Data Dashboards to Monitor Trends in CCM Supply Chain Performance and Product Availability at the Community Level

USAID Bureau for Global Health

Coordinating Agencies' M&E Working Group Meeting

M&E of Community Based Health Programs

May 16, 2012

JSI Research & Training Institute, Inc.

JSI Research & Training Institute, Inc.

SC4CCM

- Identifies innovative, affordable and sustainable solutions to the supply chain challenges faced by CHWs when treating childhood illness in remote communities
- Implemented in Ethiopia, Malawi & Rwanda
- 5 year project funded by the Bill & Melinda Gates Foundation

JSI Research & Training Institute, Inc.

Data Dashboards: a key SC4CCM M&E tool

JSI Research & Training Institute, Inc.

Dashboards aggregate program data from various sources into a simple central database, used by field staff first and accessible to all staff

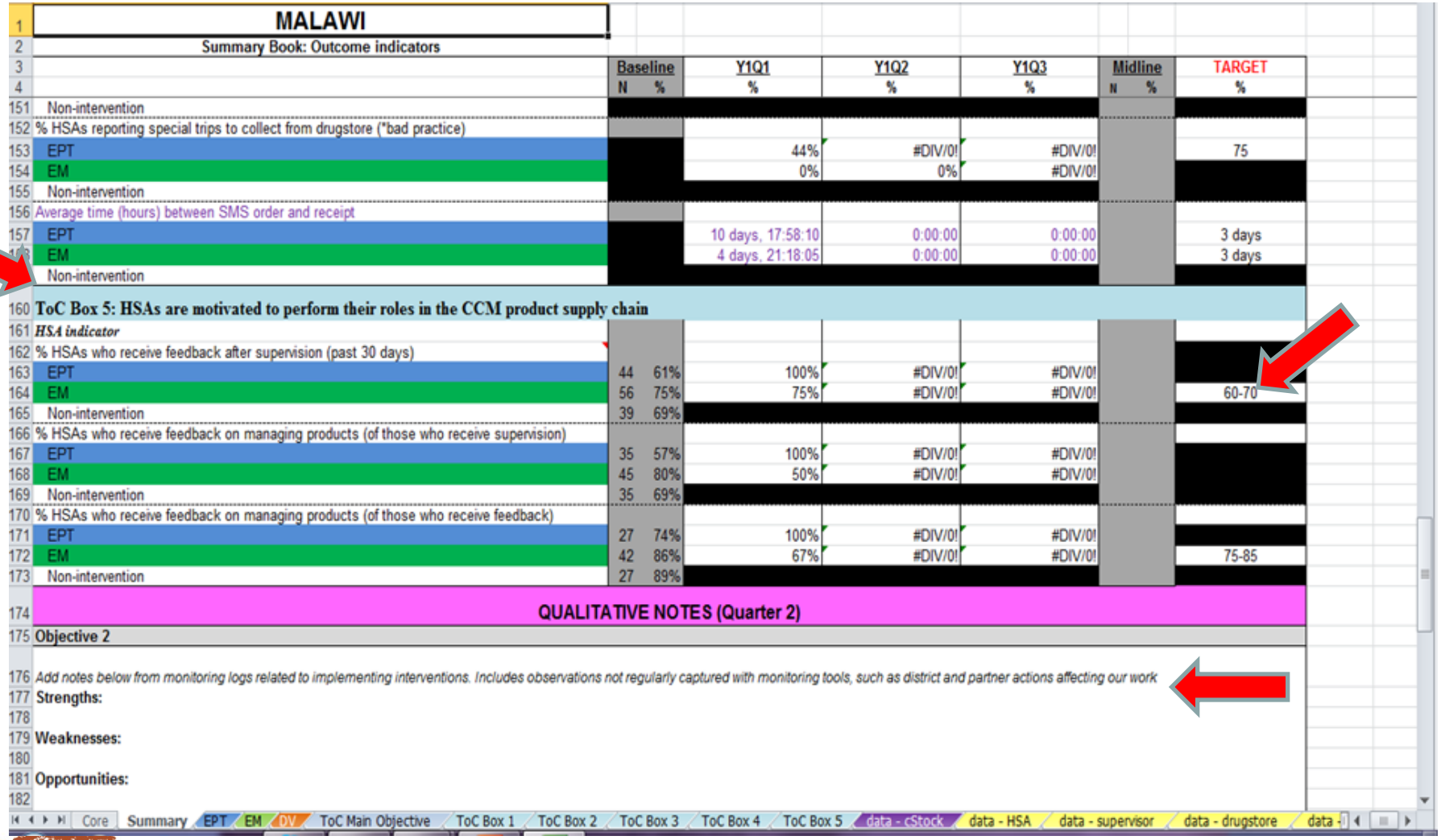
JSI Research & Training Institute, Inc.

