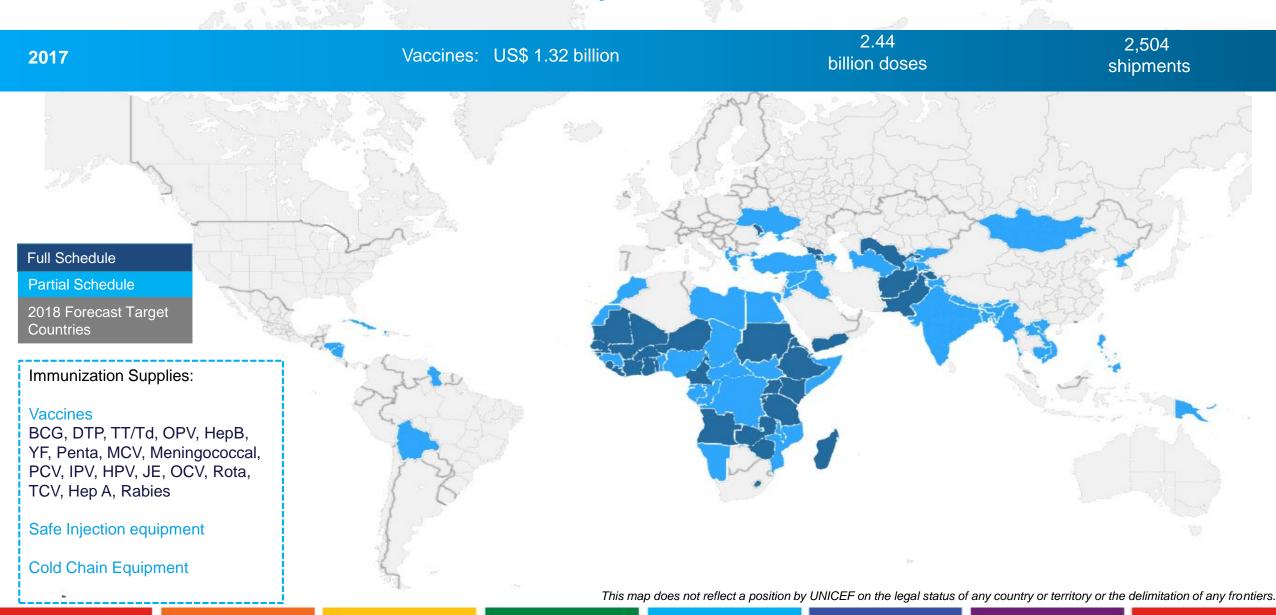


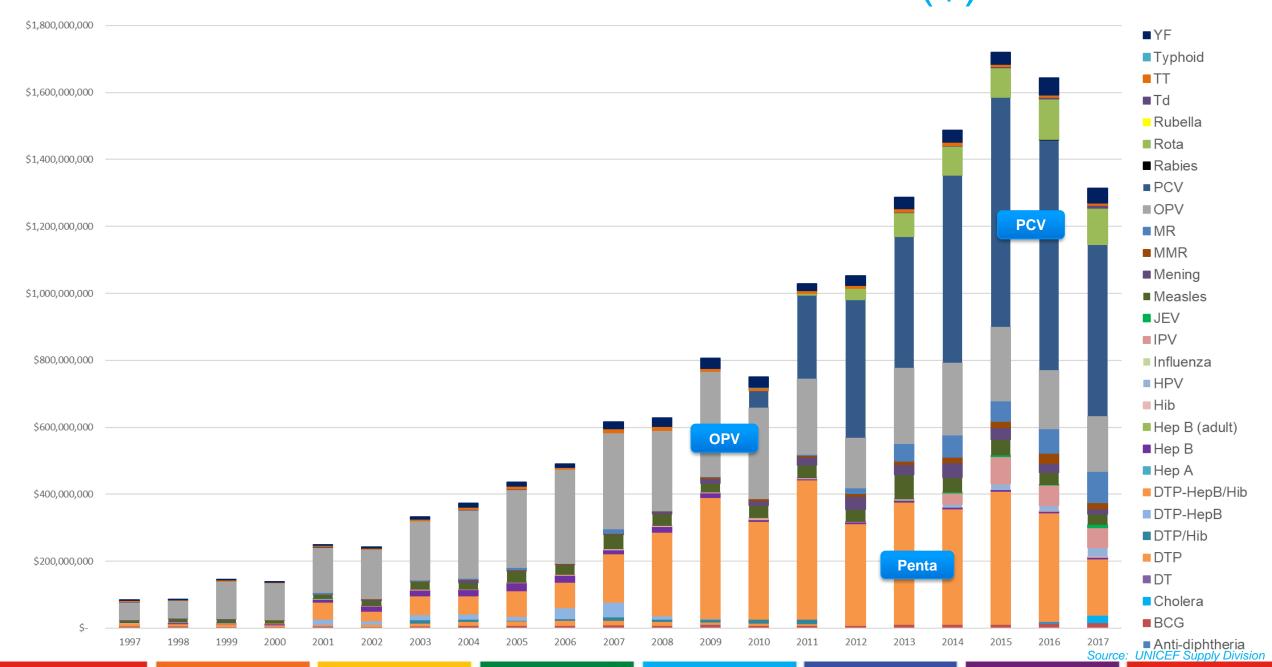
Session Objectives

- 1) To provide an overview of the global market for vaccines supplied through UNICEF, including UNCIEF overview of procurement over 2017, with focus on DCVMN value and volume share of this market,
- 2) To provide an overview of vaccine security, opportunities and challenges going forward,
