Annex C: Trends and influences on market shaping

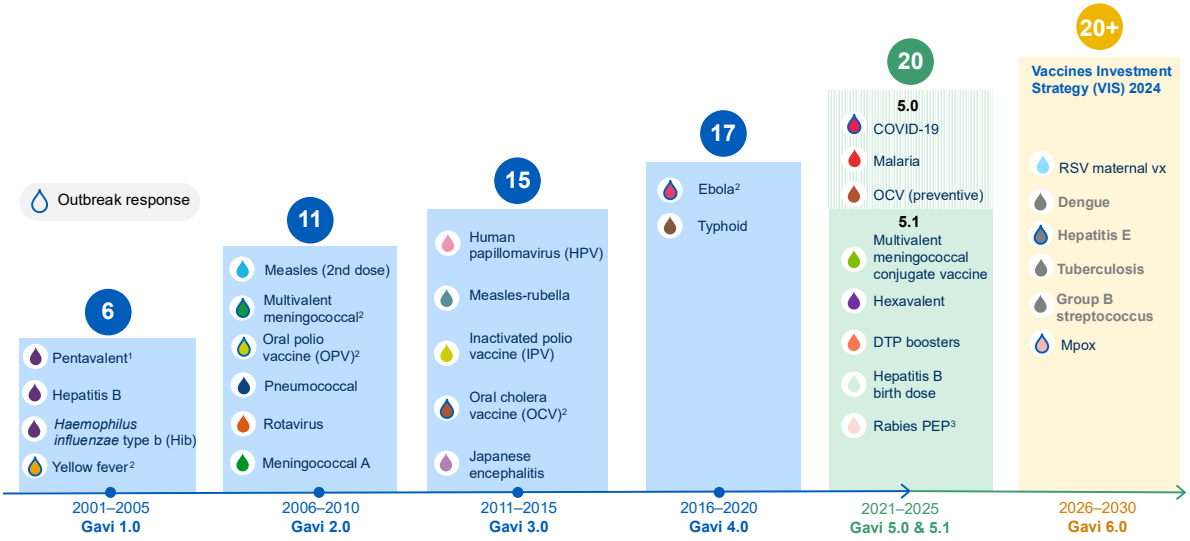
An analysis of vaccine market trends was performed to support the development of the MSS6.0 and enable the market shaping strategy for Gavi 6.0 to be designed to proactively address important evolutions and changes observed and/or projected.

The number of vaccines available to countries with Gavi support continues to increase (trend #1), among these vaccines many countries have introduced Gavi-supported programmes that are programmatically established using specific vaccines (trend #2) that were selected by countries (trend #3) whether by presentation or vaccine type or both. Changes to the Gavi model in Gavi 6.0 including country vaccine procurement budgets and increased co-financing obligations (trend #4) combined with a significant proportion of demand coming from less predictable markets (trend #5) will create a period of unpredictable demand that is more difficult for suppliers to manage. The number of suppliers of vaccine to Gavi and their characteristics continues to evolve (trend #6). Vaccine pricing in Gavi markets has variably decreased or increased in different markets (trend #7) and in several markets the product price differential has significantly increased with large price gaps between the lowest and highest priced products (trend #8). The number of imbalances or threats to supply meeting demand has continued (trend #9), requiring ongoing attention to market health to prevent interruptions to vaccination. Finally, suppliers face structural challenges (trend #10) that may pose risks to Gavi markets.

Trend #1: Gavi support is anticipated to be available for an increasing number of vaccines.

Since the advent of Gavi, the number of vaccines available to countries has increased substantially. By the end of the Gavi 6.0 strategic period Gavi support could be available for up to 25 vaccines (Figure 1). Compared to previous periods, countries face increasingly complex decisions regarding which vaccines to prioritise and introduce. The increasing number of vaccines available to introduce also carries financial implications, as the cost per fully immunised child continues to increase (~140% from Gavi 4.0 to Gavi 5.0/5.1) at a difficult pace that is challenging for countries to meet.

Figure 1: Gavi support vaccines by strategic period, 2001-2030[1234]



Trend #2: For many countries the use of a specific vaccine product is programmatically established, having been previously introduced.

