Progress and Challenges with Achieving Universal Immunization Coverage

2018 WHO/UNICEF Estimates of National Immunization Coverage (Data as of July 2019)

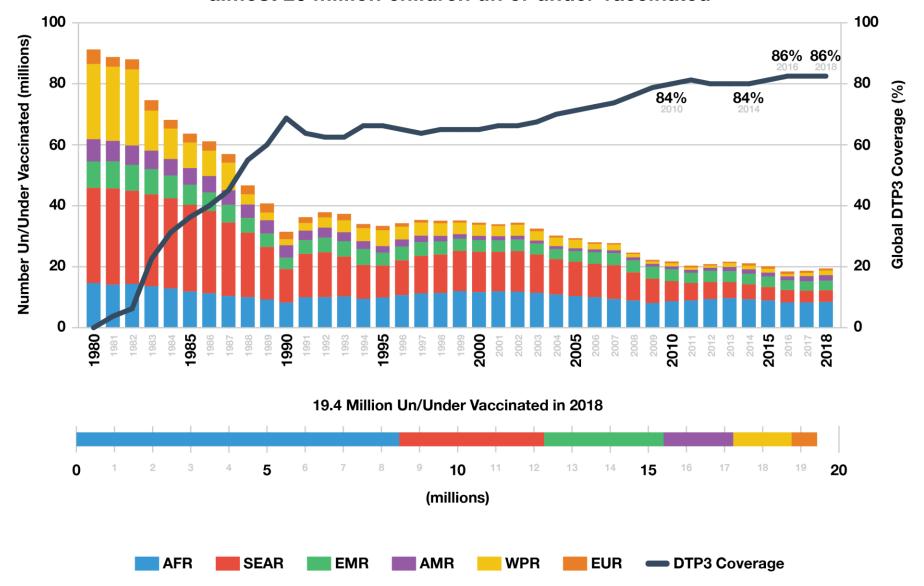
Sources:

- Member states reports to WHO and UNICEF.
- The 2019 World Bank Development Indicators Online
- United Nations, Population Division, 2019 revision





Almost 9 out of 10 children reached in 2018, almost 20 million children un or under vaccinated



Coverage of a third dose of vaccine protecting against diphtheria, tetanus, and pertussis (DTPcv-3) remains at 86% in 2018, leaving 19.4 million children vulnerable to vaccine preventable diseases

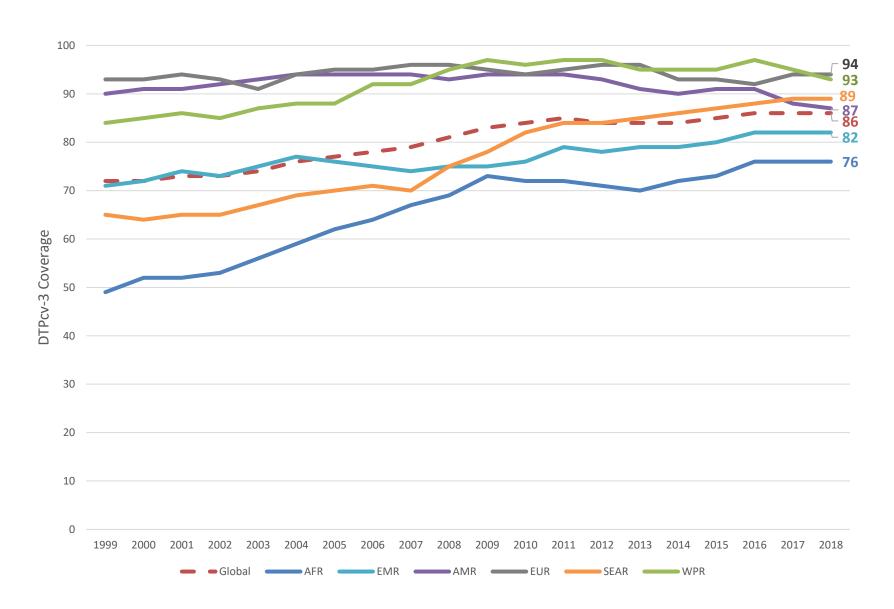
The key goal of the Immunization Agenda 2030 is to make vaccination available to everyone, everywhere, by 2030.

