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Maternal and Child Survival Program

The Global Fund New Funding Model:

Lessons from Ghana on the Integration of Integrated Community Case Management (iCCM)

Final Report

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Abbreviations

ACT	Artemisinin-based combination therapy
AGAMal	AngloGold Ashanti Malaria Control Program
ARI	Acute respiratory infection
CBA	Community-based agent
CCM	Community case management
CHOs	Community health officers
CHPS	Community-based health planning and services
CHW	Community health worker
DHS	Demographic and Health Surveys
EPI	Expanded Program on Immunization
FTT	Financing task team
GFNFM	Global Fund New Funding Model
GHS	Ghana Health Services
HBC	Home-based care
HMM	Home management of malaria
iCCM	Integrated community case management
IRS	Indoor residual spraying
ITN	Insecticide-treated net
MCH	Maternal and child health
MDG	Millennium Development Goal
MICC	Malaria Interagency Coordinating Committee
MOH	Ministry of health
mRDT	Malaria rapid diagnostic test
MSP	Malaria strategic plan
NHIS	National Health Insurance Scheme
NMCP	National Malaria Control Programme
ORS	Oral rehydration salts
TRP	Technical review panel
USAID	United States Agency for International Development
WHO	World Health Organization

Abstract

This case study reviews Ghana's experience with incorporating integrated community case management (iCCM) into the Global Fund New Funding Model's (GFNFM) concept note for malaria. This case study explores some of the challenges experienced by and lessons learned from the Ghana experience, and discusses broader issues related to the process of developing the GFNFM concept note for incorporating the iCCM. This Ghana case study is part of a series exploring iCCM integration in four other countries: Kenya; Nigeria; Uganda; and Zambia. Their experiences are explored in individual case studies and synthesized in "Leveraging the Global Fund New Funding Model for Integrated Community Case Management: A Synthesis of Lessons from Five Countries."

1. Introduction

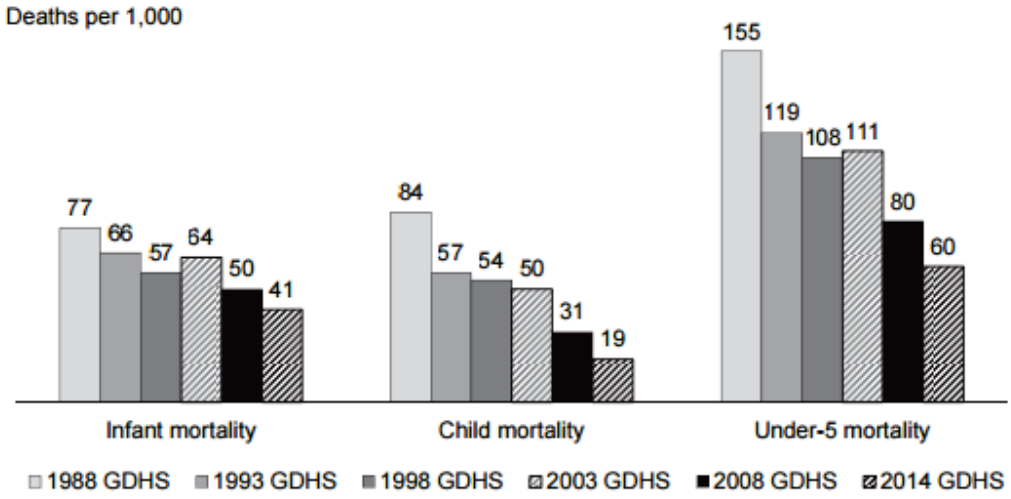
Ghana Health Context

Over the last decade, Ghana has made progress in improving the health of its children. The mortality rate of children under five years of age (under-five) has declined from 145 deaths per 1,000 live births, as reported in the 1998 Demographic and Health Survey (DHS), to 60 deaths per 1,000 live births (Ghana DHS 2014). The rate of 60 is still higher than the Millennium Development Goal (MDG) Four's target of reducing under-five mortality to 43 deaths per 1000 live births (Figure 1). Although infant mortality has seen similar declines, the number of under-five children dying annually in Ghana is still unacceptably high, especially in the rural population. Generally, mortality in urban areas is consistently lower than in rural areas. For example, the under-five mortality rate is as low as 50 deaths per 1,000 live births in the predominantly urban Greater Accra region, and as high as 142 deaths per 1,000 live births in the mostly rural Upper West region.

Diarrheal disease, malaria, and pneumonia are among the leading causes of morbidity and mortality in under-five children (Figure 2). Fever due to malaria is the leading cause of outpatient attendance and mortality, while diarrhea and pneumonia together are estimated to account for nearly a quarter of under-five mortality (MOH/Ghana Health Services 2014).

