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Vaccine Procurement Practitioners Network Webinar

Market Intelligence Series: Europe and Central Asia countries tell us how they leverage market intelligence for their vaccine procurement

Webinar 3: How can market intelligence help with understanding vaccine markets to inform a procurement strategy?

5 December 2024, 1pm – 2pm GMT+1

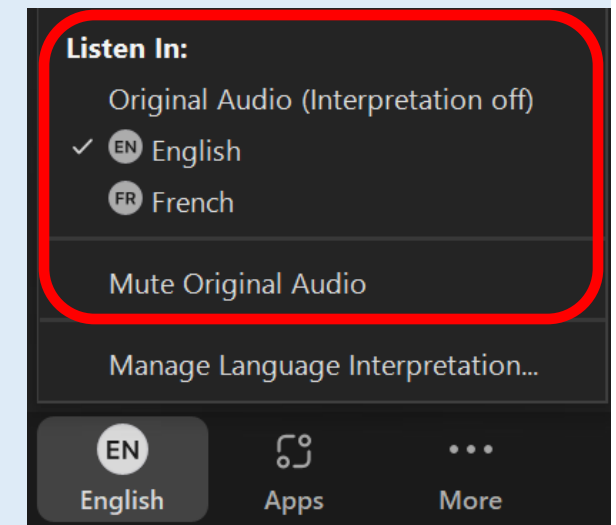
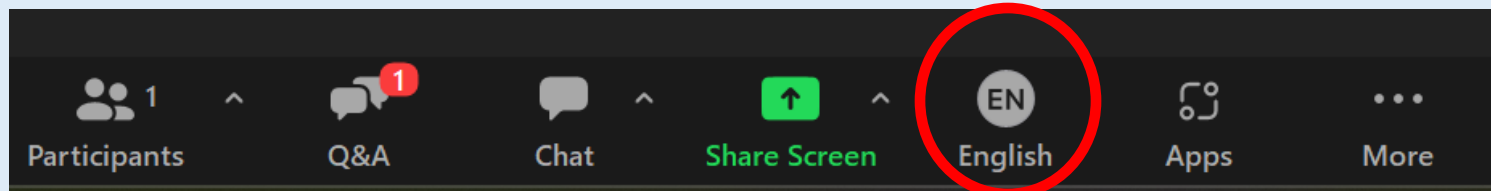
AGENDA

Time	Topic
1:00pm GMT+1 <i>(2 mins)</i>	Welcome and introduction
1:02pm GMT+1 <i>(10 mins)</i>	EPI optimization in an evolving market <i>Molly Sauer, Johns Hopkins Bloomberg School of Public Health</i>
1:12pm GMT+1 <i>(15 mins)</i>	Switch to the nine-valent HPV vaccine in North Macedonia <i>Aleksandra Grozdanova, North Macedonia</i>
1:27pm GMT+1 <i>(15 mins)</i>	Switch to the liquid Rotavirus vaccine in Uzbekistan <i>Tursunova Diloram Alimovna, Uzbekistan</i>
1:42pm GMT+1 <i>(15 mins)</i>	Questions & Answers
1:57pm GMT+1 <i>(3 mins)</i>	Closing remarks
2:00pm GMT+1	End & Further E-discussion on the VPPN

ZOOM FUNCTIONS

Interpretation

- Click on the Language button and choose the language you wish to hear. For this webinar, *English*, *Russian* and *French* are available.
- To hear the interpreted language only, click 'Mute Original Audio'.
- The presentation is also available in English, Russian and French in the Chat box.



INTRODUCTION

Key Learning Objectives

- ✓ Discuss the role of market intelligence with regard to understanding vaccine markets and national decision-making
- ✓ Share concrete examples of how to use market intelligence for vaccine switches
- ✓ Provide peer-to-peer learning through South-South Cooperation as well as expert knowledge to support countries accessing quality-assured vaccines
- ✓ Answer questions on the topic

INTRODUCTION

Our speakers today

John Hopkins University:

- **Molly Sauer**

Project Director, Choice Optimization for Immunization: Country Exercises in Sustainability (CHOICES), Johns Hopkins Bloomberg School of Public Health

North Macedonia:

- **Aleksandra Grozdanova**

President of the National Committee for immunization

Uzbekistan:

- **Tursunova Diloram Alimovna**

Head of the Department of Vaccine Logistics and Immunoprophylaxis, Ministry of Health

Moderator:

- **Alexei Ceban**

Immunization Specialist, Europe and Central Asia Region, UNICEF

EPI optimization in an evolving market

Opportunities, trade-offs, and
information needs for
countries exploring and
navigating vaccine switches
and introductions



With the expanding EPI landscape and constrained resources, there is a critical need to understand how countries navigate complex decision making and implementation and what guidance and support is needed.

Switch

Change the existing vaccine option in the current EPI portfolio to an alternative for the same vaccine program.

Examples:

- Switch from 3+0 schedule to 2+1 schedule for PCV
- Switch from 10-dose vial to 5-dose vial for MCV
- Switch from ROTARIX to ROTASIIL (+ schedule switch)
- Switch from pentavalent + IPV to hexavalent vaccine

Introduction

Add a new vaccine to EPI portfolio that is not currently provided through the national immunization schedule.