While immunization is probably the most successful public health intervention, reaching 86% of infants is not enough. The upward trend in coverage has increased by only 5% in the past decade and has plateaued.





Coverage levels vary substantially across regions



The gap between the best performer, the European Region, and the lowest performer, the African Region, is 18 percentage points

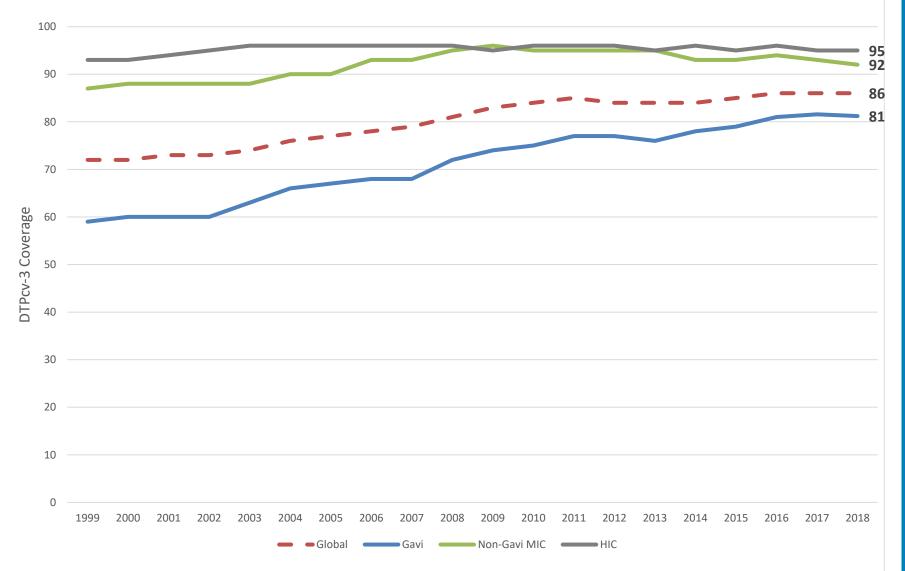
The Western Pacific Region and especially the Region of the Americas experience drops in coverage.

The biggest gains have been made by the African Region (over a 20 year period), and the South East Asian Region (over a ten year period).





Countries supported by the Gavi Alliance have converged with the global average



The Gavi Alliance provides vaccine and financial support to lower income countries

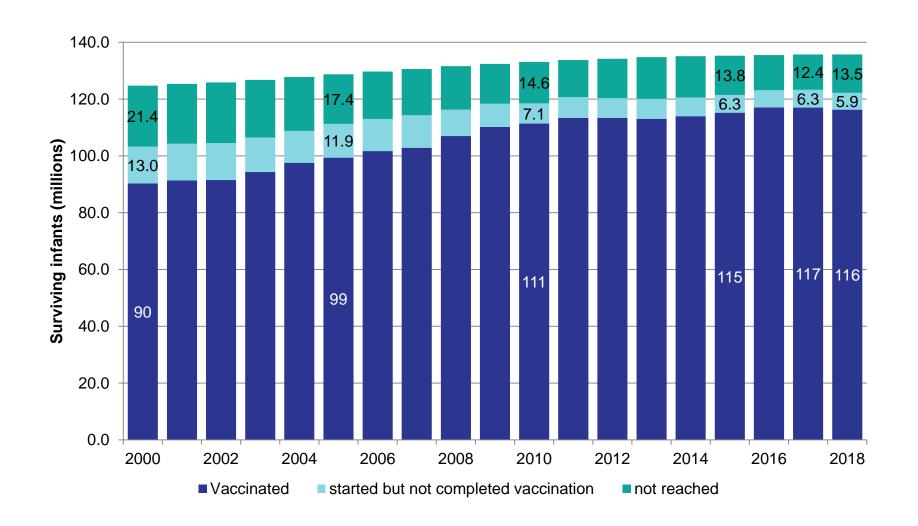
Since 2000, the group of "Gavi countries" has substantially reduced its gap with the rest of the world. Lately, their increases have plateaued in line with the global average, while middle income countries that are not eligible for Gavi Alliance support have experienced drops in coverage.

Additionally, thanks to this support, Gavi supported countries have been able to introduce newer vaccines such as Rotavirus Vaccine and Pneumococcal Conjugate Vaccine, and reached coverage levels for those vaccines that exceed global averages (not shown here).





