countries in the WHO African Region report Meningitis (bacterial) and Severe pneumonia in children under 5 as part of Integrated Disease Surveillance and Response (IDSR) which triggers investigation and laboratory confirmation of these syndromes.

Globally, the number of countries that conduct surveillance for rotavirus or IB-VPD remains high, although there is a slight trend of fewer countries participating in the WHO-coordinated surveillance networks. Surveillance is conducted in most of the populous countries with high burden of disease, including those that are Gavi-eligible in Africa and Asia, with current gaps in reported surveillance in northern Africa and the Middle East.

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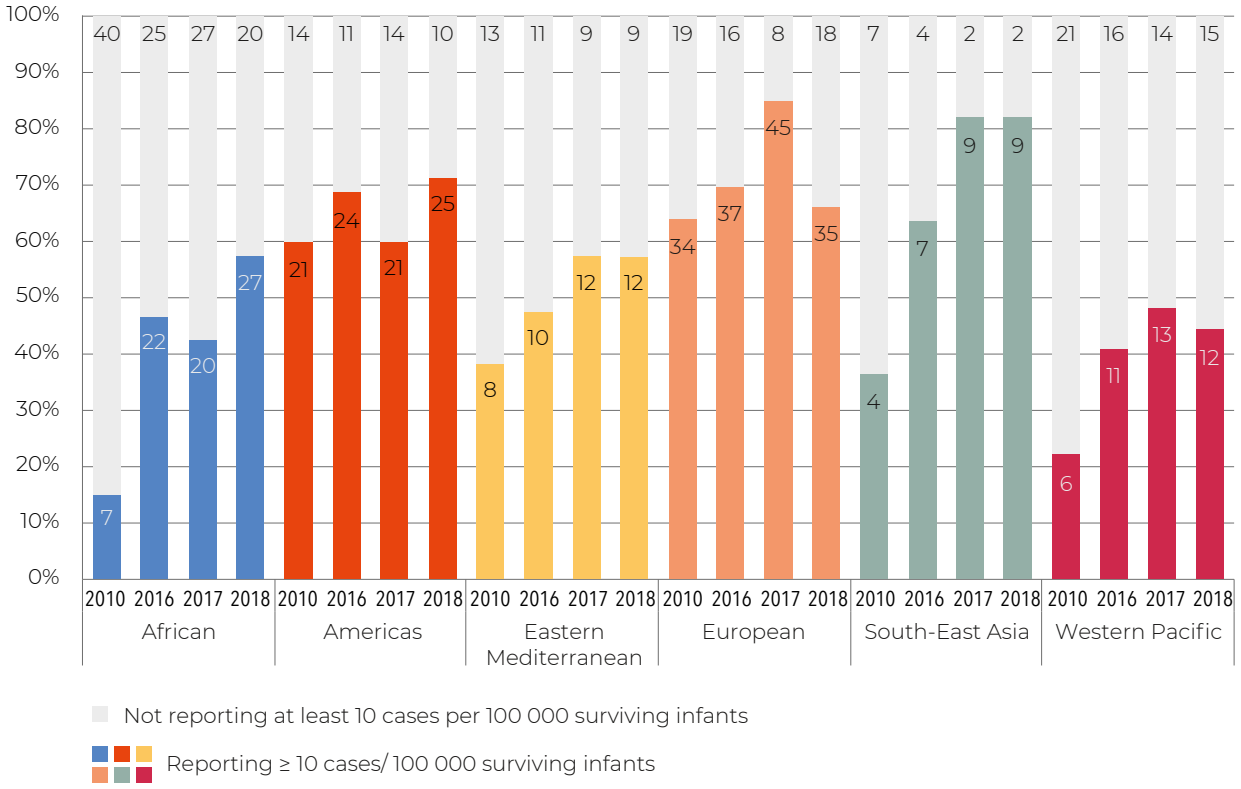
6. VACCINE SAFETY

For more information, see:
http://www.who.int/vaccine_safety/en/
and Report of the 7th Global Vaccine Safety Initiative (GVSI) meeting (Feb. 2019)

Figure 29: Vaccine safety - Percentage and number of countries reporting at least 10 per 100 000 adverse events following immunization (AEFI)cases by WHO region, in 2010, 2016-2018



AEFI case reporting rates were stable or increased in most of the regions. The only significant decline was observed in the European Region, which nevertheless is the region with the highest reporting rate. The indicator does however not allow to differentiate between severe and non-severe AEFI, which is a limitation discussed in previous reports.

