

How to achieve global equity between vaccines demand & supply

Hannah Kettler
Lead, Design & Operationalisation of COVAX

Agenda

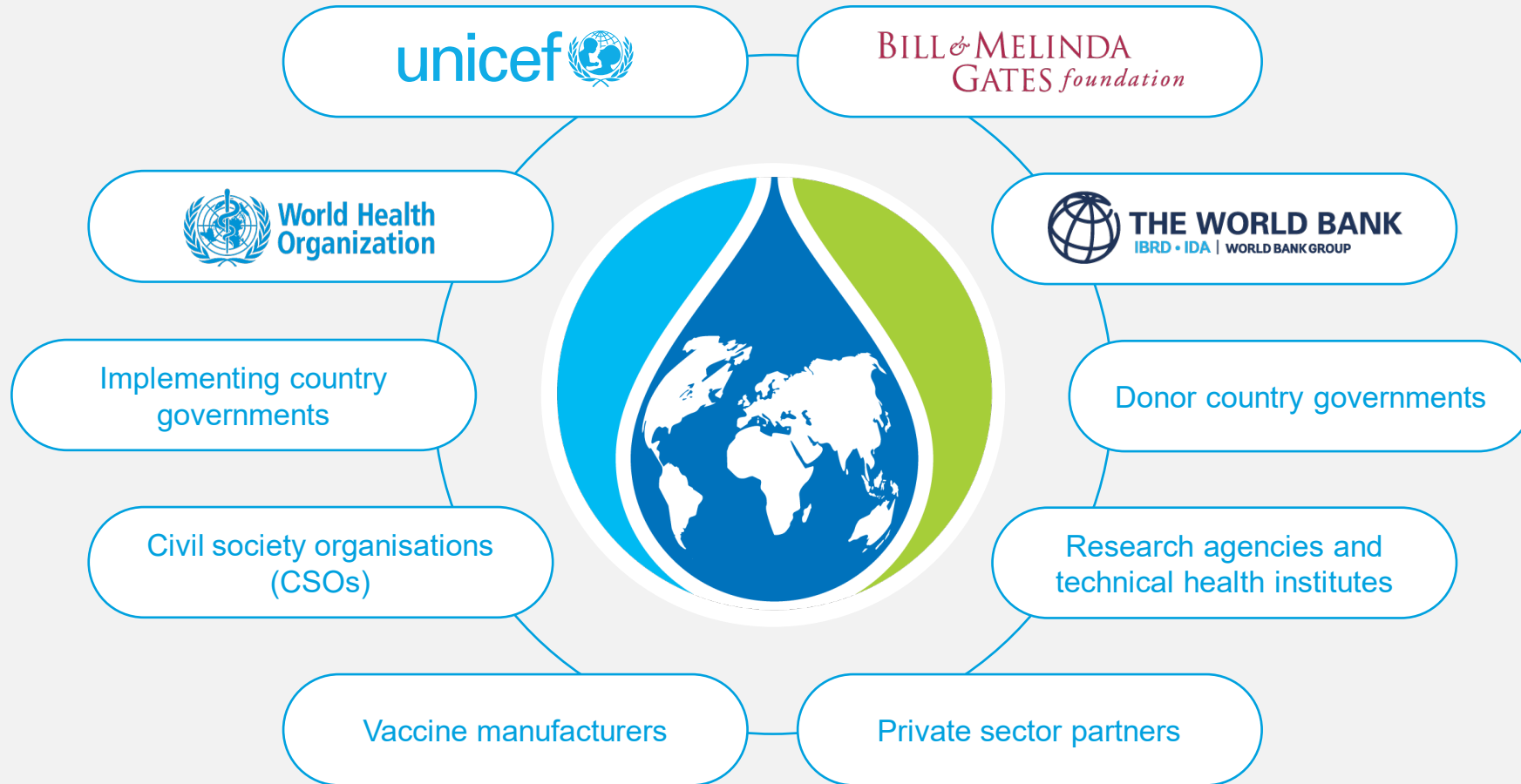
1. Achieving global equity in vaccines – How does Gavi work?
2. Deep dive: COVAX and lessons learnt

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**Achieving
global equity
in vaccines -**

