



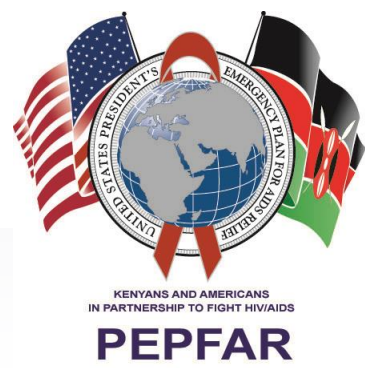
# Using Supply Chain Data for Decision-Making Improves Availability and Minimizes Wastage of Life-Saving Health Commodities



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# Disclosure



No conflict of interest exists in the presentation of this material,

Data and Information in this presentation has been published with authorization from Homa Bay County based on the analysis of data from the National Reporting System DHIS2



# Background

- Afya Ugavi is an Activity of the USAID Global Health Supply Chain (GHSC) Program-Procurement and Supply Management (PSM) project based in Kenya
- Provides technical assistance & logistical support to improve health commodity security & management
- Working with the Ministry of Health (MoH) at both national and county levels.



# Problem Statement

- Major challenge experienced in ensuring continuous availability of life-saving commodities across health facilities
- Lack of visibility on stocks held at the facilities resulting in inappropriate stock holding within the county
- No easy way for health workers to visualize or analyze the data submitted monthly in the national system
- Poor data quality due to lack of institutionalized mechanisms at the county level to review and use data
- Sub optimal use of supply chain data for decision making
- Inability to evaluate supply chain performance at peripheral level



# Methodology

- Excel-based data aggregation, analysis and visualization tool developed
  - Data in tool extracted, transformed and loaded monthly from the national reporting system (DHIS2)
  - Dashboards automatically refreshed to display the new data for health workers consumption
  - Data is disaggregated by facility, sub-county and county



## Methodology (2)

- Outputs from the tool
  - provide an overview of data quality (timeliness, completeness, concordance) and stocking levels
  - inform re-supply of facilities from KEMSA & intra- and inter-county redistribution
  - provide a snapshot of composite supply chain performance



## Methodology (3)

- Health managers from 63 sub-counties in the eight lake endemic counties trained to use the tool
- Quarterly data review meetings convened to review commodity data using the tool
- Multi-level analysis done to enable decision making at all levels (facility, sub county, county)
- Remedial actions developed as part of interventions
- The counties have used this tool since April 2017



