



## The Global Language of Business

# 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

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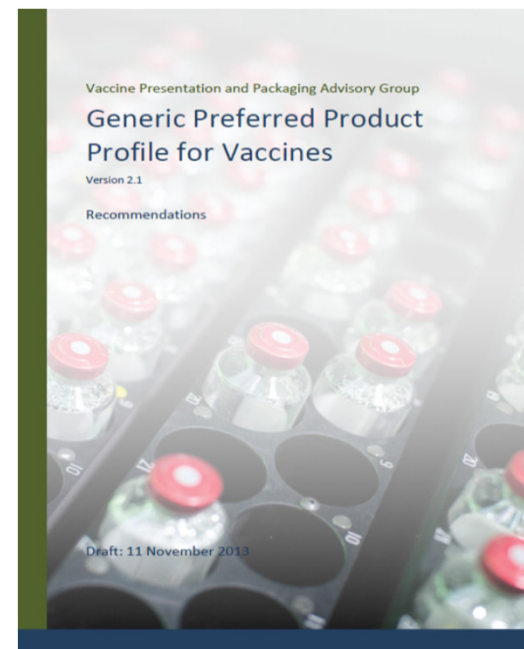


- Often the supply chain is broken
- Vaccines are expired or not stored correctly
  - Vaccines are not available when needed
  - Inventory management is not optimal
  - Traceability is not achievable
  - Responsibility towards donors not fulfilled

# 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





## 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](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

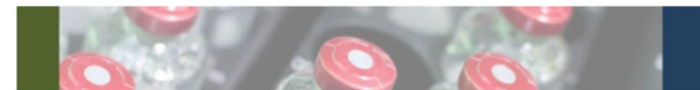


Lets' look at the VPPAG Bar Code guideline

# 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



## 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%)

Source: Presentation Brian Taliesin, PATH at GS1 Healthcare conference in Dubai, April 2019