**How does
Gavi work?**

Vaccine Alliance partners



Gavi's mission: equity is the answer



Gavi support for routine immunisation since 2000: **78 lower-income countries**
Eligible for Gavi support in 2021–2025: **57 lower-income countries** (54 countries in 2023)
COVAX support for COVID-19 immunisation since 2021: **146 countries** (87 lower-income countries)

The Gavi model

Long-term funding

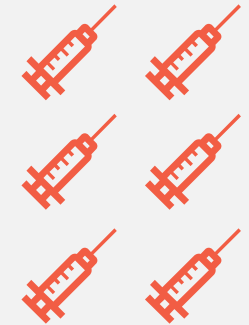
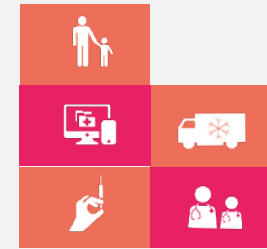
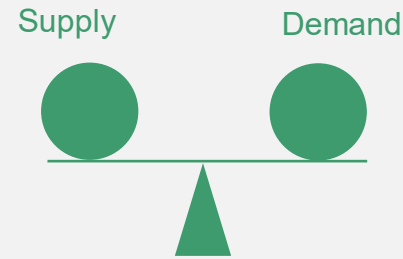
Pooling demand of lowest-income countries

Accelerating access to vaccines

Shaping markets for affordable vaccine products


Strengthening vaccine delivery platforms

Sustaining immunisation and transition







Gavi's vaccine portfolio has significantly grown over time

Gavi now provides vaccines against **19** infectious diseases through **50** product presentations







 Outbreak response

6

-  Pentavalent¹
-  Hepatitis B
-  *Haemophilus influenzae* type b (Hib)
-  Yellow fever²






2001–2005
Gavi 1.0

11

-  Measles (2nd dose)
-  Multivalent meningococcal²
-  Oral polio vaccine (OPV)²
-  Pneumococcal conjugate vaccine (PCV)
-  Rotavirus
-  Meningococcal A



2006–2010
Gavi 2.0

15

-  Human papillomavirus (HPV)
-  Measles-rubella
-  Inactivated polio vaccine (IPV)
-  Oral cholera vaccine (OCV)²
-  Japanese encephalitis




2011–2015
Gavi 3.0

17

-  Ebola²
-  Typhoid conjugate vaccine (TCV)

2016–2020
Gavi 4.0

19

-  COVID-19
-  Malaria
-  OCV (preventive)

2021–2025
Gavi 5.0³

¹ Diphtheria, tetanus, pertussis (DTP) boosters, hepatitis B, *Haemophilus influenzae* type b (Hib) ² Emergency stockpiles
³ Paused vaccines from VIS 2018: DTP boosters, rabies, hepatitis B birth dose, RSV; delayed: multivalent meningococcal conjugate vaccine (MMCV)

Since Gavi's launch, health systems have had to adapt to reach more children with more vaccines

