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PROCEEDINGS

CHW Regional Meeting

Addis Ababa, Ethiopia, June 19-21, 2012

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SEPTEMBER 2012

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CONTENTS

Acronyms

AIDS	Acquired immune deficiency syndrome
AIM	Assessment and Improvement Matrix
AMREF	African Medical and Research Foundation
CCM	Community case management
CHW	Community health worker
CRS	Catholic Relief Services
GHWA	Global Health Workforce Alliance
HCI	USAID Health Care Improvement Project
HIV	Human immunodeficiency virus
HRH	Human Resources for Health
IAPAC	International Association of Physicians in AIDS Care
iCCM	Integrated community case management
MCH	Maternal and child health
MCHIP	Maternal and Child Health Integrated Program
MDG	Millennium Development Goals
MOH	Ministry of Health
MVP	Millennium Villages Project
NCD	Non-communicable disease
NGO	Non-governmental organization

WHO	World Health Organization
PEPFAR	U.S. President's Emergency Plan for AIDS Relief
PIH	Partners in Health
QI	Quality improvement
STD	Sexually transmitted disease
TB	Tuberculosis
UNICEF	United Nations Children's Fund
URC	University Research Co., LLC
USAID	United States Agency for International Development
VHT	Village health team
WVI	World Vision International
ZPCT	Zambia Prevention, Care and Treatment Project

EXECUTIVE SUMMARY

Background

The USAID-sponsored Community Health Worker (CHW) Regional Meeting held in Addis Ababa, Ethiopia from June 19 to 21, 2012, was attended by over 60 government and non-governmental (NGO) representatives from six African countries (Ethiopia, Kenya, Mali, Rwanda, Uganda, and Zambia) as well as participants from international NGOs and organizations. The meeting was planned by Initiatives Inc. under the USAID Health Care Improvement Project (HCI) and designed to share new tools and strategies to strengthen the functionality of government and NGO CHW programs; facilitate dialogue about challenges and best practices among participating countries and identify and support evidence-based strategies for scale-up.

The global shortage of health human resources is estimated to be 4.3 million; the dearth of health workers presents significant challenges to reaching the Millennium Development Goals and to meeting the overall health needs of communities. One of the ways countries have sought to plug the HRH gap and increase access to essential health services is through the recruitment and deployment of community health workers. The positive effects of CHW programs in contributing to improved program achievements have been documented, but so have challenges of managing CHW programs and ensuring quality service. At the request of the USAID Maternal and Child Health (MCH) team, the USAID Health Care Improvement (HCI) Project developed the Community Health Worker Assessment and Improvement Matrix (CHW AIM) Toolkit to help measure and improve CHW program functionality.

With the body of knowledge that has been collected on CHW program functionality in the last few years, HCI, together with USAID and UNICEF, convened the CHW Regional Meeting to expand the discussion of CHW program functionality, sustainability and scalability and to build understanding of and capacity in using the CHW AIM tool.

Objectives and Participants

The objectives of the meeting were:
- To provide a forum for policymakers and program managers to share best practices, innovations and challenges in CHW programming.
- To familiarize participants with the CHW AIM tool and its applications, including assessment, evaluation and improvement of CHW programs.
- To develop a framework for analyzing key constraints and enablers for achieving functional, scalable and sustainable CHW programs.

The organizations represented included:
- USAID (including Zambia, Ethiopia and Kenya missions)
- Ministries of Health of Ethiopia, Kenya and Zambia
- USAID Health Care Improvement Project/University Research Co., LLC (URC) and Initiatives Inc.

- African Medical and Research Foundation (AMREF)
- Catholic Relief Services (CRS)
- FHI 360
- Global Health Workforce Alliance (GHWA)/World Health Organization
- International Association of Physicians in AIDS Care (IAPAC)
- Maternal and Child Health Integrated Program (MCHIP)
- Millennium Villages Project (MVP)/Earth Institute at Columbia University
- Pathfinder
- Partners in Health
- Save the Children
- United Nations Children's Fund (UNICEF)
- World Vision International

Program

Welcoming remarks were made by Dr. Troy Jacobs, Senior Medical Advisor, Child Health and Pediatric HIV/AIDS, USAID, Dr. Kesete-Birhane Admassu, the State of Minister of Health for Ethiopia, Ms, Meri Sinnit, AIDS, Population and Nutrition Officer Chief for USAID, and Dr. Nigel Livesley, URC. Daily keynote addresses expanded on the main themes: Dr. Jacobs spoke about program functionality; through a proxy (Dr. Miriam Were), Dr. Mubashar Sheikh (GHWA) presented the global health resource crisis challenges; Dr. Were, Community Health Strategy Goodwill Ambassador, Kenya, also covered the community's role in supporting CHWs; and Dr. Mark Young (UNICEF) spoke about how to address the bottlenecks to scalability and sustainability using evidence from community case management of childhoof illness programs.

The theme for day one focused on functionality. Ms. Lauren Crigler, Senior QI Advisor for Workforce Development on HCI, presented on the evolution of the CHW AIM tool, its use and potential, and participants reviewed the 15 components that define functionality to gain familiarity with the concepts. Dr. Rebecca Furth, Initiatives Inc., presented the findings from her HCI operations research study in Zambia on how CHW AIM contributes to program improvement and the relationship between CHW program functionality, engagement and performance. A panel discussion of applications of the CHW AIM tool in programs in Uganda, Kenya and Zambia demonstrated the utility of the tool in a variety of settings and its role in identifying shortcomings and providing the basis for improvements in CHW role definition, training, community involvement, and service delivery. There was general receptivity and interest in CHW AIM as participants began to grasp the dual objectives of assessment and improvement.

Day two concentrated on CHW program scalability. Introduced by Ms. Donna Bjerregaard, Initiatives Inc., participants analyzed case studies on the use of CHW AIM to assess readiness for scale-up in the Millennium Villages (Ruhiira, Uganda) and integrated community case management (iCCM) in the composite example, 'South Vaton'. Participants were asked to generate questions they would want program implementers to reflect on when considering scaling up their programs. The questions were categorized under the eight domains of

WHO/UNICEF benchmarks for implementation of iCCM and one additional domain to adapt it for the purpose of scale-up:

- Coordination and policymaking
- Costing and financing
- Human resources
- Supply chain management
- Service delivery and referral
- Communication and social mobilization
- Supervision and performance quality assurance
- Monitoring and evaluation and health information systems
- Vision and scaling up (additional)

Questions generated in small group discussions were discussed in plenary, consolidated and re-presented to the participants by the conference organizers on the last day as a tool/checklist for assessing readiness for scalability of CHW programs.

Participants were also introduced to the HCI collaborative improvement model used in Ethiopia to improve CHW program performance and to a multidisciplinary care model that focuses on task shifting and CHW involvement.

The official focus of the third day was on CHW program sustainability, but the discussion illustrated the fact that many of the questions considered when assessing sustainability are closely related to those questions asked when considering functionality and scalability. A panel discussion of NGO CHW program models showed a variety of promising (functional) CHW program models, but the question of sustainability was particularly acute for models that rely on grant funding or other external support. What does program sustainability mean for a program whose funding has a clear end date?

Throughout the conference, country presentations by Ministry of Health representatives gave perspectives on overall progress and challenges of CHW programs in the participating countries. The presentations demonstrated that with strong government support, a variety of large-scale CHW mechanisms are possible across different countries—from the salaried Health Extension Workers of Ethiopia to the 45,000-strong army of volunteer community health workers in Rwanda.

Opportunities for exchanging ideas on bottlenecks and promising practices, which ultimately assist functionality, scalability and sustainability were discussed in small groups. Participants reviewed the draft list of questions to assist assessing 'readiness' for scalability and a process for further refinement was defined.

Country groups had an opportunity to meet together on the last afternoon to develop action plans for their countries arising from the meeting discussions, which they later presented to the group. All plans prioritized CHW AIM as their top intervention. The workshop leaders from each day joined Dr. Were for a final panel discussion on lessons learned from the conference and next steps.

Conclusions and Next Steps

Participants rated the meeting very high in satisfaction for content and cross-country engagement and in meeting the meeting objectives. One participant wrote: "It was wonderful to have so many stakeholders from our corner of the world sharing relevant ideas, experiences, and feedback. Reviewing my notes from the meeting and all of the literature I brought back for our department, I feel like we're really moving toward a better vision of what our programs can be, what they can achieve, and how. I'm looking forward to seeing how this meeting will impact all of the countries who were represented. I know I wasn't the only one who left feeling re-inspired."

This consultation focused on three themes relevant to CHWs: Functionality, Sustainability, and Scalability. Of the three themes, the most well defined and understood was what a functional CHW program should look like. Contributing to this definition and understanding was the CHW AIM functionality tool that defines functionality as 15 system components in addition to service intervention tasks. Many participants had experience with the tool and approach and felt very comfortable expanding its use to other regions, programs, and even nationally. It became clear that CHW AIM's greatest contribution is in helping managers, program managers, leadership and implementers to focus on action steps to achieve improvements. Participants listed the discussion of functionality and CHW AIM, in particular, as the key 'take home' messages. They acknowledged the case study as a simulation of the process was helpful, but would have liked more 'hands-on' experience with the tool.

Scalability and sustainability required more discussion and participants brainstormed questions that needed to be addressed before a program could make a decision to scale up. These questions were recorded and initially organized using the CCM Benchmarks Framework that can be referenced at: (http://www.ccmcentral.com/?q=node/103). This initial brainstorm of questions will be revised and circulated among participants and other stakeholders not present to engage wider input into the process.

The next steps proposed at the meeting were:

- Posting meeting presentations on www.chwcentral.org
- An online mechanism, such as a list-serve or CHW Central for participant networking to share obstacles, effective practices and support
- Refining the questions and approach for determining scale up readiness
- A survey mechanism for
    - collecting feedback on achievements and challenges in implementing CHW AIM
    - and determining what support or tools countries identify as necessary over and above what is in the present toolkit

BACKGROUND

As countries strive to reach the Millennium Development Goals (MDGs), the shortage of health human resources continues to present significant challenges. The World Health Report (2006) identified a shortfall of 4.3 million health workers globally, with critical shortages and other distribution, retention, management and performance challenges in 57 countries, mostly in Sub-Saharan Africa.   One of the ways countries have sought to plug the HRH gap and increase access to essential health services is through the recruitment and deployment of community health workers (CHWs). The USAID Maternal and Child Health (MCH) team has set a target of 100,000 new community health workers by 2015, while the U. S. President's Emergency Plan for AIDS Relief (PEPFAR) has suggested an additional 140,000. The positive effects of CHW programs in contributing to improved program achievements have been documented, but so have challenges of managing CHW programs and ensuring quality service.   These strategies represent confidence in the contribution that CHWs can make; yet if CHW programs are identified as the way to improved coverage and care, more evidence is needed to determine the components of functional programs and to assess program status. Dr. Eric Goosby, U.S. Global AIDS Coordinator, emphasized the importance of using evidence-based approaches and pointed to the CHW Assessment and Improvement Matrix (CHW AIM) as an intervention that can help strengthen the community workforce at the recent International AIDS Society Conference (July 2012).

At the request of the USAID MCH team, in 2009 the USAID Health Care Improvement (HCI) Project developed the CHW AIM Toolkit to help assess and improve CHW program functionality. A literature review, identification of key interventions and field testing in 19 Asian and African countries helped to refine the definition of functionality and strengthen the assessment process. The participatory self-assessment process does not focus on individual CHW program performance, but provides an opportunity for management, supervisors, program staff and service providers, including CHWs, to share views on their organization's current status on 15 practices that measure functionality and reach consensus through discussion. This leads to the creation of an improvement action plan.

The collective feedback from the field tests confirmed the need for a tool to assess program functionality and the benefits to CHW programs for determining system gaps, planning, and improvement. USAID supported a wider dissemination of CHW AIM to support national CHW and NGO programs to create functional programs that are both scalable and sustainable. This resulted in a regional meeting on CHWs for African participants.

CHW REGIONAL MEETING DESIGN

Objectives

The USAID-sponsored CHW Regional Meeting held in Addis Ababa, Ethiopia June 19-21, 2012 included MOH and NGO representatives from six African countries. It was designed by Initiatives Inc. and USAID/HCI to share new tools and strategies, review CHW AIM as a tool for measuring and strengthening the functionality of government and NGO CHW programs, and determine what is needed for scaling up functional programs.

The meeting objectives were:
- To provide a forum for policymakers and program managers to share best practices, innovations and challenges in CHW programming.
- To familiarize participants with the CHW AIM tool and its applications, including assessment, evaluation and improvement of CHW programs.
- To develop a framework for analyzing key constraints and enablers for achieving functional, scalable and sustainable CHW programs.

Participants

Organizations providing care to communities through community health workers and having experience in addressing the CHW program challenges were invited along with Ministry of Health representatives that managed the CHW or community health portfolio.   The combination of non-profit and public agency representatives was purposeful to allow broad discussion and potential partnerships among the sectors and organizations. Speakers and resource people were also selected for their expertise and facilitation skills. Appendix 1 lists the meeting participants, who represented the following institutions:

- USAID (including from Washington and Zambia, Ethiopia and Kenya missions)
- Ministries of Health of Ethiopia, Kenya and Zambia
- USAID Health Care Improvement Project/University Research Co., LLC (URC) and Initiatives Inc.
- African Medical and Research Foundation (AMREF)
- Catholic Relief Services (CRS)
- FHI 360
- Global Health Workforce Alliance (GHWA)/World Health Organization
- International Association of Physicians in AIDS Care (IAPAC)
- Maternal and Child Health Integrated Program (MCHIP)
- Millennium Villages Project (MVP)/Earth Institute at Columbia University
- Pathfinder
- Partners in Health
- Save the Children
- United Nations Children's Fund (UNICEF)
- World Vision International (WVI)

Program

The program emphasized interactive, participatory activities, including small group discussions on CHW AIM and best practices, panel discussions, case studies, introduction of new tools and methodologies and action planning (see Appendix 2 for the meeting agenda and Appendices 3

and 4 for keynote addresses and presentation handouts).   Five country presentations[1] on the structure, achievements and challenges of their CHW programs were distributed over the three days to provide additional context for the meeting discussions.

Dr. Troy Jacobs, Senior Medical Advisor, Child Health and Pediatric HIV/AIDS, USAID; Dr. Kesete-Birhane Admassu, the State of Minister of Health for Ethiopia; Ms. Meri Sinnit, AIDS, Population and Nutrition Officer Chief for USAID; and Dr. Nigel Livesley, Regional Director for the USAID Health Care Improvement Project, URC, provided welcoming remarks; topical keynote addresses were delivered daily to provide context for the meeting's main themes: functionality, scalability and sustainability.

President Obama's Global Health Initiative (GHI) emphasizes the critical importance of evidence-based best practices to inform country owned, sustainable improvements in health outcomes.

On day one, Dr. Jacobs provided the keynote address and briefed the audience on the CHW evidence-based summit, defined functionality and ended with the importance of using evidence to guide strategic shifts to address high areas and high burden populations with high impact solutions. Dr. Mubashar Sheikh (GHWA) through a proxy, Dr. Miriam Were, also of GHWA, presented the global health resource crisis challenges and the need to integrate CHWs into the larger health system and provide them with the tools they need to deliver services.

