



# COVID-19 VACCINE PROCUREMENT MECHANISMS

## COVAX & The African Union

**Charles Shey Wiysonge**

Twitter: @CharlesShey

Email: [Charles.Wiysonge@mrc.ac.za](mailto:Charles.Wiysonge@mrc.ac.za)

# Plan

1. Covid-19 cases and deaths in Africa
2. The scramble for Covid-19 vaccines worldwide
3. The goal of COVAX
4. Covid-19 supply agreements: COVAX, the African Union, etc
5. Lessons from access to non-Covid vaccines: the Gavi model
6. Covid-19 vaccine rollout worldwide
7. Covid-19 vaccine rollout through Covax
8. Covid-19 vaccine roll out in Africa
9. Conclusion: access to HIV drugs in Africa in the 1990s

# Covid-19 cases and deaths in Africa

WHO region	Cumul cases	Cases (%)	Cumul deaths	Deaths (%)	CFR (%)		
AFRO 47 countries	2,915,874	South Africa (56.6%), Ethiopia (6.2%), Algeria (5%), Kenya (4.8%), Nigeria (4.6%)	72.4	74,486	South Africa (68.8%), Algeria (4.1%), Ethiopia (3.4%), Nigeria (2.7%), Kenya (2.6%)	69.3	2.6
EMRO 7 countries*	1,109,883	Morocco (44%), Tunisia (21.7%), Egypt (17.1%)	27.6	33,033	Egypt (34.1%), Morocco (26.4%), Tunisia (25.3%)	30.7	3
<b>Total</b>	<b>4,025,757</b>	South Africa (38%), Morocco (12.1%), Tunisia (6%), Egypt (4.7%), Ethiopia (4.3%)	<b>100</b>	<b>107,519</b>	South Africa (47.7%), Egypt (10.5%), Morocco (8.1%), Tunisia (7.8%), Algeria (2.8%)	<b>100</b>	<b>2.7%</b>

\* EMRO-African countries refers to Djibouti, Egypt, Morocco, Libya, Somalia, Sudan, and Tunisia

**WHO, 12 March 2020**

# Chaotic global scramble for Covid-19 vaccines



Usdin S. Biocentury, June 2020



# Access to Covid-19 vaccines: COVAX

## Ensuring global equitable access to COVID-19 vaccines



Doses for at least 20% of countries' populations



Diverse and actively managed portfolio of vaccines



Vaccines delivered as soon as they are available



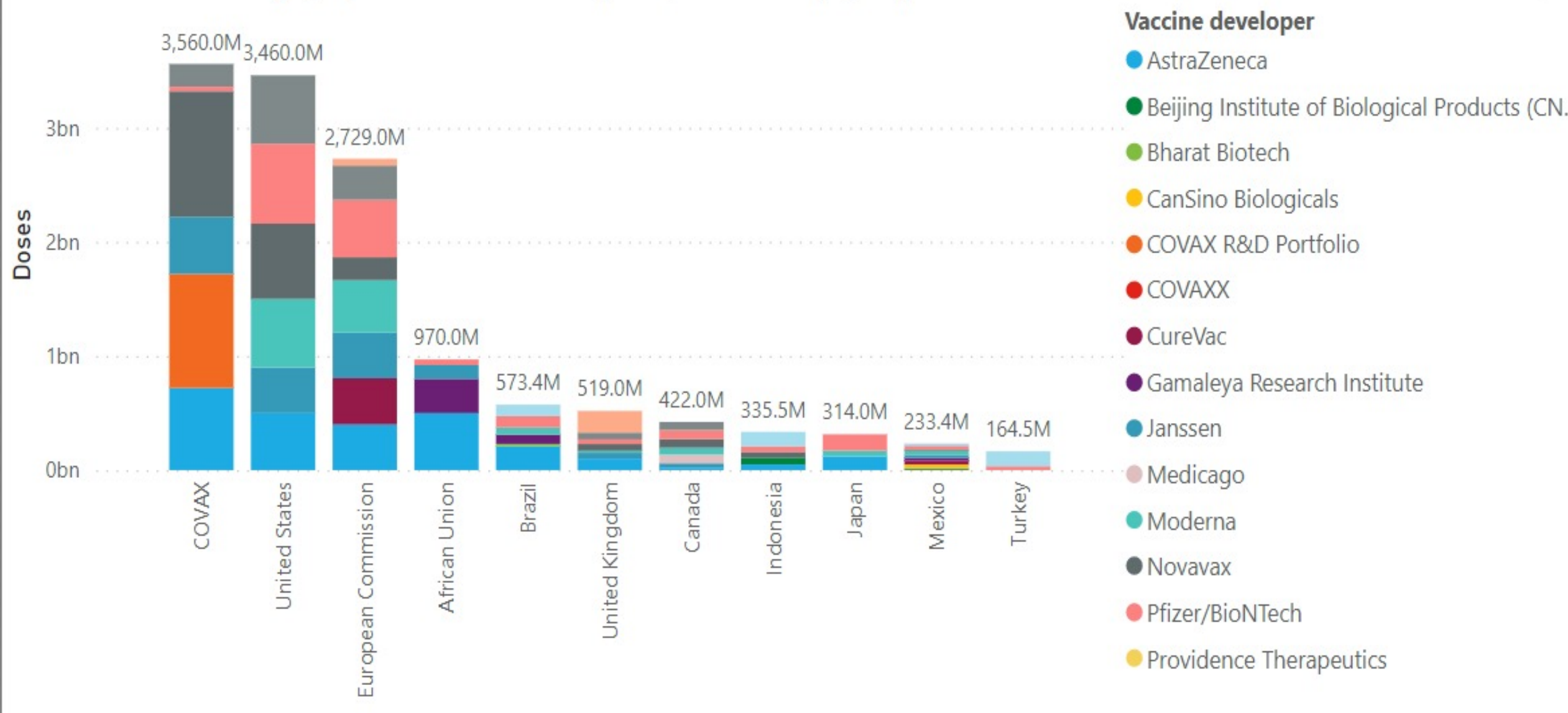
End the acute phase of the pandemic



Rebuild economies

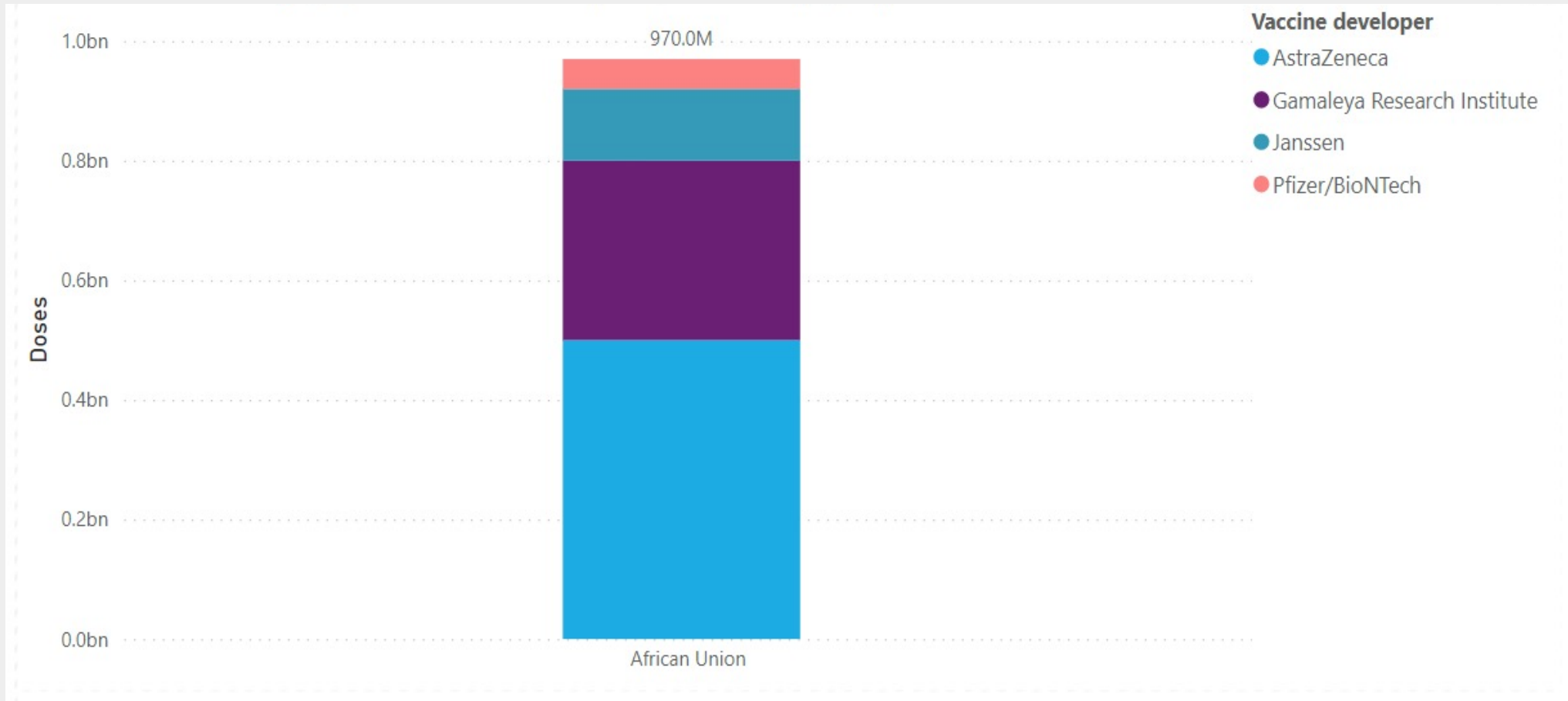
**With a fast-moving pandemic, no one is safe, unless everyone is safe**

