



## Day 2: Recap & Intro

Global VPPEF  
20 & 21 June 2023  
Copenhagen, Denmark



A word cloud of feedback from Day 1, featuring various terms in different sizes and orientations. The most prominent words are 'excellent', 'informative', 'good', 'wonderful', 'interesting', and 'interactive'. Other visible words include 'productive', 'networking', 'eye opening', 'instructive', 'perfect', 'helpful', 'rich in discussion', 'access to other countries', 'интересно', 'engaging', 'sweet', 'bon', 'super', 'ok', 'useful', 'enrichissante', 'très bien', 'very relevant', 'experience exchange', 'open new opportunities', 'amazing', 'it was great', and 'useful day'.

productive  
networking  
eye opening  
instructive  
perfect  
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useful day



- Overall, the **immunization coverage** was significantly impacted by Covid. However, there are plans in motion to have a **catch up** and **recovery** implemented, to reach those children that missed their vaccination schedules.
- Looking at those procurement overviews of countries in the room, we saw many similarities of the **main challenges** faced by countries, particularly around **sustainable financing** options. **Further conversations** will happen today on this, during the **forecasting, planning & budgeting session**.
- **Key building blocks for procurement** have been presented, which include **programmatic considerations & decision-making processes**, the need for **accurate forecasting** to support planning processes and ensuring there is **available funding**, as well as managing overall **procurement issues** (ie tenders, contract management, etc). These building blocks are critical in order to reach the overall goal of strengthening processes, leading to a more **strategic vaccine procurement approach** to ensure access to affordable, sustainable vaccine supply.
- Uzbekistan spoke to their **procurement planning for HPV introduction**, providing several key lessons learned including: (1) importance of **careful planning**, (2) that it is critical to have **intersectoral cooperation**, to ensure the right people are engaged and relevant Ministries & (3) **communication** is key to ensuring a smooth process.
- The session on MI was quite fruitful, with all groups providing feedback on how they currently **leverage MI to inform their procurement**. There were key themes mentioned, including the **availability of information** to use, considerations of **procurement modality**, whether via UNICEF or self-procurement, as well as **information on pricing** and how to negotiate the best prices. More to come on this during today's session focused on HPV.
- Finally, there were presentations on the various **partner tools** available, including the VPPEF & VPPN, the ecourse on strategic procurement, UNICEF's financing opportunities (ie VII, pre-financing and the MFF), Gavi's MICs approach and WHO's MI4A and other market resources.
- Overall **feedback from Day 1 was positive** and we hope the evening meal last night also led to fruitful conversations.

## DAY 1 | TUESDAY

**OPENING & WELCOME**

**INTRODUCTIONS, OBJECTIVES &  
SECURITY BRIEFING**

**OVERVIEW OF THE GLOBAL  
IMMUNIZATION PROGRAMMATIC STATUS**

**GOVERNMENT PARTNER UPDATES**

**DEEP DIVE ON M7: PROCUREMENT  
PLANS**

**DEEP DIVE ON M4: LEVERAGING  
MARKET INTELLIGENCE**

**UPDATE ON UNICEF & PARTNER  
TOOLS / RESOURCES**

## DAY 2 | WEDNESDAY

**OPENING & RECAP**


**OVERVIEW OF HPV SUPPLY &  
PROGRAMMATIC IMPLICATIONS**

**PRACTICAL EXAMPLE: LEVERAGING  
MARKET INTELLIGENCE**

**PRACTICAL EXAMPLE: FORECASTING,  
PLANNING & BUDGETING**

**ROADMAPS: DEVELOPMENT OF  
COUNTRY ACTION PLANS**

**NEXT STEPS & CLOSING**



## Overview of Human Papilloma Virus (HPV) programmatic implications & supply

**Andisheh Ghazieh**, Contracts Manager –  
Supply Division

**Svetlana Stefanet**, Immunization Specialist  
– Europe & Central Asia Regional Office





## Why vaccinate against cervical cancer?

While **mostly preventable**, HPV is the **4th most common form** of cancer among women worldwide and claimed the lives of 300,000 women in 2018.

HPV vaccination is the **key strategy** to achieve the goal of **Global Cervical Cancer Elimination by 2030**.



### Downward trend in HPV vaccine coverage continued: HPV coverage down by >15% since 2019

HPV vaccines have been introduced in 116 countries that represent a third of the global population of girls.

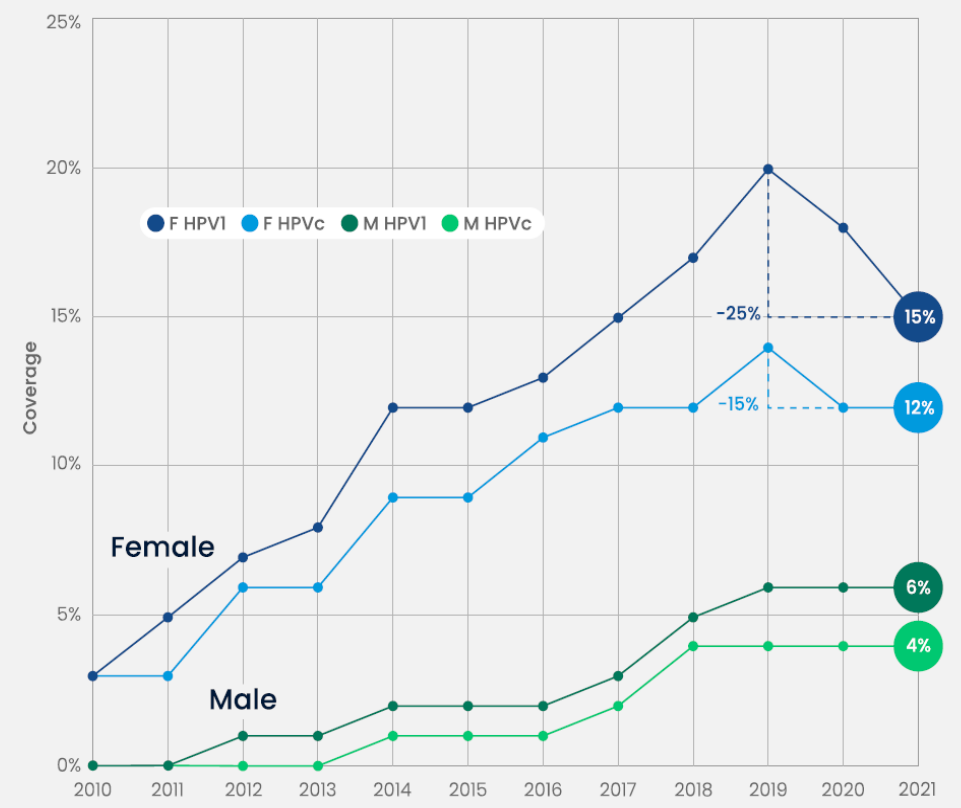
HPV vaccine coverage is on downwards trend reflecting COVID-19 pandemic effects. Only 12% of girls are fully protected.

Currently a third of the world's population of girls 9-14 years of age live in countries that provide the HPV vaccine.

Globally, the mean coverage HPV programmes achieve is 55% for the first and 44% for the last dose of HPV.

This low coverage combined with the large population that lacks access to HPV vaccines results in a very low global coverage of 12%.

The number of countries providing male vaccination has increased to 42.



\* Source: [Cervical Cancer Elimination Initiative \(who.int\)](https://www.who.int/cancer/cervical-cancer-elimination-initiative)

\* Source: WUENIC 2021 data. Please note 2022 data is expected in July 2023.

