

Health Workers' and Managers' Perceptions of the Integrated Community Case Management Program for Childhood Illness in Malawi: The Importance of Expanding Access to Child Health Services

Jennifer A. Callaghan-Koru,* Adnan A. Hyder, Asha George, Kate E. Gilroy, Humphreys Nsona, Angella Mtimuni, and Jennifer Bryce

Department of International Health, Johns Hopkins Bloomberg School of Public Health, Baltimore, Maryland; Department of Preventive Health, Malawi Ministry of Health, Lilongwe, Malawi

Abstract. Community case management (CCM) is a promising task-shifting strategy for expanding treatment of childhood illness that is increasingly adopted by low-income countries. Its success depends in part on how the strategy is perceived by those responsible for its implementation. This study uses qualitative methods to explore health workers' and managers' perceptions about CCM provided by health surveillance assistants (HSAs) during the program's first year in Malawi. Managers and HSAs agreed that CCM contributed beneficially by expanding access to the underserved and reducing caseloads at health facilities. Managers differed among themselves in their endorsements of CCM, most offered constrained endorsement, and a few had stronger justifications for CCM. In addition, HSAs uniformly wanted continued expansion of their clinical role, while managers preferred to view CCM as a limited mandate. The HSAs also reported motivating factors and frustrations related to system constraints and community pressures related to CCM. The impact of CCM on motivation and workload of HSAs is noted and deserves further attention.

INTRODUCTION

Community case management (CCM) of childhood illnesses by community-based health workers is a strategy supported by the World Health Organization (WHO) and the United Nations Children's Fund (UNICEF)^{1,2} that holds great potential for increasing coverage of child survival interventions and reducing child mortality.³ Many countries are starting to implement CCM on a large scale. However, there is insufficient attention in the literature to implementation factors that lead to successful scale-up of CCM programs.⁴ This study addresses one key factor in the implementation of CCM, namely perceptions about the program among community-based health workers, their supervisors, and senior district managers.

Previous research has demonstrated that policy implementation rarely follows a hierarchy from policy makers to implementers and then end users. Rather, it involves a process of negotiations between stakeholders.^{5,6} In cases where program managers and health workers hold positive perceptions about a new program, they can be instrumental in facilitating its uptake. In contrast, when they hold negative perceptions about a program or have competing priorities, they may resist or undermine the program, leading to implementation failure.⁶ The importance of stakeholder perceptions is amplified in decentralized health systems where district managers have greater autonomy in making decisions about allocating resources to a new strategy or intervention.^{7–9}

Task shifting programs such as CCM redraw the boundaries between different cadres of health workers, which can further complicate negotiations involved in implementing health policy.¹⁰ Clinicians and professional medical associations have objected to the delegation of clinical tasks to lay health workers in several program areas, including human

immunodeficiency virus/acquired immunodeficiency syndrome (HIV/AIDS).^{4,11–14} In addition, there is a history of resistance to programs using community-based health workers (CBHWs), and the public health community has debated the role of CBHW cadres for decades, particularly whether these workers should provide curative services.^{13,15} When governments implement task shifting, there is the risk that they will assign additional responsibilities to lower level health workers without increasing their compensation, leading to reductions in motivation.¹² Conversely, studies have shown that in some settings, the addition of responsibility for curative services has increased CBHWs' motivation and the community's respect for CBHWs, leading to better performance.^{16–18} Task shifting strategies that are able to establish a sense of self-efficacy and legitimacy for CBHWs, and an assurance of support from supervisors, have been shown to achieve better results.¹⁷ Although health systems researchers have identified operational research on the perceptions held by health staff regarding task shifting as a priority,¹² few studies have examined health workers' reactions to large-scale CCM programs.