# COVID-19 vaccine supply agreements (doses) by recipient country/group

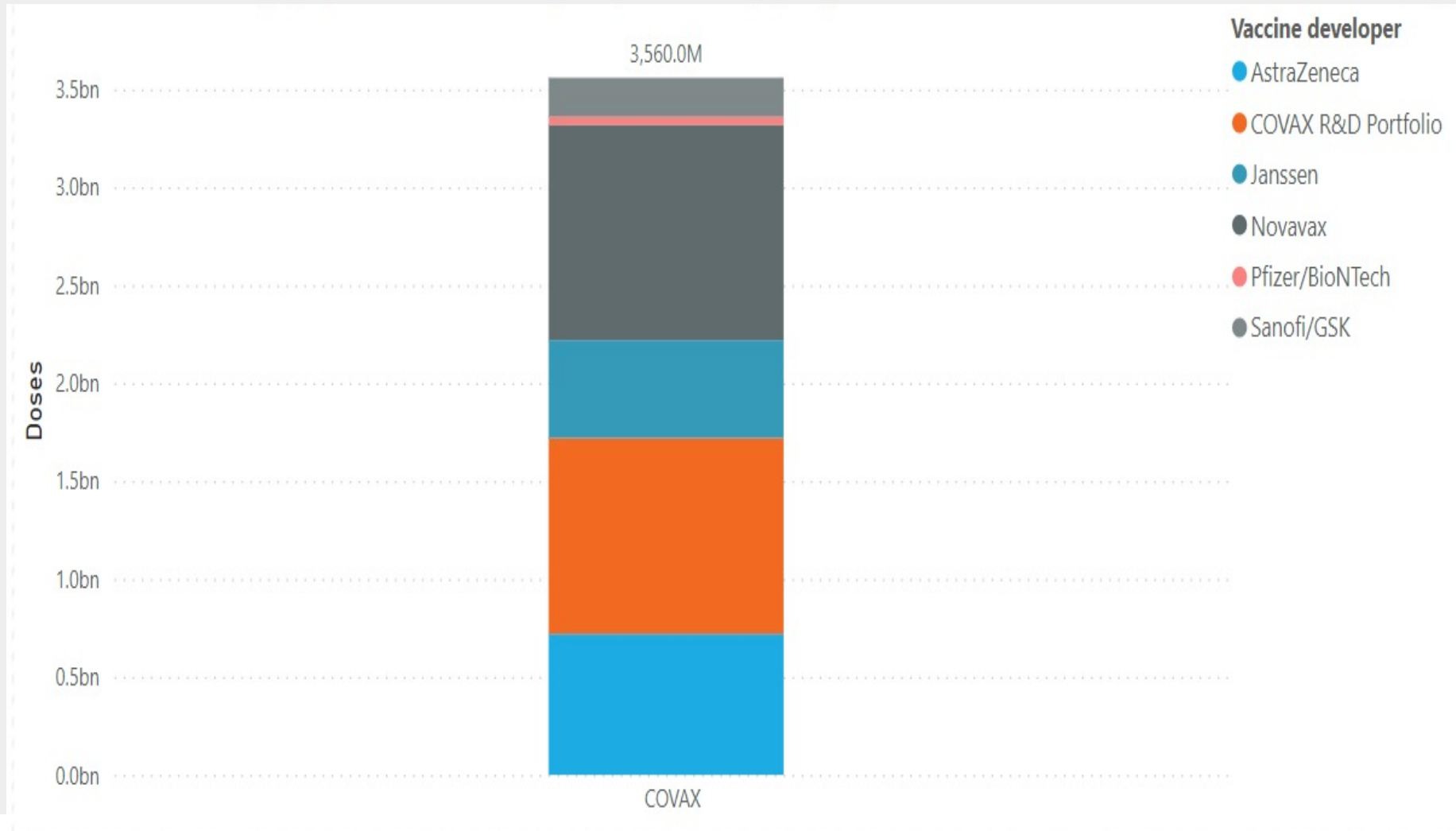


**UNICEF, 18 March 2020**

# Supply agreements by the African Union



# Supply agreements by Covax





# Access to vaccines: **Gavi, The Vaccine Alliance**

Saving  
children's  
lives

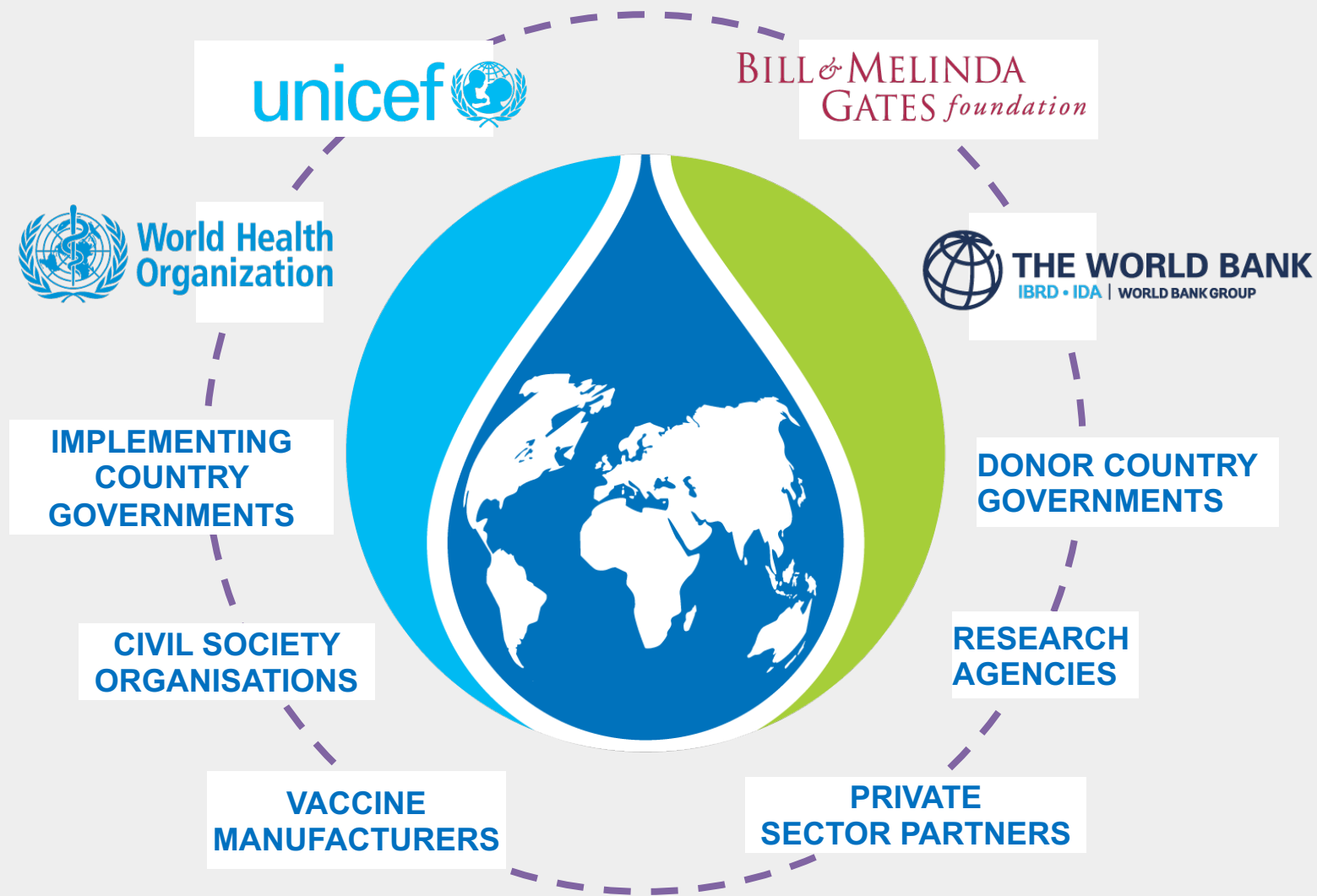
and protecting  
people's health

by increasing  
equitable use of  
vaccines

in lower-income  
countries



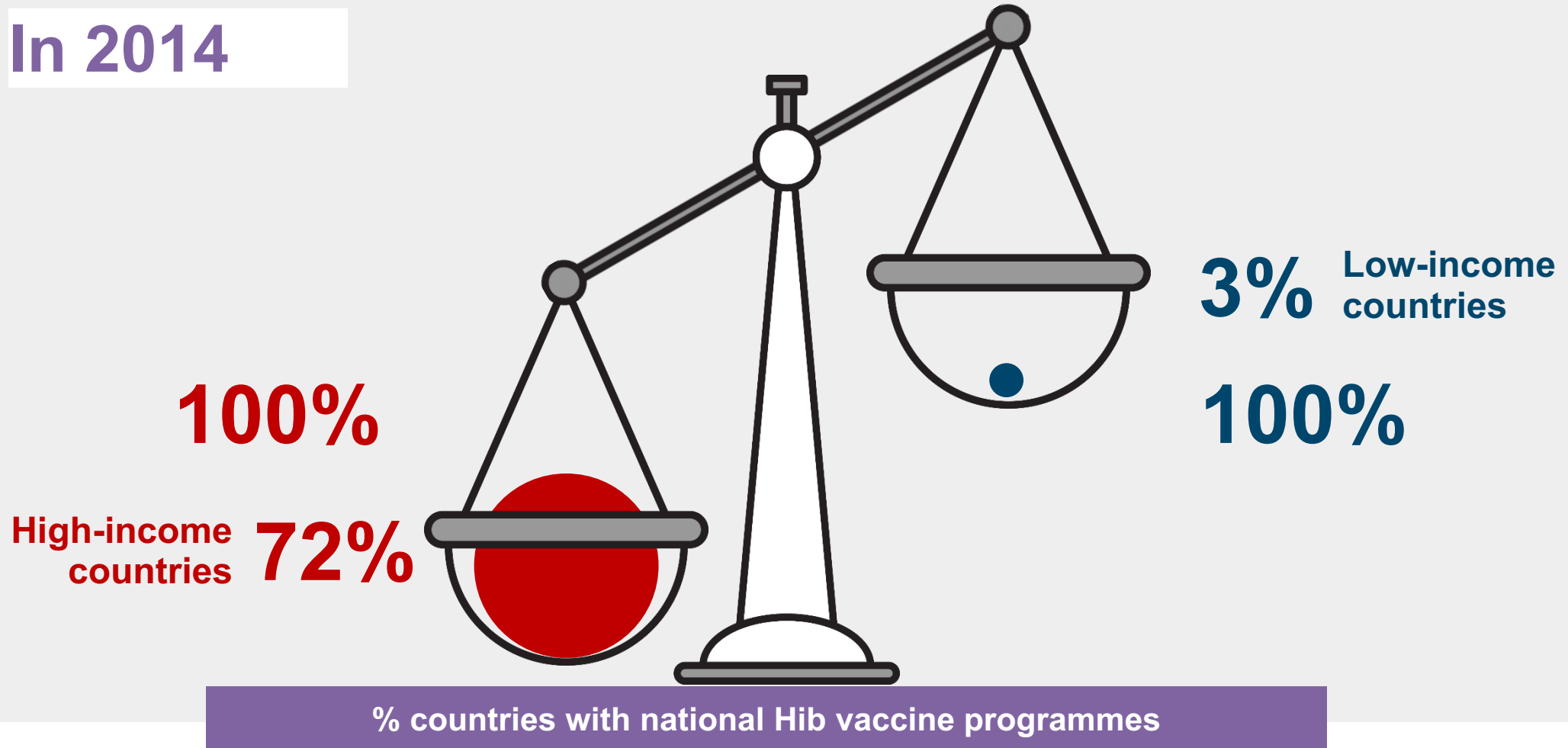
**Gavi, The Vaccine Alliance, 2019**



Gavi, The Vaccine Alliance, 2017

# Why Gavi was launched: creating equal access to vaccines

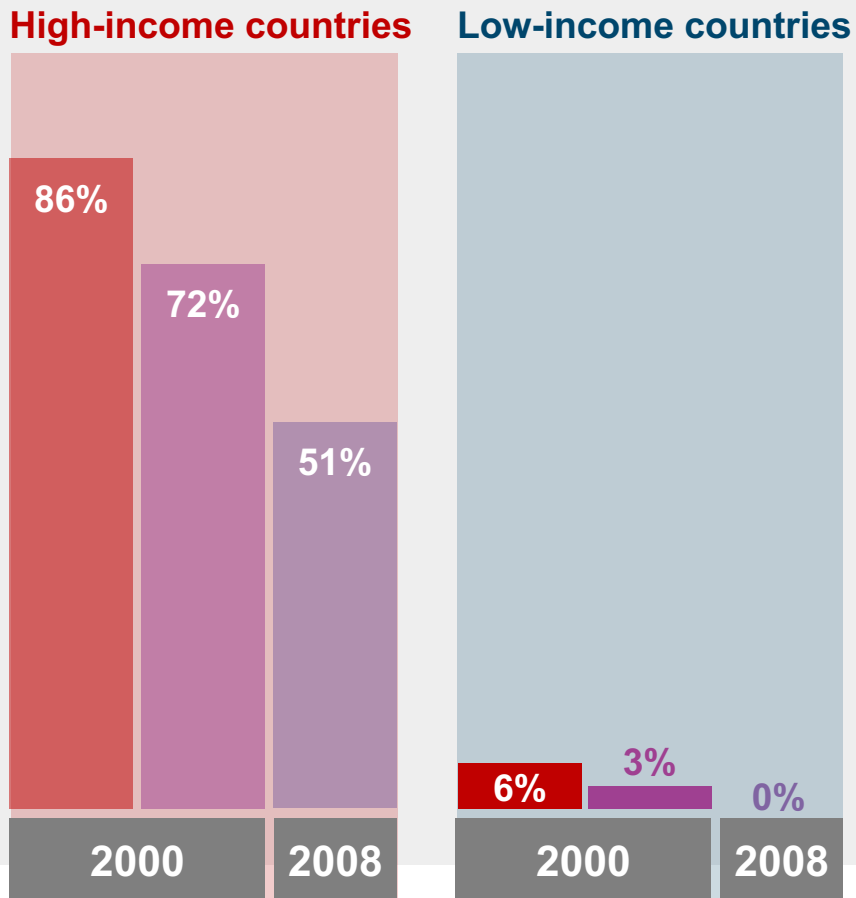
In 2014



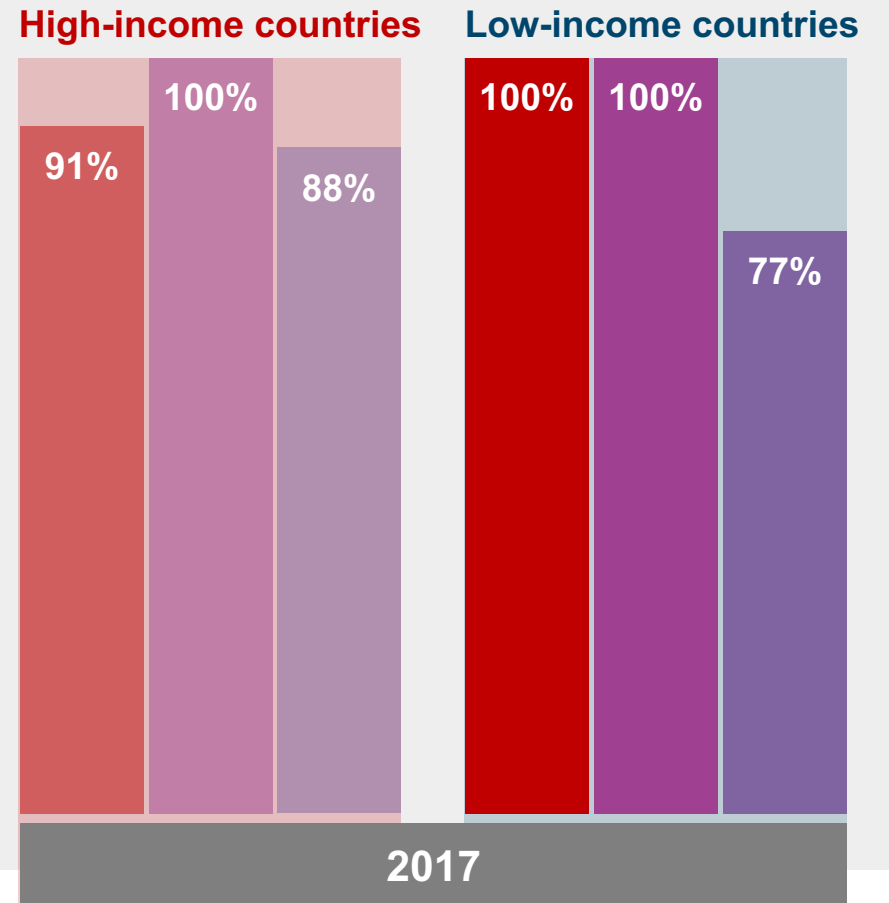
Gavi, The Vaccine Alliance, 2015