# Results

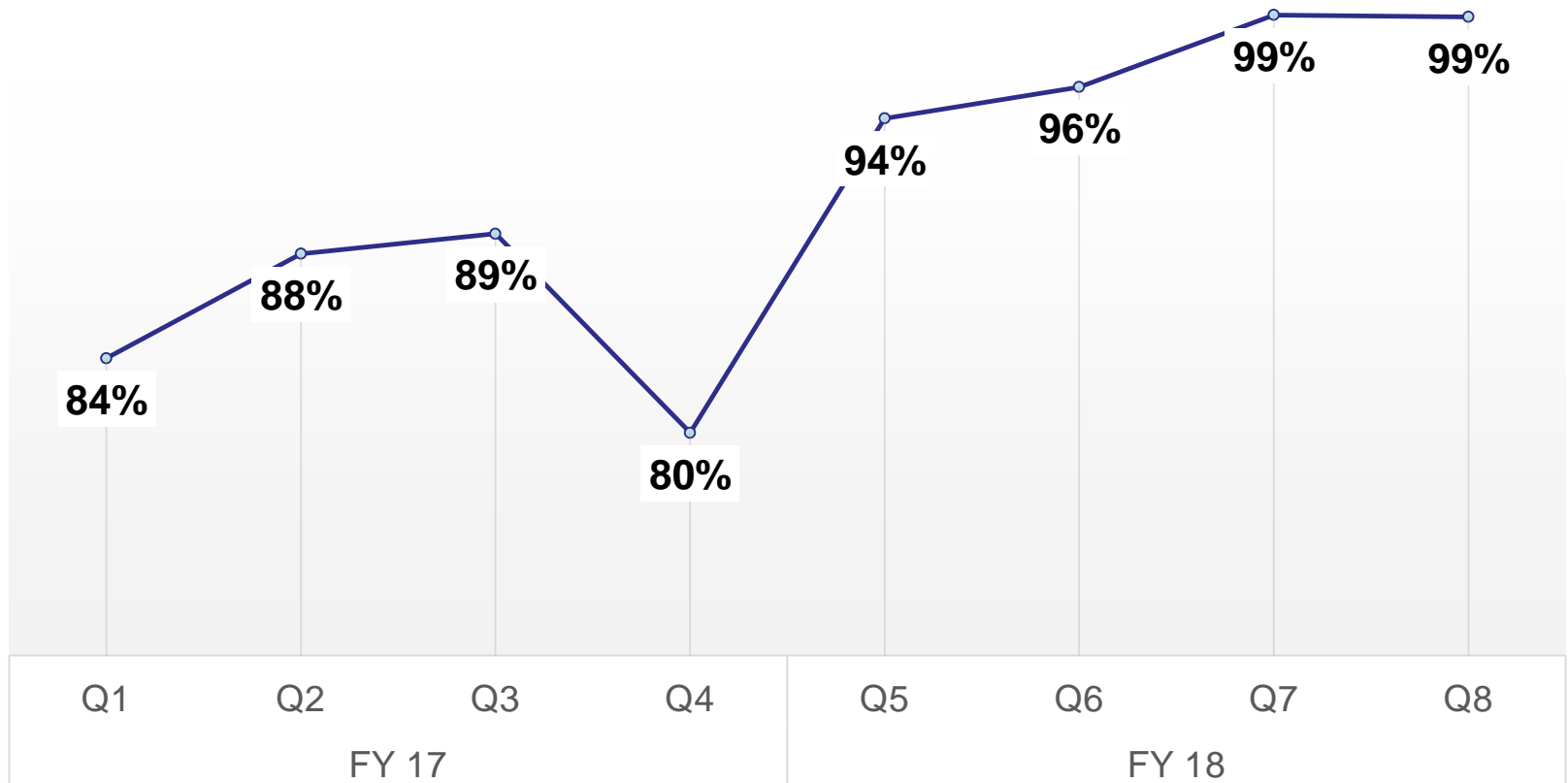
- Notable improvements in supply chain performance:
  - Reporting rates for malaria commodities improved from 81% to 100%
  - on-time reporting improved from 62% to 99%;
  - The proportion of facilities stocked out of ACTs and RDTs decreased from 9% & 25% to 3% & 14% respectively –
  - Composite performance in supply chain based on six key indicators rose from 69% to 81% in the 8 counties.
  - Potential expiry of health commodities worth over \$322,000 averted through redistribution (Jan-Sep 2018)