Examples:

- Introduce RSV vaccine in pregnancy or for older adults
- Introduce mumps vaccine (change from MR to MMR)
- Introduce rotavirus vaccine
- Introduce mpox vaccine in risk-based groups

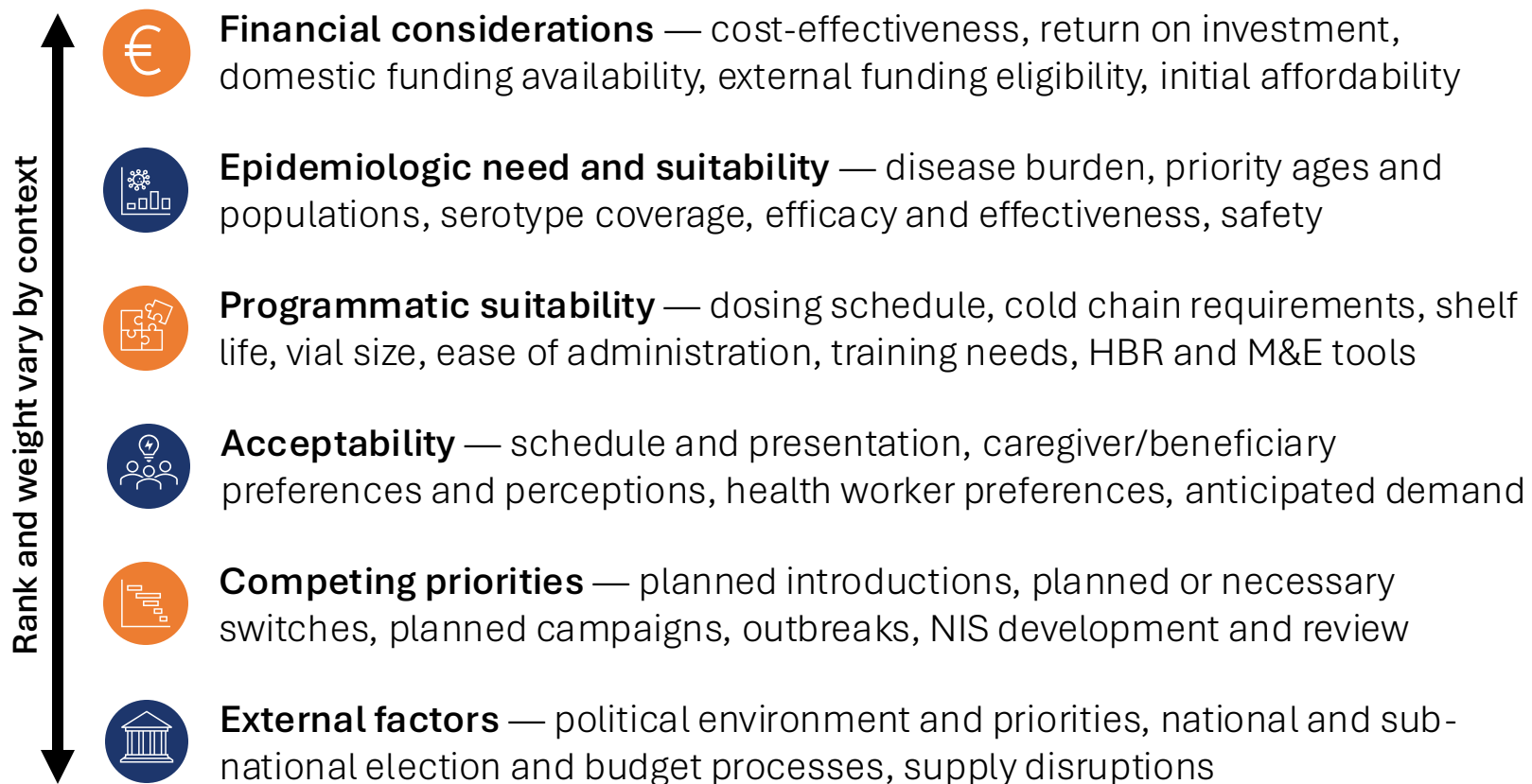
Prioritization

Examine potential EPI decisions across vaccine programs and approaches — including switches, introductions, and future options — and establish a priority/rank order for potential implementation.

Example:

- Weigh and determine priority order for switching to 1-dose HPV schedule, introducing influenza vaccine, and potentially introducing a maternal GBS vaccine (once available)

EPI portfolio decision-making is complex and dynamic — incorporating market intelligence can enhance efficiency and effectiveness.



Market intelligence can fill key gaps and shape how and when these factors are examined

- Supply, cost, and alternatives for currently used vaccines
- Characteristics, cost, and supply for available vaccines that are not yet introduced
- Characteristics, cost, supply, and timelines for vaccines in the development pipeline

Vaccine switches can help improve impact, coverage, suitability, and stability but can be disruptive, complicated, and costly — a clear idea of the problem the program seeks to address is critical.

“Switching is a big deal ... [it] is not simple and needs substantial resources and planning.”

“How do we avoid a **switch roller coaster** because of constantly changing pipeline options?”

Costs

Are procurement cost savings outweighed by the cost of implementing the switch? Will operational savings balance out a more expensive vaccine or switch implementation costs?

M&E

How will you measure switch impact on disease, safety/AEFI, and coverage? If updates are needed to immunization cards or other home-based records, can new cards be printed off-cycle?

Complexity

How many changes are required (i.e., does switching products also affect schedule, cold chain, vial size, etc.)? Is a NITAG recommendation needed? Do you need to train health workers? How will you sensitize the community?

Synergies

Is it feasible to align multiple EPI activities (i.e., multiple introductions or switches) to streamline training, IEC, printing, and other processes to minimize ongoing program changes? Does it make sense to do so?

Cross-cutting and vaccine-specific resources, tools, and case studies from partners and other countries can help guide decision-making.