Most Gavi-supported countries have already introduced many of the Alliance's supported vaccines (Table 1). This demonstrates both country commitment and the success of Gavi's market shaping and support strategies in accelerating introductions. As a result, many vaccines are now available across Gavi-supported health systems and means that countries have already embedded specific product choices into their immunisation programmes (based on preferences or product availability), and that potential vaccine product optimisation decisions (e.g. for financial and programmatic suitability reasons) will require programmatically complex physical switches of the product used in their immunisation programmes.

[1] Gavi Board, assumed WHO PQ timelines, VIS 2024 Assessments.
[2] Diphtheria, tetanus, pertussis (DTP) boosters, hepatitis B, Haemophilus influenzae type b (Hib),
[3] Emergency stockpiles
[4] PEP = Postexposure prophylaxis

Table 1: Introductions by select Gavi-supported vaccine, as of January 2025[5]

Vaccine	Introductions in Gavi-supported countries -- % (n)
Pentavalent	100% (54/54)
Inactivated Polio (IPV)	100% (54/54)
Pneumococcal (PCV)	92% (50/54)
Rotavirus (Rota, RV)	83% (45/54)
Measles-Rubella (MR)	74% (40/54)
Human Papillomavirus (HPV)	57% (31/54)
Typhoid (TCV)	13% (7/54)

Trend #3: Gavi uses different approaches to manage market health and country choice. In specific vaccine markets, there are an increasing number of products with distinct vaccine types (e.g. valency), giving countries a more detailed choice of product.

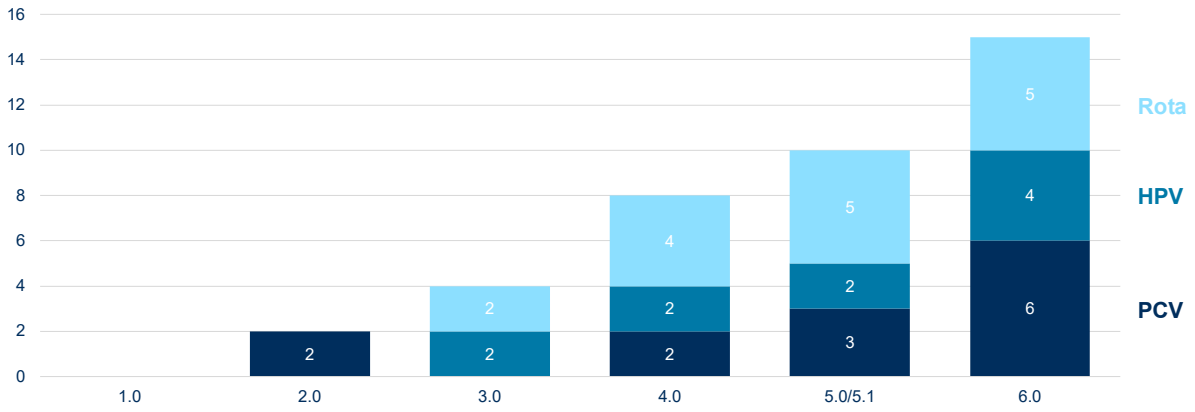
For vaccine without meaningful differentiation of vaccine type or schedule, countries choose a presentation (e.g. 1 dose or 10 dose vial) preference only. In these instances, the markets are considered 'no-brand choice' and specific products are procured for countries by UNICEF Supply Division (SD) in line with market shaping roadmap targets and contracted supply. The following vaccines are considered no-brand choice markets: Pentavalent, IPV, Measles (M)/MR, Meningococcal, Oral cholera (OCV), Rabies, TCV, Yellow fever (YF).

However, for vaccines with meaningful differentiation of vaccine type or schedule, countries have the option to select both vaccine type and presentation and currently this means the opportunity to select a specific product from a specific supplier. These markets are considered 'choice' markets and products are procured by UNICEF SD based on country product choice. The following vaccines are considered choice markets: PCV, HPV, RV, Japanese Encephalitis. Malaria operates as a hybrid model where vaccines are differentiated by vaccine type on Gavi's vaccine product menu and countries express a product preference, but UNICEF SD determines the eventual product procured for each country based on market health and supply security considerations.

