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VIEW-hub Report: Global Vaccine Introduction and Implementation

www.VIEW-hub.org
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VIEW-hub by IVAC

Johns Hopkins Bloomberg School of Public Health

IVAC International Vaccine Access Center

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VACCINE INTRODUCTION DASHBOARD FOR ROUTINE IMMUNIZATIONS

This page provides contextual historic information about routine immunization vaccines tracked in VIEW-hub, both globally and for Gavi-supported countries.

Year of first vaccine introduction

Vaccine	High-Income	Middle-Income	Low-Income	Gavi-Supported
Hib	1989 (Iceland)	1994 (2 countries)	1997 (Gambia)	2001 (2 countries)
PCV	2000 (US)	2008 (5 countries)	2009 (Rwanda)	2009 (2 countries)
Rotavirus	2006 (3 countries)	2006 (5 countries)	2012 (Rwanda)	2008 (Bolivia)
IPV	1955 (2 countries)	1959 (Hungary)	2014 (Nepal)	2014 (Nepal)
HPV	2006 (4 countries)	2009 (2 countries)	2011 (Rwanda)	2011 (Rwanda)
Typhoid	N/A	N/A	2021 (2 countries)	2019 (Pakistan)
Measles	1968 (Croatia)	1963 (Iran)	1993 (Syrian Arab Republic)	1981 (Lesotho)

Total number of countries that have introduced each vaccine, by program type

Vaccine	Global Introductions (194 countries)			Total
	Universal	Special Risk Populations*	Subnational	
Hib	193	0	0	193
PCV	159	7	0	166
Rotavirus	122	3	2	127
IPV**	194	0	0	194
HPV	139	0	7	146
Typhoid	6	1	0	7
Measles	189	0	1	190

Vaccine	Gavi Introductions (54 countries)			Total
	Universal	Special Risk Populations*	Subnational	
Hib	54	0	0	54
PCV	47	0	0	47
Rotavirus	42	0	0	42
IPV**	54	0	0	54
HPV	26	0	2	28
Typhoid	5	0	0	5
Measles	50	0	1	51

*This program type targets special populations at high risk and will henceforth be referred to as "risk programs". Note: The definition of high-risk populations may vary by country.

**Defined as the inclusion of at least one dose of IPV into the child immunization schedule.

EXECUTIVE SUMMARY

The VIEW-hub Global Vaccine Introduction and Implementation Report displays data and figures on the global introduction status of nine vaccines: Haemophilus influenzae type b (Hib)-containing vaccines, pneumococcal conjugate vaccines (PCV), rotavirus vaccines, inactivated polio vaccines (IPV), typhoid conjugate vaccines (TCV), second dose of measles-containing vaccines (MCV2), measles-rubella vaccines (MR), human papillomavirus vaccines (HPV), and COVID-19 vaccines. This report contains enhanced content and figures generated from data available through VIEW-hub (www.VIEW-hub.org), which is an interactive platform developed and maintained by IVAC. Support for antigens other than SARS-CoV-2 is provided by Gavi, the Vaccine Alliance, the Bill & Melinda Gates Foundation, and the World Health Organization. Support for COVID-19 vaccines is provided by the World Health Organization, the Coalition for Epidemic Preparedness Innovations, and the Asian Development Bank.

The VIEW-hub Report contains summaries for each vaccine, both globally as well as for a subset of 54 Gavi-supported countries. Summaries include the number of countries that have introduced each vaccine or plan to in the future, historical trends in the rate of global vaccine introduction, vaccine coverage and access, and current product and dosing schedule. This report includes a special section focused on measles and measles-containing vaccines in light of the recently released 2023 WHO/UNICEF Estimates of National Immunization Coverage (WUENIC).

BACKGROUND

Through the interactive VIEW-hub data visualization tool (www.VIEW-hub.org), users can instantly visualize data on vaccine introductions, product usage, dosing schedules, access, coverage, impact studies, and more for nine vaccines. The data on www.VIEW-hub.org are continuously updated as information is received to permit real-time reporting.

Custom queries and maps, exportable data and graphics, country-specific dashboards, and a map gallery are just some of the interactive features users can access. Tracking vaccine introduction progress and collating a wide spectrum of vaccine use data all in one location allows users to strategize ways to accelerate and optimize vaccine implementation.

In 2016, VIEW-hub replaced IVAC's previous Vaccine Information Management System (VIMS), which was developed in 2008. VIEW-hub expanded the number of vaccines, scope, and functionality to serve the evolving needs of global vaccine stakeholders and decision makers. After the launch of VIEW-hub, quarterly VIEW-hub Reports replaced quarterly VIMS Global Vaccine Introduction Reports.

METHODS

This report has been prepared using data and maps generated in VIEW-hub, a data visualization tool developed and maintained by the International Vaccine Access Center at the Johns Hopkins Bloomberg School of Public Health for use by IVAC and its affiliated partners and projects. Information in VIEW-hub was gathered from internationally recognized sources, such as the World Health Organization (WHO), UNICEF, Gavi, vaccine manufacturers, ministries of health, and news media.

Current Introduction Status for Hib, Pneumococcal Conjugate, Rotavirus, Inactivated Polio, Typhoid Conjugate, Second Dose Measles-containing, Measles-Rubella, and Human Papillomavirus vaccines

- Data on historical years of vaccine introduction is gathered from the WHO. Information on current introduction status is gathered from a variety of sources, including WHO, UNICEF, Gavi, vaccine manufacturers, ministries of health, and news media. Forecasted introduction dates are from WHO and Gavi's Strategic Demand Forecast v12. For more information on sources, see the full data dictionary within VIEW-hub (www.VIEW-hub.org) or email Marley Jurgensmeyer at mjurgen4@jhu.edu.

Coverage Estimates

- Vaccine coverage is calculated as the number of surviving infants globally living in countries and subnational regions within countries that have introduced the vaccine who were vaccinated (i.e., number of surviving infants multiplied by the percent vaccinated). In the absence of coverage data for the vaccine, DTP3 coverage is used as a proxy. We use existing population figures (total population, crude birth rate, and infant mortality rate) for children under 1 year of age obtained from official census data to calculate the number of surviving infants.

Access Estimates

- Vaccine access is calculated as the number of surviving infants globally living in countries or subnational regions within countries that have introduced the vaccine.

Vaccine Introduction by Income Level

- Countries were classified using 2024 World Bank income classifications (2023 GNI data).
- Forecasted introduction was determined through WHO reports, news media, and Gavi's Strategic Demand Forecast v12.

Projected introduction dates for Gavi countries are taken from the most recently available Gavi Strategic Demand Forecast and WHO sources. For non-Gavi-eligible countries, WHO and a variety of other sources are used. Information on a particular country's Gavi application status or projected introduction date may be sensitive and should not be used for public circulation without prior consent from VIEW-hub personnel.

MEASLES AND IMMUNIZATION COVERAGE

Measles is a highly contagious vaccine-preventable disease caused by the measles virus. Measles infects the respiratory tract and then spreads throughout the body, generally causing high fever, cough, runny nose and rash. It can lead to severe disease, complications, and death. People of all ages can be affected by measles, but it is most common in children. Unvaccinated young children are at the highest risk of severe measles complications [1].

Measles is endemic in parts of Africa, the Middle East and Asia, and in countries with lower rates of vaccination [1]. While all WHO regions have committed to eliminating measles, no region has achieved and sustained measles elimination [2].

As measles is one of the most contagious diseases, high vaccination coverage is the most effective prevention. Measles-containing vaccines (MCV) can be given alone or combined with vaccines for rubella, mumps, or varicella. While a single dose will provide protection to about 85% of children at 9 months of age, children need two doses of the vaccine for it to ensure high population immunity [1].

VIEW-hub tracks the introduction of second dose measles-containing vaccine (MCV2) and the measles and rubella vaccine (MR). As of August 2024, MCV2 has been introduced into the national immunization program (NIP) of 189 countries, and one country (Somalia) has introduced subnationally. Three countries are planning to introduce MCV2, and one country (Gabon) has not made a decision to introduce.

Figure 1. MCV2 Current Vaccine Introduction Status

MEASLES AND IMMUNIZATION COVERAGE

2023 WHO/UNICEF Estimates of National Immunization Coverage (WUENIC), recently released in July 2024, provide a means to understanding progress towards global universal vaccination. This year's WUENIC numbers indicate that MCV immunization coverage and the number of children not vaccinated against measles are comparable to 2022 numbers [3]. Global coverage for MCV1 was 83% in both 2023 and 2022, while global coverage for MCV2 was 74% in 2023 and 73% in 2022 [4]. This signals that global MCV1 immunization coverage has not been restored to 2019 levels (86%), prior to COVID-19-related disruptions that led to declines in immunization coverage, and global MCV2 coverage has improved slightly from its 2019 level of 71% [4].

VIEW-hub tracks and visualizes MCV1 and MCV2 coverage at the country level, based on WUENIC numbers. For MCV1, in 2023, 140 countries (72%) fell into high or very high coverage categories and 28 countries (14%) fell into low or very low coverage categories. This is similar to 2022 coverage levels, where 137 countries (71%) had high or very high coverage and 34 countries (18%) had low or very low coverage. MCV1 coverage in both 2022 and 2023 was still lower than pre-pandemic levels. In 2019, 154 countries (79%) had high or very high coverage while 22 countries (11%) had low or very low coverage.

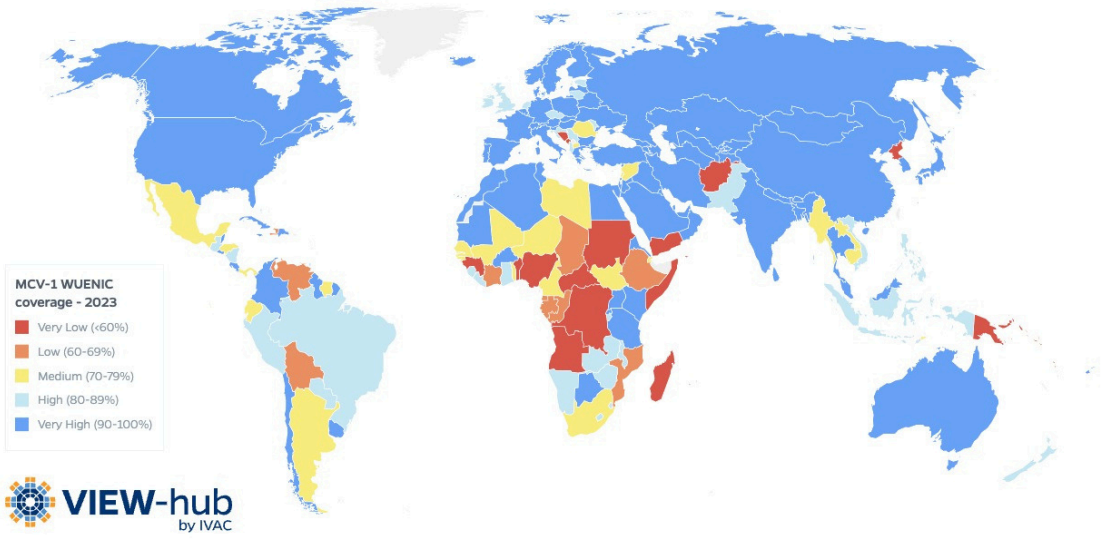


Figure 2. MCV1 WUENIC Coverage, 2023

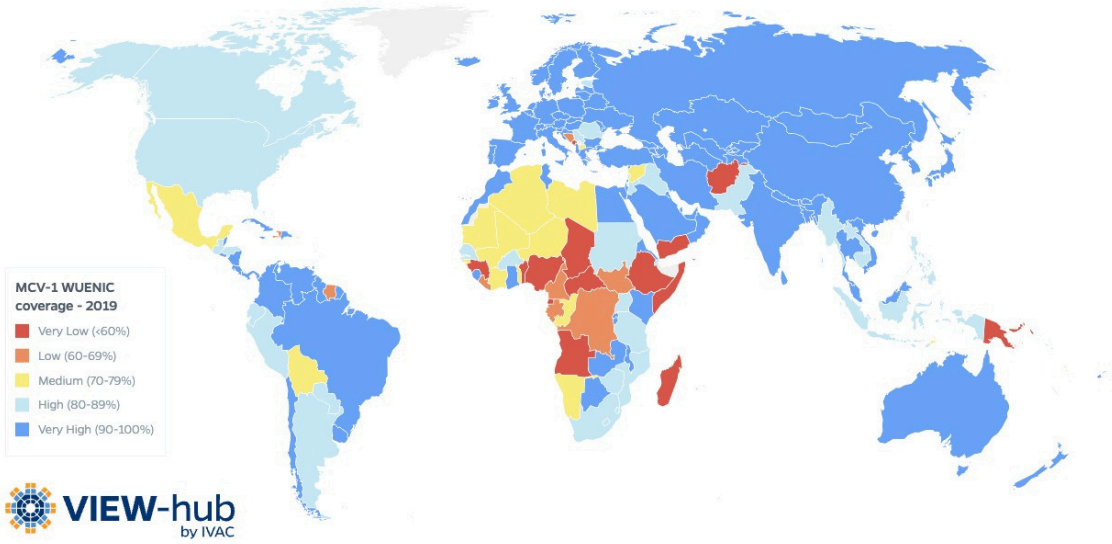


Figure 3. MCV1 WUENIC Coverage, 2019

MEASLES AND IMMUNIZATION COVERAGE

The same trends can be seen in country-level MCV2 coverage. For MCV2, in 2023, 107 countries (55%) fell into high or very high coverage categories while 56 countries (29%) fell into low or very low coverage categories. 2023 coverage levels were almost identical to 2022 coverage levels, with 103 countries (53%) having high or very high coverage and 55 countries (28%) having low or very low coverage in 2022. Coverage levels continue to be lower than 2019 levels, before COVID-19-related disruptions. In 2019, 114 countries (59%) had high or very high coverage and 35 countries (18%) had low or very low coverage.