Guidance

- Principles and considerations for adding a vaccine to a national immunization programme: From decision to implementation and monitoring (WHO)
- Product menus and pricing information (UNICEF)
- Position papers and prequalified vaccines (WHO)
- Detailed product profiles (Gavi)
- Country support guidelines (Gavi)
- Guidance on an adapted evidence-to-recommendation process for NITAGs (WHO)

Tools and resources

- CAPACITI (WHO)
- Immunization decision-making resource catalog (WHO)
- Global NITAG Network resource center (GNN)
- Country support guidelines (Gavi)
- Vaccine wastage rates calculator (WHO)
- Vaccine cost calculators for MICs and Gavi countries (PATH)
- VIEW-hub data (JHU-IVAC)
- MCV 5-dose vial assessment support tool (Linksbridge)
- HPV one-dose schedule guidance (PATH/JSI/UNICEF/Gavi/WHO)
- Hexavalent vaccine FAQs (WHO/UNICEF)
- Country case studies and lessons learned

Guidance, tools, and resources for evidence-based decisions on vaccine switches and EPI portfolio optimization

<https://www.technet-21.org/en/topics/programme-management/vaccine-switches-and-portfolio-optimization>

Switch to the nine-valent HPV vaccine in North Macedonia



NITAG recommendation for mandatory HPV vaccination in NM

2009 – 2022

- Only female children aged 12 years (VII grade school)
- 2 doses of vaccine (0,6-month schedule)
- Catch up vaccination until 14 years

2023

- Extended to age of 18/19 years (last grade of high school)
- Girls over 15 years receive 3 doses of vaccine
- The minimum interval between the first and second dose is 1 month
- 6 months interval from the first dose to the third dose (0,2,6-month schedule)

2024 – starting with 9 HPV

- All children (boys and girls) aged 12 years (VII grade school)
- 2 doses of vaccine (0,6-month schedule)
- If for any reason the child has not been vaccinated according to the calendar, can be vaccinated until the age of 18 at the latest (last grade of high school)
- Persons over 15 years receive 3 doses of vaccine
- The minimum interval between the first and second dose is 1 month
- 6 months interval from the first dose to the third dose (0,2,6-month schedule)

NIP for children 0-18 years, North Macedonia

Mandatory immunization

Навршена возраст/ одделение/ клас	На раѓање	Месеци					Одделение во основно училиште/ години				Клас во средно училиште/ год.	
		0	2	4	6	12	18	I (6 год.)	II (7 год.)	VII (12 год.)		IX (14 год.)
Вакцина												
BCG (Туберкулоза)	BCG ¹											
НерВ (Хепатитис Б)	НерВ ²	НерВ ³			НерВ ³							
Ниб (Хемофилус инфлуенца тип Б инфекции)		Ниб ³	Ниб ⁴	Ниб ³		Ниб ⁴						
Rota (Ротавирусни инфекции)		Rota ⁵	Rota ⁵	Rota ⁵								
PCV (Пневмококни инфекции)		PCV ⁶	PCV ⁶		PCV ⁶							
DTaP (Дифтерија, тетанус, пертусис)		DTaP ³	DTaP ⁴	DTaP ³		DTaP ⁴		DTaP ⁸				
dT (Дифтерија и тетанус)										dT ⁹		
IPV (Полиомиелитис)		IPV ³	IPV ⁴	IPV ³		IPV ⁴		IPV ⁸		IPV ⁹		
MRP (Морбили, рубеола и паротит)					MRP ⁷		MRP ⁷					
HPV (Хуман папилома вирусни инфекции)										HPV ¹¹		
TT (Тетанус)											TT ¹⁰	

Catch-up immunization

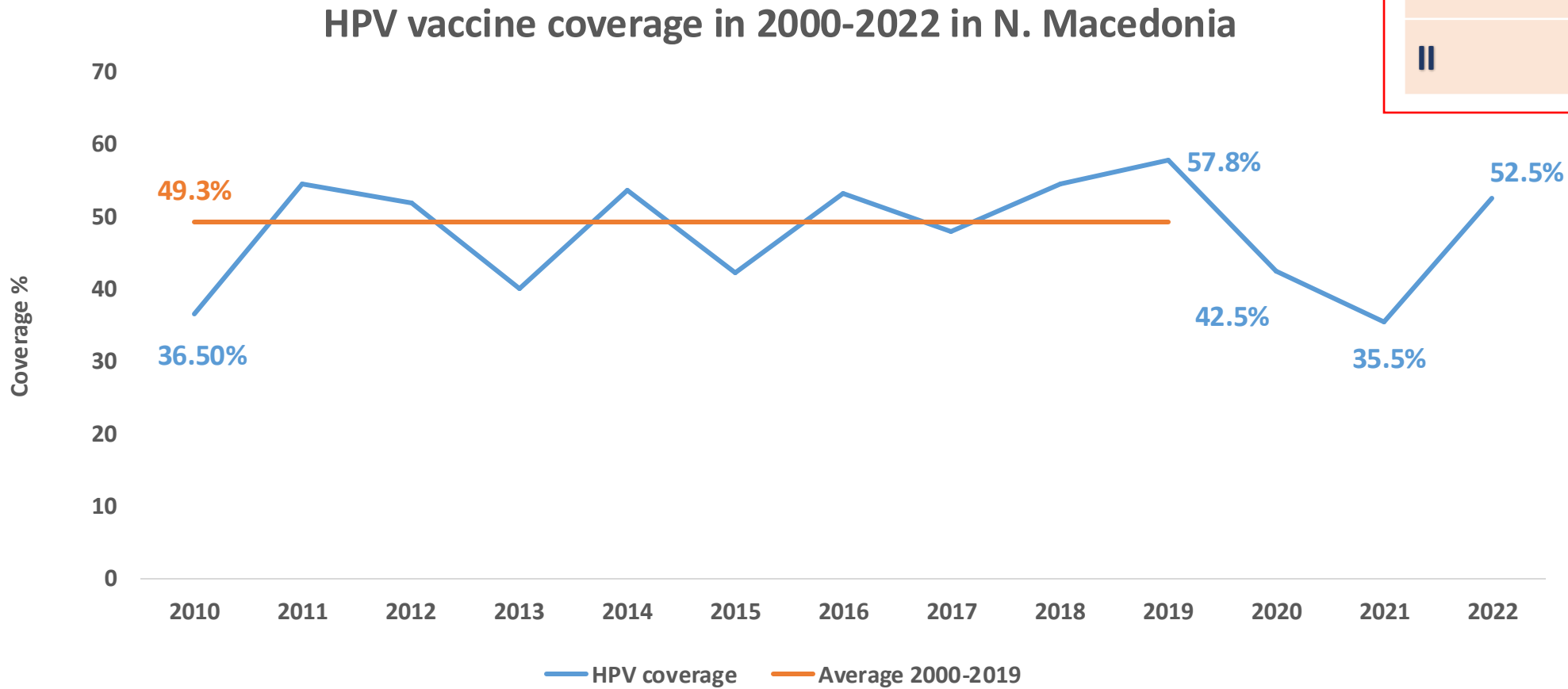
Навршена возраст/ одделение/ клас	Одделение во основно училиште/ години					Клас во средно училиште/ години
	5 години	I 6 години	II 7 години	VII 12 години	IX 14 години	
Вакцина						
¹ BCG (Туберкулоза)						
² НерВ (Хепатитис Б)						
^{3/4} DTaP (Дифтерија, тетанус, пертусис)			DTaP			
⁴ dT (Дифтерија и тетанус)					dT	
⁵ IPV (Полиомиелитис)			IPV		IPV	
⁶ MRP (Морбили, рубеола и паротит)		MRP				
⁷ HPV (Хуман папилома вирусни инфекции)				HPV		