# Sample Outputs (Reporting Rates)

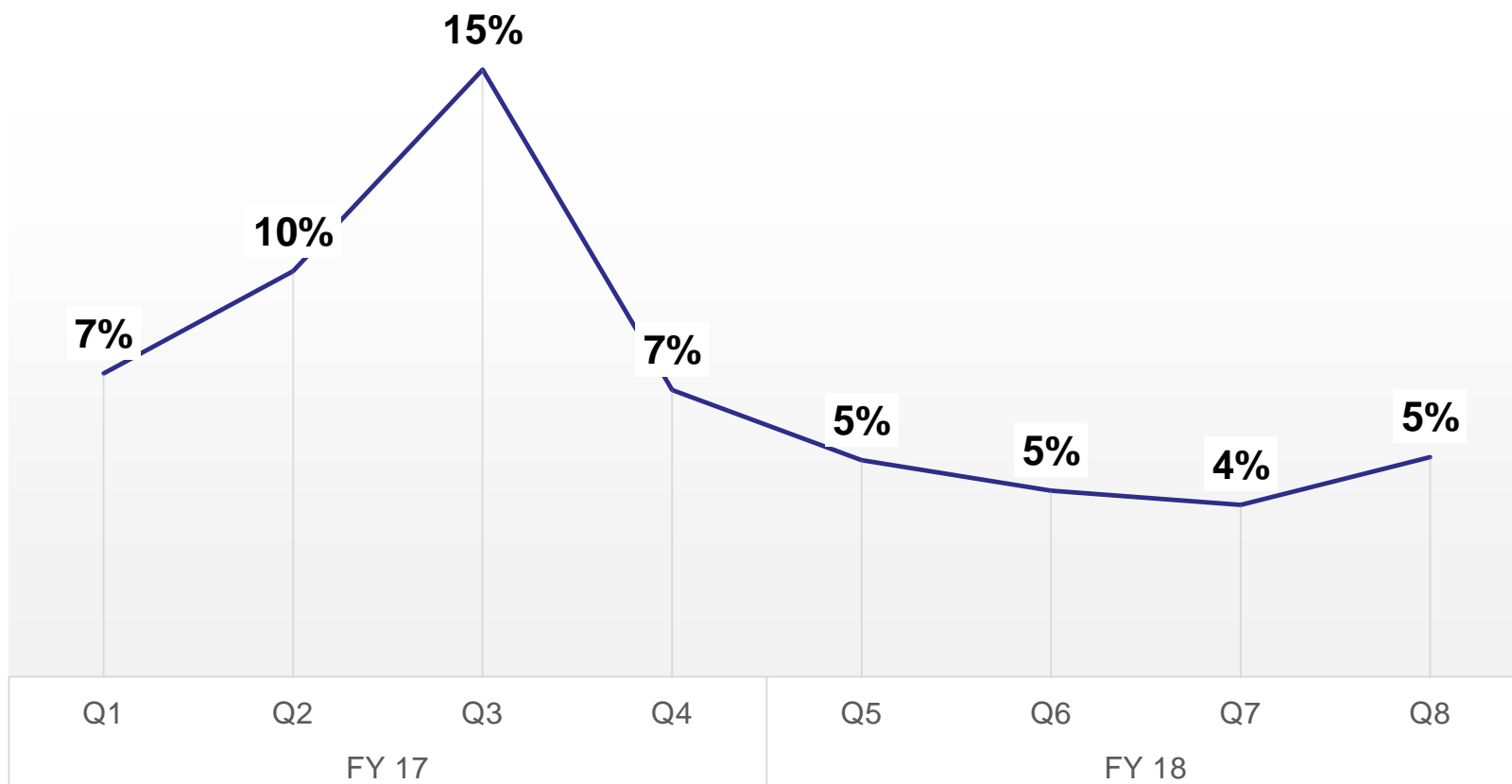
DHIS2 Reporting Rate of Malaria Commodities in the Lake Endemic Counties (n=1,210)





# Sample Outputs (Stock Status)

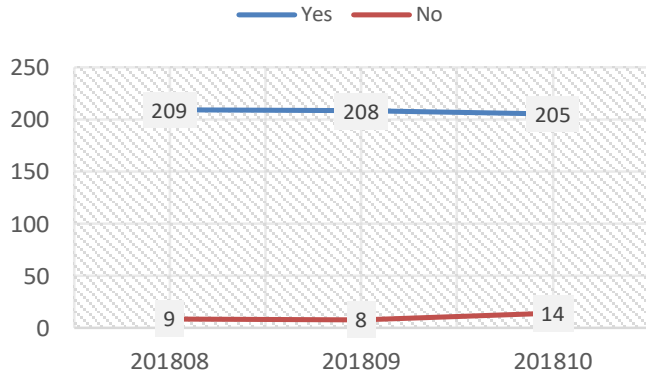
## % Health Facilities with a stock out of all ACTs in the Lake Endemic Counties (n = 1,210)





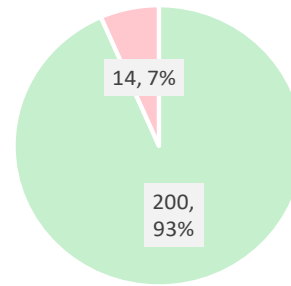
# Sample Outputs (Data Quality)