This paper reports data collected during the first year of the national CCM implementation in Malawi. Malawi is a country that is on-track to meet Millennium Development Goal (MDG) 4, but must still reduce the current under-five mortality rate from 127 to 75 deaths per 1,000 to reach its MDG target.¹⁹ In an effort to improve child mortality indicators, Malawi's Ministry of Health (MOH) added CCM to the activities of an existing national cadre of CBHWs known as health surveillance assistants (HSAs). The rollout of CCM began in 2008 with the training of HSAs posted in hard-to-reach areas, those furthest from a health center. The overall goal of this study was to explore perceptions of health workers in Malawi regarding the introduction of CCM. The specific objectives were to describe 1) program managers' attitudes about the CCM program and their perceptions of the quality of care provided by HSAs, and 2) HSAs' perceptions about the CCM program and the potential impact of CCM on HSAs' motivation.

*Address correspondence to Jennifer Callaghan-Koru, Department of International Health, Johns Hopkins University Bloomberg School of Public Health, Baltimore, MD 21205. E-mail: jcallagh@jhsph.edu

METHODS

Research setting. Malawi is a land-locked country with 13 million persons in eastern Africa, and is ranked as one of the 10 poorest countries in the world. The major causes of under-five death in Malawi are malaria (17%), HIV/AIDS (14%), pneumonia (11%), and diarrhea (11%).²⁰ Coverage of treatment of childhood illnesses is low; 2006 estimates suggested that only 30% of children with suspected pneumonia in Malawi were treated with antibiotics, and treatment rates for fever cases was even lower.¹⁹ Malawi's MOH faces many challenges in the delivery of health services, including limited geographic access to health facilities for rural populations,²¹ and a severe shortage of human resources for health.^{22,23} In 2007 the MOH adopted a policy supporting integrated CCM by HSAs for children 2–59 months of age, to be provided free similar to all government health services in Malawi and to compliment services provided with fees by private facilities managed the Christian Health Association of Malawi.²⁴

Malawi's HSAs were first recruited into the country's health system to serve as vaccinators in the 1950s and later participated in the smallpox eradication campaign.²⁵ Newly recruited HSAs are required to have 12 years of education, and older HSAs may have only some secondary schooling. The HSAs receive 10 weeks of basic training and are assigned to serve a community of approximately 1,000 persons. Survey data from a random sample of HSAs providing CCM in the six districts in this study showed that 81% were male and 43% had been recruited after 2006.²⁶

Currently, HSAs' primary responsibilities include health surveillance and environmental health promotion.²⁷ In addition, HSAs in some areas support various other services, including family planning, tuberculosis (TB) treatment, and voluntary counseling and testing for HIV/AIDS. The direct supervisors of the HSAs are area environmental health officers, who are attached to health centers, and senior HSAs. The Malawi MOH increased the size of the HSA cadre during 2002–2008 with grants from the Global Fund to Fight AIDS, TB, and Malaria, to reach an estimated ratio of 1 HSA per 1,000 population.²⁸

Implementation of CCM in Malawi began in 10 districts selected by the MOH with the poorest child health indicators in each of Malawi's three geographical regions (northern, central, and southern).²⁹ The World Health Organization and UNICEF supported the MOH Unit for Integrated Management of Childhood Illness (IMCI) in roll out of CCM in the 10 districts with a grant from the Catalytic Initiative to Save a Million Lives. The program was introduced to district health management team members through visits from WHO and IMCI Unit representatives. District IMCI coordinators and other clinicians from each district were subsequently trained as CCM training facilitators in June 2008. After training of the HSAs, the respective communities were to receive a sensitization visit by district managers to introduce and explain the new service, although limited availability of transport and other challenges sometimes prevented these visits.

The CCM training is a six-day in-service training that uses classroom sessions and clinical practice to prepare HSAs to follow an adapted IMCI algorithm for treatment of children with uncomplicated cases of pneumonia, fever (presumed malaria), and diarrhea, and to assess children for danger signs requiring referral to the nearest health facility.³⁰ The HSAs

are instructed to hold CCM clinics at scheduled days of the week in a central location in the village (such as in a church building or under a tree) and during the first year of implementation received CCM supervision primarily from the district IMCI coordinator, rather than their routine supervisors, environmental health officers and senior HSAs.