Source: Program for mandatory immunization of the population in the RNM for the year 2024, Official gazette RNM 13/2024
Tables taken from Ministry of health N. Macedonia

Rationale for switching from 4- to 9-valent HPV vaccine

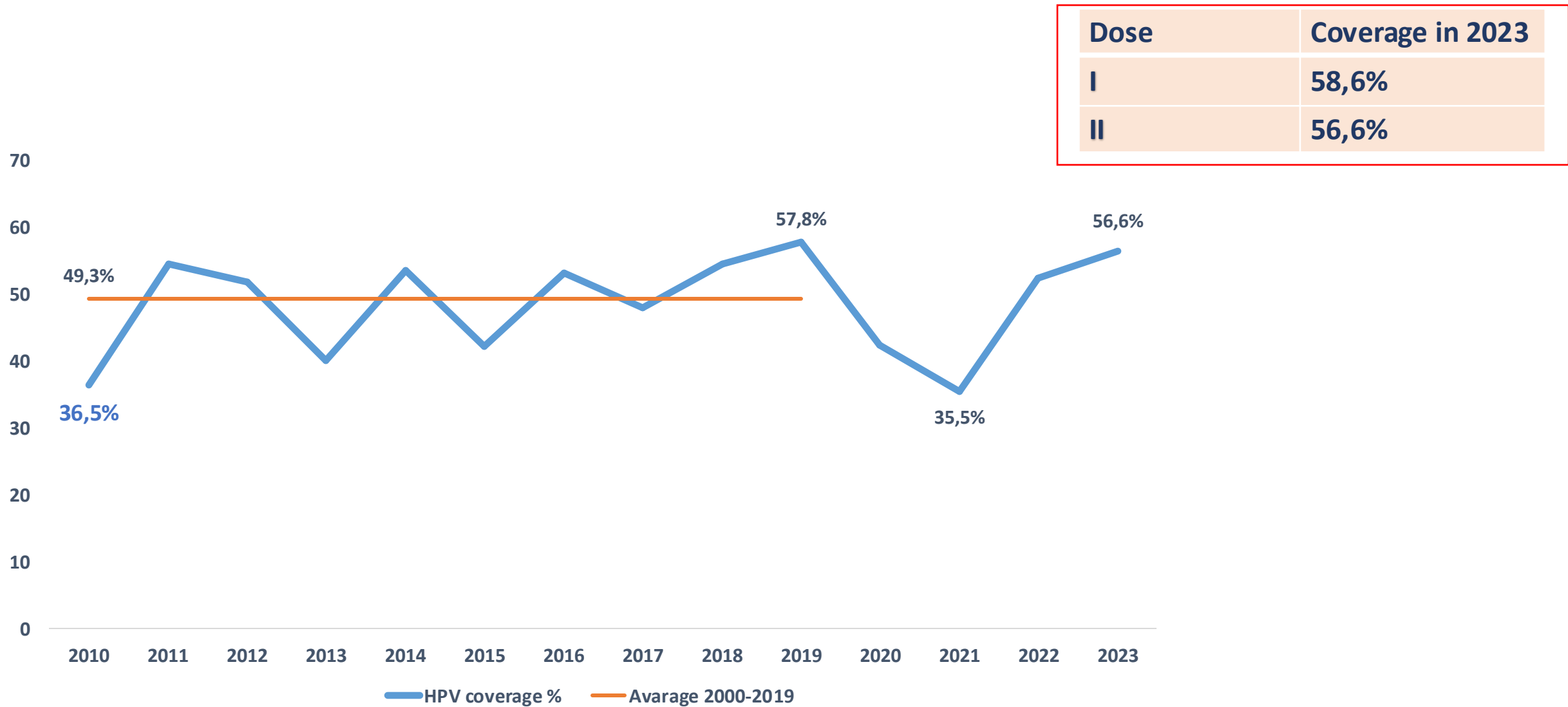
- The decision to introduce the 9 valent HPV vaccine was based on scientific facts for better vaccine effectiveness (+ 5 serotypes that cover an additional 40% of HPV-associated carcinomas) and other practical aspects
- The manufacturer has offered an option for minimal compensation (less than 20% in the price difference in relation to 4-valent)
- Possibility to include boys
- Almost all countries in the region use HPV 9, which greatly influences the decisions of parents