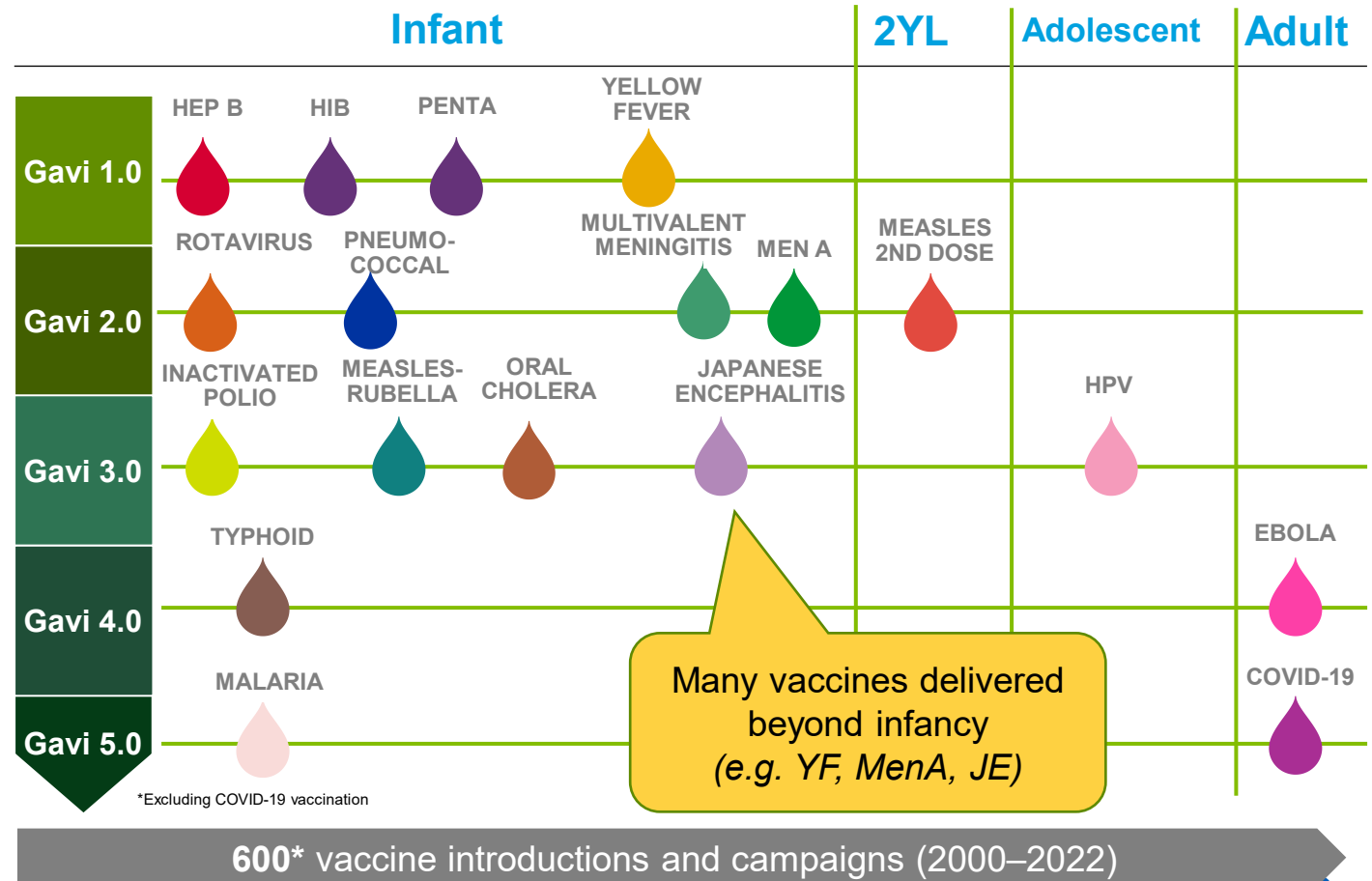
+9 million

surviving infants born in Gavi 57 today vs. 2000

+20 million

children immunised with DTP3 in Gavi 57 in 2021 vs. 2000

Gavi now supports vaccines against 19 pathogens at multiple age points with >50 product presentations



Healthy communities, healthy economies

Gavi-supported countries, 2000–2023



keep people healthy

**>981
million**

children vaccinated



vaccines save lives

**>16.2
million**

future deaths prevented

+2.7m

future deaths prevented
by COVAX

through end 2022



stronger economies

**>185.3
billion US\$**

generated in economic
benefits (2000–2021)



sustainable future

**16
countries**

transitioned out of Gavi
support (+3 in 2022)

Deep dive: COVAX and lessons learnt

2

COVAX and the global health problem it set out to solve



Problem statement

Inequitable vaccine access has been a recurrent problem in previous pandemics costing many lives, particularly in lower income countries



Solution and ambition

COVAX was created with the specific aim of enabling equitable access to COVID-19 vaccines



Advance Market Commitment (AMC) set up by COVAX to enable donor-funded purchase of vaccine doses for 92 lower-income countries and territories



An unprecedented global solution to tackle the pandemic by breaking out of old paradigms