Research methods. This study is an exploration of the perceptions held by health workers regarding Malawi's CCM program. It was conducted as a sub-study of a larger assessment of the implementation strength and quality of CCM in six districts participating in the early CCM rollout supported by WHO and UNICEF. Districts were selected for the study on the basis of adequate levels of implementation for a quality of care assessment, including 1) at least 10% of HSAs trained in CCM, and 2) at least 50% of CCM-trained HSAs had received initial drug stocks of antibiotics, antimalarial drugs, antipyretic drugs, and oral rehydration salts.²⁶

Qualitative data collection activities consisted of in-depth interviews and focus groups conducted during four weeks in November and December 2009. District IMCI coordinators, the managers with the primary responsibility for the CCM program, were interviewed in all six districts. Four districts were further chosen for interviews with members of the district health management team and focus groups with HSAs conducting village health clinics. These four districts were selected to represent high- and low-performing districts in terms of supervision and drug supply, on the basis of preliminary results from the quality of care assessment, to satisfy a separate objective to assess health system support delivery strategies for CCM. A pilot exercise was held in a separate district to identify the range of suitable respondents and refine interview guides and protocols.

This research was conducted in partnership with the Malawi Ministry of Health as a part of an independent evaluation of the Catalytic Initiative, led by the Institute for International Programs at Johns Hopkins University and the Malawi National Statistics Office. All interviews and focus groups were conducted by two independent Malawian qualitative researchers and one researcher from Johns Hopkins after permission from the Malawi Ministry of Health. Interviews with program managers and clinicians were in English, as all respondents received education in English and are fluent speakers. Focus groups were conducted with HSAs because pilot testing showed that HSAs were more responsive to questions through group discussion rather than individual interviews. The group discussions were conducted in a mixture of English and the local language, Chichewa, to ensure that participants could contribute comfortably. All district managers involved in CCM implementation were asked to participate and were interviewed in private in their offices. District IMCI coordinators facilitated the research team's visit to a convenient health center to interview clinicians and HSA supervisors. In advance of the team's visit, health center staff called all CCM-trained HSAs within each chosen health center's catchment area to invite them to participate in a focus group discussion at an appointed time. Health center-based interviews and focus groups took place in available private settings, such as meeting rooms.

Interview and discussion guides covered a variety of health systems issues involved in CCM implementation, including informants' overall perceptions about the CCM program. Regarding perceptions, respondents were asked their general

opinions about the CCM program towards the end of the interviews by using open-ended questions to elicit spontaneous, unprompted responses. The HSAs were asked to discuss aspects of CCM work that they liked and did not like in the same open-ended manner. Interviewers often probed respondents to elaborate on and explain their responses.

All interviews and focus group discussions were recorded and transcribed, with translation into English where necessary. Inductive analysis was conducted according to the framework approach, a process for coding, categorizing, and explaining qualitative data in a grounded manner.³² All transcripts were read and open coding was used to develop coding indices, organized by thematic category, for focus groups and in-depth interviews separately. Each transcript was subsequently coded according to the corresponding index in ATLAS.ti, a qualitative data analysis software package (<http://www.atlasti.com>). The frequencies of codes and corresponding comments were assessed to detect major categories of perceptions. Short memos and word tables were used to summarize the overall perspectives expressed by each informant, define major categories of comments, and organize descriptive categories into themes. Charting of data was used to assess differences in stakeholder perceptions of the CCM program between low-performing and high-performing districts.³² Feedback from managers and other MOH personnel was received when initial results were shared in a national analysis and dissemination meeting. This study was approved by the Institutional Review Board at Johns Hopkins Bloomberg School of Public Health and the Malawi National Health Sciences Research Committee, and all respondents provided verbal consent.

