

The Immunization Delivery Cost Catalogue

The status of evidence on immunization delivery
costs in low- and middle-income countries

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Outline

- 1. What is the IDCC?**
- 2. State of the evidence on the cost of delivering immunization**
- 3. What does it cost to deliver immunization in LMICs?**
- 4. How you can use the IDCC**

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What is the Immunization Delivery Cost Catalogue?



What is the Immunization Delivery Cost Catalogue?

The Immunization Delivery Cost Catalogue (IDCC) is the most **comprehensive, current, and standardized database** on the cost of delivering vaccines in low- and middle-income countries

- » First developed in 2017, updated in 2018, 2019 and 2024
- » Scope: evidence published between Jan 2005 and May 2024
- » Excel database downloadable from <https://immunizationeconomics.org/thinkwell-idcc/>



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Systematic review of over 22,000 publications

119 publications included
(only included studies estimating the delivery costs in LMICs based on **primary data**)

1,156 unique unit costs
(cost per dose, per target person, per fully vaccinated person, standardized to 2022 USD)

What can you find in the IDCC?

BACKGROUND INFORMATION			UNIT COSTS (2022 USD)				VACCINE DELIVERY				
Year of Publication	Article, Report or Project Title	Country	Cost per dose without vaccine (2022 USD)	Cost per dose with vaccine (2022 USD)	Cost per fully immunized person without vaccine (2022 USD)	Cost per fully immunized person with vaccine (2022 USD)	Routine vs SIA	Delivery Site	Delivery strategy (based on reported delivery site)	Delivery sector	Target delivery population
2022	Projecting the cost of introducing typhoid conjugate vaccine (TCV) in the national immunization program in Malawi using a standardized costing framework	Malawi	\$ 0.92	\$ 3.42	\$ 0.92	\$ 3.42	Routine	Static, outreach, and mobile clinics	Multiple strategies	Public	Infants (0-1 year)
2022	The economic impact of the switch from single- to multi-dose PCV13 vial in Benin	Benin	---	\$ 5.89	---	---	Routine	Health facilities	Facility-based	Public	Infants (0-1 year)

Cost of delivering immunization by:

- ✓ Location/setting (country, urban/rural)
- ✓ Antigen costed
- ✓ Target population
- ✓ Delivery modality and strategies

Study-related details:

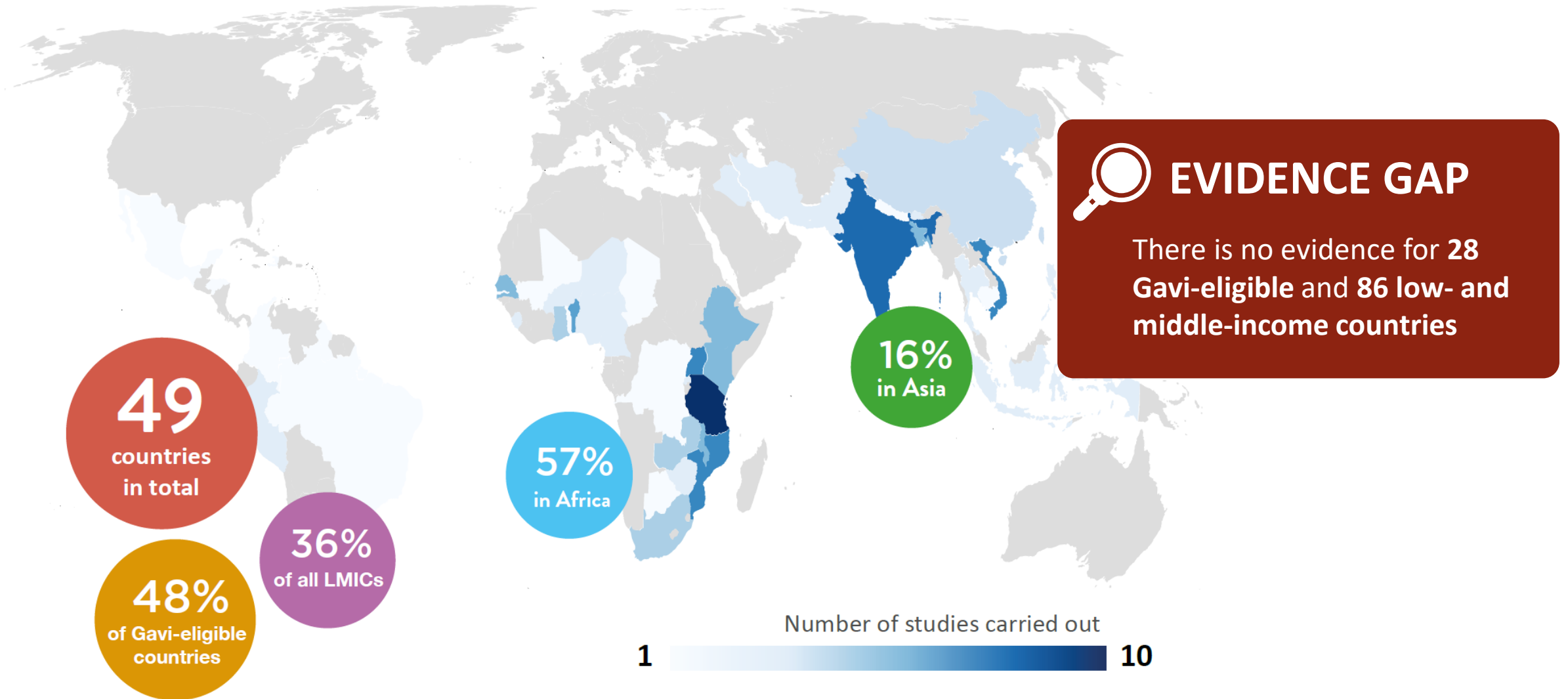
- ✓ Cost categories included (salaries, cold chain, etc.)
- ✓ Type of costs (fin vs. eco, start up vs. recurrent, full vs. incremental)
- ✓ Study design, objectives, sample, methods
- ✓ Paper/report title, authors, publication date, etc.