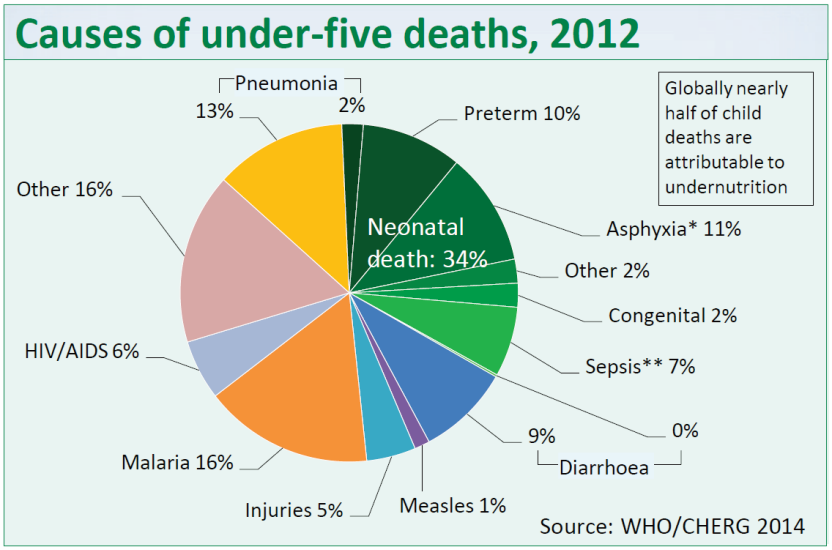
The rate of seeking health care for under-five children is low, especially in rural areas. The 2014 Ghana DHS report indicates that in the two weeks preceding the survey's administration, only about 50% of the children with symptoms of diarrhea, fever, and acute respiratory infection (ARI) were taken to a health facility or appropriate health care provider. Additionally, according to the 2011 Multiple Indicator Cluster Survey, use of artemisinin-based combination therapy (ACT) was lower among rural, under-five children with fever (13.3%) compared with urban, under-five children (27.6%). Most children with poor access to ACT treatment come from poor households (33.9% in the rural community, and 9.5% in the urban community), and reside in hard-to-reach/rural communities (Global Fund Concept Note 2014, p 4). Furthermore, the verbal autopsy component of the 2008 DHS indicates that roughly half of the under-five deaths occurred at home, suggesting a low tendency to seek health care from trained providers. These factors highlight the importance of providing preventive, diagnostic, and treatment services to families in the communities where they live—especially in remote communities far from a health facility—and taking an integrated approach to address leading causes of under-five mortality.

Figure 1. Trends in infant, child, and under-five mortality (2008–2014)



Notes: Ghana Demographic and Health Survey (GDHS)

Figure 2. Causes of under-five mortality in Ghana



Source: Countdown 2014 Report

Notes: World Health Organization (WHO); Child Health Epidemiology Reference Group (CHERG)

Health System Organization

Health services in Ghana are delivered through a three-tier system: primary; secondary; and tertiary. Ghana operates an integrated but decentralized health service system, especially at the district level. At the primary level, community-based services are provided through a community-based health planning and services (CHPS) system where community health officers (CHOs) work with community volunteers, traditional community leaders, and community-based structures to increase access to an integrated package of health services, including those for malaria. A typical district with a population of 100,000 has one hospital, five health centers, and 10–15 CHPS zones (MPR 2013, 58-59). A CHPS zone refers to the catchment area for a CHO. The CHO operates from a base (the CHPS compound) that consists of a two-room facility with equipment for basic curative services. More than 70% of all Ghanaians live over eight kilometers from the nearest health care provider, (Ministry of Health of the Republic of Ghana. 1998) a problem worsened by

inadequate roads and transportation. In 1999, the CHPS program was launched to address this challenge by providing access to community health nurses in communities of at least 6,000 people. Since its inception, CHPS has scaled up from having 300 functional CHPS zones in 1999 to 1,863 in 2012. However, this is just about a 50% coverage of eligible areas. For this reason, iCCM has been adopted to extend health care to under-five children in underserved communities.

At the highest level, the Ministry of Health (MOH) is broadly responsible for formulating health policy, setting standards for health care delivery, sourcing and distributing health service funds and supplies, and coordinating health sector agencies, partners, and public and private sector health care providers. The Ghana Health Service (GHS) is an autonomous executive agency responsible for the implementation of national policies and services (MOH March 2014 p 10). The MOH monitors and evaluates performance of the GHS. Within the GHS, the Family Health Division houses the maternal and child health unit, which is responsible for iCCM, and the Public Health Directorate has purview over the National Malaria Control Program (NMCP). Until 2008, when the Family Health Division was created, both malaria and maternal and child health (MCH) services were housed under the Public Health Directorate.

The Role of iCCM

The iCCM is a strategy to extend case management of childhood illness beyond health facilities so that more children have access to lifesaving treatments for the most common causes of mortality and morbidity.[1] In the iCCM model, community health workers (CHWs) are identified and trained in classifying and treating key childhood illnesses, and also in identifying children in need of immediate referral to another level of care.[2] In Ghana, community-based volunteers work hand in hand with health extension workers to identify and treat common childhood illnesses in the community, and refer patients to either the CHPS zone or health care center (Figure 3).