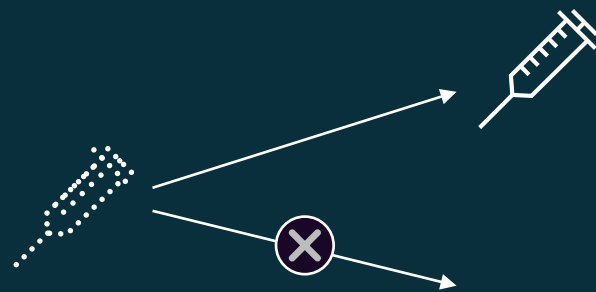
Equity-based approach serves lower to upper-middle income countries with the view that in a pandemic no one is safe until everyone is safe

Components of COVAX

1. A fund – health and donor budgets
2. A portfolio – push funding, global access agreements, technology transfer
3. At risk purchase commitments – advanced commitments for early doses at competitive prices
4. Allocation Framework – equitable allocation mechanism
5. Policy tools – pre-qualification, indemnity and liability agreement, no-fault compensation
6. Country readiness and delivery – technical, cold chain and delivery support, readiness assessments

When COVAX launched, no single vaccine was guaranteed to succeed or have enough capacity ...

- Many vaccines in development – none guaranteed to succeed
- No single manufacturer has the capacity to supply the global volume required