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7. GAVI CSO CONSTITUENCY REPORT 2019

Gavi CSO Constituency
for Immunisation and Stronger Health Systems
Helping to reach Every Child with Immunisation and Health Services

This report presents civil society contributions in 2018 to the six main objectives of the Global Vaccine Action Plan 2011-2020, as well as proposed recommendations for Immunization Agenda 2030 (IA2030).

1. All countries commit to immunization as a priority

Contribution of CSOs: Delivering on this goal, requires that national governments and partners, ensure immunization programs are well planned, well resourced, closely monitored and constantly improved to meet national targets that leave no one behind. It requires that immunization programs are operated as an integrated part of primary health care and health sector platforms. CSOs' collective and diverse experiences from the frontlines, including elevating the voice of communities, has offered useful insights and expertise to national and sub-nation program planners. In several countries CSOs have mobilized key constituencies around immunization, cultivating and nurturing parliamentary champions to push for legislation, appropriations and budget lines to support immunization. For example, in Nigeria, the Health Sector Reform Coalition, Women Advocates for Vaccine Access and others worked with champions in the Senate and House of Representatives to ensure appropriations for the Basic Health Care Provision Fund, of which 25% of its value goes to immunization and essential drugs. CSOs have also been instrumental in ensuring the development of national immunization plans considers community perspectives and meets their needs. For example, CSOs under the Expanded Civil Society Initiative for Immunization, Nigeria worked with the government and partners on the development of the 2018-2028 National Strategy for Immunization and PHC Strengthening. This 3-billion-dollar plan, of which 2 billion is to be domestically funded, was the basis for the Gavi Board's exceptional approval to extend the country's transition period. Civil society in Nigeria was also instrumental to alerting political leaders and parliamentary champions that Nigeria's transition from Gavi was at risk because of the lack of programmatic and financial readiness.

Recommendations for IA2030: There must be concerted effort to ensure CSOs and communities participate in national and sub-national discussions in a systematic way. The development and implementation of IA2030 must continue to meaningfully engage CSOs. It should include a strong call for the support of national CSO platforms in order to enhance their ability to coordinate and execute their critical advocacy and accountability role. CSOs can support community dialogues, inform and engage opinion leaders, and ensure there is broad-based participation in domesticating the global document into national plans and strategies that communities buy-into and own.

2. Individuals and communities understand the value of vaccines and demand immunization as both their right and responsibility

Contribution of CSOs: CSOs have been integral in supporting demand generation for immunization in countries, working closely with communities to understand bottlenecks and find solutions. CSOs have helped build value for vaccination and generate demand in urban slums, conflict zones, refugee camps, remote areas, and amongst mobile populations, through community

dialogue, integration of services, behavior change communication, health promotion, community engagement, advocacy, and media, among others. Through CSO engagement and collaboration with EPI programs, vaccination programs are becoming more responsive to communities. For example, CSOs in Pakistan (e.g. HELP, CHIP, VITAL Pakistan Trust and others) recently contributed to the successful implementation of the measles campaign led by the EPI, including sensitizing communities on the importance of vaccination. HELP is also helping the government in reaching every child and covering zero-dose children by supporting primary health care delivery through networks of community health workers, fixed health facilities, maternal and child health centers and mobile health teams in slum areas, supporting behavior change and communication. VITAL Pakistan Trust is providing targeted, vulnerability-based MNCH services through an integrated approach of primary health care (including integration of MNCH, Nutrition, FP, and Immunization service) and engaging communities to increase demand for vaccines outside of Karachi, which has led to immunization coverage doubling over the past 4 years.

Recommendations for IA2030: CSOs role should be central to IA2030 in strengthening community demand for immunization considering their crucial position to place people at the heart of vaccination. This should include the role of CSOs in developing, testing and implementing novel strategies for demand generation.

3. The benefits of immunization are equitably extended to all people

Contribution of CSOs: CSOs have played a major role in supporting more equitable delivery of immunization services, including by improving understanding of *who* is missing out from immunization and *why* they are not being immunized. They have also supported the collection of reliable data amongst populations they work with. For example, in an urban and densely populated crisis setting like Mogadishu, Somalia, where it can be difficult for community health workers (CHWs) to track down clients and encourage facility based care for services due to seasonal movements into and out of residential areas and lack of proper urban planning, CSOs like International Rescue Committee have integrated mobile phones (using the MReach data platform to replace information from paper-based child health registers) and Google plus code technology (to geocode locations that do not have proper street addresses) with an aim to trace defaulters. CSOs have also used targeted communication to increase demand for immunization amongst disadvantaged populations, for example, with ethnic minority groups in Somalia. Moreover, CSOs have helped ensure sufficient numbers of competent and motivated health providers in the places where they are needed, for example helping to bring services closer to the community through CHWs designated to provide immunization services to catchment populations beyond the health facility. Since these CHWs are selected from their own community, this helps build trust from the community.

