WHO vaccines guideline

WHO VPPAG

- **Vaccine Presentation and Packaging Advisory Group (VPPAG) for improvements of vaccines packaging**
- Created bar code subgroup in 2011 as barcoding becomes prevalent for medicinal products to improve inventory visibility and patient safety in developed markets
- How to leverage barcodes for the vaccines supply chain in developing markets
- Chairs: Rich Hollander(Pfizer/IFPMA), Daniel Thornton (GAVI)
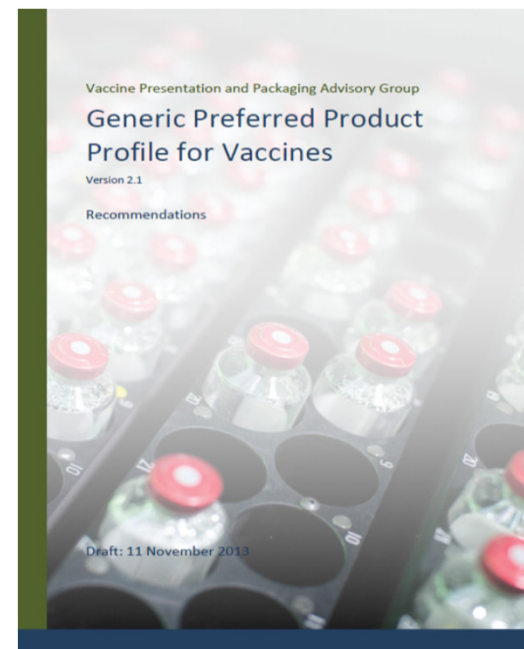
The vaccines supply chain

Often the supply chain is broken
- Vaccines are expired or not stored correctly
- Vaccines are not available when needed
- Inventory management is not optimal
- Traceability is not achievable
- Responsibility towards donors not fulfilled

WHO VPPAG recommendations

- 2019 Generic Preferred Product Profile for Vaccines (PSPQ2) recommends barcodes on all packaging levels used by manufacturers, with the exception of primary packaging

- GS1 standards and associated specifications are being used to encode the Global Trade Item Number (GTIN), lot number, and expiry date

Vaccine Presentation and Packaging Advisory Group

Generic Preferred Product Profile for Vaccines

Version 2.1

Recommendations

Draft: 11 November 2013

WHO VPPAG recommendations

- **Assessing the programmatic suitability of vaccine candidates for WHO prequalification** (PSPQ v2) published at http://www.who.int/iris/bitstream/10665/148168/1/WHO_IVB_14.10_eng.pdf

Barcodes **Planned for transition to critical criteria in next revision	
	• Bar codes are recommended on all packaging levels used by manufacturers, with the exception of primary packaging, and should conform to GS1 standards and associated specifications.
	• Bar code data should include the Global Trade Item Number (GTIN), lot number, and expiry date.(VPPAG)

Supporting documents

- VPPAG Bar Code Implementation Technical Guideline
- Barcode implementation considerations document
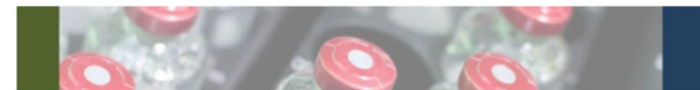- Pilots, experiences, learnings

Lets' look at the VPPAG Bar Code guideline

The WHO VPPAG guideline – some details

- Released in April 2019
- In scope secondary and tertiary packaging – **not** primary and **not** logistic units
- GTIN plus lot number plus expiry date (**not** serialisation)
- Data carrier: GS1-128 or GS1 DataMatrix

11 April 2015

VPPAG Bar Code Implementation Technical Guideline

	Current Value
Document Title	VPPAG Bar Code Implementation Technical Guideline
Date Last Modified	11 April 2015
Document Issue	Release Version 1.0
Document Status	Final for Release
Document Description	Technical guideline for the identification and marking of vaccines purchased through WHO, UNICEF, Gavi, The Vaccine Alliance

WHO VPPAG – Pilots

- **Pilot project in Tanzania** proving the benefits of bar coding for vaccines has been launched in region of Arusha with one vaccine from Pfizer
  - Other vaccines manufacturer deliver now also vaccines according to specification
  - Very positive feedback from first phase – now scaling up across the country and with other products
  - Project led by PATH and supported by GAVI

- **Pilot project in Nicaragua** with main objective to evaluate the benefit of barcode scanning on vaccine tracking and visibility
  - Pfizer vaccine with GTIN, lot number and expiry date in 2D DataMatrix
  - On three different levels – from central store to regional to local
  - Very positive results – MoH wants to extend to ALL vaccines

- **Pilot project in Gambia**
  - Pfizer sponsored project together with PATH and GAVI
  - Positive results lead to country-wide implementation

Initial user feedback has been promising

"Improves my work by reducing time used to count the stock during receiving or dispatching of vaccines."

"Reduces the emergency trips which is usually caused by inadequate vaccine record keeping."