## HPV Vaccine coverage decreased in 2021 in L&MIC

Coverage is on a downward trend in L&MIC while HIC keep showing resilience

Urgent action is required to improve HPV vaccine coverage and vaccinate missed cohorts of girls

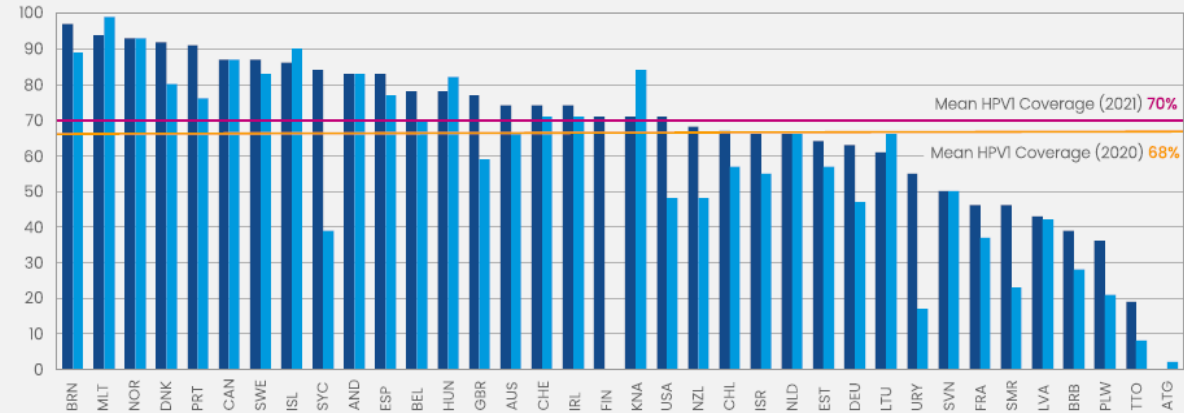
In L&MIC mean first (46%) and final dose (33%) coverage declined further in 2021. HIC showed modest improvements.

Dropout continues to be a specific challenge for HPV vaccination programmes, particularly in L&MIC.

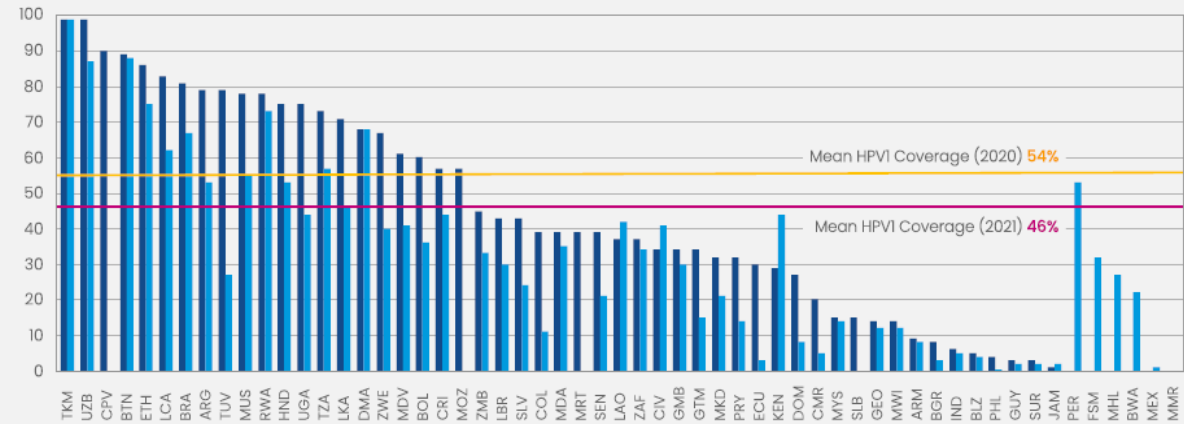
COVID-19 pandemic continued to affect performance of HPV programme in L&MICs through school closures, delayed vaccination rounds but also product stockouts.



HIC Programme Coverage



L&MIC Programme Coverage

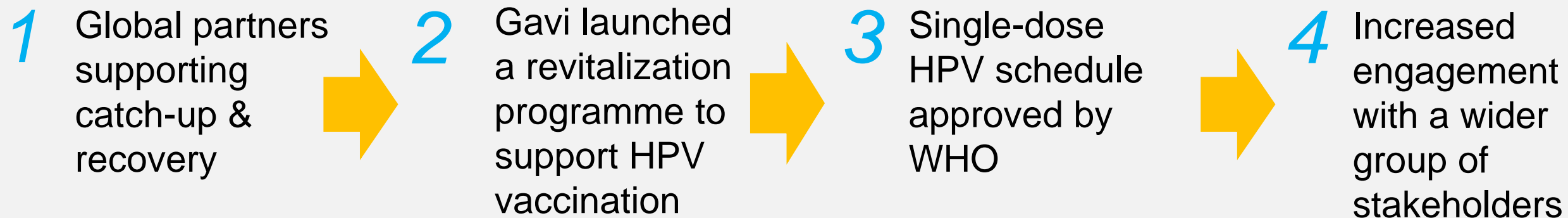


● HPV1 ● HPVc

\* 2022 WUENIC data available July 2023

# Opportunities for revitalizing HPV programme

## What does this look like?



**SAGE recommends** updating dose **schedules for HPV** as follows:

- **One or two-dose schedule** for the primary target of girls aged **9-14**
- **One or two-dose schedule** for young women aged **15-20**
- Two doses with a 6-month interval for women **older than 21**.





## Objectives

Secure **uninterrupted supply** to meet routine demand and enable introductions in MICs

Achieve lower prices that are **affordable** to MICs and increase transparency of prices secured for MICs

Gain information and enable entry of pipeline manufacturers to contribute to the creation of a **healthy market with multiple suppliers**.

## Focus Countries

MICs that have not yet adopted new vaccines (HPV, PCV and Rota) in their routine immunization programs.

MICs that have introduced new vaccines and are procuring the vaccine through UNICEF.

Self-procuring MICs that have introduced new vaccines but have sought UNICEF's support due to concerns regarding the sustainability of their programmes.

# Procurement Planning

When countries procure through UNICEF, the following key information are required for planning purposes:

**1**

**Decision-making:** How does this work in your country? What barriers exist for introduction of HPV, PCV & Rota (NITAG recommendations), including product preference? Will a 2-dose or 1-dose strategy be utilized?

**2**

**Target population:** What is the target population? Girls only or gender-neutral strategy? Target ages. Routine and/or Multi-Age Cohort (MAC)? What is the demand forecast (multi-year preferred)?

**3**

**Funding mechanism & procurement modality:** What funding mechanism and procurement modality will your country be using?

**4**

**Planning/budgeting:** What is the capacity of your country to support multi-year commitments? What is the budgeting cycle?