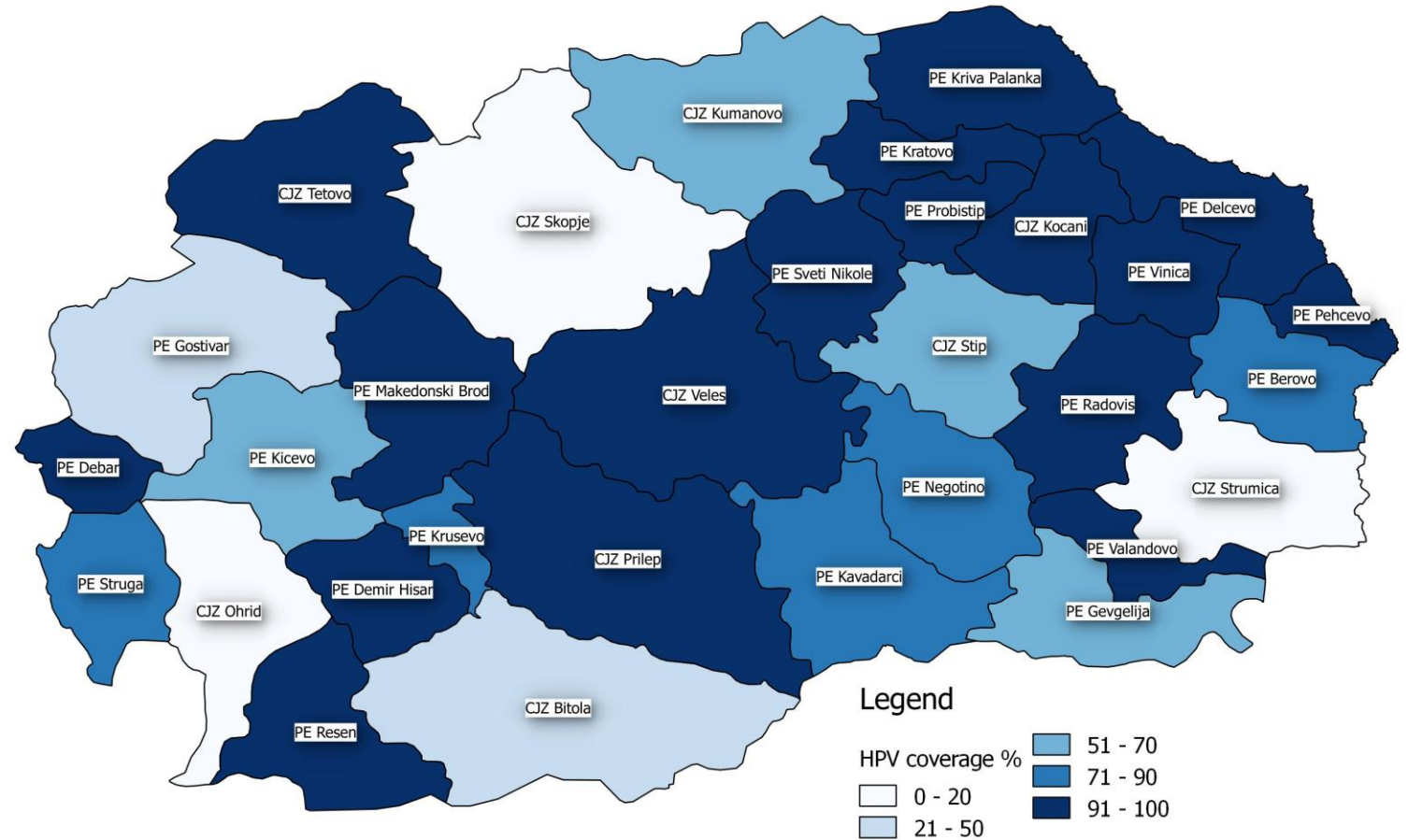
HPV vaccination 2010-2022



Dose	Coverage in 2022
I	49,8%
II	52,5%

HPV vaccination 2010-2023





Coverage by PHCs ranges from 13.4% and 17.1% (Skopje and Ohrid) to 100% (D. Hisar, St. Nikole, Kočani, Delčevo, Kratovo and Valandovo).