13.5 million children lack access to vaccination services



Of the 19.4 million infants who are not fully vaccinated with DTP3, 13.5 didn't even receive an initial dose, pointing to a lack of access to immunization services.

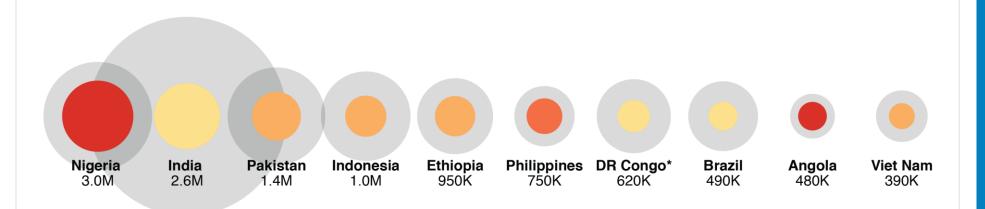
A further 5.9 million are partially vaccinated, without completing the required 3 dose schedule in the first year of life.

In 2018, 116 million children completed vaccination with a basic set of vaccines, up from 90 million in 2000, representing nearly a 30% increase.





Just 10 countries account for 60% of unprotected children



10 countries account for 11.7 of the 19.4 million under and un vaccinated children in the world (60%). This list includes some countries with moderate coverage and very large birth cohorts, and other countries with substantially lower coverage.



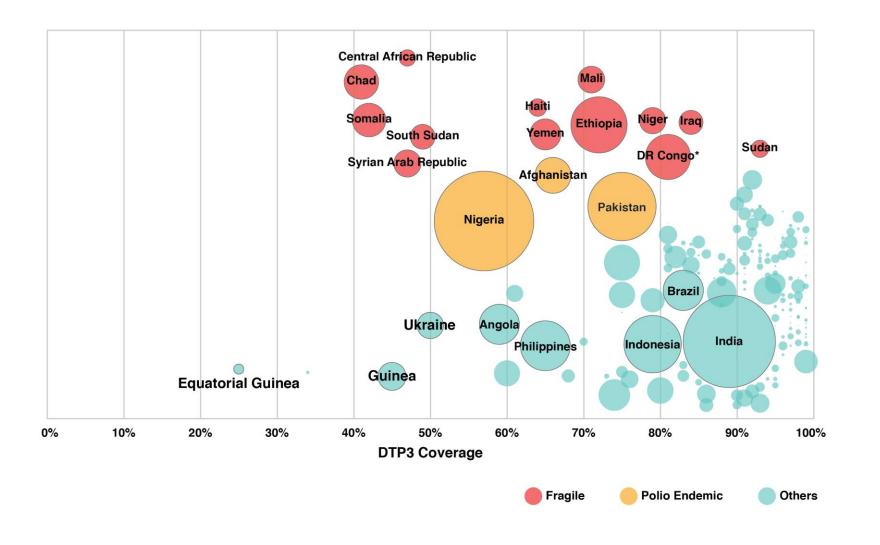
unicef

Countries with most unprotected children

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^{*} Preliminary survey suggests lower coverage and higher number of unvaccinated

Un-and under-vaccinated children disproportionally live in fragile countries



Of the 19.4 million infants who are not fully vaccinated with DTPcv-3, 8.6 million (44%) live in 16 countries that are polio endemic, fragile or affected by conflict*.

About 4.8 million of them (25%) live in just three countries – Afghanistan, Nigeria and Pakistan – where access to routine immunization services is critical to achieving and sustaining polio eradication.