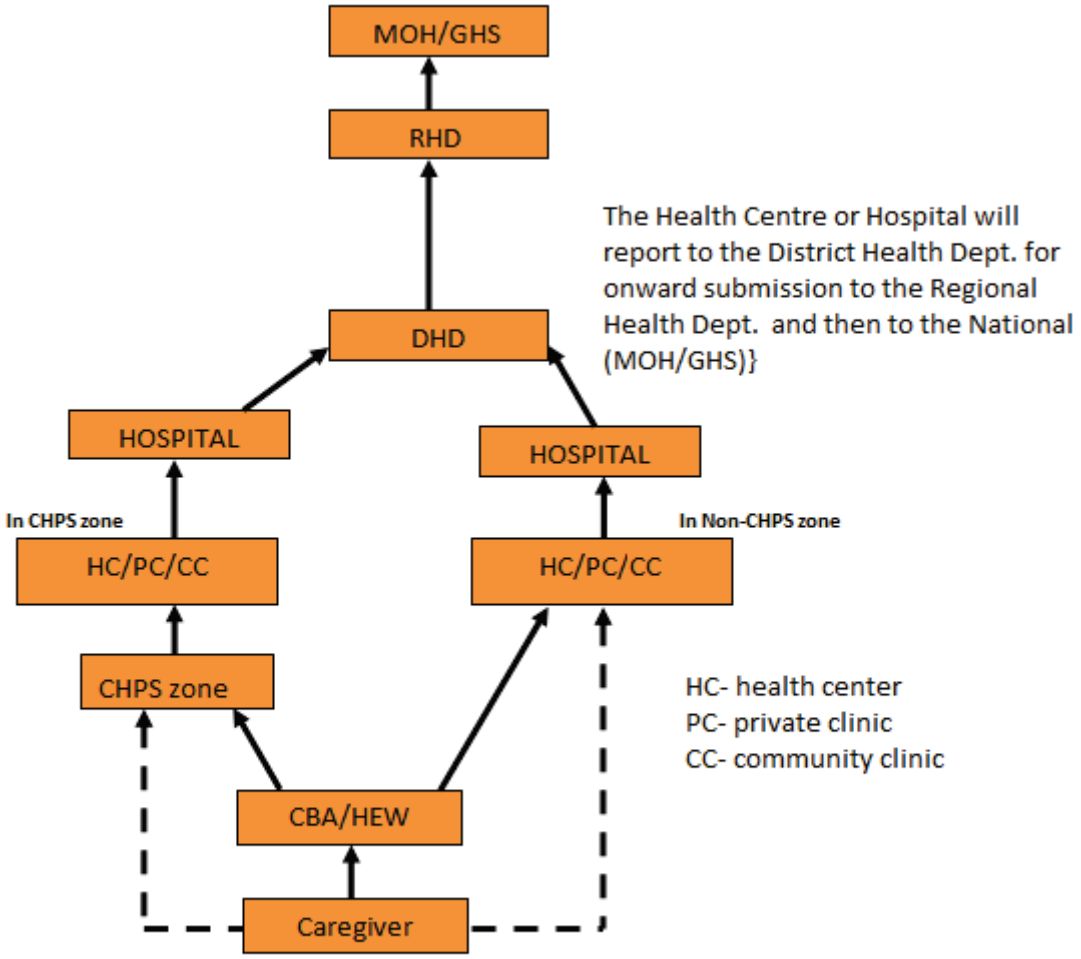
Community case management (CCM) of malaria has been accepted and is in place in malaria-endemic areas. CCM provides prompt diagnosis and effective treatment as an alternative for self-management of fever cases (i.e., for persons with fever who would seek care from sources outside of the traditional health care system: pharmacies; informal drug sellers; or outlets). The iCCM seeks to add treatment of pneumonia to the CCM of malaria, and strengthen treatment of diarrhea at the community level. The case for tackling the main childhood killers *together*, as part of a common platform, is compelling for several reasons:

1. Co-infection (of malaria and pneumonia, for example) in children is common.
2. Symptoms of fever, cough/fast-breathing, and loose stool can be manifestations of malaria, pneumonia, or diarrhea.
3. Ability to manage non-malaria fever reduces the risk of using anti-malarial treatment for non-malarial illnesses.
4. Potentially fatal conditions, such as pneumonia, are often brought to the attention of CHWs first as first-line caregivers. When a CHW cannot manage a condition, caregivers sometimes resist referrals to a health facility, leading to delayed treatment and worsening conditions. Due to demands and pressure from the caregiver, or the need to show competence, a CHW will often give anti-malarial treatment even

[1] Newborn health and malnutrition are also commonly included as a part of iCCM.
[2] To learn more, see CCM Central and Gove 1997. iCCM is typically delivered by community health workers (CHWs) at the community level and encompasses treatment for: (i) childhood pneumonia with antibiotics; (ii) diarrhea with zinc and oral rehydration salts (ORS); and (iii) malaria with artemisinin combination therapy (ACT). The joint statement on iCCM also supports the identification (but not treatment) of severe acute malnutrition, and home visits (but not treatment) for newborns (UNICEF 2012) (see Bennett et al).

when a malaria test is negative. Thus, sick children benefit when CHWs can detect and treat conditions in addition to malaria.

Figure 3. Implementation and reporting of integrated community case management in the Ghana Health System



Notes: Ministry of Health (MOH); Ghana Health Services (GHS); community-based health planning and services (CHPS); Regional Health Directorate (RHD); District Health Directorate (DHD); health center (HC); private clinic (PC); community clinic (CC); community-based agent (CBA); and health extension worker (HEW)

iCCM Integration Supported through The GFNFM

One mechanism for supporting iCCM integration is through the GFNFM. Approved in October 2013, the GFNFM allows the use of Global Fund money not only for the CCM of malaria, but also to support costs of training CHWs, strengthen supply chain systems, and to monitor and evaluate CCM of non-malarial childhood illnesses (such as diarrhea, pneumonia, malnutrition, etc.) supported by national policies and justified by epidemiological evidence.

To support countries to take advantage of the GFNFM opportunity, members of the iCCM Task Force established the iCCM Financing Task Team (FTT). The iCCM Task Force is an association of multilateral and bilateral agencies and nongovernmental organizations (NGO) working to promote integrated community

level management of childhood illness. The FTT includes UNICEF, United States Agency for International Development (USAID), One Million Community Health Worker Campaign, Save the Children, American Red Cross, Maternal and Child Health Integrated Program, Clinton Health Access Initiative, and the Office of the United Nations Special Envoy for Financing of the Health MDGs. The FTT works to ensure that countries received technical assistance to complete iCCM gap analyses and concept notes for the GFNFM.