# Read at...

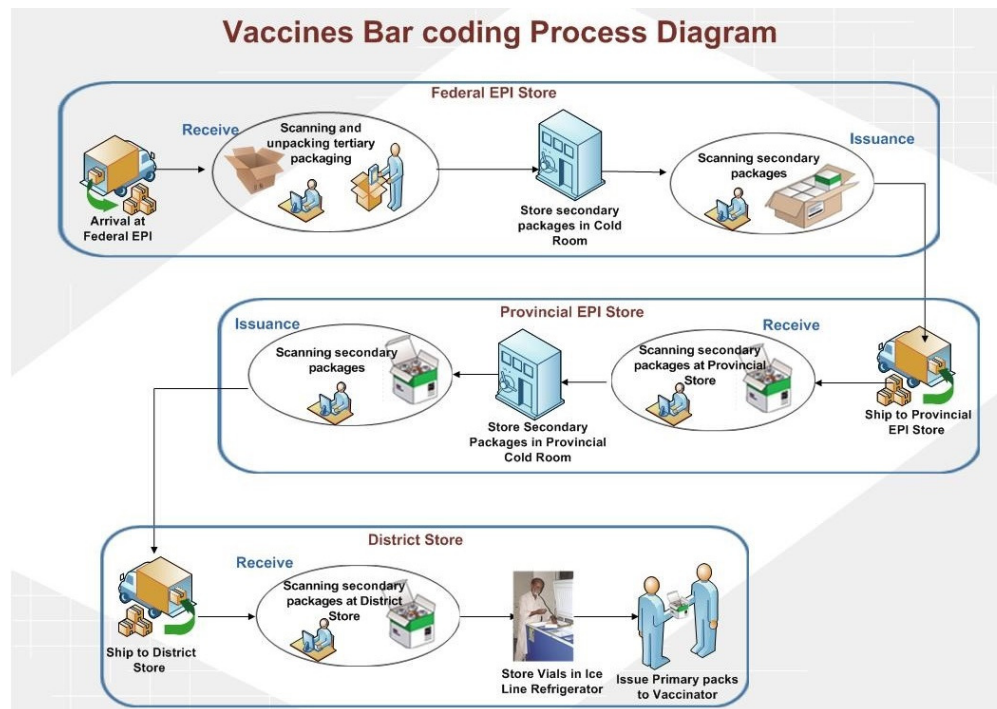


[http://blog.path.org/2019/10/mapping-journey-barcodes-data/?utm\\_referrer=http%3A%2F%2Fwww.google.be%2Furl%3Fsa%3Dt%26rct%3Dj%26q%3D%26src%3Ds%26source%3Dweb%26cd%3D1%26ved%3D0ahUKEwiBhKi62qfNAhUFSRoKHbgPBacQFggBMAA%26url%3Dhttp%253A%252F%252Fblog.path.org%252F2019%252F10%252Fmapping-journey-barcodes-data%252F%26usg%3DAFQjCNEiFEt05\\_cwD8q0tv4hjOPNNR-qBQ%26sig2%3DHwmqPsMq\\_9YbjpjhObXfw%26bvm%3Dbv.124272578%2Cd.d2s](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%26src%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_9YbjpjhObXfw%26bvm%3Dbv.124272578%2Cd.d2s)

## Barcodes: quenching a thirst for data



## Pilot project in Pakistan



**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)

### About the ISG

The broad purpose of the **Interagency Supply Chain Group (ISG)** is to share information and seek greater alignment across supply-chain investments to bring more impact to individual agency supply chain strategies. The group promotes coordination both globally across programs, and locally through national leadership with the overall aim of improving the efficiency and effectiveness of in-country supply chains. The ISG is an informal partnership of 15 major actors involved in providing supply chain support to countries: 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.



Boxes of medical supplies are sorted before being distributed among the mobile health brigades at the Cheikhatou Diallo hospital in Niaguis, Mali, in July 2016. UNICEF/Alto.

### Background

Medicines supply chain execution and responsiveness require synchronization of supply and demand, as well as the orchestration of three flows of commerce, that are the movement of goods, information and funds, across an increasing number of logistics and trading partners, spanning a wide (if not global geographic) region. Whilst the implementation of traceability systems has been identified by National Regulatory Authorities as a useful and efficient tool to combat falsification and illicit distribution of medical products, only some countries have issued progressive traceability regulation. Many have not, and are still assessing various implementation mechanisms, either

or otherwise have not approached this topic at all<sup>1</sup>. The international community has recognized the need to support countries in determining what these best approaches are. Since 2014, the international development community has promoted the use of global data standards (GS1) to provide a wider and harmonized framework for supply chain visibility, strengthening anti-counterfeiting measures and sharing of data between parties. The Interagency Supply Chain Group recognizes the value for advocating for both effective and sustainable solutions to enable traceability and safe passage of medicines through national supply chains and have committed to strengthening this response accordingly.

### Current activities of the ISG

- Strengthen global and country advocacy for the adoption of GS1 standards and traceability systems with countries, in collaboration with other relevant stakeholders.
- Accelerate the understanding and adoption of an open and global supply chain standard, globally, through technical support, education, and collaboration with manufacturers.
- Collaborate to improve donor procurement guidelines, including the requirement for the use of GS1 standards for identification and barcoding on the different packaging levels, and coordinate with manufacturers on an implementation timeline.
- Develop a roadmap & timeline for the adoption of GS1 standards in labelling all health commodities and products.
- Provide technical assistance to several countries in defining parameters necessary to implement National Traceability Systems. These include development and finance implementation plans for barcoding of health commodities for member states, e.g. support to the Government of Ethiopia to implement a nation-wide adoption of barcoding technology.

<sup>1</sup> Fourth meeting of the member state mechanism on substantial supply chain security standards (ASIS) held in Geneva, 13 November 2016, provisional agenda item 6.2. Existing technologies and 'Track and Trace' models in use and to be developed by member states. Draft document submitted by Argentina.