# Accelerating access, building equality

## Before



## After



% of countries introduced vaccines nationally



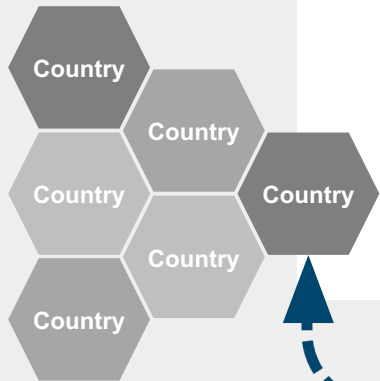
### Gavi, The Vaccine Alliance, 2017

Note: Only countries with universal national introduction are included. World Bank 2016 country classification has been applied to the whole time series.

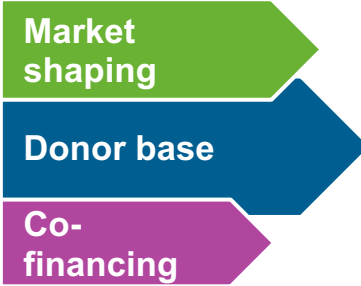
Source: The International Vaccine Access Center (IVAC) VIMS database. Data as of 31 December 2017.

# The Gavi business model: reinventing aid

Pooling demand of poorest countries



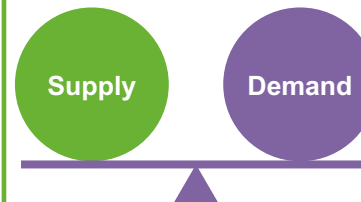
Long-term funding



Accelerating access to vaccines



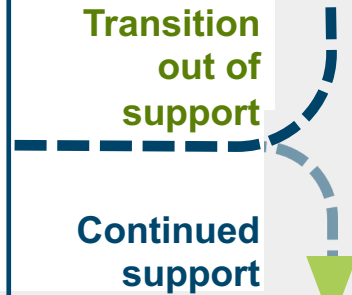
Shaping markets



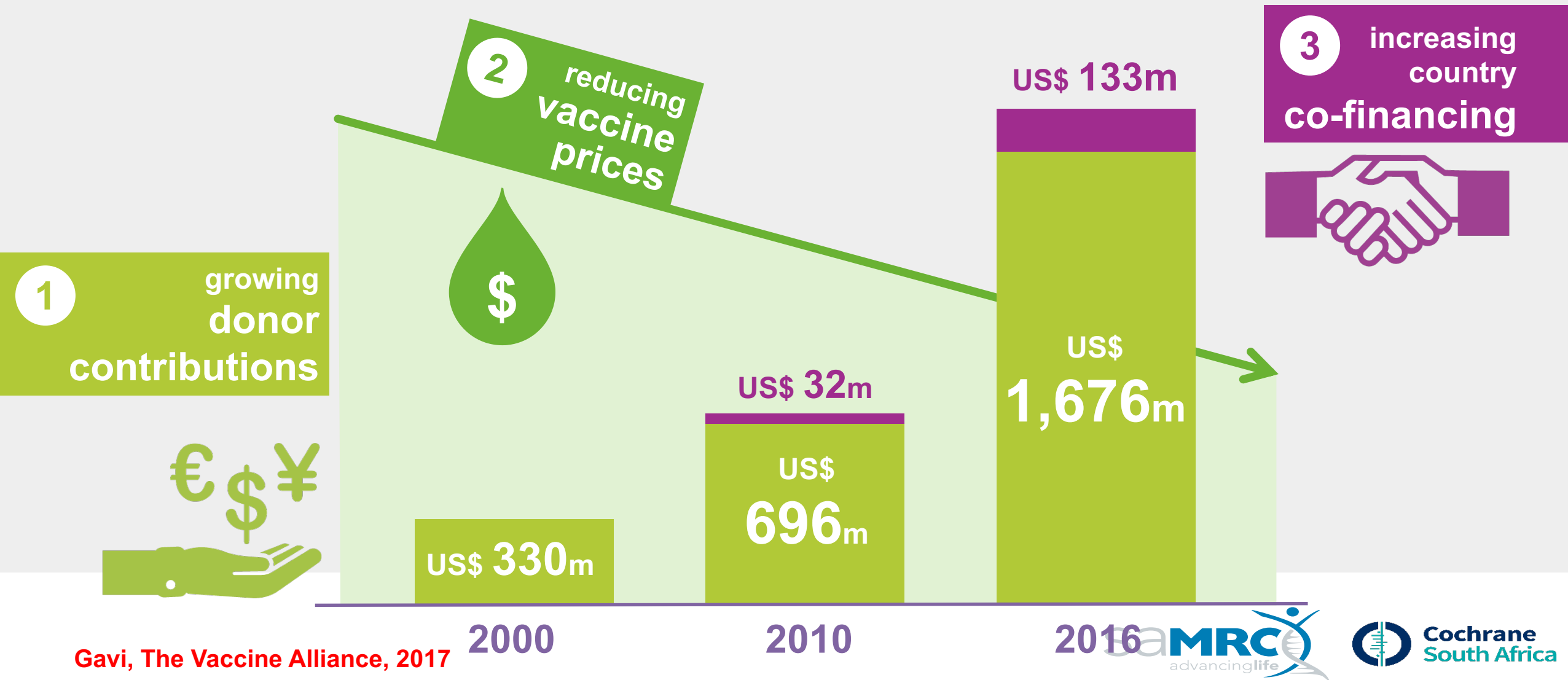
Strengthening vaccine delivery platforms