- 3) To provide an opportunity for global partners engaged in vaccine markets, and DCVMN suppliers, to reflect on considerations for vaccine security going forward into the future.

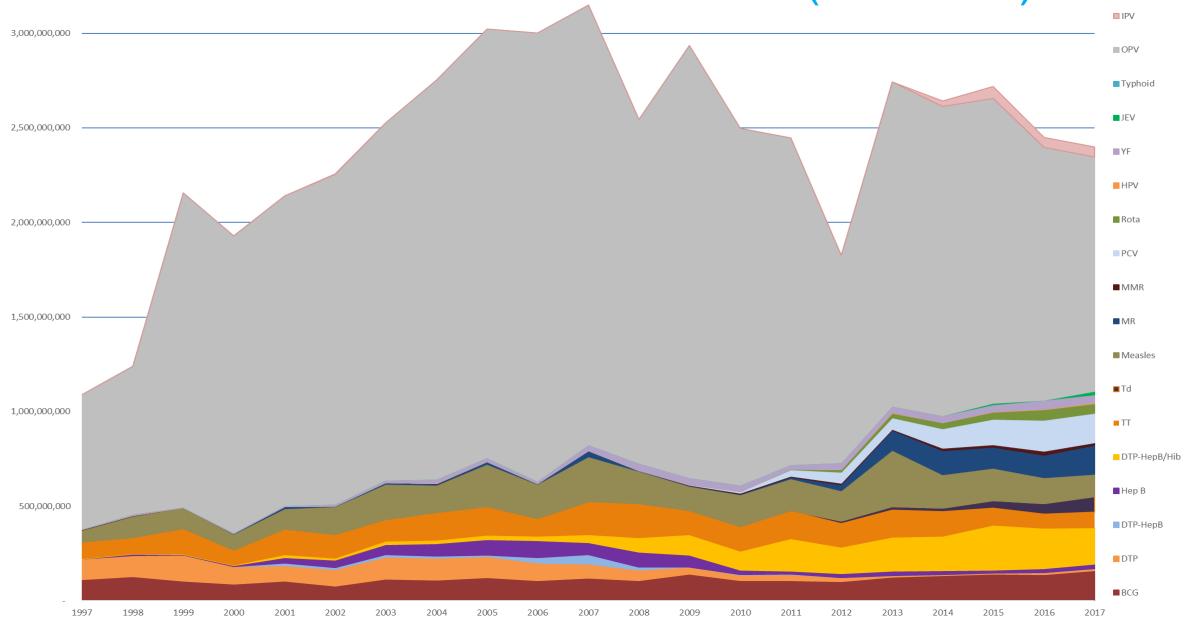
UNICEF procures vaccines & vaccine related supplies for around 100 countries annually



UNICEF Annual Vaccine Procurement (\$)



OPV Remains Main Volume Driver (in doses)



