Operations Research Interim Brief

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How well do Health Surveillance Assistants (HSAs) — Malawi's cadre of community health workers — deliver integrated services?

Baseline study finds that HSAs missed many opportunities to provide clients all applicable maternal, newborn, and child health and family planning services.

Key Findings:

> Many HSAs do not live in their catchment area, which limits their availability to provide services.

> Coverage of antenatal and postnatal services is low while family planning counseling by HSAs is more moderate.

> HSAs missed the opportunity to provide two-thirds of all applicable services in their interactions with clients.

> HSAs provided children with quality care, correctly covering most Community Case Management Checklist items.

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Challenge

HSAs are Malawi's government-paid cadre of community health workers. Over the past decade, the HSAs' portfolio of interventions has expanded in number and complexity to include maternal, newborn, and child health (MNCH) and family planning (FP). However, HSAs operate in an environment in which these community-based interventions are often implemented in a vertical and fragmented manner, resulting in gaps in the continuum of care and missed opportunities for integrated service delivery.

Overall Project Strategy

Through *Mwayi wa Moyo* ("A Chance to Live"), Save the Children and the Malawi College of Medicine are supporting the Ministry of Health and Blantyre District Health Management Team (DHMT) to improve integrated service delivery at the community level by strengthening the capacity of HSAs to provide MNCH and FP interventions in their communities (see Box 1 for a description of their responsibilities). The project targets a population of more than half a million, with a particular focus

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The Mwayi wa Moyo Project is funded by the U.S. Agency for International Development (USAID) through the Child Survival and Health Grants Program with US$2,000,000. The project is being implemented by Save the Children in partnership with the Malawi College of Medicine, Department of Paediatrics and Child Health; Malawi Ministry of Health; Blantyre District Health Office; and the University of St. Andrews.

on children under five years, pregnant women, and women of reproductive age. The Ministry of Health is very involved in the project, providing programmatic, policy, and research guidance.

Innovation Being Tested

The project is conducting operations research to determine whether an integrated approach to the delivery of MNCH and FP interventions combined with improved training, supervision, and mentorship of HSAs, reduces missed opportunities to deliver all applicable services and improves coverage, quality, and client satisfaction. This is a cluster randomized controlled trial in which health center catchment areas are assigned to intervention and control arms. In the intervention arm, HSAs are being trained, supervised, and mentored to provide services and utilize tools and procedures in an integrated manner. In the control arm, the HSAs are being trained, supervised, and mentored in the standard vertical approach to service delivery.

Box 1: Responsibilities of the HSAs

The HSAs carry out a variety of community case management services at village clinics and during home visits in their communities. Village clinics, which are manned by the HSAs, are the lowest tier in the health care system (after health centers) and are very basic, often operating in an open public space or a community structure, like a church or school. HSAs' tasks include but are not limited to:

- Immunizing children
- Growth monitoring of infants and children
- Providing health education
- Promoting environmental sanitation
- Promoting use of Long Lasting Insecticide Treated Nets (LLINs) and Indoor Residual Spray
- Promoting uptake of Vitamin A supplementation by children under five years
- Assessing, treating, and referring children with common illnesses such as acute respiratory infections, diarrhea, and fever
- Conducting home visits to pregnant and post natal women to advise on nutrition and birth preparedness, and to encourage clinic attendance
- Providing oral and injectable contraceptives

In Blantyre District, HSAs are expected to be available every day, with each serving a catchment area that includes about 1,600 community members. HSAs tend to be middle-aged males who have completed secondary education. The HSAs at the village clinic level are supervised by Senior HSAs based at the health center and district-level Environmental Health Officers and Program Coordinators.

The Ministry of Health has had significant input into the operations research study and looks to it to generate critical evidence about integrated versus vertical approaches. The results also are especially relevant for the USAID bilateral Support for Service Delivery Integration-Services (SSDI-Services) project in Malawi, designed to support the integrated delivery of an essential health package at the health facility and community levels.