As part of this effort, the USAID supported technical assistance to five countries, including Ghana, to develop a GFNFM concept note for malaria, with the goal of including iCCM.[3] This report reviews Ghana's experience with this process, specifically:

- The degree to which the process between malaria stakeholders and advocates of iCCM, including stakeholders in the child health and community health units of the central MOH, was collaborative (and how). What were the factors that either enabled or constrained collaboration and inclusion of iCCM in the malaria reprogramming request?
- What was the outcome of the process and what are plans for joint implementation?
- In the future, what areas would stakeholders like to see improved to support implementation of integrated programs (malaria/iCCM)

Methods

The report draws on 12 key informant interviews conducted in Accra, Ghana from February 13–18, 2015, and another follow-up interview conducted via Skype on April 28, 2015. Attempts were made to contact four additional informants for follow-up interviews, but only one informant was available (see Annex for details). Respondents consisted of a mix of child health and malaria stakeholders from the GHS, and representatives from UNICEF, USAID, and the Country Coordinating Mechanism. A review of key literature was also conducted.

This assessment has several limitations. Among them is the limited data collection and analysis by the sub-consultant responsible for the Ghana assessment, which could not be wholly made-up for in follow-up interviews. This was further compounded in 2014 by the passing of the consultant who conducted the program and financial gap analysis for iCCM, and the non-availability of the lead consultant for malaria. In other country assessments, the consultants, having been involved in the full process, have provided valuable information to balance the perspectives of other informants who are normally not aware of the full process of developing Global Fund concept notes. Though reports of the iCCM consultant have been reviewed, they are not as valuable as speaking with a person and asking them to reflect on what is written in a report. Lastly, Ghana experienced a major fire disaster at its central medical stores two weeks before the assessment, making it difficult to schedule and keep appointments for interviews, as key informants were being called away to emergency meetings.

[3] UNICEF also supported technical assistance in 14 countries.

2. iCCM in Ghana

In Ghana, iCCM is defined as prevention, early case detection, and appropriate and prompt treatment and/or referral of malaria, ARI, and diarrhea in the community (Box 1) Since 2010, Ghana's iCCM policy has allowed volunteer community-based agents (CBAs) to treat pneumonia at the community level with antibiotics, and also to treat diarrhea with zinc (UNICEF 2012, p 26). As part of their broader responsibilities, CBAs also distribute insecticide treated nets (ITN), promote intermittent preventive treatment during pregnancy, and sensitize communities about indoor residual spraying (IRS). CBAs also conduct other health promotion activities, such as promoting hand washing and proper food handling to prevent diarrhea (Integrated Community Case Management for Malaria, ARI, and Diarrhea in Ghana—Implementation Guidelines April 2014).

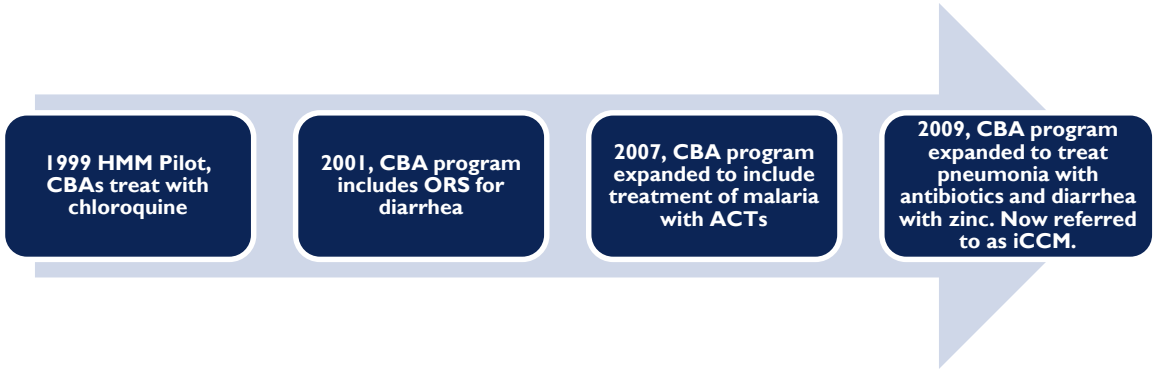
The iCCM in Ghana emerged out of a decade spent evolving approaches to community-based health promotion. In 1999, home management of malaria (HMM), a program in which CBAs dispensed pre-packed chloroquine to treat fever, was implemented on a pilot basis as part of a multi-country study funded by the Tropical Disease Research Program of the World Health Organization (WHO). The intervention was successful and increased the compliance rate of health care-seeking behaviors to 91% (Browne et al, 2001, Integrated Community Case Management for Malaria, ARI, and Diarrhea in Ghana—Implementation Guidelines April 2014).

In 2001, UNICEF began supporting the GHS to implement the Accelerated Child Survival and Development program in the Upper East region. Under this program, CBAs were trained and deployed to promote a package of family health, nutrition, and hygiene practices—collectively referred to as home-based care (HBC). During the early years of the program, the only treatment service that CBAs were able to provide was oral rehydration salts (ORS) for diarrhea. In 2007, approval was given by GHS to allow CBAs to treat malaria cases with ACTs. During 2008 and 2009, this extended package was rolled out to Ghana's three northern regions. In 2010, national policy changed to allow CBAs to treat pneumonia at the community level with antibiotics, and also to treat diarrhea with zinc (UNICEF 2012, p 26). Meanwhile, the intervention was termed iCCM by UNICEF and other multilateral agencies aligned with international trends.