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What is the state of the evidence on the cost of delivering immunization?

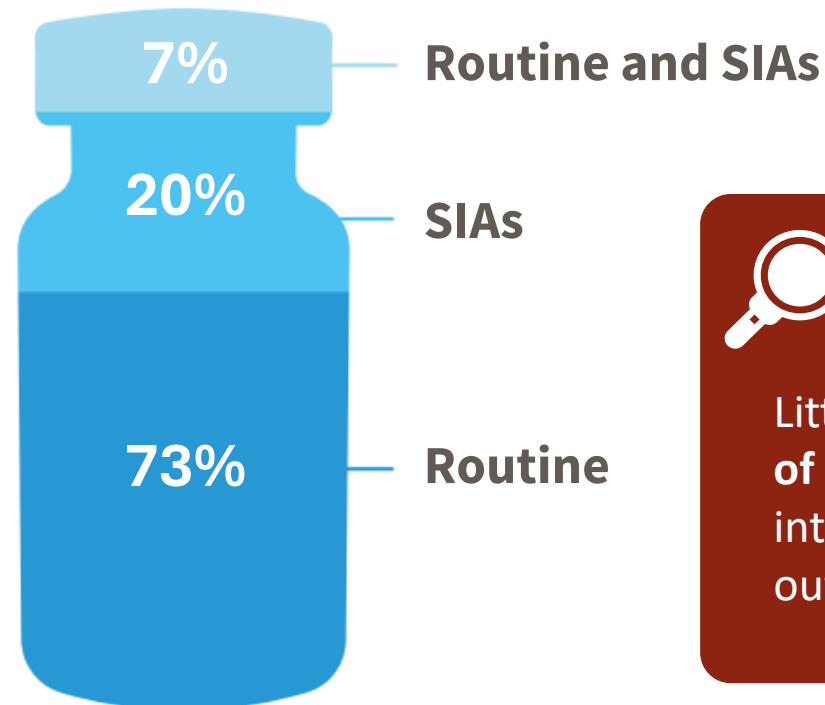


For what **countries** do we have cost evidence?



For what **delivery modalities** do we have cost evidence?

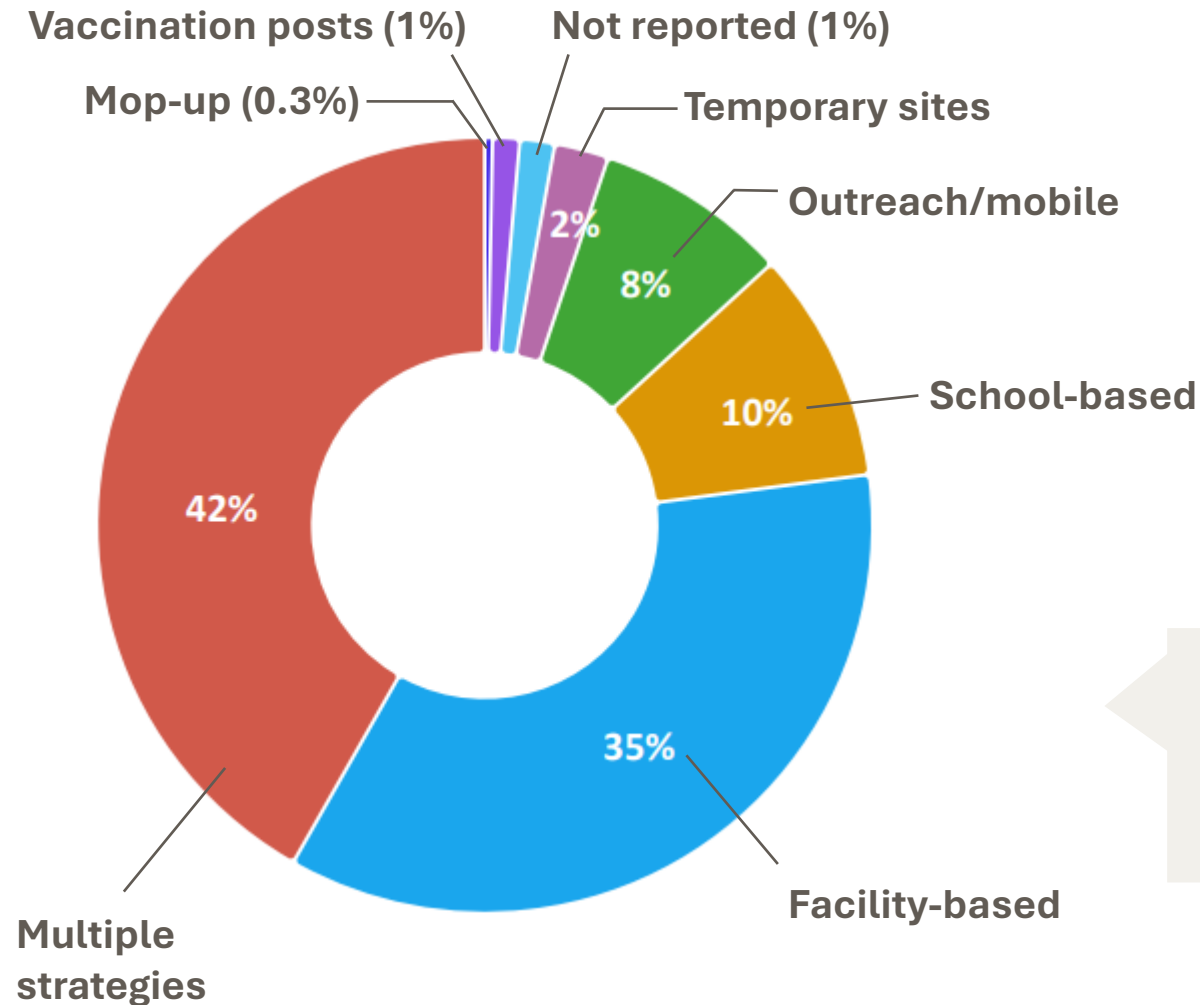
73% of the data points cover **routine delivery**, while 20% are for **supplementary immunization activities (SIAs)**