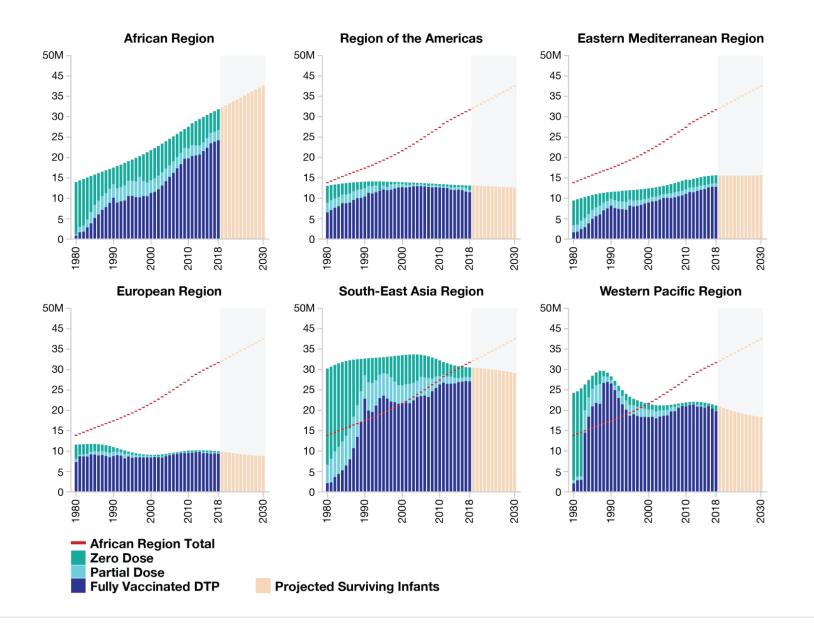
However, backsliding is also observed in some other countries that previously performed much better.

* As per WHO definition, 2019





Almost half of the un-and under vaccinated live in the African Region



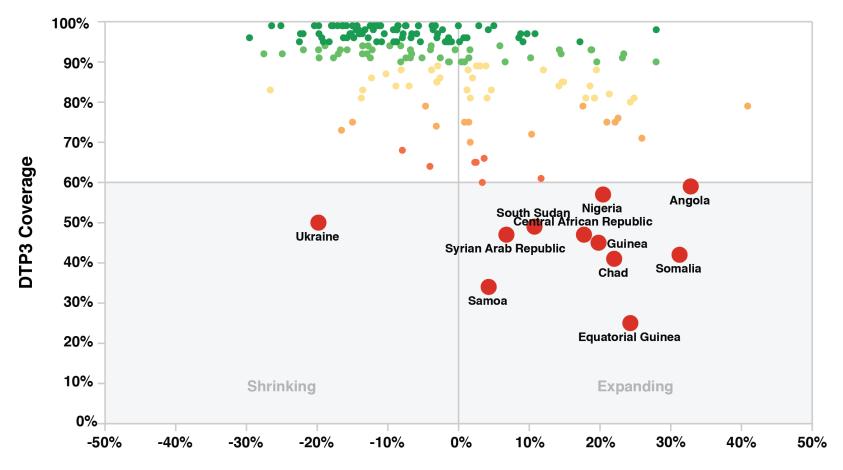
8.5 million un-and unvaccinated children live in the African Region, almost as many as in all other regions combined.

At the same time, the African region is experiencing fast demographic growth, while most other regions are in demographic decline. African countries thus need to vaccinate ever more children, just to maintain status quo. The fact that more children are being born in countries with weaker health systems and lower coverage also acts as a brake on global coverage improvements.





Some countries have very low coverage, creating devastating health risks for populations



Projected change in cohort between 2018 and 2030

Countries with very low immunization coverage

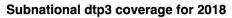
In 11 countries, DTP3 coverage was below 60% in 2018: Angola, Chad, the Central African Republic, Equatorial Guinea, Guinea, Nigeria, Samoa, Somalia, South Sudan, the Syrian Arab Republic, and Ukraine.

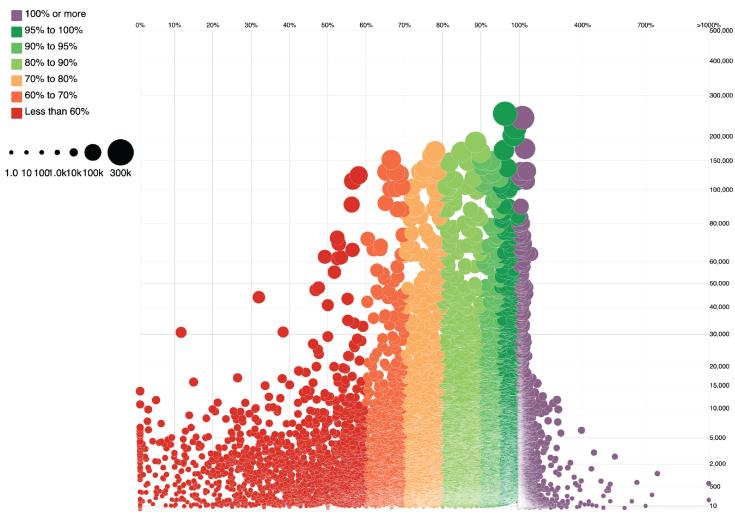
Of these 11 countries, 10 are projected to have more babies born each year through 2030, making the challenges of vaccine coverage even greater.