RESULTS

Fifty-seven participants from six districts were included in the qualitative data set for this study, including in-depth interviews with 28 supervising and senior managers and four focus groups with 5–9 HSAs per group (Table 1). Managers interviewed for the study represented a range of positions within the district health management team and frontline supervisors, from district health officers to medical assistants serving as health center in-charges. All HSAs included in the study had received CCM training and were operating CCM clinics in the communities where they were posted and were representative of HSAs in the district. The following sections describe the themes that emerged from analysis of informants' perceptions about the CCM program, and contrast the per-

TABLE 1
Description of respondents in the study, Malawi*

Position	No. districts	No. participants
Manager		
Administrators	4	4
Assistant environmental health officer	3	4
District environmental health officer	2	2
District health officer	3	3
Medical assistant	3	3
IMCI coordinator and deputy	7	6
Pharmacy technician	4	4
Senior environmental health officer	2	2
Community-based health worker		
Health surveillance assistant	4	29

*ICMI = integrated management of childhood illness.

spectives held by program managers and HSAs (Table 2 and Table 3, respectively). The themes included community and health facility benefits of CCM; qualified endorsement of CCM by program managers; diverging perspectives on HSAs' roles as village doctors; and motivating factors for HSAs. No systematic differences in perceptions were found between high-performing and low-performing districts.

Community benefits of CCM. Managers and HSAs agreed that the CCM program is helpful to the communities that it serves. The most commonly cited benefit for communities was increased geographic access to health services for children, discussed in 3 of 4 HSA focus groups and in 17 of the 29 manager interviews. As described earlier, the HSAs selected for CCM training were those stationed in areas designated as hard-to-reach, generally defined as being located ≥ 7 km from a health center. Informants reported that having a CCM clinic improved health care access for these communities:

"I like [the] village clinic because the community receives drugs near, and children, when they are sick, are treated quickly. So I like it because the community is not suffering." (HSA) *"I know that [HSAs operating CCM clinics] are coming from remote areas where medical treatment is a problem and I have supported the idea of giving them the drugs so that they can help the people in those areas"* (medical assistant).

In addition to geographic access, managers believed that communities benefited from CCM because HSAs living in the communities were available to provide health services at all times (24 hours). Two managers stated that they expected that increased access to health counseling and curative services in the community through CCM would result in reduced use of traditional healers by community members. Informants also cited improved health outcomes and/or mortality reduction as a key benefit of the CCM program in 11 interviews and all focus groups. The HSAs believed that CCM benefited the community by creating more opportunities for community members to have contact with HSAs and receive health counseling.

Health facility benefits of CCM. Aside from benefits to the community, managers reported that CCM had (or would have) benefits for health facilities, including reduced caseloads, improved work hours for medical assistants, and reduced operating costs for health facilities as a result of less use. Some managers noted a visible reduction in cases at the health center with the introduction of CCM:

"When I was coming [to this health center] three years ago, there wasn't this program and I was having much workload. Most of the patients who were coming were under-fives. After introducing this program, the workload has been reduced and you can find that children who come here are those from within the health center [vicinity] and not people from far places" (medical assistant).

Similar to managers, HSAs also believed that CCM reduced facility caseloads and eased the strain on facility-based clinicians. One HSA suggested that by reducing the number of facility cases, the CCM program has led to improved treatment of patients by medical assistants at the health facility, who were previously harsh to patients when busy.

Qualified endorsement of CCM by managers. Although all managers included in this study made positive comments about the concept of the CCM program, these positive comments did not always indicate whole-hearted endorsement of the program. Several managers expressed concerns about