Reporting health facilities that had patient weight band data in DHIS



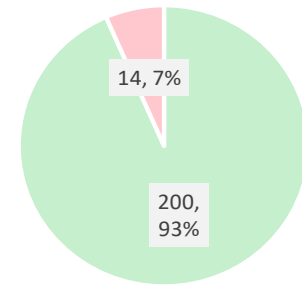
AL 24

- Opening SOH = Closing SOH previous month
- Opening SOH  $\neq$  Closing SOH previous month

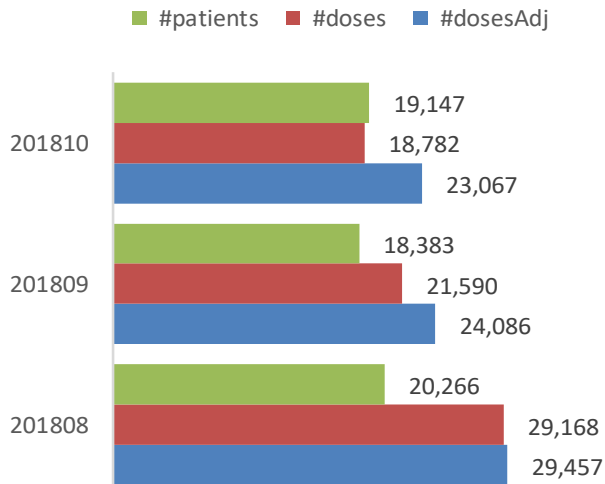


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- Opening SOH = Closing SOH previous month
- Opening SOH  $\neq$  Closing SOH previous month



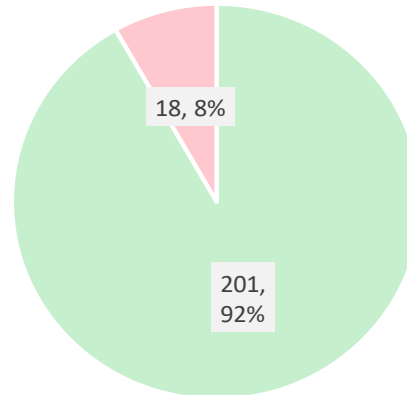
Comparison of # patients vs doses dispensed



Internal Data Consistency:

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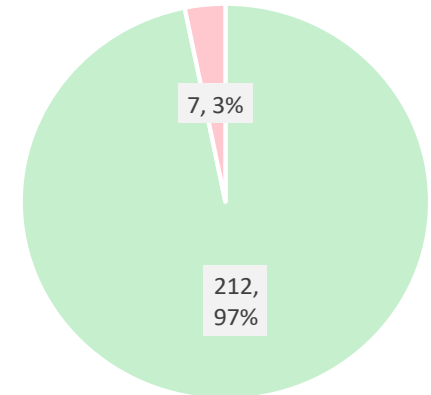
- No discrepancy
- Discrepancy



Internal Data Consistency:

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- No Discrepancy
- Discrepancy