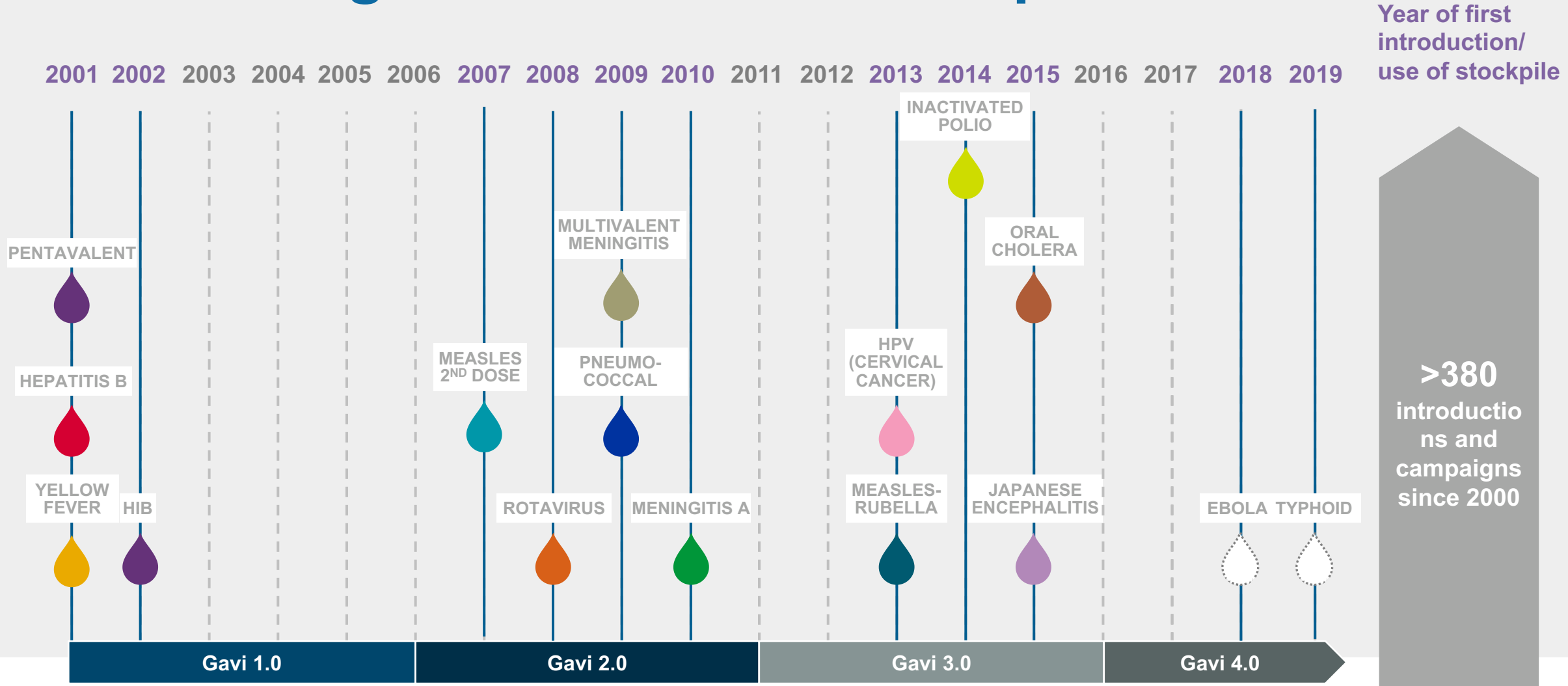
Sustaining immunisation



# Gavi's resource mobilisation model: a 3-pronged approach



# Accelerating access: our vaccine portfolio

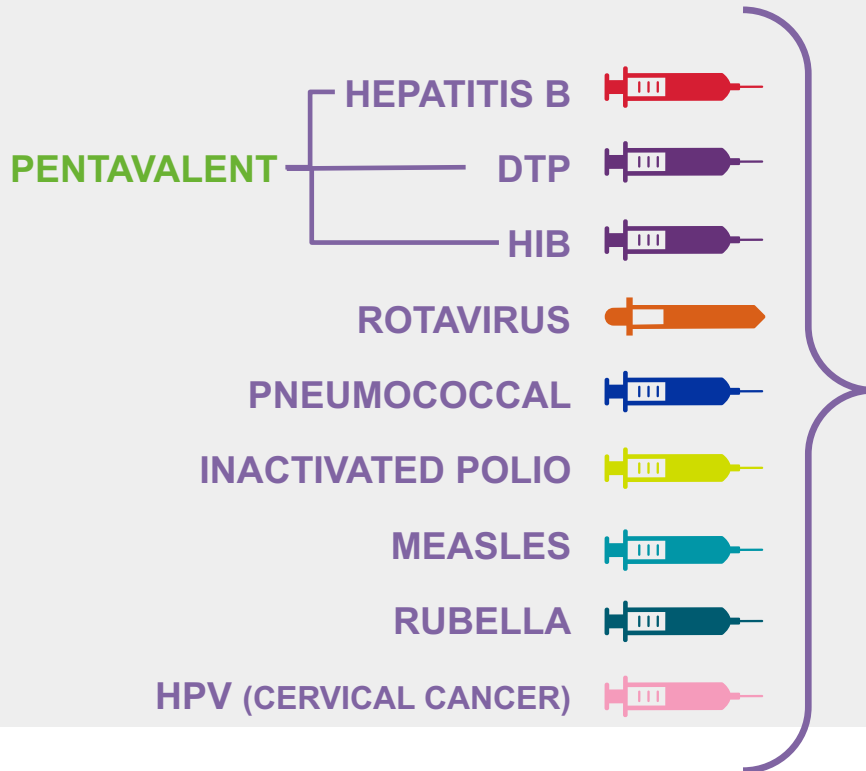


Gavi, The Vaccine Alliance, 2017



# Affordable and sustainable vaccine prices

Cost to immunise a child with a full course of:

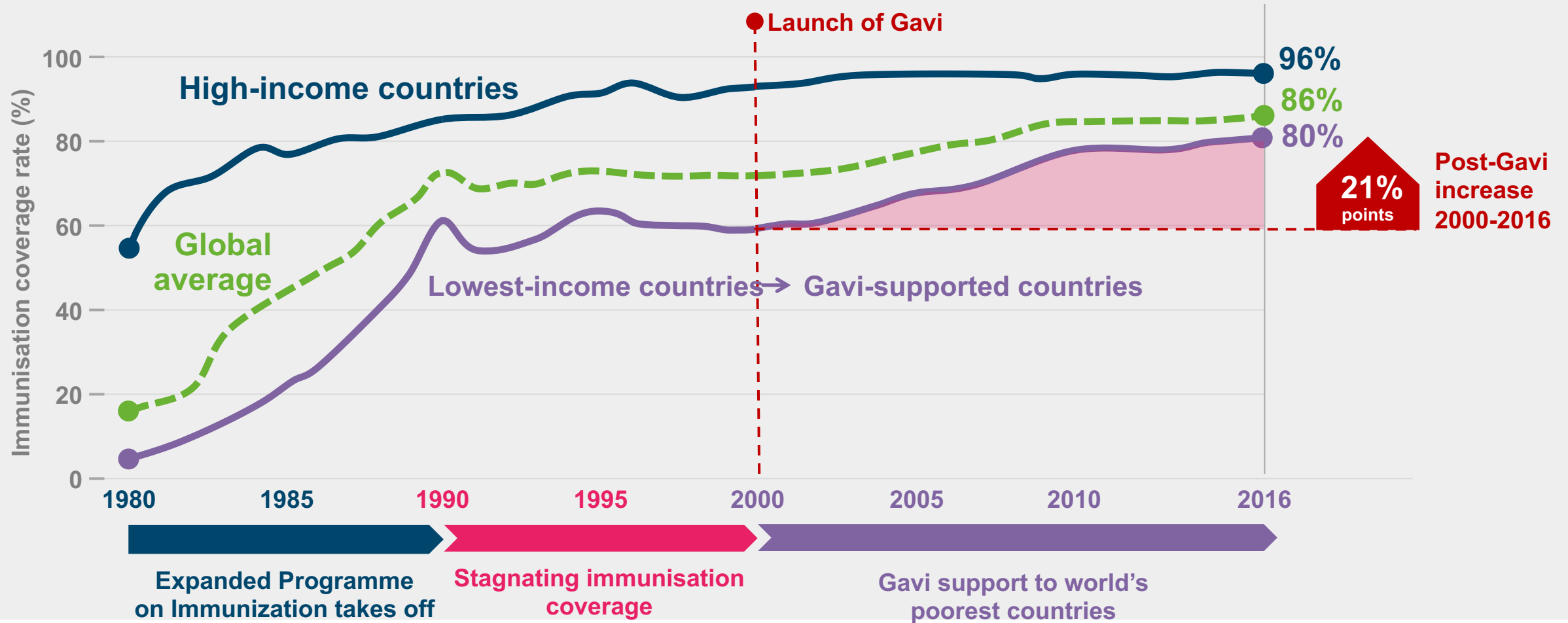


US\$ 35



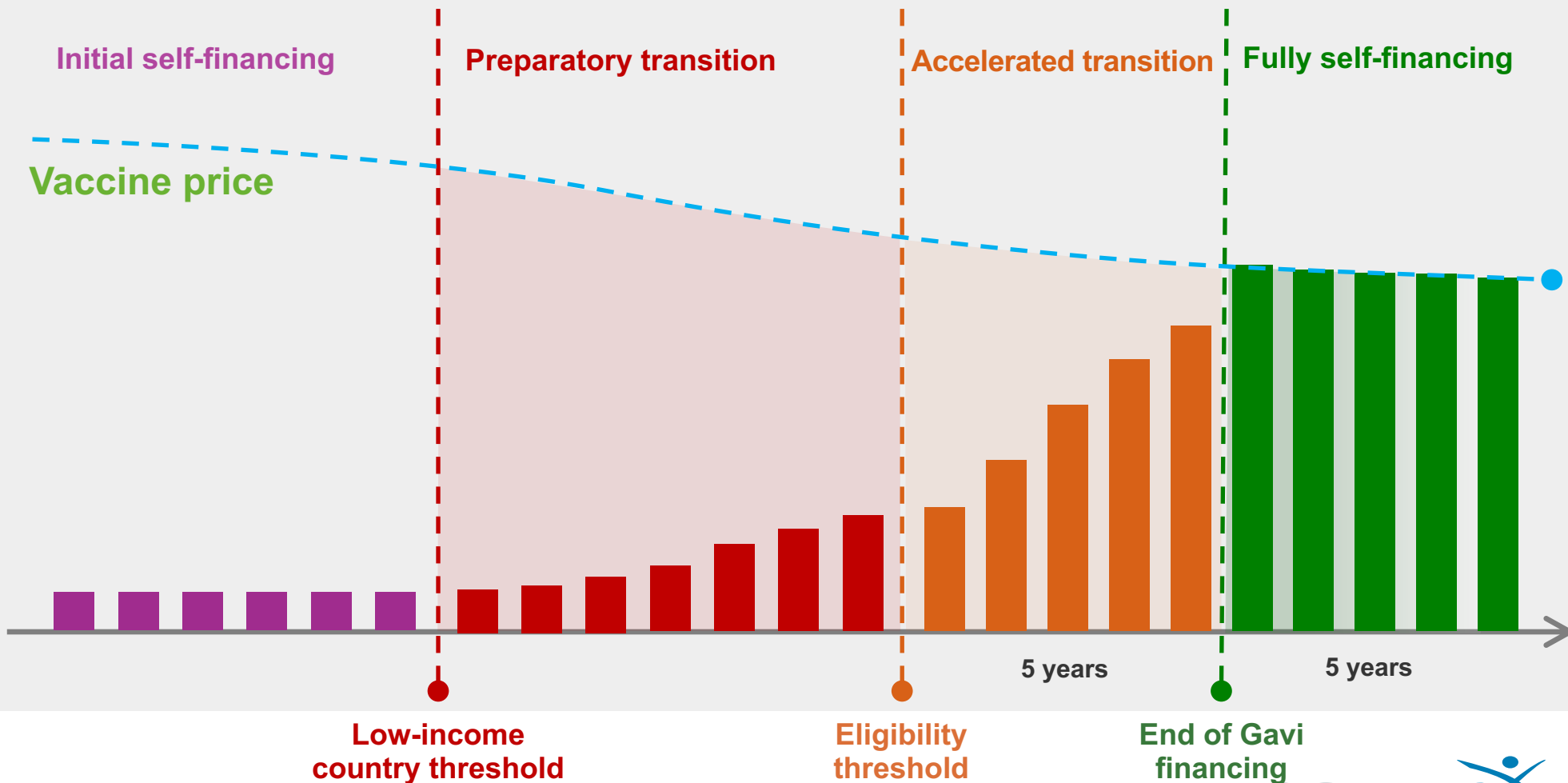


# Immunisation coverage: closing the gap



Gavi, The Vaccine Alliance, 2017

# How the Gavi model works: co-financing

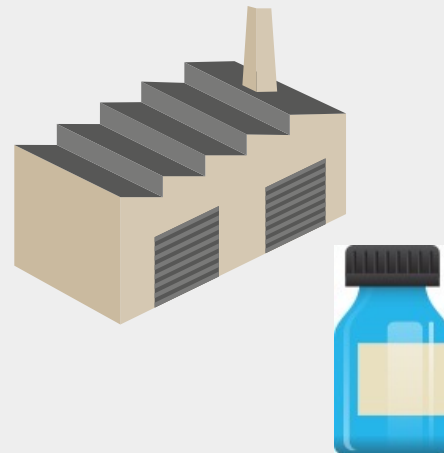


# How the Gavi model works: innovative finance

**International Finance Facility for Immunisation (IFFIm)**



**Advance Market Commitment (AMC) for pneumococcal vaccine**



**Advance Purchase Commitment (APC) for Ebola vaccine**



**The Gavi Matching Fund**



Government of the Netherlands



British Government

**BILL & MELINDA GATES foundation**

# Access to Covid-19 vaccines: COVAX

## Ensuring global equitable access to COVID-19 vaccines



Doses for at least 20% of countries' populations



Diverse and actively managed portfolio of vaccines



Vaccines delivered as soon as they are available



End the acute phase of the pandemic



Rebuild economies

**With a fast-moving pandemic, no one is safe, unless everyone is safe**

# State of Vaccines: key numbers (data at 12 March 2021)

- **94 days** since first countries started vaccinating<sup>1</sup>, **75 days** since all EU countries received vaccines, and **11 days** since first use of COVAX doses<sup>2</sup>
- **335 million vaccine doses** have been administered:
  - 76% of these doses have been administered in 10 countries (29% in one country)
  - At least 9 different vaccines (3 platforms) have been administered<sup>3</sup>
- Campaigns **have started in 144 economies**:
  - incl. 70 HICs, 40 UMICs, 28 LMICs and 6 LICs
  - **79% of HIC/UMIC** economies have started vaccination campaigns, while only **43% of LMIC/LIC** economies have done so
- **COVAX has shipped doses to 37 countries** including 31 LMIC/LICs<sup>4</sup>:
  - 5 LMICs & 4 LICs have started their first campaigns thanks to COVAX doses
  - In total, **~29 M COVAX doses shipped**

1. Dec. 8, 2020 in the UK (Pfizer)

2. March 1 in Ghana and Côte d'Ivoire

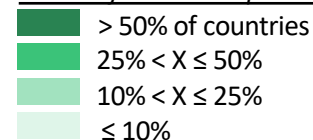
3. Pfizer, Moderna, Gamaleya, Sinovac, Sinopharm, SII, Bharat Biotech, AZ, Johnson & Johnson

4. World Bank classification (2021). Note: The term country, used interchangeably with economy, does not imply political independence but refers to any territory for which authorities report separate social or economic statistics.

# State of Vaccines: rollout has started in 144 economies

(data at 12 Mar 2021)

*Status of Vx roll out per income group*



**Bold:** new economy added  
**Green text:** First campaign thanks to COVAX doses

Economies classified by income level <sup>1</sup>	# of economies per income group	# economies where vaccination has started	% of income group where vaccination has started
High income economies (HICs)	83	70	84%
Upper-middle income economies (UMICs)	56	40	71%
Lower-middle income economies (LMICs)	50	28	56%
Low income economies (LICs)	29	6	21%
<b>Total</b>	<b>218</b>	<b>144</b>	<b>66%</b>

## List of economies where vaccination has started

Andorra, **Antigua and Barbuda**, **Aruba**, Austria, Australia, Bahrain, Barbados, Belgium, Bermuda, **British Virgin Islands**, Canada, Cayman Islands, Channel Islands, Chile, Croatia, **Curaçao**, Cyprus, Czech Republic, Denmark, Estonia, Faroe Islands, Finland, France, Germany, Greece, Greenland, Gibraltar, Hungary, Hong Kong SAR, Iceland, Ireland, Isle of Man, Israel, Italy, Japan, Kuwait, Latvia, Liechtenstein, Lithuania, Luxembourg, Macao, Malta, Mauritius, Monaco, Netherlands, New Zealand, Norway, Oman, Panama, Poland, Portugal, Qatar, Romania, Saudi Arabia, San Marino, Seychelles, Singapore, Slovakia, Slovenia, South Korea, Spain, **St. Kitts and Nevis**, Sweden, Switzerland, Trinidad and Tobago, Turks and Caicos, UAE, UK, Uruguay, USA

Albania, Argentina, Azerbaijan, Belarus, Belize, Brazil, Bulgaria, China, Colombia, Costa Rica, Dominica, Dominican Republic, Ecuador, Equatorial Guinea, Grenada, Guatemala, Guyana, Indonesia, Iran, Iraq, Jordan, Kazakhstan, Lebanon, Malaysia, Maldives, **Marshall Islands**, Mexico, Montenegro, **North Macedonia**, Paraguay, Peru, Russia, Serbia, South Africa, St. Lucia, **St. Vincent and the Grenadines**, Suriname, Thailand, Turkey, Venezuela