Research Methodology

The Malawi College of Medicine is conducting the operations research which began with a baseline study from January to March 2013. The researchers collected data by:

- Surveying all 93 HSAs (24 women and 69 men) affiliated with the 17 health centers in the project area.
- Conducting 198 observations of HSAs interacting with different types of clients (i.e. pregnant women, newborns, infants, and children under five).
- Carrying out exit interviews with 1,436 clients (i.e. pregnant women and women with children under five) after they or their child received care at the village clinics.
- For each of the 17 health centers, holding a focus group discussion with community members who accessed services from an HSA in the previous two months.

The data collected allowed the researchers to assess four important indicators: (1) Coverage of key MNCH and FP interventions delivered by HSAs; (2) Missed opportunities by HSAs to deliver integrated services; (3) Quality of care provided by HSAs; and (4) Client satisfaction with HSA-provided services.

Coverage of key MNCH and FP interventions: This was assessed during the exit interviews with women clients after

Photo courtesy of Save the Children

leaving the village clinic by asking whether:

- Women after their most recent delivery had received the recommended number of antenatal (3) and postnatal (4) home visits by an HSA.
- An infant between 2 and 6 months who had at least one danger sign in the first 60 days of life had been referred to the clinic by an HSA.
- Women with a child less than two years old had been counseled by an HSA on postpartum family planning.

Missed opportunities: For the purpose of this study, integration at the service delivery level means the provision of all relevant MNCH and FP services to the client by the HSA during one visit – whether at the village clinic or during a home visit. The researchers developed a missed opportunities assessment tool to use while observing the client-HSA interactions to measure the extent to which the HSAs delivered “integrated services” while providing care to pregnant women and to women with children less than 5 years old.

Quality of care: HSAs use a Community Case Management (CCM) Checklist to guide them in assessing, classifying, and treating sick children under five years brought to the village clinic. The researchers ascertained the quality of care provided to sick children by the HSAs by observing how well they followed the checklist in examining the children and by having experienced nurses re-examine the children after being attended to by the HSAs to confirm the HSAs’ assessment. A CCM index was derived using the checklist to measure the median percentage of applicable CCM items that were correctly assessed, classified, and treated by the HSA for each client.

Client Satisfaction: This was assessed through exit interviews with mothers of children less than 5 years of age who had just accessed services at the village clinic and through focus group discussions with community members who had accessed services in the preceding 2 months

Findings

Many HSAs do not live in their catchment area, which limits the availability of the services they provide. More than a third (37 percent) of HSAs live outside their catchment area, often because of a lack of availability of adequate accommodation, followed by re-location due to marriage. Only 35 percent of HSAs reported being available seven days a week to provide services in their catchment areas. Non-resident HSAs were more than twice as likely to offer fewer services than resident HSAs (74 percent vs. 31 percent).

Coverage of antenatal and postnatal services is low while family planning counseling by HSAs is more moderate. As shown in Table 1, only 10 percent of mothers participating in exit interviews who delivered within the previous two months had received the recommended number (3) of antenatal home visits by an HSA. Among mothers of children 2-6 months old who said their child experienced a danger sign (i.e. convulsion, lethargy, not able to drink or breastfeed, continuous vomiting), just a little more than a third (38 percent) were taken to be seen by an HSA. Of these, only half were formally referred to a health facility. About half of mothers reported having been counseled on family planning during their last visit with the HSA.

TABLE 1: COVERAGE OF KEY INTERVENTIONS BY MONTHS SINCE WOMEN’S LAST DELIVERY

	< 2 (n=87)	2-6 (n=265)	>6-12 (n=413)	>12 (n=666)
Proportion of mothers who received at least 3 antenatal home visits	9 (10%)	15 (6.6%)	30 (7.3%)	50 (7.5%)
Proportion of mother/newborn pairs who received at least 4 postnatal home visits	N/A	2 (0.7%)	7 (1.7%)	15 (2.3%)
Proportion of mother/newborn pairs who received the recommended number of antenatal and postnatal home visits	N/A	2 (0.7%)	5 (1.2%)	10 (1.5%)
Number of infants who had at least one danger sign in the first 60 days of life		131 (49.4%)		
Number with danger sign seen by HSA		50 (38.2%)		
Number seen by HSA who were referred by HSA to health facility		25 (50%)		
Proportion of mothers counselled on post-partum family planning at last visit	41 (47.1%)	113 (42.6%)	192 (46.5%)	340 (51.1%)
Proportion of mothers using any family planning	41 (47.1%)	157 (59.3%)	277 (67.1%)	440 (66.1%)