EVIDENCE GAP

Little evidence for **different types of SIAs**: subnational campaigns, integrated campaigns, PIRI, local outbreak responses, etc.

For what **delivery strategies** do we have cost evidence?

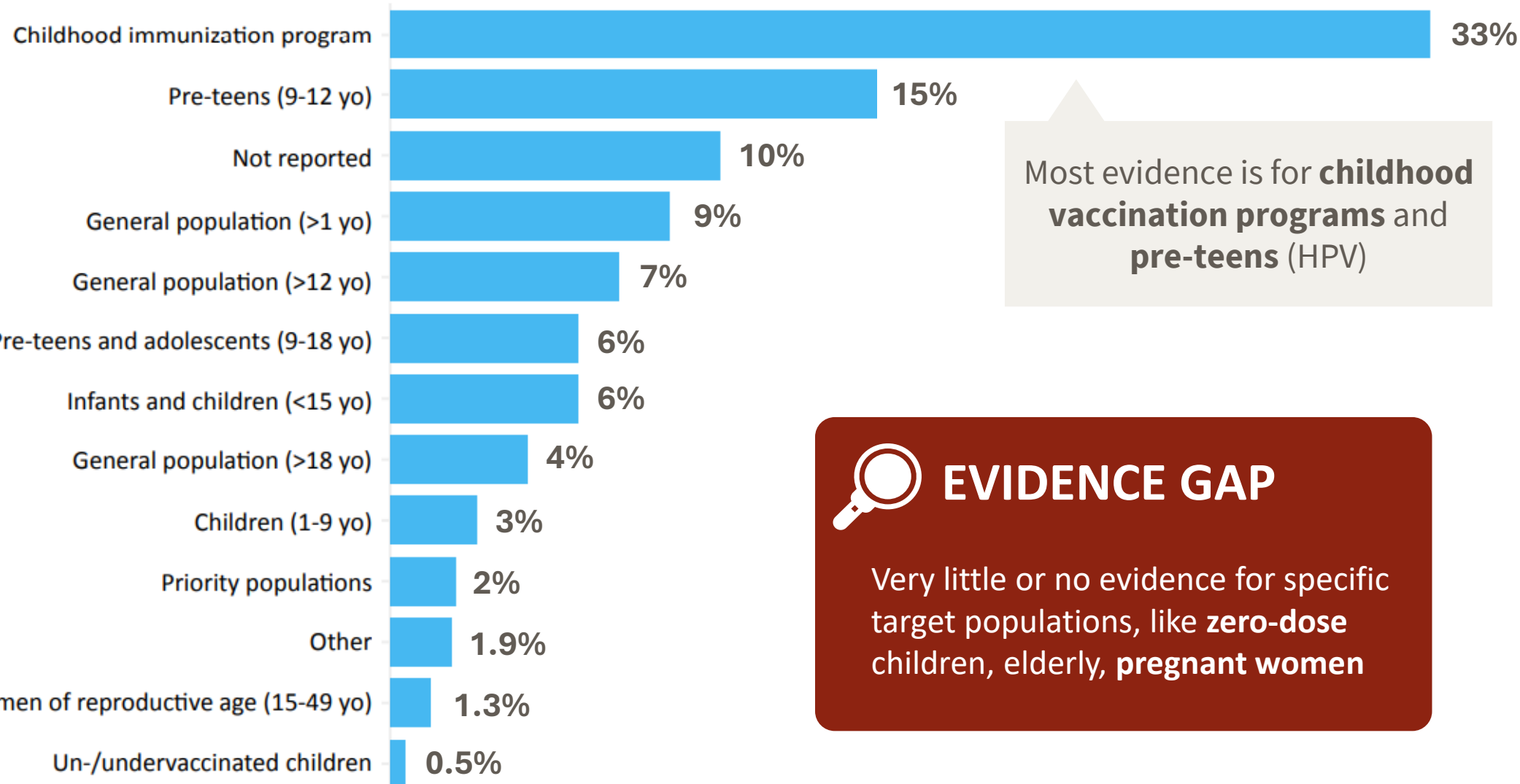


EVIDENCE GAP

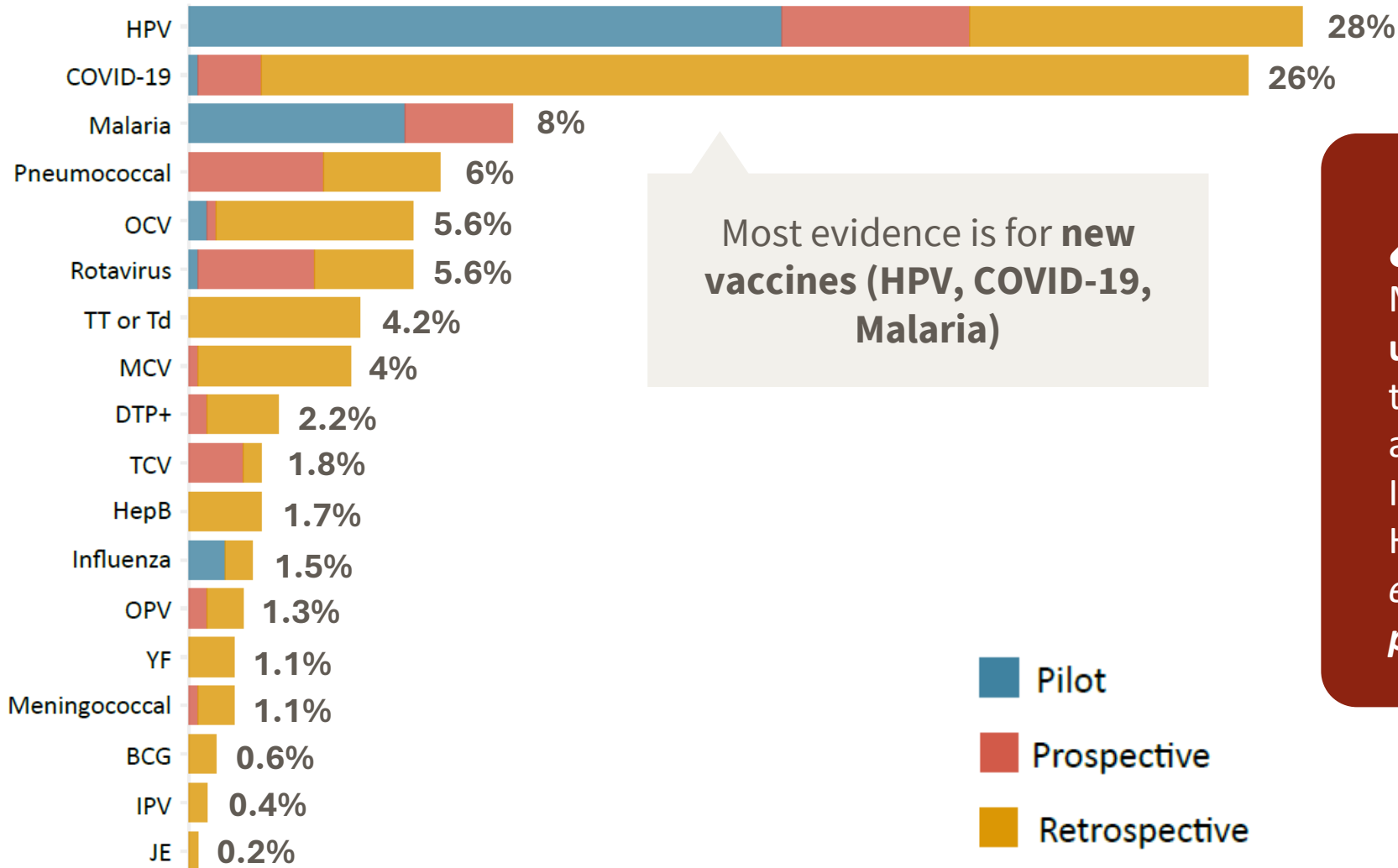
Only 16% of studies include costs for **more than one strategy**, allowing for a comparison of the **cost-efficiency** of different strategies in the same context

Most evidence is for **facility-based delivery** or **multiple strategies combined** (e.g. one cost estimate for facility-based + routine outreach)

For what **target populations** do we have cost evidence?



What evidence is there for **single-antigen vaccine delivery**?