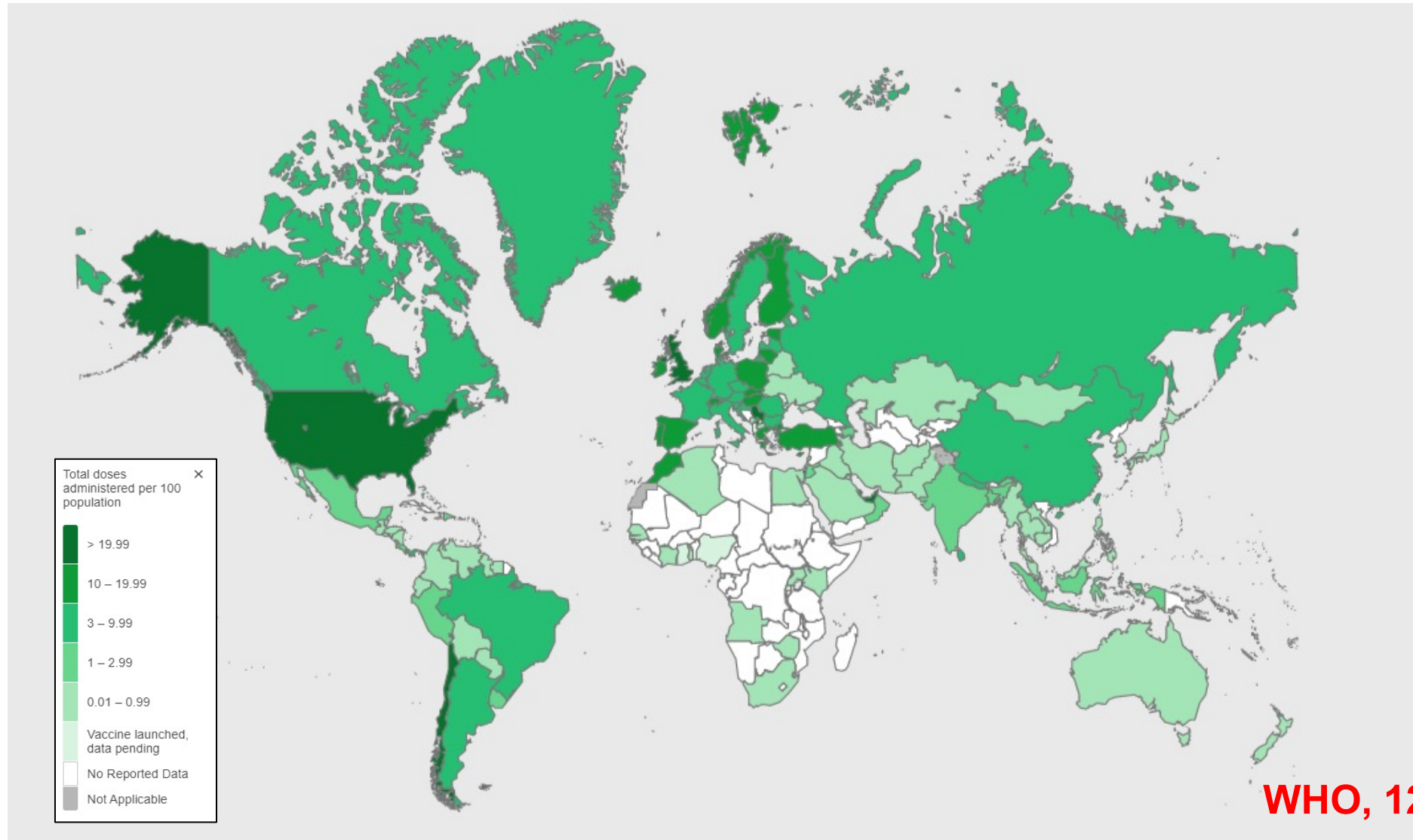
Algeria, **Angola**, Bangladesh, Bolivia, Cambodia, **Côte d'Ivoire**, El Salvador, Egypt, **Ghana**, Honduras, India, **Kenya**, Laos, **Micronesia**, Moldova, **Nigeria**, Mongolia, Morocco, Myanmar, Nepal, Nicaragua, Pakistan, Philippines, Senegal, Sri Lanka, Ukraine, West Bank and Gaza, Zimbabwe

Afghanistan, **the Gambia**, Guinea, **Rwanda**, **Togo**, **Uganda**

4 LMICs and 4 LICs have started vaccinations using COVAX doses in the last 5 days: Angola, Kenya, Moldova, Nigeria, Rwanda, Togo, The Gambia, Uganda.

1. World Bank classification (2021). Note: The term country, used interchangeably with economy, does not imply political independence but refers to any territory for which authorities report separate social or economic statistics.  
 Source: World Bank; WHO COVID-19 dashboard; Our World in data; Bloomberg; Reuters

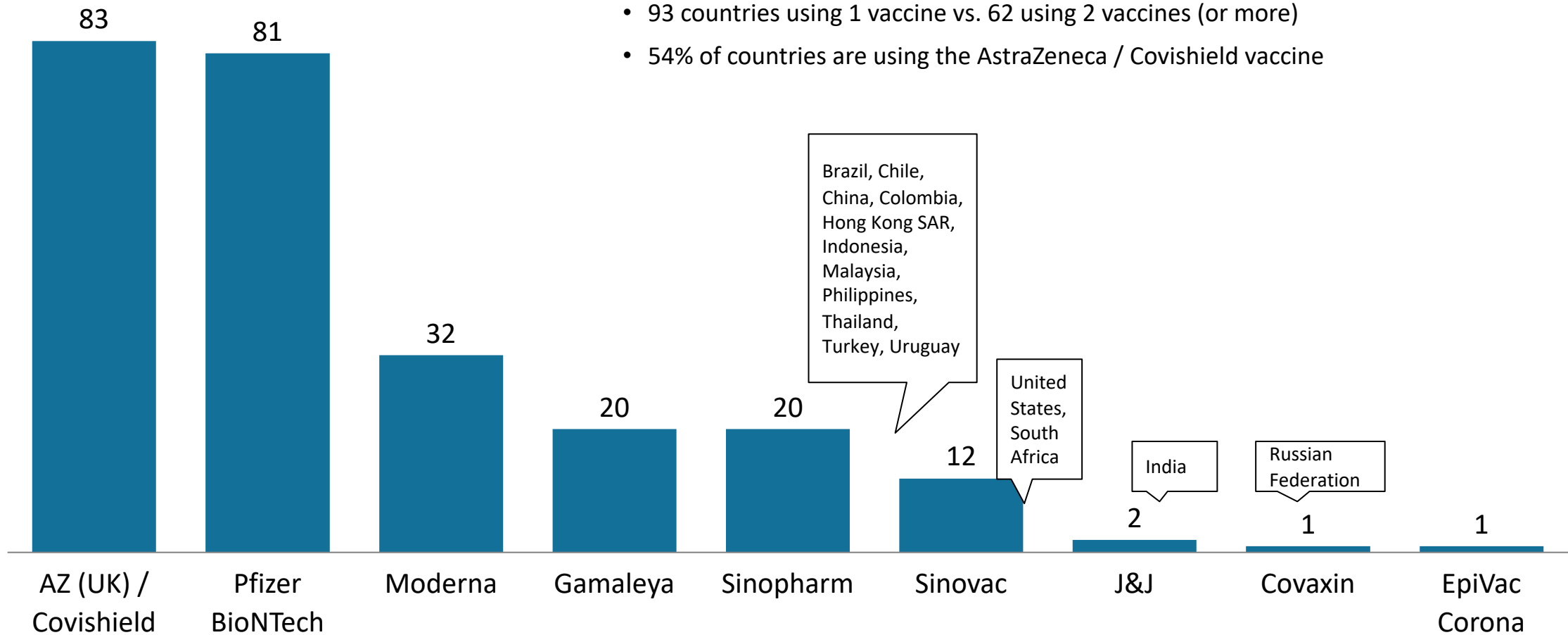
# Total doses administered per 100 population



SOURCE: WHO COVID-19 Dashboard at <https://covid19.who.int/>

Note: The designations employed and the presentation of these materials do not imply the expression of any opinion whatsoever on the part of WHO concerning the legal status of any country, territory or area or of its authorities, or concerning the delimitation of its frontiers or boundaries. Dotted and dashed lines on maps represent approximate border lines for which there may not yet be full agreement.

## Which economies are using which vaccine(s)?



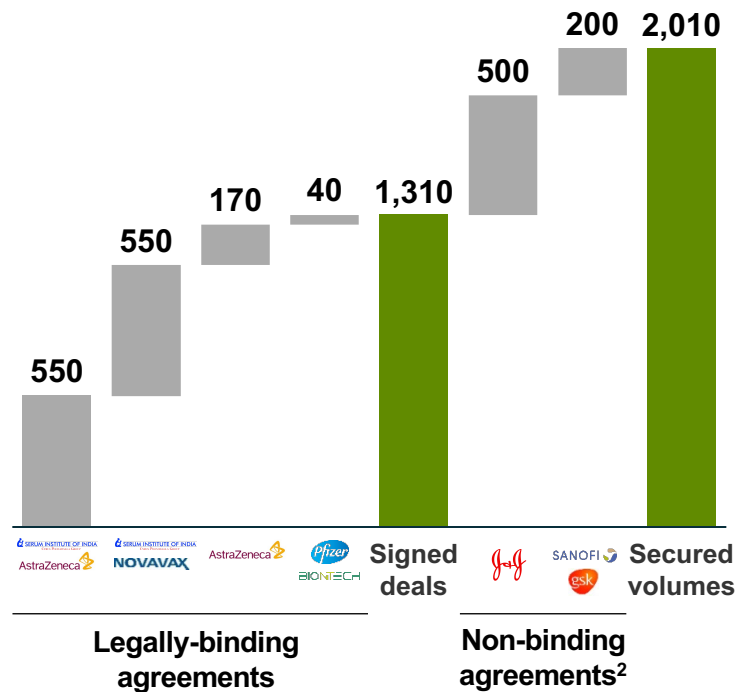
- 93 countries using 1 vaccine vs. 62 using 2 vaccines (or more)
- 54% of countries are using the AstraZeneca / Covishield vaccine

**WHO, 12 March 2020**

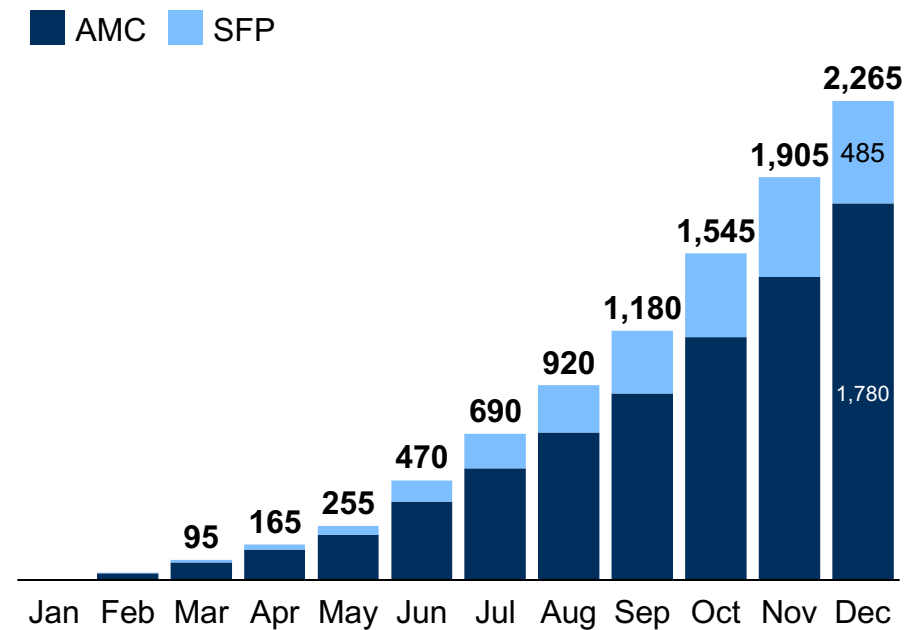


# In total, COVAX expects to deliver at least 2bn doses in 2021 of which up to ~1.8bn could go to AMC92

**COVAX Facility secured volumes, Mn doses, 2021 and 2022**



**COVAX Facility available supply by AMC and SFP<sup>1</sup>, Cumulative, Mn doses, 2021**



**WHO, 12 March 2020**

**CAVEATS**

**Contracts:** Some of the supply included in the projections are linked to deals that are already concluded and some are currently being negotiated. Terms are subject to change.

