



VACCINE PROCUREMENT
Practitioners Network (VPPN)

WEBINAR

Strategic Vaccine Procurement Series:
What mitigating strategies can
you leverage to prevent
commonly-faced supply risks?

DISCUSSION WITH

GEORGIA

LIBERIA

16 April 2026, 1pm – 2.05pm GMT+2

unicef  | for every child

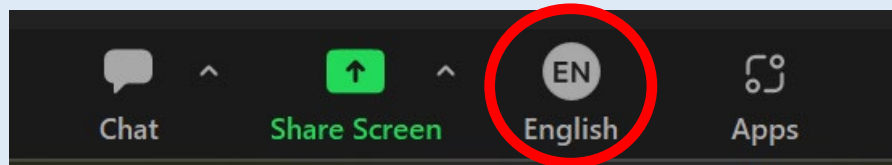
AGENDA

Time	Topic
1:00pm GMT+2 (3 mins)	Welcome and introduction
1:03pm GMT+2 (15 mins)	Collaborative Contracts & National Demand Forecasting Platform <ul style="list-style-type: none">• <i>Jacqueline Kosche, Director, Routine Medical Countermeasure Programs and Supply Chain Strengthening, Public Health Agency of Canada</i>• <i>Kurt Young, Manager, Drugs, Vaccines and Biologics Division, Public Services and Procurement Canada</i>
1:18pm GMT+2 (15 mins)	Ensuring Vaccine Supply Security in Georgia <i>Vladimer Getia, Head of State Public Health Programs and Regional Management Department, National Center for Disease Control and Public Health</i>
1:33pm GMT+2 (15 mins)	Responsiveness and sustainability in Liberia's Expanded Program on Immunization <i>Adolphus Trokon Clarke, Programme Manager, Expanded Programme on Immunisation, Ministry of Health</i>
1:48pm GMT+2 (15 mins)	Questions & Answers
2:03pm GMT+2 (2 mins)	Closing remarks
2:05pm GMT+2	End & Further E-discussion on the VPPN

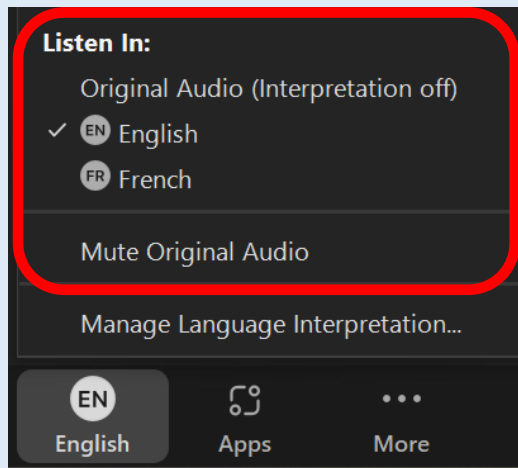
ZOOM FUNCTIONS & RECORDING

Interpretation

- Click on the **Language** button and choose the language you wish to hear.



- For this webinar, you can choose between **English, French and Russian.**

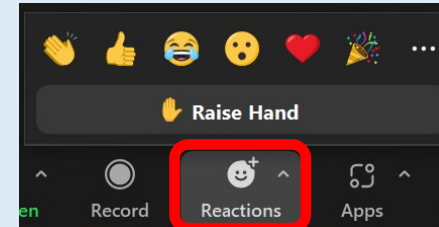
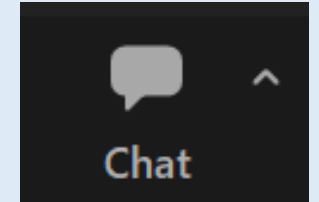


- To hear the interpreted language only, click 'Mute Original Audio'.

Chat Box

Use the Chat:

- For all your questions
- To introduce yourself (name, organisation, country)



During the Q&A, you can also raise your hand to ask a question.

Recording & Sharing

- These sessions are recorded and your attendance is consent to be recorded.
- The presentations and webinar recording will be shared on the [Vaccine Procurement Practitioners Network \(VPPN\)](#).

