GLOBAL
HEALTH
SUPPLY CHAIN SUMMIT

Visualize, Analyze, Improve: Development and Use of the EPI Dashboard in Mozambique

Timoteo Chaluco

Visibility and Analytics Advisor

VillageReach and MISAU (Mozambique Ministry of Health)

1. Supply chain priorities for PAV and MISAU
2. VAN: An approach for supply chain excellence in Mozambique
3. VAN Activities Year 1 and Year 2
4. VAN Dashboard: Demo
5. Conclusion

Supply chain priorities at the last mile:

Increase **commodity availability** and service

End to end **data visibility** with the supply chain to respond to demands

Factors needed to achieve priorities

Trained staff with the appropriate skills and competencies

Appropriate technology to provide end to end visibility to respond to demand

1 **Multiple and parallel systems running** for many health programs such as EPI

2 **Lack of staff** with adequately equipped with the **combination of IT and supply chain skills**
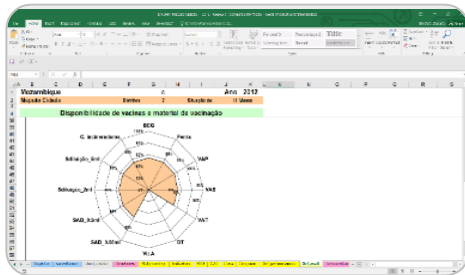
3 Existing systems **don't communicate with each other,** making it difficult to **synthesize data and insights**
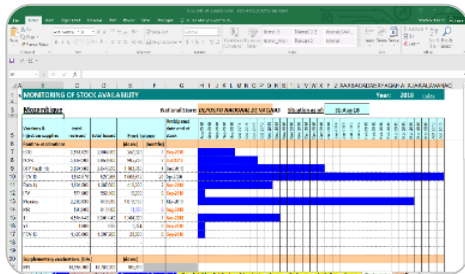
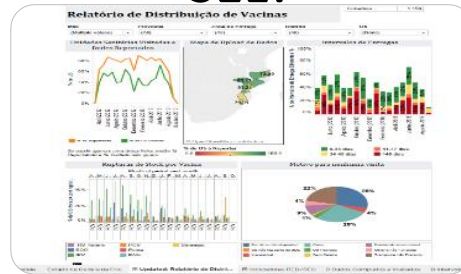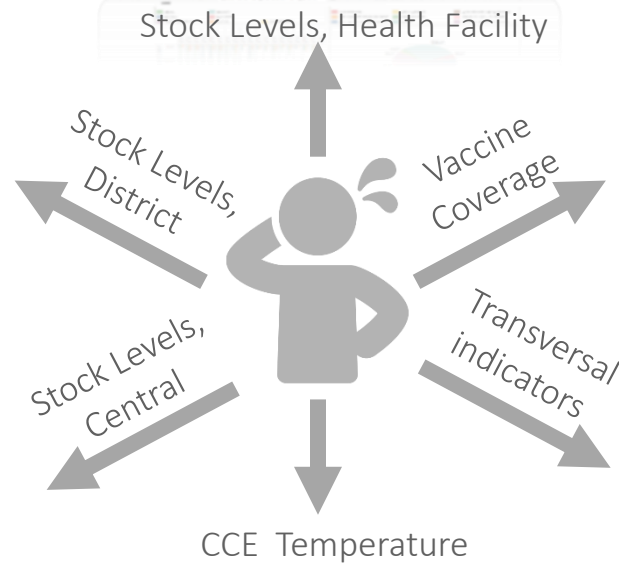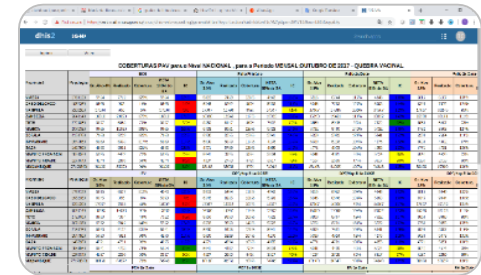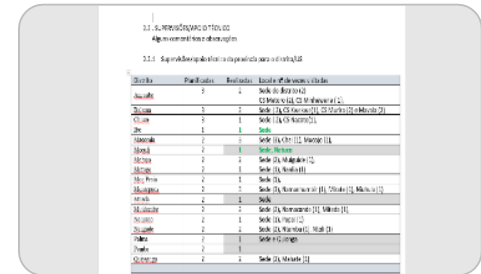# Multiple systems that don't communicate with each other contribute to data burden