TABLE 2
Managers perceptions about the CCM program, Malawi*

Benefits of CCM program	Concerns about CCM program
<p>Community benefits</p> <ul style="list-style-type: none"> Increased geographic access for underserved areas Expanded (24-hour) service hours for childhood illness Increased contact and opportunities for HSAs to provide health education to community members Improved, earlier care seeking for childhood illness Reduced cases of severe illness Reduced use of traditional healers Reduced mortality and morbidity in children less than five years of age Improved long-term social and economic development caused by a healthier population <p>Health facility benefits</p> <ul style="list-style-type: none"> Reduced caseload at health facilities Cost savings through shifting use to the community Reduced strain on health facility staff 	<p>Policy concerns</p> <ul style="list-style-type: none"> CCM program should have limited scope (e.g., only minor illnesses) CCM should ideally be provided by more qualified health workers CCM's age restrictions cause conflict with the community members who want treatment of adults HSAs may misuse drug stocks <p>Implementation concerns</p> <ul style="list-style-type: none"> Program data should be collected and analyzed to assess whether the CCM program is providing benefits (e.g., improved child health, reduced facility use, high quality of care) HSAs are overburdened with activities Health center staff should be included in implementation of CCM (communications, supervision) HSAs need frequent supervision to ensure quality and work ethic Training period for CCM should be lengthened

*CCM = community case management; HSAs = health surveillance assistants.

CCM that qualified their positive assessment of the program. The most commonly stated concern was that HSAs needed support to provide a high quality of care, an idea discussed by 15 managers. The type of support that managers considered critical was primarily supervision, but also included drugs, equipment, and shelters for holding CCM clinics. The following comment from an IMCI coordinator reflects the common concern that HSAs must be supported.

"The quality of care that HSAs can provide will also depend on supervision or support that you are providing to them. These are not medically oriented personnel. We are making them to be medically oriented hence we need to provide them with the necessary support that they might require" (IMCI coordinator).

Similar comments made by other managers also tended to emphasize the low level of education or lack of clinical background among HSAs.

In addition to asserting the need for the CCM program to support HSAs, 11 informants qualified their support of the program by emphasizing the limited scope of CCM. The limitations described by informants included that CCM only addressed minor illnesses and specific conditions, and that HSAs were only allowed to treat children within a certain age range. The comment by one area environmental health officer that "[HSAs] are given a limit and they are performing

within that range, which is good," illustrates the beliefs of several managers that the CCM program should be circumscribed by clear boundaries.

The third manner in which informants qualified their positive assessment of CCM was by reserving their final judgment of the program, especially with regards to the question of whether HSAs are providing a high quality of care. Five respondents indicated that they felt it was too early for them to judge the impact or quality of the CCM program, or that they wished to see data to make a judgment.

Village doctors or stopgap measures? During focus group discussions, HSAs strongly indicated that their new role of operating village health clinics changed how they view their own position in the health system. HSAs explained that, with CCM, the community recognized them as village doctors, and that they viewed themselves as being on more equal footing with Medical Assistants, the primary clinicians at Malawi's health centers. One HSA described the CCM training as having provided him with a new career, indicating a sense of significant change in his role, and a higher status within the health system and the community.

"In the past people [in the villages] used to call us doctors, but with this program, we are real doctors because [we are] giving them medicines and I feel happy that I am a doctor" (HSA).

TABLE 3
Motivating and demotivating factors associated with CCM work, as reported by HSAs, Malawi*

Motivating factors	Demotivating factors
Opportunity to develop new skills	Increased workload and irregular hours
Satisfaction from helping the community caused by curative role	Inadequate drug supply, equipment, and supervision
Increased recognition/appreciation from the community caused by curative role	Lack of assistance in solving problems
Assistance from the community when operating village clinics	Spending personal funds for running the CCM clinic
Allowances received during CCM training and review meetings	Anxiety over community perceptions relating to the CCM clinics (e.g., inadequate drugs, HSAs' inability to treat complicated illnesses and older children)
Perception of higher status for HSAs with a curative role	

*CCM = community case management; HSAs = health surveillance assistants.

Although HSAs expressed satisfaction at the prospect of a more important role in the health system and community, they were frustrated that this perceived change had not been more formally recognized by the health system. A common complaint voiced by HSAs was that their workload and responsibilities had increased but they had not received an increase in salary or incentives. Caregivers could bring sick children to the HSA at any time, and HSAs would have liked to receive allowances for working during the night and on weekends. Some HSAs also expressed a desire for non-monetary recognition of their perceived new role, such as inclusion in meetings with clinicians and new uniforms.