However, average coverage at national level hides geographical and socio-economic inequalities, even in high and middle income countries





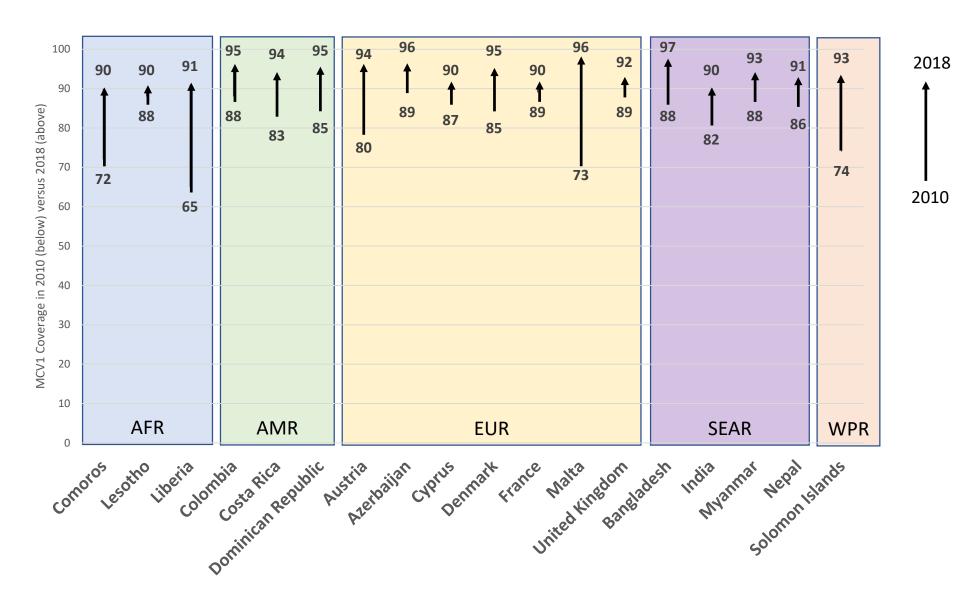
However, average coverage at national level hides geographical and socioeconomic inequalities

To reach everyone everywhere, it is necessary to identify and focus on underserved populations (including rural remote, urban slums, the poor and uneducated).





18 additional countries improved MCV1 coverage to at least 90% between 2010 and 2018

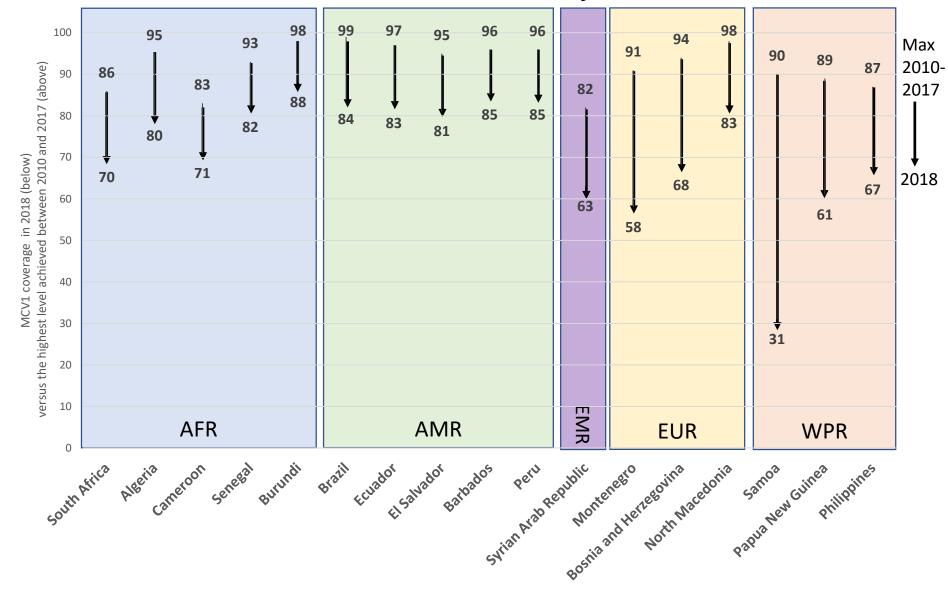


Since 2010, 18 additional countries improved coverage with a first dose of measles containing vaccine to at least 90% coverage, bringing their total to 118 in 2018