Box 1. Quick facts: Integrated community case management (iCCM) in Ghana

- Year of iCCM introduction: 2010
- iCCM package: Treat diarrhea with zinc and oral rehydration salts (ORS); treat pneumonia with Amoxicillin; community-based agents (CBA) test for malaria with mRDTs and treat with artemisinin-based combination therapy (ACT)
- Coverage: 51 out of 216 districts
- iCCM elements included in Global Fund concept note: platform costs to scale up iCCM—specifically to support training and supervision of CBAs—and iCCM committee meeting
- Implementation arrangement: Ministry of Health (MOH)/Ghana Health Services (GHS) as Global Fund principal recipient for iCCM

Figure 4: Evolution of integrated community case management (iCCM) in Ghana



Notes: Home management of malaria (HMM), community-based agent (CBA); oral rehydration salts (ORS); and artemisinin-based combination therapy (ACT)

This policy evolution mirrors what was happening at the global level: WHO recommended an integrated approach to managing childhood illnesses causing mortality in under-five children at facility and community levels. With UNICEF support, iCCM has been implemented in 55 out of 216 districts as of 2012.[4]

In Ghana, CBAs are selected from a cadre of surveillance volunteers or other health program volunteers who are already working in the communities. Where there are no volunteers, the communities select their own agents based on clear criteria.

Some regions, particularly in the north where there are high illiteracy rates and fewer functional CHPS zones, zonal coordinators are deployed to visit CBAs each month to provide supportive supervision and collect reports. The zonal coordinators are selected among literate volunteers, and to effectively support the CBAs, are trained on the basic package of iCCM as well as on data management and supervision. The use of zonal coordinators appears to be working well in the implementation of most activities of community volunteers in the Northern region, including community-based disease surveillance, guinea worm surveillance, pregnancy, expanded program on immunization (EPI) registration, vital registration of births and deaths, and data capture and collation for iCCM (UNICEF Ghana, Health and Nutrition Section) (UNICEF systematic review) (UNICEF 2012).

In Ghana, some CBAs collect user fees for iCCM services. The GHS allows a small mark-up on drugs provided by CBAs.

Ghana's policy environment is supportive of iCCM, and iCCM is a key component of both the national Malaria Strategic Plan (MSP) for 2008–2015 and Integrated Management of Neonatal and Childhood Illness. In 2011 , the government created an HBC technical committee for diarrhea, malaria, and pneumonia. It was renamed iCCM, and is chaired by the National Child Health Coordinator, who is part of MCH and supported financially by the National Malaria Control Programme (NMCP). The HBC technical committee includes representatives of government departments, donor partners, and implementing nongovernmental organizations (NGOs); and key among these are UNICEF, USAID, WHO, and the One Million Community Health Workers Campaign. The committee meets quarterly, although respondents in this assessment reported that these meetings have become irregular, partly due to lack of funds to organize them and the members' lack of free time to attend the meetings. This committee will be responsible for monitoring the implementation of iCCM scale-up using resources from the Government of Ghana, Global Fund, and other partners.

[4] The number of districts increased from 170 to 216 in June 2012.

3. The Process of Developing the GFNFM Concept Note that Integrated iCCM

The writing process for the GFNFM Malaria concept note (Figure 5) built on the review of the MSP 2014–2020), which was completed between March and April 2014, and followed recommendations from the Malaria Program Review (MPR) that was conducted between January and June 2013.[5] During this same period, Ghana hosted the iCCM Evidence Review Symposium, which drew stakeholders from around the globe and sub-Saharan Africa. The Evidence Review Symposium was immediately followed by a two-day iCCM gap analysis workshop, also in Accra. Participants in these meetings included representatives from the MCH directorate and NMCP. At this workshop, the Ghana team conducted a preliminary gap analysis and, says one informant, "Armed with the knowledge and lessons from these two meetings, stakeholders in Ghana were eager to integrate iCCM into the malaria program."

The concept note writing process was led by the NMCP, under the auspices of the Country Coordinating Mechanism. A retreat to write the concept note took place on May 19–23, 2014. Both the international iCCM consultant (hired by MCHIP with USAID support) and a local consultant (hired by Roll Back Malaria) took part in that retreat.

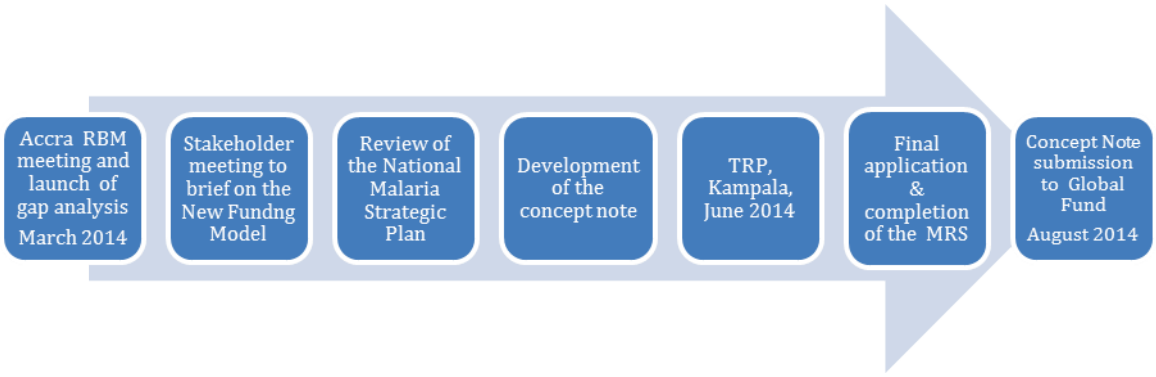
According to an informant, these consultants brought different and synergistic strengths. The international consultant, who was tasked with creating an iCCM gap analysis, "Understood how the concept note needed to be framed. He ended up working on the broader concept note, as well." The local consultant, who was the previous director of the Public Health Directorate of MOH (when it included MCH), knew the issues and stakeholders well. Said one informant, "The HBC committee reviewed the terms of reference of these two consultants and agreed as a body that they needed to work together, as one entity."