[5] VIEW-hub International Vaccine Access Center, September 2025

In choice markets, the range of vaccine types and presentations available has expanded significantly. By the end of Gavi 6.0, four products will be available for HPV, five for RV, and six for PCV (Figure 2). This expansion in choices offers countries greater flexibility but also increases the complexity of country decisions which must assess trade-offs between different product characteristics. Many of these new product choices are also available to countries at lower prices compared than existing products on Gavi's menu, however, uptake of these new, lower priced products has been limited to-date (more detail in Trend #8). Limited uptake and country switches to new, lower priced products has in part been driven by limited country price sensitivity and programmatic challenges to implement product switches (e.g. schedule changes, cold chain, training, etc.).

Figure 2: Total product choice in PCV, HPV, and Rota markets by strategic period, 2001-2030[6]



Trend #4: Transition to country budget funding and new co-financing obligations are likely to create near-term demand uncertainty.

The implementation of country budgets will empower countries to choose how to spend the fixed value of Gavi funding for vaccine procurement by optimising the choice of products that they use and prioritising vaccine programmes. The implementation of country budgets will create significant demand uncertainty for the Alliance and suppliers as it is unknown how countries will prioritise vaccine programmes (existing and new) or optimise the vaccine products used in their immunisation programmes. One possibility is that many countries elect to adopt lower cost products to optimise their budget and support other immunisation activities which may result in aggregate shifts in demand to lower priced products.

Simultaneously, there are two important changes to the Gavi Alliance policies on Eligibility and Transition, and Co-financing (ELTRACO) (Shift A and campaign co-financing) that may make countries more cost conscious and could influence country decisions regarding product choice and implementation of preventive vaccination campaigns. Starting in 2026, ELTRACO Shift A requires ISF countries to pay a fixed percentage of the price of their selected PCV and HPV products. The actual difference

[6] UNICEF tenders for PCV, HPV, Rotavirus; Gavi 6.0 assumes WHO prequalification (PQ) for new products

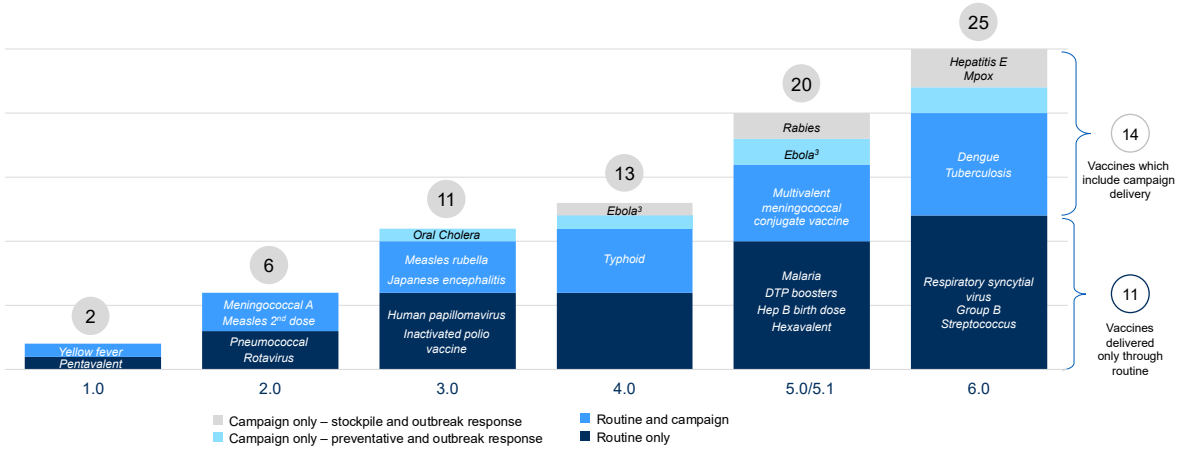
is that compared to the standard co-financing obligations of US$ 0.20 per dose, countries could pay between US$ 0.14 and US$ 0.23 for PCV and US$ 0.12 and US$ 0.21 for HPV. This was designed to increase ISF country exposure to vaccine prices, but it is unclear if it will change country product choices as the actual cost differences are not large. Campaign co-financing obligations will now also be required for all Gavi-supported countries, ranging from US$ 0.05 to US$ 0.27 per dose for YF and MR vaccines, depending on the country transition status, compared to no country co-financing obligation for preventive campaigns previously.