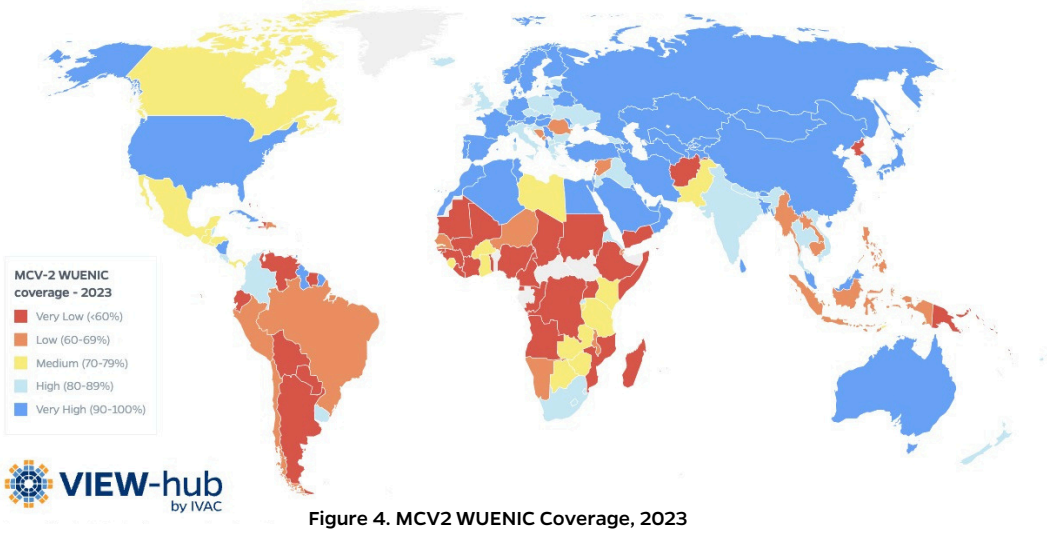


Figure 4. MCV2 WUENIC Coverage, 2023

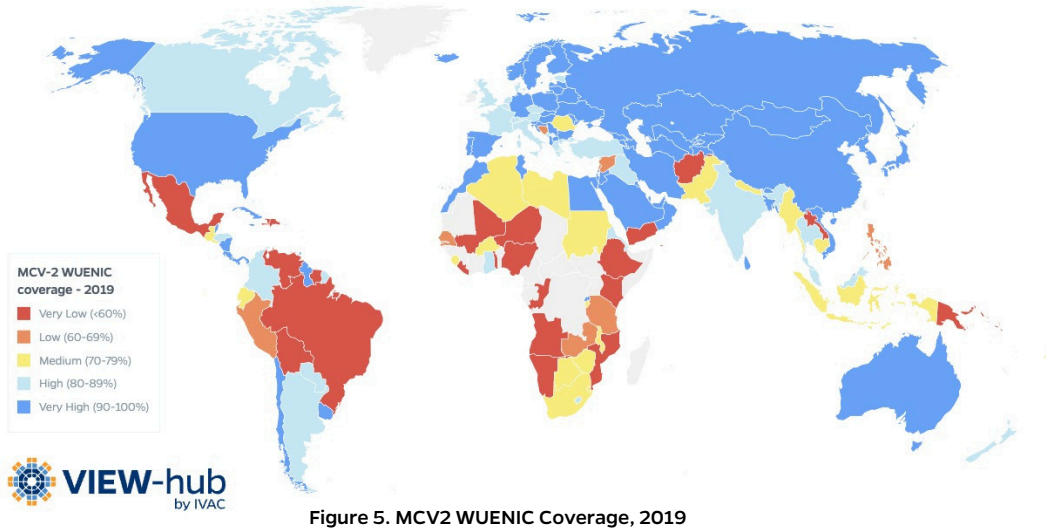
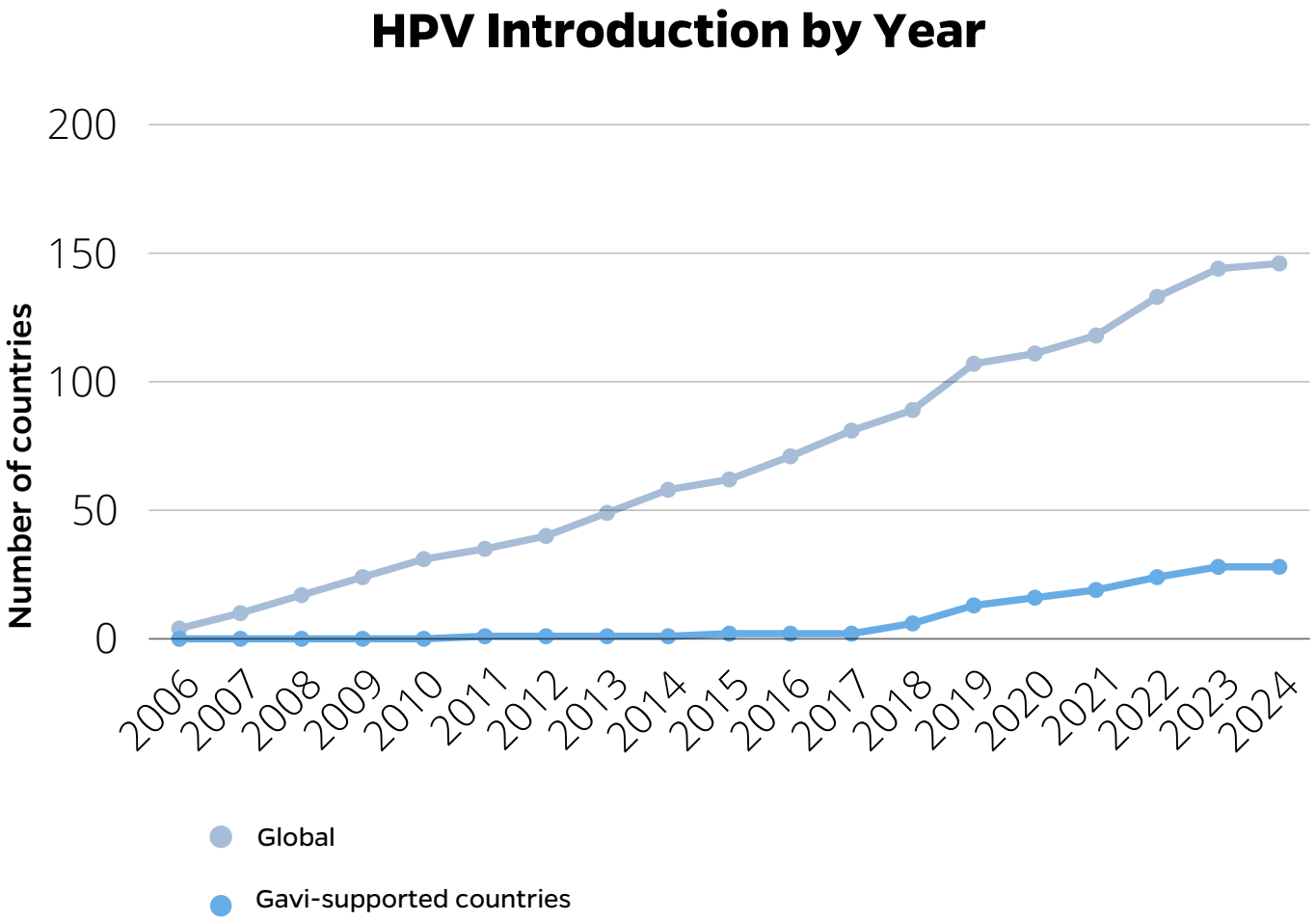


Figure 5. MCV2 WUENIC Coverage, 2019

Restoring measles vaccination coverage to pre-pandemic levels is a priority, particularly to continue progress toward regional measles elimination. High measles vaccine coverage is critical to preventing measles outbreaks. The 2023 WUENIC numbers found that the 91 countries that have not experienced measles outbreaks in the last 5 years have had consistently higher measles vaccine coverage than the 103 countries that have experienced outbreaks [3]. Improving measles vaccination coverage is an important step in preventing measles virus transmission and future outbreaks, saving thousands of lives each year.

References:
1. https://www.who.int/news-room/fact-sheets/detail/measles
2. https://www.cdc.gov/mmwr/volumes/72/wr/mm7246a3.htm
3. https://cdn.who.int/media/docs/default-source/immunization/wuenic-progress-and-challenges.pdf?sfvrsn=b5eb9141_17&download=true
4. https://immunizationdata.who.int/global/wiise-detail-page/measles-vaccination-coverage?CODE=Global&ANTIGEN=MCV1+MCV2&YEAR=

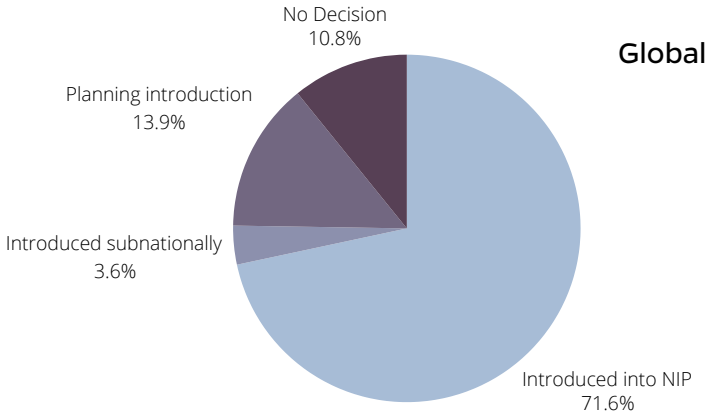
HUMAN PAPILLOMAVIRUS VACCINE



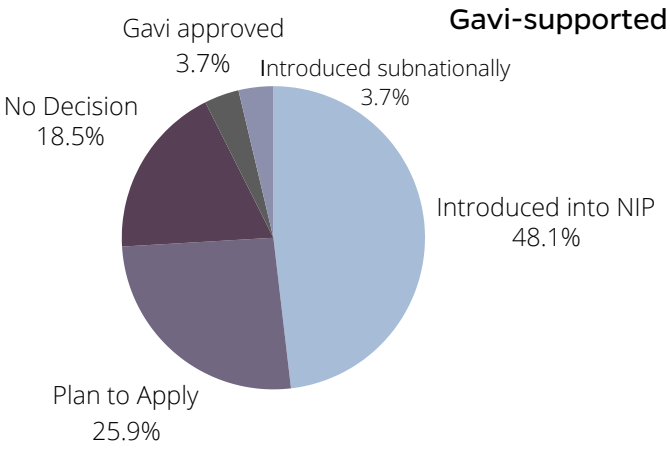
The figure includes countries that have introduced universally or subnationally (tracking progress for 194 countries, 54 Gavi-supported countries).

HPV Vaccine Introduction Status

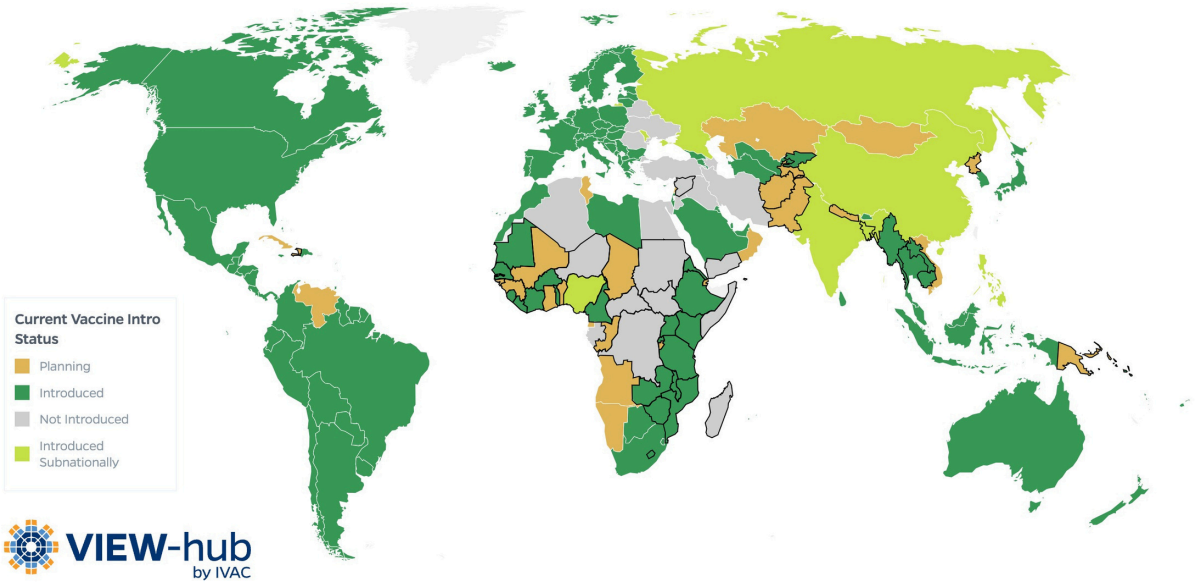
As of August 2024, 139 countries have introduced HPV into their national immunization programs. 7 countries have Introduced subnationally. 27 countries have announced plans to add HPV to their national immunization programs, and 21 countries have yet to make a decision.



26 Gavi-supported countries have introduced HPV vaccine into their national immunization programs, and two have introduced subnationally. 2 countries have been approved, with or without clarification, for Gavi support to introduce. 14 countries have announced plans to add HPV vaccine to their national immunization programs. 10 countries have not yet made a decision regarding introduction.

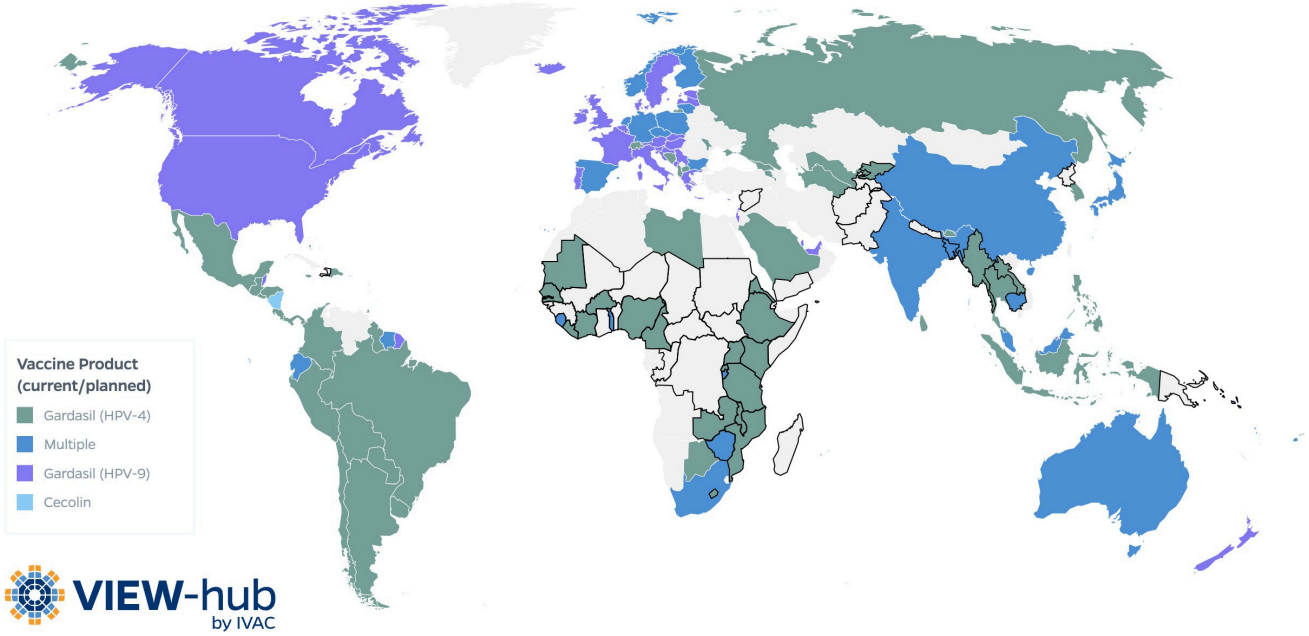


A map of the countries that have introduced HPV vaccination is below.

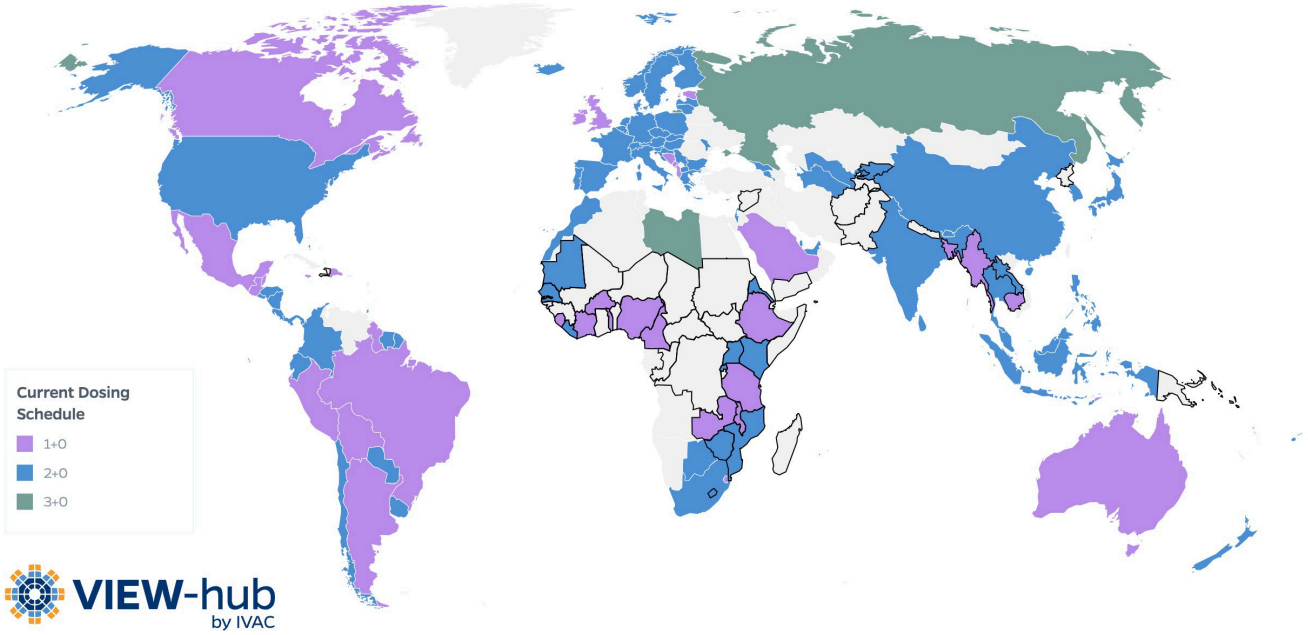


The countries outlined In black Indicate countries approved for Gavi support.