Most evidence is for **new vaccines (HPV, COVID-19, Malaria)**

EVIDENCE GAP

More evidence is needed on **scaled up delivery** of malaria, PCV delivery to adults, and new vaccines approved under Gavi's 2024 Vaccine Investment Strategy: mpox, dengue, HepE, GBS. *(For some, modelled cost estimates exist but none based on primary data)*

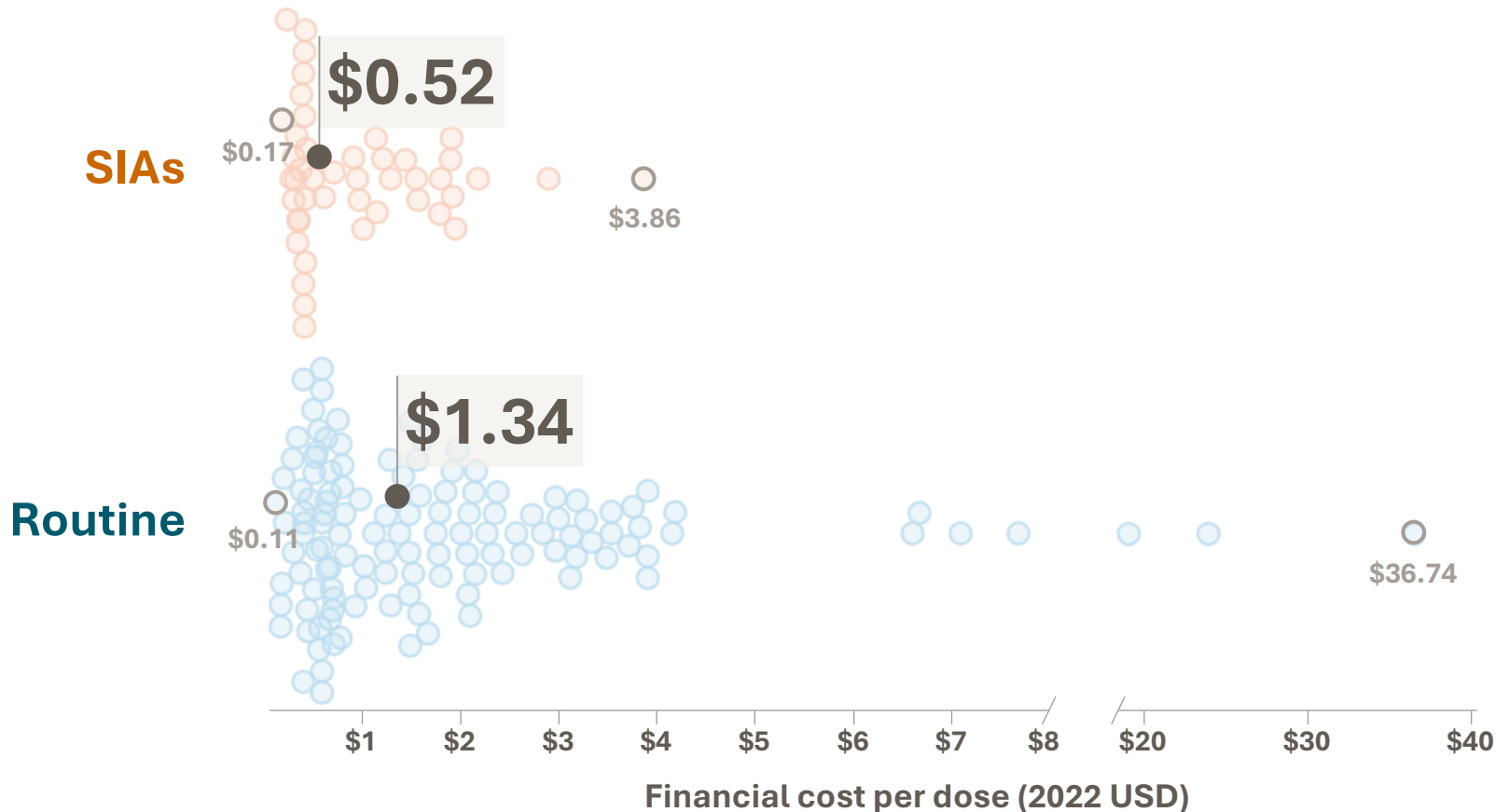
■ Pilot
 ■ Prospective
 ■ Retrospective

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What does it cost to deliver immunization in LMICs?