The purpose, evolution and structure of the CHW AIM tool were introduced by Ms. Lauren Crigler, Senior Health Workforce Advisor for HCI, Initiatives Inc. Participants then had an opportunity to work in small groups to review the matrices used to assess functionality, the 15 components of the CHW Program Functionality Matrix and the activities and tasks on the Service Delivery Intervention Matrices. The focus on CHW AIM continued with a presentation on HCI-supported operational research conducted by Dr. Rebecca Furth, Initiatives Inc., with six NGOs in Zambia over the period September 2010 to November 2011 to determine the relationship between CHW AIM and performance. The study provided support for the tool. It found that organizations with higher CHW AIM scores are more likely to have better performing CHWs. In looking at components, it found that paid incentive, more time spent with clients and CHW AIM scores are most predictive of performance, while organizations with better systems for opportunities for advancement, individual performance appraisal and incentives are more likely to have more engaged CHWs. This presentation was followed by a lively panel discussion with participants who participated in the Zambian research study and other users of the tool: Dr. Emmanuel Atuhairwe, MVP-Uganda; Ms. Janet Shibonje, WVI-Kenya; Mr. George Chigali, Zambia Prevention Care and Treatment (ZPCT) II Project, FHI 360-Zambia and Ms. Elizabeth Mushinda STEPS/CRS/WVI-Zambia. In general, the panel found the tool useful for understanding and addressing their gaps and stated they would continue using it to gauge progress. They recommended the tool and also provided tips: external facilitation helps; the assessment requires planning and funding; and additional support would increase

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[1] Mr. Kasahun Sime, Ethiopia; Ms. Christine Mshanga, Zambia; First Officer, Mr. Phillip Karenzi First Counselor, Rwanda presented for Ms. Cathy Mugeni; Dr. James Mwitari, Kenya, and Ms. Aminata Kayo, Mali, presented. The representative from Uganda was not able to attend.

improvement. Participant reaction was enthusiastic, focusing on their new understanding of functionality and the importance of having a tool that provides "a systematic and comprehensive way of looking at and improving CHW program performance."

Dr. Tesfaye Shiferaw, UNICEF, was the host for day two's focus on scalability. He introduced Dr. Were, Community Health Strategy Goodwill Ambassador, Kenya, who provided an inspiring keynote address on the role of the community in supporting CHWs. Dr. Were believes the community needs to be the foundation for national health services. "In Africa, if development doesn't happen at the community level, it doesn't happen - however loudly we may shout from our capital cities. And when it happens in the community, it then happens in the nation,." she said. She discussed the role of community health committees in creating an enabling environment for CHW performance. Ms. Joan Holloway, IAPAC, presented on the role of Multidisciplinary Care Teams, which integrates task shifting and links to CHWs as effective mechanisms for scaling up service delivery.

Linking functionality to scalability, Ms. Donna Bjerregaard, Initiatives Inc., introduced participants to two case studies that looked at how CHW AIM could be applied to assessing and improving performance in meeting the MDGs: MVP's Uganda-based Ruhiira Project and determining scale-up readiness for a fictional project implementing iCCM (see Appendices 5 and 6 for the case studies). Both cases were designed to provide a simulated opportunity to apply the tool, identify the gaps, determine the scores and develop an improvement plan. In lieu of actual implementation of CHW AIM, participants expressed that the cases helped them understand the advantages to assessing functionality, gave them a taste of the process and ways to address potential challenges. The exercise also enabled participants to identify the questions that needed to be answered before embarking on a scale up strategy. These questions were categorized according to the eight domains of WHO/UNICEF benchmarks for implementation of iCCM and one additional domain to adapt it for the purpose of scale up:

"In Africa, if development doesn't happen at the community level, it doesn't happen - however loudly we may shout from our capital cities. And when it happens in the community, it then happens in the nation."

- Coordination and policymaking
- Costing and financing
- Human resources
- Supply chain management
- Service delivery and referral
- Communication and social mobilization
- Supervision and performance quality assurance
- Monitoring and evaluation and health information systems
- Vision and Scaling Up (additional)

The questions were consolidated and prioritized for final review by participants on the last day to assist the potential development of a readiness tool for scalability of CHW programs.

The final activity, in keeping with the introduction of new methodologies, was a presentation on the collaborative improvement model being applied by HCI in Ethiopia. Dr. Solomon Tesfaye and Mr. Melaku Muleta described the collaborative improvement methodology used to develop a community-oriented model of care in rural Ethiopia and position it for scale-up. The collaborative focused on maternal and newborn health and its objectives were to: improve the performance of health extension workers (HEWs) through strengthening community groups and networks; strengthen the linkage between the community and the health system and improve the capacity of community groups to take ownership of health programs in their catchment. The collaborative learning sessions and sharing of solutions and data among teams helped the program progress on four important indicators: % of pregnant women who visited health post for antenatal services; % of pregnant women referred by health extension workers and tested for HIV at the health center; % of postpartum women followed–up by HEWs for postpartum services and % of households using latrines properly.

> *Because national burdens of disease, ill health and malnutrition are concentrated in the most excluded and deprived child populations, providing these children with essential services can accelerate progress towards the health related MDGs and reduce disparities within nations.*

The theme for day three was sustainability. Dr. Livesley served as master of ceremonies and introduced the keynote speaker, Dr. Mark Young (UNICEF). Dr. Young spoke on "Addressing Barriers to Scaling-Up CHW and CCM Programs for Sustainability and Equity." He pointed out that because national burdens of disease, ill health and malnutrition are concentrated in the most excluded and deprived child populations, providing these children with essential services can accelerate progress towards the health related MDGs and reduce disparities within nations. He shared the findings from a UNICEF study comparing two strategies, one based on current approaches, policies and plans that assume a trickledown effect to the most vulnerable, and the other an equity-focused approach to strengthen systems and overcome barriers to access that the poor face in harder to reach areas. The study found that an equity-focused approach improves returns on investment, averting many more child and maternal deaths and episodes of stunting than the current path. Strategies to accomplish this include shifting treatments for the main child killers down to communities, reducing financial barriers and empowering communities. He detailed the main bottlenecks: retention, supervision, systems, supply chain management, monitoring and evaluation, government policies and engagement. These findings echoed the concepts in Dr. Jacobs' keynote address and reinforced the CHW AIM components.

This session was followed by a panel discussion on four NGO CHW Models that included Anne Liu, Earth Institute-MVP, and Ms. Didi Bertrand Farmer, PIH, who described their approaches to delivering care, training and supervision, collecting and using data, providing incentives and funding their programs. Karen Waltensperger, Save the Children, described Save's partnership approach to supporting national programs in the delivery of iCCM, which starts with a national or local adaptation workshop. Finally, Dr. Mesfin Loha presented World

Vision's Timed and Targeted Counseling approach to extend primary health care counseling to the household level, bringing preventive and care-seeking messages. CHWs are trained and supported to deliver their messages at the right time to the right audience. MVP and WVI have integrated CHW AIM into their models, while Save has used it as an evaluative tool.

Participant sharing occurred in facilitated small groups sessions organized around key bottlenecks or new interventions: referral systems, mHealth, incentives, supervision and sustainability and productivity. Repeated twice, the meetings led to rich discussions on the problems, and some solutions (see Appendix 7 for summaries of the small group discussions). These sessions were valued by the participants as a time for sharing and gathering new ideas.

"It was wonderful to have so many stakeholders from our corner of the world sharing relevant ideas, experiences, and feedback. Reviewing my notes from the meeting and all of the literature I brought back for our department, I feel like we're really moving toward a better vision of what our programs can be, what they can achieve, and how. I'm looking forward to seeing how this meeting will impact all of the countries who were represented. I know I wasn't the only one who left feeling re-inspired."

Following the discussions, the compiled questions for scalability readiness assessment were presented to the participants. A plan for further refinement of the tool was identified and will include eliciting feedback from meeting participants. Final participant country-specific meetings with NGO and ministry staff were set up to assist the development of country action plans, detailing their ideas for improving their CHW programs. At the top of many country plans was introducing CHW AIM and getting technical assistance to do so. Appendix 8 presents the action plans developed at the meeting for Zambia, Ethiopia, Uganda, Rwanda, Mali, and Kenya.

The final panel session had contributions on lessons learned and next steps. Dr. Jacobs noted that the environment is changing for CHWs; external funding is falling while domestic contributions are increasing. This can be effective but there is a need for more flexible, nimble information systems to capture information to help improve accountability, impact and improvement. "We need an implementation research agenda to learn more about the issues at the lower levels of the health system," noted Dr. Jacobs. Dr. Tesfaye Shiferaw commented that although progress has been made in decreasing children mortality, it is not enough. We should be able to have a call to action because we know what strategies work. The shift has to away from dependence on facilities and toward the community. Dr. Miriam Were emphasized the focus has to be on the first level community health worker and this needs to be communicated to medical doctors and nurses in order to improve service delivery.

FINDINGS AND RECOMMENDATIONS

The meeting ended on a high note; participants were excited about the process and learning that had taken place over the three days. Reviewing the objectives, participants were generally satisfied, as expressed in the responses to the evaluation form (see Appendix 9):

Objective	Strongly Agree	Agree
1. Forum for sharing	65%	34%
2. Familiarization with CHW	70%	29%
3. Framework for Functionality/Scalability & Sustainability	37%	59%

One participant wrote: "It was wonderful to have so many stakeholders from our corner of the world sharing relevant ideas, experiences, and feedback. Reviewing my notes from the meeting and all of the literature I brought back for our department, I feel like we're really moving toward a better vision of what our programs can be, what they can achieve, and how. I'm looking forward to seeing how this meeting will impact all of the countries who were represented. I know I wasn't the only one who left feeling re-inspired."

Most participants were delighted with the opportunity to exchange information and gain new understanding about topics, such as mHealth and iCCM. They emphasized their interest in CHW AIM and requested updates on its progress, including adaptations, best practices and challenges and as well as guidelines for scale up. They also commented that they would have liked time to implement or witness CHW AIM in action, more presentations on CHW models, and even more sharing of information among the countries.

The consultation focused on three themes relevant to CHWs: functionality, scalability and sustainability.   Participants left with a good sense of what constitutes and how to measure functionality due to the CHW AIM tool and application. Although some organizations have used the tool, additional countries are seeking guidance in how to initiate the process in their own countries or projects as they see its utility for improvement. A take-home message was that functionality must precede scale-up in order for it to be sustainable. More attention will be given to refining the list of questions developed to assess readiness for scale up through a collaborative process.

Next steps will include:
- Posting meeting presentations on www.chwcentral.org
- An online mechanism, such as a list-serve or CHW Central for participant networking to share obstacles, effective practices and support
- Refining the questions and approach for determining scale up readiness
- A survey mechanism for:
  - collecting feedback on achievements and challenges in implementing CHW AIM
  - determining what support or tools countries identify as necessary over and above what is in the present toolkit

APPENDICES

1. Participant List
2. Agenda
3. Keynote Addresses and Presentation Handouts
4. Operations Research Presentation Handout
5. Case Study 1
6. Case Study 2
7. Small Group Discussion Summaries
8. Country Action Plans
9. CHW Regional Meeting Evaluation

Appendix 1: Participant List

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Appendix 2: Agenda

DAY ONE: Tuesday, June 19, 2012

Time	Session
8:30	**Registration**
9:00	**Welcome** Dr. Troy Jacobs, USAID
9:10	**Welcome to Ethiopia** His Excellency Dr. Kesete-Birhane Admassu, Federal Ministry of Health of Ethiopia
9:20	**Greetings from USAID Ethiopia** Ms. Meri Sinnitt, USAID/Ethiopia
9:30	**Keynote: Scalability and Sustainability** Global Health Workforce Alliance
9:50	**Keynote: USAID Perspective on CHW Functionality** Dr. Troy Jacobs, USAID
10:10	**Welcome from the USAID Health Care Improvement Project** Dr. Nigel Livesley, URC
10:20	**Meeting Objectives, Expected Outcomes & Agenda and Group Introductions** Ms. Lauren Crigler, Initiatives Inc.
10:35	Break
10:55	**Country Presentation: Ethiopia** Mr. Kasahun Sime, Federal Ministry of Health of Ethiopia
11:15	**CHW Program Support** Ms. Lauren Crigler, Initiatives Inc.
12:00	**Small Group Discussions: CHW AIM Components**
12:45	**Report Out**
1:00	Lunch
1:45	**Country Presentation: Zambia** Ms. Christine Mshanga, Ministry of Health of Zambia
2:05	**Putting CHW AIM to the Test: Operational Research Findings for Zambia** Ms. Rebecca Furth, Initiatives Inc.

3:00	Break

3:20	**CHW AIM Implementation & Results: Experience from the Field - Panel Discussion** Dr. Emmanuel Atuhairwe, Millennium Villages ProjectUganda Ms. Janet Shibonje, World Vision -Kenya Mr. George Chigali, FHI 360-Zambia Ms. Elizabeth Mushinda CRS/WVI-Zambia
4:20	**Country Presentation: Rwanda** Ms. Catherine Mugeni, Ministry of Health of Rwanda (Delivered by First Counselor Philippe Karenzi/Embassy of the Republic of Rwanda)
4:45	**Day One Wrap Up**
6:00	**Reception**

DAY TWO: Wednesday, June 20, 2012

Time	Session
9:00	**Day Two Welcome** Dr. Tesfaye Shiferaw, UNICEF
9:10	**Keynote: The Role of the Community in Supporting CHWs** Dr. Miriam Were, Community Health Strategy Goodwill Ambassador, Kenya
9:45	**Country Presentation: Kenya** Dr. James Mwitari, Ministry of Public Health and Sanitation, Kenya
10:05	**Care Model: Multi-Disciplinary Teams** Ms. Joan Holloway, International Association of Physicians in AIDS Care Ms. Imane Sidibé, International Association of Physicians in AIDS Care
10:30	**Country Presentation: Uganda** Dr. Jesca Nsungwa Sabiiti, Ministry of Health of Uganda
11:00	Break
11:20	**Introduction and Instructions for Simultaneous Case Study Activities** Ms. Donna Bjerregaard, Initiatives Inc.
11:30	**Case Study Overviews:** Group One and Two: Overview of iCCM Group Three and Four: Overview of MVP
11:40	**Small Group Discussions: Case Studies** Group One and Two: Scaling up iCCM Group Three and Four: Using CHW AIM in MVP Ruhiira

12:45	**Small Groups Report-out**
1:00	Lunch
1:45	**Scalability and Sustainability Definitions and Framework**
2:45	**Report-out**
3:00	Break
3:20	**Introduction to the Collaborative Methodology** Dr. Nigel Livesley, URC
3:30	**Collaborative Improvement: A methodology for improving CHW program performance** Dr. Solomon Tesfaye and Mr. Melaku Muleta, URC
4:15	**Topical Affinity Groups for Follow-up Discussions**
5:00	**Day Two Wrap-up**

DAY THREE: Thursday, June 21, 2012

Time	Session
9:00	**Day Three Welcome** Nigel Livesley, USAID HCI
9:15	**Keynote: Addressing Barriers to Scaling Up** Dr. Mark Young, UNICEF
9:40	**NGO CHW Models – Panel discussion** Ms. Anne Liu, Earth Institute Ms. Didi Bertrand Farmer, Partners in Health Ms. Karen Waltensperger, Save the Children Dr. Mesfin Loha, World Vision
11:15	Break
11:35	**Addressing Bottlenecks: Best Practices and New Ideas**
11:45 12:15	**Roundtable Discussion 1** **Roundtable Discussion 2** *Topics: Productivity, Referral Systems, mHealth, Incentives, Supervision
12:45	**Report-out from Round Tables**
1:00	Lunch

1:45	**Reviewing the Revised Framework**
2:15	**Country Meetings: Digesting the learning and preparing to return home**
3:00	Break
3:20	**Panel Discussion - Next Steps in Supporting CHWs** Dr. Troy Jacobs, USAID Dr. Tesfaye Shiferaw, UNICEF Dr. Nigel Livesley, URC
4:20	**Where do we go from here?** Dr. Troy Jacobs, USAID
4:45	**Evaluation**
5:00	**Closing** Dr. Nigel Livesley, URC

Appendix 3: Keynote Addresses and Presentation Handouts

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Day One
Regional meeting on CHWs -   Addis Ababa, Ethiopia (19-21 June 2012)
Dr. Mubashar Sheikh, Global Health Workforce Alliance
KEY NOTE ADDRESS:
'CHWs PROGRAM SCALABILITY AND SUSTAINABILITY'

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Honorable Minister of Health, Ethiopia; the Chair; Excellences; Ladies and Gentlemen
It is a distinct honor and privilege for me to have the opportunity to address this gathering of HRH experts, national representatives, policy makers and international partners. On behalf of the Global Health Workforce Alliance, where I serve as Board member, I express my sincere thanks and appreciation for inviting us to this important regional meeting on Community Health Workers (CHWs). Indeed I have brought with me greetings from the millions of health workers who are working hard in diverse settings around the globe to provide services aimed at improving the health of the people.