About Dashboards

- **Excel** format
- Organized according to M&E framework
- Tracks **simple frequencies** and shows **trends over time**
- Used to **generate data visuals** to facilitate decision making
- Includes baseline and midline data, and program targets

Dashboard View

JSI Research & Training Institute, Inc.



	MALAWI									
2	Summary Book: Outcome indicators									
3		Baseline		Y1Q1	Y1Q2	Y1Q3	Midline		TARGET	
4		N	%	%	%	%	N	%	%	
151	Non-intervention									
152	% HSAs reporting special trips to collect from drugstore (*bad practice)									
153	EPT			44%	#DIV/0!	#DIV/0!			75	
154	EM			0%	0%	#DIV/0!				
155	Non-intervention									
156	Average time (hours) between SMS order and receipt									
157	EPT			10 days, 17:58:10	0:00:00	0:00:00			3 days	
158	EM			4 days, 21:18:05	0:00:00	0:00:00			3 days	
	Non-intervention									
160	**ToC Box 5: HSAs are motivated to perform their roles in the CCM product supply chain**									
161	***HSA indicator***									
162	% HSAs who receive feedback after supervision (past 30 days)									
163	EPT	44	61%	100%	#DIV/0!	#DIV/0!				
164	EM	56	75%	75%	#DIV/0!	#DIV/0!			60-70	
165	Non-intervention	39	69%							
166	% HSAs who receive feedback on managing products (of those who receive supervision)									
167	EPT	35	57%	100%	#DIV/0!	#DIV/0!				
168	EM	45	80%	50%	#DIV/0!	#DIV/0!				
169	Non-intervention	35	69%							
170	% HSAs who receive feedback on managing products (of those who receive feedback)									
171	EPT	27	74%	100%	#DIV/0!	#DIV/0!				
172	EM	42	86%	67%	#DIV/0!	#DIV/0!			75-85	
173	Non-intervention	27	89%							
174	**QUALITATIVE NOTES (Quarter 2)**									
175	**Objective 2**									
176	*Add notes below from monitoring logs related to implementing interventions. Includes observations not regularly captured with monitoring tools, such as district and partner actions affecting our work*									
177	**Strengths:**									
178										
179	**Weaknesses:**									
180										
181	**Opportunities:**									
182										

Core | Summary | EPT | EM | DV | ToC Main Objective | ToC Box 1 | ToC Box 2 | ToC Box 3 | ToC Box 4 | ToC Box 5 | data - eStock | data - HSA | data - supervisor | data - drugstore | data -

SC4CCM

Supply Chains 4 Community Case Management

JSI Research & Training Institute, Inc.

Dashboard Inputs

JSI Research & Training Institute, Inc.

Dashboard Inputs

- Mobile data collection during monitoring visits generates **EpiSurveyor** outputs which are in excel format

- In Malawi, cStock generates **cStock Reports**
  - cStock is a rapid SMS, open-source, web-based **logistics management information system** for routine management and monitoring of community-level essential medicines

→Both are inputs to the Excel dashboard

JSI Research & Training Institute, Inc.