HPV – Current Product



HPV – Current Dosing Schedule



The countries outlined In black Indicate countries approved for Gavi support.

See the HPV page on VIEW-hub for more information.

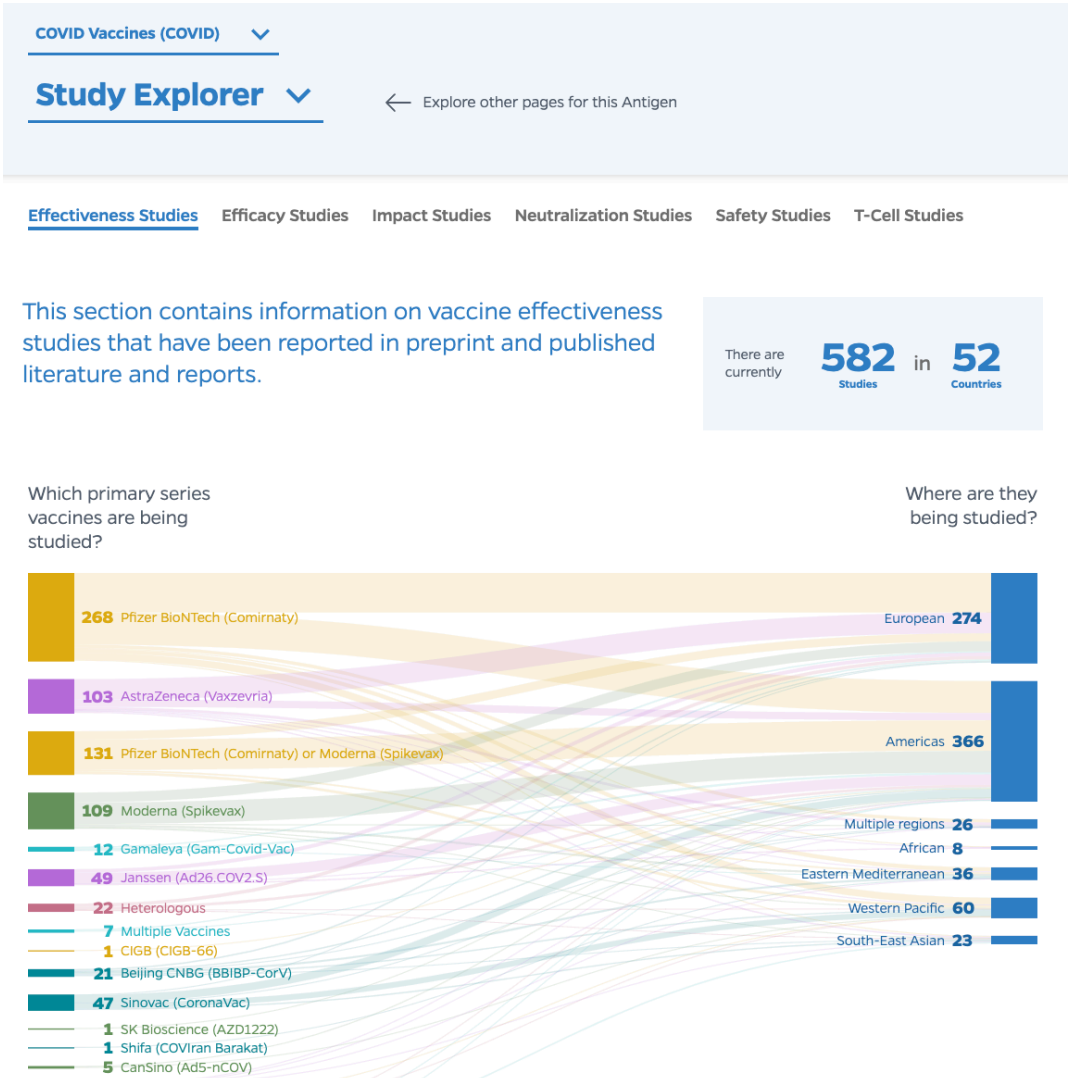
COVID-19 Vaccine Study Explorer

Information on COVID-19 vaccine studies that have been reported in preprint and published literature and reports can be found on VIEW-hub.

The module includes COVID-19 vaccine effectiveness, efficacy, impact, neutralization, safety, and T-Cell studies.

The interactive Sankey diagram and table provide different ways to visualize the availability of COVID-19 studies, and include dropdown filters. Information on COVID-19 studies is also downloadable.

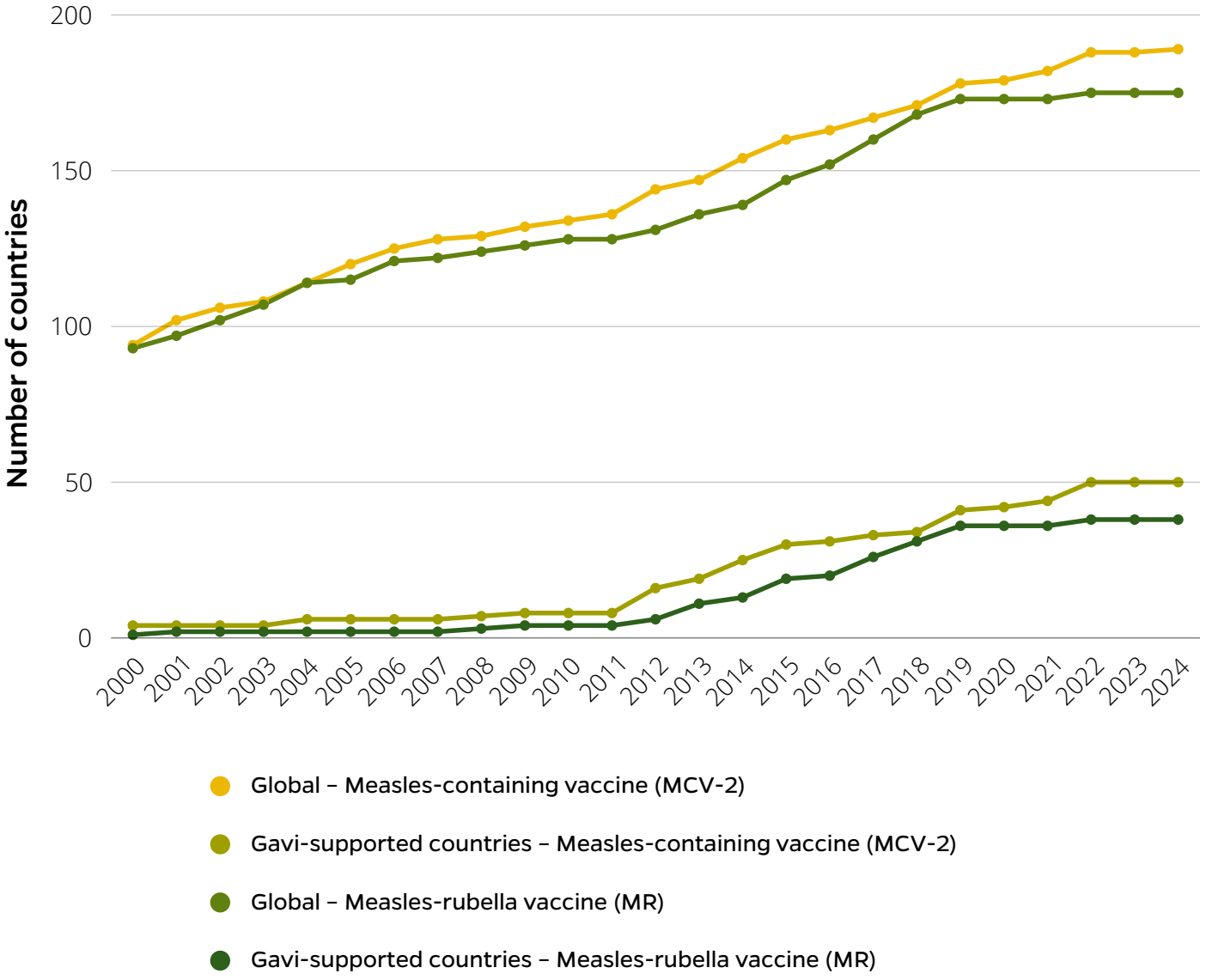
COVID-19 vaccine effectiveness, neutralization, and cellular immunity studies continue to be updated weekly.



See the COVID-19 page on VIEW-hub for more information.

MEASLES VACCINE

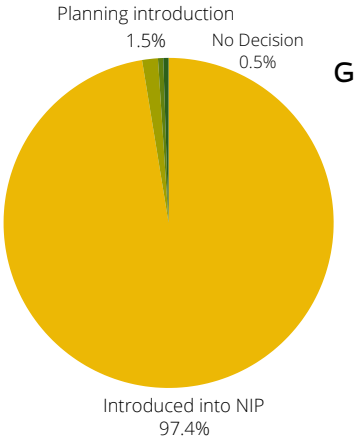
Measles-Containing Vaccine Dose 2 (MCV-2) and Measles-Rubella Vaccine (MR) Introduction by Year



The figure includes countries that have introduced universally or subnationally (tracking progress for 194 countries, 54 Gavi-supported countries).

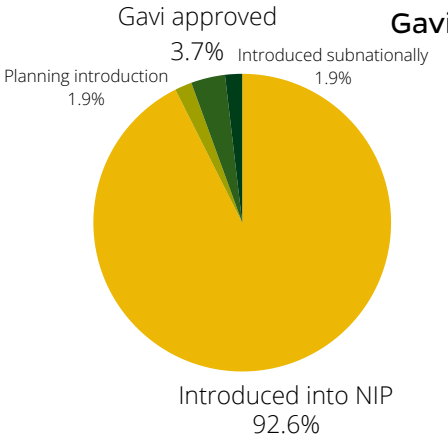
Measles-Containing Vaccine-2 (MCV-2) Introduction Status

As of August 2024, globally, 189 countries have introduced MCV-2 into their national immunization program. One country has introduced subnationally. 3 countries have announced plans to add MCV-2 to their national immunization program. One country has not yet made a decision regarding introduction.



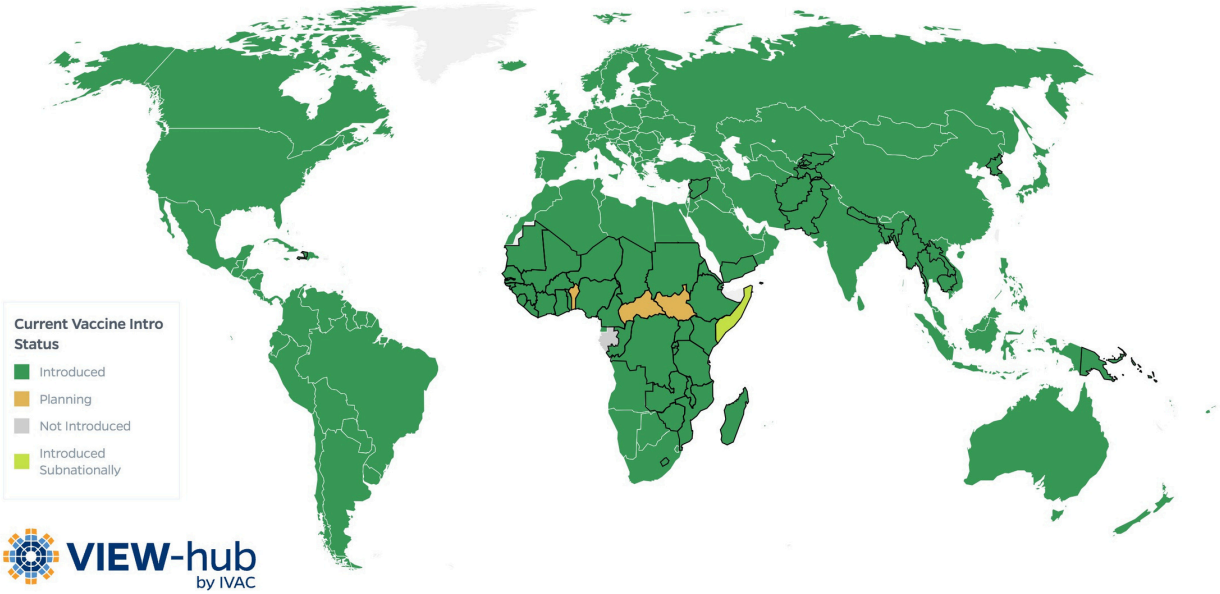
Global

50 Gavi-supported countries have introduced MCV-2 into their national immunization program. One country has introduced subnationally. 2 countries have been approved, with or without clarification, for Gavi support to introduce. One country has announced plans to add MCV-2 to their national immunization program.



Gavi-supported

A map of the countries that have introduced MCV-2 is below.

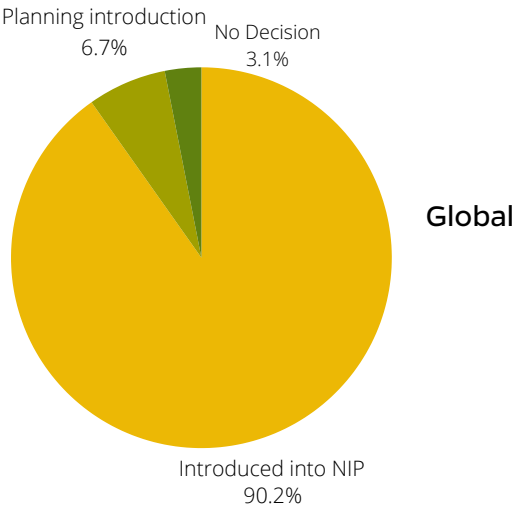


The countries outlined In black Indicate countries approved for Gavi support.

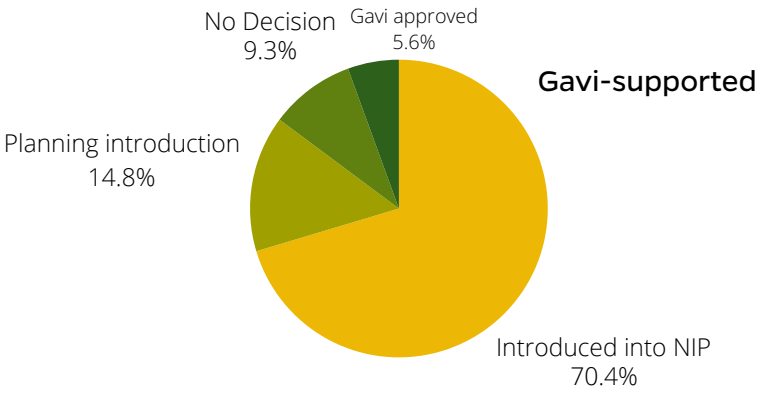
See the MCV-2 page on VIEW-hub for more information.

Measles-Rubella Vaccine Introduction Status

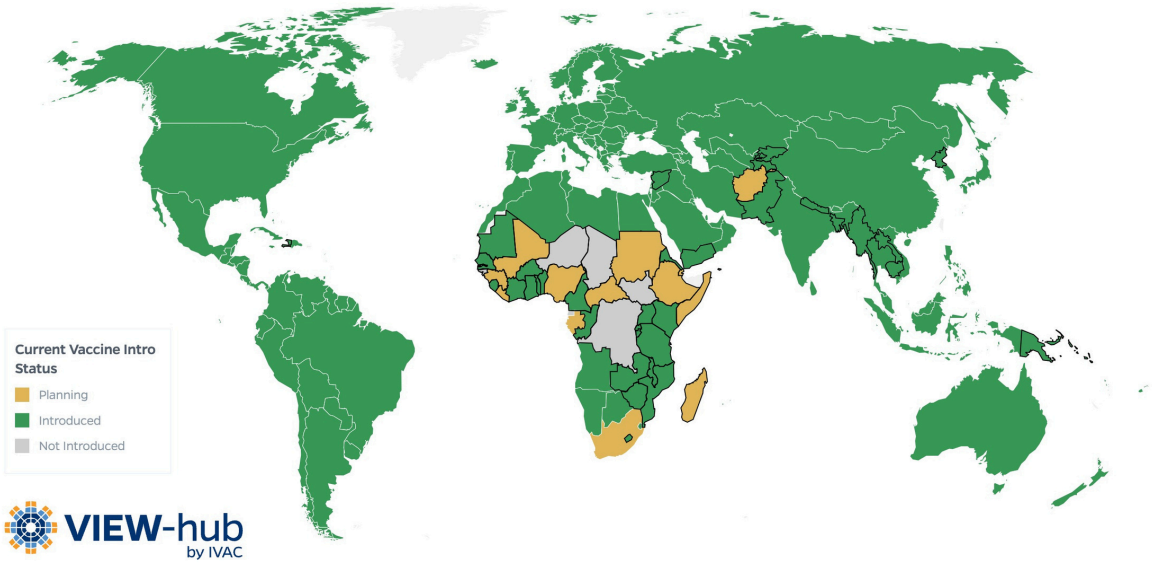
As of August 2024, globally, 175 countries have introduced MR into their national immunization programs. 13 countries have announced plans to add MR to their national immunization programs. 6 countries have not yet made a decision regarding introduction.