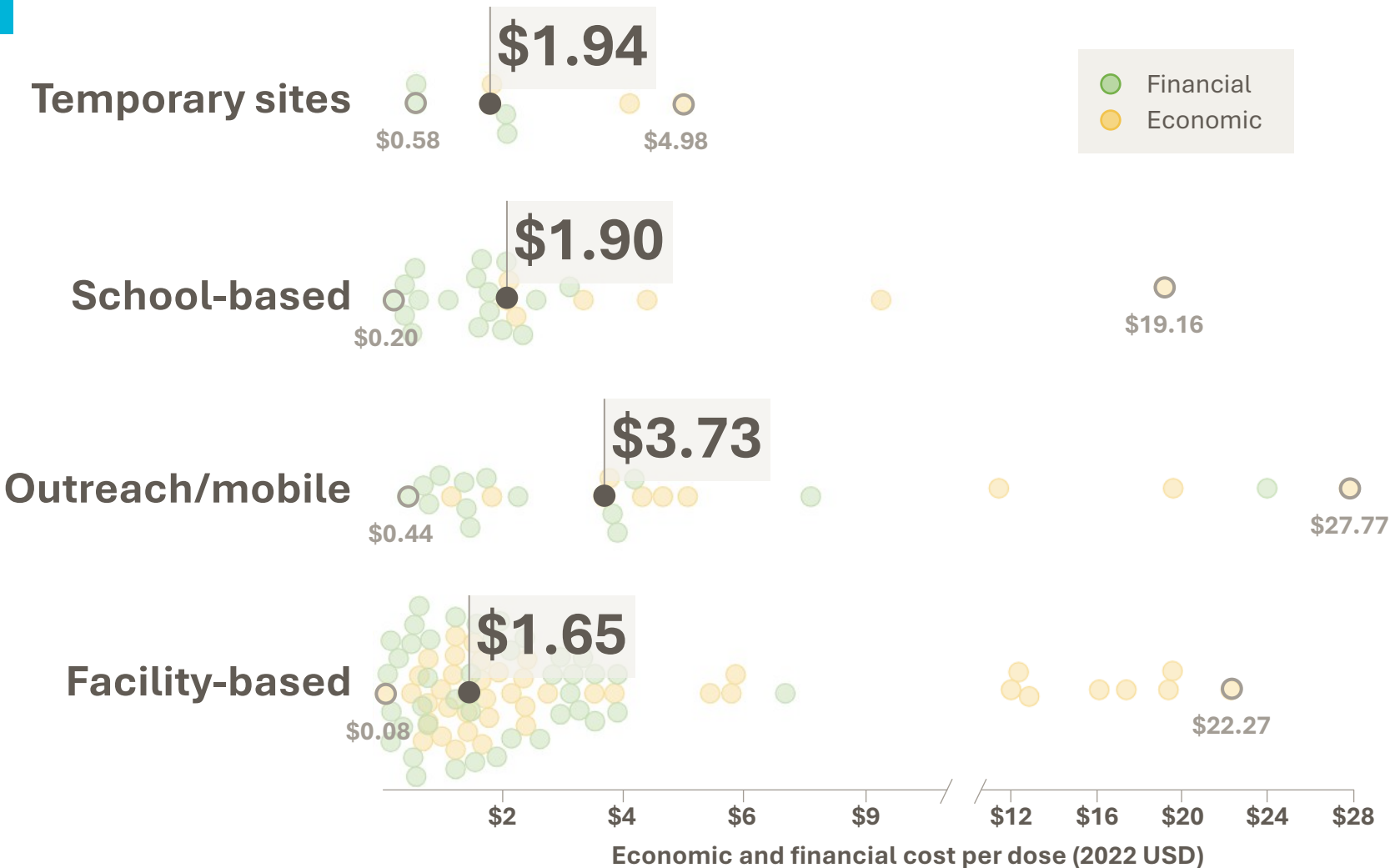


Routine delivery is often **more costly** per dose supplemental immunization activities (SIAs)



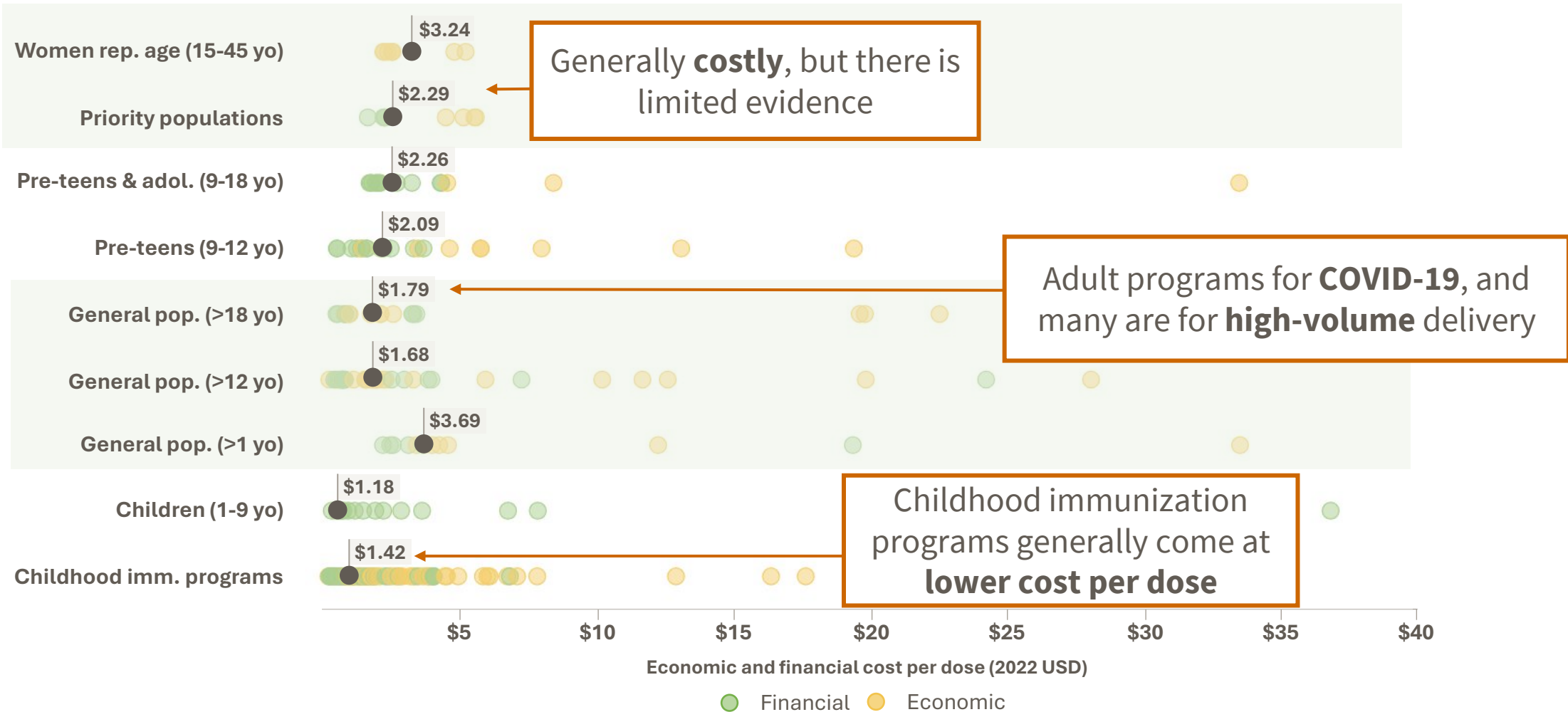
- » SIAs include **campaigns, outbreak responses, child health days**, etc.
- » Holds true when looking at economic costs