Problems/challenges in HPV vaccine introduction in N. Macedonia

- Health education (HCW and general population)
- Misinformation and media/social influence
- Surveillance and VCR
- Real world evidence and national data registries

Switch to the liquid rotavirus vaccine in Uzbekistan: Improving immunization strategy

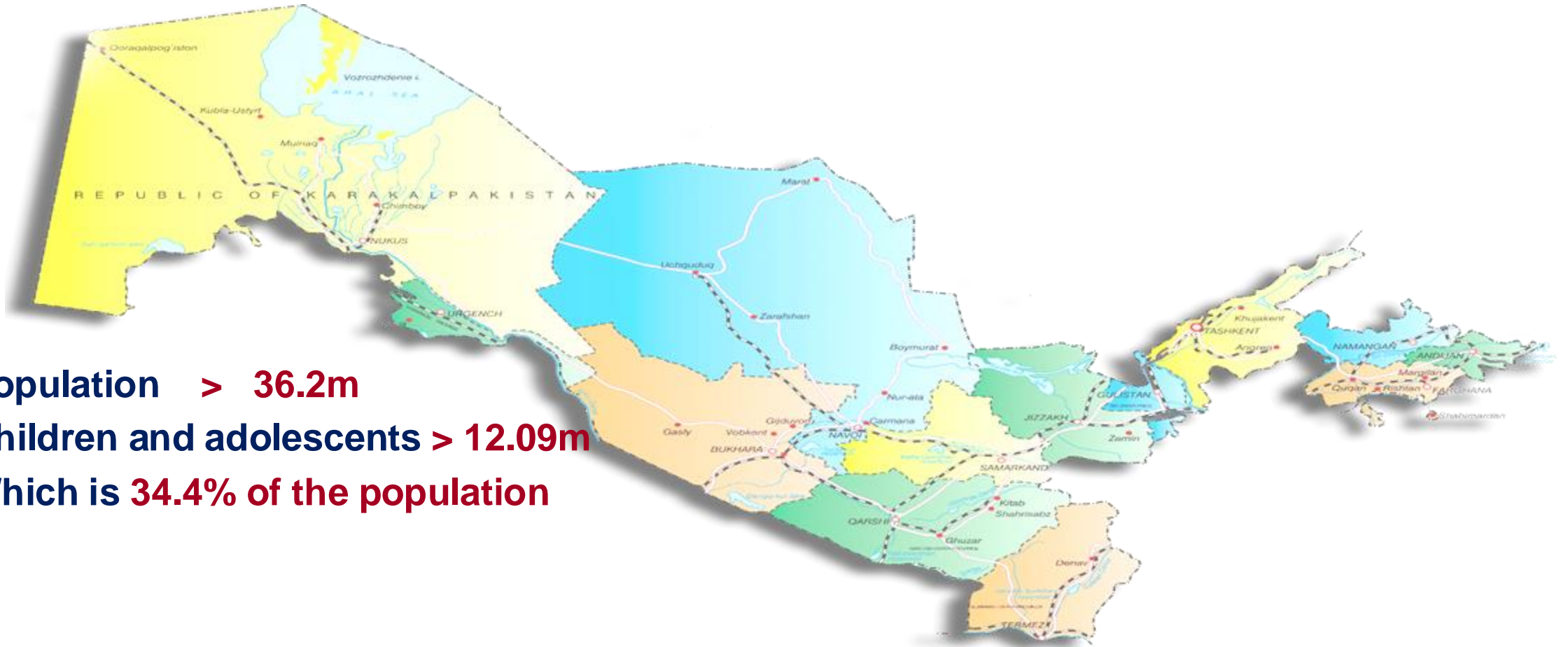
Diloram Alimovna
Tursunova – Doctor of
Medical Science, Head of
the Department of Vaccine
Logistics and
Immunoprophylaxis of the
Committee for Sanitary and
Epidemiological Welfare and
Public Health of the Ministry
of Health of the Republic of
Uzbekistan



Area of the Republic of Uzbekistan - 448,924 km².
**Uzbekistan borders Kazakhstan, Kyrgyzstan,
Tajikistan, Turkmenistan and Afghanistan.**



Demographic profile of the Republic of Uzbekistan (as of the beginning of 2022, Goskomstat data)



Population > 36.2m

Children and adolescents > 12.09m

Which is 34.4% of the population

From the first days of the country's independence, Uzbekistan's policy of caring for the health of mothers and babies and raising a healthy new generation – the future of an independent Uzbekistan – has been of fundamental importance.

Objectives and strategic approaches in immunoprophylaxis

- ❖ Ensuring the financial sustainability of the National Immunization Programme.
- ❖ Maintaining timely coverage of at least 95% of subjects with high-quality, safe routine immunization.
- ❖ Strengthening epidemiological surveillance of infections managed by specific prophylaxis. Preventing the importation and spread of infectious disease pathogens.
- ❖ Monitoring, appraisal and quality control of National Immunization Programme activities.
- ❖ Continual improvement of the national vaccination schedule in the light of global best practice, and inclusion in the schedule of new vaccines.

Legal framework

- **Republic of Uzbekistan Law “On Public Health Protection” (29 August 1996)**
- **Republic of Uzbekistan Law “On Public Sanitary and Epidemiological Welfare” (26 August 2015)**
- **Order No. PKM-220 of the Cabinet of the Republic of Uzbekistan “On Measures to Implement International Health Regulations in the Republic of Uzbekistan” (31 July 2015)**

Prophylactic Immunization Schedule

Sanitary Regulations and Standards No. 0239-07/4 dated 17/07/2021

Age	Vaccine
1 day	HBV 1
2 5 days	BCG 1
2 months	OPV 1, Rota 1 (oral rotavirus vaccine), Penta 1 (DTP 1, HBV 2 + Hib 1)
3 months	OPV 2 + Rota 2. Pneumo 2 (DTP 2, HBV 3 + Hib 2)
4 months	OPV 3, Penta 3 (DTP 3, HBV 4 + Hib 3), IPV 1
9 months	IPV 2
12 months	MMR 1. Pneumo 3
16 months	OPV 4, DTP 4
6 years	MMR 2
7 years (first school year)	OPV 5, Td
9 years	HPV
16 years	Td 6

TRENDS IN THE DEVELOPMENT OF THE REPUBLIC OF UZBEKISTAN'S NATIONAL IMMUNIZATION SCHEDULE

Vaccine introduced	Year included in schedule	Age*
HBV	2001	Day of birth 2, 3, 4 months
Measles, mumps and rubella (MMR)	2007	12 months, 6 years
PENTA vaccine (DTP + HBV + Hib)	2009	2, 3, 4 months
Rotavirus infection	16 June 2014 г.	2, 3 months
Pneumococcal vaccine	November 2015 г.	2, 3, 12 months
Inactivated poliovirus vaccine, IPV	April 2018 г. January 2022	4 months 9 months
Vaccine against HPV	2019	9 years



ROTARIX vaccine information leaflet

Type and manufacturer: Oral suspension vaccine, manufactured by GlaxoSmithKline (GSK).