"We expected that after being trained, since we are now part of the curative part, there will be change in our monthly salaries but there is no change. Also we thought we will be given uniforms for our identification that these people are part of the health center of sub medical assistants (laughter from the group), but no change" (HSA).

The HSAs also expressed a wish to go further with the village clinics by treating more illnesses and different age groups, including older children and elders. For some HSAs, these wishes stemmed from a desire to be useful to the community, and other HSAs expressed an interest in receiving more training and skills that they hoped would lead to promotion.

Managers were aware that community members perceived HSAs as doctors, sometimes making little distinction between an HSA and a clinician at a health center. However, managers tended to regard HSAs as non-clinical workers with limited qualifications. Several managers described HSAs as not medically oriented, not clinicians, and not health workers. The manager's view of HSAs as non-clinical workers did not seem to have changed fundamentally with the addition of CCM to the HSAs' responsibilities. When asked his opinion about the CCM training course, one district environmental health officer said, *"It is not complicated as if we are making them become doctors."* As mentioned previously, managers emphasized the limited scope of the CCM program, and some expressed a worry that with CCM, HSAs would become too confident and try to go beyond what the CCM program allows them to treat.

It may appear contradictory that most managers supported the provision of some curative services by HSAs despite believing that HSAs are not clinical providers. This seeming contradiction may be explained by the comments of several managers who justified the CCM program as a stopgap measure that addressed the human resource constraints in Malawi's health system. One IMCI coordinator said, *"HSAs are not clinical providers, they are being used to provide CCM because of the problems we have at hand."* A district health officer described CCM as a good initiative but a less-than-ideal use of low-level health workers.

"This program is there because we want to deal with the crisis that we have in terms of human resources. If we had for example enough nurses who are purely trained community nurses, they could [be the] responsible people to run these clinics and not HSAs . . . To me I think the best way is to make sure that human resources are available and they should be [the] right human resources. I think the community health nurses are the lowest that we can try and do" (district health officer).

This district health officer supported the CCM program, given the deficit of human resources in Malawi's health system, but he would have preferred to have community health

nurses provide community-level curative services. Other less frequent justifications that managers cited for HSAs providing clinical services were: 1) that the government has an ethical obligation to provide community-based services such as CCM, which was described by one DEHO as being *"a program which deserves to be supported, because it addresses the poorest of the poor . . . so it's a human rights intervention;"* and, 2) that HSAs were providing medications that community members could have purchased themselves in local shops.

Although many managers did not regard HSAs as clinical workers, most manager-level informants expressed a belief that most HSAs are meeting performance expectations for CCM. Most managers also made positive comments about the CCM training course, and a few indicated that they believed that HSAs might have been providing better care than patients would otherwise receive at the health center. These managers were impressed by the amount of time HSAs spent with each patient, and their thoroughness. A pharmacy technician assessed CCM quality as follows.

"There is quality of care [at CCM clinics] because they [HSAs] do not see many patients . . . they have time to examine the patient unlike at a district hospital where there is a long queue" (pharmacy technician).

Many managers also expressed a desire to see the CCM program grow. Eleven managers stated that more HSAs should be trained to provide CCM, and two managers believed that HSAs should treat patients of older ages, and one administrator believed that HSAs should provide a broader range of clinical services.

Motivating and demotivating factors for HSAs. Comments made by HSAs during focus group discussions indicate that CCM work provides unique motivational factors beyond those that HSAs find in their traditional prevention work (Table 3). The HSAs expressed satisfaction at learning new skills and being useful to the community. In particular, HSAs reported receiving more appreciation from the community as a result of their CCM work.

"I am always happy when I hear from the caregiver that the child is now OK since I gave the child medicine. And [I] am so popular in that village because I am treating under-five children who have uncomplicated illnesses; those that are serious we refer and they come [to the health center] to get treatment. When the child is healed we are praised because we wrote a referral letter for them" (HSA).