Recommendations for IA2030: Due to the critical role that CSOs play in supporting equitable immunization coverage, including through establishing and strengthening equity-focused health information systems, building the engagement of community members, and reaching more remote populati0ons, CSOs should be central to the delivery of IA2030.

4. Strong immunization systems are an integral part of a well-functioning health system

Contribution of CSOs: Limited access to health services is a major impediment to improving immunization coverage. This is particularly salient in emergencies and fragile settings where logistics and human resource capacity may be limited and issues of mistrust between health care providers and the communities they serve may prevail. In addition to limited access to services, poor service quality and demand can also be a concern. As a key partners in health systems strengthening and delivery of services in acute and protracted humanitarian emergencies, CSOs have played a major role in delivering immunization services in these contexts, in addition to supporting access negotiations and security protocols to effectively deliver services. For example, CSO coalitions that have trust of local communities are providing services in anti-government controlled areas of Somalia, South Sudan, Democratic Republic of Congo, Central African Republic, and Afghanistan. Local CSOs have also played a key role in planning immunization services, supporting monitoring, improving community engagement, supporting vaccination as a social norm and helping build community trust in the healthcare system. Moreover, many CSOs provide technical support to address major health system issues which can improve program effectiveness. For example, CSOs in Nigeria and the Central African Republic are supporting the development and deployment of national immunization data monitoring systems. In Pakistan, CSOs have profiled service delivery in urban slums and are working with the national program to improve access to services in these areas.

Recommendations for IA2030: CSOs need to continue working with national partners to support immunization delivery in underserved communities as part of wider health system strengthening and primary healthcare delivery efforts. Leveraging the community engagement and technical capacity of CSOs will be critical for success of the IA2030 agenda.

5. Immunization programs have sustainable access to predictable funding, quality supply and innovative technologies

Contribution of CSOs: Successful transition from Gavi support and sustainable financing for immunization programs are major challenges facing LMICs; while affordable pricing for new vaccines is a big concern non-Gavi MICs. In addition, many countries struggle with ensuring reliable vaccine delivery to remote rural communities. In response to these issues, CSOs continue to advocate at global and national levels for sustainable financing for health systems that can sustainably deliver immunization. Through the Gavi Board, CSO constituency representatives advocated for extended support for countries facing transition risk. At the country level, CSOs have been engaging in developing strategic plans to ensure they address the needs of vulnerable populations, while also monitoring commitments made by government and partners as part of the extended Gavi support deal. At national and sub-national levels, CSOs are engaging in budget tracking and budget advocacy that address poor funding for vaccine delivery and program implementation. For example, in Nigeria, a coalition of civil society organization used an immunization score card to draw attention to funding levels for service delivery and to call on the governors of low performing states to improve their funding for immunization. CSOs have also been actively advocating for more affordable vaccine prices due to growing concerns and challenges faced by non-Gavi MICs. For example, CSOs like MSF and Save the Children have been calling for vaccine manufacturers to lower vaccine prices, while pushing Gavi to do more on market shaping to improve vaccine affordability. CSOs are playing an important role in the cutting edge of vaccine delivery. For example, Village Reach is testing vaccine delivery using drones to supply vaccines to remote communities in the DRC, which is showing early results of improved efficiency and reliability of vaccine delivery.

Recommendations for IA2030: The new plan should have clear objectives and responsibilities for improving domestic resource mobilization for immunization, as part of wider health system investment, as well as for improved vaccine affordability. There should be a clear plan for advocacy and to increase political will and to ensure accountability for delivery on this. IA2030 should also include a comprehensive list detailing promising innovations in program delivery.

6. Country, regional and global research and development innovations maximize the benefits of immunization

Contribution of CSOs: CSOs play an important role in supporting WHO, UNICEF and Gavi in identifying research needs at community level to address the needs of epidemiological changes and shifting disease/infection trends. Many CSOs collect this key information, strengthen the innovation ecosystem of new tools for vaccine registry and tracking partially or unvaccinated children, in addition to testing new innovations. Further, CSO have worked in partnership with academia and governments to support implementation of researcher. For example, CHIP in Pakistan is helping the government and partners to map urban slums with the aim of developing a roadmap for urban immunization. VITAL Pakistan Trust recently conducted implementation research to identify barriers pertaining to poor immunization coverage in slums population, which will help the government and partners to understand supply- and demand-side bottlenecks.

Recommendations for IA2030: As a major supporter and resource for immunization research and development, CSOs' role should be clearly highlighted in country-driven and tailored research and innovation approaches, with this role clearly captured in IA2030.

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