These new financial obligations that countries must meet are likely to increase demand uncertainty in markets which must ensure large volumes are available to support the implementation of preventive vaccination campaigns. It is possible that after these policies take effect and countries have sufficient time to adapt, their impact on demand uncertainty will be more limited.

Trend #5: Gavi increasingly supports vaccines that are delivered through preventive campaigns or outbreak response, and demand has become more unstable.

Of the 25 vaccines that make up Gavi's portfolio, over half are used in preventive campaigns or stockpiles (Figure 3). Between 2020-2024, 35-45% of all UNICEF shipment volumes for Gavi were for vaccines used in preventive campaigns or outbreak response. Demand for these vaccines used in preventive campaigns and outbreak response is less predictable compared to vaccines used in routine immunisation. Vaccines used in campaigns and outbreak response are subject to sudden surges or delays that complicate demand forecasting, supply planning, and market sustainability. A notable example is the measles-containing vaccine market where there is a prequalified vaccine from three suppliers and UNICEF shipments of M and MR vaccines varied annually between -50% to +194% from 2020-2024 and has varied by as much as 100 million doses from one year to the next. This challenge is anticipated to continue through the Gavi 6.0 strategic period.

Figure 3: Gavi vaccines by supported delivery strategies by strategic period



Trend #6: The OEP vaccines which Gavi supports is increasing, with unique challenges in these markets.

An increasing segment of Gavi's vaccine portfolio is comprised of OEP vaccines. In Gavi 5.0/5.1, Gavi began supporting preventive Ebola vaccine, and through the VIS2024, in-principle stockpile investments for mpox and Hepatitis E were approved for 6.0, while others like chikungunya were evaluated but not prioritised for support. These vaccines play a critical role in global health security but have distinct challenges that set them apart from routine immunisation markets.

These markets are characterised by extreme unpredictability of demand, often triggered by sudden and localised outbreaks rather than sustained, predictable use. This volatility leads to weak commercial incentives for manufacturers, resulting in underinvestment, limited supply readiness, and difficulties in ensuring timely availability when outbreaks occur. While recent investments in research and development (i.e. the Coalition for Epidemic Preparedness Innovations (CEPI)) have expanded the pipeline and provided resources for product development, these measures alone are insufficient to attract or sustain suppliers in markets with highly uncertain demand dynamics. Tailored strategies that go beyond Gavi's existing market-shaping approaches can balance incentivising supplier engagement despite uncertain volumes and ensuring that critical outbreak, epidemic and pandemic-prone (OEP) vaccines can be delivered rapidly and equitably when new threats emerge.

Trend #7: The number of suppliers is increasing, with the majority of new vaccines and volumes from members of the Developing Country Vaccine Manufacturers association.