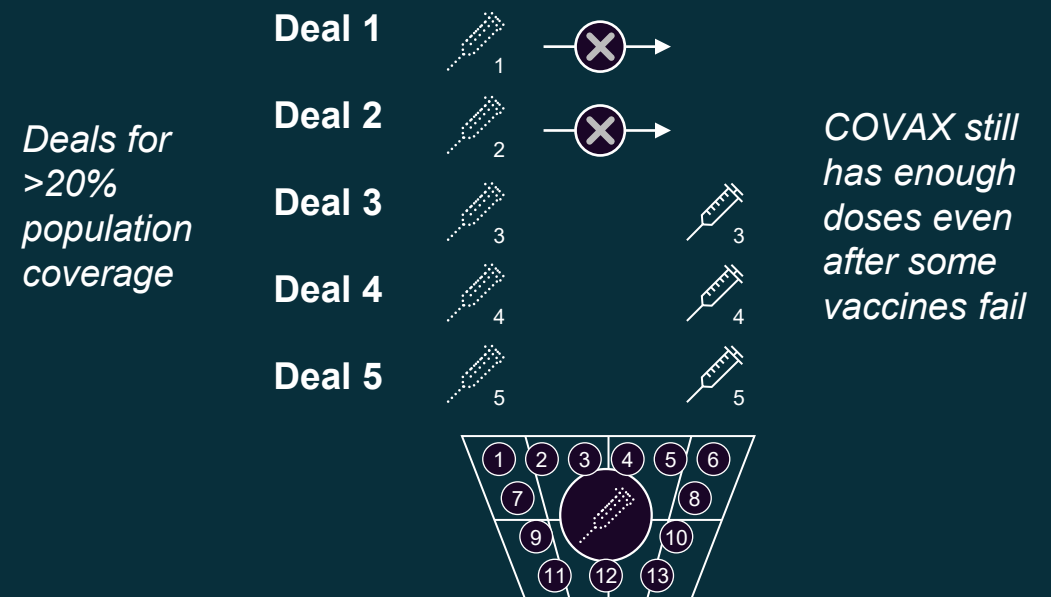


Single deals might fail

A diversified portfolio was needed to manage risk and create capacity to scale

... COVAX therefore invested in a portfolio of vaccines to mitigate these risks

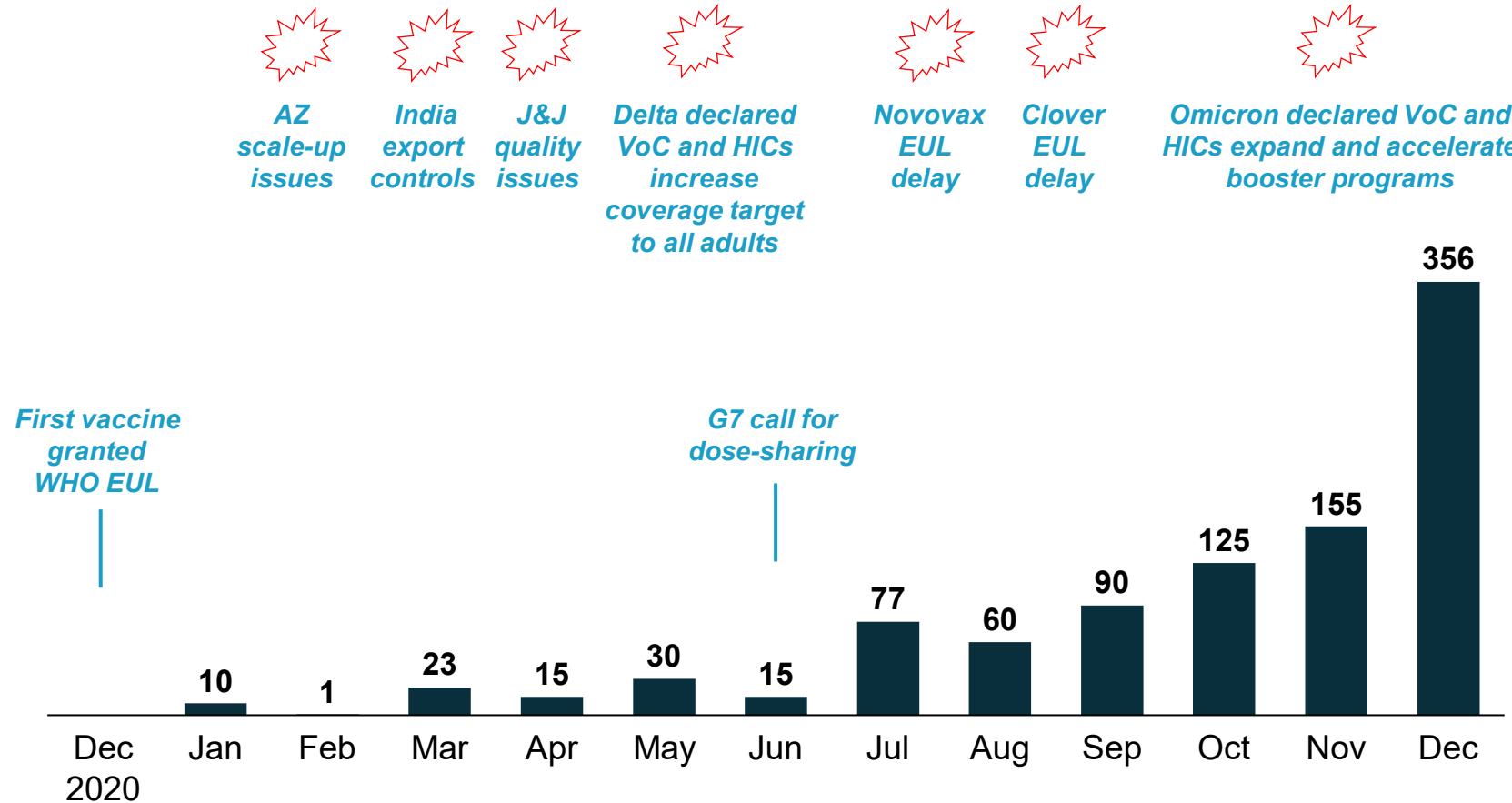
- A **portfolio of vaccines** increased the chances of having access to at least one successful vaccine
- Signing deals for >20% coverage meant COVAX could account for risks of unsuccessful development



COVAX aimed to build a portfolio of ~10 vaccines

In 2021, global supply shocks led to delays in COVAX supply; portfolio actions were taken to mitigate their impacts to the extent possible

COVAX shipments, Monthly, M doses, 2021¹



- In 2021, COVAX was hit by several demand and supply-side shocks:
 - Export controls in India
 - Regulatory delays
 - Manufacturer scale-up issues
 - Emerging safety concerns and evolving recommendations for use
 - Expansion of high-income country coverage targets that led to higher competition and delayed deliveries
- In response, COVAX adapted its portfolio strategy to further diversify across:
 - New manufacturing geographies
 - New manufacturers
 - New tech platforms
 - New supply sources – through launch of dose donation program