Dashboard Inputs

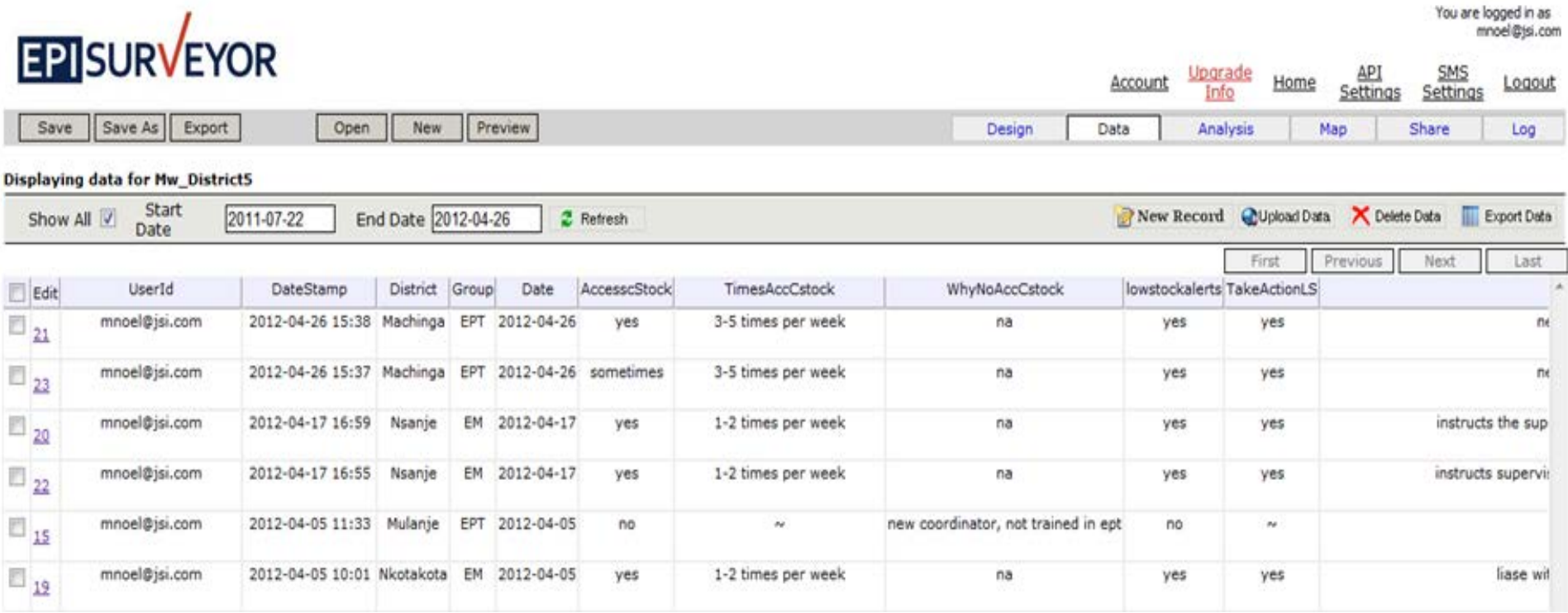
- Inputs are added to the Excel dashboard through a simple **copy and paste** process. Cleaning, formatting and pasting is done by field staff.

- Formulas embedded in the dashboard use input data to generate statistics **without additional manipulation**

- This process enables routine data to be integrated into the dashboard and used in **real time** to strengthen monitoring with **minimal burden** on program staff

EpiSurveyor

JSI Research & Training Institute, Inc.