SELV

Stock Levels, Health Facility

DVD-MT

DHIS-2

Stock Levels, District

Vaccine Coverage

SMT

Trimestral Reports

Stock Levels, Central

Transversal indicators

CCE Temperature

ColdTrace

VAN: Progress towards increasing data visibility and data availability

|	
Dual Problem	Addressing dual problem of **IT and supply chain skills vacuum** and **data analysis burden**
Human Control Tower	MISAU & VillageReach set up a **"Human Control Tower" (HCT) Advisor** at PAV central level
Visualize/ Analyze/ Improve	HCT's work centered on the **Visibility and Analytics Network (VAN) principles** of "Visualize, Analyze, Improve"

VAN Principles

People, technology, process **+** Visibility, Analyses, Improvements **=** Adequate resupply Service delivery, Children vaccinated
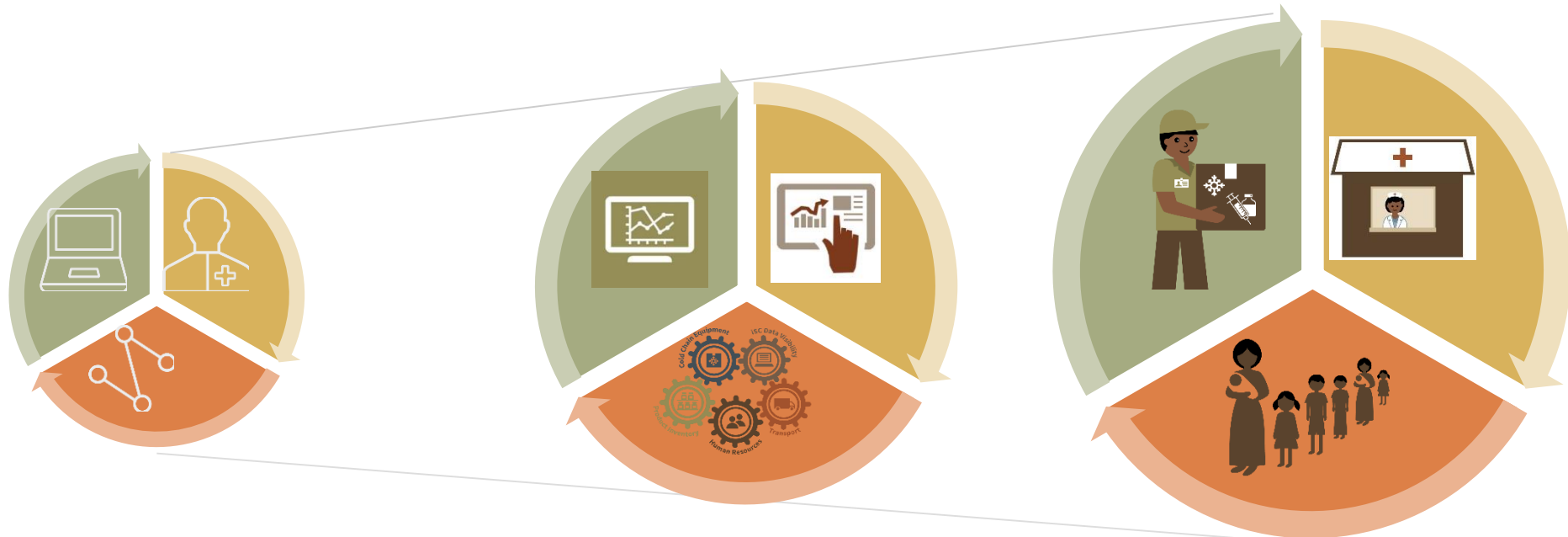
- ## KPI Identification
  Gathered all PAV relevant program KPIs from multiple data sources

- ## Data Review
  Facilitate **monthly data review meetings** connecting PAV staff and immunization partners to build a data monitoring and data use culture

Provincial Data Review Meeting, 2017

KPI Identification

Gathered all PAV relevant program KPIs from multiple data sources

End user needs identified	Dashboard KPIs and Visuals determined	KPIs integration into dashboard
• Conducted a workshop to identify with stake holders the program KPIs from different areas (Stocks availability, coverage, vaccines utilization etc.) .	• Identified the best visualization to present the KPIs to allow data analyses and triangulations.	• The KPI were integrated in to the Dashboard having as the main data sources the DHIS-2, SMT, Cold-trace, SELV.