However, many countries that previously had attained high coverage levels backslided in the last few years



Many countries that had previously reached at least 90% coverage with a first dose of measles containing vaccine, dropped back in the last few years. The chart shows 19 selected countries with significant drops in coverage (10 percentage points or more).

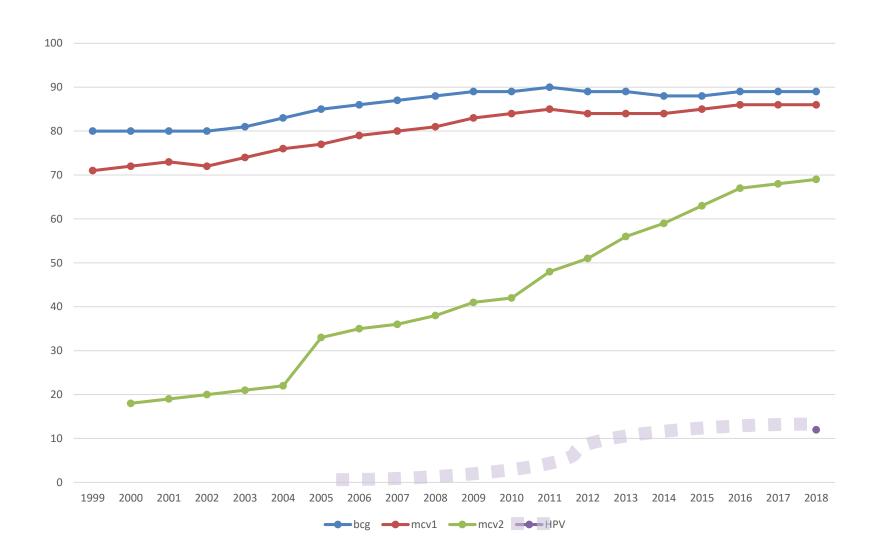
Reasons for backsliding include complacency, lack of investment in public health, conflict, and in some places lack of trust in vaccines.

Measles elimination requires sustained very high coverage in all age and population groups.





Vaccination is for the life course, beyond infancy



While the immunization programme has been very successful reaching infants, for the full benefits of vaccines to be realized, strong programmes for other age groups need to be built.

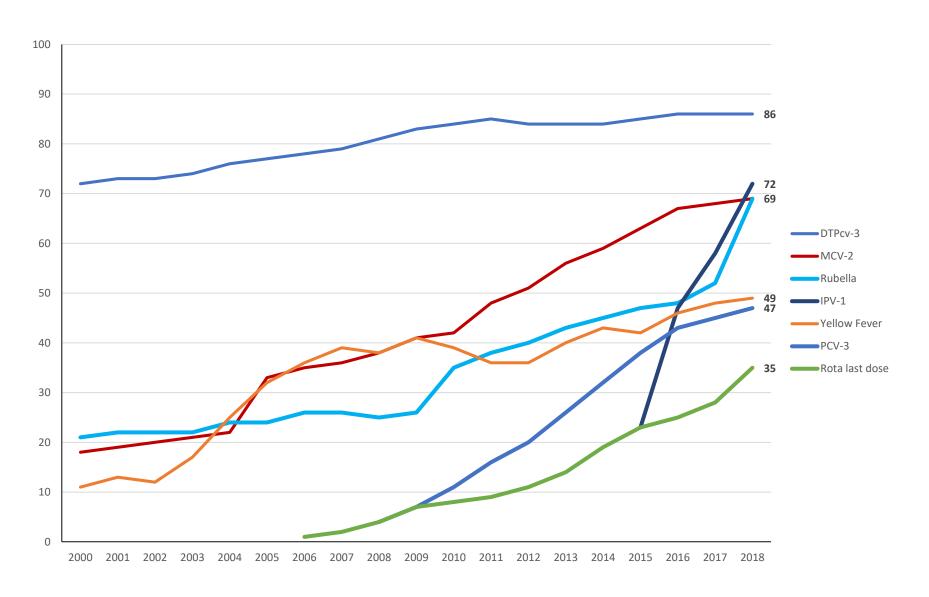
For example, a **second dose of measles vaccine** is recommended
for children aged 2 or older. While
global vaccination coverage has been
increasing steadily, in 23 countries
the dose is still not given, while many
others don't reach quite the same
coverage as for the first dose.

