Implementation Research Embedded in Integrated Community Case Management (iCCM) Program

Rapid Data Quality Assessment Protocol

Working Document

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in collaboration with the Malawi MOH and Save the Children, USA

Background

To accompany the desk review and stakeholder consultation, we will carry out a rapid assessment to review current data collection forms and systems in the field to assess the ICCM monitoring strategy at the community, primary health facility and district levels. The MOH is rolling out a revised system of routine reporting tools and reports to capture its set of 11 implementation strength indicators. Several implementing partners have supplied HSAs with the new forms and should be able to produce data starting in March 2012. However, the data quality and completeness of this set of indicators has not been assessed. We propose to conduct an assessment of data completeness and quality of the 11 CCM implementation strength indicators available through routine sources in two districts, including one UNICEF supported district (Kasungu) and one Save the Children supported district (Dowa).

Methods

For this assessment, we have loosely adapted frameworks and assessment tools for data quality audits (DQA)[1], [2] and for assessing the performance of routine information systems management (PRISM).[3] Briefly, we will:

1) Identify the data collection and compilation forms and processes, as well as any systems in place for data management, analysis and use at each level;
2) Document and assess the technical and organizational factors related to monitoring of the ICCM program; and
3) Assess the completeness, timeliness and consistency of collected and compiled data related to ICCM.

Attachment 1 (available upon request) presents the data collection tools – which include reviews of the existing data collection and compilation tools, as well as questions those in the health system responsible for collecting and compiling the data. The rapid data quality assessment will be implemented in early June, all review of data and tools will pertain to the previous two months (April & May).

Sample of sites: We will conduct the interviews and review of tools in two districts. Districts were purposively chosen using the following criteria:

a) Level of support: One district supported by Save the Children (Dowa) and one supported by UNICEF through the MOH (Kasungu).

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[1]Ronveaux O, Rickert D, Hadler S, Groom H, Lloyd J, Bchir A, et al. The immunization data quality audit: verifying the quality and consistency of immunization monitoring systems. Bull World Health Organ. 2005; **83**(7): 503-10.
[2]MEASURE_Evaluation. Data Quality Audit Tool: Guidelines for Implementation; 2008.
[3]Aqil A, Lippeveld T, Hozumi D. PRISM Framework: A Paradigm Shift for Designing, Strengthening and Evaluating Routine Health Information Systems. . Health Policy and Planning. 2009; **24**(3): 217-28

b) Proximity to Lilongwe: Both districts are within one to two hours driving distance from the capitol.
c) Roll-out of revised tool: Both districts have implemented the revised ICCM reporting forms and data from at least one month would be available[4].
d) MOH/IMCI unit agreement: The IMCI unit supports the proposed district selection.

We will ask for a full list of HSAs deployed and trained working in the two districts from the MOH/IMCI unit and partners. From these lists, we will randomly select four health centers and from each health center four HSAs for review of their forms and interviews about the monitoring system. If a selected health center has fewer than four HSAs in the catchment area, the health center will still be included in the study. If a selected HSA is not available during the period of data collection, then a replacement will be selected.

We will also visit the district level hospital in each district to interview relevant staff and HSAs providing iCCM services. In summary, in each district we will visit five facilities (the district hospital and four health facilities) and interview 5 health facility staff involved in iCCM programs (one per facility) and 20 HSAs (four per facility).

Overview of focus indicators:

Table 1 shows the 11 consensus ICCM monitoring indicators for Malawi along with indicator definition and data source.

Table 1: Implementation strength indicators

Definition	**Numerator**	**Denominator**	**Source**
1. HSAs available (deployed)	No of HSAs working at the time of the assessment in the district	Total population of under-fives	District and IMCI/MOH records
2. HSAs trained in CCM	No of HSAs trained in CCM	No of all HSAs working at the time of the assessment	District and IMCI/MOH records
3. Hard-to reach areas with CCM trained HSAs	No of hard to reach areas with a trained HAS	Number of hard to reach areas	District and IMCI/MOH records
4. CCM-trained HSAs providing CCM services	No of CCM -trained CHWs who have seen a sick child in the past seven days	No of CCM trained HSAs working at the time of the assessment	MOH reporting forms
5. CCM trained HSAs with supply of key CCM drugs in the last 3 months (items reported individually)	No of CCM trained HSAs with no stockouts of more than 7 days of key medicines within the last 3 months (AB, ACT, ORS, ZN,	No of CCM trained HSAs working at the time of the assessment	MOH reporting forms Supervision reports

[4] Initially Dedza was selected for this study but during the training, it was determined that Dedza had not yet scaled-up the new MOH reporting forms. Kasungu was selected as a replacement