Other HSAs described their pride at helping others, including their friends in the community, and their belief that they were contributing to the social and economic development of the country by operating village health clinics. Finally, the opportunity to receive allowances during training and review meetings was cited as a motivating factor by HSAs.

The HSAs also experienced new frustrations and burdens associated with their village clinic work. By far the most frequently mentioned demotivating factor for the HSAs was the perception that they were given a large responsibility without receiving the support needed to help them meet expectations. The specific issues involved in this type of complaint were many and varied; for example, different HSAs believed that they needed shelters for holding village clinics, materials for infection prevention, and more feedback and corrections from supervisors. Several HSAs described their frustration

as resulting from broken “promises” and/or neglect by CCM program managers.

“We are human beings and we need to be corrected or appreciated on what we are doing because this helps us to change or know that we are doing better. As of now we are just working but we don’t know whether we are doing better or not because they don’t come to supervise” (HSA).

Several HSAs complained that supervisors do not respond to their complaints, and that despite making supervisors aware of their needs, their needs went unaddressed.

The second most frequent challenge reported by HSAs operating village health clinics was a conflict between CCM policies and community expectations. The HSAs reported that they received pressure from community members to treat children more than five years of age and even adults. The HSAs worried about the damage that may occur to their relationship with the community by refusing to treat patients that are outside of the CCM age limits. One focus group participant said that if an HSA turns people away, *“they think you are a tough person and as a result people hate you.”* Insufficient supplies, especially drugs, were also said to strain the HSAs’ reputation with the community. Several HSAs expressed a desire for program managers to provide them with more assistance in communicating CCM policies to the community and in managing community expectations.

Additional burdens of CCM reported by HSAs related to time, finances, and safety risks. Most HSAs reported that the CCM program had increased their workload. During CCM training, HSAs were advised to select specific days during the week for holding village clinics. However, HSAs report that due to pressure from patients, they are not able to restrict the days and times when they do village clinic work. Having to attend to patients late at night and on the weekend was one of the most common complaints from HSAs. However, managers cited 24-hour access to care as a benefit and expectation of the CCM program. The HSAs also complained about the time burdens associated with completing multiple patient records and traveling long distances to the health centers to restock drugs. Aside from time burdens, HSAs reported paying out-of-pocket for transport to collect drugs and lamp oil and candles to see patients at night. Considering personal safety, some HSAs reported fears that they may contract infections from patients, or that attackers may try to steal their drug supplies.

Reports of resistance. Although the informants in this study all indicated positive responses to CCM, managers from three districts and HSAs from two districts did report incidents of resistance to the program. Each reported incident involved medical assistants at the health center, who either refused to support the program or to provide drugs to HSAs. Some HSAs also accused medical assistants of being selfish by withholding adequate supplies of drugs even when they had sufficient stock to fully supply HSAs. Most managers who reported medical assistants’ resistance to the program attributed this behavior to insufficient orientation of medical assistants at the start of the program or to staff turnover. Only one manager, a district environmental health officer, stated that medical assistants felt threatened by CCM, which could be considered an erosion of their influence. In all reported cases, the resistance was overcome by the district managers’ efforts to convince skeptical medical assistants to support the program. These interventions included an informational meeting

for all medical assistants in one district and individual contacts with resisting medical assistants in two districts.

DISCUSSION

This study developed an initial understanding of health workers’ perceptions about the CCM program in Malawi through qualitative interviews and focus groups with a broad range of district health workers involved in early CCM implementation. Most participating health workers, both managers and HSAs, responded positively to the introduction of the CCM program in Malawi, regardless of whether the district was high-performing or low-performing in terms of supervision and drug supply for CCM. Managers and HSAs agreed that CCM addressed health system needs by expanding access to the underserved and reducing caseloads at health facilities. The HSAs reported an increase in feelings of usefulness, self-esteem, and prestige when operating CCM clinics. These positive perceptions are consistent with those reported in a small number of studies on CCM implementation,^{18,33,34} and are likely to have contributed to the strong early implementation in the six districts included in this study. The positive perceptions of CCM among health workers in these districts contrasts with the stance of some managers in districts not actively implementing CCM and with professional bodies such as the Medical Council of Malawi. Medical Council representatives considered the CCM program to be illegal as late as December 2009, when they voiced their objections to HSAs performing clinical services at a national CCM stakeholders meeting.