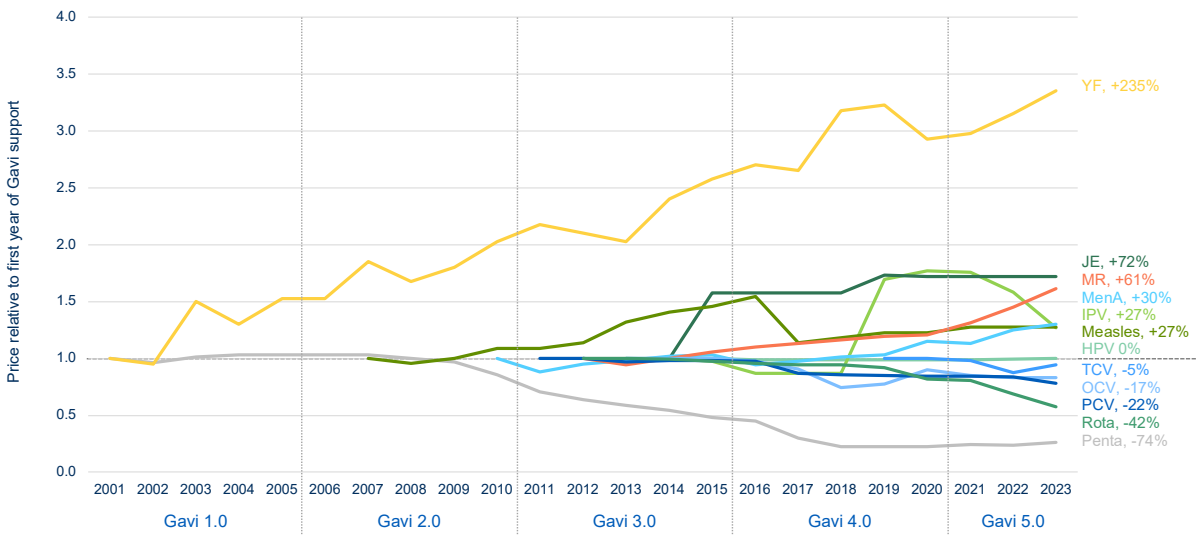
During Gavi 6.0, the supplier base is expected to expand from 22 to 29 suppliers, with over 50% of suppliers only selling one vaccine. Within this supply base, across Gavi's previous strategic periods, an increasing share of Gavi-funded doses have been supplied by members of the Developing Country Vaccine Manufacturers association (e.g., PCV, Rota, malaria) and this is expected to continue in Gavi 6.0. Important

market exits from supplier members of the International Federation of Pharmaceutical Manufacturers and Associations have also been observed (e.g. Merck Rota, Sanofi OCV). The increasing number of suppliers and the products they offer (Trend #2) have made markets more challenging to manage and a systematic approach and decision pathway which considers market impact, and other programmatic considerations or risks is needed to manage for sustainable market health.

Trend #8: Prices have lowered over time in many of Gavi's key vaccine markets.

Since Gavi's inception, the WAPs for Penta, Rota, and PCV vaccines have declined by 74%, 42%, and 22% respectively (Figure 4). These price reductions are now approaching the limits of sustainability for some manufacturers. Much of the downward trend has been driven by the entry of products from DCVM suppliers who have offered lower prices. At the same time, WAPs in other vaccine markets have increased by 27% to 235%. These increases have been shaped by several factors, including inflation and procurement strategies designed to strengthen market resilience—such as securing supply from multiple manufacturers, including higher-priced vaccines. These dynamics highlight the divergent trends across vaccine markets, where price decreases in some cases are balanced against the need to ensure supply security and maintain a healthy, sustainable base of suppliers.

Figure 9: Changes in WAP since beginning of vaccine support



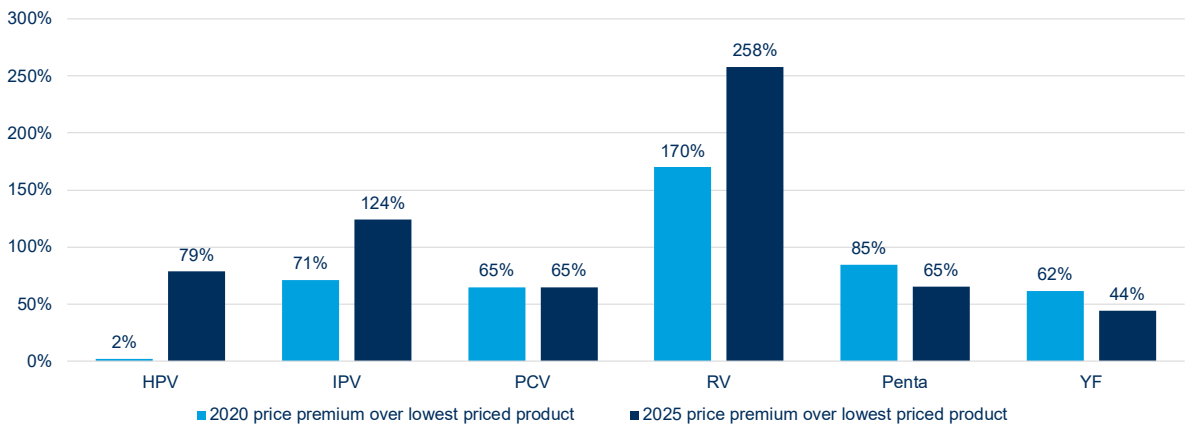
Trend #10: Price differentials in key markets have grown during Gavi 5.0, but adoption of lowest priced products has been limited.