COVAX allocations took place in three distinct phases

| | Phase I (Feb 2021 – Feb 2022) | Phase II (Mar 2022 – Jul 2022) | Phase III (Aug 2022 – Dec 2023) |
|---------------------------|--|---|---|
| Pandemic Conditions | Early stages, highly political, initially scarce and sporadic supply | Oversupply , more mature vaccination programmes led to longer planning horizon | Tapering demand , better understanding of country needs, pandemic eventually lifted |
| Equity Concept | Equity in outcome – all countries to receive doses up to 20% of their population (proxy for high risk; later revised to 70%) | Equity in coverage – aim to reduce coverage gap by prioritising lagging countries | Equity in access - provide each country equal opportunity to access available supply |
| Demand | Fledgling demand planning from countries, initially proxied by absorption capacity | Monthly demand per product submitted through a unified Demand Planning Exercise | Expressed through dose requests indicating desired volumes, products, delivery timelines |
| Supply | Initially only Advance Purchase Agreements (APAs) with manufacturers; later donations scaled up massively | Oversupply – ample APA doses and large-scale donations | Good balance between APA doses and donations, however an increasingly narrowing portfolio |
| Allocation Mechanism | Proportional allocation mechanism allocating each supply tranche equally to all participants (as a proportion of their population) | Sequential allocation mechanism filling country demand in increasing order of coverage | Bespoke 'rolling allocations' mechanism tailoring allocations to matching dose request with available supply |
| Challenges | Proportional allocation limited by absorption capacity led to unequal coverage; product preferences started to play a prominent role | Variability in demand, ample in-country stocks, and short shelf-life of donated doses led to large-scale refusals | Limited medium-term visibility on demand made planning difficult; frequently updated SAGE guidance meant regular programmatic changes |
| Select Key Lessons Learnt | <ul style="list-style-type: none"> Data-driven mechanism should be based on goals that are measurable When demand is variable, speed and flexibility of allocation is more salient | <ul style="list-style-type: none"> Need to remain agile and responsive to frequent changes in demand and supply Donations are an important source of supply but shelf-life can be compromised | <ul style="list-style-type: none"> Responding to specific country requests leads to higher acceptance rates and less wastage Maintaining a wide portfolio of products is key to successfully meeting country demand |

Shifted from supply to demand and delivery in country challenges

Absorption capacity

Divergence in absorption with many MICs accelerating but LICs especially in fragile and conflict settings struggling to absorb doses (19 countries below 5% coverage and 27 below 10%)

Low demand and uptake

Vaccine hesitancy is being observed in some specific settings. This is due to a range of reasons, including decreased disease risk perception due to Omicron/seroprevalence.

Wastage

Wastage in country due to short shelf-life of many incoming doses (including from bilateral donations), challenges in country ability to absorb, potential shifts in demand

Countries leveraged past Gavi support in COVID-19 response



Cold Chain Equipment

- In 2015-20, **33K CCE units installed across 48 countries**
- Uganda **pre-positioned ~6 months of routine vaccine supply** before lockdown, using Gavi-funded CCE capacity



Digital Health Information Systems

- **41 countries** quickly deployed the **WHO-DHIS2 toolkit** for COVID-19 surveillance



Leadership, Management, Coordination capacity

- **24 countries used LMC surge support for C-19** drawing on existing **network of experienced & trusted partners**



New Vaccine Introduction and Campaign experience

- Experienced EPI teams & enabling environment for **rapid new vaccine introduction** (e.g., regulatory, NITAG, service delivery)

COVID-19 coverage has made gains in protecting the most vulnerable



COVID-19 coverage

- **56%** coverage with complete primary series among AMC participants
 - **17%** coverage with booster dose
- Only **6** countries remain under 10% coverage



Health care workers

- **84%** vaccinated with the complete primary series
 - **57%** reached with a booster dose



Older adults

- **72%** vaccinated with the complete primary series
 - **24%** reached with a booster dose