Nearly two decades ago UNICEF moved to a Vaccine Security approach

United Nations Children's Fund

Executive Board

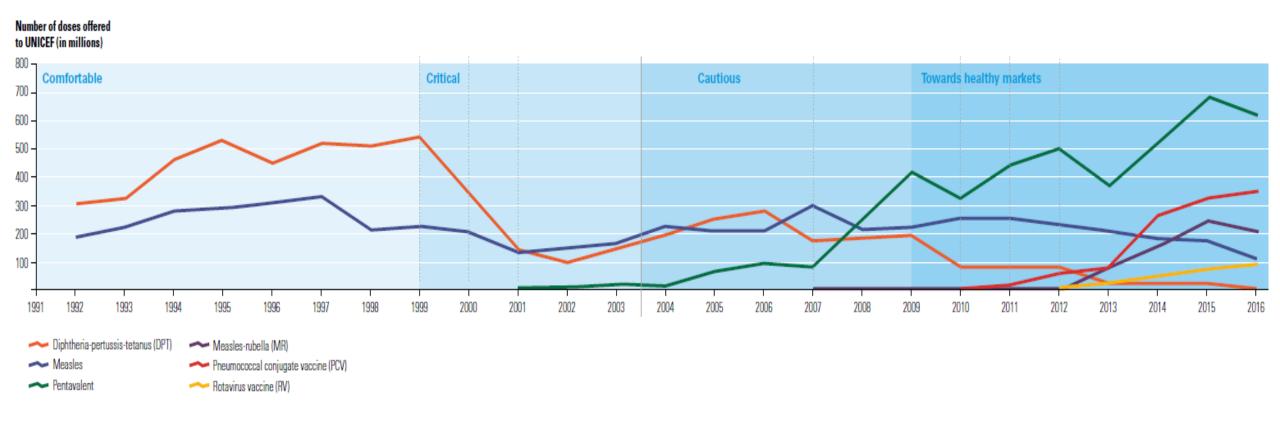
First regular session 2002

21-25 January 2002

Item 6 of the provisional agenda*

Vaccine security: ensuring a sustained, uninterrupted supply of affordable vaccines

Vaccine, healthy market assessment 1990-2016



UNICEF's procurement is focused on achieving Vaccine Security – the sustained, uninterrupted supply of affordable, vaccines of assured quality

- To achieve value for money and access to vaccines for children in need
- Achieving healthy markets through the Vaccine Security approach (forecasting, funding and appropriate contracting)
- Vaccines as biological products requiring a specific approach
- Ensuring quality of vaccines through WHO prequalification as well as safety and efficacy in target population

Forecasting

The forecast process is an integrated part of Immunisation Programmes in country and an essential step for the effective vaccine management.

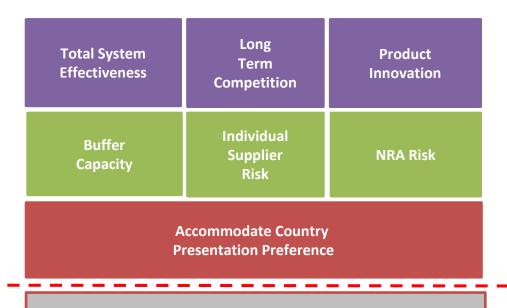
- Forecasting is the foundation for all elements of Vaccine Security:
 - Basis for production at manufacturers
 - Basis for funding needs

The outcome of the forecast is a key input for a number of processes:

- Aligning annual country government budgeting and planning for health sector
- Planning and implementation of vaccine procurement and delivery activities in timely manner
- A mechanism to foster on-going information and knowledge sharing
- Securing better pricing and vaccine stock management

Healthy Markets Framework

HMF represents a set of attributes that should be used to measure the health of a market and a process to evaluate each attribute that is vaccine specific.



Supply of Antigen = Demand for Antigen

Inadequate Supply

The highest level achieves positive system features such as the effect of the market on immunization system effectiveness, long term competition and product innovation

A more healthy market has additional supply security attributes

A healthy market meets country preferences for specific vaccine characteristics

The minimum of a healthy market is supply meets demand

Markets without adequate supply are not healthy

Vaccine tender & contracting approach

Strategy development

- Product-specific procurement strategies, based on analysis and experience
- Informed by industry and partner consultations and alignment of objectives

Tender process

- RFPs for strategic products flexibility for manufacturers to shape the offer to highlight how they can bring best value
- Multi-year tender & award period provides planning horizon and more certainty to manufacturers
- Wide invitee-list; all manufacturers are invited to participate (including pipeline)

Awards

- LTA 'good faith' framework agreements:
 - Based on good will from accurate forecasts, but 'treated' as contracts
 - To achieve exceptional results, exceptional contracts have been awarded (e.g. firm or pre-paid contracts)
- Review with a Procurement Reference Group (GAVI-supported vaccines) or other confidential partner consultation (e.g. GPEI)
- Multiple suppliers awarded per product
- Innovation and Pipeline are assessed in award recommendation, and informs award strategy to incentivize continued market development

Sustainable Procurement

Environmental

- Preservation of natural resources, ecosystems, and biodiversity
- Reduction of ecological footprint
- Reduction of greenhouse gas emissions
- Waste management