"The improvement of quality of data could be significant when assessing movement of stock (time) from higher levels to low levels."

Labor savings foreseen across various business processes:
- Tracking stock movement, counting, expiry date management, and ordering (50-60%)
- Demand planning, data cleansing and synchronization (2-5%)
- Reverse logistics associated with the location, identification, return and receipt of recalled health commodities (2-4%)

❋ PATH

Read at…

http://blog.path.org/2019/10/mapping-journey-barcodes-data/?utm_referrer=http%3A%2F%2Fwww.google.be%2Furl%3Fsa%3Dt%26rct%3Dj%26q%3D%26esrc%3Ds%26source%3Dweb%26cd%3D1%26ved%3D0ahUKEwiBhKi62qfNAhUFSRoKHbgPBacQFggbMAA%26url%3Dhttp%253A%252F%252Fblog.path.org%252F2019%252F10%252Fmapping-journey-barcodes-data%252F%26usg%3DAFQjCNEiFEt05_cwD8q0tv4hjOPNNR-qBQ%26sig2%3DHwmqPsMq_9YbjpjhbObXFw%26bvm%3Dbv.124272578%2Cd.d2s

Barcodes: quenching a thirst for data

Pilot project in Pakistan

Vaccines Bar coding Process Diagram
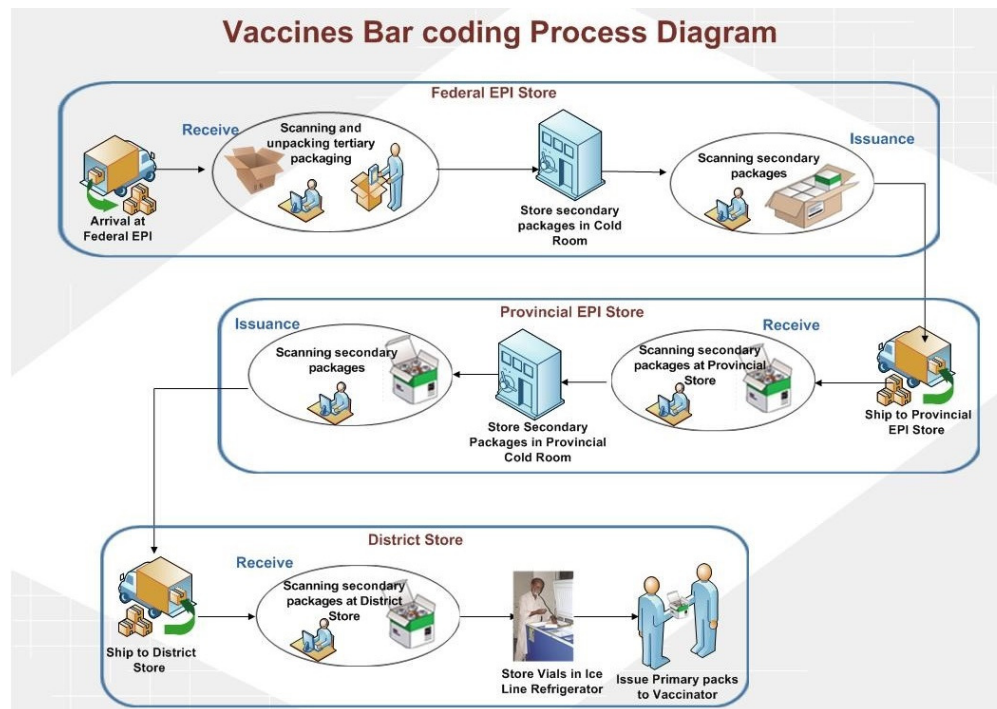
USAID – Deliver project
Similar projects in Ethiopia and Ghana

Pakistan has now mandated barcoding of all pharmaceutical products with GS1 Data Matrix

USAID mandating GS1 standards

- After publication of guidelines for Reproductive Health Products USAID is now starting to implement GS1 standards.

- Letter send to 700 suppliers sharing **USAID requirements for product identification, labeling, and data exchange following GS1 standards**, with a phased implementation from 2019 – 2022.

- Supporting material like technical implementation guides, FAQ's etc. have been published – details can be found at

  http://www.ghsupplychain.org/globalstandards

- Providing financial and organisational support for GS1 Healthcare conference in Africa 8 to 10 May 2019, involving regulatory bodies from Africa, WHO, UNFPA, Bill and Melinda Gates Foundation, World Bank etc.

Interagency Supply Chain Group (ISG) Adoption of global GS1 standards

The ISG: **Bill and Melinda Gates Foundation, DFID, Global Affairs Canada, the Global Drug Facility, KfW, the Global Fund, Gavi, NORAD, UNDP, UNFPA, UNICEF, USAID, World Bank, WFP and WHO** published a position paper in August 2017 on the **adoption of GS1 standards** committing to the process of transitioning to include established, global data standards as part of their procurement requirements and support country uptake of these standards.

From the Interagency Supply Chain Group:
Visibility for Health Systems: Adoption of Global Data Standards (GS1)