

Improving data to improve programs: Implementation of a data use package as part of the community case management program for common childhood illnesses in Malawi



Implementation Research Embedded in Integrated Community Case Management Program: Improving Data to Improve Programs (CCM-IDIP) Working Group*



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Introduction

The "Implementation Research Embedded in Integrated Community Case Management (CCM) Program: Improving Data to Improve Programs (CCM-IDIP)" Translating Research into Action (TRAction) project is working with CCM programs in Malawi and other countries to improve monitoring, evaluation (M&E) and use of information.

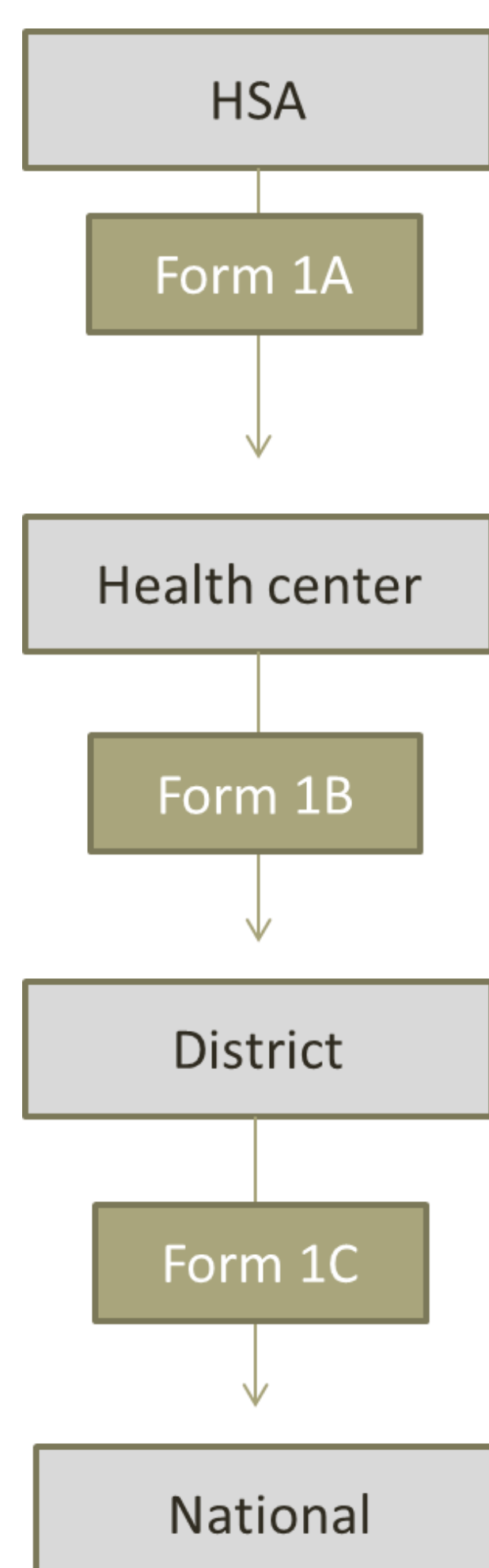
In 2012, through a desk review and baseline data quality assessment (DQA) of the current CCM M&E system in Malawi, we found a well-defined structure for routine reporting and high levels of reporting and completeness, however data use was low and mostly a top-down approach.

We worked with district health staff and partners to develop and pilot a program to improve data interpretation and use at the health worker level. The aim of the data use and quality improvement (DI) package was to give community health workers (Health Surveillance Assistants or HSAs in Malawi), health facility and district staff the tools to analyze and interpret the M&E CCM data they routinely report to both improve the overall data quality and allow health workers to quickly make data-based decisions to improve programs.

Primary evaluation questions were:

- Has data completeness, availability and quality and data use changed since the baseline DQA?
- Could this be attributable to the data use and quality package?
- How acceptable and feasible is the DI package to expand to other districts and what improvements could be made?

Methods



The DI package supported the routine monthly CCM reporting structure (see Figure to left).

Data use package

The DI package included:

- general training on data management, use and interpretation;
- refresher training on the routine reporting forms;
- simple templates for displaying the monthly CCM implementation strength data;
- provision of calculators to assist with completing monitoring forms; and
- working with district staff to identify reporting benchmarks and action thresholds.