Social

- Human rights
- Labour rights
- Gender equality
- Poverty and inequality reduction Social inclusion
- Promotion of SMEs (small and medium enterprises)



Economic

- Best VfM (price, quality, availability, functionality, and innovation)
- Life cycle costing
- Economic development
- Employment
- Good governance





Move towards a more sustainable procurement approach

UNICEF shipped over 30,000m3 (5,500 tons) of SIE in 2016, generating contaminated waste, requiring disposal

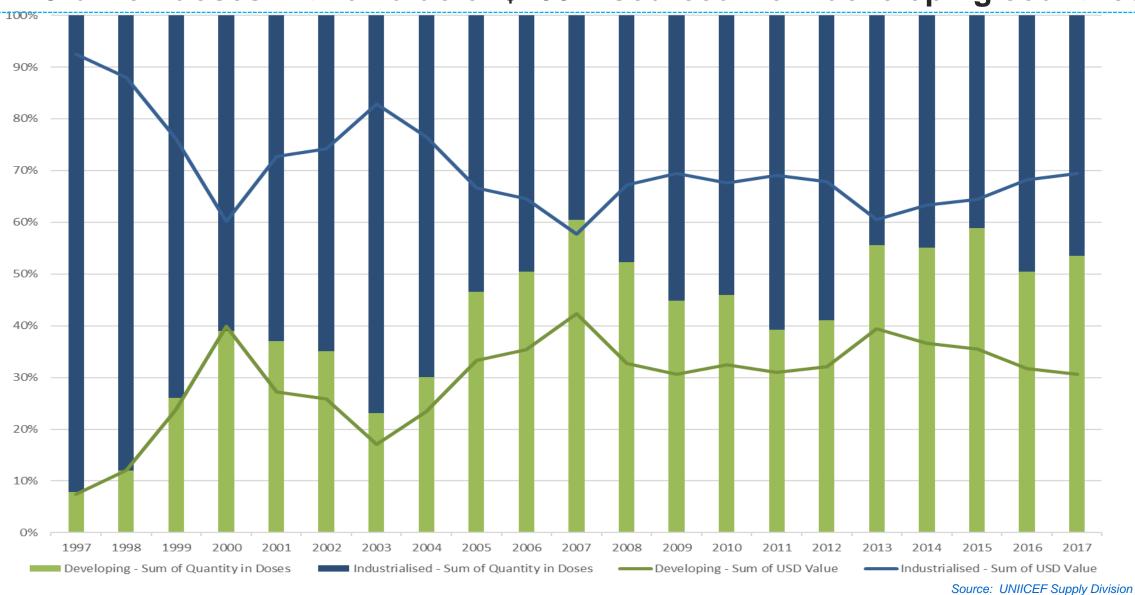
In all upcoming tender round, the intent is to focus on multiple elements crossing the 3 pillars (Environmental, Economic, Social) of sustainable procurement and extending along the supply chain, including:

- Influencing Industry's Sustainable Procurement (SP) Policy: Continue driving for green manufacturing (QMS) and address social SP elements through requiring industry to report on such
- Implementing Sustainable Procurement Criteria: Implementation within the Tender activity, including SP elements in the tender evaluation (Weight, Volume, Local manufacturing); GTC requirements
- Internal process: Introduce step one of e-tendering and electronic bid submissions