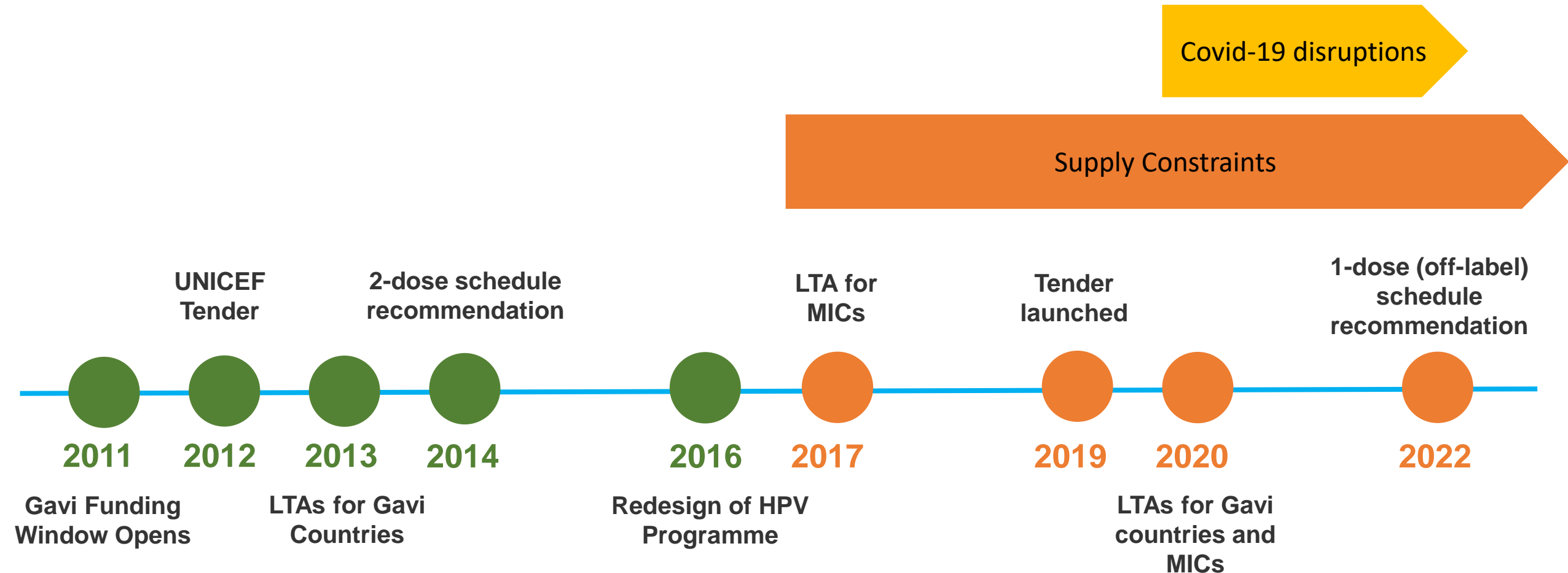
**5**

**Planned introduction:** When do you plan to introduce the vaccine?





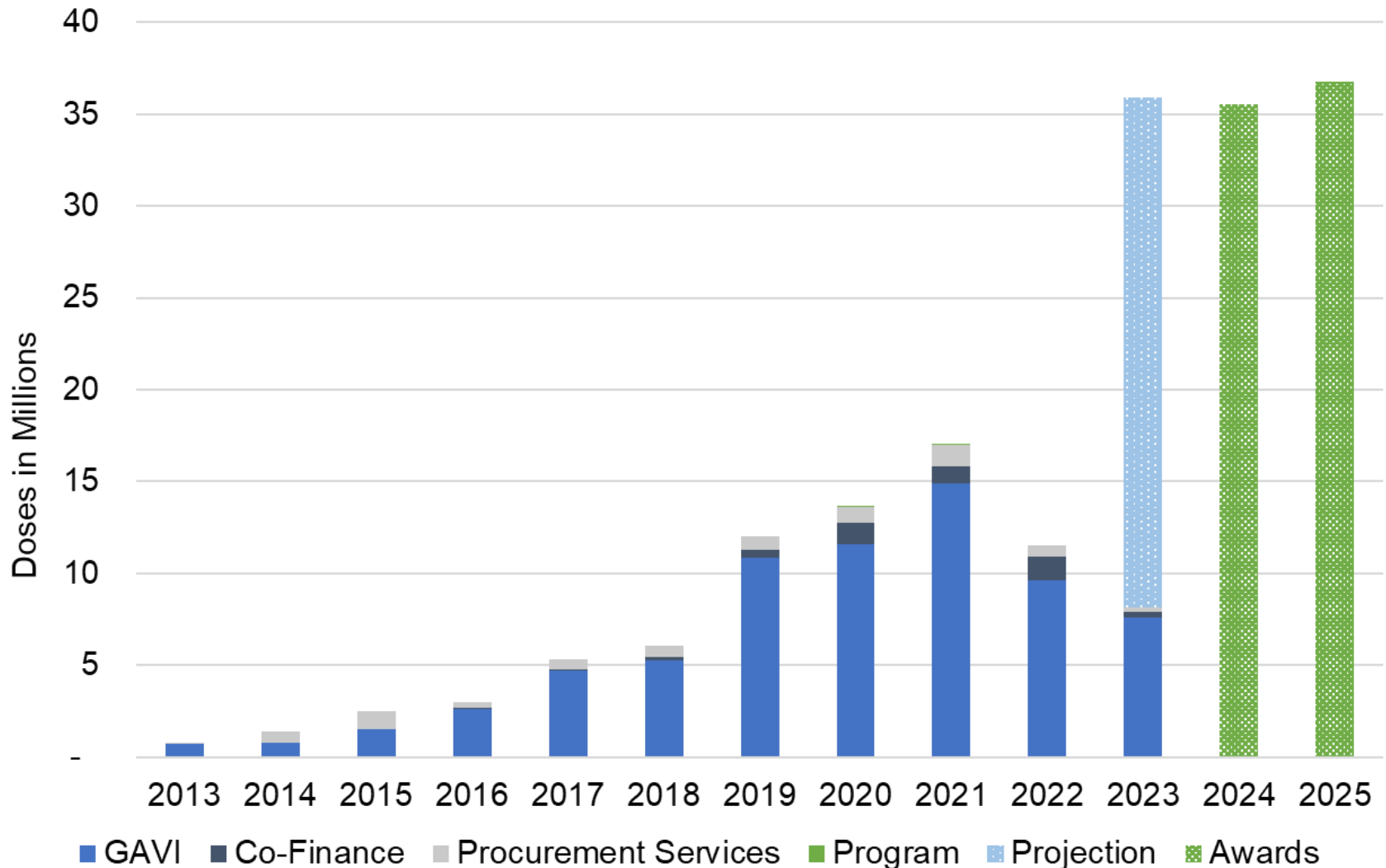
# HPV market evolution



Manufacturer	Type	WHO PQ	Formulation	Vial	Shelf Life	VVM	Cold Chain Volume
GlaxoSmithKline (Belgium)	Bivalent	2009	Liquid	1 dose	60 months	Type 30	9.7 cm <sup>3</sup>
		2009	Liquid	2 dose	60 months	Type 30	4.8 cm <sup>3</sup>
Merck, Sharpe & Dohme (USA)	Tetravalent	2009	Liquid	1 dose	36 months	Type 30	15.0 cm <sup>3</sup>
	Nonavalent	2018	Liquid	1 dose	36 months	Type 30	15.1 cm <sup>3</sup>
Xiamen Inovax (China)	Bivalent	2021	Liquid	1 dose	36 months	Type 14	14.29 cm <sup>3</sup>

➤ GSK and MSD have prefilled syringe presentations (not WHO prequalified)

# UNICEF's Historical Procurement and Supply Outlook



Global supply is improving and anticipated to meet demand depending on product preference.

**UNICEF LTAs for MICs**

- Merck
- GSK
- Xiamen Innovax (LTA for LMICs and potential for MICs if demand warrants)

Tiered pricing based on manufacturers' pricing policies. Price ranges from \$10.25 to \$26.75 per dose.





Decline in coverage

With the pandemic, there has been a significant decrease in HPV coverage since 2019 due to school closures, delayed vaccination, but also product stockouts. In 2021, there was a further decrease in coverage, with dropout continuing to be a specific challenge for HPV vaccination programmes, particularly in L&MIC.



Fiscal space

Challenges around maintaining sustainable financing for vaccine introductions.



Price & demand

Given the uncertainty around long term forecast and low competition in the market, overall price remains high.



Vaccine Manufacturing

There remain supply constraints in the market and until further products are pre-qualified, this will continue.