38 Gavi-supported countries have introduced MR into their national immunization programs. 3 countries have been approved, with or without clarification, for Gavi support to introduce. 8 countries have announced plans to add MR to their national immunization programs. 5 have not yet made a decision regarding introduction.



A map of the countries that have introduced MR is below.

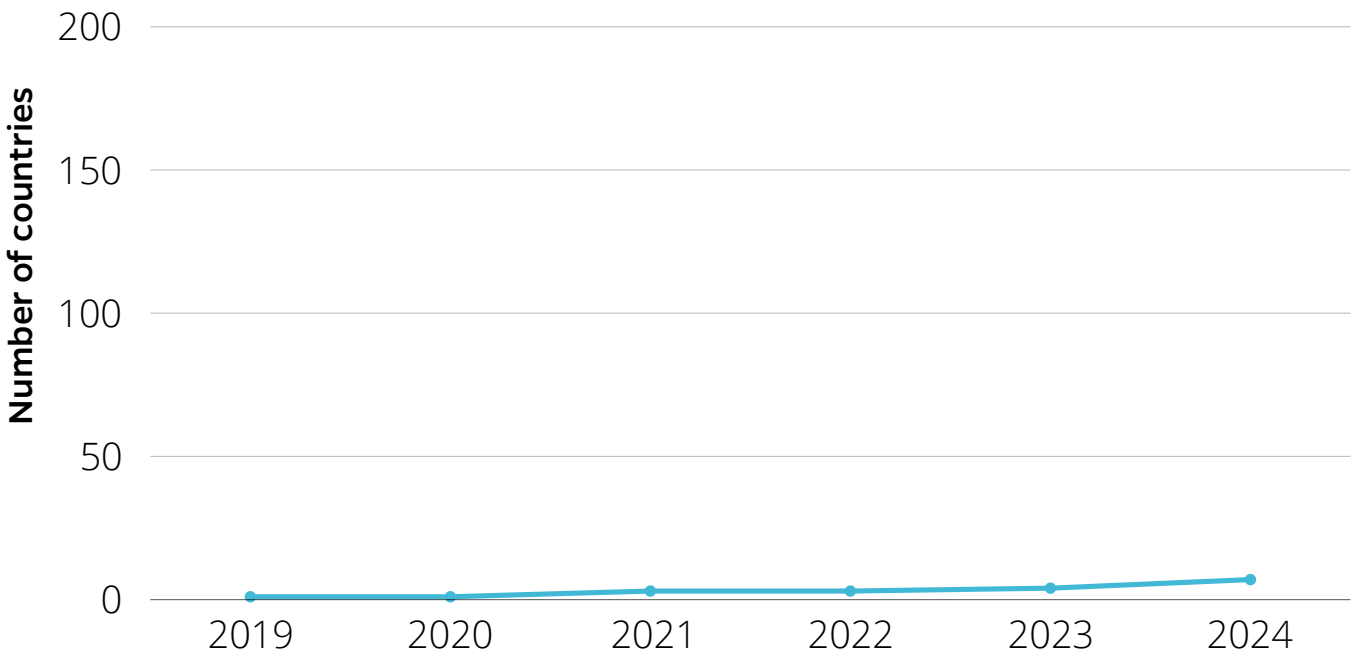


The countries outlined In black Indicate countries approved for Gavi support.

See the MR page on VIEW-hub for more information.

TYPHOID CONJUGATE VACCINE

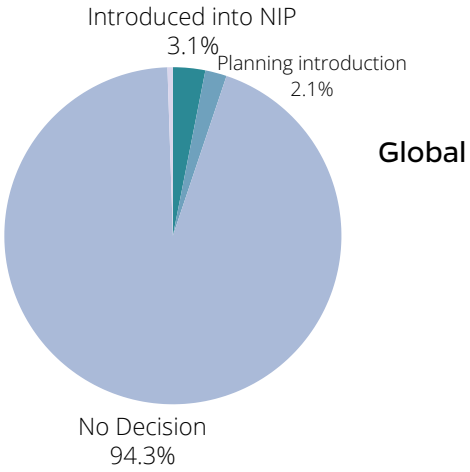
Typhoid Conjugate Vaccine Introduction by Year



The figure includes countries that have introduced universally or for risk populations (tracking progress for 194 countries, 54 Gavi-supported countries).

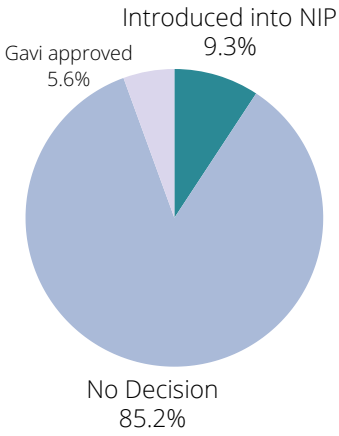
Typhoid Conjugate Vaccine Introduction Status

As of August 2024, globally, 6 countries have introduced typhoid conjugate vaccine (TCV) into their national immunization programs, and 1 country has introduced for risk populations. 4 countries have announced plans to add TCV to their national immunization programs. 183 countries have not yet made a decision regarding introduction.



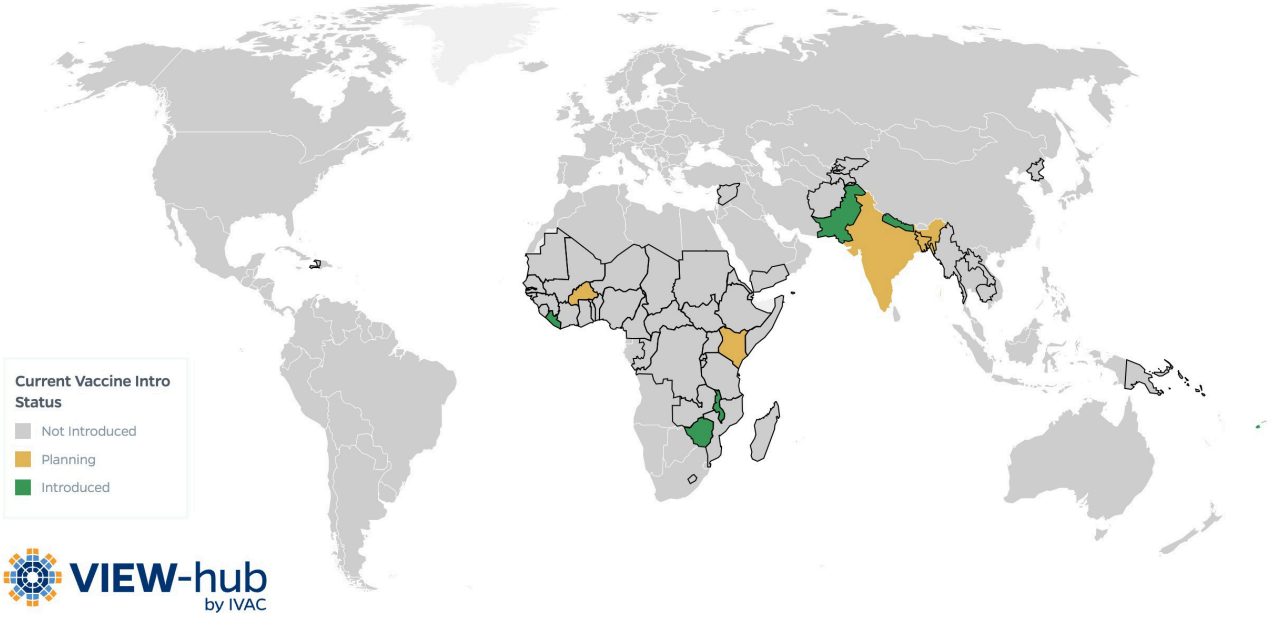
Global

5 Gavi-supported countries have introduced TCV into their national immunization programs. 3 countries have been approved, with or without clarification, for Gavi support to introduce. 46 have not yet made a decision regarding introduction.



Gavi-supported

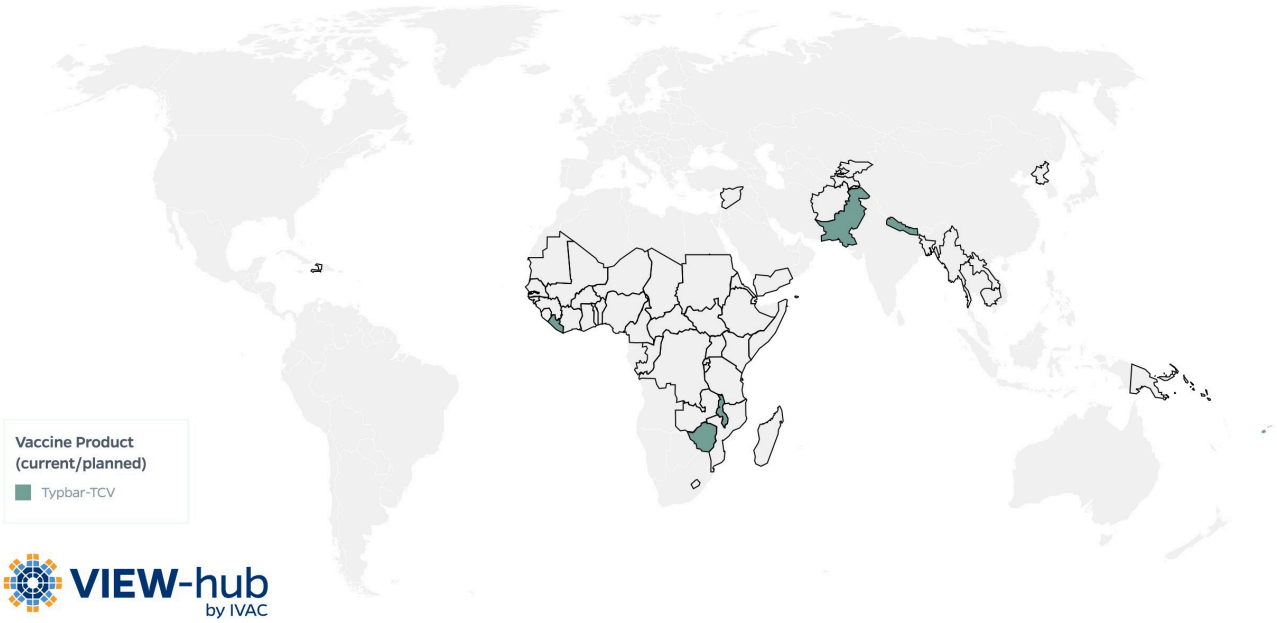
A map of the countries that have introduced TCV is below.



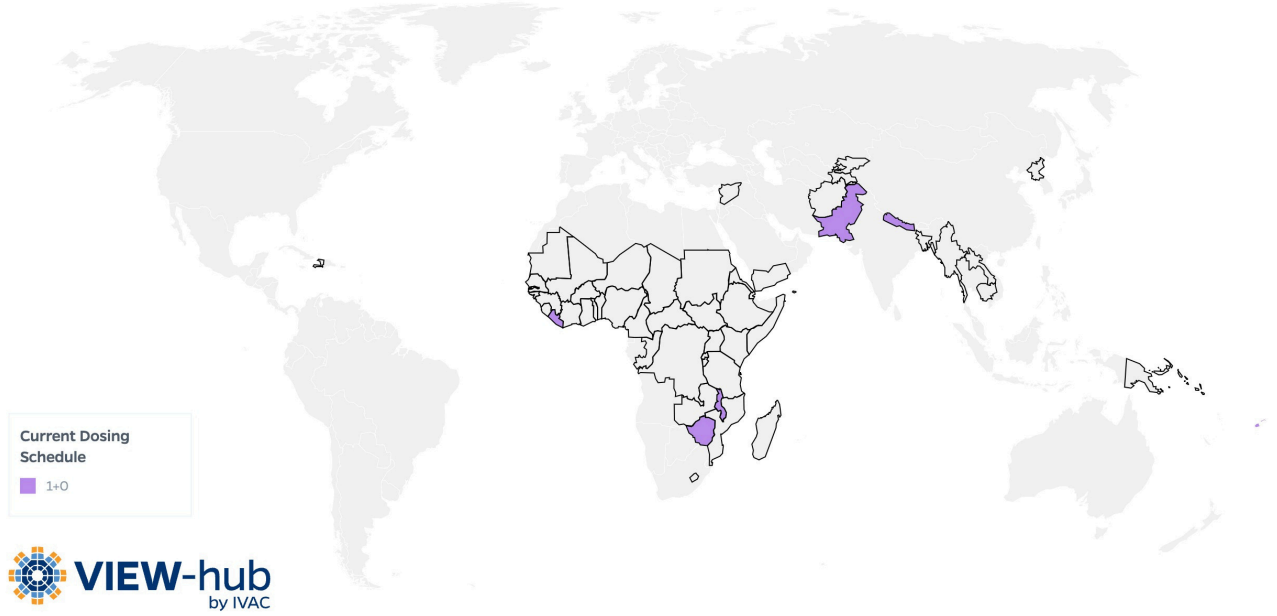
The countries outlined In black Indicate countries approved for Gavi support.

TYPHOID VACCINE

TCV – Current Product



TCV – Current Dosing Schedule

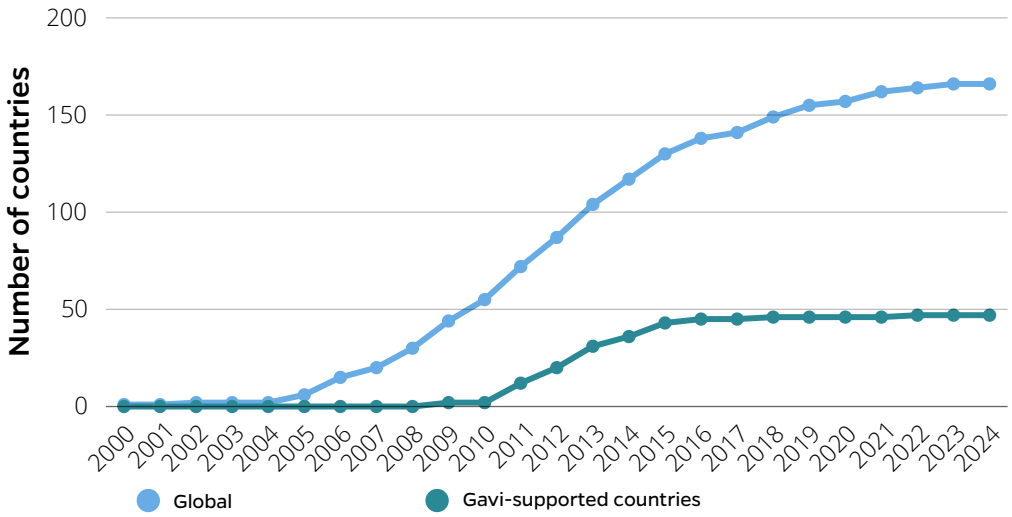


The countries outlined In black Indicate countries approved for Gavi support.

See the TCV page on VIEW-hub for more information.

PNEUMOCOCCAL CONJUGATE VACCINE

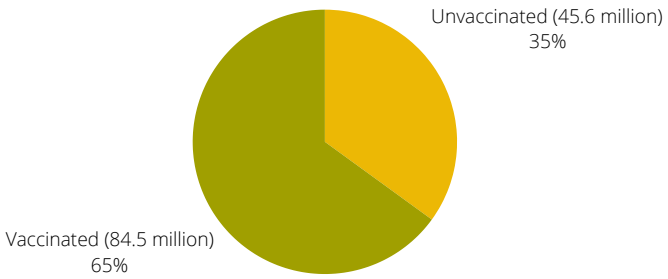
PCV Introduction by Year



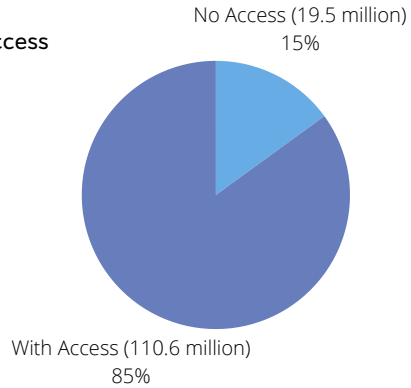
The figure includes countries that have introduced universally or for risk populations (tracking progress for 194 countries, 54 Gavi-supported countries).