For the first time ever **HPV coverage** estimates are reported. Beginning in 2006, the uptake has been incremental.





Global coverage for selected vaccines



Progress for newer vaccine uptake

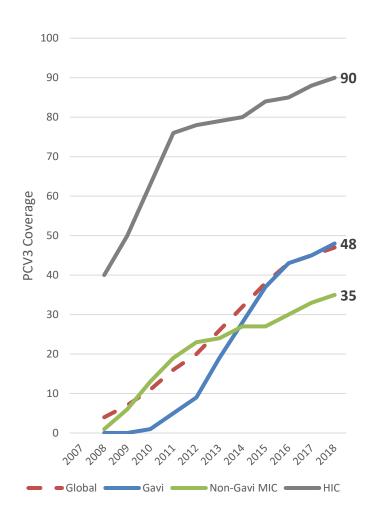
While global coverage for DTPcv and MCV-1 has somewhat stagnated, other vaccines have seen good progress.

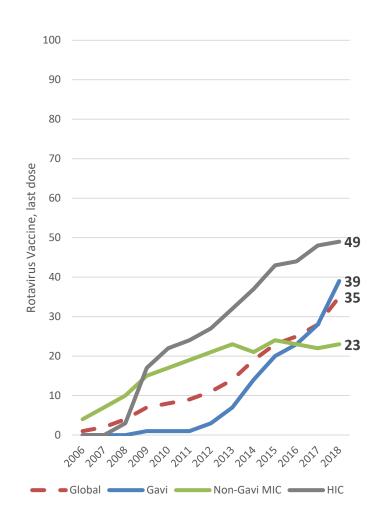
The most notable increase is the fast trajectory of Inactivated Polio Vaccine (IPV) in countries that previously only used Oral Polio Vaccine (OPV). Rubella containing vaccine benefitted from uptake across India.





Coverage for newer vaccines in Gavi countries is now better than average





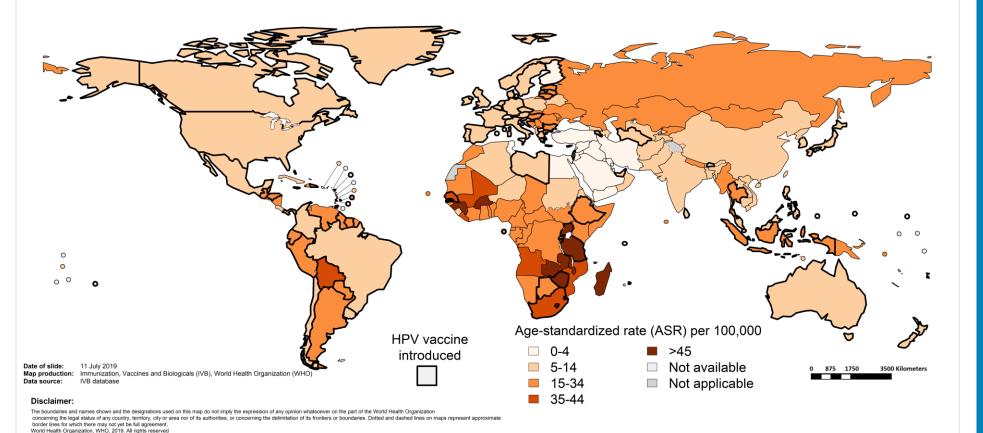
Progress for newer vaccine uptake

The trajectories for Pneumococcal Conjugate and Rotavirus Vaccines are especially noteworthy, as lower income countries have been able to achieve higher coverage than the global average thanks to support from the Gavi Alliance. Non-Gavi Middle Income countries are falling behind.