WITH KEY  
OPPORTUNITIES >>

New products are in the pipeline/under development

Switching to a one-dose schedule

Multi-year commitments

- While there currently are still **supply constraints**, there are also **opportunities** with products in the pipeline/under development.
- With SAGE review of the **efficacy** of the one-dose, WHO has recommended consideration of **HPV one-dose schedule**, to support countries to reach a higher vaccination coverage.
- Single-dose has the advantages of simplifying **vaccine implementation**, decreasing **costs**, and improving **demand** and **acceptance**.
- Accurate forecasting is critical for multiple reasons, including ensuring **appropriate budgeting**, ensuring **coverage**, engaging suppliers for **multi-year commitments** (and potentially lower prices), as well as supporting the overall **market health** (i.e. ensuring accurate supply availability).

# Resources for procurement decisions

UNICEF Market Notes: <https://www.unicef.org/supply/market-notes-and-updates>

UNICEF Vaccine Pricing Data: <https://www.unicef.org/supply/vaccines-pricing-data>

WHO Global Vaccine Market Studies: <https://www.who.int/teams/immunization-vaccines-and-biologicals/vaccine-access/mi4a/mi4a-market-studies>





## Questions and Discussion



COFFEE BREAK

Please return  
in 15 minutes

GLOBAL VPPEF  
20 & 21 June 2023  
Copenhagen, Denmark



unicef   
for every child



World Health  
Organization

## Leveraging market intelligence for HPV introduction

**Johanna Fihman**

Technical Officer, Global Access team  
World Health Organization





## Panel Discussion



Based on discussions thus far during the VPPEF, please discuss the below in your groups:

- Please discuss and highlight what are the main lessons learnt you would like to bring home from this session
- What type of information do you consider most relevant for you and how do you plan to use this moving forward?
- Highlight what you still consider as a challenge in using Market information to inform procurement strategies for NVI or vaccine procurement in general (specific to HPV or not)



## Questions and Discussion



## WAREHOUSE TOURS & Lunch

Please return  
at 14:00

GLOBAL VPPEF  
20 & 21 June 2023  
Copenhagen, Denmark

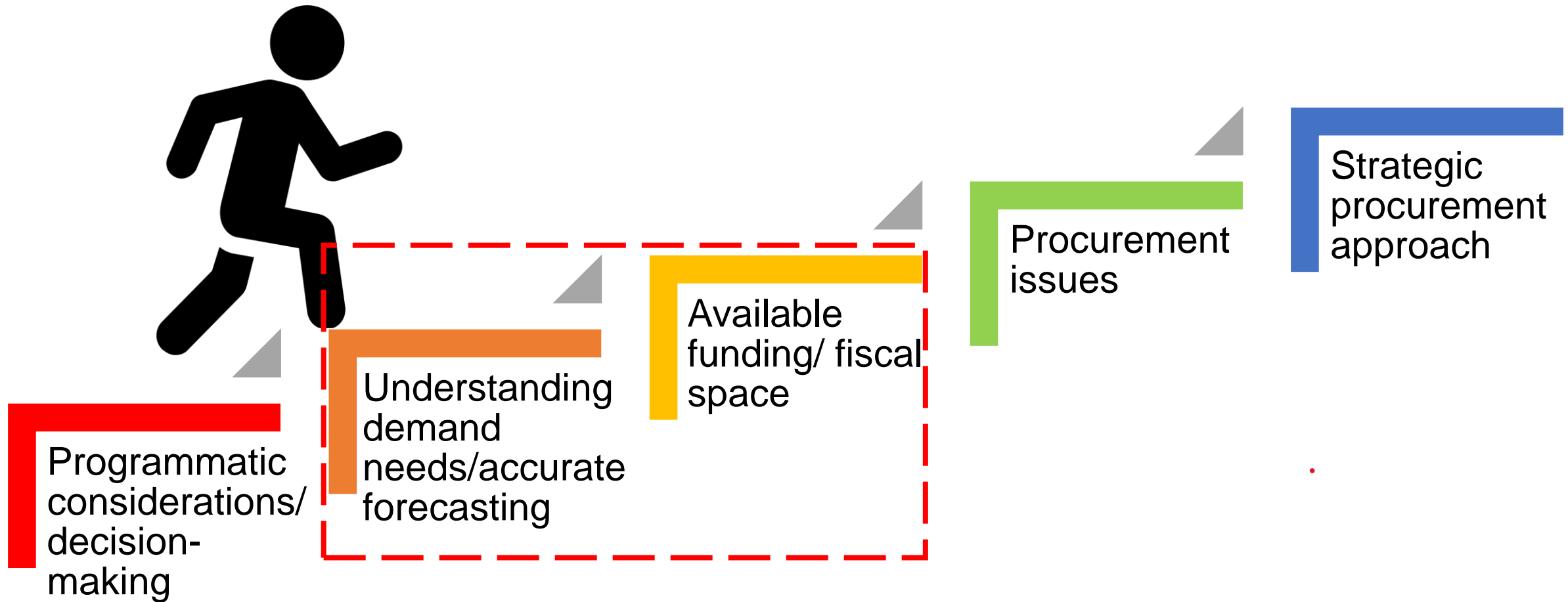




## Forecasting, planning & budgeting for new vaccine introductions Ensuring sustainable financing

**Shahira Malm**  
Health Specialist  
UNICEF Programme Group





**Sustainable financing for immunization:** how countries can mobilize, allocate, and use adequate and predictable resources in ways that support high-quality delivery of immunization services.

Financing for immunization programs is ideally publicly funded, through pooled financing that is sourced from a mix of domestic and, in LMIC, external resources.

- A country's domestic revenue-raising ability is *not tied to any one program area*
  - is a product of a country's overall macroeconomic and fiscal capacity to raise and allocate revenues
  - Is a product of the prioritization that governments give to the health sector in their resource-allocation decisions
- External resources may be raised specifically for immunization



Sustainable financing for Immunization Agenda 2030 <sup>☆</sup>

H. Saxenian <sup>a,\*</sup>, S. Alkenbrack <sup>b</sup>, M. Freitas Attaran <sup>c</sup>, J. Barcarolo <sup>d</sup>, L. Brenzel <sup>e</sup>, A. Brooks <sup>f</sup>, E. Ekeman <sup>g</sup>, U.K. Griffiths <sup>h</sup>, S. Rozario <sup>h</sup>, N. Vande Maele <sup>g</sup>, M.K. Ranson <sup>i</sup>

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<sup>c</sup>UNICEF Supply Division, Copenhagen, Denmark

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<sup>e</sup>Bill & Melinda Gates Foundation, Seattle, WA, United States

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<sup>g</sup>World Health Organization, Geneva, Switzerland

<sup>h</sup>UNICEF Programme Division, New York City, NY, United States

<sup>i</sup>World Bank Group, Health, Nutrition and Population Global Practice, Geneva, Switzerland

# Sustainable financing: Three drivers for immunization financing

## Levels of public spending on health

- Ensuring adequate and predictable financing for health and immunization often places pressure on limited public resources
- Most countries' revenues have declined, while spending needs have increased due to COVID-19



- Increase domestic public expenditure on health (economic growth leading to increased overall government revenues)
- Reallocate domestic public expenditure towards health --
- Increase/reallocate external funding

## Prioritization of the health and immunization budget

- Governments need to allocate scarce resources across multiple sectors and programs, and immunization provides one of the most cost-effective investments



- Ministries of health, civil society and development partners to advocate the multisectoral benefits that come from investing in immunization

## Efficient use of resources within the immunization program

- At the program level, there may be considerable scope to increase cost-efficiencies



- better and more effective procurement
- innovations in service delivery
- vaccine technology and cold chain equipment

# Strategic interventions for sustainable financing

The IA2030 agenda spells out four important focus areas needed for sustainable financing:

Ensuring sufficient, predictable resources to procure and deliver recommended vaccines universally