Stakeholders were engaged by the NMCP in discussions through a participatory approach. Plenary sessions were held during the write-up of the plan, and a review mechanism was put in place to address concerns and issues from the plenary sessions. The iCCM's focal point person from GHS participated, although the NMCP provided overall leadership for the process.

The complete concept note was reviewed at the mock technical review panel (TRP) in Kampala in June 2014. Comments provided by the team of experts and peers at this mock TRP were incorporated into the concept note, which was submitted in August 2014.

[5] The key intervention areas of this seven-year strategic plan are: integrated vector management; malaria case management, including malaria in pregnancy, integrated community case management, seasonal malaria chemoprevention, and the private sector co-payment mechanism to expand access to quality, assured affordable ACTs and diagnostics. Integrated support systems will include advocacy and behavior change communication; procurement and supply management; health systems strengthening; monitoring and evaluation; governance and program management; partnerships and resource mobilization (Ghana Malaria Strategic plan 2014-2020).

Figure 5. Process for writing the malaria concept note



Notes: Roll Back Malaria (RBM); Technial review panel (TRP); and Malaria Program Review(MPR)

iCCM Activities Approved and Funding

The outcome of the above activities (Figure 4) was twofold. First, both the 2014–2020 MSP and the malaria concept note refer to iCCM as one of the priority strategies for hard to reach communities and vulnerable populations. The MSP proposes investment in five priority areas, which include iCCM in the case management component, and the MSP notes: "Currently, community management of malaria is part of the package for iCCM, which includes management of ARI and diarrhea." Second, the concept note includes a request to support iCCM platform costs. Ghana submitted the Malaria concept note to the Global Fund on August 13, 2014, with a total requested budget of $605 million for 2014–2017. Most of the funding came from reprogramming existing Global Fund money for malaria. New funding was limited, which influenced how much could be allocated to the iCCM. The iCCM prioritized activities within the implementation period (2015–2017) to include development and deployment of tools; training and supervision of CBAs; training of supervisors in iCC; and quarterly iCCM committee review meetings. Unofficial sources (as of May 2015) indicate that a total of $4,378,452 was approved for iCCM scale-up[6].

Table 1: Summary of funding need and eligible Global Fund gaps for iCCM in 10 regions

Total iCCM gap (national strategic plan 2014–2017) needed for national scale-up	Funding available from government and partners	Funding gap	Request Global Fund indicative[7] funding	Request incentive funding
$10,597,084	$512,058	$10,085,026	$2,378,452	$2,000,000

Note: Integrated community case management (iCCM)

Concerns Raised During Concept Note Development

There were several issues raised during the process of developing the concept note. Some informants raised the issue of governance and questioned how implementation of iCCM would be integrated with other community-based activities, specifically the CHPS. A GHS informant in the Planning, Monitoring, and Evaluation Unit noted that iCCM has been implemented through a parallel community structure with a

[6] iCCM Financing Task Team dashboard, v April 2015.

[7] "In the new funding model, there are two types of funding available: the indicative allocation amount and above allocation funding. The country indicative allocation refers to assured country envelope while 'above allocation' is a request for extra money from a competitive vote to reward ambitious and strategic requests as evaluated by the GF. It is made available, on a competitive basis, to applicants in the same band whose requests are based on robust national strategic plans or a full expression of prioritized demand for strategic interventions, based on a program review." Refer to Global Fund website: FAQs for a detailed description. http://www.theglobalfund.org/en/fundingmodel/

separate set of volunteers, and not through CHPS' CBAs/CHOs. This informant suggested that there is a need to harmonize these structures and streamline budgets. Another informant noted that the vertical structures within the GHS make the integration of iCCM under the CHPS system problematic. Ghana's head of state has keen interest in the CHPS strategy. At the time of this assessment, a workshop was being planned to decide the home of the CHPS program (either the office of the president or the GHS).

There were also concerns about weak coordination in general: "Coordination among stakeholders was challenging. I still don't know what the other donors are doing on iCCM…there appears to be vertical thinking. Most donors cannot be flexible with their mandate in country….. Government should be taking ownership of this program, but all activities are seen in Ghana as donor-driven." Despite having the MICC and the HBC technical committee, coordination remains a challenge.

Deciding how much Global Fund money to allocate to iCCM was not easy to agree upon because most of the malaria allocation was from reprogramming previous Malaria Global Fund grants. Malaria stakeholders were reluctant to allocate a significant amount from their already tight budget to iCCM. A representative of the Country Coordinating Mechanism noted that: "The country funding envelope was determined before the iCCM gap analysis. Allocations within the malaria priorities were fixed. The Country Coordinating Mechanism couldn't interfere with decisions about resource allocation as these resources already resided with Principal Recipients for reprogramming in the country. With iCCM it was a tug of war. Limitations in funds are hampering universal coverage in Ghana." A child health expert echoed this point: "At the iCCM Symposium in Ghana last year, this funding gap issue was strongly highlighted in Ghana's presentation and soon after the opportunity to develop the concept note came. This was greeted with much enthusiasm as the MOH hoped that finally this funding gap would be filled. This hope has been dashed and the country feels very frustrated—how will you continue to train community volunteers and ask them to refer cases and not provide them with commodities to direct case management? We are back to square one." The iCCM focal person at the GHS also noted that, "Everything else about iCCM was included in the concept note except medicines for diarrhea and pneumonia, and this is bringing down the program."