INTRODUCTION

Key Learning Objectives

- ✓ Share countries' risk analysis assessment and how they identify key risks in the procurement process and mitigation measures
- ✓ Highlight the main challenges faced with stock management and how these are impacted by forecasting, planning and budgeting
- ✓ Provide peer-to-peer learning and triangular cooperation to support countries in accessing quality-assured vaccines
- ✓ Answer questions on the topic



Collaborative Contracts & National Demand Forecasting Platform

- *Jacqueline Kosche, Director, Routine Medical Countermeasure Programs and Supply Chain Strengthening, Public Health Agency of Canada*
- *Kurt Young, Manager, Drugs, Vaccines and Biologics Division, Public Services and Procurement Canada*



Canadian Collaborative Contracts – Features

- **Flexibility**
 - Estimated Monthly Delivery Schedule
 - Minimum and Maximum Quantities
 - Returns of unused product
 - Vendor held stockpile
- **Risk Mitigation**
 - Payment on delivery and acceptance
 - Warranty / Recall
 - Inability to supply
 - Liquidated Damages

Canadian Collaborative Contracts – Split Awards

- Award multiple contracts for equivalent products
 - Ensures participation of multiple suppliers
- Split is based relative difference between prices
 - Helps ensure competitive pricing
- Relatively easy to mitigate supply disruptions by shifting quantities between contracts

Canadian Collaborative Contracts – Challenges

- Heterogenous Requirements
 - Program definition is made at the provincial/territorial level
- Forecasting Inaccuracies
 - Can lead to product wastage / short-dated product
- Voluntary Participation
 - Can lead to competing contractual obligations
- Funding Challenges
 - Better security of supply and pricing may be achievable with longer term contracts
- Few Suppliers

Canadian Collaborative Contracts – Shortages

- Consider the trigger:
 - Outbreak
 - Supply Disruption/Manufacturing Issue
 - Global Demand
 - Poor Forecasting
- Product Allocation:
 - How will limited supply be equitably allocated?
 - Can doses be re-distributed from internal stockpiles?
 - What is the impact at the jurisdiction level?
- Product Alternatives:
 - Foreign labelled products
 - Other regulatory pathways

Vaccine Market in Canada

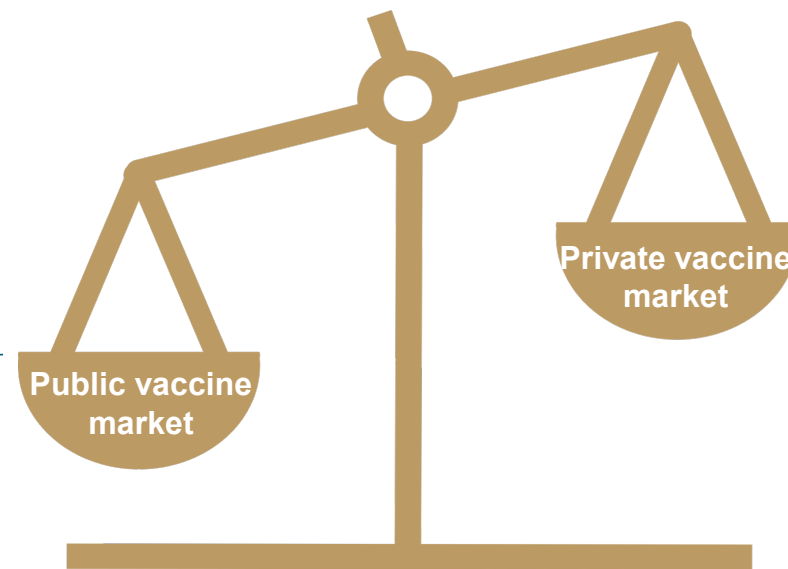
Vaccines can be purchased through either the **public or private market** in Canada.

Routine vaccines are those that are recommended for use in specific populations and are primarily offered for **free through public programs administered by provincial and territorial (PT) governments**, as well as **certain federal departments** responsible for healthcare delivery to their populations.