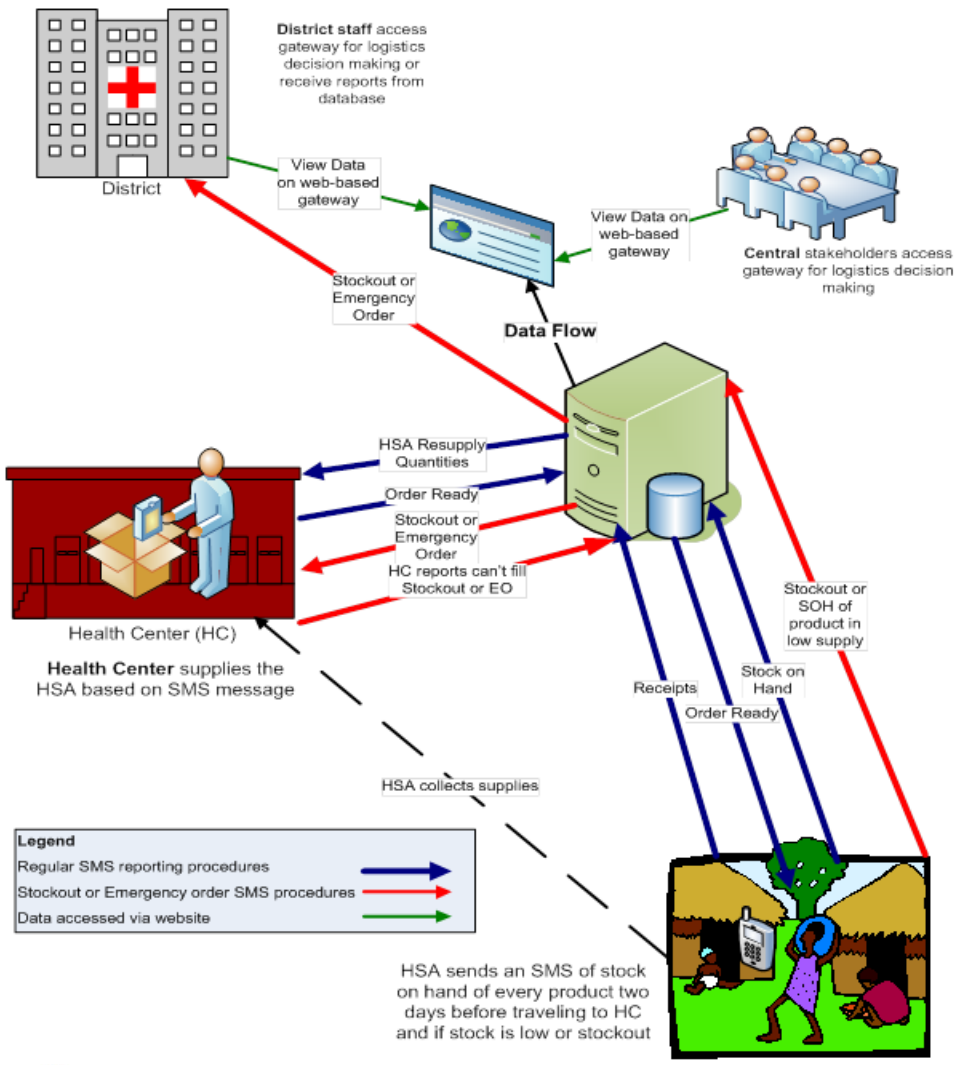


Edit	UserId	DateStamp	District	Group	Date	AccesscStock	TimesAccCstock	WhyNoAccCstock	lowstockalerts	TakeActionLS	
21	mnoel@jsi.com	2012-04-26 15:38	Machinga	EPT	2012-04-26	yes	3-5 times per week	na	yes	yes	ne
23	mnoel@jsi.com	2012-04-26 15:37	Machinga	EPT	2012-04-26	sometimes	3-5 times per week	na	yes	yes	ne
20	mnoel@jsi.com	2012-04-17 16:59	Nsanje	EM	2012-04-17	yes	1-2 times per week	na	yes	yes	instructs the sup
22	mnoel@jsi.com	2012-04-17 16:55	Nsanje	EM	2012-04-17	yes	1-2 times per week	na	yes	yes	instructs supervi
15	mnoel@jsi.com	2012-04-05 11:33	Mulanje	EPT	2012-04-05	no	~	new coordinator, not trained in ept	no	~	
19	mnoel@jsi.com	2012-04-05 10:01	Nkotakota	EM	2012-04-05	yes	1-2 times per week	na	yes	yes	liase wit

Collecting monitoring data using mobile phones/Episurveyor optimizes survey time, reducing time CHWs have to spend with interviewers, away from routine tasks

cStock M&E reports

JSI Research & Training Institute, Inc.