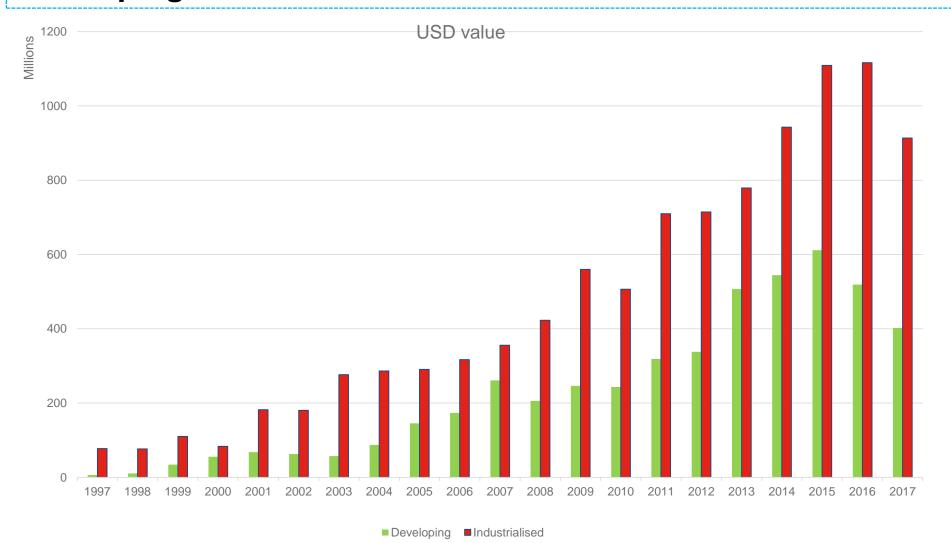
Emerging Market Country Manufacturers

2017: 1.3 billion doses with a value of \$400m sourced from developing countries



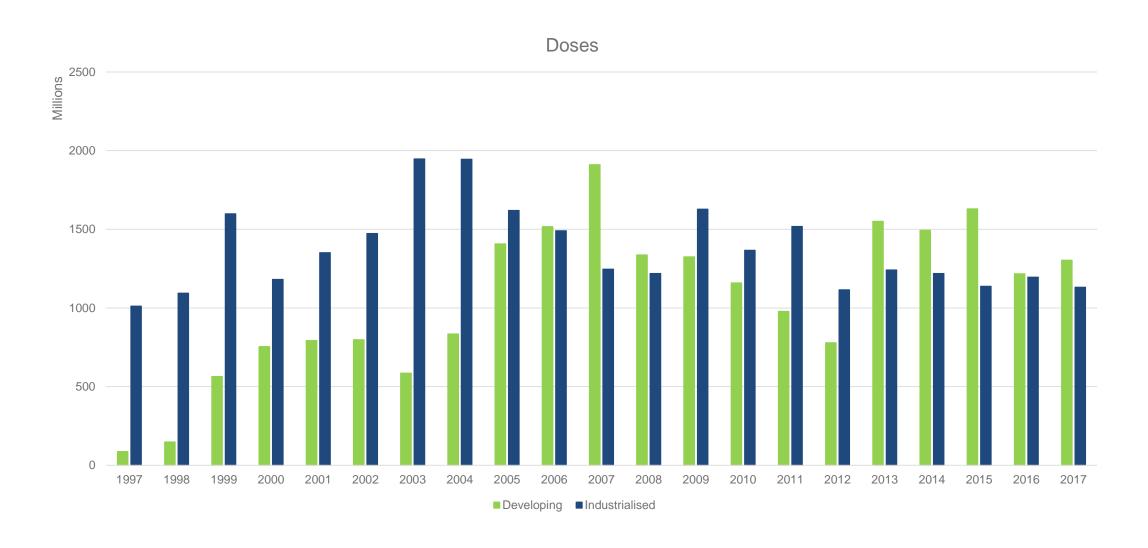
Emerging Market Country Manufacturers

2017: 1.3 billion doses with a value of \$400m comes from developing countries manufacturers