Outreach/mobile is the costliest among all delivery strategies



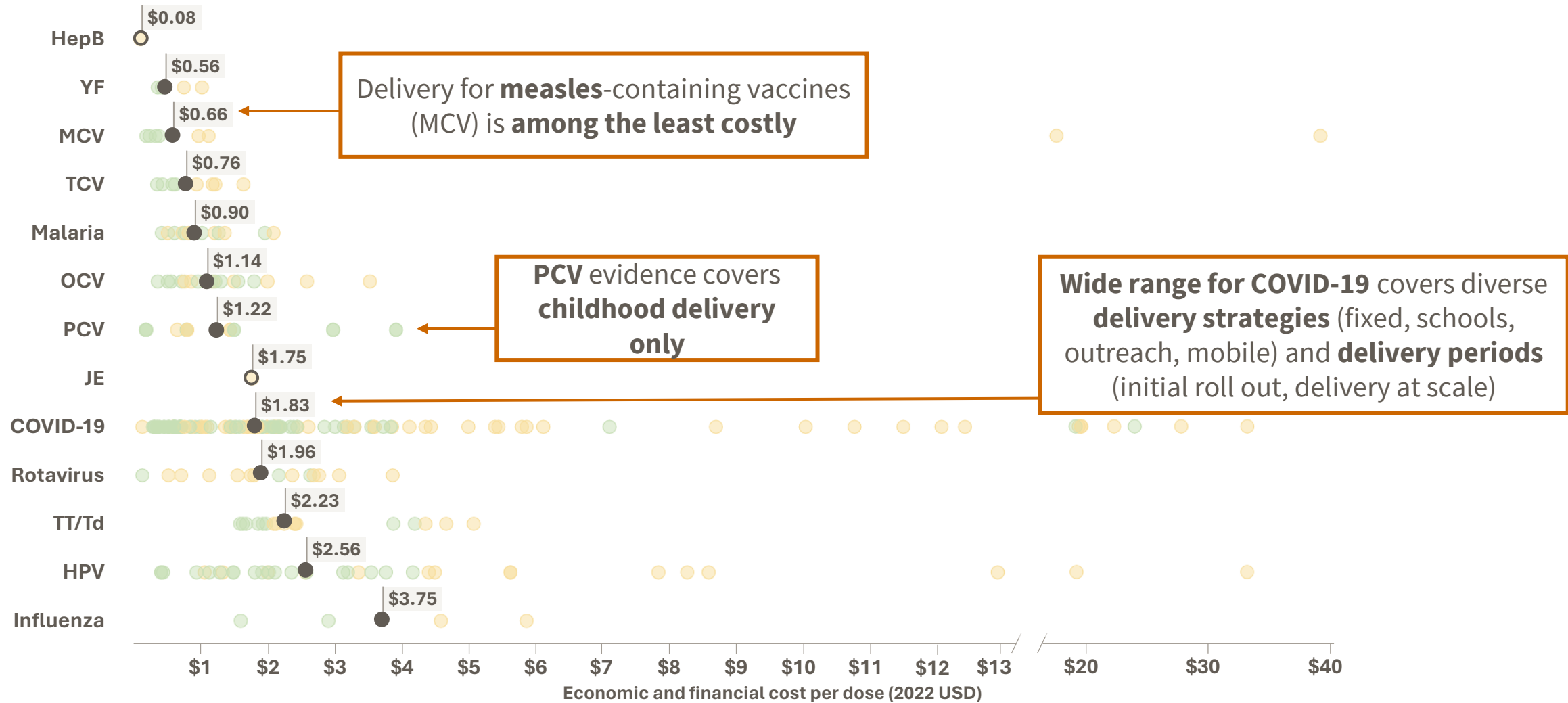
- » **Facility-based** delivery tends to be **less costly** per dose
- » High degree of **variation** particularly for **outreach/mobile**

Targeting adults through routine delivery is more costly than reaching children



Note: Only includes routine delivery. Methods used and cost components may differ among the studies included. Each dot represents one unit cost in the IDCC, some dots may be from the same study.