Ladies and gentlemen, as you are aware, the World Health Report 2006 identified a shortfall of 4.3 million health workers globally, with critical shortages and other distribution, retention, management and performance challenges in 57 countries, mostly in Sub-Saharan Africa. In this context, the Global Health Workforce Alliance (the Alliance) was launched in 2006 as a global partnership to find and advocate HRH solutions. Pursuing its vision that 'All people everywhere will have access to a skilled, motivated and supported health worker, within a robust health system', the Alliance is dedicated to identifying and coordinating solutions to health workforce challenges by bringing together the relevant stakeholders and partners.

It has been noted that in a number of developing countries, CHWs are a major component of the health workforce, and engaged in the frontline provision of essential health services. In most cases, the CHWs provide a variety of functions, including preventive and promotive services, family planning, outreach services, counseling and patient home care, and they represent a resource to reach and serve disadvantaged populations. There is mounting evidence demonstrating the positive potential of CHWs in contributing towards universal health coverage, and in improving health outcomes.

Scaling up the production and deployment of community health workers is one of the strategies enshrined in the Kampala Declaration and Agenda for Global Action, adopted at the First Global Forum on HRH in Kampala, Uganda in 2008. Carrying forward this agenda, the Alliance, in collaboration with USAID, commissioned a global systematic review to address some unanswered questions on the role of community health workers, and the policies required to optimize the impact of related programmes and strategies. Along with this, eight in-depth country case studies were conducted in countries including: Bangladesh, Brazil, Ethiopia, Haiti, Mozambique, Pakistan, Thailand, and Uganda. This global review complemented earlier assessments of the proven effectiveness of CHWs to deliver several essential health services, and showed that CHWs offer a wide range of health services to the community, such as provision of safe delivery, counseling on breastfeeding, management of uncomplicated childhood illnesses, preventive, supervised management and health education of malaria, TB, HIV/AIDS,

STDs and NCDs, and rehabilitation of people suffering from mental health problems. It has been demonstrated that the services by the CHWs contributed to the decline of maternal and child mortality rates and also assisted in decreasing the burden and costs of TB, Malaria and HIV/AIDS.

These key findings of the global systematic review can provide a foundation to policy makers for the effective design and management of national CHWs programs, which should be embedded and integrated in national health strategies. Our review demonstrated that:

1. CHWs should be coherently inserted in the wider health system, and this cadre should be explicitly included within the HRH and national strategic planning at country and local level;
2. village health committees in the community should contribute to participatory and transparent selection processes of CHWs;
3. the pre-service training curriculum should include scientific knowledge about preventive and basic curative care;
4. CHWs should continually assess community health needs and demographics;
5. CHWs should have established referral protocols with formal health services and social service agencies;
6. CHWs should benefit from regular and continuous supportive supervision and monitoring. Priority areas for further research are also identified.

The Alliance understands that catalyzing actions and partnerships within the context of national health workforce responses is also critical in sustaining CHW initiatives. The Alliance promotes the Country Coordination and Facilitation (CCF) approach to bring together all key stakeholders including MOH and other related public sectors like the ministry of education, ministry of finance, ministry of labour, etc., as well as academic institutions, professional associations, regulatory bodies, private sector, civil society organizations, and international agencies and partners on a common platform around the health workforce agenda.

This initiative is successfully being rolled out across 22 countries, most of them in Africa. On this occasion, I would like to quote an example from Zambia, showing how the catalytic support provided by the Alliance works in scaling up and sustaining the programme by attracting partners. The Alliance supported Zambia in 2009 on an assessment of the CHW situation in the country, learning form global experiences and local realities, leading to the development of a national CHW strategy. This was instrumental in mobilizing support from WHO and other partners like the Global Fund, who joined hands with the Government of Zambia to support this initiative: now the Community Health Assistant program has been extended across 7 provinces and 48 districts, demonstrating tangible results. It is very important that the global partners and actors provide technical guidance, material support and financial assistance to low-income countries to improve and maintain CHW programs. However it is also essential to have a greater degree of synergy and cohesion among the actions, messages and support provided by the global partners. In this respect, the Global Health Workforce Alliance will continue playing the role of convening partner and country actions.

I would like to conclude by saying that, through this review and similar ones, well over 30 years after Alma Ata, we can finally say that the evidence is there. At least in terms of CHW, we now know what works, and how it works. I look forward to this meeting as a platform to share country experiences, and lessons learnt, and to promote a dialogue on policy options in scaling up and sustaining CHWs programs.

Translating this mounting evidence into corresponding policy and investment decisions is now a responsibility of policy makers.
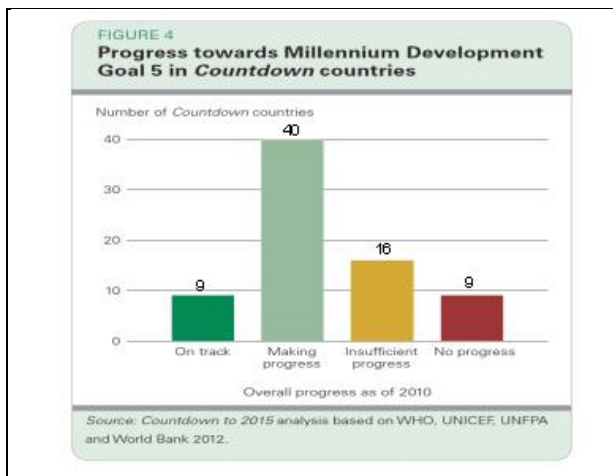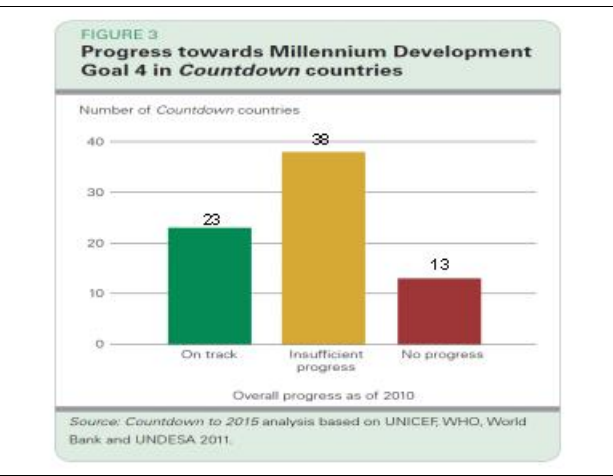
Thank you very much.

Day One Keynote: USAID Perspective on CHW Functionality
Dr. Troy Jacobs, USAID

From Continuum to Continuity of Care

USG Global Health Initiative & USAID Evidence Summits

- President Obama's Global Health Initiative (GHI) emphasizes the critical importance of evidence-based best practices to inform country owned, sustainable improvements in health outcomes.
- Development challenges are complex, intrinsically multidisciplinary, and therefore informed by diverse data inputs and expertise.
- To that end, USAID is hosting a series of evidence summits.
  - Three so far (OVCs, MH, and CHWs)

Expected Outcomes Evidence Summits

- Clarity on evidence to inform programs and policies
- Identification of knowledge gaps to inform a research agenda
- Publication and dissemination of findings and recommendations.
- Evidence to action follow-up to ensure application of learning and active pursuit of critical knowledge gaps.

Audience not just USAID

Principal Hypothesis:

The combined effect of community and formal health system support activities on improving CHW performance is greater than the effect of either alone.

CHW Evidence Summit Process

- Three Evidence Review Teams – Community, Formal HS Support, Combined
- Criteria established, review supplemented by expert opinion; iterative
- "Summit" occurred May 31-June 1 2012
- Recommendations for Action:
  - Policy,
  - Practice
  - Research

Some Observations (Methodological)

- Need for conceptual framework, paradigm, or organizing theory
- Current approaches for reviewing (Cochrane, Campbell, etc.) may have limited utility and not fully maximize existing information
- Other approaches may be needed (e.g., realist review – Pawson R et al; World Bank/PMNCH "success" case studies using Boolean analysis)
- Large scale CHW studies lacking; variable quality of existing studies
- Also lacking are studies that would allow determination of the right mix of community/formal health system support as well as joint ownership or linkages

Some Observations (Programmatic)

- Curative activities appear to be part of the success of CHW tasks
- Little knowledge of what CHWs are actually doing
- Better definition of CHW roles and
- Better structure needed for CHW information system
- Better measurement of key concepts and activities needed:
  - Community monitoring/oversight
  - "trust"
  - Linkages/Referrals
  - Incentives and motivation

Illustration: Change over Time
Purpose of the CHW Program Assessment and Improvement Matrix (AIM)

- Response to USAID FY 2008 MCH Priority: 100,000 CHWs
  - Count the number of functional community health workers within USG supported programs
- Response to country programs, HSS and global trends
  - Assess functionality and guide improvement in programs delivering services at the community level
  - Provide action planning to assist in strengthening programs
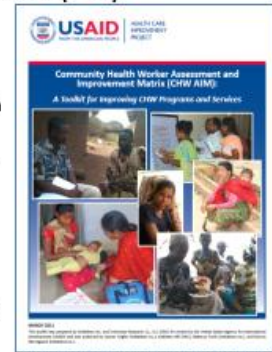
Ending preventable child deaths requires a new way of "doing business". Evidence points to five strategic shifts that would accelerate progress in countries and globally

Frontiers

- Quality matters
- Usable information
- Better use of technology
- Improved efficiencies

Day Two Keynote: The Role of the Community in Supporting CHWs
Dr. Miriam Were, Community Health Strategy Goodwill Ambassador, Kenya

I am always filled with joy when I am at a gathering focusing on the community level in Africa. This is because after years of observation I have come to the conclusion that in Africa, if development doesn't happen at the community level, it doesn't happen; however loudly we may shout from our capital cities. And when it happens in the community, it then happens in the nation. I have reason to believe that if the last 50 years of post-independent Africa had focused on development with a community focus we would be far ahead of where we are. But better late than never! So thank you, USAID-funded Health Care Improvement project, for making this Regional Meeting happen!

Surprisingly, we still have skeptics regarding the community approach to health and development in Africa. Those who discourage the community-approach make a simplistic choice of either health care in facilities <u>or</u> in the communities! Yet specialists on the community-approach are <u>not</u> advocating for abandonment of health facilities but rather insisting that formal national health systems need to begin with the community level as the foundation of national health systems in order to provide a strong base on which to build the other levels of the health system. Taking the community as the foundation for the health system is particularly important for sub-Sahara Africa

<u>Why is the community particularly important in Africa:</u> to promote universal access to health care. The large proportion of people living far away from health facilities can only get to health care through health services at the community level. For those close to facilities but kept away by socio-cultural barriers, **the community approach becomes a bridge** between the traditional and the modern and facilitates progress towards universal access. Through the community-approach, **positive cultural practices** can be identified and reinforced (e.g. breastfeeding) and thus build the self-confidence of the people in a continent that has suffered oppression and racial discrimination that undermines confidence. It also facilitates group adoption of new norms (e.g., small family size) that are hard to adopt as individuals as well as health-promotive practices through incorporation into life-styles at the individual, family and community levels.

In the 1970s, the Kenyan public health professionals recognized that the observer status of people in their communities perpetuated the continuation of community helplessness and continuing high burden of disease. This resulted in projects to explore Community-Based Health Care (CBHC) in Kibwezi (African Medical & Research Foundation - AMREF) and in Kakamega (M.K. Were) prior to and as a contribution to the Alma Ata Conference of 1978.

According to the experience in Ghana, the following is stated. "Despite a decade of trials of various strategies for achieving 'Health for All' in the 1980s, research demonstrated that in 1990 more than 70% of all Ghanaians still lived over 8 km from the nearest health care provider (Ministry of Health 1998) and rural infant mortality rates were double the corresponding urban rates. Improving access to health care delivery therefore remained a central goal of health sector reform." This is what led Ghana to the establishment of the Community- Based Health Planning and Services (CHPS) in the late 1990s which is giving more impressive health outcomes than was the case before.   A key factor in the success of involvement of people in their

communities in sub-Sahara Africa is the fact that leading causes of illness and death in sub-Sahara Africa are preventable as shown in the following table.

Leading causes of disease and death in the sub-Sahara Africa region are preventable.

Leading causes of death in the African Region, 2002

Rank	0-4 years	5-14 years	15-29 years	All ages
1	Malaria	Lower respiratory infections	HIV/AIDS	HIV/AIDS
2	Lower respiratory infections	HIV/AIDS	Tuberculosis	Malaria
3	Diarrhoeal diseases	Road traffic crashes	Violence	Lower respiratory infections
4	Perinatal conditions	Measles	Lower respiratory infections	Diarrhoeal diseases
5	HIV/AIDS	Trypanosomiasis	Road traffic crashes	Perinatal conditions

The role of the Community Health Worker (CHW) is critical to this process. The trained CHW who is known to the community and accepted by them became the rallying point to provide health services that contribute to:
- Primary prevention of conditions so that that the disease/condition doesn't occur at all;
- Secondary prevention through prompt treatment/management best carried out close to where people live and to the level CHWs are trained;
- Prompt referral to health facility when the CHW cannot manage.