4. Looking Ahead: How will iCCM be Implemented?

The GFNFM program will be implemented by two principal recipients: the MOH/GHS and the AngloGold Ashanti Malaria Control Programme (AGAMal). These two recipients represent the government and nongovernmental sectors respectively. AGAMal will implement the module on IRS, while the MOH/GHS will be responsible for the other modules. The sub-recipients are yet to be identified.

The Country Coordinating Mechanism will ensure that the principal recipients implement, as per the grant agreement, working through its Malaria Oversight Committee. The MICC, which is an advisory committee for malaria control in the country, will work to ensure there is proper coordination and harmonization. Additionally, both principal recipients will be represented in the working groups under the MICC related to their area of work to ensure standardization and improved coordination. However vertical planning and coordination seems to threaten the synergy of iCCM implementation in the field. The majority of child health structures are within the MOH and the child health unit, which hosts the iCCM secretariat, is under the GHS and chaired by the Director of Child Health; but, the NMCP actually leads the implementation of iCCM in the field. The Policy Planning, Monitoring, and Evaluation is the institutional home for the CHPS malaria case management program. As mentioned above, there are parallel structures for iCCM and HBC service deliveries at the community level. While stakeholders are optimistic that this will soon be resolved, there appears to be a challenge to move iCCM forward collaboratively.

Challenges Ahead—Areas Where Further Support Is Needed

Implementation and Scale-Up

The scale-up strategy is not clear among partners. The national strategic plan proposes a national scale-up to all 10 regions, but the lack of confirmed commitment to provide non-malaria commodities will limit this progress. UNICEF currently supports iCCM in four regions and has committed to increase this support to six regions. The consensus seems to be that Global Fund money should be used to support the HBC strategy, to focus in areas where CHPS is not yet fully functional.

Commodities

The first challenge concerned the availability of non-malaria commodities. When asked how funding gaps for non-malarial products will be bridged, an iCCM focal person said: "I don't know. I seriously don't know. I think that UNICEF should have done better than they have done. That conversation should have happened before the concept note." There are some stakeholders who are also concerned about the future pipeline of malaria commodities: "A major drawback is that Global Fund says they will no longer supply malaria commodities because Ghana is a middle-income country and should be able to part-fund. But the current downturn in Ghana's economy may be a setback." Additionally, although an integrated, sector-wide supply and procurement management system exists, there are challenges that result in delays in procurement and stock-out of essential commodities, and inadequate pre- and post-shipment inspection of malaria commodities (GHS MSP 2014).

CBA Motivation

The second challenge identified by informants and literature review relates to motivation of CBAs. Several respondents across organizations noted the need to institute an incentivizing system that would reward and

compensate CBAs for their work. While some argue that both financial and non-financial incentive schemes should be considered to reward and motivate deserving CBAs for investing time and energy to iCCM work, others opine that incentives should be non-monetary for sustainability. Some stakeholders suggested that district health authorities, district assemblies, and other relevant stakeholders should establish systems that will motivate CBAs in their various communities. The iCCM Implementation Guidelines provide guidance on cost recovery as follows: anti-malaria drugs should be provided free of charge; ORS, zinc, and amoxicillin should be free to clients under the National Health Insurance Scheme (NHIS); and while other products like contraceptives, condoms, and ITNs should be subsidized. The guidelines indicate that monitoring adherence to these terms might be a challenge, and also that the NHIS is not yet operational nationwide.

Data and Reporting

This assessment revealed that some of the challenges of the GHS, which impact the malaria control program, include weakness of the health management information system and inequitable distribution of human resource. These factors will also impact iCCM implementation.

CBA and Cost Recovery

Since 2003, the government has introduced the NHIS to address financial barriers to treatment that arise from out-of-pocket payment at the point of service. Some informants expressed concern that the impact of iCCM could be diluted if patients are required to pay for iCCM services in their communities. In this case, patients who are covered through the NHIS may choose to travel to distant health facilities and receive services for free. Yet, the travel costs and inconvenience of time away from home may impose a burden on families and will most likely result in delayed care-seeking. Some have proposed linking iCCM to the NHIS. Health centers and CHPS zones are accredited under the NHIS and refunded for services provided. It is suggested that when iCCM is linked with the NHIS, CBAs would be assigned to facilities and reimbursed by these facilities.

5. Analysis: What Worked and What Didn't

What Worked Well?

A number of factors enabled the successful integration of iCCM into Ghana's Global Fund Malaria Concept Note. As mentioned earlier in this report, Ghana has a policy environment supportive of iCCM. The country's previous experience implementing HBC/iCCM with UNICEF support provided important lessons about implementation. Also, the existence of a platform of CHPS and CBAs on which to implement iCCM also helped to spur buy-in for iCCM.

The country also had leaders who advocated for iCCM integration. Said one informant: "Integration was pushed by the NMCP manager and the national Child Health coordinator." Several informants also noted malaria stakeholder appreciation for the value of iCCM. One informant noted: "In Ghana, providers often treat each febrile case as malaria and this is not advisable. The opportunity for diagnosis, treatment at community level and referrals is good practice." The malaria concept note mentions a key challenge of over-consumption of ACTs due to presumptive diagnosis of malaria. (FundingModel_StandardConceptNote_GHANA. 2014 p. 11).

Additionally, several informants noted that the process of developing the concept note was smooth. This was attributed to seasoned and experienced staff. Informants noted that overall, the Ghana health sector has maintained continuity in staffing pattern and this has stabilized the system. "Staff are not arbitrarily removed…in Ghana when you are doing well, no one harasses you. This has helped with iCCM implementation."