Other vaccines can be purchased on the **private market** such as at travel clinics and pharmacies. These include vaccines that are not provided as part of routine vaccination programs in PTs, such as yellow fever.

Routine vaccines represent a large proportion of the public vaccine market in Canada, and currently includes 60 vaccines against:

- Diphtheria, Tetanus & Pertussis
- Influenza
- Pneumococcal disease
- Measles, mumps & rubella
- Hepatitis A & B
- Varicella
- and others



Unknown size, but representing only a fraction of the public vaccine market, and can include:

- Travel vaccines (e.g., yellow fever)
- Routine vaccines used outside of public programs or in PTs with limited eligibility public program (e.g., herpes-zoster)
- New vaccines not yet introduced into routine programs (e.g. **CAPVAXIVE® (Pneumococcal 21-valent Conjugate Vaccine)**)

The vaccine landscape continues to rapidly evolve and become increasingly complex due to emerging pathogens, and new vaccines

National Vaccine Procurement

Vaccine procurement in Canada is driven:

- **Operationally** through the collaborative work of the Bulk Procurement Program (BPP) - administered by Public Services and Procurement Canada (PSPC) – and the Vaccine Supply Working Group (VSWG) – a sub-group of the Canadian Immunization Committee (CIC) comprised of federal, provincial and territorial (F/P/T) representatives and chaired by the Public Health Agency of Canada.
- The focus of the BPP is to manage the procurement and distribution of routine vaccines identified by the Vaccine Supply Working Group (VSWG) and achieve lower prices for F/P/T partners through collaborative, national contracts.

To support this objective, the *2025-2030 Interim National Immunization Strategy*, released in June 2025, calls on the Government of Canada to “Develop and implement an end-to-end inventory management system that supports the management of vaccine supply, demand, usage and minimizes waste.”

- **Strategically** via the National Immunization Strategy (NIS), which is designed to address several immunization challenges faced by all Canadian jurisdictions, including:
- increased vaccine expenditures due to the introduction of expensive new vaccines
 - escalating prices of existing vaccines
 - concerns about security of supply and supply shortage
 - the need for rapid and effective national interventions in emergency situations.

What Impacts Demand Planning?

Significant growth in scale of doses procured and the expenditures under the Bulk Procurement Program.

Outbreaks and manufacturer supply limitations.

Year-over-year changes in response programs (e.g., Rabies, Hepatitis A) make it difficult to establish trends.

Changes to NACI/ NITAG guidelines can impact the ability to meet evolving needs.

Suppliers have limited capacity to fully meet the F/P/T requirements. Canada must compete with international demands.

Long lead times (i.e., 12-18 months) required by manufacturers to produce drugs and vaccines make it difficult for the jurisdictions to accurately forecast their requirements based on product availability.

Newly developed vaccines are often more expensive, resulting in escalated prices.

The ongoing development of combination vaccines (e.g., influenza and COVID-19) adds significant health economic considerations.

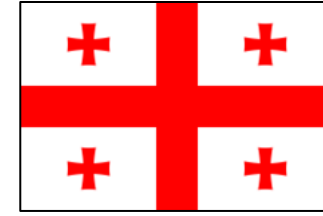
National Vaccine Demand Forecasting Platform

- This platform is designed to provide support to F/P/T partners in their multi-year demand planning and forecasting by aggregating BPP contracting history, population projections, and recent *National Advisory Committee on Immunization* (NACI/ NITAG) recommendations in one location that allows for each jurisdiction to leverage the information to make informed choices in shaping their individual vaccine programs.
 - While F/P/Ts currently have access to the information presented in the platform, it facilitates a single access point for the multiple tools to inform jurisdictional demand forecasting frameworks.
- This platform is modular and will expand over time with input from users. Currently, it is comprised of 12 modules - organized into three separate groups - designed to support demand planning:

Group	Programmatic History & Demographic Data	Data-Driven Calculations	Operational Supports
Description	These modules aggregate program information including historical use, contract price, program and manufacturer breakdowns, and Statistics Canada demographic information.	These calculator tools draw from the data to create population-based projections, risk-based projections (based on NACI recommendations), and wastage estimations.	These modules provide ongoing operational support to F/P/T users including aggregating notices from PSPC and providing statuses on individual vaccines.
Number of Modules	7	3	2
Data Sources	Statistics Canada, Canadian Network for Public Health Intelligence (CNPHI)	NACI, Statistics Canada, CNPHI	PSPC, Manufacturers, CNPHI
Update Interval	Annually; Quarterly; Daily; Ad-hoc	Annually; Ad-hoc.	Daily; Real-time

Next Steps

- Socialization and pilot testing platform to meet jurisdictional needs
- Full roll out across all provinces and territories as requested by individual jurisdictions to meet demand planning needs
- Inclusion of additional modules to facilitate vaccine demand planning (e.g. additional Census modules to facilitate understanding of social determinants of health)
- Expansion to other medical countermeasures as warranted by end user demand (e.g. antivirals, therapeutics)



Ensuring Vaccine Supply Security in Georgia

*Vladimer Getia, Head of State Public Health
Programs and Regional Management
Department, National Centre for Disease Control
and Public Health, Georgia*



Key Information

- ❑ Georgia's current immunisation schedule includes 13 different antigens;
- ❑ Georgia has introduced all three new vaccines recommended by WHO (HPV, PCV and RV);
- ❑ 100% of the vaccines in the Georgian immunisation programme include at least one product with either Market Authorization (MA) or United Nations Prequalification (PQ) status;
- ❑ Georgia continues to benefit from procuring vaccines from UNICEF SD, optimising security of supply and prices for most of the vaccines it procures;
- ❑ Georgia procures 67% of programme vaccines through UNICEF SD;
- ❑ Georgia's procurement aligns with EU legislation (i.e. Directive 2014/24/EU on public procurement);
- ❑ 16 out of the 17 products procured (94%) have a price level lower than or equal to the average price paid by other MICs;
- ❑ Government expenditure on vaccines per surviving infant is USD 148;

Key Information

- ❑ The size of the Georgian vaccine market is relatively small, representing an estimated 1.8% of the average number of vaccine doses acquired each year by European middle-income countries (MICs);
- ❑ About 64% of Georgia's total vaccine procurement expenditure is for 2 vaccines: DTaP-HepB-Hib-IPV (42%) and DTaP-IPV (22%);
- ❑ About 66% of the value of vaccine purchases in Georgia is consumed by vaccines administered in the first 12 months of life;
- ❑ Georgia has reported one vaccine stockout at national level in the last 5 years (HPV) related to the delayed availability of HPV9, but the routine use of HPV vaccines remained uninterrupted during this period. Using a buffer stock policy helps minimize stockouts that could interrupt routine immunization programs;
- ❑ Georgia plans to introduce other vaccines and has a long-term immunization strategy (2022 – 2030).

Risk Analysis and Mitigation Strategies

- **Identified Risks:**
 - **Global Supply Disruptions:** Manufacturer production stops (e.g., GSK MMR strain).
 - **Regulatory Bottlenecks:** Delays due to local registration requirements.
 - **Market Volatility:** Fluctuating prices and delivery lead times.
 - **Financial sustainability:** Fluctuations in the exchange rate of the national currency against the US dollar and the euro.
- **Mitigation Strategies:**
 - **Manufacturer Diversification:** Proactive switching to alternative WHO-prequalified manufacturers if a primary source fails.
 - **Regulatory Flexibility:** One-time import permits for WHO-prequalified vaccines that lack local registration.
 - **Market Research:** Continuous monitoring of global pricing and production via WHO/UNICEF resources to inform procurement choices.
 - **Allocation of financial resources:** from savings in other programs.