In earlier Gavi strategic periods, the price differentials between vaccine products in certain markets were negligible. In the PCV market between 2006 and 2019, price per

dose[7] differences between the lowest and highest priced products were no greater than 5%. Similar trends were observed in the HPV (2013-2021) and Penta (2006-2010) markets.

However, with the expanded supplier base and increasing number of lower priced products available to countries, during the Gavi 5.0 period, the price per dose differentials in vaccine markets including HPV, IPV, and Rota have expanded significantly. The 2025 difference between the lowest and highest priced vaccines per dose for HPV, IPV and Rota were US$ 2.28, US$ 1.75 and US$ 1.55, respectively, translating to price premiums of 78%, 124% and 258% over the lowest priced product per market. Since 2019, when a new low-priced product entered the PCV market price differentials grew from US$ 0.15 (5%) to US$ 1.30 (65%). Despite the availability of lower priced products, demand for these products has been limited to-date, with 2 of 26 ISF and 3 of 30 AT/PT countries using the lowest priced PCV or HPV vaccines.

Figure 5: Price per dose differentials between lowest and highest priced products by market, 2020 compared to 2025



Trend #11: Supply disruptions happen and are often averted through ad-hoc solutions.

Gavi has experienced 18 supply disruptions over the past six years resulting in 100 incidences of country impact (including six stock-outs and 14 NVI/campaign delays). Others were narrowly averted by ad-hoc reallocation of supply among multiple manufacturers. Given the complexity of vaccine production, the risk of supply disruptions will continue in the Gavi 6.0 period and necessitate that Gavi maintains a minimum level of supply security in all markets to minimise the implications for countries.

[7] Because rotavirus vaccines have different number of doses per person, these prices differentials do not represent a per person differential

Table 2: Supply disruptions and mitigation actions

Disruptions successfully mitigated	Disruptions partially / not mitigated
Penta – demand surge post-Covid leading to supply constraint; mitigated through reallocating across diversified supplier base	IPV – 2016 two-supplier market and both suppliers had issues; no mitigation and led to countries missing IPV and cVPDV2
Rota – 2018 supply disruptions due to market exit mitigated through switching countries to two newer suppliers without which there would have been programme interruptions	Rota – 2018 one manufacturer supply disruption resulted in delayed country introductions
Rota – 2025 supply disruption was successfully mitigated by switching one country from one supplier to another. Other countries will have lower buffer stock than usual but low risk of stocking out	Rota – 2022 one manufacturer supply disruption (permanent reduction of supply availability versus plan) requiring 6 countries to switch to another product, some impacted by stockouts between 3- and 9-months duration
IPV – 2025 one manufacturer experienced a bulk quality issue: mitigated thanks to additional supply across diverse supplier base	
HPV – One manufacturer supply constraint partially overcome through accelerating production of another manufacturer to limit the delay of MACs	

Trend #12: Suppliers face important structural challenges, particularly in the post-COVID-19 environment.

The global vaccine industry is grappling with structural pressures following COVID-19. For suppliers of COVID-19 vaccines, revenue has declined as emergency procurement ended, advance purchase agreements were not renewed, and COVID- 19 vaccination shifted from mass campaigns to seasonal boosters with smaller volumes. This declining demand has left some of these suppliers with overcapacity and high fixed costs and has forced costly write-downs and strained balance sheets. For suppliers that borrowed funding to expand production during the

pandemic, debt obligations have amplified these financial pressures. Beyond COVID- 19, long-term growth prospects for many suppliers are constrained: the markets for most globally recommended routine vaccine are mature, and new opportunities are concentrated in a small number of high-value products, limiting growth opportunities. Product innovation has become increasingly complex with new production technologies and adjuvants while in some cases production costs of existing vaccines have also increased to improve quality and regulatory compliance. Political and funding shifts have also occurred which weaken demand certainty, namely scaled back vaccine policy recommendations, coupled with reduced donor funding, which together create a more challenging environment in which suppliers must operate.