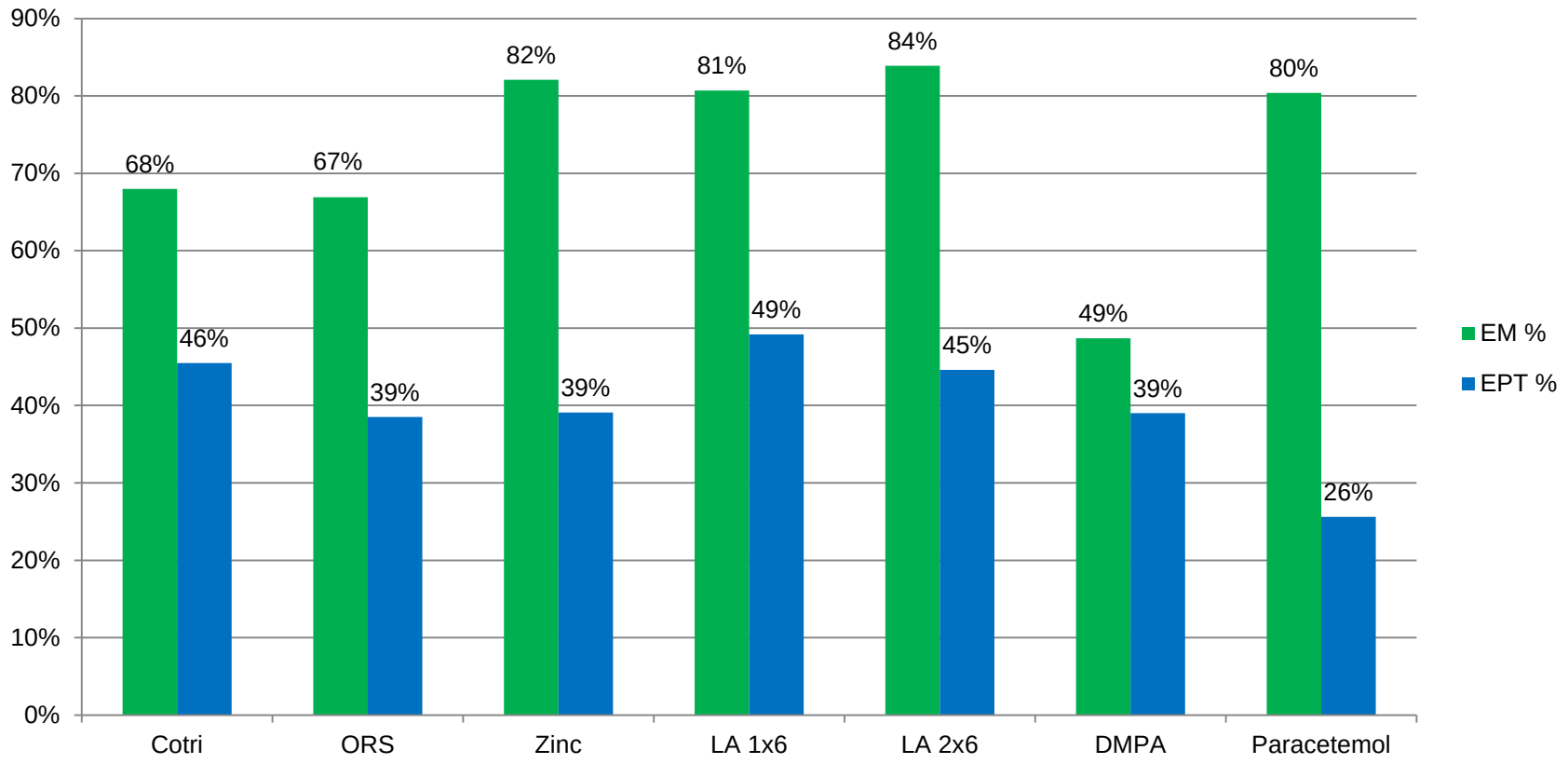


JSI Research & Training Institute, Inc.

Dashboard Outputs: Examples

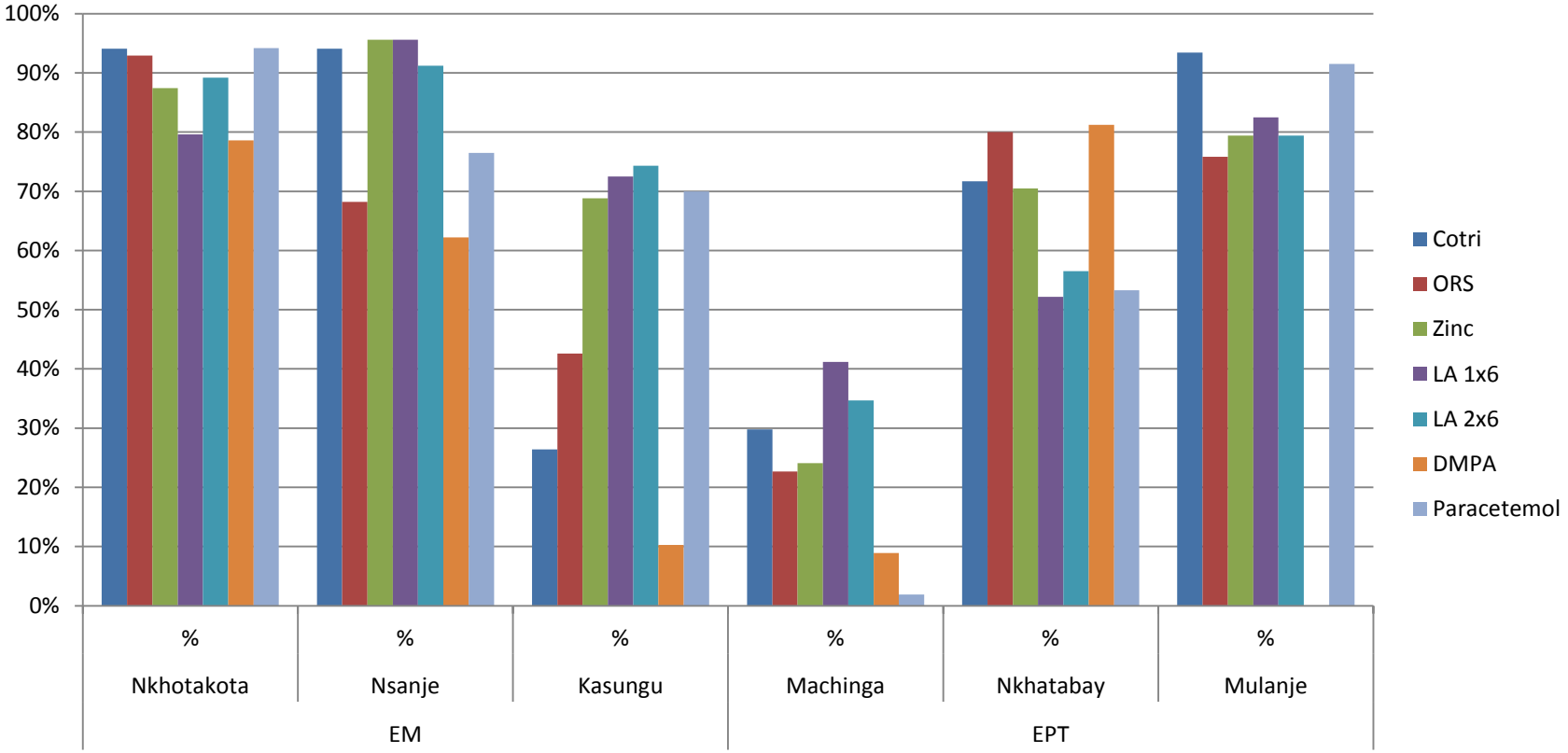
HSAs with no stockouts over past 30 days of Q1 (Dec), by group