Use: Prevention of severe rotavirus gastroenteritis in infants.

Dosage: Two doses (usually at 2 and 4 months).

Storage: Store refrigerated at 2° to 8°C; shelf life of up to 24 months.

Main benefits:

- Ready to use (does not require reconstitution).
- Fast administration, reduced preparation time.
- Consistent dosing minimizes mistakes.

Safety:

- Common side effects: mild fever, irritability, mild gastrointestinal symptoms.
- Uncommon: small risk of intestinal intussusception.

Effectiveness:

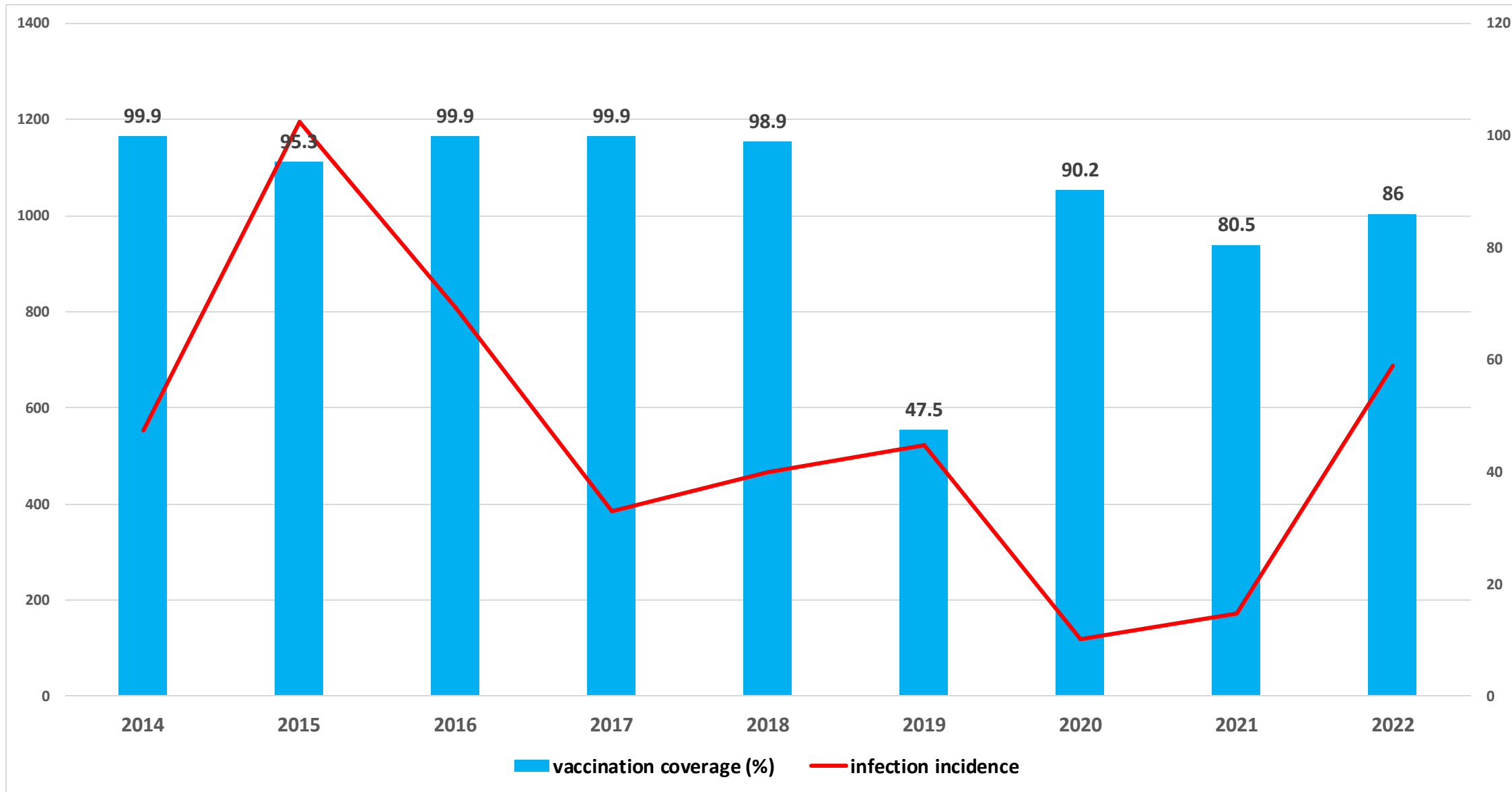
- Shown to reduce severe cases and hospitalization worldwide.
- Recommended by WHO and used in over 100 countries.

Impact on public health: Significantly reduced rotavirus-related incidence and mortality worldwide.