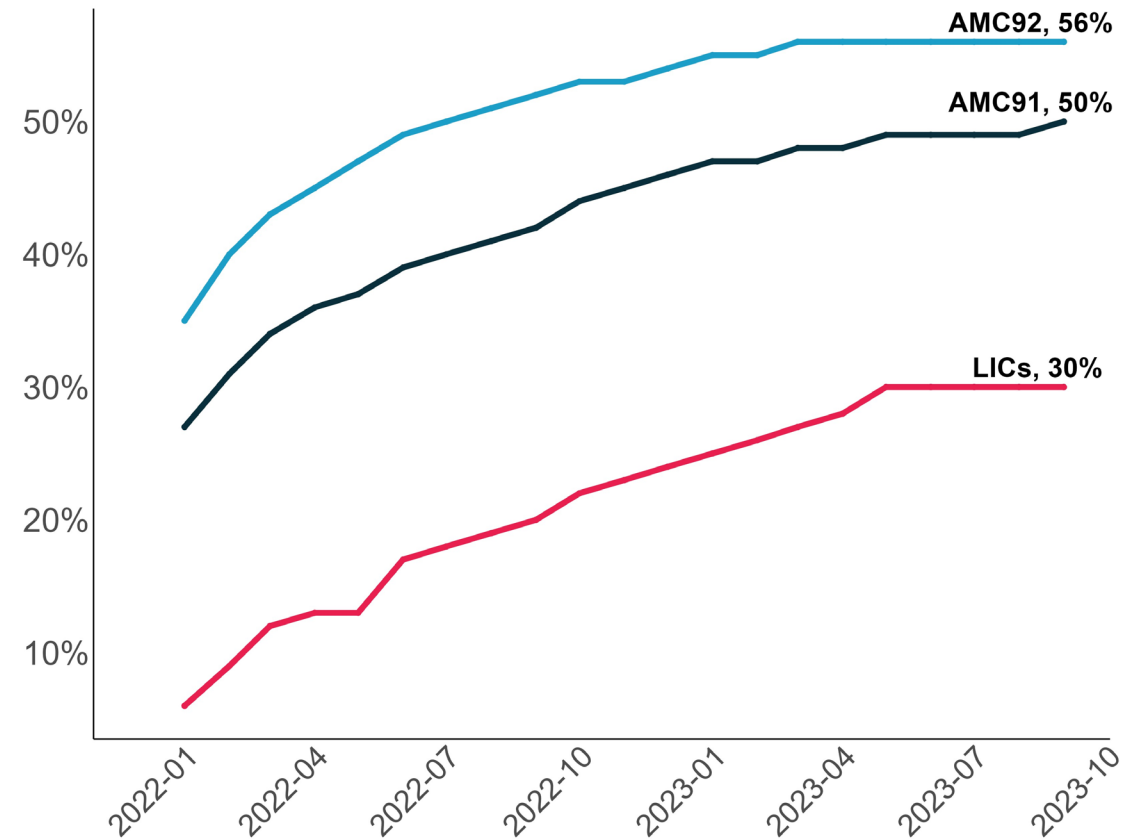


COVID-19 impact

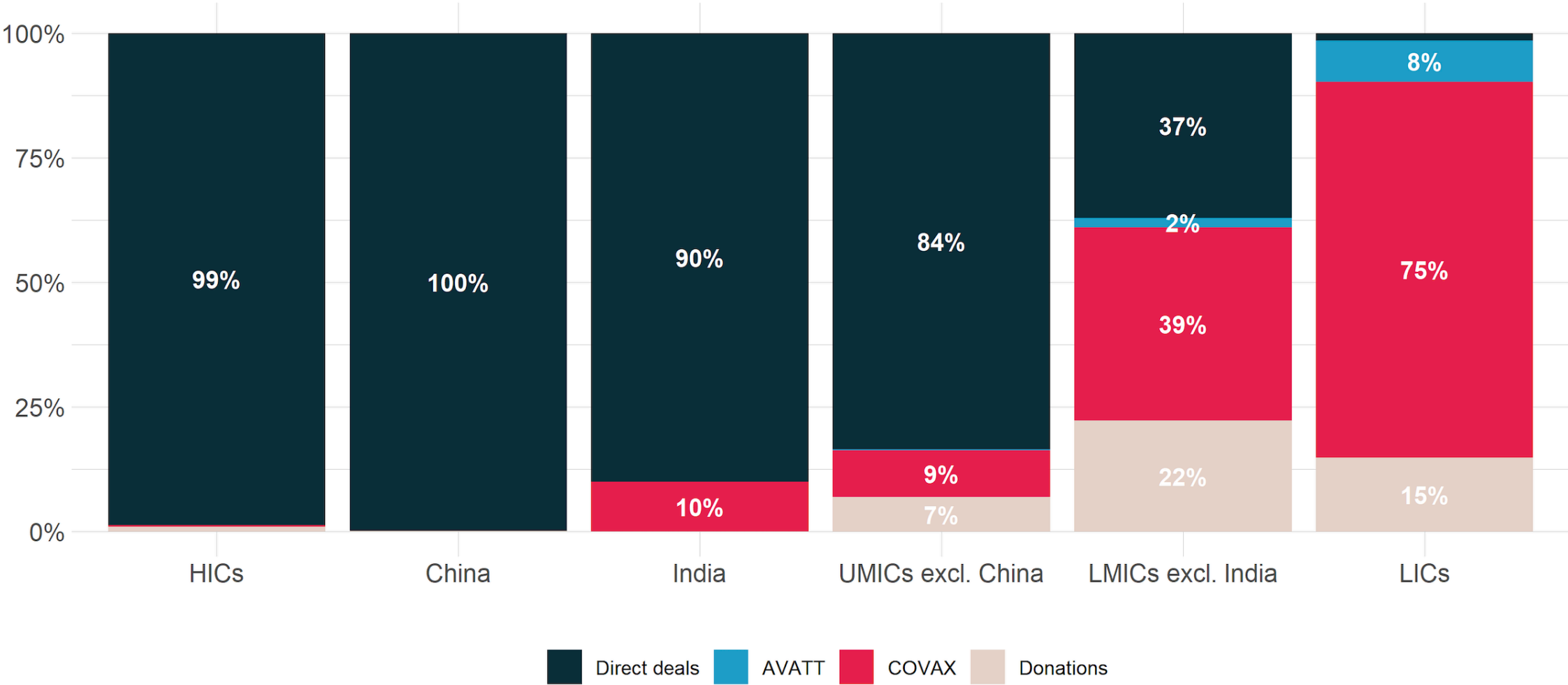
As of end 2022, estimated **2.7 million** deaths averted due to COVAX-supported doses among AMC participants

COVID-19 coverage

Complete primary series, all vaccine sources



COVAX ensured sufficient access to COVID-19 vaccines for LMICs



Learnings from COVID-19 to help global health community prevent future pandemics

What was *missing* at the beginning of the pandemic?



Global level

Non-exhaustive

- **At-risk contingent financing** for vaccine R&D and AMC/APAs, and delivery support
- **Surge human resource capacity** in global institutions to be rapidly deployed
- An **agile coordination structure** to organise an end-to-end response around vaccines, diagnostics, and therapeutics
- The Alliance was missing a **connection to R&D**



Country level






- Strong **VPD surveillance/ monitoring** infrastructure
- Availability of surge resources including **health work force and cold chain equipment**
- Additional mechanisms to **scale-up delivery** rapidly, including tools to allow electronic supply chains to track and trace vaccines
- Non-governmental coordination to reach **humanitarian settings**







An **advantage for the Alliance** was the ability to leverage our **pre-existing network** of teams already working together, **easing the transition into new roles**

Taking COVAX key learnings* forward

COVAX learnings for future Pandemic Prevention, Preparedness and Response

-  • Start planning and preparations for future pandemics now
-  • Include broader group of partners [regional partners, CSO, country implementors] in future design & implementation for PPPR
-  • Secure earlier and greater access to at-risk / contingency financing for both procurement and **vaccine delivery**
-  • Diversify vaccine manufacturing
-  • Further enhance efforts towards building resilient health systems

COVAX learnings incorporated into Gavi 5.1 and considered for 6.0 development

-  • Improving access to vaccines in complex humanitarian settings
-  • Building stronger partnerships with humanitarian agencies
-  • New process adaptations (e.g. EVOLVE, expediting disbursements to countries, building on the COVAX Collaboration Portal)
-  • Adoption of “must-wins” to unite leadership on top priorities

*Select learnings – not exhaustive

Thank you

What is market shaping?

Gavi's market shaping efforts aim to improve the health of markets, making life-saving vaccines and other immunisation products more accessible and affordable for lower-income countries

When markets work well, everyone benefits:

Countries benefit from access to appropriate, quality vaccines at affordable prices

Communities benefit from improved health

Manufacturers benefit from predictable demand from previously untapped market

Donors benefit from their contributions having the greatest possible impact