Excel-based Dashboard

Excel-based Dashboard

Dashboard identified as a solution to **increase data visibility** across data from multiple systems.

Dashboard users	Decisions being driven by dashboard	Results
EPI internal technical group with all different program areas focal points.	• Control stock availability and address precaution on shortage and overstock. • Monitor low and over target coverage, and address actions to each level of the program (Central/Province, etc.) • Controls data quality issues and address actions to central and province level	• Possibility to have a clear status of stock availability and precautions in advance. • Identified root causes of low coverages for some cases. • Identification of outliers and data problems before the end of the reporting period.

VAN Year 2: Automation of Dashboard

- ## Migration of Dashboard
  To automate data collection and delivery, decision made to migrate to a **new web-based platform**

- ## Dashboard set up
  Programmers and systems developers contracted; automated dashboard built to ensure **automatic updates on frequent basis** to provide timely data
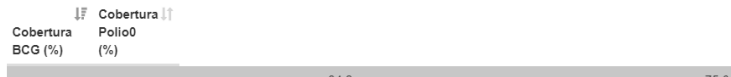
PAV web-based Dashboard

Web-based PAV Dashboard

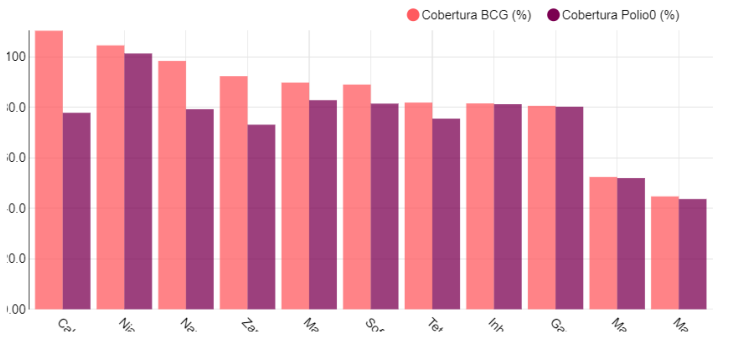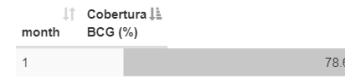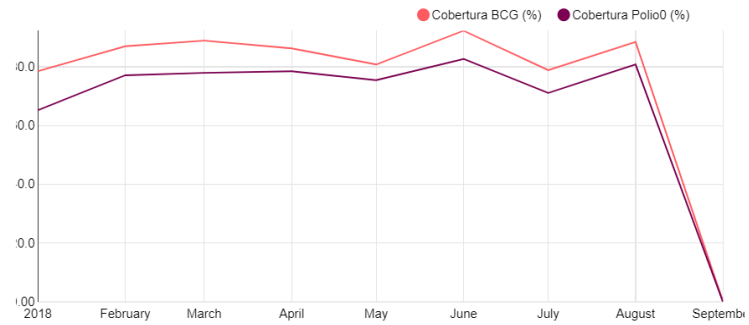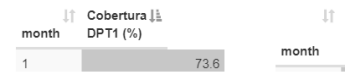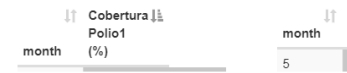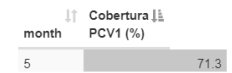# Conclusion – 4 Essentials for Replication

1 **Dashboards** can be a solution to an environment of fragmented and multiple data systems running in parallel

2 A **HCT/VAN role** can provide solutions and propose strategies for improving data availability and visualization issues

3 Data availability is critical to be effective but to be *used*, **data visualizations** must be prioritized
  - Make data easy to navigate, visual and dynamic

4 **Combination** of **People and Technology** made it possible to conduct routine data analysis meetings

Thanks to our generous sponsors

2018 Global Health Supply Chain Summit
Lusaka, Zambia