Another informant said that stakeholders worked well together: "Communication helped in breaking down formalities that easily become barriers between organizations which should be working to achieve the same goals. Reports were shared. People took responsibilities seriously. The Child Health unit was always kept in the communication loop and the consultants fed back [information] constantly."

Respondents also said the technical assistance was useful. The local and international consultants "worked together really well to convince people." Other positive feedback about the consultants includes:

> "The consultant who supported the concept note process worked in an integrative manner. Apart from engaging with stakeholders as a group, he followed up with smaller meetings with organizations at their locations to have a one-on-one with them."

> "In comparison to previous Global Fund concept note process for malaria, the level of consultations now was good. Apart from the external consultant, there was a local [person providing short-term technical assistance]… who knew the Ghana context, so that was a good mix."

What Didn't Work Well

Despite the positive feedback about the hiring of consultants and keeping stakeholders informed, the process was not as inclusive as it could have been. A few informants reported that the iCCM gap analysis report was not disseminated; so, they were unaware of the details about the costing. This is in part explained by the fact that not everyone attended all the meetings and when alternate staff attends meetings, there are gaps in reporting back. The iCCM consultant's trip report, for example, specifically mentions a meeting held to debrief stakeholders on the gap analysis.

Finally, some informants voiced frustration about the bureaucratic steps necessary to go through for the Global Fund: "Even though it was obvious who the principal recipients were going to be, the Global Fund still required the country to go through a tender process. We complied and got MOH and GHS endorsed…we originally thought the process will be simple, but it was very complex decision making, prioritizing, extending stakeholder participation through country dialogue."

Another said, "We are struggling with our priorities and you tell us to start costing ineligible items…what's the need? At each time the process keeps expanding in scope and demands...the documentation requires a lot of will and support from the country team, country dialogue, gap analysis, etc. Meetings were many and if quorum [was] not formed, decisions taken [were] not binding."

6. Conclusion and Recommendations

Ghana was able to successfully integrate iCCM into its Global Fund concept note for malaria. This is reflected in both the language of the MSP (2014–2020) and in the concept note. The iCCM committee has proposed a scale-up of iCCM services from the current four regions to all ten regions between 2014 and 2017, and prioritizing districts that do not yet operate the CHPS system. While the Global Fund will meet the systems-strengthening costs associated with iCCM, the government is looking for commitments from partners to meet the costs for iCCM medicines and commodities.

Factors that facilitated iCCM/malaria integration included an enabling policy environment, country buy-in and leadership, and the quality of technical assistance. Concerns remain, however, about procurement and supply chain management, coordination of implementation, CBA motivation, and the current system of cost recovery by CBAs.

Overall, despite Ghana being among the early adopters of the iCCM strategy, implementation of iCCM has only occurred in 25% of the 216 districts. Based on this assessment, Ghana seems to lack a champion to ensure resource allocation for the scale-up of iCCM.

From this assessment, some recommendations have emerged for the country and global partners involved in supporting the integration of iCCM into GFNFM.

Country-Specific Recommendations

1. The MOH and GHS should clarify the responsibilities that the NMCP and the child health unit have for implementing iCCM, and for coordinating with departments responsible for managing the CHPS.
2. Ghana should present the iCCM gap analysis results to stakeholders to increase their understanding of both program and financial gaps, and to build support for targeted domestic and external resource mobilization for the scale-up of iCCM.
3. The MOH and partners should commit funds to procure non-malaria commodities to ensure the scale-up of iCCM to underserved communities, and to strengthen the overall supply chain management.
4. The government and partners should monitor the impact of user fees on utilization of iCCM services, and in light of the findings, address the issue of financial incentives for CBAs.

Recommendations to Global Partners

1. Provide support for country dialogue, led by MOH/GHS, to recognize the need to assure a regular supply of non-malaria commodities to support the scale-up of iCCM.
2. Complement the technical assistance for iCCM gap analysis with high-level communication with the MOH and country representatives of lead donor agencies, in order to build a shared understanding of the resource needs to achieve equitable health coverage through iCCM and other strategies.
3. Advocate for a more simplified application process for the GFNFM concept note and other funding mechanisms.

Appendix A: List of People Interviewed/Consulted

	Name	Organization/Designation	Contact Details
1.	*Dr. Keziah Malm	GHS-NMCP Deputy Program Manager	l_sagoamoses@yahoo.com
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3.	Ivy Forson	GHS-NMCP Administrative Officer-NMCP	safoagh@gmail.com
4.	Naa Korkor Allotey	GHS-NMCP Program Officer, MIP Focal Person	korkorallotey@gmail.com
5.	*Dr. Isabella Sagoa-Moses	GHS-Child Health Director	l_sagoemoses@yahoo.com
6.	*Dr. Hari Krishna Banskota	UNICEF Health Specialist	hbanskota@unicef.org
7.	†Daniel Yayemain	UNICEF Child Health Specialist - iCCM Focal Person	dyayemain@unicef.org
8.	Dr. Victor Ngongalah	UNICEF Chief, Health, and Nutrition	vngongalah@unicef.org
9.	Dr. Sureyya Hornston	USAID Technical Advisor, PMI Health, Population, and Nutrition	sehornston@usaid.gov
10.	Dr. Frank Boateng	CCM Chairman	frankboateng@gmail.com
11.	Daniel Norgbedzie	CCM Executive Secretary	danielnorgbedzie@gamil.com
12.	Charles Adjei Acquah	GHS Deputy Director, Policy, Planning, Monitoring, and Evaluation Department	charlesacqua@yahoo.com

*Contacted for follow-up questions but unable to connect for interview / did not respond to questions sent via email.

†Interviewed by the lead consultant (i.e., follow up interview).

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