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6. CCM trained HSAs with supply of key CCM drugs in the last 3 months (items reported individually)	No of CCM trained HSAs with no stockouts of life saving medicines within the last 3 months (AB, ACT, ORS)	No of CCM trained HSAs working at the time of the assessment	MOH reporting forms Supervision reports
7. CCM trained supervised in the last 3 months	CCM-trained HSAs supervised in CCM in the last 3 months	No of CCM trained HSAs working at the time of the assessment	MOH reporting forms IMCI programme reports
8. CCM trained supervised in the last 3 months with reinforcement of clinical practice	CCM-trained HSAs supervised in CCM in the last 3 months with reinforcement of clinical practice (case observation; case scenarios, mentoring at health facility)	No of CCM trained HSAs working at the time of the assessment	MOH reporting forms Supervision reports IMCI programme reports
9. CCM trained HSAs residing in their catchment area	No of CCM trained HSAs residing in their catchment area	No of CCM trained HSAs	MOH reporting forms
10. No of sick children assessed each month by major condition			MOH reporting forms
11. No of sick children treated each month by major condition			MOH reporting forms

Field work: The data quality assessment will be discussed with the MOH/IMCI, UNICEF and Save the Children and data collection will be carried out over a period of approximately four to six weeks. Table 2 outlines the activities and approximate duration of each. The data collection team in the field will include representatives from Save the Children, JHSPH and MOH/IMCI and UNICEF will be invited to join. Teams will pretest the tools with one district office, two health centers and two HSAs in Lilongwe district. Teams will first visit the district teams and use form 1 to guide discussions and assessment of forms at the district level. The teams will visit the health center level and apply form 2. The four randomly selected HSAs will be asked to convene at the health center and to bring all their forms and registers for review (interviews and reviews based on form 3).

Although visits to the community-based village clinics may introduce less bias, the convening of HSAs for interviews and register reviews at the health center is more efficient. The teams will take notes on the assessment forms, based on the responses from the health staff and review

of documents. After field work, the team will compile the responses and counts for the analyses described below. The preliminary findings will be shared with key partners to assist in the interpretation and recommendations for the final report.

Table 2:

Activity	**Approx. Duration**	**Dates**
Share & Discuss protocol with IMCI unit and UNICEF - Introduction & discussion - Confirm selection of districts - Request any additional documentation needed (including health center and HSA listing)	1-2 meetings (SC to organize and lead)	April-May
Prepare for visits, including selection of districts & health facilities - Pretest of tools in Lilongwe district - Arrangements with districts for site visits - Request for list of HFs & HSAs, then random selection - Arrangement of logistics (transportation, copies of forms, etc)	One week (SC to organize and lead)	Week of 28th May
Visit District 1: travel & visit district team (form 1)	1 day	Week of 4th June
Visit District 1: HF 1 & 3 or 4 HSAs (forms 2 & 3)	1 day	
Visit District 1: HF 2 & 3 or 4 HSAs (forms 2 & 3)	1 day	
Visit District 1: HF 2 & 3 or 4 HSAs (forms 2 & 3)	1 day	
Travel / rest day	1-2 days	
Visit District 2: travel & visit district team (form 1)	1 day	Week of 11th June
Visit District 2: HF 1 & 3 or 4 HSAs (forms 2 & 3)	1 day	
Visit District 2: HF 2 & 3 or 4 HSAs (forms 2 & 3)	1 day	
Visit District 2: HF 2 & 3 or 4 HSAs (forms 2 & 3)	1 day	
Data analysis workshop	2 day (??)	week of 18th June
Draft report completed	2 weeks	25th June – 6th July
Dissemination to stakeholders (MOH/IMCI, UNICEF and DHMTs)	1 day	week of 9th July
Final report completed	2 weeks	July 27th

Analyses: Our analyses will focus on describing the current tools and systems in place to monitor the ICCM program. Depending on the current tools and data collection systems in place, we will also calculate the percentage of reports available, completed and received in a timely manner (e.g. number of reports received/complete/timely divided by total number of reports expected) at the health center (HC) and district levels. If possible given current reporting systems, we will also calculate the "result verification ratio"[5] for key indicators, such as the number of sick children treated in the community over a one month period. The results verification ratio (RVR) will be defined as:

Results verification ratio: HC = Sum of reported counts from the HSA reports

[5]MEASURE_Evaluation. Data Quality Audit Tool: Guidelines for Implementation; 2008.

Results verification ratio: HSA = $\frac{\text{Verified (from register) counts from HSA}}{\text{Reported counts (summary report) from the HSA}}$ / Total count reported in the health center report

In addition to the percentages of available, complete and timely reports and the RVR, we will work with the staff at all levels to identify the reason for reporting issues and discrepancies. The results and analyses will be reviewed with key stakeholders to assist in interpretation and recommendations.