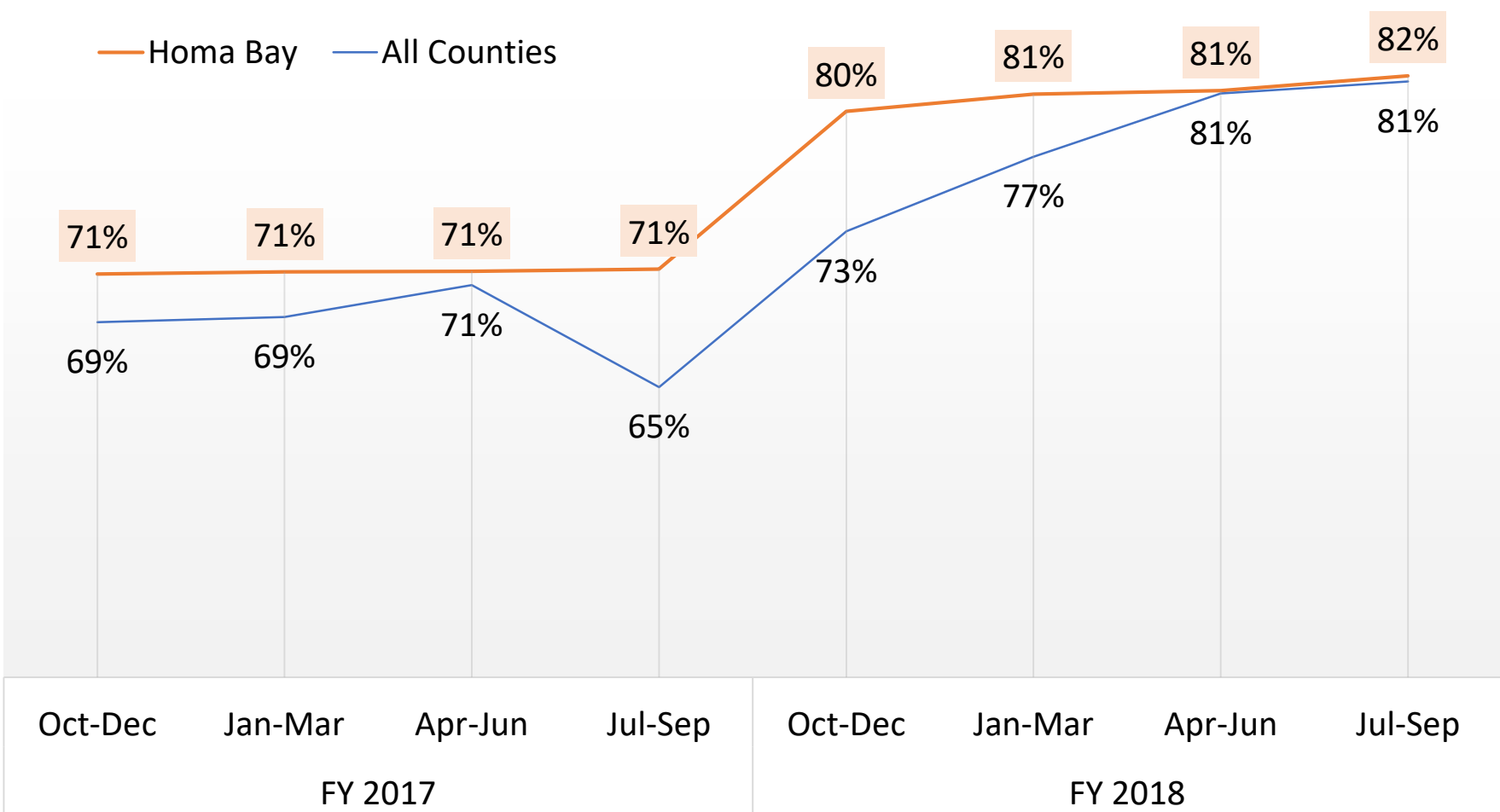




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# Sample Outputs (Composite Performance Score)

## Overall Score for Malaria Supply Chain Management: Lake Endemic Counties (n = 1,210)





# Conclusions

- Implementation of the commodities dashboard has been a great success
- Has guided discussions and interventions by the commodity security TWGs during stock status review meetings & other forums
- Used to inform KEMSA re-supply quantities and redistribution
- Been a source of motivation and used to identify (and award) best performing counties & sub-counties



# Next Steps

- Development process underway to migrate the Excel tool to a web-based platform directly linked to DHIS2
- Linkages with other National reporting tools will be made possible offering seamless data integration and enhanced visibility for health commodities
- Scope of tool to be expanded to handle all health commodities reported in DHIS2



# Acknowledgements

- National Malaria Control Program – Kenya
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- President’s Malaria Initiative (PMI)
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- Chemonics staff

# Acknowledgments



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SUPPLY CHAIN SUMMIT

REPUBLIC OF KENYA



MINISTRY OF HEALTH



**USAID**  
FROM THE AMERICAN PEOPLE



PEPFAR



**USAID**  
FROM THE AMERICAN PEOPLE

President's Malaria Initiative