Vaccines targeting adolescents, adults and priority groups are generally costlier to deliver per dose



Note: Includes both routine and SIA delivery. Excludes pilot delivery costs for: Malaria, OCV, Rotavirus, HPV and COVID-19. No MenA data points available for cost per dose estimates. Methods used and cost components may differ among the studies included. Each dot represents one unit cost in the IDCC, some dots may be from the same study.

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How you can use the Immunization Delivery Cost Catalogue



How can you use the Immunization Delivery Cost Catalogue?



Who can use the IDCC?

Immunization managers

CSOs & advocacy groups

Donors

Policy makers

Country, regional and global partners

Manufacturers

Researchers



You can use IDCC data to:

- ✓ **Plan and budget** for immunization programs or SIAs
- ✓ Decide on new **vaccine introductions**
- ✓ Develop national **financing strategies** for immunization
- ✓ Develop **investment cases** for vaccines
- ✓ Support **resource mobilization**
- ✓ Identify cost-efficient **delivery strategy** mix and improve **resource allocation**
- ✓ Model delivery costs for new **vaccines in the pipeline**

A few examples of how the IDCC has been used:

- ✓ Generate **standardized estimates for LMICs** for which we don't yet have evidence [Portnoy et al \(2020\)](#)
- ✓ Inform global resource needs for COVID-19 delivery during the pandemic [UNICEF \(2022\)](#)
- ✓ Additional costs of conducting campaign and delivering routine vaccines during the COVID-19 pandemic [Banks et al \(2021\)](#)
- ✓ Cost of immunization programs in LMICs **to estimate global resource needs** [Sim et al \(2021\)](#)
- ✓ Cost of reaching global immunization targets **for global resource mobilization** [Sriudomporn et al \(2022\)](#)
- ✓ **Cost-effectiveness, risk-benefit** and **cost-benefit** analyses across countries [Debellut et al \(2021\)](#) and [Okafor and Ekwunife \(2021\)](#)

THE IMMUNIZATION DELIVERY COST CATALOGUE

THE STATUS OF EVIDENCE ON IMMUNIZATION DELIVERY COSTS
IN LOW- AND MIDDLE-INCOME COUNTRIES

THINK
WELL

WHAT IS THE IMMUNIZATION DELIVERY COST CATALOGUE?

The Immunization Delivery Cost Catalogue, or IDCC, is the most comprehensive, current, and standardized database on the cost of delivering vaccines in low- and middle-income countries. The IDCC is based on a systematic review of over 22,000 publications, that present primary data from low- and middle-income countries. It includes 1,156 unique unit costs from 119 publications published between January 2005 and May 2024. More information on the definitions used in this brief can be found on page 9, and details on the methodology used for the IDCC are available [here](#).

WHO IS IT FOR?

National and sub-national planners and policymakers, researchers, and international partners supporting country immunization and health system policy. Data may be useful for budgeting, planning, policymaking, research, advocacy, and beyond.

WHAT IS IN THIS BRIEF?

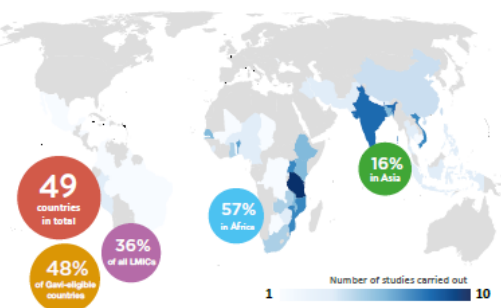
This brief presents a descriptive analysis of the IDCC, showing what evidence on the cost of immunization delivery is available and what are the current evidence gaps. The brief also illustrates delivery cost per dose for routine and supplementary immunization activities (SIAs), key antigens, delivery strategies, and target populations.

WHAT'S NEW IN THE IDCC

The 2024 update adds 607 unit costs from 62 country studies—including from 12 countries previously not represented in the IDCC—published in 52 resources.

- 15 Studies on delivering HPV vaccines at scale
- 11 Studies on C19 vaccine delivery
- 8 Studies on the new malaria vaccine
- 28 Studies for supplementary immunization activities
- 9 Studies covering more than one delivery strategy

FOR WHAT COUNTRIES DO WE HAVE COST EVIDENCE?



For country specific data, jump to page 9.

DOWNLOAD THE IDCC DATABASE HERE ↓

Thank you!

Want to know more?



Find our **brief, methods guide** and download the **IDCC excel** at:
<https://immunizationeconomics.org/thinkwell-idcc/>

More questions?  fmoi@thinkwell.global