Thus community level health services can transform communities into centers of vibrant health with dramatically reduced disease burdens. The drastically reduced disease burden results in reduced load on health facilities and contributes to making them more effective in their roles. CHWs work best when communities support the CHWs in their roles.

Support structures for the community health worker. The following has been noted with respect to appropriate support to health services at the community level in Africa. Ghana notes that, "sustained community health committees for governing the community health service system" has been essential for success[2]. In DRC, "Communities participate through community management committees.[3]" "Peer-based and community-based support of CHWs is also recommended. More senior CHWs can provide direct supervision or oversight at the community level, and community-based organizations or health committees can be engaged to provide oversight and review of CHW performance.[4]" With reference to the ground-breaking Kakamega Project, carried out in the 1970s, it has been reported. "Community health committees (CHCs) were crucial for maintaining the momentum of community engagement.[5]"

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[2] Health Policy and Planning 20(1): 25-34 The Ghana Community-based Health Planning and Services Initiative for scaling up service-delivery innovation: Frank K. Nyonator et al. pg. 26
[3] Public Health Training in the Democratic Republic of Congo: A Case Study of the Kinshasa School of Public Health, Nancy Mock, Ph.D. et al. pg. 33
[4] One Million Community Health Workers: Technical Task Force Report 2011 pg. 35
[5] Ibid., pg. 35

Referring to Kenya's National Health System where community health services constitute the Level 1 in the health system, AMREF's ongoing work notes, "The key drivers of health care services at Level 1 are the Community Health Workers (CHWs), Community Health Extension Workers (CHEWs) and Community Health Committees (CHCs).[6]"

Kenya's experience without and with community health committees (CHCs) Experiences without CHCs- From an evaluation in 2004 it was noted that the updated and refined policy framework (1994 – 2004) had not resulted in improvement of health indices. In fact, practically all the indices had deteriorated. Infant mortality rates, child mortality rates & maternal mortality rates had all increased. Therefore, the focus of the 2006 – 2010 Health Sector Strategic Plan was on REVERSING THE TRENDS. A new key feature of this plan was the introduction of the Community Health Strategy (CHS), with guidance from Kenya's past experiences as well as experiences from elsewhere. The focus of the implementation from 2006 - 2010 was on CHWs and CHW supervisors, known as CHEWs, i.e. Community Health Extension Workers. Some community units had established CHCs on an ad hoc basis. There were no standardization criteria as a benchmark to monitor selection, training and performance.

An evaluation in 2010 supported by UNICEF pointed to significant improvement in community units where CHS was under implementation in comparison to those where it wasn't. Analysis of these results brought out the observation that had CHWs worked in an environment with clear support, implementation of the community health strategy would have resulted in far greater positive changes e.g., in environmental sanitation. With support from MSH /USAID & under the leadership of Kenya's Ministry of Public Health and Sanitation, a meeting for stakeholder analysis of the implementation of the community health strategy took place in early 2011. That meeting came to the conclusion that there was need to have a systematic approach to the establishment of community health committees.

Experiences with community health committees. The stakeholders meeting came to the following decisions: Overall responsibility of CHCs should be in the community unit. Leadership and governance oversight of community health services in each community unit was to be the responsibility of the community health committee. The roles and responsibilities of the CHCs were to:
- Provide leadership and governance oversight in the implementation of health activities and related matters in community health services at level 1;
- Prepare and present to the link Health Facility Committee (and to others as needed) the community Annual Operational Plan (AOP) on health related issues at level 1;
- Network with other sectors and developmental stakeholders to improve the access of the Community Unit (C.U.) to health services;
- Facilitate resource mobilization for implementing the community work plan and ensure accountability and transparency in the use of resources mobilized;
- Carry out basic human resources and financial management in the community;

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[6] African Medical and Research Foundation, Final Evaluation Report -Busia Child Survival Project (BCSP), Busia and Samia Districts, Kenya October 2005 – September 2010 supported by USAID/HIDN/CSHGP

- Plan, coordinate and mobilize the community to participate, along with themselves, in Community Dialogue Days and Community Health Action Days through social mobilization skills;
- Work closely with the link Facility Health Committee to improve the access of the CU to health services;
- Facilitate negotiations and conflict resolution among stakeholders at level one;
- Lead in advocacy, communication and social mobilization
- Monitoring and evaluation of the community work plan including the work of the CHWs through established regular review meetings;
- Prepare quarterly reports on events in the CU.
- Hold quarterly consultative meetings with link Facility Health Committee (HFC);

The Competencies required of the CHC in order to fulfill the roles and responsibilities were:
- Effective leadership and management skills
- Communication skills
- Mobilization and management of resources
- Networking
- Report writing
- Record/book keeping
- Basic analysis and utilization of data
- Basic, planning, monitoring and evaluation skills.
- Performance Appraisal skills
- Conflict resolution Skills.

Curriculum for Community Health Committees (CHCs) and training manuals were to be developed to ensure that CHCs has these competencies.

Criteria /Eligibility for Membership in CHC. There should be 9-11 members in the community health committee selected on the following basis, ensuring an odd number of members in each CH committee:
1) Adult of sound mind and good standing in the community;
2) He/she should be a resident in the area;
3) Ability to read and write at least in one language: local or national;
4) Elected/selected from the sub location baraza
5) Demonstrated role model in positive health practices;
6) Demonstrated leadership qualities
7) Representative of an interest group in the community e.g. village, women who should be at least 1/3 of the CHC, faith communities, youth, disabled. The CHC shall ensure equality of representatives among the villages without going beyond 11 members.
8) Demonstrated commitment to community service

The supervisor of the CHEWs (Community Health Extension Worker) was to be secretary to the CHC and also have responsibility as technical adviser to the CHC. CHWs are to select from among themselves 2 CHWs to be on the CHCs.

<u>Preparation for training CHCs.</u> Taking into account the roles and responsibilities of CHCs, required competencies and the criteria for membership in the CHC as well as the agreed upon composition of CHCs, the planning process moved on to the preparation of the training documents. With continued technical and financial support from MSH /USAID and the involvement of partners involved in the implementation of the community health strategy in Kenya, a process was set in motion for the development of training materials as well as processes for preparing for the training events themselves. These processes went through a number of steps resulting in the production of the curriculum & draft trainers' manual. These went through pilot testing and adjustment prior to the release of the trainers manual. These manuals are now in use.

In conclusion, abandoning the responsibility of improving the health of communities to CHWs is most likely to compromise the potential of the contribution of CHWs in transforming communities through health development. From the experiences of a number of countries in Africa, the presence of carefully established community health committees with overall responsibility for leadership and governance in community health services provides the enabling environment for the work of the CHWs.

Specifically, when the CHC takes on the responsibilities of looking after the relationships with the Link Health facility and the overall mobilization and engagement of the entire community, the energies of the CHW are targeted to home visiting, community case management activities and using community forums provided by the CHC to advocate for improved health status. The CHW is then in a position to urge the community to forge ahead on specific issues. It is therefore crucial for the community to be clear on its roles in community health services and in supporting the work of the CHW.

Thank you for your kind attention

Day Three Keynote: Addressing Barriers to Scaling Up
Dr. Mark Young, UNICEF, New York Headquarters

Conclusion

- An equity-focused approach improves returns on investment, averting many more child and maternal deaths and episodes of stunting than the current path.

- Using an equity focused approach, a US $1 million investment in reducing under-five deaths in a low-income, high-mortality country would avert an estimated 60% more deaths than the current approach.

- Because national burdens of disease, ill health and malnutrition are concentrated in the most excluded and deprived child populations, providing these children with essential services can accelerate progress towards the health related MDGs and reduce disparities within nations.

Equity Focused Programming

Identify/extract "bottlenecks" or barriers and their causes that prevent the most deprived populations from accessing or utilizing the evidence based high impact interventions and services, looking at the problem from the perspectives of both supply and demand;

Through the Catalytic Initiative, Integrated Health System Strengthening program, iCCM has been scaled-up in six high burden countries of Africa to address limited access to appropriate treatment for pneumonia, diarrhea, and malaria

Source: UNICEF 2011 Annual Reports to CIDA on the Catalytic Initiative and key informant interviews (2011-2012)
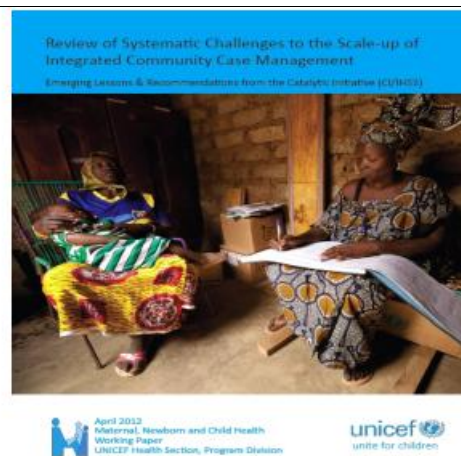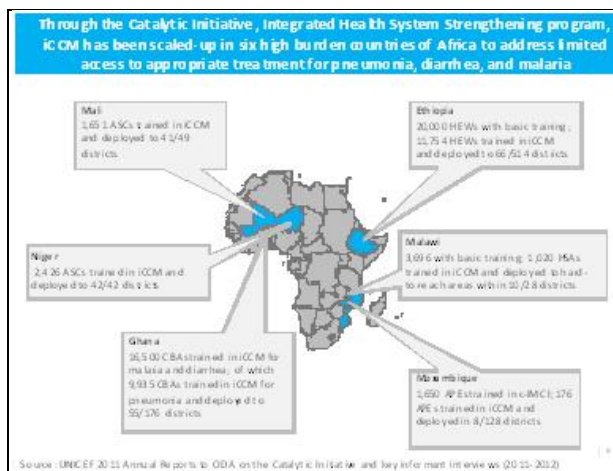
Aims to analyse/document multi-country experiences in iCCM implementation and scale-up:

- Synthesize existing documentation on the systemic bottlenecks emerging from country experience to date
- Draw attention to on-going and potential solutions and innovations to address the bottlenecks
- Consolidate emerging lessons & recommendations in order to inform further scale-up of the program as well as contribute to the growing body of knowledge on implementation of iCCM programs

Bottlenecks, lessons & solutions clustered into 5 key areas

1) The deployment, motivation, supervision and retention of adequate numbers of community health workers as the backbone of iCCM;
2) Maintaining reliable supply chains;
3) Demand side barriers to utilisation;
4) Weak monitoring and evaluation systems; and
5) The need for supportive government policies and engagement to achieve sustainable progress.

CHW Characteristics across CI Countries

Country	Title	Length of General Health Training	Remuneration	# Health Promotion/Preventive Activities	# Nutrition/Newborn activities
Ethiopia	Health Extension Worker (HEW)	> 1 yr	Salary	9	10
Ghana	Community Based Agent (CBA)		Mark up on drugs/non financial incentives	6	3
Malawi	Health Surveillance Assistant (HSA)	2 weeks - 3 months	Salary	9	11
Mali	Relais Communautaire		Salary/User Fees/Mark up on Drugs/Non financial incentives	7	6
Mozambique	Agente Polivalente Elementar (APE)	3 months - 1 yr	Financial Incentives	8	7
Niger	Agents Santé Communautaire (ASC)	> 1 yr	Salary/Financial incentives	8	9

Community Health Worker Bottlenecks

1. Limited Human Resources (under deployment & overextension)
Solution:
- Development of new cadres of paid CHWs (Niger, Mozambique, Mali)
- Ethiopia: Health Development Army (HDA) for promotion

2. Supervision of CHWs
Solution:
- Ghana: Guinea Worm Zonal Coordinators
- Malawi: mentoring approach - peer supervision more successful than using clinical health facility staff
- Niger: CHW supervision integrated with EPI

3. Retention of CHWs
Solution:
- Malawi: structure to combine village clinics and HSA accommodations
- Ghana: standardized incentive scheme for volunteer CBAs

Supply Chain Bottlenecks

Drug shortages and maintaining reliable supply chains (all countries reported stock-outs of essential CCM supplies over past few years)

Solutions:
- UNICEF temporary procurement to fill gaps (not sustainable!)
- Supply chain assessments (Ethiopia and Malawi) – lack of product at re-supply points and lack of transport (JSI-SC4CCM)
  - Improved data use (SMS); incentive system (supply points)
  - Vouchers for bike maintenance; contracting out to 3ʳᵈ party
- Ghana: "Scheduled Delivery System" in UER

Utilization of Services – Malawi example

Bottleneck analysis 3
Community illness management, Malaria
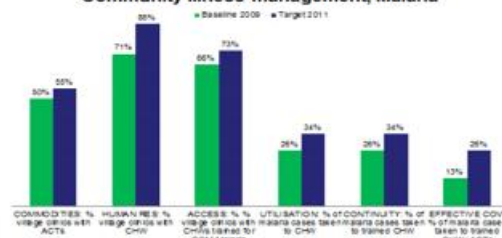
Source: JSI 2010, MOH administrative data

Demand-side Bottlenecks – physical, financial and behavioral

1. Physical Barriers
Solution: geographic access improved in all settings (Malawi: mapping and deployment in "hard to reach" areas)

2. Financial Barriers (user fees, indirect costs)
Solution:
- Ghana: linking CBA provided care to Health Insurance Scheme
- Niger: Curative care free to children under 5 (HIPC)

3. Care-seeking behaviors
Solution:
- Local qualitative research
- Communication for Development (C4D), community dialogue, radio programs etc
- Address quality of care and trust!

Monitoring and Evaluation Bottlenecks

Weak health management information systems at all levels (community to national)

Solutions:
- Streamline and simplify data collection/reporting
- Disaggregated data on utilization – facility/community
- "Implementation strength" indicators – training, supplies, supportive supervision
- Data quality and audit systems (DQA), triangulation (LQAS, SMART surveys)
- Strengthening district management for collection and use of data for decision-making

Supportive Government Policies and Engagement

Establishment of national policies to support iCCM

Solution:
- Data-driven and strong evidence base (local research)
- Using forums to bring stakeholders together

Aligning with national priorities and plans

Solution:
- Negotiation and advocacy to promote gov't ownership (sector coordination, SWAp, Compacts)

Improve efficiency and effectiveness of systems at District level

- Adequate "decision space" and authority for allocation of financial and human resources

- Strengthen skills of district managers:
  - Management
  - Data collection and use for decision-making
  - 'real-time' monitoring - e.g. supply chain in order to trigger appropriate and timely response (e.g. m-health)

Continual Feedback Loop to Strengthen Programs for Results & Sustainability

Guide programmatic adjustments and management decisions

Are we going in the right direction? – removing bottlenecks?; are we using the most efficient and effective strategies to get to the results?

Level 1: All Country Offices: Review Situation Analysis for relevance of SMAs, quality of causal analysis and alignment of programme strategies with bottleneck analysis

Level 2: Countries for which an SBA is most relevant: Monitor UNICEF Programme inputs required for intermediate results (e.g. By ensuring effective procurement and supply management system in place for high impact child survival interventions.)