Less than 1 in 3 eligible girls live in a country with HPV vaccine in the national immunization schedule



Human papillomavirus (HPV) is the most common viral infection of the reproductive tract, and can cause cervical cancer, other types of cancer, and genital warts in both men and women

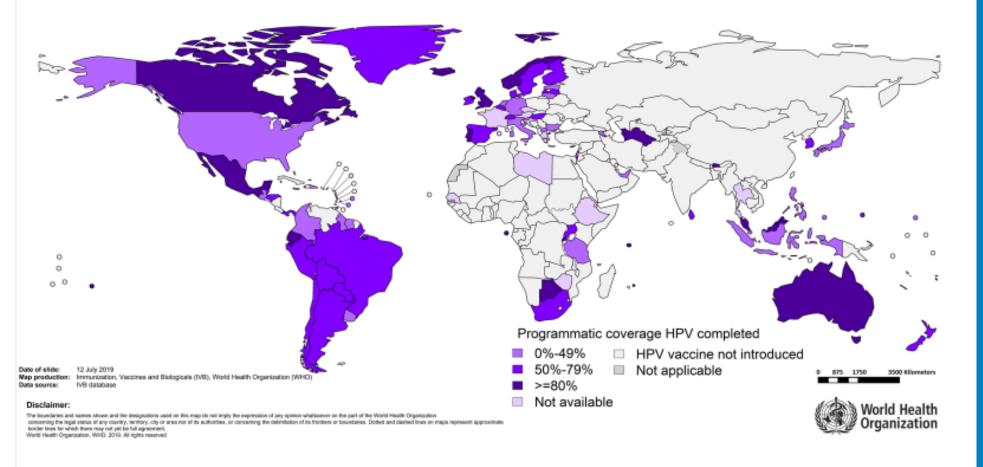
In 2018, the HPV vaccine was introduced in 90 countries covering 31 percent of global cohort of 9-14 years old girls. Estimates are now available for 74 countries: 31 reach coverage of less than 50%, 18 reach over 80% of their target.

Unfortunately, those most at risk of cervical cancer are least likely to have access to the vaccine. Just 13 lower-income countries have made it available to date.





HPV coverage estimates are available for 75 member states



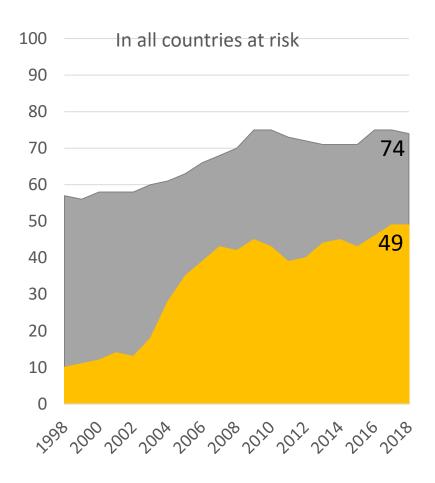
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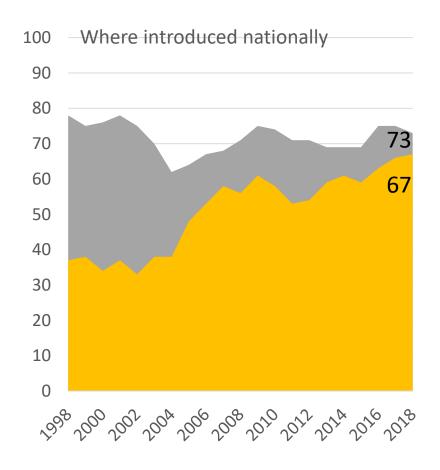
Higher income countries, which have often introduced the vaccine for a few years, have generally achieved higher coverage than lower income countries.





Countries at risk of Yellow Fever achieve only 49% coverage in infants, partly because 4 countries have yet to introduce





Coverage for Yellow Fever vaccine reached 49% among infants living in countries at risk in 2018.

4 countries at risk (Ethiopia, South Sudan, Sudan, and Uganda) have not yet introduced this vaccine.

Countries where the vaccine was introduced nation-wide achieved 67% coverage, compared to 73% for the first dose of Measles vaccine, which is co-administered with Yellow Fever Vaccine. This gap is in some cases explained by supply constraints, and narrowing over time.