**Candidate attrition:** Some candidates are still in clinical development. If they do not achieve positive clinical trial outcomes (safety and efficacy) and regulatory approval, these volumes will not be procured by COVAX.

**Regulatory approval:** Supply timing will depend on regulatory success and timelines, including reviews of individual batches (“batch release”).

**Manufacturing:** In many cases, manufacturing is yet to reach full scale. Manufacturing productivity will be influenced by multiple factors, which will in turn influence volume and timing of supply.

**Delivery:** Timing of delivery will depend on various factors, including local regulatory approval, country readiness, logistics, indemnification and liability in place, in-country distribution etc.

**Funding availability:** Total potential supply is shown; procurement of these doses will depend on COVAX AMC fundraising, AMC92 cost-sharing beyond donor-funded doses, and the final prices and volumes of doses allocated to AMC92.

**Allocation:** These supply forecasts reflect a preliminary distribution of doses based on each participant’s share of available supply pro rata by demand and are to be treated as indicative. Final timing and volumes will be determined by the WHO Allocation Mechanism.

<sup>1</sup> Supply refers to volumes of vaccine available from the manufacturer. Timing of forecasts is based on anticipated release of doses from manufacturers. Volumes for expected single-dose regimen vaccine candidates doubled to ensure comparability across vaccine candidates. Volumes have been rounded to the nearest 5M.

<sup>2</sup> Non-binding agreements include memoranda of understanding and statements of intent. Following the recently announced MoU with Novavax, negotiations on final terms of the agreement and the distribution of volumes between Novavax and SII are ongoing; updates will be published in due course.

# The wave of COVAX deliveries kicked off on 24 February 2021

24 February

The first batch of COVAX doses has arrived in Ghana (600,000 doses)



26 February

South Korea receives 117,000 COVAX doses



2 March

3.94 million doses of COVAX vaccines arrive in Nigeria



26 February

504,000 doses have landed in Côte d'Ivoire



1 March

Côte d'Ivoire and Ghana start their first COVID-19 COVAX vaccinations



...

**WHO, 12 March 2020**

In total, > 18 million COVAX doses have been delivered in two weeks

2 March

First COVAX doses also arrived in Angola, Cambodia, DRC and Gambia



4 March

Philippines receives first doses from Astrazeneca



3 March

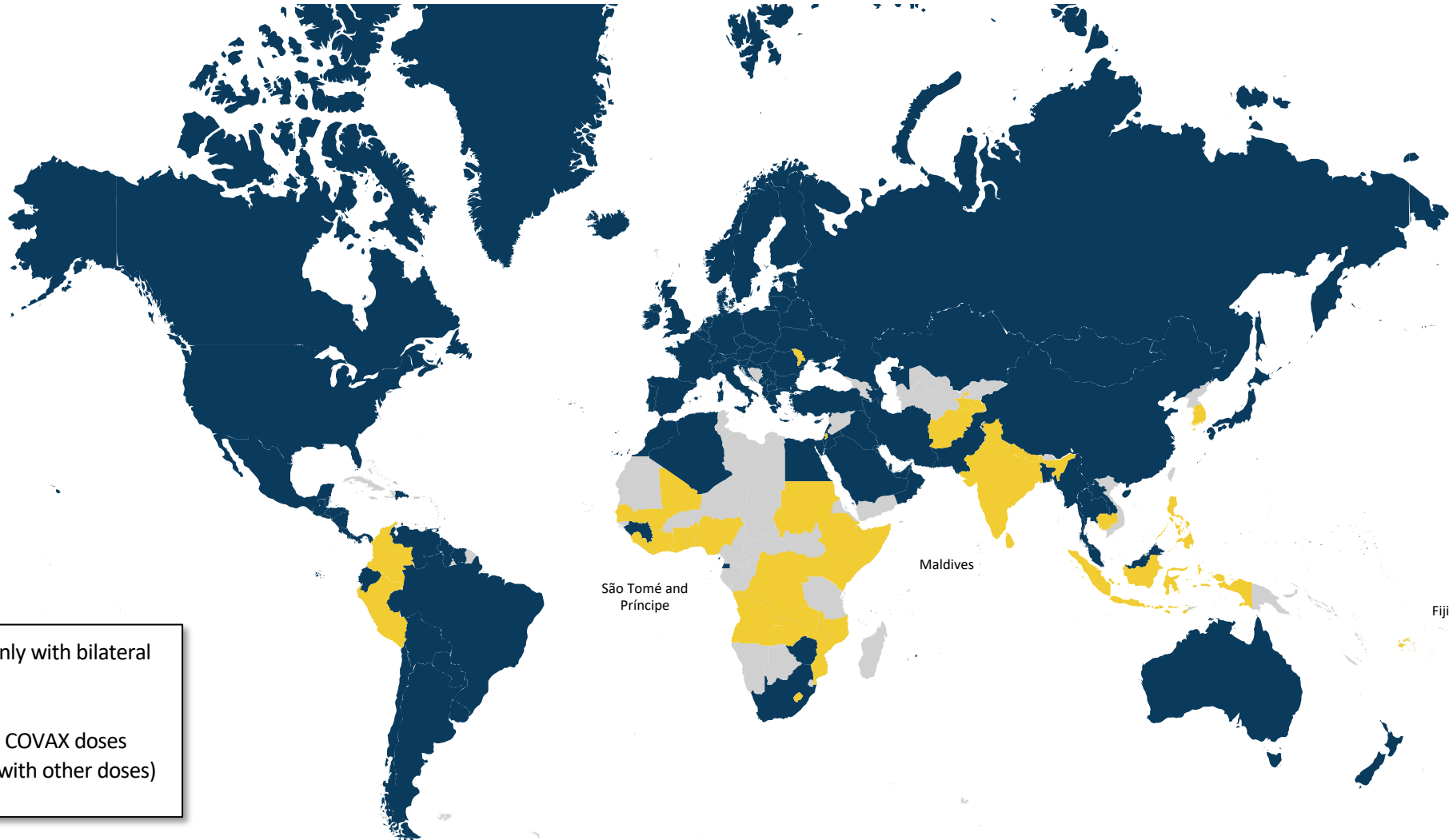
First COVAX doses arrived in Rwanda, Kenya and Sudan





- More shipments to come in the coming days and weeks
- Planned shipments for the next 7 days are available on the [UNICEF Vaccine market dashboard](#) (

**WHO, 12 March 2020**

# Countries that have received doses through COVAX



 Countries vaccinating only with bilateral doses or donations

 Countries that received COVAX doses (incl. ones that started with other doses)

Note: The designations employed and the presentation of these materials do not imply the expression of any opinion whatsoever on the part of WHO concerning the legal status of any country, territory or area or of its authorities, or concerning the delimitation of its frontiers or boundaries. Dotted and dashed lines on maps represent approximate border lines for which there may not yet be full agreement.

SOURCE: COVAX, WHO COVID-19 dashboard, Our World in Data; Press research

# Public COVAX roll-out dashboard resources

## 1. Gavi for deliveries

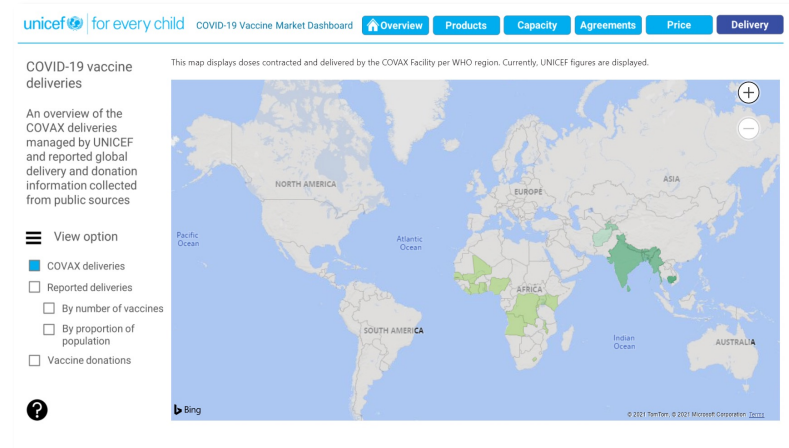
<https://www.gavi.org/live/covax-vaccine-roll-out>



The screenshot shows the Gavi website's 'COVAX VACCINE ROLL-OUT LIVE' dashboard. The main headline reads 'COVAX vaccines arrive in Nigeria, Angola and Cambodia'. Below this, it lists three key statistics: 324,000 doses of COVAX vaccines arrived in Cambodia, 624,000 doses arrived in Angola, and 3.94 million doses arrived in Nigeria. The dashboard also features a 'Media contacts' section with a link to a media library, a 'SHARE THIS' section with social media icons, and a tweet from UNICEF Cambodia celebrating the arrival of the first batch of COVAX vaccines in Cambodia.