Coverage estimates are calculated using 2024 WHO/UNICEF estimates of national immunization coverage. Information on how these estimates are calculated is included in the Methods section of this report.

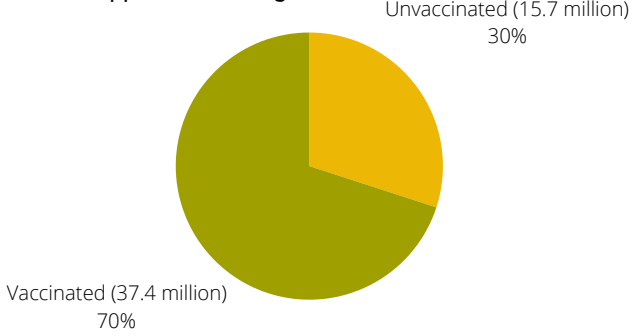
Global Coverage



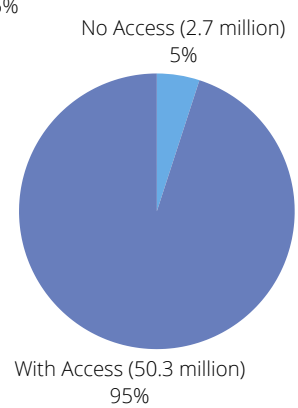
Global Access



Gavi-supported Coverage

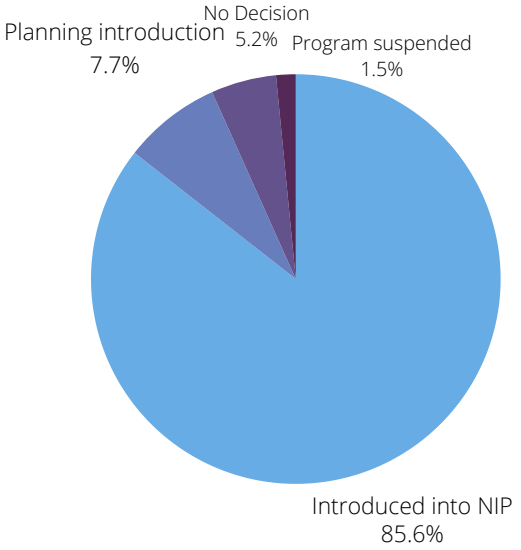


Gavi-supported Access



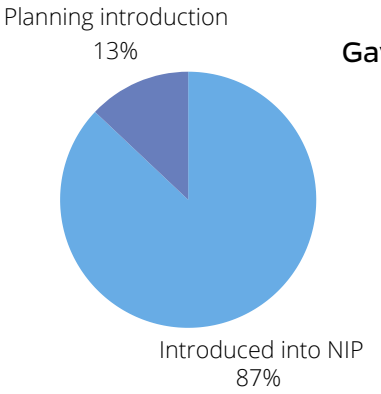
PCV Introduction Status

As of August 2024, 159 countries have introduced PCV into their national immunization programs, and 7 countries have introduced for risk populations. 15 countries have announced plans to introduce PCV into their national immunization programs. 10 countries have not yet made a decision regarding introduction. 3 countries have suspended their programs.



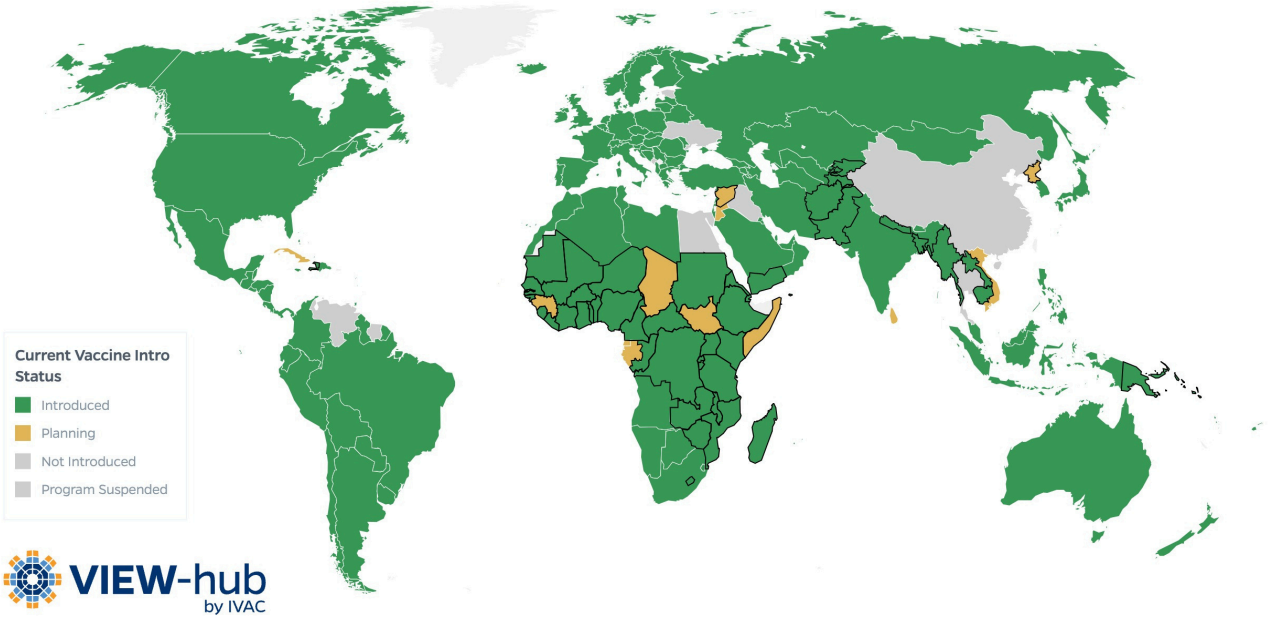
Global

47 Gavi-supported countries have introduced PCV into their national immunization programs. 7 countries have announced plans to introduce PCV into their national immunization programs.



Gavi-supported

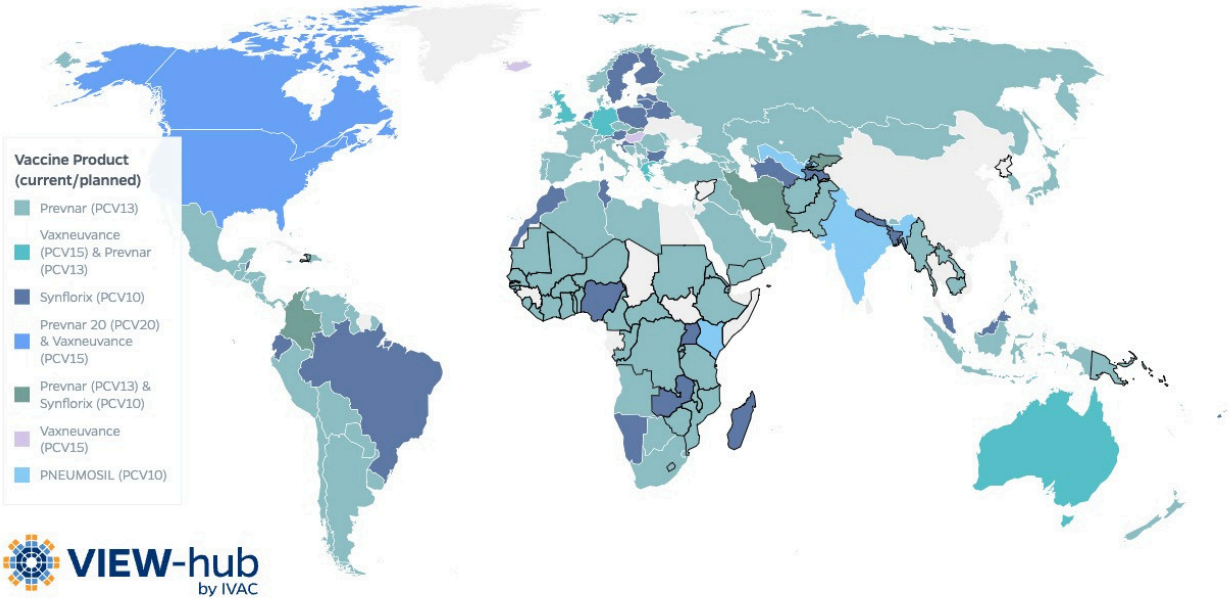
A map of the countries that have introduced PCV is below.



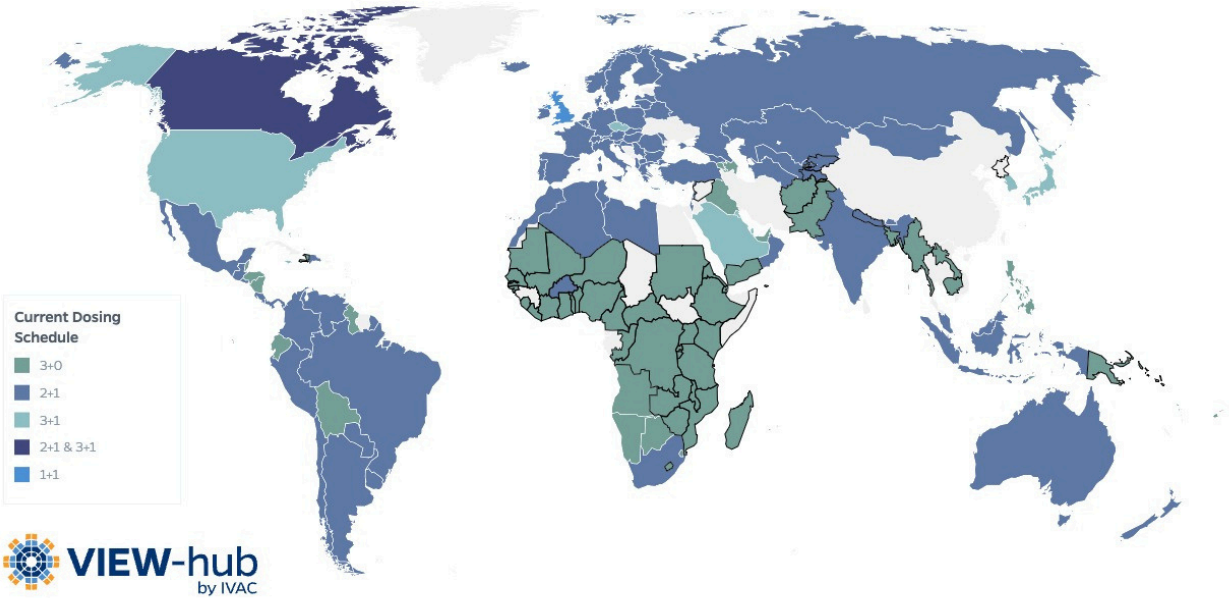
The countries outlined In black Indicate countries approved for Gavi support.

PNEUMOCOCCAL CONJUGATE VACCINE

PCV – Current Product



PCV – Current Dosing Schedule

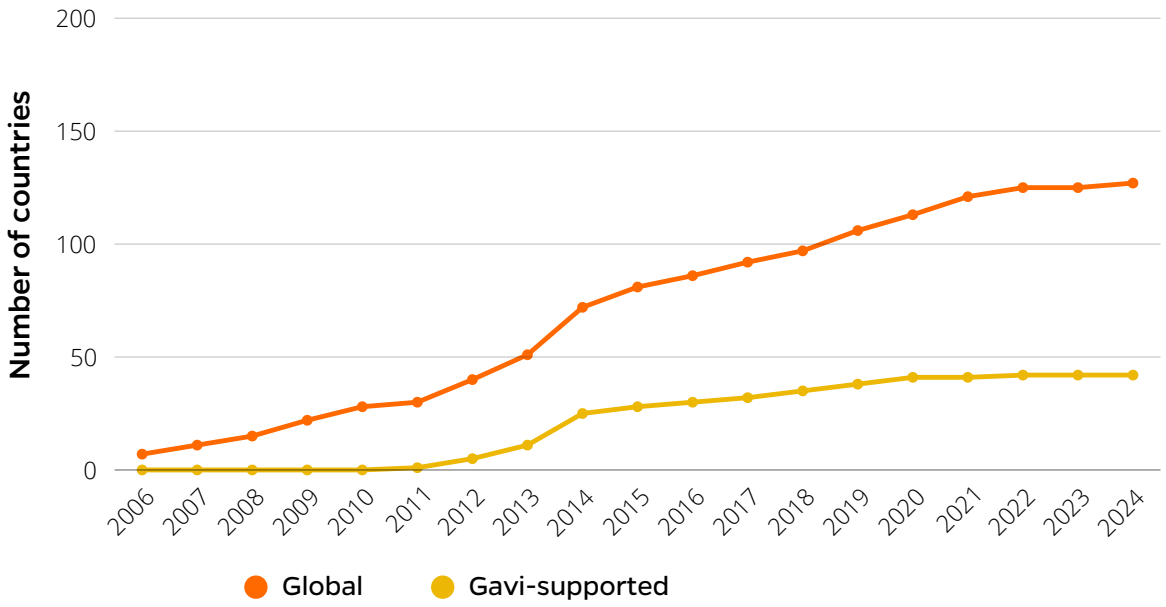


The countries outlined In black Indicate countries approved for Gavi support.

See the PCV page on VIEW-hub for more information.

ROTAVIRUS VACCINE

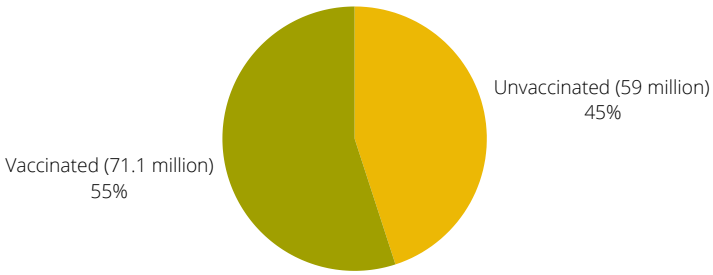
Rotavirus Vaccine Introduction by Year



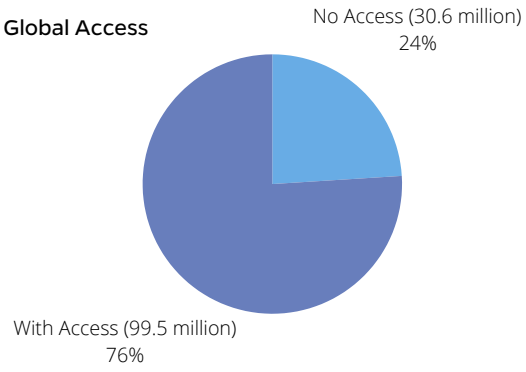
The figure includes countries that have introduced universally, subnationally or for risk populations (tracking progress for 194 countries, 54 Gavi-supported countries).

These estimates are calculated using 2024 WHO/UNICEF estimates of national immunization coverage. Information on how these estimates are calculated is included in the Methods section of this report.