- (1) increase spending on health and increase prioritization on PHC → strategies will tend to differ by income group
- (2) Link strategic plans for immunization to national health plans and the medium-term planning process
- (3) Better alignment of external assistance with country needs

Making optimal use of those resources

- (1) Promote incremental reforms to public financial management.
- (2) Align with new budget formulations and structures that are evolving in most countries.
- (3) Strengthen capacity in forecasting, budgeting and procurement to increase procurement efficiency, accuracy, and prevent interruption of vaccine supply
- (4) Integrate immunization programs with other PHC services and priority programs.
- (5) Use of financing, either through strategic purchasing reforms or performance-based financing, can incentivize coverage increases and quality

Aligning partnerships

- (1) Donors can improve alignment for greater aid effectiveness
- (2) Countries can identify opportunities to engage the private sector

Supporting sustainable transitions from external assistance

- (1) Prepare early for transition with appropriate plans.
- (2) Link transition planning with medium-term health sector planning.
- (3) Donor flexibilities may be needed to smooth the transition to self-reliance
- (4) Government leadership is essential for a successful transition



## Procurement costs

$P \times q$  = Total vaccine procurement costs

$P$  = Price per dose, including freight expenditures

$q$  = Number of doses supplied

Number of doses for the first year:

$$q = i \times b \times d \times (1/(1-w)) \times (1+r)$$

$i$  = predicted vaccination coverage

$b$  = number of girls in target cohort/cohorts

$d$  = number of vaccine doses per girl

$w$  = wastage rate (%)

$r$  = reserve/buffer stock (%)

## Delivery costs

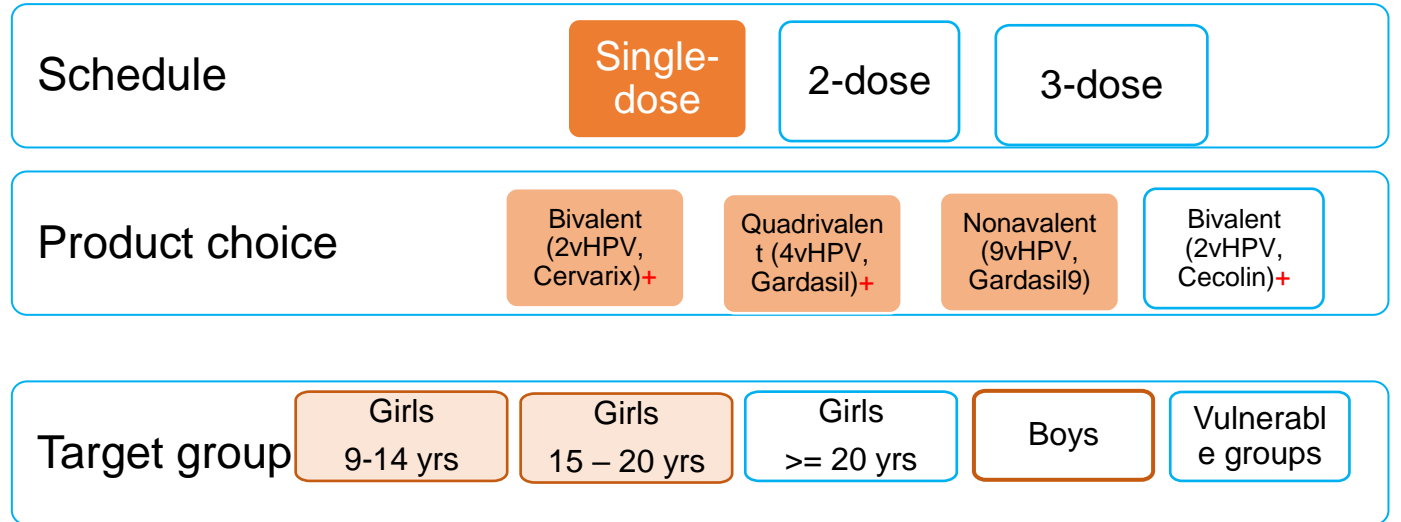
1. Human resources for vaccine delivery
2. Per diem and travel allowances
3. Cold chain equipment
4. Vehicles, transport and fuel
5. Program management
6. Training and capacity building
7. Social mobilization and advocacy
8. Waste management of used syringes
9. Buildings, utilities, and other shared costs
10. Vaccine preventable disease surveillance
11. Monitoring of adverse events following immunization

# Planning and budgeting for different policy options

Vaccination schedule by age	Number of doses previous WHO position (2017)	Current WHO Position (2022)
Primary target group	Girls aged 9-14yrs	Girls aged 9-14yrs
9-14 years	2 doses	Either 1* or 2 doses
15-20 years	3 doses	Either 1* or 2 doses
>=20 years	3 doses	2 doses*
Immuno-compromised – any age	3 doses	Should be prioritized and receive at least 2 doses*, but ideally 3 doses if programmatically feasible

\*off-label recommendations for girls and boys

HPV Vaccine Technical Support Partners, June 2023



+Gavi detailed product profiles

	Introduce 1-dose	Switch to 1-dose	Introduce or stay with 2-dose
<b>Decision-making:</b> <ul style="list-style-type: none"> <li>• costs and cost-effective analysis;</li> <li>• competing priorities</li> <li>• Timeline</li> <li>• Fiscal space</li> </ul>	Lack of knowledge about risk of diseases and importance of public health problem	Managing public perceptions, and political decisions  Reaching more cohorts of girls with single dose will prevent more cases of cervical cancer than vaccinating fewer girls with a second dose	Evidence on the persistence of protection and long-term follow
<b>Financing options</b> <ul style="list-style-type: none"> <li>• Gavi eligible</li> <li>• Self-financing</li> <li>• Other</li> </ul>	Easier to budget for and justify	Gavi-eligible: 9-valent not in schedule	Higher budget needed
<b>Procurement</b> <ul style="list-style-type: none"> <li>• Availability of supply</li> <li>• Prices per dose</li> </ul>	3 products to choose from, can introduce more than one type of product?  Can plan for larger volumes	Requires a switch of product  9-valent can be used to continue or complete the vaccine schedule	Higher cost per person
<b>Delivery costs</b> <ul style="list-style-type: none"> <li>• Facility-based, School-based, Outreach, Mixed</li> <li>• Implementation: Phased</li> </ul>	Easier delivery through multiple platforms	May not require major planning changes, and efficiency savings from switch  Scale-up through different platforms	Delivering two regimens to target population, not typically part of RI

HPV Introduction	Kenya	Kosovo	Ghana
Year of introduction	2019	2023	No decision yet
Target age group	Girls 9-14		
Schedule	2 doses (6 month)	1 dose	
Delivery strategy	Facility-based		
Catch up of multiple cohorts	Yes, in 2020: 9-14 year-olds		
Financing	Gavi-Accelerated transition	Never Gavi, but now benefitting from Gavi MICs approach	

1. What are your challenges for ensuring sustainable financing of HPV?
2. What is the budgeting process for vaccine procurement and delivery?
3. What interventions are needed or can be explored to address financing challenges?





# **KENYA NATIONAL VACCINE & IMMUNIZATION PROGRAM (NVIP)**



# NVIP Mission and Vision



## **Vision**

A Nation free from vaccine preventable diseases.

## **Mission**

To provide appropriate, accessible, affordable and equitable quality immunization services to the people of Kenya.