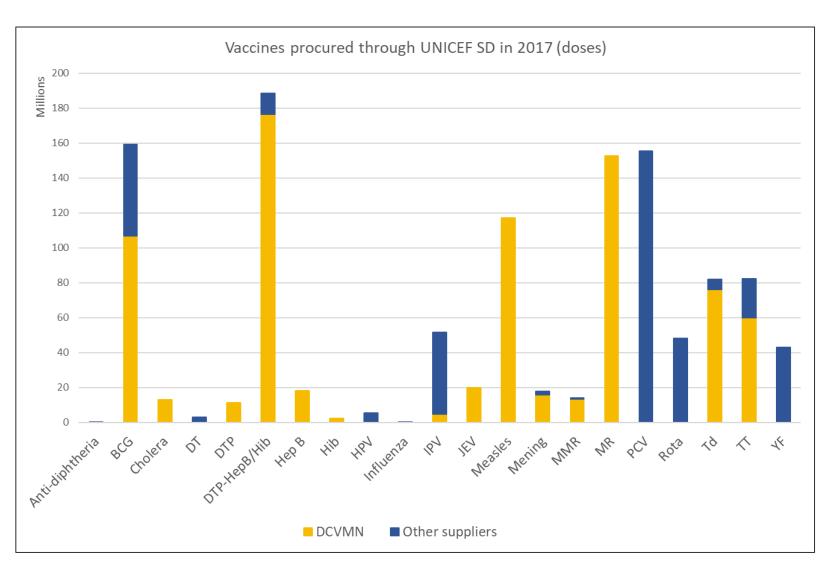


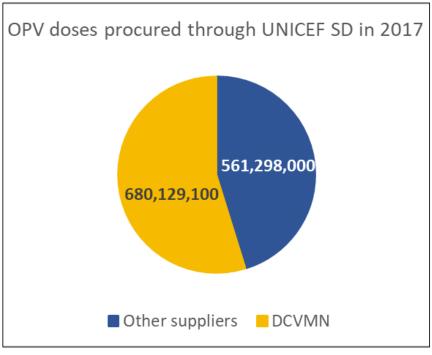
Emerging Market Country Manufacturers

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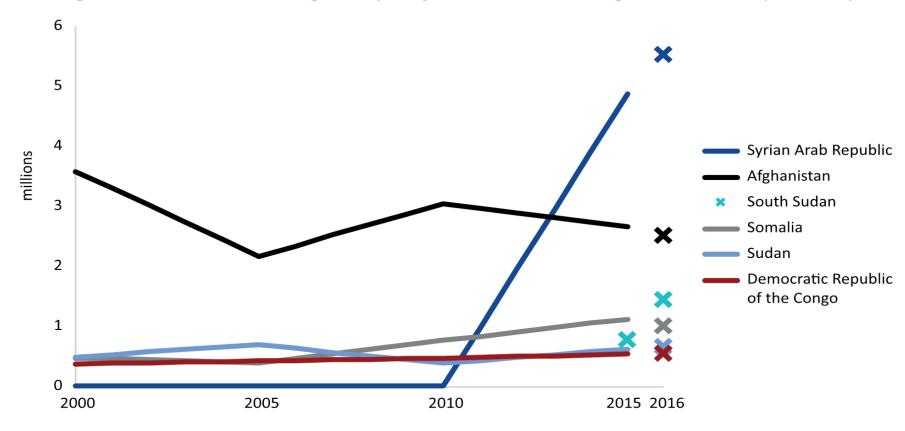
2017 UNICEF SD Vaccine Procurement





Children on the move

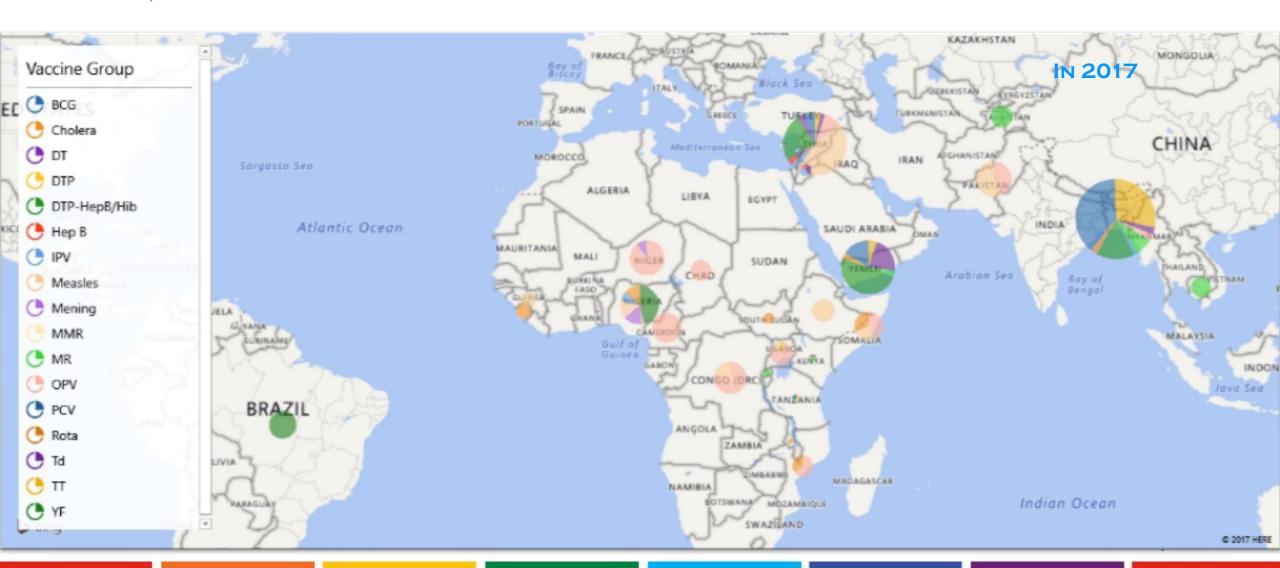
Figure 6. Number of refugees by major countries of origin as of 2016 (millions)