Level 3: As countries show measurable progress in level 2, in a phased manner starting in selected, representative areas, assess achievement of intermediate results and estimate progress toward outcomes. Undertake the (5 yearly) local level assessments of:

Supply and quality bottlenecks   Financial, behavioral and social bottlenecks

Level 4: As countries show good progress toward outcomes, validate achievement of outcome and estimate progress toward strategic Results through household surveys

Improve efficiency and cost-effectiveness of CHW programs for sustainability – *what are some options?*

Make most efficient use of limited resources:
- Increase number of tasks/interventions delivered
- Cover a wider geographic area
- Modify existing schedules (e.g. newborn care)
- Increase demand for, and utilization of services
- Use of new technologies and innovation (e.g. m-health, diagnostics)
- Reduce costs of managing the system – what are major 'cost drivers'? (e.g. training, salaries/incentives, supervision/transport, supplies)

Priority areas for implementation research to improve efficiency of CHW programs

- What is optimal CHW workload before quality suffers?
- What is optimal HH/pop. coverage per CHW?
- Can newborn home visit schedule be adapted to focus on high risk infants without reducing impact?
- Are incentives or vouchers to encourage appropriate care-seeking effective?
- How can we minimize costs and current inefficiencies in the system:
  - What is optimal supervisor/CHW ratio?
  - What is optimal level of renumeration (financial & non-financial) for adequate motivation and retention?
  - What is optimal frequency for refresher training?

Thank you!

Appendix 4: Operations Research Presentation Handout

USAID FROM THE AMERICAN PEOPLE | HEALTH CARE IMPROVEMENT PROJECT

Putting CHW AIM to the Test

Rebecca Furth, Initiatives Inc.
CHW Regional Meeting
Addis Ababa, Ethiopia
June 19-21, 2012

1

CHW AIM Background

- Developed in 2009-2010
- Field tested in Nepal (2009) and Benin (2010)
- Had not yet been used repeatedly time-over-time
- Zambia Operations Research 2010-2011

2

Zambia Operations Research Objectives

Overarching Objective: To test the theory that using CHW AIM leads to program improvement.

Key questions

- Does application of the CHW AIM tool contribute to CHW program functionality improvement?
- What is the relationship between program functionality, CHW engagement and CHW performance?
- What are the costs associated with implementing the CHW tool and what is the incremental cost effectiveness associated with its use?

3

Approach Overview

- Field intervention study
- 6 organizations (5 intervention 1 control)
- 156 CHWs (132 at endline)
- Baseline and endline data collection
- Limited technical support
- September 2010-November 2011

4

Characteristics of Participating Organizations

Site	Org. Type	CHW Prog. Scope	CHW AIM Imp. level	Total CHWs in District BL	Total CHWs in District EL	Hours/wk	Incentives	Amt./mo.
1	Intl FBO	National	District	289	405	8	In Kind	ND
2	Intl FBO	National	District	60	62	8	In Kind	$1.30
3	Local FBO	Local	District	63	40	17	Travel Allowance	$60
4	Intl NGO	National	District	43	24	22	Travel Allowance	$32
5	Reg. NGO	Prov.	Multi-District	49	ND	30	Salary	$105
6	Local FBO	Local	District	40	27	6	Travel Allowance	$60

5

Approach: Data Collection

CHW Program
- Program manager interviews
- Program data review
- Program cost survey
- CHW AIM

Engagement
- CHW engagement survey
- CHW engagement interview

Performance
- Performance recordings:
  ART adherence (new)
  ART adherence (cont.)
  Positive living counseling

6

CHW AIM Workshop in Action

7

Results

8

Results: Improvement

CHW AIM **contributes to improvement,**

but improvement may not be unilinear or consistent

9

Results: Improvement

Mean CHW AIM Element Scores
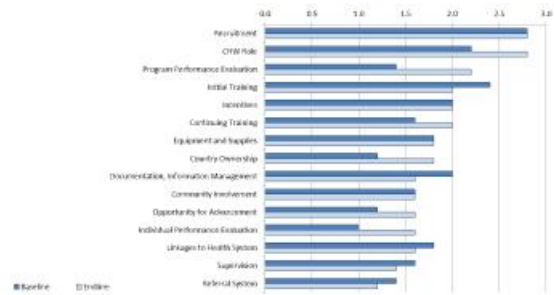
10

Improvement Advances

CHW Role and Recruitment

Training

Community involvement

Advancement

Documentation

Service Delivery

11

Improvement Challenges

Referral

Supervision

Linkages to the health system

Individual performance evaluation

Opportunities for Advancement

Community Involvement

12

Results: Improvement

CHW AIM Scores, by Organization

Results: Performance

- **Performance defined by task completion**
- **High = >70%, Mediocre = 39-69%, Poor = <39%**
- **Average performance at endline was low in two sites and moderate in 4 sites**
- **Performance was strongest at site 4**
- **Performance was weakest in site 1**

Results: Performance
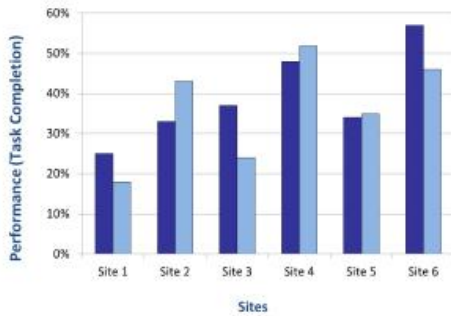
Results: Engagement

- **Measured based on an engagement survey with 5pt Likert scale**
- **CHWs were generally engaged.**
- **Site 2 statistically significant increase in engagement**
- **Sites 3 and 6 statistically significant decrease in engagement**

Results: Engagement
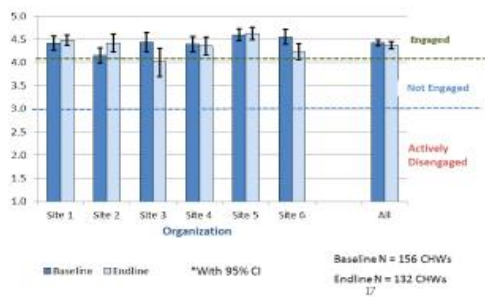
Results: Correlations Summary

- Organizations with higher CHW AIM scores are more likely to have better performing CHWs
- Paid incentive, more time spent with clients and CHW AIM scores are most predictive of performance
- The link between CHW AIM scores and engagement is inconclusive
- Organizations with better systems for opportunities for advancement, individual performance appraisal and incentives are more likely to have more engaged CHWs

Results: Correlations with Performance

Variables	Positive Correlation
CHW AIM scores and CHW AIM Element scores	Overall CHW program functionality
	Continuous Training
	Equipment and Supplies
	Country Ownership
Other Variables	Service delivery time
	Days of Initial Training
	Incentive Type
	Incentive amount

19

Results: Multivariate Analysis

In multivariate analysis, 3 variables showed a statistically significant positive association with performance

Incentive Type (Cash)

Service Time

CHW AIM Score

These three variables account for 32% of performance variation.

20

Results: Cluster Analysis

Cluster (N = 278)	N	N%	Mean CHW AIM Score	Service Delivery Time (hrs)	Months Worked	Days of Training	Hours Worked	Equipment & Supply	Functionality	CHW AIM S1	CHW AIM S2
1	161	58%	29%	4.9	50	6	8	4.3	4.4	23 (1.5)	24 (1.6)
2	117	42%	47%	13.6	32	13	28	4.5	4.5	32 (2.1)	34 (2.3)

21

Results: Cost Summary

- Cost data specific to CHWs proved difficult to obtain
- Unable to determine cost effectiveness
- CHW AIM workshops are fairly inexpensive ranging from about $350-$1100.

22

Results: Cost Summary (continued)

- Incentives paid to CHWs are not based on workload or time investment
- Investments in CHWs are not linked to outputs in terms of clients served: volunteer programs are not necessarily cheaper.

23

Results: CHW AIM Workshop Costs

	Site Type	CHW AIM Intervention Area	Average Cost / Workshop	Average cost per participant
1	Rural	District	$371	$22
2	Rural	District	$482	$17
3	Urban	District	$620	$19
4	Urban	District	$614	$23
5	Urban	Multi-district	$1064	$54

24

Results: Cost

	Site 2*		Site3		Site4		Site 5	
	Total	Per CHW	Total	Per CHW	Total	Per CHW	Total	Per CHW
CHWs	60		63		43		49	
Inputs (salary, gifts in kind, training, supervision)	$2789	$93	$4028	$152	$6516	$263	$12490	$311
Client's Served	586		1241		12767		4280	
Per client cost		$3.11		$2.25**		$0.41**		$2.42

Program Manager Evaluations of CHW AIM

- CHW AIM is a Useful Process

- PMs would use again and feel others should use

- External facilitation helps

- Funds need to be planned for

- Timing of the process is critical

- Intermittent support would increase improvement

Thank You

Appendix 5: Case Study 1: Millennium Village Ruhiira Uses the CHW-AIM

Introduction

In 2000, while high-level government officials from all around the world were meeting in New York City to define the Millennium Development Goals (MDGs), people in Ruhiira, Uganda, were facing enormous health and development challenges. Ruhiira is located in southern Uganda, bordering Tanzania and Rwanda. Hilly terrain and poor roads isolated many of the communities from the commercial and government centers and services; the nearest referral hospital was 40 km away. One third of the community's children were underweight and the region suffered from high rates of tuberculosis. Up to ten percent of the population was estimated to be HIV-positive, and malaria was endemic, with 17% prevalence. Only five percent of pregnant women delivered their babies in health facilities; most delivered at home, sometimes with the help of a traditional birth attendant.

> 1. What are the key health and development problems that Ruhiira faces?

Lack of medical personnel and inadequate supplies of basic drugs and medical supplies were the norm in Ruhiira. Other challenges included limited access to clean drinking water, low levels of education, pervasive gender inequities, and general isolation from the benefits of development. Few residents were aware of the MDG summit going on at the United Nations, much less of the detailed commitments that global partners and national governments, including the Ugandan government, were making to support development.

Global development advocates and activists quickly recognized that reaching the MDG commitments would be impossible without concerted attention and effort. This led, in 2005, to the creation of the Millennium Villages Project (MVP), a joint endeavor by the United Nations, the Earth Institute at Columbia University and other partners. MVP was established 'in order to create a pathway to achieve' the MDGs by experimenting with and identifying a package of interventions that would enable poor communities to meet MDG targets. The package seeks to address food security, water and energy, environment, technology and innovation, education, gender equality, maternal and child health and business and entrepreneurship.

In 2006, due to their difficult circumstances, a cluster of eight Ruhiira villages, with a total population of 40,000 people, was selected to participate in the MVP project.

The CHW Program in Ruhiira

> 2. Are the roles assigned to CHWs in Ruhiira appropriate for the context? Why or why not?
>
> 3. What are the most important resources provided by MVP and the community respectively?
>
> 4. What challenges do you think the CHW program may face as it continues to roll out?

One of the interventions that MVP offers to participating communities is support to establish a Community Health Worker (CHW) program. Ruhiira's CHW program was established in 2007. Since then CHWs have been working to bring essential medical care and health awareness directly into homes in their communities. By February, 2012, the program included sixty CHWs, eight senior CHWs and a health facilitator, all actively working to provide services to 10,270 households.

Like all MVP CHW programs, Ruhiira's program is designed to ensure supervision and support at each level. In Ruhiira, each CHW provides health services to an average of 150 households. The households assigned to each CHW are often scattered across the challenging terrain. Households are divided into two categories: *priority households* include any with children under 5 years or pregnant women, while *non-priority households* have neither pregnant women nor young children living there. All households are supposed to be visited by a CHW at least once every 90 days, but priority households are visited more frequently, as well as upon report of any illness or emergency, with additional follow up within 72 hours as needed.

CHWs undergo a one-month intensive training before they start work. Topics include HIV/AIDS, malaria, diarrhea, water and sanitation, tuberculosis, family planning, ante- and postnatal care and infant growth monitoring. Once they have begun working, CHWs receive monthly trainings that build on the initial training and keep them up-to-date.

As shown in Table 1, CHWs are responsible for providing a wide range of services at the community and household levels. These include: sensitizing other villagers on health-seeking behavior; managing basic malaria and fever treatment; providing short-term methods of family planning; treating diarrhea; monitoring child growth; promoting home hygiene and sanitation; HIV prevention education; and encouraging women to get antenatal and postnatal care, and to deliver at health facilities.

Table 1

Responsibilities of CHWs in Ruhiira				
	Monitoring	Counseling	Treatment	Referral
Nutrition	X	X		X
Diarrhea	X	X	X	X
Fever & Malaria	X	X	X	X
HIV/AIDS	X	X		X
Tuberculosis	X	X		X
Neonatal Care	X	X		X
Maternal Care	X	X		X
Family Planning		X	X	X

In addition to these tasks, Senior CHWs also support the other CHWs through supervision, performance evaluation and quality assurance activities. The MVP health coordinator, meanwhile, supports the CHW program and other health initiatives and helps them link effectively with other MVP initiatives that address agriculture, economic development and education.

To enable the CHWs to work efficiently, they have been equipped by the program with bicycles, bags/backpacks, mobile phones and necessary basic medical supplies. They also receive a monthly salary of US$80. The CHWs use their mobile phones to make referrals or summon an ambulance if needed. (MVP also provides mobile phones to the ambulance operator and all other clinical health workers). Similarly, the CHWs' bicycles make it easier for them to efficiently reach all the households in their catchment area; in addition, CHWs sometimes transport patients to health facilities on their bicycles.

The wider Ruhiira community is involved, through consultation with local leadership, in identifying people to be recommended for CHW training. The community also has regular opportunities to provide feedback on the health services they receive from CHWs. Village meetings on health are conducted twice a year. In addition to conducting general discussions on health issues in the community, during these events the MVP health facilitators ask for feedback on the performance of CHWs. MVP's community development sector conducts quarterly community feedback meetings; these meetings are attended by health facilitators and time is allocated for community feedback on health services. Informally, the staff at local health facilities often solicit feedback on the CHWs from patients come for treatment. When problems are identified, the facility staff notify the health facilitator and coordinator, who the follow up with CHWs.

The CHWs in Ruhiira have many opportunities to expand their skills base, primarily through participating in the ongoing trainings. Experienced CHWs, especially those who demonstrate leadership capacity, can be promoted to senior CHW positions. Further, tutoring is offered to CHWs who aspire to enter nursing school.

The CHWs have become well-known and well-respected in their communities. One of the CHW supervisors describes this vividly: "People recognize me in lots of different parishes, and children call me the 'weighing man' because they see me weighing babies and wonder what's going on! Even adults call me 'doctor,' and they trust me because I'm just a villager like them. This is my home and I'm so happy to be able to serve my own people."