Although informants included in this study supported the implementation of CCM, their comments also showed varied and nuanced opinions about the benefits, drawbacks, and success factors for the program. Although HSAs wanted continued expansion of their clinical role, managers preferred to view CCM as a limited mandate, with some characterizing CCM as a stopgap measure. These findings highlight the complex negotiations associated with implementing interventions that imply health systems reforms, particularly with regard to task shifting.

The results of this study provide important lessons for the scale-up of CCM programs. The experience in Malawi shows that clinicians and other health managers can be supportive of the provision of limited clinical services by lower-level health workers. In addition, existing community health workers can benefit from increased motivation and an enhanced relationship with the community when curative services are added to their activities. These findings are positive for the current movements to expand the provision of CCM in sub-Saharan Africa and elsewhere.³⁵ However, policy makers and advocates should take note of the concerns expressed by informants when planning and implementing CCM programs. Managers may be unlikely to support a CCM program if they feel that the scope of curative services is too broad. In addition, CBHWs and managers will have more positive perceptions of CCM programs that ensure a high level of support for CBHWs. When CBHWs perceive that they are given greater responsibility without the necessary support, it is damaging to their motivation and trust in their supervisors.¹² It is therefore important that Malawi’s CCM program work to ensure the consistency of drug supply and frequency of supervision; a survey of CCM clinics in September and October 2009 found that only 69% of HSAs had all the necessary drugs in stock and only 38% of

HSAAs had a CCM supervision visit in the three months before the survey.³¹ If advocates adequately address the concerns of stakeholders, CCM programs hold great promise for improving child health in low-income settings.

The data presented here were collected as a part of a larger study on health systems factors involved in the successful implementation of CCM in Malawi. Our effort to be comprehensive limited the interviewers' ability to extensively probe any one topic. However, through this study we were able to collect data from a broad range of health workers, all of whom played important roles in CCM implementation. In addition, our involvement in larger studies on quality of CCM services and health systems implementation factors provided important contextualizing information. Therefore, this report can be considered an initial exploration of the subject critical for informing further in-depth research in Malawi and other settings. The extent to which these findings are generalizable outside Malawi is not known, and further work is needed to compare CCM perceptions across settings and to assess how these perceptions change over time. Additional research is also needed to understand the perceptions that community members have about CCM services provided by HSAAs, their demand for these services, and compliance with referral to health centers.

On a broader scale, these findings demonstrate the need to place more research and policy attention on the social aspects of implementing task shifting policies such as CCM and assessing their health system effects. Although CCM has proven effective at reducing child mortality rates in controlled intervention trials and programs with limited scope,^{36–39} more health systems research is needed to understand the implication of implementing these interventions at scale in the context of current health systems. Despite the importance of health workers' perceptions in implementing task shifting, this area is inadequately addressed by the current research, which provides more anecdotes than data on stakeholder perceptions.¹⁴ Given the important role that task shifting is expected to play in addressing the human resources for health crisis in Africa, the social and organizational culture implications of task shifting deserves urgent research attention.¹²

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Authors' addresses: Jennifer A. Callaghan-Koru, Adnan A. Hyder, Asha George, Kate E. Gilroy, and Jennifer Bryce, Department of International Health, Johns Hopkins University Bloomberg School of Public Health, Baltimore, MD, E-mails: jcallagh@jhsph.edu, ahyder@jhsph.edu, asgeorge@jhsph.edu, kgilroy@jhsph.edu, and jbruce@jhsph.edu. Humphreys Nsona and Angella Mtimuni, Department of Preventive Health, Malawi Ministry of Health, Lilongwe, Malawi, E-mails: hnsona@gmail.com and angellamtimuni@yahoo.com.

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