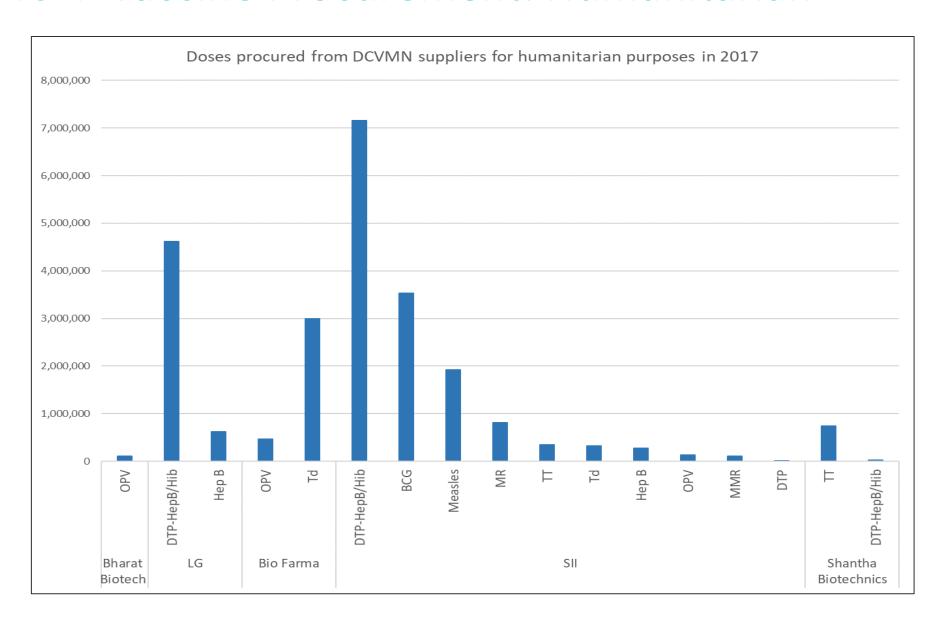
Source: UNHCR, n.d. (accessed on 18 July 2017).

Increased outbreaks and humanitarian needs

2017: \$59m and 118m doses in 33 countries



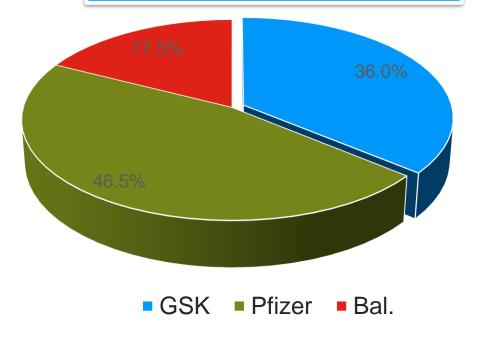
2017 UNICEF Vaccine Procurement: Humanitarian



Overview of AMC supply agreements

Contracts Overview PCV	GSK	Pfizer	Total		
Presentation	2, 4 dose	1 & 4 dose	N/A		
Last year of last contract	2024	2027	N/A		
Annual Supply Commitment Qty	72	93	165		
Total number of doses awarded	720	930	1650		
Accumulated Percentage of AMC funds	36%	47%	83%		
Accumulated share of AMC funds	540	697.5	1,237.5		

82.5% of AMC funding has been committed to supply agreements through 2027



Following the awards under the AMC-4 tender, a balance of \$262.5 million out of \$1.5 billion of AMC donor funds is available for future awards.

Challenges & Opportunities with DCVMN suppliers

New Vaccines:

- HPV:
 - Current supply constraints due to increase/surge in demand that is expected to rise in light of HPV elimination
- PCV:
 - Expectation of market entry of at least one additional PCV supplier for AMC
- Rota:
 - Two DCVMN suppliers have been added to the Rotavirus market, increasing opportunities for supply security and expansion of programs/introductions
- TCV:
 - DCVMN suppliers are early market entrants

Future vaccines:

- Coverage and equity:
 - Product presentations that support immunization delivery/increasing coverage in countries
- Opportunity for research and development
 - Zika, Chikungunya, Ebola, Marburg, Lassa, MERs:

What do you think is needed to achieve vaccine security in 2030 and beyond?