Other MVP initiatives in the area are also promoting health in the communities, and serve to support the work of the CHWs. Six health facilities, which had previously been underused because they were so frequently unstaffed or had no drugs or supplies available, were upgraded. New services were added to the facilities; ultrasound machines were particularly well-received. The largest health facility now has both an operating theater and ambulance. The number of professional health workers in the area increased significantly when MVP began supporting two medical doctors and 13 midwives. MVP also supports the community to provide a "Mama Kit" to each woman who attends antenatal care. A 2008 study had found that women frequently do not deliver at health centers because they are required to bring their own supplies. The Mama Kit includes: gloves, a cotton baby wrapper, soap, cord ligature, gauze, cotton wool, and a plastic sheet. Providing the supplies removes one barrier to choosing to deliver at a health facility.

MDG M&E Results

The Ruhiira CHW program regularly collects and submits data to ChildCount+, a database program used by MVP in all participating villages. Data can be submitted to ChildCount+ either via mobile phone or on paper forms which are transcribed on a computer. In Ruhiira, CHWs use their mobile phones to send reports to the central database via SMS. Their reports focus on patient registration and health status updates.

> 5. Based on these data, what issues would you want to investigate further?

ChildCount+ compiles the data and provides reports designed to help the program staff and CHWs to track their work and its impact. The data focus on monitoring the health of pregnant women and children, as well as the prevalence of key diseases, in MVP communities. The database is constantly updated, making it possible to provide real-time views of the health of community, and to identify areas

for short- and long-term action. Table 2 shows the October 2011 monthly analysis of ChildCount+ data from Ruhiira.

<div align="center">Table 2</div>

ChildCount+ (CC+) Monthly Data Assessment: Ruhiira Time period assessed: Oct 2011		Target	Actual	Rating
A. CHW activity and coverage	A1. Proportion of estimated under-5s in the cluster registered in CC+	100%	81%	Good
	A2. Proportion of registered households receiving a CHW visit in the past 90 days	100%	59%	Moderate
	A3. Proportion of registered under-5s (U5s) receiving a mid-upper arm circumference measurement (nutritional status) in the past 90 days	100%	76%	Good
	A4. Proportion of newborns receiving a CHW visit within 7 days	100%	2%	Poor
	A5. Proportion of known pregnant women receiving check-up in the past six weeks	100%	72%	Moderate
	NOTES: Approximately 37% of estimated pregnant women are recorded in the system (Aug-Oct). This number was closer to 70% in early 2011.	Score = 11/15 = 73%		
B. Case management	B1. Proportion of under-5s with diarrhea receiving oral rehydration solution	100%	66%	Moderate
	B2. Malaria inappropriate treatment rate under-5 (RDT- (rapid diagnostic test negative), given ACT (artemisinin combination therapy)	0%	4%	Moderate
	B3. Proportion of urgent referrals or treatment receiving follow-up within 2 days	100%	108%	Good
	B4. Proportion of under-5s with complicated fever referred to a health facility	100%	54%	Moderate
	NOTES: 12mo (Dec-Nov) used for B2 due to low sample size. B3 numerator includes f/up after treatment or urgent referral, denominator only includes urgent referral. **Only 17% of U5s with RDT+ received antimalarials.**	Score = 9/12 = 75%		
C. Health outcomes	C1. Proportion of under-5s with mid-upper arm circumference <125mm	<10%	0.1%	Good
	C2. Proportion of women 15-49 using modern contraceptives	>40%	30%	Moderate
	C3. Proportion of women >4 months gestation who have had at least one antenatal care visit	100%	80%	Moderate
	C4. Proportion of children U1 up-to-date on immunizations	>90%	94%	Good
	C5. Proportion of newborns with low birth weight (<2.5kg)	<10%	3%	Good
	NOTES: Around 50% of women >=8 mo gestation have attended all 4 antenatal care visits.	Score = 13/15 = 87%		
D. Vital Statistics and Verbal Autopsies	D1. Proportion of estimated births recorded in ChildCount+	100%	68%	Moderate
	D2. Proportion of estimated births reported to MVP team in past 3 months (excluding most recent month)	100%	69%	Moderate

ChildCount+ (CC+) Monthly Data Assessment: Ruhiira Time period assessed: Oct 2011		Target	Actual	Rating
	D3. Proportion of reported under-5 deaths in the past 3 months (excluding most recent month) with verbal autopsy enumerated and uploaded	100%	22%	Poor
	NOTES: Birth reporting in CC+ is better than most other sites. Only two verbal autopsies have been uploaded since July.	Score = 5/9 = 56%		
Notes: Generally doing well with tracking and following-up target individuals. Only 17% of RDT+ U5s were given antimalarials, 66% of diarrhea cases given ORS and 68% zinc. Low proportion of recorded deaths had a verbal autopsy.				
Overall score = 38/51 = 75% = Moderate				

Scoring: No data = 0, Poor = 1, Moderate = 2, Good = 3

It indicates areas where the program is doing well, and overall the program shows good performance in health outcomes. Two areas, however, had "poor" performance.

Using the CHW-AIM in Ruhiira

In August, 2011, four years after the MVP program started, a small group of people involved with the Ruhiira CHW program met to review their program using the CHW-AIM assessment tool. Nine CHWs, six senior CHWs, three health clinic officers, four health facilitators, and the Health Programs Coordinator from MVP headquarters in New York City participated in a one-day CHW-AIM workshop.

The agenda for the day was to assess each of the fifteen CHW-AIM components in small groups and then come back to the plenary group to share and discuss scoring. The group aimed to reach consensus on the score for each component. The possible scores for each component were: 1 (partially functional), 2 (functional), or 3 (best practice). The CHW-AIM tool was used in its original format and the workshop was conducted mostly in English.

According to CHW-AIM guidance, once the scoring exercise is completed, the workshop participants should then develop an action plan in which they identify strategies for improving areas where they have identified weaknesses. In Ruhiira, the discussions on scoring and reaching consensus on each program component took the full day, so a follow-up action plan was not developed during the workshop. However, by the end of the day, workshop participants had settled on the scores shown in Table 3.

6. What do you think MVP hoped to gain from conducting the CHW-AIM workshop at this time?

7. Based on the data and the justifications presented, do you agree with the scores the participants gave the program in the following sections?
   - Initial Training
   - Incentives
   - Opportunity for Advancement
   - Community Involvement

8. Based on the CHW-AIM scores, what key action items would you recommend?

Table 3

CHW Program Component	Workshop score
Initial Training	3
Supervision	3
Individual Performance Evaluation	3
Opportunity for Advancement	3
Documentation / Information	3
Recruitment	2
Equipment and Supplies	2
Incentives	2
Referral System	2
Linkages to Health System	2
CHW Role	1
Continuous Training	1
Community Involvement	1
Program Performance Evaluation	1
Country Ownership	1
TOTAL	**30 (out of 45 possible)**

As the table shows, the workshop participants identified some **best practices** within the Ruhiira CHW program: *initial training, supervision, individual performance evaluation, opportunity for advancement* and *documentation/information*. The Ruhiira CHW program's **functional** components were: *recruitment, equipment and supplies, incentives, referral system,* and *linkages to the health system*. However, *CHW role, continuous training, community involvement,* and *country ownership* were considered only **partially functional**.

Some challenges in the workshop process were noted by participants and observers. There may have been difficulties with the language of the CHW-AIM tool, leading to variation in interpretation of the descriptions of scores, both from person to person, and from small group to group. Some participants also worried that the CHWs may have felt attacked by participants from other cadres, and may also have deferred to them in order to reach consensus. The facilitator also may have limited the participants' free expression, as rather than soliciting opinions first; he had a tendency to state what he thought and ask whether others agreed.

Despite the challenges, Ruhiira's Health Facilitator said the CHW AIM brought a different and useful perspective: "The best thing about the tool is its participatory approach in implementation. It allows CHWs to assess their program by themselves; looking at its strengths and weakness, CHWs are able to develop an action plan while taking the input from the community members and other stakeholders." The CHW program has decided to create a version they can use to assess the program in their regular weekly and monthly meetings. They are also sharing its format and methodology to review other MVP programs in the area.

Conclusion: Contribution of CHWs to Health-Related MDGs

Beyond the specific outputs of the program, MVP is focused on strategies designed to contribute to achieving the MDGs. So how is Ruhiira doing in terms of the larger and longer-term objectives?

> 9. What questions would you ask to help MVP Ruhiira prepare to sustain the results achieved thus far by the CHW program?

MDG 4 sets targets for reducing child mortality rates. Ruhiira's CHWs focus their efforts on households where young children live. Common illnesses are supposed to be identified, reported and treated rapidly, and CHWs work to sensitize parents on childhood illnesses and assist them to maintain food gardens to promote nutrition. Since 2006, Ruhiira has recorded a 20% reduction in stunting among children under two, and a 60% reduction in mortality among children under five.

MDG 5 focuses on improving maternal health. CHWs in Ruhiira conduct regular household visits to pregnant women, sensitizing them and their families about the benefits of institutional deliveries, and to new mothers. Since 2006, the proportion of women delivering their babies with skilled care has increased from 8 percent to 76 percent.

MDG 6 establishes goals for combating HIV/AIDS, malaria and other diseases. CHWs in Ruhiira spend a lot of time educating and sensitizing community members about prevention and treatment of common diseases. In addition to education and sensitization, CHWs provide support and referral for services and promote reduction of stigma.

They encourage the use of insecticide-treated bed nets to prevent transmission of malaria from mosquitos; they distribute condoms; they urge all community members to be tested for HIV so they know their status; and they refer people to anti-retroviral therapy, DOTs for tuberculosis, and Prevention of Mother to Child Transmission of HIV services.

Malaria prevalence has fallen from 17 to less than 2 percent, and close to 90 percent of households now have insecticide treated bed nets. In particular, bed net usage for children under five has increased from one to 34 percent.

Two-thirds of community members in Ruhiira have now been tested for HIV. And the HIV incidence rate has decreased from somewhere between six and eight percent at baseline to one percent.

Appendix 6: Case Study 2: South Vaton assesses its Readiness for iCCM Scale Up

I.   Introduction

South Vaton, a landlocked southeast African country, has close to 17 million people; 18.2% are under five of years of age. It is among the least developed countries, ranking in the bottom 10% on the UN Human Development Index. It is one of a few countries that bear the world's highest burden of child morbidity. In addition, the country has to address HIV/AIDS, food insecurity, widespread malnutrition, and poor access to basic health services and clean water.

Despite these many challenges, South Vaton it is on track to achieve MDG #4A - reducing child mortality by two-thirds. Its under-five mortality rate has already declined from 256 deaths/1000 live births in 1990 to 110 in 2011. In fact, by all estimates the country is on track to meet its target of 80/1000 by 2015. How did South Vaton achieve this while facing a critical shortage of human resources and skills needed for effective delivery of services?

Integrated Management of Childhood Illness (IMCI) was introduced in 1999 as a facility-based approach to reducing child mortality. Ten years of implementation provided South Vaton with a wealth of experience in policy development, training and infrastructure on how to do case management. During the period, the MOH learned that preventing and treating the leading causes of child mortality - pneumonia (18%), diarrhea (18%) and malaria (16%) - were also necessary beyond facilities, especially in remote communities that have access barriers. According to the DHS (2011), women aged 15-49 said that inconsistent supply of drugs (60.5%), long distances (55.5%) and transport (53.7%) were presented challenges to use of health facilities**.**

> ### Questions
>
> 1. What are the key health and development problems facing South Vaton?
>
> 2. What issues and benefits could the decision to use existing CHWs bring?
>
> 3. What impact do you think - using static clinics will have on community use of iCCM?

> IMCI is a facility-based approach to treating common diseases of children under-five.
>
> C-IMCI focuses on prevention activities and promotion of facility based care.
>
> CCM takes the strategy to the community, delivering curative, preventive and promotive interventions for common childhood illnesses, in particular where access to facility-based services is low.

In support of IMCI, South Vaton produced a national policy in 2000. It stated that Community Health Workers (CHWs), who receive a salary of $100/month for community health education and hygiene activities, should treat uncomplicated illnesses at home. In order to do this, they should get an additional 6-day of training on IMCI case management for sick children. It further mandated that all sick children under 5 be examined and routinely assessed for danger signs and be given pre-referral treatment. Finally all caregivers should be counselled on how to give treatment and when a child's condition necessitates a return to the health facility.

However, the policy was not implemented until 2008. That year this policy, along with the support of multiple technical and financial partners, enabled South Vaton to pilot a Community Case Management (CCM) approach in 10 districts. Leadership was provided by the Ministry of Health's IMCI Coordination

Unit. They were supported by a Technical Working Group (TWG) at the central level. Their ultimate goal was to provide services in 4000 hard-to-reach villages, where 10% of the population resides. For the pilot, they decided to use existing CHWs. A strategy for training and supervision of the CHWs, as well as procedures for supplying them with drugs and other supplies and for making referrals, were identified. In accordance with the national policy, six additional days for CCM were added as a follow on to the 12 weeks of basic CHW training. Additionally, it was decided that services should be provided by CHWs at fixed-site and fixed-day Village Clinics, approximately 8 kilometers from health centers, two or three days per week.

II.   CCM Mid-Project Review

The MOH IMCI Unit normally holds quarterly meetings to review progress and issues with the 10 District Health Management Teams. These meetings include District Health Officers (DHOs) who coordinate CCM and district IMCI Officers who provide CHWs with guidance and supervision. They also monitor the program and report on CCM implementation.

In June, 2012, the group is meeting to assess readiness for scale up from the 10 pilot districts to an additional 15districts. The IMCI Director, Mr. Banda, welcomed everyone, saying, "We should be proud of our achievements: we are providing care to thousands of children between 12 and 59 months. Over 2000 CHWs are now trained in iCCM and 73% are in hard-to-reach areas providing CCM care. 1700 village health centers are providing weekly 2-day clinics for sick children.

> ### Questions
>
> 4. What issues are not addressed on Mr. Banda's list?

"In our recent TWG meeting, we had a discussion about what it takes to create an effective CCM program. The group came to agreement on this list of what should be in place."

Mr. Banda displayed the list on the projector:

- Conducting an equity-focused situational analysis
- Setting up a task force to lead the process
- Ensuring a supportive policy environment
- Providing strong leadership
- Developing or updating guidelines and tools
- Addressing logistical needs
- Identifying locations and community health workers
- Ensuring supervision
- Evaluating the process

He told the group, "It is not just a question of us having the systems and tools in place, though. We need to be clear on how well our systems are working and what challenges we still need to address to scale up."

III.   Competency & Quality

Mr. Banda continued: "Let's look at the latest assessment of quality of care and CCM worker competency. This data comes from reviewing supervisor-observed CHW adherence to the algorithms for

four conditions: fever, pneumonia, diarrhea and malaria. Do you think we have good enough results to move to a scale up?"

SELECTED INDICATORS	Total # of Children (denominator)	%
Proportion of children whose classification by CHW match all the classifications given by the IMCI-trained clinician/evaluator	382	**44%**
Proportion of children whose classification for common illness (pneumonia, fever, diarrhea) by CHW match classifications given by the IMCI-trained clinician/evaluator	382	**68%**
Proportion of children with cough and fast breathing and/or fever and/or diarrhea who are correctly prescribed all medications for their illnesses	242	**63%**
Proportion of children with cough and fast breathing who are prescribed an antibiotic correctly	55	**51%**
Proportion of children with fever who are prescribed an antimalarial correctly	208	**79%**
Proportion of children with diarrhea who are prescribed ORS correctly	84	**56%**
Proportion of children with danger signs needing referral who are referred	69	**55%**
Proportion of children with danger signs needing referral who receive correct pre-referral treatment and referral	112	**55%**

Mr. Banda said, "The results are strong for malaria treatment and classifying the key common illness, but less so for making referrals and treating cough, diarrhea or initiating referrals. What do you think are the causes for these results?"