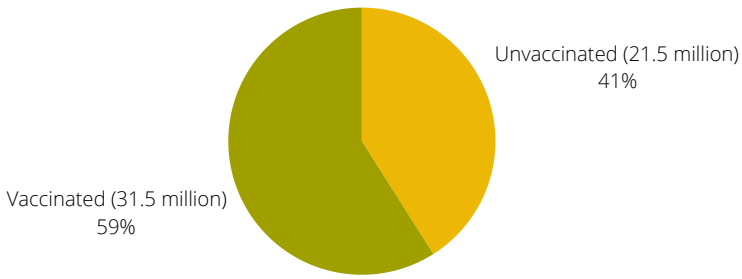
Global Coverage



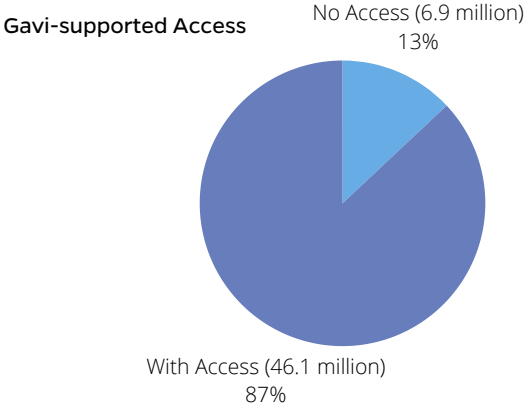
Global Access



Gavi-supported Coverage

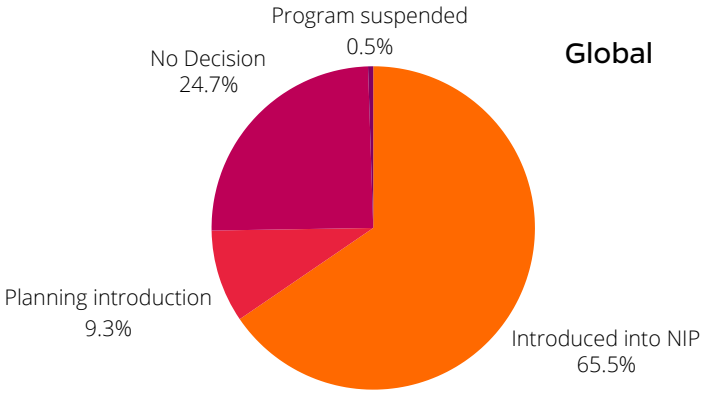


Gavi-supported Access

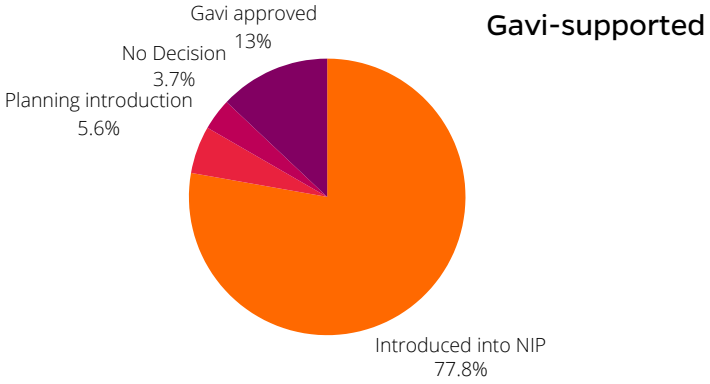


Rotavirus Vaccine Introduction Status

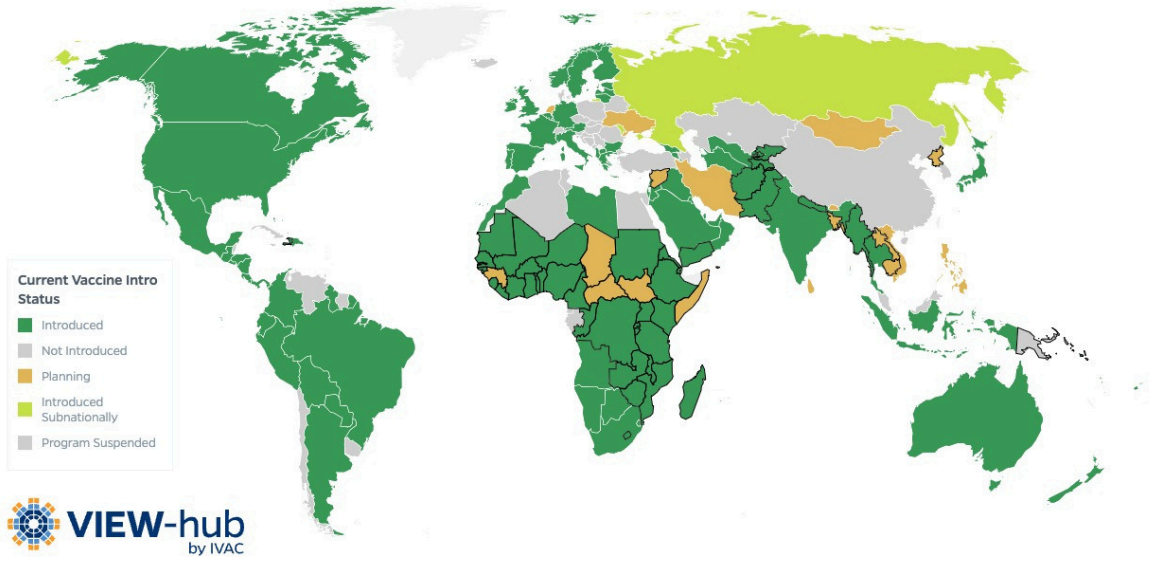
As of August 2024, 127 countries have introduced rotavirus vaccine (RV) into their immunization programs; 2 of these countries have introduced subnationally, and 3 of these countries have introduced for risk populations. 18 countries have announced plans to introduced RV into their national immunization programs. 48 countries have not yet made a decision regarding introduction. One country has suspended their program.



42 Gavi-supported countries have introduced RV into their national immunization programs. 7 countries are approved, with or without clarification, for Gavi support to introduce. 3 countries have announced plans to introduce RV into their national immunization programs. 2 countries have not yet made a decision regarding introduction.

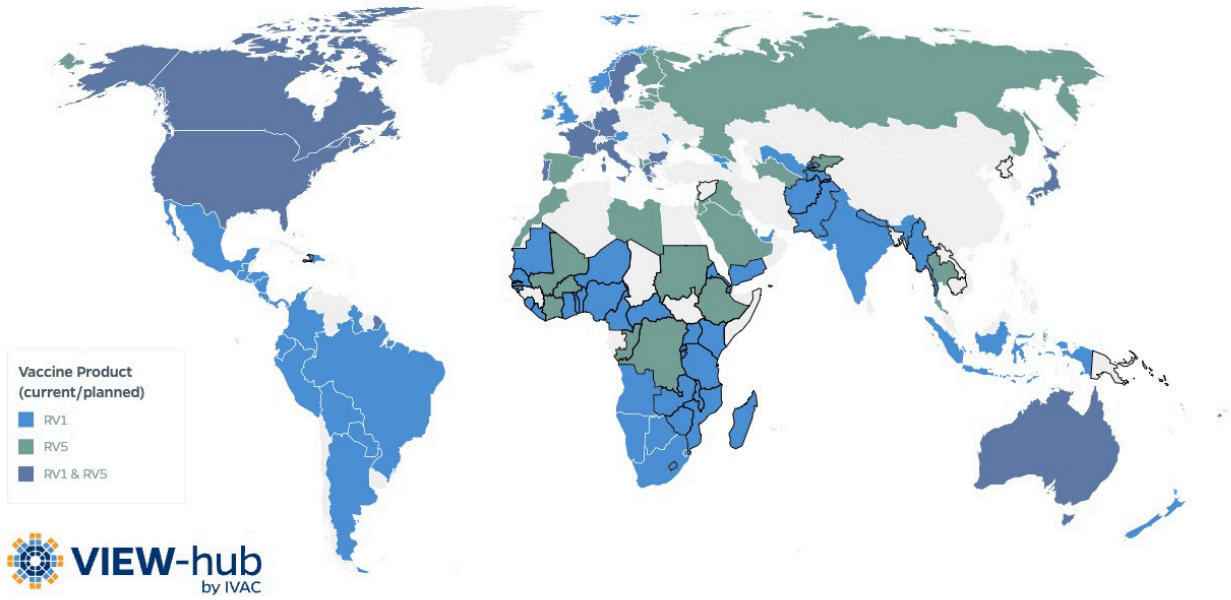


A map of countries that have introduced rotavirus vaccine is below.

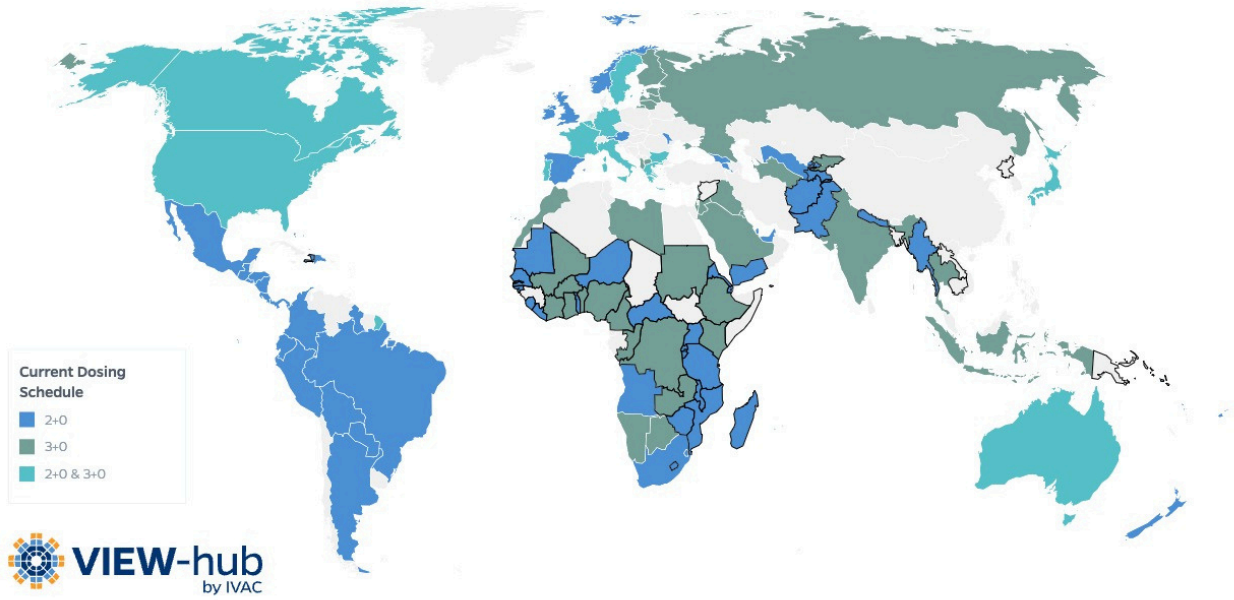


The countries outlined In black Indicate countries approved for Gavi support.

Rotavirus Vaccine – Current Product



Rotavirus Vaccine – Current Dosing Schedule

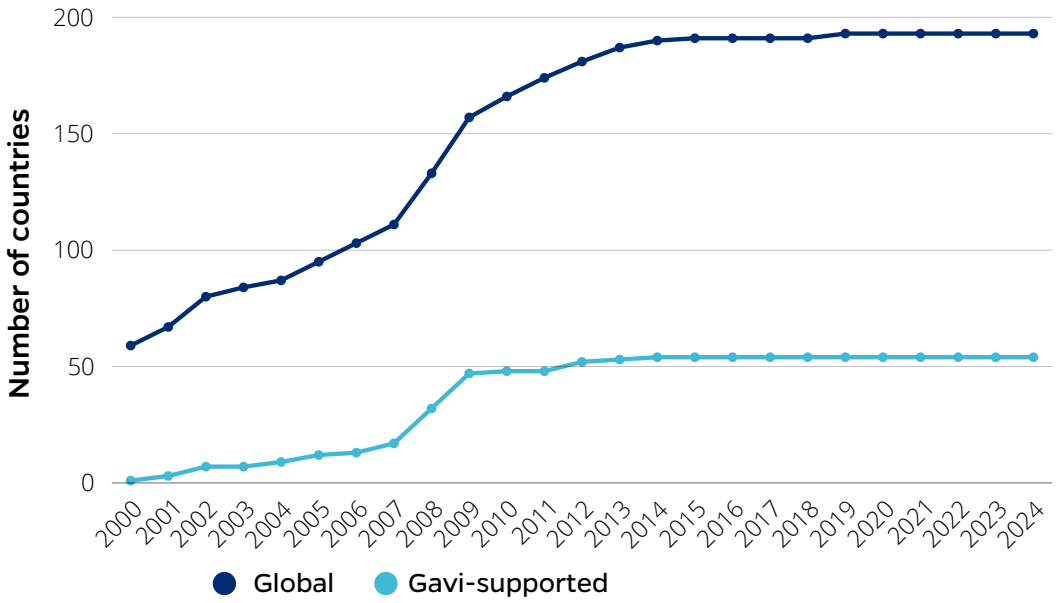


The countries outlined In black Indicate countries approved for Gavi support.

See the rotavirus page on VIEW-hub for more information.

HIB VACCINE

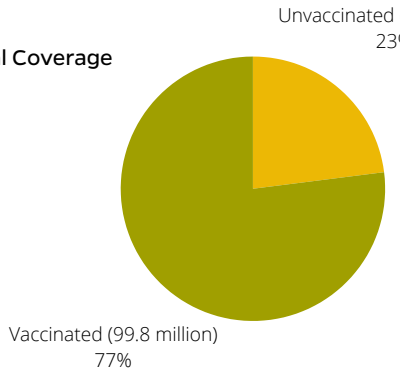
Hib Vaccine Introduction by Year



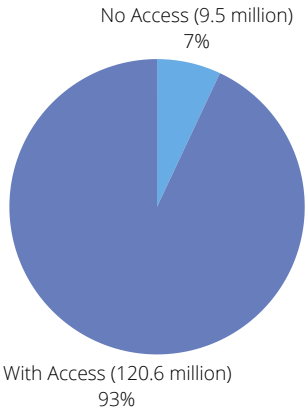
The figure includes countries that have introduced universally (tracking progress for 194 countries, 54 Gavi-supported countries).

These estimates are calculated using 2024 WHO/UNICEF estimates of national immunization coverage. Information on how these estimates are calculated is included in the Methods section of this report.

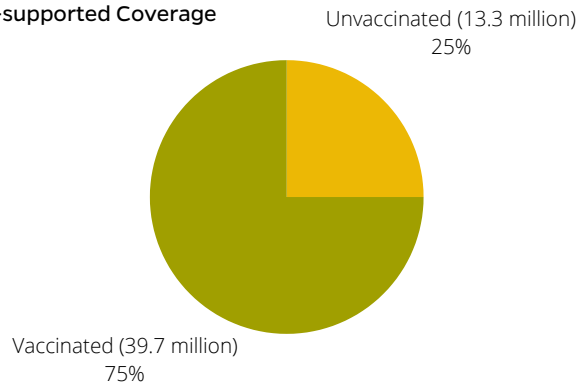
Global Coverage



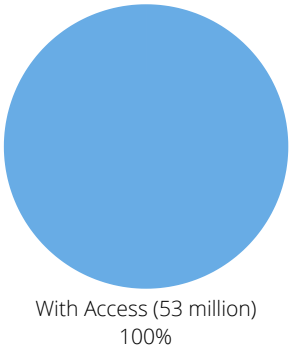
Global Access



Gavi-supported Coverage



Gavi-supported Access



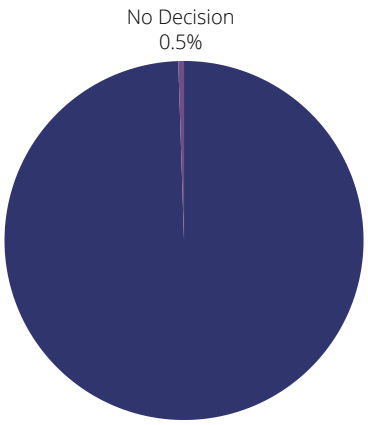
Hib Vaccine Introduction Status

As of August 2024, 193 countries have introduced a Hib vaccine into their national immunization programs. 1 country (China) has not yet made a decision regarding introduction.

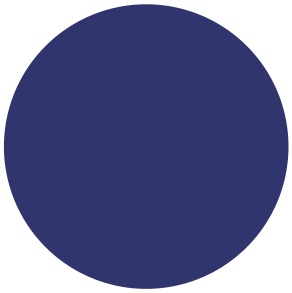
All 54 Gavi-supported countries have introduced Hib vaccine into their national immunization programs.