## **Mandate**

To coordinate vaccination services for all vaccine preventable diseases through provision of policy and guidelines, selected priority vaccines and related biologicals (sera, Immunoglobulins)



# NVIP –Who are we?



- NVIP is a unit within the MOH mandated to provide childhood **quality** vaccines to every Kenyan child across the country
- Ensuring consistent product availability is key to the success of the program
- 15 antigens currently offered routinely; BCG, OPV, DTP-HEPB-HIB combination, IPV,PCV, Rota, MR, Yellow fever and Tetanus for pregnant women, HPV and Malaria.
- The program also periodically procures some of these antigens for mass campaigns and outbreak response e.g. Covid-19
- Procurement of syringes and cold chain equipment



# Kenya Immunization schedule



Vaccinate to Protect.

Vaccine	Ages of administration	Entire country	Parts of the country
BCG	At birth	✓	
OPV	At birth, 6wks, 10wks, 14wks	✓	
DPT-HepB-Hib	6wks, 10wks, 14wks	✓	
IPV	14 wks	✓	
Measles Rubella 1	9 months	✓	
Measles Rubella 2	18 Months	✓	
Yellow fever	9 months		<b>4 counties</b>
PCV 10	6wks, 10wks, 14wks	✓	
Rota	6wks, 10wks	✓	
HPV	10 year old girls	✓	

*\* HPV for girls aged 10-14. Other Non EPI Vaccines offered: Yellow fever for travellers, Typhoid Vaccine, Hepatitis B, Anti-snake Venom, Anti-rabies*





# Key areas of focus

## National Vaccines and Immunization Program



- Increase and sustain high coverage and equitable utilization of vaccines
- Reduce the number of zero-dose children
- Ensure uninterrupted last mile availability of high quality, safe and effective vaccines
- Effective and efficient integrated immunization service delivery mechanisms
- Introduce new vaccines to tackle and reduce morbidity and mortality
- Create a robust data culture with improved data quality, reporting and utilization of data
- Achieve and sustain Polio Eradication in the country
- Attain control and elimination status of targeted and emerging VPDs & monitor impact of vaccines



# Operations of Immunization Systems



1. Vaccine Supply, Quality, Logistics and Tax Exemption
2. Service Delivery and Capacity Building
3. Vaccine Preventable Disease Surveillance
4. Monitoring, Evaluation and Reporting
5. Advocacy, Communication and Community Mobilization



# Organisation of Immunization Program Delivery System in Kenya



- **Administrative**
  - 47 Counties Gov. and 1 National Government
  - Population Projection 2023: 53 Million
- **Target Population**
  - Under 1yr: 1.5 Million
  - Under 5 Years: 7.3 Million
  - Adult and Children 12-18 years: 34.9 Million (COVID-19 Vaccine)
  - Girls 10 years: 700,000 (HPV)
- **Vaccine Infrastructure**
  - Cold chain linkages: 1 CVS, 9RVS, 304 SCVS
  - Immunizing Facilities - 8,500 out of 10,000 HFs
- Health Facility, Community & Environmental Surveillance for Public Health events



# Responsibilities of national and county governments in immunization supply chain management



## • **National roles and responsibilities**

- Overall policy and technical capacity building
- Procurement of vaccines
- Maintaining and operating national and regional stores
- Resource mobilization and partnerships
- Disease surveillance and monitoring- Shared responsibility

## • **County roles and responsibilities**

- Procurement of injection devices
- Maintaining and operating sub county and facility stores
- Procurement and maintenance of cold chain Equipment
- Immunization services in all facilities
- Human resource management
- Reporting on service delivery
- Disease surveillance and monitoring – Shared responsibility

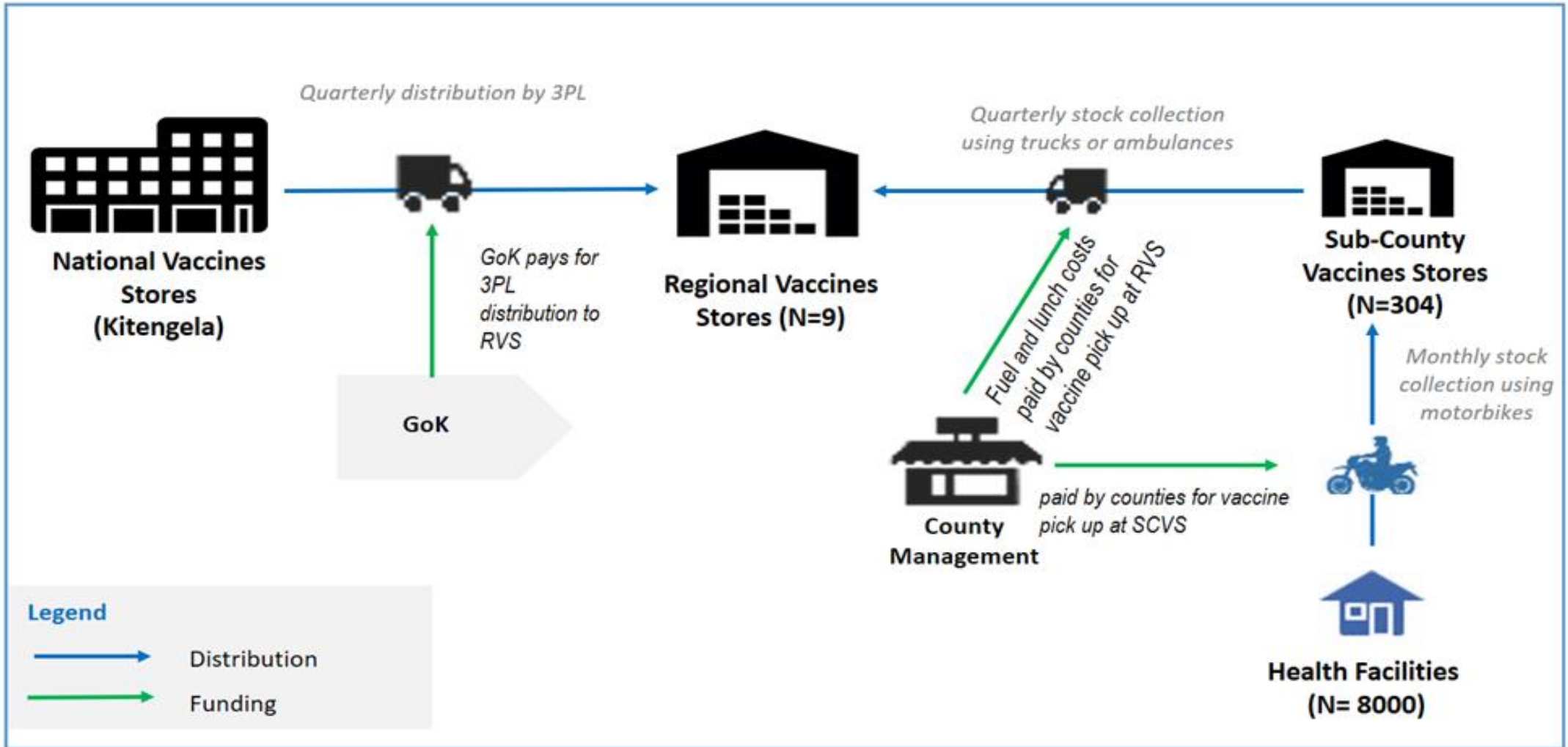




# Vaccine flow through a four-tier system



Vaccinate to Protect.