N/A = Not Applicable
Data Source: Exit Interviews

HSAs missed the opportunity to provide about two-thirds of all applicable key services in their interactions with clients. There were missed opportunities for every type of interaction observed – with pregnant women, infants under two years, and children two to five years old. Overall the median proportion of opportunities missed was 64 percent. The proportions were similar for all categories of interaction. When treating a sick child, HSAs frequently missed the opportunity to discuss with the mother getting tested for HIV, using insecticide treated nets by both mother and child, the vaccination status of the child, and whether the child received Vitamin A as per the recommended schedule. HSAs also missed the opportunity to discuss postpartum family planning with mothers of children less than 12 months as well child spacing intervals with mothers of children less than 5 years.

HSAs provided children with quality care, correctly covering most of the items on the Community Case Management Checklist. Through observations of the HSAs attending to 198 cases and re-examination of these cases by experienced nurses, the researchers found that the HSAs correctly covered most of the CCM items when examining the children. On average, 89 percent of CCM checklist items were correctly assessed. However, an HSA rarely covered all CCM checklist items – nothing was missed in only nine percent of cases.

Community members appreciated the services provided by the HSAs, but were dissatisfied with the HSAs' limited availability when they do not reside in the same village. Overall there was good awareness among community members of the CCM services provided by the HSAs, either at the village clinic or at the home, particularly child growth monitoring, distribution of mosquito nets, and indoor residual spray, and advice on general hygiene. Informants particularly appreciated three aspects of these services: their convenience (easy to access with no transport costs); the short waiting times; and that the quality of case management is similar to that at a health facility. It was also mentioned that when the HSA is unable to manage the problem he/she provides a referral letter which improves the speed of service at the health facility.

A major complaint was that the HSA does not always reside in the village; in those cases the health facility can be more accessible for CCM than the HSA. When the HSA is not a resident it is common for the village clinic to operate only 2 or 3 days per week and for the hours of operation to be short (opening late and closing early).

Data from the client exit interviews show that between half and two thirds of women reported to have felt welcomed by the HSA during their last visit. Similar proportions reported to have felt that the problem they asked the HSA to resolve had been adequately dealt with. Most rated the HSA's service to be either good or excellent (rather than needing improvement).

Implications and Next Steps

Overall, the study found that HSAs provided uneven coverage and missed many opportunities for integrating services, although their care of children was generally good. These findings have implications for how HSAs should be trained, supervised, supported, and deployed in order to fulfill their critical role in improving MNCH and FP outcomes.

The project aims to address these issues by transforming the existing package of vertical services into a single coherent package of high-impact, integrated MNCH and FP interventions that fill gaps in the continuum of care and deliver high quality services at less cost. It is doing this through a consultative process involving the MOH and other stakeholders. Together, the project team is developing an integrated, five-module MNCH and post-partum FP training package for HSAs, supervision tools to be used by the HSA supervisors (i.e. Senior HSAs, Environmental Health Officers, and Program Coordinators), mentorship tools to be used by the HSAs' mentors (i.e. nurses and other clinicians), and a behavior change communication strategy and accompanying materials to support the HSAs in their role as health educators and change agents.

The study also found an important relationship between HSAs' residence and their availability to provide care. The project is developing a strategy to actively mobilize and engage key stakeholders at the community, district, and national level, to identify ways of addressing this limitation and other challenges impacting on the HSAs' performance. Stakeholders at all levels are being asked to discuss how they can improve the functioning of the HSAs, such as helping to provide local accommodation for them.

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For more information about the project, contact Steve Macheso at Steve.Macheso@savethechildren.org or review the operations research protocol here: http://www.mchipngo.net/documents/cs_dox/SC/Malawi/27/DIP/SC_Malawi_27_Final_OR_ConceptPaper25Mar.pdf