Implementation: All relevant district staff, HSA supervisors and HSAs implementing CCM (n=426) in two pilot districts (Dowa and Kasungu) were trained in the package between February and April 2013.

Data quality assessment

Sample: Five health facilities and 3-4 CCM trained HSAs from each facility were randomly selected at baseline in each district. The same facilities and HSAs were followed up at endline (7/36 HSAs had to be replaced at endline due to turnover).

Tools: Questionnaires were developed for HSA, health facility and district levels including open-ended questions about data use and register and report reviews (see examples).

Data collection: Baseline data collection took place in June 2012. Endline data collection was conducted in July/August 2013 after 3+ months of DI package implementation. Data were collected by district staff (in opposite districts) and supervised by Save the Children/MOH staff.

Data analysis:

1. Measured changes in reporting:
 - **Availability:** forms were submitted for the previous month
 - **Completeness:** submitted forms are complete for the previous month
 - **Consistency:** measured through results verification ratio (RVR: verified/reported; 1.0 = perfect consistency)
 - Paired t-tests to test changes in reporting consistency (RVR) from baseline → endline
2. Assessed template use, ease of use, display and completeness.

Results

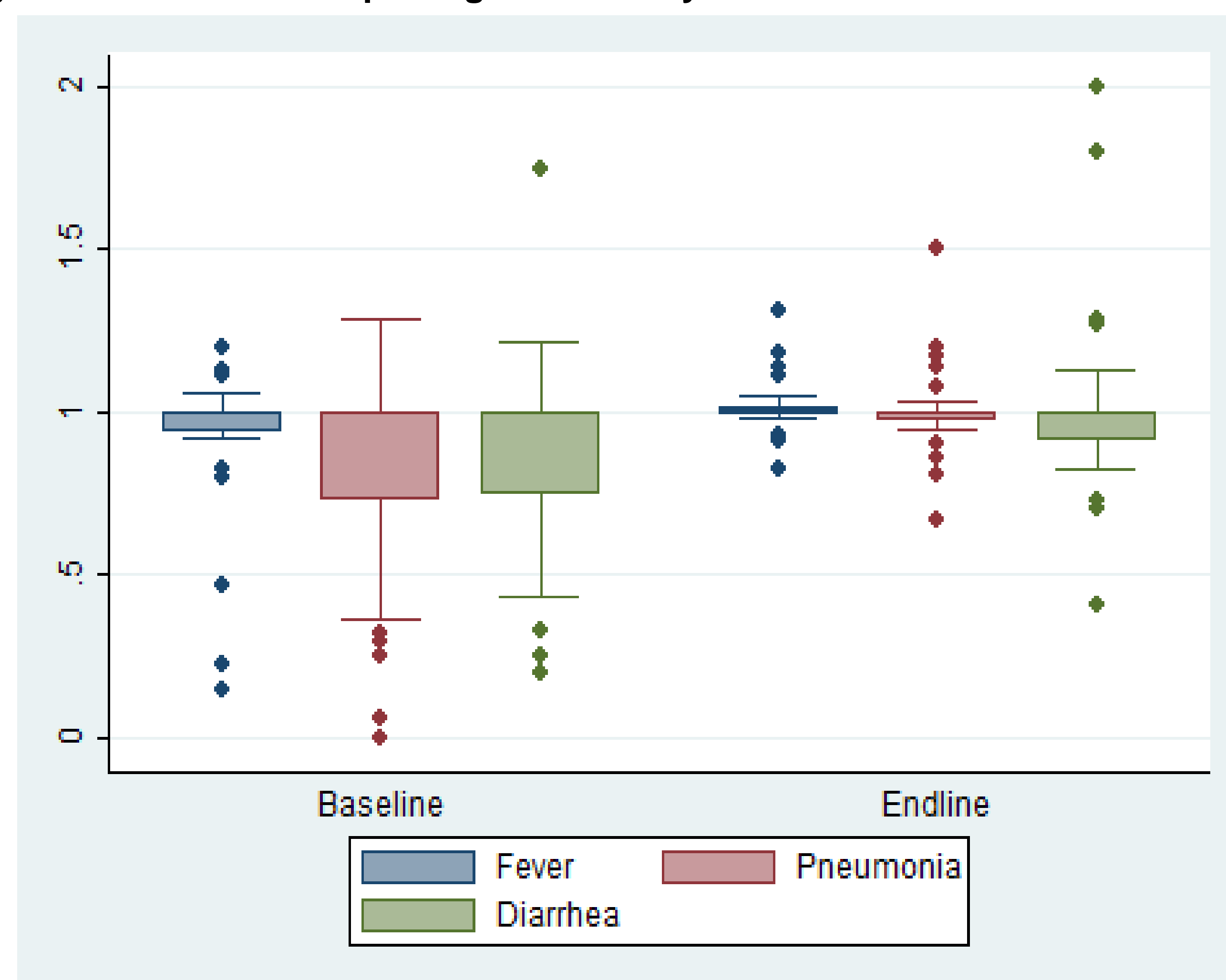
Reporting availability and completeness:

	Kasungu			Dowa		
	Baseline	Endline	Diff	Baseline	Endline	Diff
Form 1A (HSA reports)						
% Available	93%	96%	+3pp	95%	80%	-15pp
% Complete	74%	79%	+5pp	95%	63%	-32pp
Form 1B (Facility reports)						
% Available	Missing	100%	N/A	100%	44%	-66pp
% Complete	Missing	100%	N/A	95%	16%	-79pp

- Large discrepancy between districts likely due to external factors. Turnover in Dowa district staff may have affected routine reporting.

Reporting consistency:

Figure: HSA caseload reporting consistency at baseline and endline



- **Cases treated - HSAs:** At endline (1) average reporting consistency was better, especially for fever and pneumonia cases (2) there was less variation in consistency of reporting by HSAs; (3) there are still some outlier HSAs with poor reporting but fewer than at baseline. There appears to be more over-reporting of cases at baseline compared with endline.
- **Medicines distributed - HSAs:** Average reporting consistency for medicines dispensed (not shown) was marginally better at endline, but there was a lot of variation indicating that HSAs are still having problems reporting drugs dispensed.
- **Health facility consistency of reporting:**

- minor improvements in RVR for reporting stock-outs between baseline and endline.

	Baseline: (n=10)	Endline (n=7)
Fever cases	1.0	1.0
Diarrhea cases	1.2	1.0
Fast breathing cases	1.0	1.1
# of HSAs with stock-out of ACTs	0.87	0.9
# of HSAs with stock-out of Cotrim	0.5	0.9
# of HSAs with stock-out of ORS	0.67	1.0

Template use

	HSA	Health facility
Percent trained in package	100% (37/37)	100% (9/9)
Percent using template	100% (37/37)	89% (8/9)
Percent report template is easy to use	97% (36/37)	100% (8/8)
Median (range) hours per month to complete	1.0 hours (0.2-8)	1.0 hours (0.5-24)
Percent displaying template	59% (22/37)	67% (6/9)
Percent completed for all months	89% (33/37)	78% (7/9)

- Participants were using and completing the templates, found them easy to use and not time-intensive.
- Many HSAs could not display templates because lack of permanent structure at village clinic.
- Template reporting consistency was very similar to that of the reporting forms.



Data use

- Most HSAs mentioned they used the data to inform their community health education activities, to inform communities about stock-outs, and to lobby their supervisors for more medicines.
- Senior HSAs at facilities reported using templates to make staffing decisions (deploy HSAs to vacant areas, ask district to allocate more HSAs) and to better track supplies.

Summary of findings

- Small sample sizes limit conclusions, but there is evidence that reporting consistency for caseload improved at the HSA level.
- Routine data on CCM treatments provided, aggregated at the HF level, may not be as bad as people think!
- Templates and calculators were seen as very helpful and HSAs gave useful suggestions to improve the package.
- HSAs and HF staff do use these data to improve the ICCM program at the grassroots level. The benchmarks and action thresholds were seen as helpful guidance.
- Strength is that now "everyone can see the data".
- This data use intervention is promising, but turn-over and other management/health systems issues at the district level limit its potential effects
- Costing analysis is underway but it seems feasible to implement this package in other districts of Malawi.

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