## **CONTINUOUS IMPROVEMENT FOR IMMUNIZATION SUPPLY CHAINS USING** A VISIBILITY AND ANALYTICS NETWORK: THE CASE OF KENYA

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### **PROBLEM STATEMENT**

- While many National Immunization Programs have made significant gains in achieving 80% coverage rates, to achieve the next level, i.e. 90% coverage, they must address the following common operational inefficiencies and barriers:
- > Limited visibility into last mile operations due to lack of accurate data, and
- > Inadequate people capacity for reviewing data and adapting processes for performance improvement.
- Challenges specific to Kenya include limited visibil-

### CHARTING A COURSE TOWARDS A VISIBILITY & ANALYTICS **NETWORK FOR VACCINES: KENYA'S ROADMAP**

Beginning 2014, a number of Ministries of Health, UN agencies, NGOs, implementing partners and the private sector held a series of meetings to design a global Visibility and Analytics Network (VAN) reference model. The purpose of the model was to guide countries in the implementation of the VAN.

Kenya's Ministry of Health (MOH), through the National Vaccines & Immunization Program (NVIP), has embraced this concept of a multi-stakeholder VAN initiative, as a way to accelerate progress towards her health goals. Kenya envisages that the VAN will transform its vaccine supply chain and enhance program perfor-



### **VAN GOAL & OBJECTIVES**

### **VAN GOAL**

• Kenya envisages a vaccine supply chain whose different components (people, activities/processes, and tools) are all interconnected through end-toend visibility of data.

### **KENYA VX VAN OBJECTIVES**

- Increase efficiency of operations within the vaccine supply chain.
- Align order/shipment schedules with available storage capacity to ensure efficient use of infrastructure while minimizing potential risk of wastage or stock outs.

ity and formal coordination mechanisms between national and county levels due to devolution, and adhoc distribution procedures between regional vaccine stores and SDPs inconsistent with the design.

### What is a VAN?

A VAN consists of a group of supply chain experts empowered by policy, process, technology and end-to-end visibility, whose objective is to make the supply chain more collaborative, aligned, agile and demand-driven.

The central objective of a VAN is to ensure the availability of the right health commodities where and when the beneficiary needs them.



antigens

• Reporting – percent

timeliness of reports,

of reports, percent

• Generate and review

accuracy of reporting

a replenishment plan

• Percent of subcounties

CHANJO

on time

actively transacting on

**Distribution &** 

documentation available

Number "on time, in full"

• Generate and review

a distribution plan

• Percent shipment with

### **ACHIEVEMENTS**

- Identified the five services under the Vx VAN implementation
- Identified the key processes under each Vx VAN
- Designed the organizational structure for the Vx VAN
- Developed strategies for engaging leaders at the national and county level

- Improve data collection, quality, and analysis to inform program decisions including correlation of coverage data against vaccine use/availability.
- Enhance overall end-to-end data visibility in the vaccine supply chain to promote data-led, timely decision making.
- Enable real time visibility of cold chain inventory data and track equipment downtime to facilitate action and decisions.
- Strengthen distribution and transport services across the supply chain and monitor the performance of third-party logistics (3PL) transport services.

### **REQUIRED TO OPERATE A HIGHLY EFFECTIVE SUPPLY CHAIN**

### Kenya's VAN: Stepwise Implementation

NVIP has planned a stepwise implementation that would address gaps in each of these components with a view to achieve the following outcomes/capabilities:



Enhanced data management for all the five VAN services i.e. accurate and timely data available for end to end visibility. This will need improved-integrated transactional systems (CHANJO), creating dashboards, and generating alarms to foster rapid responsiveness to issues identified.



Capacitated teams of supply chain professionals (supported by clear roles, tools, SOPs, performance management systems) providing a highly competent chain of individuals at different levels of the supply chain.



Technology that is improved and responds to the user/program priorities will be applied for analysis and to gain insights so staff are knowledgeable and can apply appropriate processes to resolve issues.

• Generate and review forecast Forecast accuracy and



- Percent of health
  - facilities under, adequate,
- or overstocked (by level, antigen)
- Generate and review supply plan

# **Cold Chain Management**

- Percent of alarms actioned (process KPI)
- Percent time refrigerator remained within the temperature range 2°C and 8°C
- Percent of health facilities with functional cold chain equipment, percent of health facilities with adequate cold

and data support robu planning and decision efficiency and pote product availability lders are comm o and advocate for VA and experience • Percent of health facilities with no stockouts of any Key leaders engaged /AN implementation a ers adopt revised SC ponds to and addres d KPIs for actions a een national and co rm VAN develop nore easily used, tood, and acted u nce the use of CHAN. VAN processes mapp SOPs documented a KPIs identified reporting rates, percent Key stakeholders ar leaders identified Well designed VAN team structure ategy for rollout of VAN N and TSH coordina nake revision of data r-centered approa percent completeness

> Knowledgeable, motivated staff have the necessary equipment, systems, and operational funds to support their roles within well-designed processes

### Kenya is using VAN as a strategy for increasing supply chain integration.....



To better understand the context and starting point, and build a design for the VAN implementation, Kenya employed the concept of supply chain integration and evolution as a tool for a quick situation analysis and for better understanding of the end goal.

**VAN teams** at different levels make **strategic and operational** decisions, informed by an end-to-end information system that brings together multiple sources of data.

#### chain capacity

Established governance structures and working **...** groups to support continuous Improvement and management able to utilize information for execution of decision and improvement of KPIs.

### **Phase 1 Implementation: Five Objectives, 2 Years**

### **VAN creates links** in an integrated supply chain.

### ....and establishing a culture of continuous improvement



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