Forecasting, Planning, Budgeting and Supply

- **Forecasting Risks:**
 - **Denominator Error:** Inaccurate birth rate data or migration patterns (especially in mobile populations) lead to incorrect target populations.
 - **Wastage Rate Volatility:** If the forecast assumes a 10% wastage rate but the actual field usage is 25% (due to multi-dose vial policies or rural clinic distribution), a stockout is inevitable.
 - **The "Buffer Paradox":** Under-forecasting leads to stockouts; over-forecasting leads to mass expiration and financial waste.
- **Planning Risks:**
 - **Policy-Demand Mismatch:** If the National Immunization Schedule expands (e.g., adding a new vaccine) without a parallel update in logistics and storage capacity (Cold Chain), the system may collapse under the volume.
 - **Regulatory Lag:** New vaccines often face delays in local registration. If procurement begins before the legal path is cleared, vaccines may sit at the border, risking expiration or temperature variations.
 - **Stakeholder Silos:** Lack of communication between the NCDC (technical) and the Ministry of Finance (financial) can lead to a "priority gap" where life-saving vaccines aren't funded as urgent needs.

Forecasting, Planning, Budgeting and Supply

- **Budgeting Risks:**
 - **Currency Fluctuations:** Since vaccines are purchased in USD or EUR but budgeted in GEL, a sudden devaluation of the Lari creates an immediate funding gap.
 - **The "Rigid Budget" Trap:** Fixed annual budgets often lack the flexibility to respond to Epidemiological Shifts (e.g., an unexpected Measles outbreak requiring an emergency mass campaign).
 - **Global Price Hikes:** Manufacturing costs or supply shortages can drive up prices proposed through UNICEF's mechanism after the national budget has already been locked by Parliament.

Actionable Strategies to Face Stockout Risks (The Georgian Model)

Forecasting	Use of 8-month safety stock (5 months consumption + 3 months buffer) to absorb data errors.
Planning	Centralized management within the NCDC to ensure technical needs and procurement goals are perfectly aligned: Sufficient volumes for storage and transportation of vaccine supplies; Centralized vaccine stock management system;
Budgeting	Use of the Basic Data and Directions (BDD) 4-year document to secure medium-term funding commitments from the MoF. Involvement of external experts and international organizations in the process of justifying financial needs.

Actionable Strategies to Face Stockout Risks

Supply

- Increase in quantity through multi-year purchases; Multi-year contracts (2+ years) to lock in prices and guarantee manufacturer priority during global shortages;
- Timeliness of purchases, orders and logistics;
- Abolition of registration for those vaccines that are registered in countries with a high level of control and also prequalified by WHO;
- Fixing the price of the vaccine to be purchased in the national currency, so that the change in the exchange rate does not affect the budget of the state immunization program;
- Tender documents written in Georgian and in English;
- INCOTERMS-2010 CIP condition declared as the condition of the supply.

Specific Example - The MMR Transition

- ❑ Case Study: Handling a Production Halt
- ❑ The Challenge: GSK suspended the production of the MMR vaccine (Jeryl Lynn strain).
- ❑ The Response:
 - Georgia utilized its 8-month buffer stock to cover the immediate gap.
 - The NCDPC initiated an emergency transition to the Merck vaccine via UNICEF's mechanism.
 - For the needs of the transition period, a vaccine of the Leningrad-Zagreb strain was purchased.
- ❑ Lesson Learned: A good coordination between planning and the buffer stock allowed for a seamless transition without a routine immunization gap.
- ❑ New Strategy: Georgia now prioritizes multi-manufacturer awareness in its procurement strategy to ensure a "plan B" is always ready.



Responsiveness and sustainability in Liberia's Expanded Program on Immunization

*Adolphus Trokon Clarke, Programme Manager,
Expanded Programme on Immunisation, Ministry
of Health, Liberia*



EPI Overview



Vision: The government vision for immunization is for all persons living in Liberia to have an equal access to effective and lifesaving vaccines and immunization services.



Coverage: 16 Vaccine Preventable Diseases (BCG, OPV, Measles, Penta, HPV, etc.)