- Increase in supply needed to cover increase in coverage of existing vaccines
- Middle income countries falling behind Gavi supported countries in terms of new vaccines, and routine coverage
- Vaccine hesitancy increasing
- Children on the move and migration / refugee
- Increasing demands on domestic resources for funding / stagnating ODA funding for health
- New vaccines at varying stages of development & scale
- Healthy market targets

Key Market Updates



unicef for every child

AMOS								DTP-HepB-Hib											
ANCE										2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
		Produc	t availability	Dose								\$2.3500	\$2.3500	\$2.3000	\$2.2500		\$1.1500		
	Supply exceeds		Supply exceeds	2	Supply exceeds	2018 \$1.08	2019 \$1.05	2020 Pending	Corp.	3.6000*	\$2.8000- \$3.2000	\$2.8000- \$3.2000	\$2.8000- \$3.2000	\$1.9500- \$2.7000	\$2.4000- \$2.6000	\$2.3500	\$2.3500	\$0.8000	
	demand		demand		demand	\$1.00	\$1.05	tender		\$3.6000	\$2.9650	\$2.9650	40.200	4=::-	V=			\$1,4000	
	Supply exceeds demand	\triangleleft	Supply exceeds demand	\triangleleft	Supply exceeds demand	\$0.74	\$0.69	Pending tender		\$2.7000	\$2.7000	,						7	
	Limited supply	•	Limited supply	4	Limited supply	\$4.50	Pending tender	Pending tender				\$2.2500- \$2.5000	\$2.5000	\$2.6000	\$2.7000	\$2.2500*	\$2.2500*	\$0.9000	\$1.1000
\triangleleft	Limited supply	4	Limited supply	4	Limited supply	\$4.60	Pending tender	Pending tender										\$1.0300	\$0.9800
	Limited supply	\triangleleft	Limited supply		Limited supply	\$2.80	Pending tender	Pending tender					\$1.6000*	\$1.1900*	\$1.1900*	\$1.1900*	\$1.1500*		\$0.70-0.75
4	Limited supply	•	Limited supply	4	Limited supply	\$1.90	Pending tender	Pending tender									\$1.3500	\$0.6800	\$0.6500
	Limited supply		Limited supply	4	Limited supply	€0.75	Pending tender	Pending tender											
	Supply exceeds demand		Supply exceeds demand	4	Supply exceeds demand	\$0.69	Pending tender	Pending tender	:						\$1.8000- \$1.9400*	\$1.9400*	\$1.5500- 1.9400*		
\triangleleft	Supply exceeds demand		Supply exceeds demand		Supply exceeds demand	\$0.52	Pending	Pending tender								\$1.6500	\$1.6500	\$0.8500	\$0.8500
\triangleleft	Needs planning	\triangleleft	Needs planning	\triangleleft	Needs planning	\$1.84	Pending tender	Pending tender				\$1.7500- \$2.1050	\$1.7500- \$2.1050	\$1.8500-	\$1.9500-	\$1.5500- \$1.7050*	\$1.5000- 1.6550*	\$0.7500	\$0.6900
	Needs planning	\triangleleft	Needs planning		Needs planning	\$1.25	Pending tender	Pending tender				\$2.1050	\$2.1050	\$2.1050	\$2.1050	\$1.7050	1.6550		
	Needs planning	\triangleleft	Needs planning		Needs planning	\$3.05	\$3.05	\$3.05	:				\$1.8000*						
	Needs planning	\triangleleft	Needs planning		Needs planning	\$3.05	\$3.05	\$3.05											
	Needs planning		Needs planning	$\overline{}$	Needs planning	\$3.30	\$3.30	\$3.30		\$3.5000	\$2.9500	\$2.9500	\$2.9500	\$2.9500	\$2.9500				
	Needs planning		Needs planning		Needs planning	\$2.95	\$2.95	\$2.95						\$1.9700	\$1.9600	\$1.9500	\$1.9400		
	Limited		Limited		Limited						\$2.2500	\$2.2500							
	supply		supply		supply	€1.88	€1.88	€1.88	calendar ve	2									

Data shows most prices with CPT incoterms from 2001 - 2003; change to FCA incoterms

Where agreements include a range of prices during a calendar year period or for different *Special terms apply.

The prices for 2001-2016 were applicable to GAVI supported countries only.

Prices for 2017-2019 are applicable for all procurement forecast to come through UNICEF

Last updated 6th October 2017

RFP-DAN-2017-502534	24/07/2017	Tubes- feeding/ aspiration, suction, endotracheal.
RFP-DAN-2017-502534	24/07/2017	Tubes- feeding/ aspiration, suction, endotracheal.
RFP-DAN-2017-502534	24/07/2017	Tubes- feeding/ aspiration, suction, endotracheal.
RFP-DAN-2017-502534	24/07/2017	Tubes- feeding/ aspiration, suction, endotracheal.

Visit UNICEF's website on market updates here: https://www.unicef.org/supply/



THANK YOU