# Vaccine Supply and Logistics Management levels and activities





# Tax Exemption Process for Vaccines



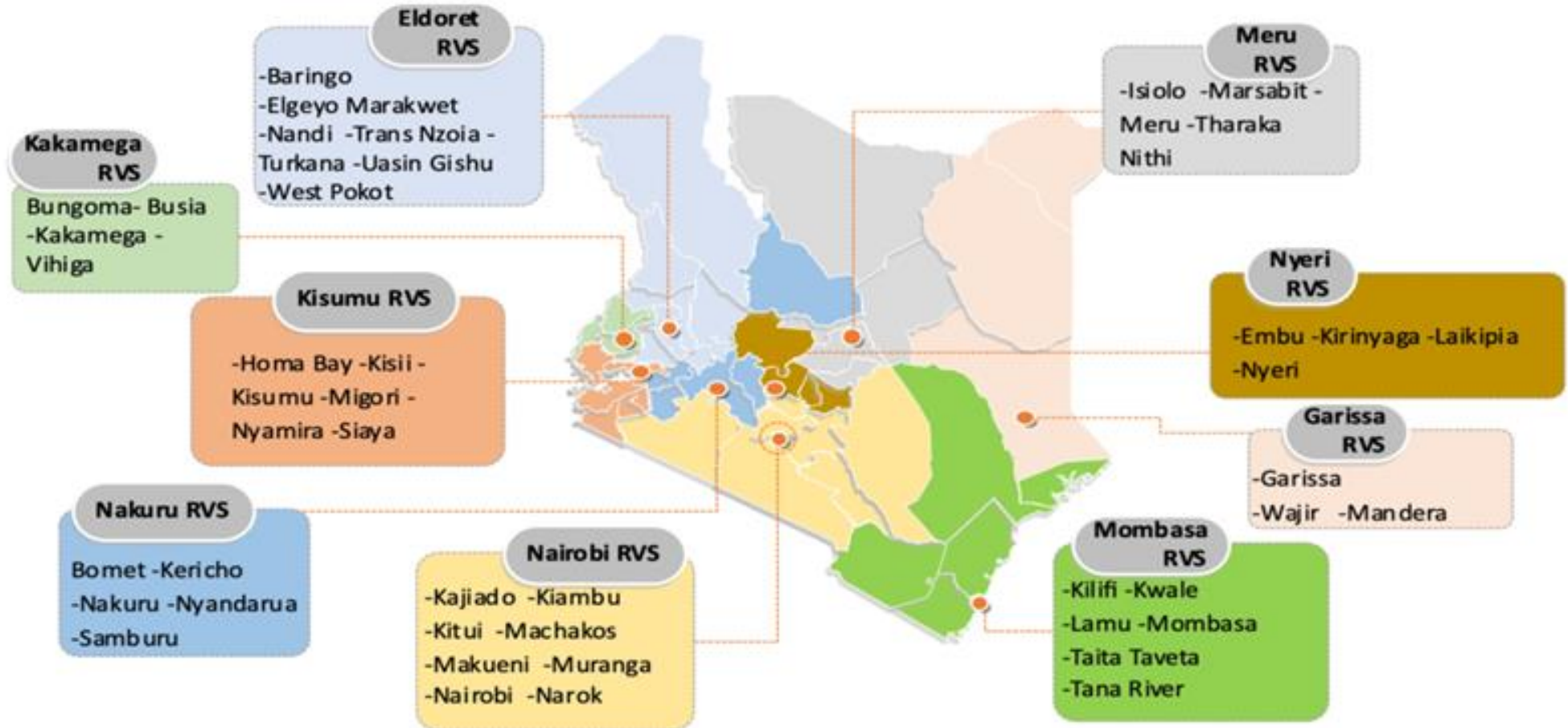
- Head, NVIP makes formal requests for Exemption from Import & Excise Duties, VAT, IDF and RDL to the PS for vaccines and other supplies either donated or on grant agreement arrangement
- These requests are processed by Head, Tax Exemption Unit.
- Head, Tax Exemption goes through the Masterlist generated for the grant agreement and writes a letter to the National Treasury or KRA depending on whether goods or services.
- Process from MoH, NT and finally KRA takes one week.



# Regional Vaccine Stores locations and the counties served



Vaccinate to Protect.







## Enablers of efficient vaccine supply operations



- Adequate and timely financing
- Good data management at all levels
- eLMIS (Chanjo®) provides good data visibility, which triggers action
- Adequate and well trained staff that will manage supplies throughout the chain
- Good transportation systems
- Great linkages and communication systems



# Background on Kenya EPI



<p><b>1978</b> Alma Ata Declaration by World Health Assembly</p>	<p><b>1980</b> KEPI established to target 6 childhood killer diseases</p>	<p><b>2006</b> MOH consolidated all vaccination services under one roof – DVI</p>
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New Vaccine Introductions						
2002 Penta-valent	2011 PCV 10	2013 Measles 2 <sup>nd</sup> dose	2014 Rota-virus	2015 IPV	2019 HPV (girls 10 yrs)	2023 Malaria (select counties)
<p>2016 Switched from Measles-only to Measles-Rubella</p>						

1980 - present  
MOH continues to improve, expand and intensify immunization services in Kenya.





## New Vaccine Introduction Lessons Learnt (HPV)



- HPV vaccine was introduced in 2019 nationally through a facility based strategy targeting about 700,000 girls aged 10 years.
- HPV vaccine is a two dose schedule given six months apart.
- Gardasil is used in Kenya which protects against the 4 types of HPV.
- HPV Vaccine is a single dose with no preservative, freeze and light sensitive and should be stored between 2-8 Celsius degrees.
- Since 2022, a multi age cohort of 10-14 year old girls were targeted through mixed strategy of school, community and health facility.





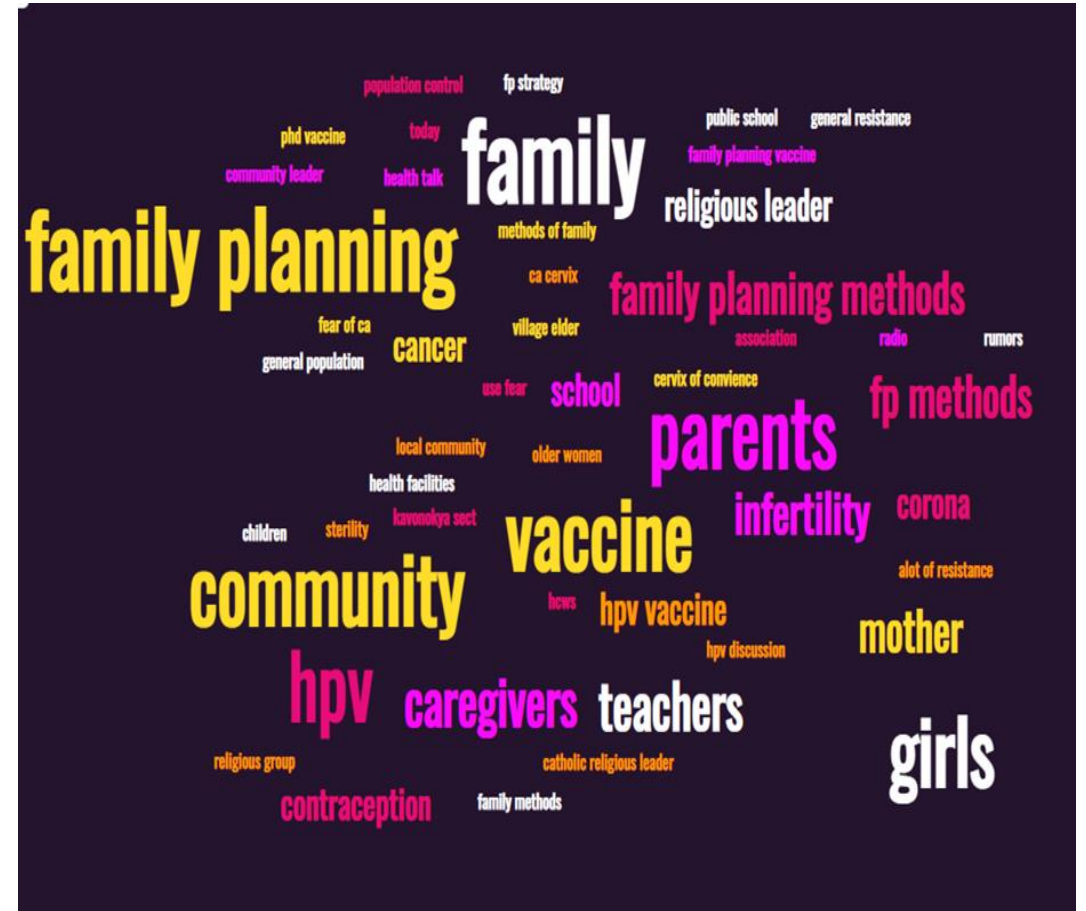


# New Vaccine Introduction Lessons Learnt (HPV)



## CHALLENGES

- Sub optimal coordination with other stakeholders and engagement
- Incomplete micro planning
- Incomplete documentation of girls vaccinated.
- Data quality issues
- Lack of defaulter tracing systems in place
- Rumors and misconceptions within the community