One DHO, who had recently assumed her position, stated that she did not have enough information to provide a rationale for the results. "My initial thoughts are: when were these CHWs trained and how often are they supervised? Do they get follow up training?"

> Questions
>
> 5. What are some of the biggest performance challenges the program faces?

Another DHO said "I have lost 10 CHWs in the last three months and have only recently found replacements, but we have no plans for re-training right now".

A third DHO said, "I am aware that CHWs feel more comfortable addressing malaria and diarrhea than pneumonia."

The remaining DHOs agreed that they had similar problems with retention of CHWs, and that referral was an issue because not all CHWs were following the protocols correctly. However, one added, "I think we may demand too much of CHWs. They are paid…but they also have 18 areas of responsibility and some see 100 clients a day at the Village Health Clinics. How can they do everything equally well?"

A DHO from Hunsan mentioned another study, conducted by an NGO operating in her district, which had found that CHWs *were* able to match the gold standard for diagnosing correctly 85% of the time.

However, she acknowledged: "Problems persisted in assessing danger signs and prescribing medication correctly for children with malaria. This is important as studies show getting the first antimalarial dose at the health center leads to higher adherence."

Mr. Banda said, as he concluded this part of the discussion, "We seem to be doing better in assessing syndromes than providing appropriate drugs or referrals." He further explained, "Training for new CHWs is 12 weeks. But CHWs are only given an additional 6 days of training to learn the treatment protocols." Then he added, "We do need to track the training needs of the districts, but changes in leadership at the DHMT level across the districts have also created problems."

IV.   Supervision

Mr. Banda continued, "Let us now look at the effectiveness of the supervision system. Each district has appointed senior CHWs, supported by health professionals, to provide supervision and mentoring to the CHWs." The ratio of supervisor to supervisees is 1 to 10. Their job is to observe CHWs managing a sick child, review drug supply and whether referral needs are met. He asked the participants what they learned from this table, and what this implied about possible scale up.

> **Questions**
>
> 6. What other issues may be affecting regular supervision?

	Total (6 districts)	District					
		1	2	3	4	5	6
Total CHWs visited	131	22	21	22	22	22	22
Any supervision of CHWs							
CHW received any supervision in last month (N=127)	28% (20-36%)	55% (32-76%)	48% (26-70%)	19% (5-42%	9% (1-29%)	11% (1-33%)	23% (8-45%)
CHW received any supervision in last 3 months (N=129)	59% (50-67%)	68% (45-86%)	62% (38-82%)	45% (23-69%)	64% 41-83%)	67% (43-85%)	45% (24-68%)
iCCM Supervision of CHWs							
CHWs received iCCM supervsion in last 3 months (n=128)	38% (30-48%)	59% (36-79%)	24% (8-47%)	15% (3-38%)	41% (21-64%)	67% (43-85%)	27% (11-50%)
CHWs received a visit in the previous 3 months that included observation of sick child management	14% (9-21%)	18% (5-40%)	0%	5% (0-25%)	9% (1-29%)	38% (18-62%)	14% (3-35%)

The DHO from district 6 was startled: "I can see we have a consistency issue!" he blurted out. Others murmured agreement, saying that they understood there was an issue with observations across the board.

Mr. Banda asked, "What can we attribute this lack of supervision to?" The District 6 DHO countered that *his* supervisors found that CHWs *were* consistently using their algorithms, and they explained the medications and dosages to the caregivers. He added, "We know they also provide referrals…but often don't have any counter-referrals." Another DHO added, "Some problems, aside from them not having enough time, are due to Senior CHWs not always feeling comfortable being clinical mentors themselves. They need more support from clinical officers."

V. Data Management and Supply

The meeting was nearing the end of its scheduled time. Mr. Banda stated, "Long term sustainability is also associated with the quality and comprehensiveness of our programs: supply management, referrals, and monitoring and reporting of our data. What can we say about these components?" Several DHOs mentioned that getting supplies to remote areas remained a struggle and meant frequent stock-outs. One DHO stated his CHWs often had to walk up to 3 hours to get their drugs.

> 7. What are the key issues in supply and data management?
>
> 8. Using the CHW AIM tool, how would you rank South Vaton's supervision, equipment and supplies and data management and what actions would you recommend to improve their functionality?

Others commented that most CHWs have not been trained in how to quantify their need or review consumption. A recent study showed that, of the CHWs providing CCM, who were expected to have 19 products, only one in three had what they needed to treat pneumonia, diarrhea and malaria. Ms. Muti, formerly from Commodity Management Department, but now serving as a district IMCI officer, said "We definitely need to offer better training and information on consumption so the CHWs can predict their supply needs. This is important for scale up."

Mr. Banda added, "Another area we have to focus on is monitoring of the quality of services; we do collect regular information on the number of clients seen, treatment given and the drugs provided, the number of referrals made, yet our data is not integrated into the HMIS. He asked how many DHMTs are actually receiving data from the villages and how many are holding meetings to review the data. Without interpretation and analysis we can't make decisions about things like scale up."

Mr. Banda said we need to think through what kind of scale up we want. Our communities demonstrate they are happy with the new services, although they want more: services for over-5 children, for other conditions and for elders in the community; others want us to treat newborns with algorithms for neonatal pneumonia. There is also demand to move into new communities. In making our decision, it would be helpful to see what where we stand on a functionality scale. I have a

> Question
> (*Individually answered*)
>
> 9. What questions would you ask to help the IMCI Unit decide on a scale up plan?

new tool that can help us think this through. Let's look at three areas of importance: supervision, equipment and supplies and linkages to the health system and rate ourselves and identify what we need to do before moving forward.

Appendix 7: Small Group Discussion Summaries

PRODUCTIVITY

This group discussed the concept of CHW productivity with participants representing a variety of perspectives, including those of NGOs in Kenya and Uganda and MOH in Zambia. The discussion was guided by a few key questions:

- What does productivity mean in the context of a CHW program?
- How can CHW productivity be measured?
- What factors are associated with CHW productivity?
- What is the relationship between productivity and performance?

Key suggestions in measuring productivity were:

- Use targets— for example: against targets, (e.g.) how many households has the CHW visited?
- Are CHWs doing what they 'should' do within the allotted time?
- How do we know what CHWs 'should' do?

The last bullet was identified as being complicated as it is clear there is a need for a harmonized package, but what CHWs 'should' do varies widely across programs/countries.

Relevant inputs mentioned included:
- Time spent
- Incentives
- Training

It was pointed out that many of the inputs needed are dimensions of CHW-AIM:
- Remuneration
- Career path
- Supervision
- Clear role
- Recognition
- Motivation as professionals
- Importance of training/empowerment of CHWs to support productivity

Relevant outputs or indicators of productivity mentioned in the discussion included the number of clients, patients, households. There was difficulty in thinking of other quantitative indicators, but one participant noted that productivity of CHWs' activities also has a qualitative aspect, e.g. influencing community behavior through interactions with a few well-placed households. This might end in visiting fewer households but spending more time in each household; thus the impact of their visits is wider than it appears when measured quantitatively.

Beyond immediate outputs, productivity must also be measured in terms of outcomes such as improved household behavior (hygiene, etc.) or improved service uptake (delivery in facility, etc.). In this sense it is difficult to distinguish from performance. Perhaps 'quality' of services

provided would be a better (more specific) term to describe what we are interested in—developing interventions that improve CHWs' productivity (more services provided) without compromising the quality of those services.

REFERRAL
What are the issues?
Strengthening the relationship between community and health facility: This includes the link between the household to the nearby facility, especially by the CHWs. When CHWs give an initial dose of medicine to the household, household members are less inclined to go to the clinic. A better understanding of the relationship between the community and the heath facility would help strengthen the whole system. This would lead to improved community awareness of the need for referral, improved referral networks and an increase in the number of clients who actually go to the facilities.

Skill Development: Referrals can be used to build the knowledge and skills of the health workers. CHWs need to learn about the feedback loop - understand how they could have done things better and encourage continuous improvement.

Documentation: How should documentation be structured for referrals? Are there standardized documents that can be used? Are there tools for tracking and measuring? A clear understanding of what should be documented, how, when and where it is filed and with whom it is shared is necessary.

Process: CHWs know how to refer, what to refer for and they are making the referrals. However clients don't always get there. For example, when a child is has fever and an RDT test is done and it is negative, we used to advise the CHWs to give paracetamol and then refer. However, a good percentage of the caretakers will just take paracetamol. At one point project managers were forced to "stop" paracetamol so people would go to facilities. But this still is not the right thing.

Awareness: The CHWs who are referring clients need to be able to explain to the households – that this is not treatment but something to tide you over. Education of the household is crucial!

Comfort: Issues of community members being afraid of the health facility staff can be a hindrance as well. It's important to make the health facilities and the community members come together.

System: Referral needs to be seen as a system. There is a need for a guide. It's good to encourage CHWs and clients to create demand for feedback for themselves. Communication between the health facility and CHW should also take place after the referral; CHWs should be encouraged to follow up with what's happening after treatment.   From the supply side - some health facilities do not want to complete the forms or provide enough information, making the feedback loop very challenging. Bringing the health center and CHW together to discuss the system and identify the elements to be monitored would assist the process.

Suggested strategies:

- Working with TB patients in India, who are required to come back frequently, is difficult because patients don't want to go back to the facility when they feel better. CHWs actually accompany them to the facility. But if this isn't possible, it may be possible to engage the community through a buddy system. Perhaps the community can be mobilized by making them aware of the issues so they can help identify people who need to be mobilized to complete their referral.

- Having someone, perhaps 'a referral focal person' take care of referral loop has potential. This is being tried in urban areas in Ethiopia, working with city health offices to bring all partners together (private providers, NGO providers and public providers). All partners need to know which services are provided at which facility. In Ethiopia partners did meet and they developed referral guidelines/directory, listing who to contact, how and for what. They also created referral slips.

- Specific actions:
    - Follow-up tear-off sheet that can be given back to the CHW.
    - Referral registers to document referrals/follow up; helpful in identifying defaulters.
    - Contact address of CHWs kept at health facilities so counter-referrals can be conducted.

- Assess unnecessary referrals which might dissuade clients from going to clinics or make them wonder why it wasn't handled within the home. To avoid this more understanding is needed of CHWs' rationale for referrals; identifying those that are inappropriate can lead to a capacity building plan. Referral criteria are needed so CHWs know when to say "I cannot manage this case, I need to refer it."

- A lot of clients feel uneasy with what they're being referred for - this can be offset by using codes. The receiving institution has the key for the code.

- A challenge at the district health office led an organization to develop software to consolidate all the referrals in the entire district – and monitor them. This was helpful for capacity building.

- At the health center level referrals could be built into health facility staff performance reviews and QI meetings; the data should be available for reviewing the number of referrals/follow-ups conducted and feedback gathered.

INCENTIVES

The issues surrounding incentives were clear.

Standardization:

- Partners provide different incentive schemes which can create confusion and resentment among CHWs. There is a need to standardize incentives schemes; this should be the responsibility of ministries of health.

- National guidelines are needed to clarify incentive schemes, including specifications of work hours, load of work, and incentive levels.

Types:
- Performance based incentives can also be applied where group incentives are given to a team of health workers to be shared among them.
- Non-financial incentives can also be effective, such as providing CHWs with umbrellas, bags, T-shirts that distinguish them as members of the health team.
- Zambia trains CHWs who receive stipend salaries currently provided by international partners and to be paid by the Zambian Government later

Support
- The community has an important role to play in providing in-kind incentives and in recognizing CHW work.
- Providing salaries to certain levels of CHWs can be effective. For example in Ethiopia, Health Extension Health Workers receive salaries, but Ethiopia discourages providing incentives to volunteers as this will raise expectations and not be sustainable.
- Career advancement needs to be encouraged; however in Uganda there seems to be a challenge in balancing encouraging career advancement on the one hand and increasing retention of CHWs on the other. Actually, candidates for CHW posts who have a good level of education are not accepted as CHWs as they are deemed to be likely to leave there post shortly.

SUPERVISION
Supervision is a key part of managing and supporting CHWs. A supervision system should be in place at every service level and supervisors should be supplied with the appropriate tools: integrated tools, materials and checklists (CIMCI, HIV, etc.).
Supervisors should be appropriate for the responsibilities they have. Historically CHW programs under EH supervisors must be trained in packages they are supervising (e.g. iCCM).

Key elements of support are:
- Training
- Defining Expectations and defining responsibilities in job descriptions
- Scope of supervision (other duties)
- Proper Equipment and tools (bicycles, boots, etc.)
- Supervisor should be part of the National System

How often should supervision take place? This varies:
- Frequency of supervision
- Once a month?
- Depends – appropriate to different levels.

How can supervision improve quality?
- Performance-based incentives
- Performance evaluations

Country Examples

Ethiopia: Old system had dedicated supervisors; but EH workers complained of poor compensation, transport problems, felt undervalued, and didn't have the skills to supervise clinical interventions. New system – PHC Approach: Every clinical provider can supervise his/her area; most HCs receive motorbikes and checklists are integrated. This leads to more interventions, longer lists, and the supervision takes less time.

Mali: CSCOM level: there are integrated tools; observations are rated; and feedback is given to community leaders, counselors, ASACO members.

PIH Rwanda: HC Supervisors are EH Officers; at the cell level they are supported by PIH. Cell supervisors are part of the government system. The Community Health Nurse is paid by PIH but co-opted into the Health Center. Importantly the ownership of supervision is by the health facility; there is a supervisory performance contract.

Uganda: Supervisory structure is a shared challenge across Africa. Supervisors are the Health Assistant, "In Charge", and Community Development Officer. All three can supervise CHWs in Uganda, but who is in charge? A supervisory plan is needed.

Zambia: CHWs were trained in iCCM before supervisors were trained. Gaps were identified in getting data.

Emotional component:
- Expert patients feel responsible for everything that goes wrong – lack of clinical judgment
- CHWs and TBAs who "run" health facilities and "train" newly deployed health workers – "don't know what they don't know"
- CHWs works best in well-functioning health system

What more should be in supervisory package?
- Supervision can be emotional challenge to CHWs, who feel it is a stressor and they are being judged.
- CHWs find their own mentors and leaders which is an informal layer of supervision
- In Uganda – supervisors use personal phones, buy their own airtime, and attend village meetings
- NGOs target the CHW "leaders" – who are sent to additional training
  - "emergent" supervisors
  - Formal vs. informal supervision

Zambia: There is mentoring, observation, and supervision, but often nothing is documented. Checklists and quantitative indicators promote reporting of counts and not quality. Supervision is "prescriptive vs. descriptive." The role of supervisors is more reactive; there should be a lobby to change things at a higher level through advocacy.

mHEALTH
Through the mHealth Alliance meetings, discussions have focused on the importance of technology in helping people live healthier and longer lives, especially through iCCM. mHealth can be used in:
- Case management
- Trainings
- Creation of demand for services
- Continuum of care

For example CHWs can use mobile phones to track and report danger signs in pregnancy. In some countries, such as Malawi, a program called "Mwansa Project" is using mobile phones to track the health of children under 5 –enabling malnutrition tracing.