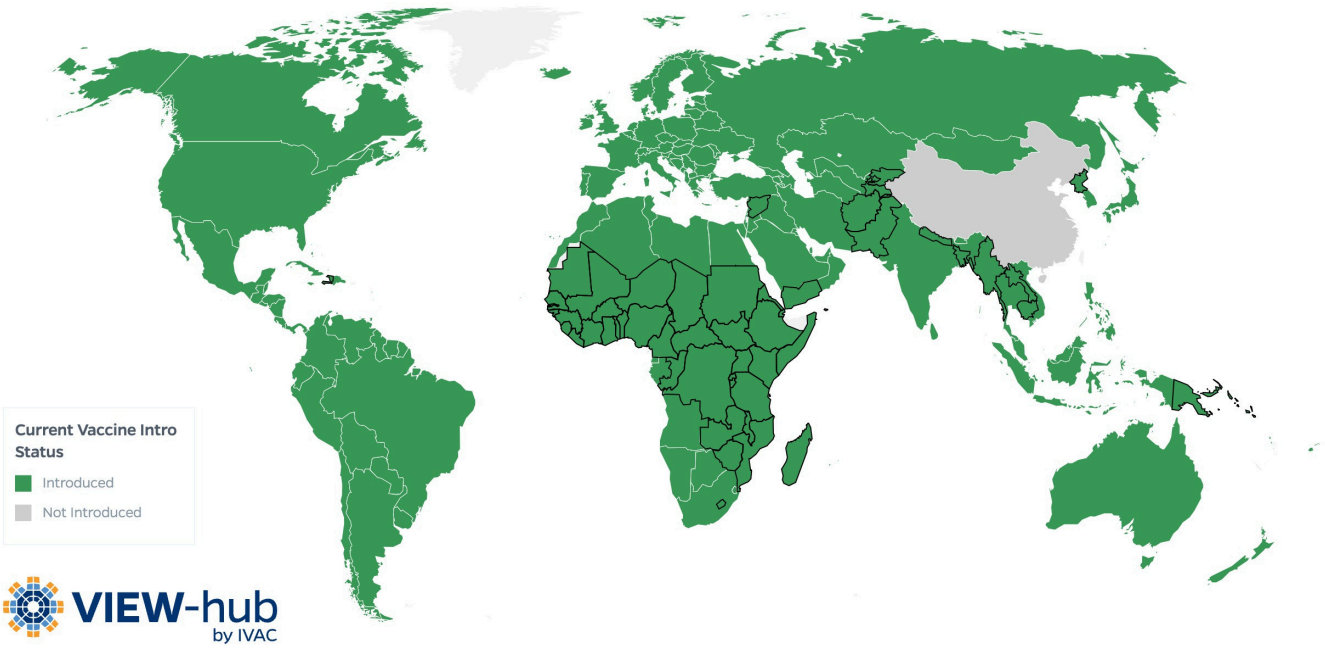
A map of countries that have introduced Hib is below.

Global



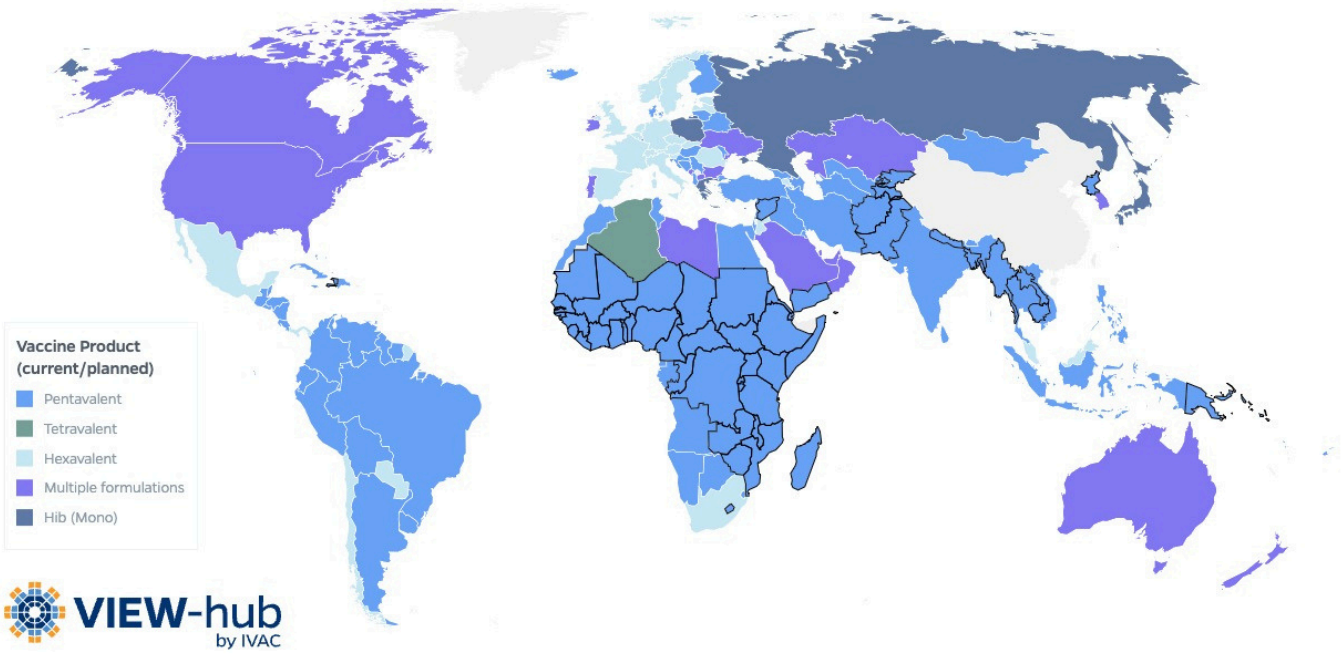
Gavi-supported



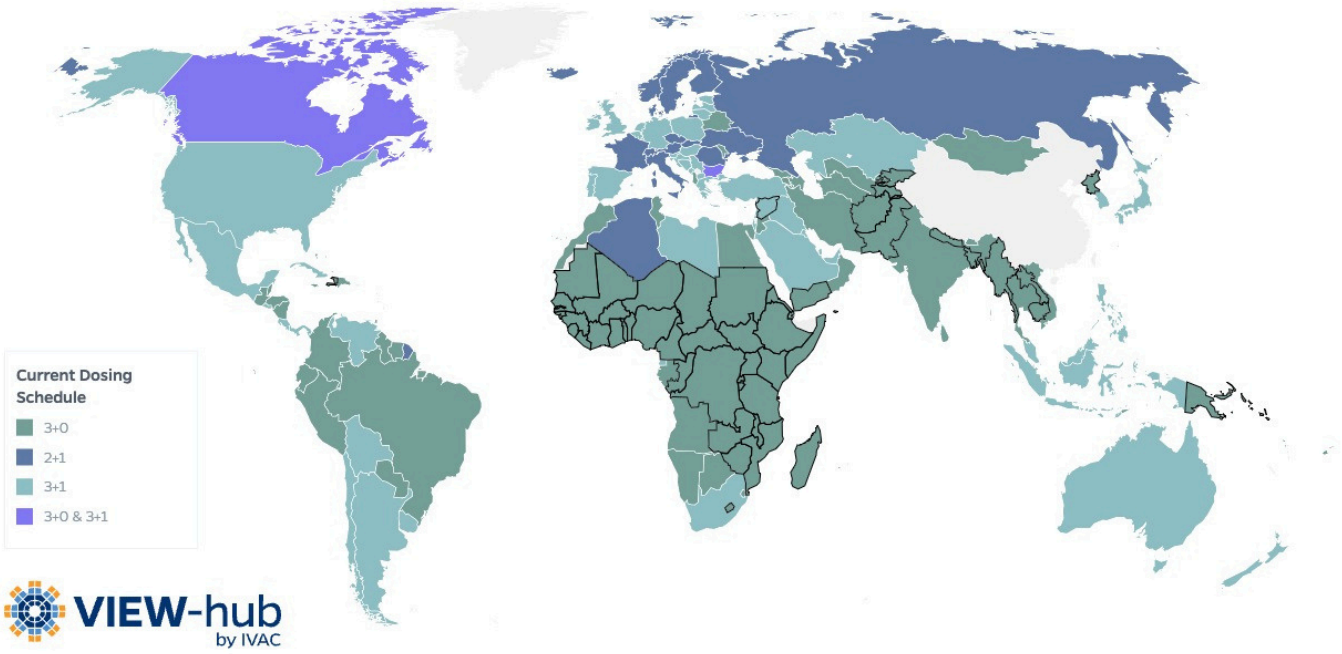


The countries outlined In black Indicate countries approved for Gavi support.

Hib – Current Product



Hib – Current Dosing Schedule

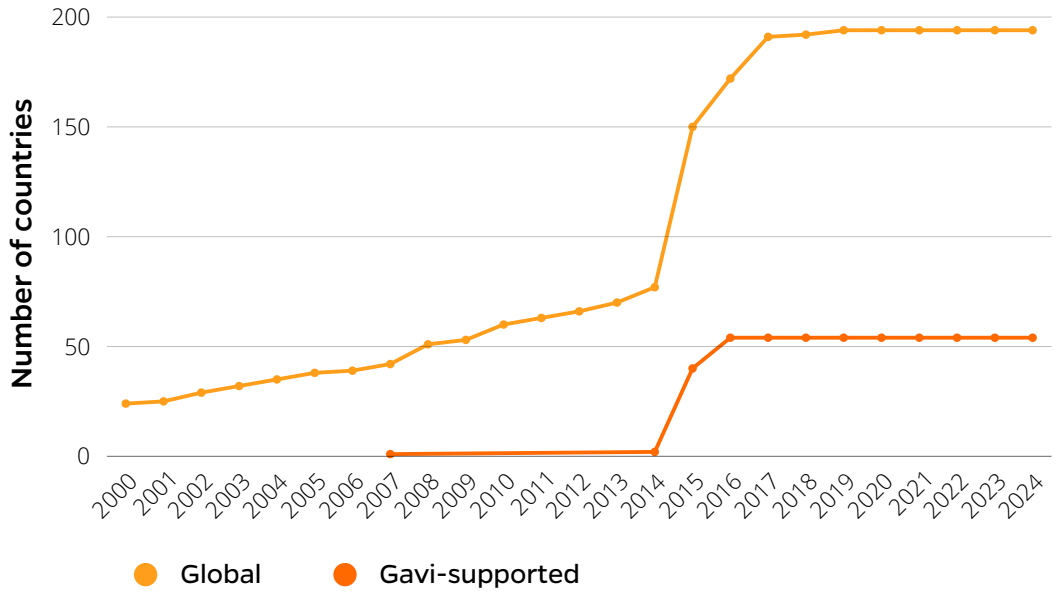


The countries outlined In black Indicate countries approved for Gavi support.

See the Hib page on VIEW-hub for more information.

INACTIVATED POLIO VACCINE

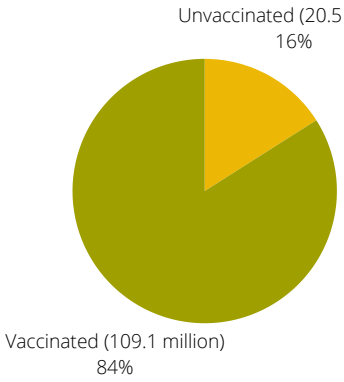
IPV Introduction by Year



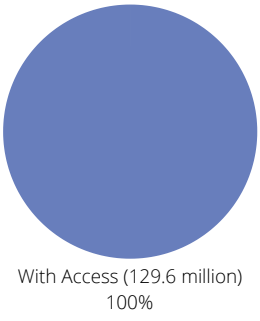
The figure includes countries that have introduced universally (tracking progress for 194 countries, 54 Gavi-supported countries).

These estimates are calculated using 2024 WHO/UNICEF estimates of national immunization coverage. Information on how these estimates are calculated is included in the Methods section of this report.

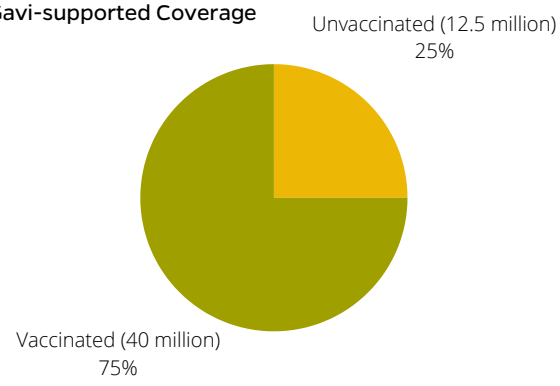
Global Coverage



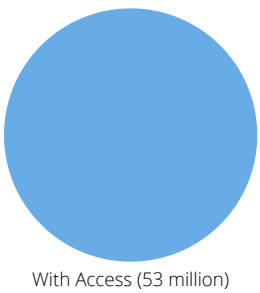
Global Access



Gavi-supported Coverage



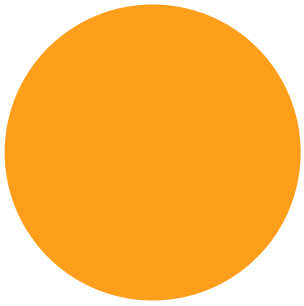
Gavi-supported Access



IPV Vaccine Introduction Status

As of August 2024, 194 countries have introduced IPV into their national immunization programs.

Global

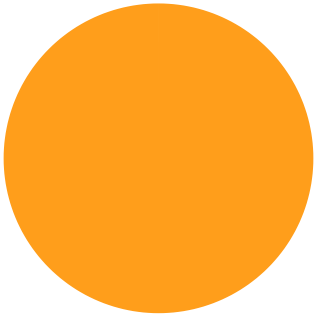


Introduced into national immunization program
100%

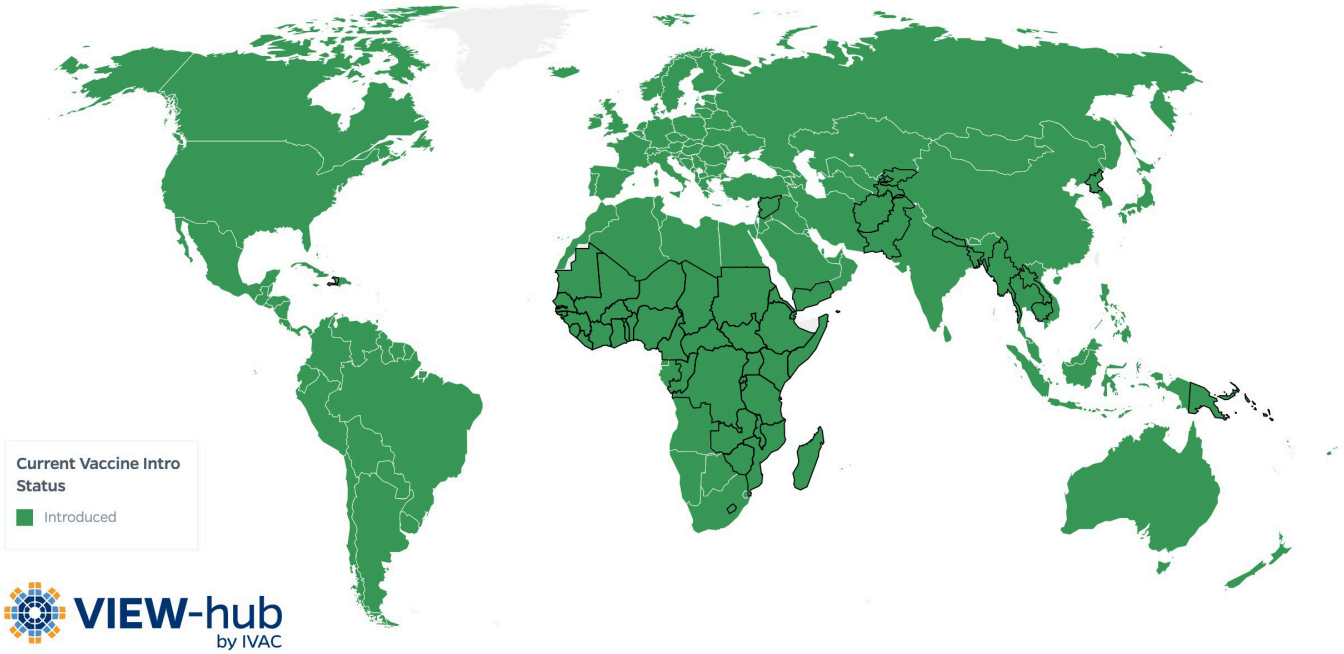
All 54 Gavi-supported countries have introduced IPV into their national immunization programs.

A map of countries that have introduced IPV is below.