## New Vaccine Introduction Lessons Learnt (Malaria)



- Malaria Vaccine was rolled out as a pilot in 3 countries- Kenya, Ghana and Malawi in 2019
- It was initially carried out in 26 sub counties identified with the highest prevalence in Kenya.
- Malaria vaccine has a 4 dose schedule which is administered at 6, 7, 9 and 24 months with a minimum of 4 weeks between doses.
- RTS,S is the antigen presented as a lyophilized powder and A0I is the diluent adjuvant. One vial has 2 doses. Malaria vaccine is freeze and light sensitive and should be stored between 2-8 Celsius degrees. It has no preservative and the VVM is placed on the diluent.
- An expansion to 25 sub counties was done in March 2023 in the 8 counties with the highest disease counties.



# New Vaccine Introduction Lessons Learnt (Malaria)



## SUCSESSES

- Strong coordination and stakeholder engagement from planning to implementation of the pilot introduction
- Well publicized national launch
- High acceptance of the vaccine, good uptake of dose 1-3 with over 60% coverage.
- Overall documentations for vaccines were available and in use
- Health care workers (87%) remain the main source of information about malaria Vaccine to care givers followed by radio (47%).
- 93% of Health care workers reported malaria vaccine to have improved EPI services and 79% indicated the pilot introduction process was very smooth.
- 43% of health care workers who attended the introduction training were still working in the MCH



# New Vaccine Introduction Lessons Learnt (Malaria)



## CHALLENGES

- 36% of health facilities remained completely closed in the month of January 2021 due to health care workers strike.
- The delay in CHV training was identified as a major challenge and affected demand creation and defaulter tracing activities
- Shortage of Mother Child health booklets in most facilities.
- 57% of health facilities received supervision visits in the past 6 months before the evaluation
- High dropout of 16% for dose 4 malaria vaccine





## New Vaccine Introduction Lessons Learnt (Rotavirus)



- Kenya introduced Rotavirus vaccine in 2014
- The vaccine manufactured by GSK has been in use since then (Rotarix®). The vaccine is a single oral dose is given as a two dose schedule at 6 weeks and 10 weeks.
- In 2022, Kenya switched from Rotarix® to Rotavaq® 5D which is 3 oral dose schedule at 6, 10 and 14 weeks.
- As a result of global shortages in 2022, there was huge uptake of Rotavaq® due to catch-up of the missed population.
- The multi dose vial switch positively affected the cold chain space as there was a 61% reduction in size.



## New Vaccine Introduction Lessons Learnt (Rotavirus)



- Different manufacturing processes and formulation significantly change the way the two vaccines are stored, transported and administered
- There was need to change inventory management practices of the New formulation.
- Inadequate Finances for cascade training of the Health care workers on proper administration and storage of the new vaccine.
- Due to global shortages in 2022, there was huge uptake of Rotavaq® due to catch-up of the missed population.
- The multi dose vial switch positively affected the cold chain space as there was a 61% reduction in size.



## Cross cutting Lessons learnt on New vaccine introductions



- Adequate time allocation for planning activities
- Multi sectoral collaboration is key for successful implementation for any new vaccine and sustained high performance in the immunization coverage
- Training of the service providers is essential
- Social mobilization and stakeholder engagement are key for high coverage
- Availability, Quality and Efficiency in the vaccines build community trust

# Thank you

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# Fiscal Space analysis for Routine Immunization including New Vaccines Introduction in Kosovo



June 21, 2023

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# Summary of Costs (2024-2028), in US\$

Year	New Vaccines	Syringes	RI Vaccines	Syringes	Total
2024	1,526,999	0	306,192	19,047	1,852,238
2025	2,081,975	5,175	285,757	18,094	2,391,001
2026	2,174,244	5,051	282,969	19,066	2,481,329
2027	2,185,192	4,761	280,197	18,732	2,488,882
2028	2,194,209	4,678	151,444	9,790	2,360,122
Grand Total, US\$	10,162,619	19,665	1,306,559	84,729	11,573,572
Yearly Average, US\$	2,032,524	3,933	261,312	16,946	2,314,714

**GAVI Support: next slide**

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# Analysis (in US\$)

- Public Expenditure on Health: 3.6% of GDP ~ \$338 million
- RI Costs for Five years: \$1.30 million, Yearly Average: \$0.26 million
- Costs for Newer Vaccines for Five Years: \$10.1 million, Yearly Average: \$2 million
- Total RI Costs including New Vaccines for Five Years: \$11.5 million, Yearly Average: \$2.3 million
- Annual Current Total RI Costs as part of Public Expenditure on Health for RI: \$0.26 million
- Annual Resource Gap: \$2.0 million (approx.)

	2021	2022	2023
Ministry of Health	97,182,643	60,403,320	81,006,877
KHUCS	104,236,139	129,616,523	139,665,909
Health Insurance Fund	7,901,062	8,162,998	8,938,806
Government Health Grant for Municipalities	62,525,127	62,595,335	70,531,503
Budget allocated for health	<b>271,844,971</b>	<b>260,778,176</b>	<b>300,143,095</b>
Immunization	1,202,950	1,202,950	1,624,063
Share of budget for immunization, from health budget	<b>0.44%</b>	<b>0.62%</b>	<b>0.54%</b>

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COFFEE BREAK

Please return  
in 15 minutes

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Copenhagen, Denmark





## Questions and Discussion

## Country-specific steps for a NVI



# Developing a roadmap

Devise a “road map” with **3 important priorities** for your country’s respective immunization programme for a NVI, as well as a path forward for next steps to implement the learning from this in-person Forum.

- Identify 3 action points for your country for the coming 12 months.
- What are the key planning assumptions for the success of these action points?
- What types of support are required from partners, including UNICEF?

## Topics for consideration:

- What are the **programmatic objectives** that should be considered when planning an introduction?
- What are the key **planning** and **forecasting** considerations to take into account for an NVI?
- When planning for an introduction, what are the **procurement aspects** that should be considered (e.g. procurement modality, supply constraints, etc)?
- How will **financial implications** – human resources, programmatic considerations, health system costs – play into the country's planning processes when considering an NVI, to ensure adequate and timely funding availability?
- What **lessons learned** from this Forum can be leveraged looking forward, as the country plans for an NVI?





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## Closing

Global VPPEF  
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# Closing & Next steps

## VPPN

1. All session materials will be on the Vaccine Procurement Practitioners Network (VPPN). The final VPPEF report will be posted online when finalized.
2. Follow up discussions will be held on the VPPN via e-discussions, webinars, etc.

## VPPEF evaluation

1. Go to [menti.com](https://www.menti.com) & enter code **9441 9856**
2. Please fill this out before you leave, so that we can get your feedback, as well as improve the Forum for future participants.



THANK YOU!

MERCI!

Спасибо!

OBRIGADO!