Target Populations:

- Children 0–23 months
- Adolescents 9–14 years (HPV)
- Women of childbearing age (15–49 years)



Management Structure: National → County → District → Facility

Partners: WHO, UNICEF, Gavi, WB

Forecasting & Planning

- Annual Cycle: September forecast → next year plan
- 5-Year Projection: Submitted to UNICEF for pooled procurement
- Budgeting: Co-financing + WB loan for traditional vaccines
- Monitoring: Monthly stock reviews, time-series analysis, 25% buffer stock



Key Supply Risks

- Forecasting inaccuracies → under/over procurement
- Funding gaps → delays in MoF disbursement threatening continuity
- Stock management bottlenecks → poor practices at subnational levels
- Global supply constraints → IPV, Rota, newer vaccines



Mitigation Strategies

- Staggered deliveries (2 shipments/year, flexible timing)
- Buffer stock policy (25% of supply-period requirement)
- Capacity building (training at all levels)
- Multi-level coordination (EPI, counties, MoF, partners)



Case Study – IPV Near-Stockout

- Problem: Critical IPV shortage flagged by monthly review

Response:

- Emergency redistribution to highest-need areas
- Advanced allocation from following year's shipment

Root Cause: Forecasting inaccuracies → systematic under-procurement

- Revised population data integrated into forecast cycle → improved reliability

Case Study – Funding Crisis

Traditional vaccines at risk due to fiscal shortfall

Solution: WB loan secured (2023–2026) → ensured continuity for bOPV, BCG, Td, Measles

Outcome: MoF now includes co-financing obligations in national plan

Lessons Learned

What Worked

Staggered shipments = flexibility

Monthly reviews = early detection

WB loan advocacy = multi-year certainty

Training = reduced errors

Budget integration = predictability

Remaining Gaps

⚠ Forecasting accuracy depends on population data quality

⚠ Subnational reporting inconsistent

⚠ Limited global supply of IPV, Rota

⚠ Fiscal priorities may shift co-financing

⚠ Need for stronger, real-time visibility from facilities to national level

Key Message

Early monitoring + flexible procurement + government commitment = resilient supply chains

Liberia's EPI is building a system that balances responsiveness with sustainability, ensuring equity and continuity in vaccine access.

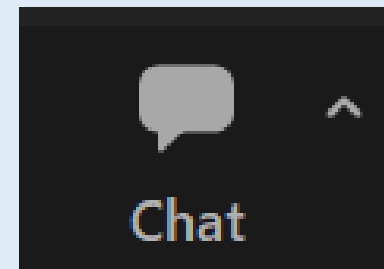
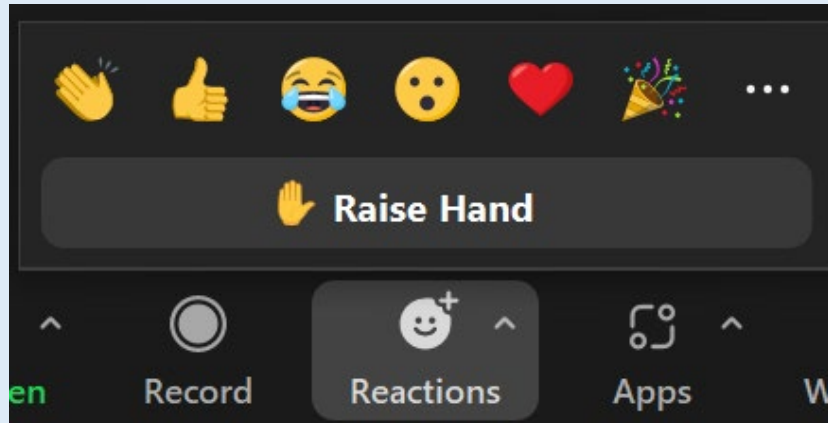


Questions & Answers session

QUESTIONS & ANSWERS

The floor is open for your questions...

...Raise your hand to ask a question or write it in the chat.



CLOSING REMARKS

Join us on the [Vaccine Procurement Practitioners Network](#) to continue the discussion and share any other question you might have!



VACCINE PROCUREMENT
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THANK YOU

UNICEF Supply Division

Oceanvej 10–12, 2150 Nordhavn Copenhagen, Denmark

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For more information please contact:

Dyuti Laura Schuwey-Daeppen

Community of Practice Manager

Vaccine Procurement Practitioners Network

dschuwey@unicef.org