JSI Research & Training Institute, Inc.



*Source: cStock M&E report

HSAs with no stockouts over past 30 days of Q1 (Dec) by product, district and group



*Source: cStock M&E report

Lessons

- Simple system **does not require programming expertise** to build and utilize

- Excel format facilitates **participatory, concurrent analysis** by field & HQ staff and MOH counterparts and enables **capacity building** of local staff in M&E

JSI Research & Training Institute, Inc.

Challenges

- Promoting **accurate interpretation** of data among both program staff and stakeholders
- Constant need to **re-check formulas** during data entry
- Challenge of displaying the **sample size** for all monitoring levels
- Slightly **slow functionality of excel** as the volume of data increases which may affect scalability.

JSI Research & Training Institute, Inc.

Dashboards & Communities

JSI Research & Training Institute, Inc.

How can dashboards foster the use of M&E information by program staff involved in the project

- Keep demands on CHWs for data collection basic, consider existing burden/education levels
- Use existing infrastructure (i.e. mobile phones if CHWs have them)
- If adding data requirements to CHW work load, include 'high-touch' support to reinforce value of collecting data correctly, and using it to make improvements

JSI Research & Training Institute, Inc.

How do we ensure community health workers are not overburdened with information collection to feed into the dashboards?

- Program field staff collect periodic monitoring data through site visits, gain efficiencies from mobile data capture
- M&E draws on data already collected as part of learning interventions
- Field staff are the first point of assembly and analysis for dashboards, building capacity and data ownership
- Dashboards help teams in different locations share, discuss and interpret data together

JSI Research & Training Institute, Inc.

How do we minimize unrealistic expectations of M&E of community health systems?

- Extrapolation of community level data to broader country health systems to better inform national supply levels is possible but requires close coordination and careful interpretation

- Custom dashboards require dedicated support, and are more appropriate for small research endeavors than large scaled up programs

JSI Research & Training Institute, Inc.

Recommendations

JSI Research & Training Institute, Inc.

Custom Excel dashboards are optimal for **small scale community programs** implemented in a sub-region or group of districts.

Recommendations: why dashboards

JSI Research & Training Institute, Inc.

- Operations research projects (like SC4CCM) benefit from a **central M&E data repository** for visualizing data, facilitating discussion, and guiding intervention support to optimize intervention performance
- Provides a **snapshot** of the most important data rather than capturing all data from a project
- Helps the project **monitor progress** towards goals/objectives and also identify potential problems
- Can look at both **historical** and **real-time** data
- Saves **time** and **resources** as one does not have to spend time looking though multiple data files

Thank you!
Questions?

Visit sc4ccm.jsi.com for more information