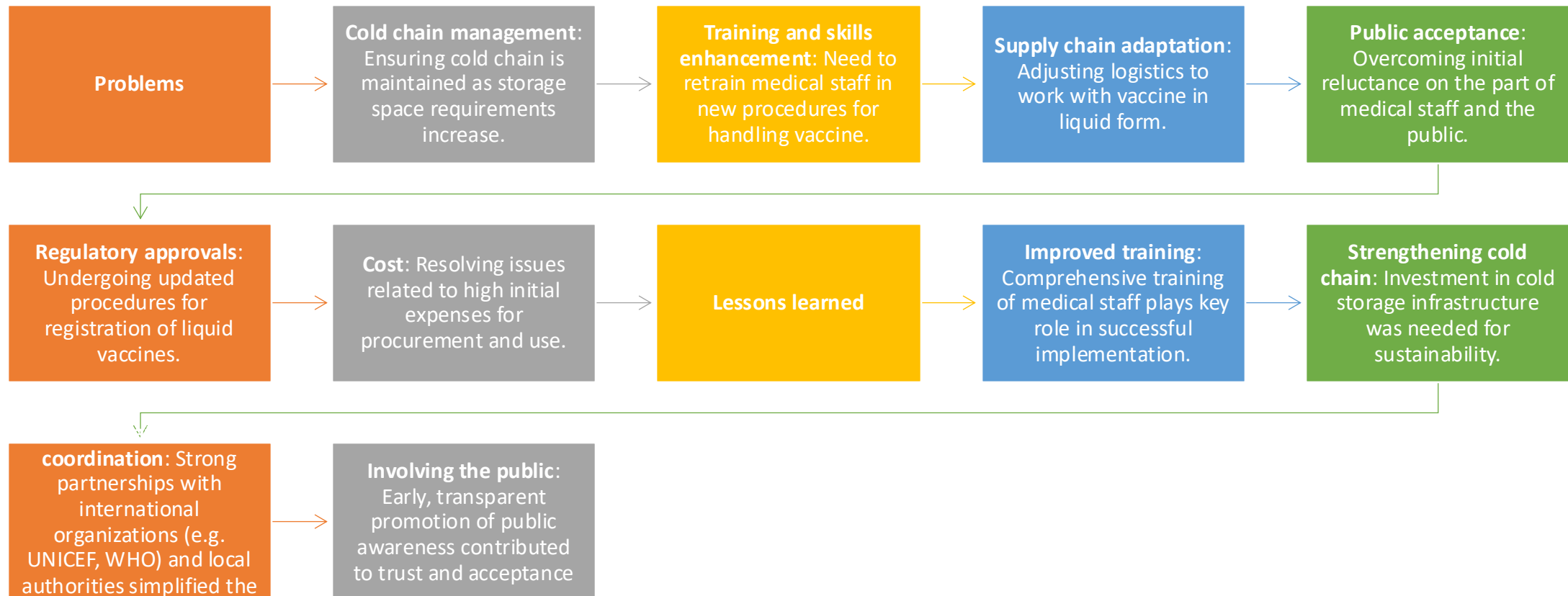
Benefits of switching to the liquid rotavirus vaccine

Simpler administration:	Presented ready to use. Does not require reconstitution, simplifies preparation.
Effectiveness and time saving:	Quick vaccination process. Reduces load on medical staff.
Enhanced safety:	Minimizes risk of mistakes during administration. Consistent administration with fewer preparatory steps.
Storage and logistics:	Optimized cold chain management. Requires less space than multicomponent vaccines.
High acceptability:	Improved experience for medical staff and parents. Less complicated procedure increases trust in vaccination.
Impact on public health:	Increases overall immunization coverage. Reduces risk of outbreaks of vaccine-preventable diseases.

Trend of rotavirus infection incidence against vaccination coverage (2014-2022)



Problems and lessons learned from switching to the liquid rotavirus vaccine in Uzbekistan



Handouts



WORKING WITH THE PUBLIC



Working with medical staff





MARKET INTELLIGENCE KEY TOOLS & RESOURCES

General

- [UNICEF Strategic Vaccine Procurement e-course](#)
- [WHO Immunization Agenda 2030](#)
- [WHO Immunization Analysis and Insights](#)
- [Johns Hopkins International Vaccine Access Center \(IVAC\)](#)

Product choice

- [UNICEF Key supply markets dashboard](#)
- [UNICEF Market notes and updates](#)
- [WHO Prequalification information](#)
- [WHO MI4A Vaccine Product List](#)
- [WHO Vaccine Wastage Calculator](#)
- [Access to Vaccines Index](#)

Market dynamics

- [UNICEF Vaccines Market Dashboard](#)
- [UNICEF Vaccine Industry Consultation \(VIC\)](#)
- [WHO Global vaccine market report 2023](#)
- [WHO MI4A Market Studies](#)

Price information

- [UNICEF Vaccine pricing data](#)
- [WHO MI4A Vaccine purchase database](#)

Decision support

- [WHO Country-led Assessment for Prioritisation on Immunisation \(CAPACITI\)](#)

CLOSING REMARKS – KEY FOCUS AREAS

Understanding Vaccine Markets

- Strategic decision-making by analyzing supply, costs, and characteristics of current and pipeline vaccines.
- Identify gaps to align procurement strategies with market realities.

Informed Prioritization

- Evaluate financial, epidemiological, and programmatic factors
- Rank vaccine switches, introductions, and future options.

Leveraging Resources and Tools

- Use UNICEF, WHO, Gavi or other guidance for tailored decision-making.
- Apply case studies and product profiles to address specific needs.

Fostering Collaboration and Learning

- Promote cooperation for peer-to-peer learning.
- Share best practices to enhance national immunization strategies.

Integration and Implementation

- Embed market intelligence into National Immunization Strategies (NIS) for effective and efficient program delivery.

Join us on the [Vaccine Procurement Practitioners Network](#) to continue the discussion!