## 2. UNICEF for planned shipments and POs

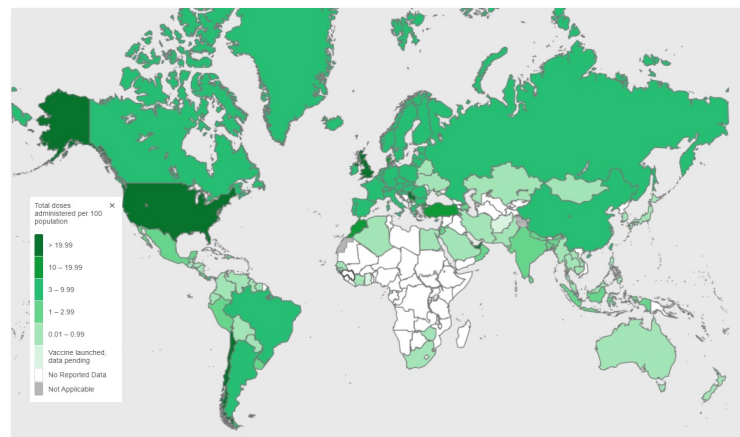
<https://www.unicef.org/supply/covid-19-vaccine-market-dashboard>



The screenshot shows the UNICEF COVID-19 Vaccine Market Dashboard. It features a world map displaying doses contracted and delivered by the COVAX Facility per WHO region. The map is color-coded by region, with North America, Europe, and Asia showing higher delivery volumes. The dashboard includes a 'View option' menu with checkboxes for 'COVAX deliveries', 'Reported deliveries', 'By number of vaccines', 'By proportion of population', and 'Vaccine donations'. The map also includes a legend and a 'Bing' logo.

## 3. WHO for vaccinations worldwide

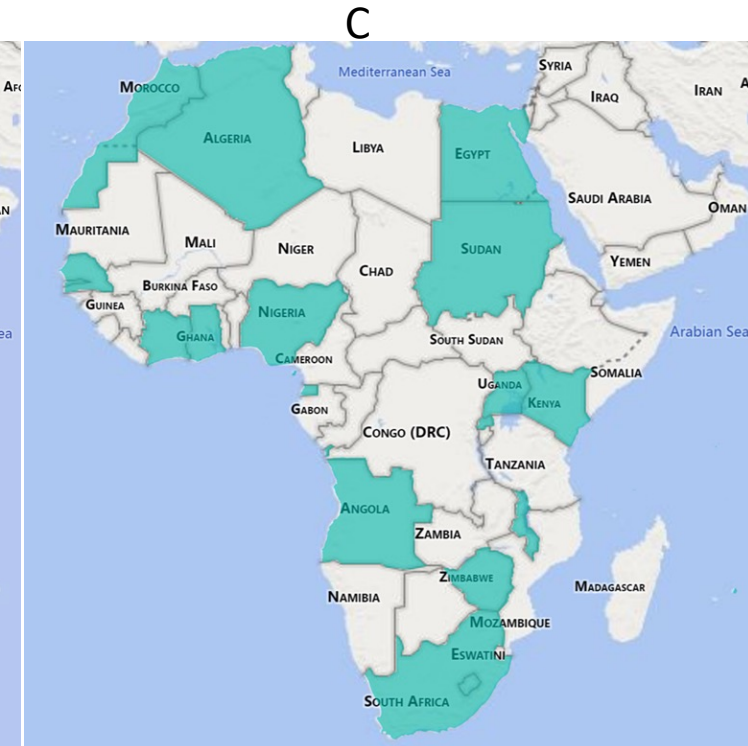
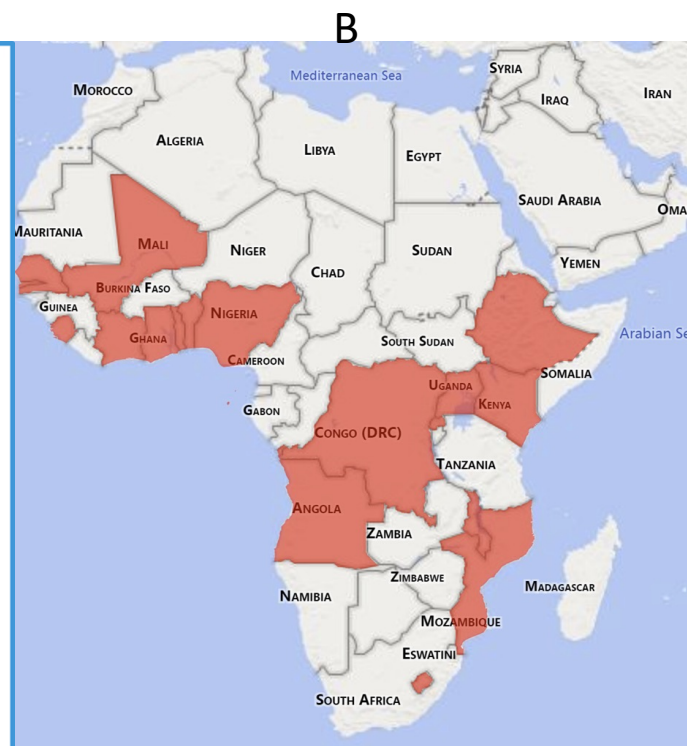
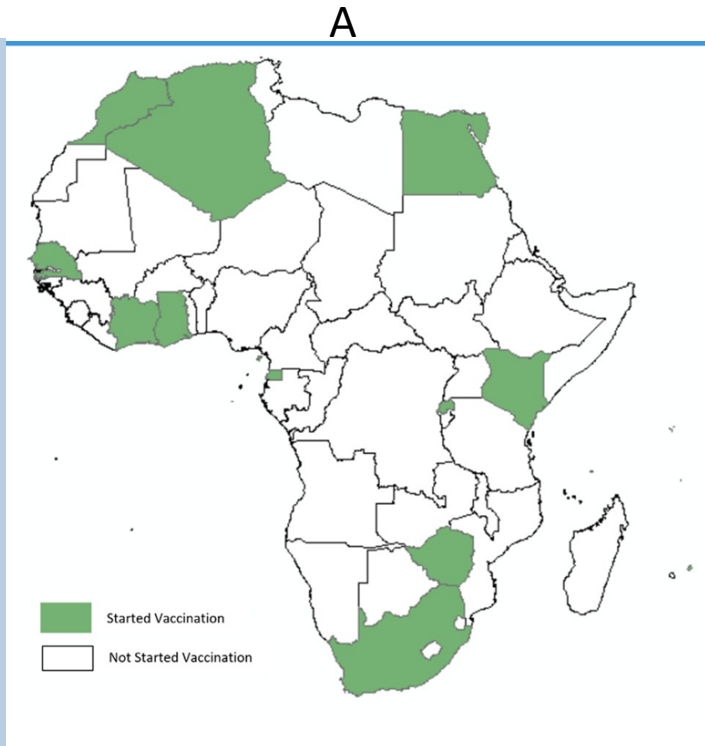
<https://covid19.who.int/>



**WHO, 12 March 2020**

# Summary of Covid-19 vaccine rollout in Africa

- Seychelles,
- Mauritius,
- Algeria,
- Egypt,
- Morocco,
- Rwanda,
- South Africa,
- Equatorial Guinea,
- Zimbabwe
- Senegal.



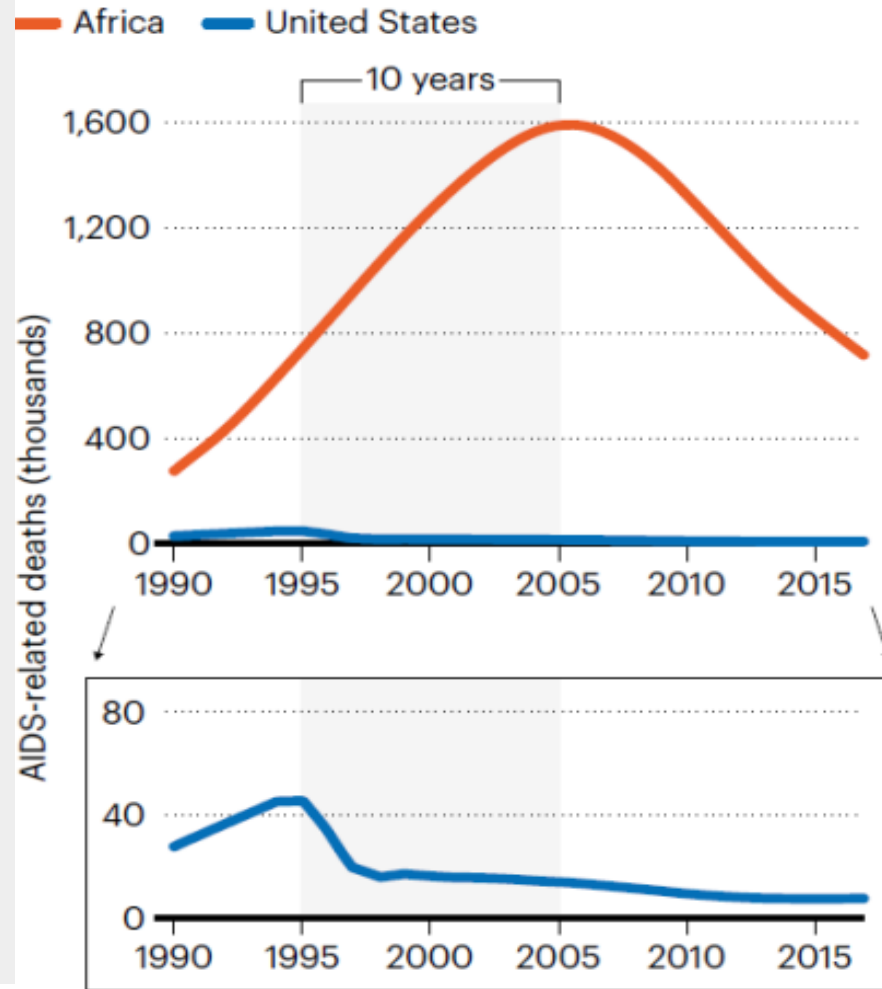
COVAX Deliveries in Countries

Vaccine Introduction in Africa

10 countries introduced COVID-19 vaccines before the COVAX vaccines delivery started on 24 Feb 2021

# LEFT TO DIE

When HIV drugs were introduced in the mid-1990s, AIDS-related deaths kept rising in Africa but fell sharply in the United States. It took another decade for deaths to decline in Africa.



Thank you

**Charles Shey Wiysonge**

Twitter: @CharlesShey

Email: Charles.Wiysonge@mrc.ac.za