Gavi-supported



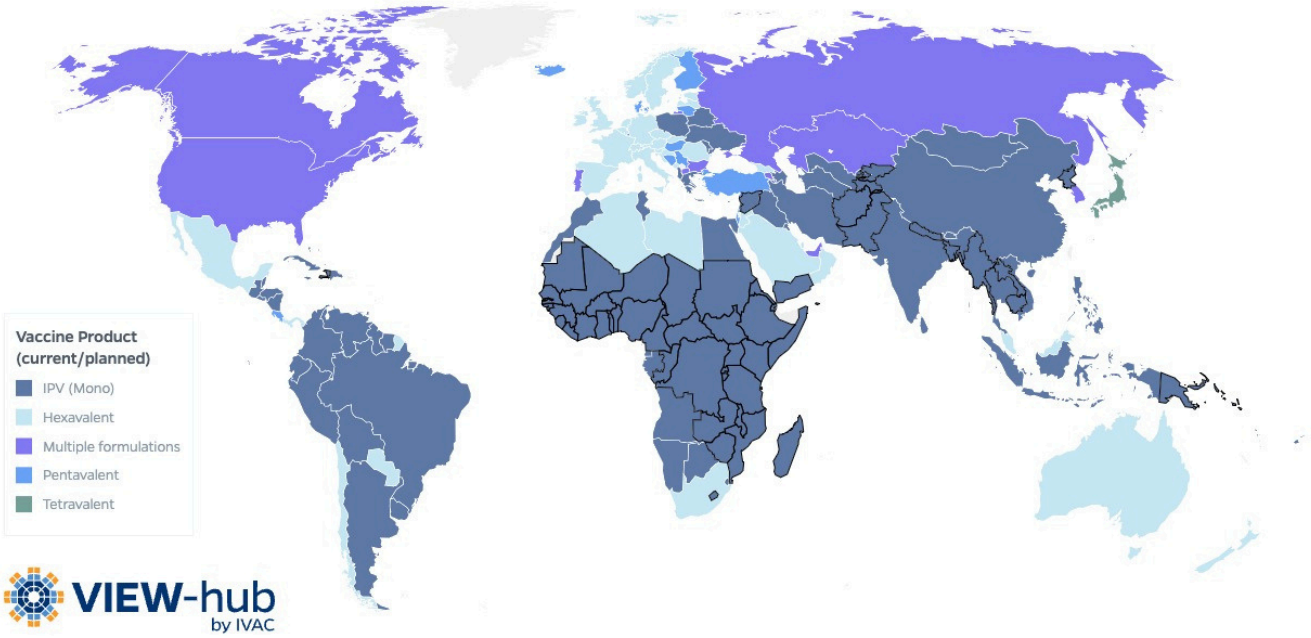
Introduced into national immunization program
100%



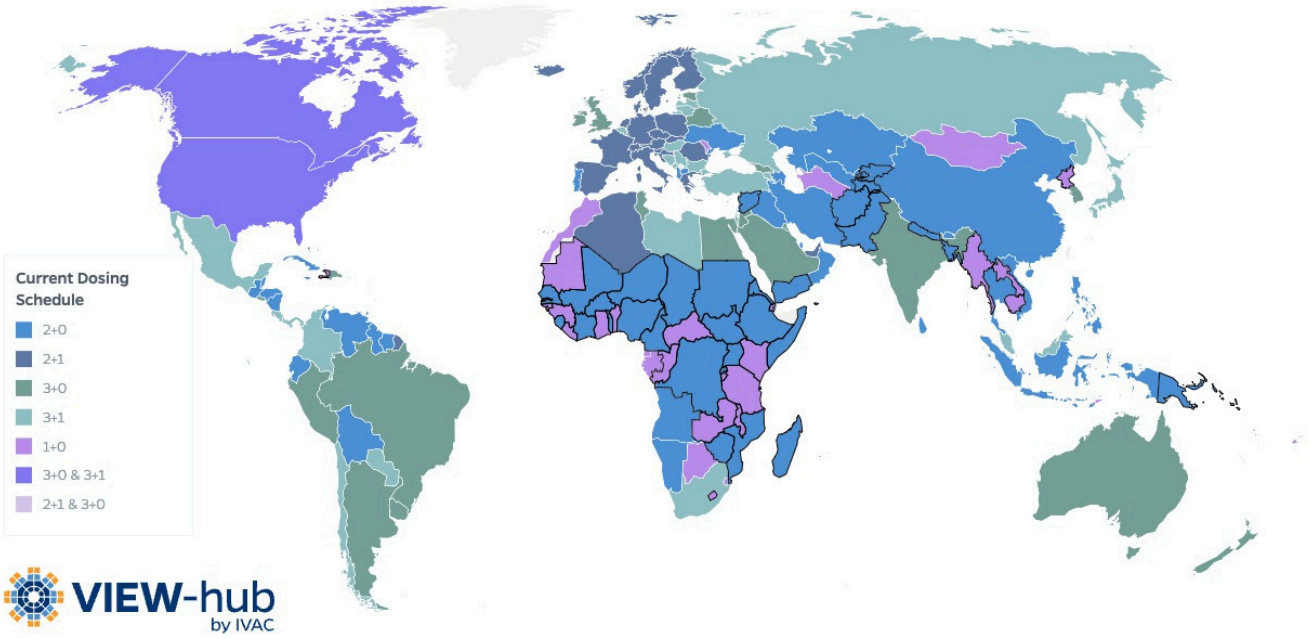
The countries outlined In black Indicate countries approved for Gavi support.

INACTIVATED POLIO VACCINE

IPV – Current Product



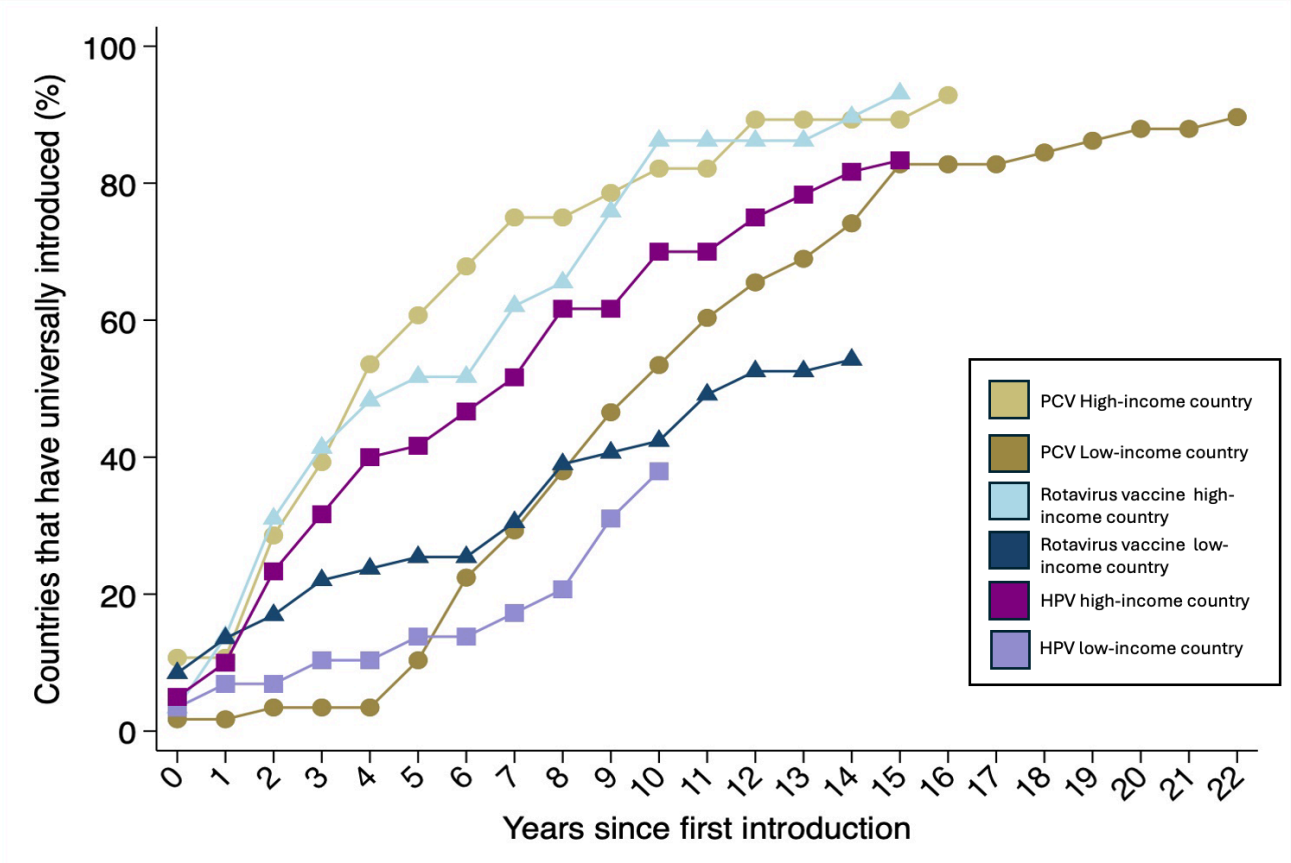
IPV – Current Dosing Schedule



The countries outlined In black Indicate countries approved for Gavi support.

See the IPV page on VIEW-hub for more information.

VACCINE INTRODUCTION: BY COUNTRY INCOME GROUP



Note: Limited projections are available for vaccine introductions in high-income countries.

The line graph above shows the proportion of high- and low-income countries that have introduced or are projected to introduce PCV, rotavirus, or HPV vaccine in the target population over time. The first year of introduction is 2000 for PCV and 2006 for rotavirus and HPV vaccines.

The gap between the proportion of low- and high-income countries that have introduced is wider for HPV vaccine than for either PCV or rotavirus vaccine. 17 years since its introduction, 38% of low-income countries have introduced HPV vaccine, compared to 83% of high-income countries. 23 years since PCV introduction, over 90% of both low- and high-income countries have introduced. 17 years since rotavirus vaccine was first introduced, a greater proportion of low-income countries (93%) have introduced than high-income countries (approximately 54%).

SOURCES

Gavi Eligibility Status	Gavi, The Vaccine Alliance. Gavi Eligible Countries. 2024. Last accessed July 2024 at https://www.gavi.org/types-support/sustainability/eligibility
DTP3 Coverage Rate	WHO/UNICEF Estimates of National Immunization Coverage. 2024 data as of 15 Jul 2024. Retrieved from: https://immunizationdata.who.int/
Surviving Infants	Total population and crude birth rate: Population, total. World Bank Open Data. Retrieved from https://data.worldbank.org/indicator/SP.POP.TOTL Infant mortality rate: CME Info - child mortality estimates. Retrieved from https://childmortality.org/data
Projected Introduction Dates	This information comes from a variety of sources, primarily the most recent Gavi Strategic Demand Forecast and WHO regional projections. For more information, please contact Marley Jurgensmeyer at mjurgen4@jhu.edu
Dates of Introduction	This information comes from a variety of sources, such as Gavi, WHO, UNICEF, ministries of health, the news media, and IVAC partners/contacts. For more information, please contact Anurima Baidya at abaidya1@jh.edu. It is cross-referenced with WHO information (below). World Health Organization. Immunization Repository. I. Retrieved from: https://immunizationdata.who.int/listing.html?topic=vaccine-intro&location=
Current Vaccine Use Status and Program Type	This information comes from a variety of sources, such as Gavi, WHO, UNICEF, ministries of health, news media, and IVAC partners/contacts. For more information, please contact Anurima Baidya at abaidya1@jh.edu.

SELECTED KEY TERMS

Approved: The application meets all the criteria and is approved for Gavi support.

Approved with clarification: The application lacks specific pieces of data, which must be provided generally within a month. Data must be received before the application is considered officially approved for Gavi support.

Children with access: The number of children (based on surviving infants in 2021) who live in a country that has introduced the vaccine into the national immunization program. This does not include countries with widespread market use or high-risk programs. For regional introductions, those regions that have introduced are included, and the regions which have not been introduced are excluded.

Children vaccinated: The number of surviving infants who received the vaccination is based on the 2022 coverage rates of countries that have been introduced. The WHO/UNICEF estimates of national immunization coverage (WUENIC) coverage rates are used for this figure.

Introduced into national immunization program: The vaccine has been incorporated into the national government's immunization program, either for all children or for special populations at high-risk of disease, and this may include programs that are being phased in over time. This status can apply to any country, regardless of Gavi eligibility. For IPV, this status covers all countries that have introduced at least one dose of IPV into the national immunization schedule for children.

Subnational introductions: The vaccine has been introduced into the vaccination schedule for a geographic subset of the country. This status can apply to any country, regardless of Gavi eligibility.

Gavi application submitted under review: The country has submitted a New and Underused Vaccines Support (NVS) application for this vaccine and is awaiting Gavi evaluation.

Gavi approved/approved with clarification: The country's application to Gavi for New and Underused Vaccines Support (NVS) financing for this vaccine has been approved or approved with clarifications.

SELECTED KEY TERMS (CONT.)

Gavi conditional approval to introduce: The application to Gavi for New and Underused Vaccines Support (NVS) for this vaccine does not fulfill specific or significant application requirements. Missing requirements must be provided in a subsequent round to complement the original application. If the conditions are not met within the given timeframe after the first submission, re-submission of a new application is required.

Gavi resubmission: The New and Underused Vaccines Support (NVS) application for this vaccine is incomplete and a full application should be submitted in a future round.

Gavi plan to apply: The country has made a public statement (through government or other recommending body on vaccines) that they plan to introduce the vaccine and apply for Gavi New and Underused Vaccines Support (NVS) but has not yet submitted an application.

No decision: The country has not indicated a firm decision to introduce the vaccine into its national immunization program or to apply for Gavi New and Underused Vaccines Support (NVS) for the vaccine.

Non-Gavi planning introduction: A country that is not eligible for Gavi support has plans to introduce the vaccine into its national immunization program and has taken steps to initiate its program, such as contacting the vaccine manufacturer, OR a country that is eligible for Gavi support and plans to introduce without it.

Planning introduction: The combination of countries that have announced plans to apply for Gavi support, Gavi-eligible countries that have announced plans to introduce the vaccine without Gavi support, or non-Gavi-eligible countries that have announced a plan to introduce.

Risk: The program for this vaccine only covers children in special populations at high-risk for disease. This may include children with health conditions, those of vulnerable socioeconomic statuses or ethnic groups, or those living in regions of high risk.

Widespread coverage through private market: Most (over half) of the target population is receiving the vaccine through private market use.

For any definitions not provided above, please refer to the data dictionary available through the VIEW-hub Resources page.

APPENDIX

This report has been generated using data and maps from VIEW-hub, developed and maintained by the International Vaccine Access Center (IVAC) at the Johns Hopkins Bloomberg School of Public Health for use by IVAC and its affiliated projects and partners. VIEW-hub is a publicly-accessible interactive platform that allows real-time visualization of data on vaccine introduction, use, and impact. Information was gathered from internationally-recognized sources, such as WHO, Gavi, UNICEF, vaccine manufacturers, ministries of health, and news media.

Please note that all forecasted dates in this report rest on assumptions, and actual dates may vary. Vaccine introduction dates do not imply an obligation by Gavi to support coverage.

Disclaimer: The presentation of VIEW-hub maps in this report is not by any means an expression of IVAC's opinion regarding the legal status of countries/territories, their governing authorities, or their official boundaries. On VIEW-hub's website, country borders that are not in full agreement are displayed with dotted lines, which may be difficult to visualize at the global view presented in this report.

Definitions and sources are available within VIEW-hub at www.VIEW-hub.org.

This report and the PowerPoint slides with the report graphics can be found at: www.VIEW-hub.org/resources. All maps shown in this report were generated on VIEW-hub and can be replicated or updated on the site.

Any data on projected introduction dates should not be reproduced or disseminated without prior consent from VIEW-hub personnel.

If data are used in a presentation, please cite VIEW-hub accordingly:
Source: International Vaccine Access Center (IVAC), Johns Hopkins Bloomberg School of Public Health. VIEW-hub Report: Global Vaccine Introduction and Implementation, August 2024. www.jhsph.edu/ivac/view-hub. Accessed: [Day Month Year].

If you have any questions, please contact Marley Jurgensmeyer at mjurgen4@jhu.edu

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JOHNS HOPKINS BLOOMBERG SCHOOL of PUBLIC HEALTH

IVAC International Vaccine Access Center

THANK YOU

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- Gavi, the Vaccine Alliance
- Bill & Melinda Gates Foundation
- World Health Organization
- Coalition for Epidemic Preparedness Innovations (COVID-19 vaccines)
- Asian Development Bank (COVID-19 vaccines)

For any VIEW-hub related inquiries, please contact Marley Jurgensmeyer (mjurgen4@jhu.edu).

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