Country Examples
Uganda: In AMREF's TB Project, CHWs use mobile phones to track TB patients, for case identification and to support clients on TB treatment with issues of adherence. Challenges: Not all CHWs have phones so they have to use a neighbor's phone number. Often the messages are in English, thus there is need for translation.

Ethiopia: Conducted an assessment on the availability of mobile phones among CHWs. The project is still at the inception level, but challenges are arising. Issues surround where phones can be charged and a lack of electricity in some areas.

Zimbabwe: They are implementing mHealth to track the supply chain and are able to get quick data on supply availability. This allows early identification of gaps and faster solutions.

Zambia: FHI-2PCT II HIV/AIDS program with MOH cooperation is piloting use of mHealth for Infant Early Diagnosis. Dry Blood Spots are collected and sent to the Central Laboratory to conduct a PCR. But results can take up to two months to get back; by then the baby would have been discharged and back home. Mobile phones are now used to text the family and request they come for results, which has resulted in increased numbers of children getting their results and being able to access ART early.

Kenya: AMREF nurses and clinical officers use mobile phones to access the HIV Specialists at the National level. E-learning is used to help nurses upgrading from certificates to diploma level.

Rwanda: Started working with cell phones in 2004 and has since scaled up; the government is buying mobiles for all CHWs. Challenges are noted; for example, as phones grow old – who replaces them? Is there enough electricity? The government is working on expanding coverage.

Summary:
mHealth is generally used to support tracking and for emergency cases.
General Challenges:
- Availability of mobile phones among CHWs
- Unavailability of electricity to charge the phones
  - Solar power could be an option
  - Messages in English need to be translated.

SUSTAINABLITY
What is sustainability?
The group discussed the definition and components of sustainability. At the organization level: it is to manage augmented level of activities effectively, have finances for the foreseeable future, program autonomy and to provide desired and sustainable services. At the community level, it means continuation and ownership of services.
- Ensuring services can continue
- Having a long term vision

Challenges:
NGOs often go after activities with funding or those that are 'in vogue'; nevertheless it is critical that they have an exit plan to maintain whatever gains were made.
Continued support in terms of money, resources, supplies, supervision.

How can we work toward it?
The exit strategy should be documented in the planning stage and the project should build alliances from the outset to implement the exit strategy. Priority should be given to ensuring the project identifies and works with structures at each level: the community, the community structure, partners and the government structure and efforts should be made to align the strategy with national policy and existing country tools.

The exit plan should be developed in partnership with support structures and focus on building their capacity to eventually take on management of services. This means training government managers alongside your own and integrating programs/services into government or partner programs. The process should include a planned, slow transfer to allow assumption of tasks while mentoring is still possible.

It is important to work with government to identify what is needed to assist their takeover and to share data and regular reports with them, include them on site visits, showcase successes and success stories to enhance their involvement.

Key is determining what should be sustained. This can be done by preparing a comprehensive M&E plan and using the data to identify what is working.   It is important to identify who should take over. For example, sustainability can mean services are sustained by the community. There are a wide variety of community entities and committees that could be involved, e.g. funeral associations, a stable body.

CHWs should also be sustainable; their value to the community can be highlighted so the community chooses and is helped to take ownership of the CHW level; although this is complicated by the need for resources.

Key Steps:
- Identify who can take over
- Prepare appropriate managers/supervisors/staff to take on the tasks
  - Ensure management structures are in place
  - Identify expertise needed - create training program
  - Assist with supervision system
- Ensure supplies remain in place
  - Gradually move supplies to government SCM
- Ensure finances are in place
  - Adjust program to meet the budget of the organization that will take over
  - Support resource mobilization training for NGOs and communities
  - Discuss financing needs for gov't

Appendix 8: Country Action Plans

ZAMBIA COUNTRY PLAN

What improvement to existing programs, if any, would you like to make, based on the experience you have learned about during the meeting?
- Government of Zambia to define the coordination structure of CHW, recognizing MOH and MCDMCH – to facilitate creation of a desk for CHWs

What NEW strategies, program or models, if any, would you like to apply at home
- Re-introduce the Supply Chain Management for CHW kits

How would you introduce them?
- Revive the CHW steering committee
- Identify a high profile Zambian to be a CHW champion
- Strengthen the Community Mobilization strategy

What resources and technical support would you need to use to introduce these strategies/programs or models?
- CHW desk- create secretariat and define the roles of various CH providers

ETHIOPIA COUNTRY PLAN

What improvement to existing programs, if any, would you like to make, based on the experience you have learned about during the meeting?
- Implement CHW AIM for HEW program
- Improve coordination and leadership
- Improve standardization

What NEW strategies, program or models, if any, would you like to apply at home
- Data feedback
- Cost-saving approaches

How would you introduce them?
- CHW AIM: approach to minister and technical working group
- Identify a CHW AIM advocate
- Share learning from meeting with MOH and NGO secretariat

What resources and technical support would you need to use to introduce these strategies/programs or models?
- Technical support if funds available

UGANDA COUNTRY PLAN

What improvement to existing programs, if any, would you like to make, based on the experience you have learned about during the meeting?
- Roll out the use of the CHW AIM functionality assessment tool nationally
- Mapping of the existence of village health teams (VHTs) and their functionality
- Improve coordination at the National level
- Advocated for supplies credit line for CHW
- Use of data collected by VHTs at facility and community

What NEW strategies, program or models, if any, would you like to apply at home
- Cooperatives for income generation and motivation for CHWs
- Supervision framework

How would you introduce them?
- Identify Political champion for CHWs
- Brief VHT national steering committee
- Follow meetings with district VHT coordinators
- Brief INGO secretariat and lobby for funding to kick start some innovations

What resources and technical support would you need to use to introduce these strategies/programs or models?
- Supply chain management for CHW
- CHW AIM tool
- Funding for National coordination meetings

RWANDA AND MALI COUNTRY PLANS

What improvements to existing programs. If any, would you like to make, based on the experiences you have learned about during the meeting?
Coordination and policy settings:
- Integration of new technical approaches/standards in policies and guidelines
- Strong Implication the community in management of the programme

Incentives:
- Strengthen cooperatives /increase the capacity of cooperatives leaders on management skills / getting status
- Revise the package for cooperatives leaders

M&E
- Integration of tools for new approaches
- Introduce CHWs AIM (CHW Assessment and Improvement Matrix) very appreciated by the group

Supervision
- Evaluate the execution of the supervision according to the CHWs AIM results

What new strategies, program or models, if any would you like to apply at home?
- CHWs AIM tool

3. How would you introduce them?
- Through MoH Community Technical Working group

4. What resources and technical support would you need to use to introduce these strategies, programs or models?
- Getting somebody with Facilitation skills for the introduction process of the tool
- About funding: once the technical Working Group has agreed to adopt, the mobilization of resources and feasibility will follow

KENYA COUNTRY PLAN

Overarching objectives:
- *Explore use of CHW AIM tool*
- *Mapping of existing Health Workforce*
- *Advocate for CHWS from health workers*

What improvement to existing programs, if any, would you like to make, based on the experience you have learned about during the meeting?
- Document and print the success stories of the Community units (CU) for sharing internally and externally
- Review the iCCM module to see what is being implemented, what is not and why – then work out an implementation plan of the CCM model
- Identify a category trained as community nurses, retired midwifes to work as CHEWs as short term; for long term identify a cadre of workers referred to as CHEWs train them and remunerate them to support CUs
- Remuneration of the CHWs to be reviewed and supported through the GOK structures
- The CHW KIT find out which CHWs have a functional KIT and work out how they can be adequately supplied
- Streamline supervision of CHWs

2. Strategy	3.How	4. Resources
Establish use of mHealth technology by all CHWs	Advocate for a policy to support this	MOH and partners ICT support.
Explore the use of CHWAIM tool for functionality assessment in Kenya	Develop an implementation frame work for of CHWAIM	MOH and Partners
Explore use of cooperative models for use by CUs,	Document existing practices and then develop a policy for this.	MOH and Partners Technical support from department of cooperatives, e.g. Equity bank support
Recalling retired health workers such as nurses and midwifes to serve Advisors/supervisors of CHEWs	Commission a study /map out on identifying retired health workers in the country	MoH and Partners

- ***Follow up plan; ministry driven through the ICC.***

Appendix 9: CHW AIM Regional Meeting Evaluation

1. **I represent a**: 3   National government (Ministry)
                      17 International non-governmental organization
                      1   National non-governmental organization
                      6   USAID or other bilateral or multilateral agency

2. **Please review the meeting's three objectives and indicate whether you agree or disagree that it was achieved.**

Objective	Strongly agree	Agree	Disagree	Strongly disagree
a. To provide a forum for policy makers and program managers to share best practices, innovations and challenges in CHW programming.	17	9		
b. To familiarize participants with the CHW AIM tool and its applications, including assessment, evaluation and improvement of CHW programs.	19	8		
c. To develop a framework for analyzing key constraints and enablers for achieving functional, scalable and sustainable CHW programs.	10	16	1	

3. **My main "take-away" or biggest learning from the meeting is:**

CHW AIM:
• Systematic and comprehensive way of working, looking and improving CHW's program performance.
• CHW AIM as a very important tool to assess and improve program functionality for CHWs (x 9)
• The functionality assessment tool application in addition to the quality assessment which can be done using the CCM benchmarks
• Assessment of CHP functionality
Scalability:
• Scalability of CHW AIM
• Need to think "sustainability" in CHW Interventions
• Initial focus on functionality and then move to scale up
Tools:
• Best practices and innovations from other countries, especially on co-operatives in Rwanda, use of antibiotics by CHWs in other countries
• Government is interested in tangible tools and documents for scale
• Adapting mHealth
Support
• Political will is very important

Planning
• Planning for community programs in a way that promotes sustainability and innovation, the importance of community involvement and support for CHW coordination, documentation of CHW activities
• Equity-focused interventions, while expensive, are cost-effective.
"I realized how much I already know about health workforce and how much I still have to learn. This was a great introduction. Too bad not all countries could send their most appropriate top-level decision makers, but there was a good mix of different orgs and governments. Also the idea of national "champions" for CHWs"

4. Please list which session(s) you found most useful, and explain why.

• All of the sessions since in each session there was something to learn
• Group sessions, Kenya country presentation
• Orientation of the CHW AIM functionality assessment tool. This is a very useful tool that enables a country to get a benchmark for the CHW functionality and how to address gaps.
• ICCM because the benchmarks are very important for scale up, group breakouts
• Addressing bottlenecks - best practice and new ideas, helpful to learn innovative strategies from their orgs. Collaborative improvement - addressing barriers to scaling up.
• Sharing successes and challenges of CHW program from a different country
• Group discussion on CHW AIM components. These discussions showed how important the tool is in helping to continuously improve functionality in a project.
• Scalability and sustainability - next steps in supporting CHWs
• Country presentations because it was useful to share experiences
• CHW AIM Tool - very useful tool to improve CHW programs

5. Please list which session(s) you found least useful, and explain why.

Scalability
• Scalability and Sustainability - the framework did not come out clearly
Country Presentations
• Country presentations because there was no standard outline on what to present. It would have been better if lists of what should have been presented were distributed
• Country presentation could have focused more on MOH questions and processes for scale instead of "this is what it is"
• Too many similar country presentations - were not necessary
NGO Models
• NGOs CHW
Small group discussions:
• CHW AIM
• Round table discussions: sharing experience X2
CARE Models –
• Did not have much - Needed discussions on different multi-disciplinary teams

6. **Please list any tools, strategies or models you learned about during the meeting that you plan to introduce into your work in the next 12 months**:

CHW AIM & CHWs
• AIM tool
• CHW AIM tool comparison with the Technical Sustainability tool and consider the differences identified
• Using AIM tool to supervise quality of service delivery and supervision and community engagement
• CHW AIM, CCM Central, CHW Central
• Case studies
ICCM
• ICCM
• CCM benchmarks - quality assessment
• ICCM scale up planning
Collaboratives
• The co-operative models, use of CHW AIM tool to evaluate the functionality of CHWs in Kenya
• Collaborative methodology, CHW AIM components
Support Processes
• Community involvement and participation in CHW program
• mHealth, supervision
• Strengthen the MVP model
"CHW can make a difference in the implementation of important programs. We will ensure they are well trained and involved."

7. **I wish there had been more time during the meeting for:**

Testing CHW AIM
• Testing the AIM tool in certain places
• Using the tool on actual practice and learning what it is like when used practically
• how to apply CHW AIM tool
Models
• NGO CHW models panel, panel discussions, next steps and supporting CHWs
• more presentation on "models of CHWs"
Sharing
• sharing best practices, hearing key questions from policy-makers that comes into question when addressed with the challenge of scale
• discussions in the round table
• detailed country sharing
• affinity discussion
• more discussion and experience sharing
• discussion are more helpful than too much PowerPoint presentations
• success stories
• Country meetings - a series of two might have been more useful
• More discussion of each case presented in the panel
Scalability
• further engagement to understand the level of scalability of community health workers programs

Quality
• use of CCM benchmarks for quality assessment (more country and sharing on where it has been used)

Functionality
• How to improve functionality of CHW program

Funding
• Discussing potential sources of funding for supporting CHW programs
• Sustainability

8. What follow-up, if any, would you like to see following the meeting?

Communication
• share follow-up, keep communications
• exchanges with other participants by email
• share experience with colleagues
• follow up on how different countries have introduced and implemented new strategies, esp. the CHW AIM tool
• receive the report on key outcomes of the meeting

CHW AIM
• follow up meeting after scaling up use of the AIM tool
• to be supported with a technical person in trainings for CHW AIM tool application
• what impact has been gained after using CHW AIM
• Any adaptation of the CHW AIM tool
• Utilization of the CHW AIM tool in different countries
• How AIM tool has been operationalized
• adapt and use tool for improving quality of service delivery
• results and further testing of the AIM tool
• technical support to use CHW AIM tool at national level;

Country Team
• continue dialogue with country team members on how to improve community health program
• implementation of country plans

Scaling Up
• Guidelines for scale up planning
• Feedback on the focalization of the framework
• technical support in ICCM scale up

County Support & Improvement Evidence
• Greater advocacy with professional , greater coordination of community health services at country level, attention to continuum of care
• See improvement in CHW work in participating countries
• Field visit to see the community model

9. Please indicate how you felt about each of the following:

	☺☺	☺	😐	☹	☹☹
a. Communications prior to the meeting	22	3	2	0	0
b. Meeting materials	17	9	0	1	0
c. Meeting venue	17	7	1	1	1
d. Accommodations	17	5	1	0	0
e. Food	14	8	3	1	0
f. Range of participants	14	8	2	1	1