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Integrated Community Case Management of Childhood Illness:

Documentation of Best Practices and Bottlenecks to
Program Implementation in the
Democratic Republic of the Congo

SUMMARY REPORT

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ABBREVIATIONS AND ACRONYMS

ACT	Artemisinin-based Combination Therapy
ARI	Acute Respiratory Infection
BASICS	Basic Support for Institutionalizing Child Survival
BCC	Behavior Change Communication
CHW	Community Health Worker
COGESITE	<i>Comité de Gestion de Site</i> (Site Management Committee)
DRC	Democratic Republic of the Congo
iCCM	Integrated Community Case Management
IMCI	Integrated Management of Childhood Illness
LQAS	Lot Quality Assurance Sampling
M&E	Monitoring and Evaluation
MCHIP	Maternal and Child Health Integrated Program
MOH	Ministry of Public Health
ORS	Oral Rehydration Salts
RDT	Rapid Diagnostic Test
SNIS	<i>Système National d'Information Sanitaire</i> (National Health Information System)
TOT	Trainer of trainers
UNICEF	United Nations Children's Fund
USAID	United States Agency for International Development
WHO	World Health Organization

ACKNOWLEDGMENTS

We would like to express our sincere appreciation to our field partners and coworkers, who are consistently working toward improving our children's lives. They showed unfaltering commitment, creativity, and special attention to detail in developing their Community Case Management (CCM) programs for childhood illnesses. Thank you for the time you devoted to the full documentation report from which this summary derived, and for sharing information.

We also extend a special thanks to Ms. Kathleen Tilford for her contribution to the development of this summary report.

INTRODUCTION

WHY INTEGRATED COMMUNITY CASE MANAGEMENT?

Although infant and child mortality rates have declined appreciably in most developing countries, children under five continue to die at unacceptably high rates, often of preventable causes such as malaria, diarrhea, and pneumonia. According to a recent analysis by Robert Black et al., pneumonia is responsible for 18% of under-five deaths, diarrhea for 15%, and malaria for 8%.¹ Simple, cost-effective interventions are available for these diseases, but a major challenge remains: in most countries where morbidity and mortality among children is high, access to health facilities and/or the quality of services offered are still obstacles to care.

Integrated Community Case Management (iCCM) of childhood illness is one strategy to reduce morbidity and mortality in the under-five population by delivering high-quality services to hard-to-reach populations through paid or volunteer community health workers (CHWs). In Africa, many countries are still in the early stages of their iCCM strategies, focusing either on advocacy activities or on introducing the approach for a single disease at a time. However, a few countries, including the Democratic Republic of the Congo (DRC), Senegal, Rwanda, Madagascar, and Niger, have begun to implement the approach on a national scale.

As these countries expand their strategies and move toward scale-up, they have important lessons and promising practices to share regarding the process of adopting, introducing, and implementing iCCM on a larger scale. With five years of experience (2005–2010) in a very challenging context, the DRC strategy offers a number of lessons to other countries that are interested in either implementing iCCM for the first time or expanding their current programs. By identifying the successes and best practices of the DRC approach, by describing its weaknesses in order to correct and prevent them, and by articulating a clear vision of the future of the approach, this summary of a report on the DRC's iCCM experience has a two-fold aim: (1) to serve as a global learning tool that other countries may adapt for their own iCCM efforts and (2) to continue to inform strategy implementation in the DRC.²

This summary report is organized into four main sections. The first section introduces the methodology used to document successes and bottlenecks in the strategy. The second section provides a brief overview of the health sector in DRC and the history of the iCCM strategy. The third section presents the key findings for eight programmatic components of an internationally recognized framework of iCCM benchmarks (see www.ccmcentral.com). The eight components are (1) coordination and policy setting, (2) financing, (3) human resources, (4) supply chain management, (5) service delivery and referral, (6) communication and social mobilization, (7) supervision and performance quality assurance, and (8) monitoring and evaluation (M&E) and the health information system. The final section on lessons learned is organized around four critical themes:

- Establishing a favorable policy environment and effective institutional support
- Reinforcing links between the health system and the communities
- Rapidly scaling up the delivery of quality services by CHWs to households
- Designing and implementing behavior change communication (BCC) activities for iCCM

¹ Black RE et al. 2010. Global, regional, and national causes of child mortality in 2008: A systematic analysis. *Lancet* 375(9730): 1969-87.

² For the full report, see *Integrated Community Case Management of Childhood Illness: Documentation of Best Practices and Bottlenecks to Program Implementation in the Democratic Republic of Congo*, available at www.ccmcentral.com

THE DOCUMENTATION EXERCISE

GOAL AND OBJECTIVES

In September–October 2010, the Ministry of Health (MOH) and its partners undertook a documentation exercise to share the DRC’s iCCM experience with other countries and to propose recommendations to strengthen the approach. The exercise, jointly supported by the United States Agency for International Development (USAID) and the President’s Malaria Initiative (PMI), was carried out by a team composed of two people from the Maternal and Child Health Integrated Program (MCHIP), one person from the World Health Organization (WHO) Regional Bureau, one person from Population Services International (PSI), two national consultants, and eight facilitators for the focus group discussions.

The overall goal of the documentation exercise was to inform the design and implementation of iCCM programs. The four specific objectives of the exercise were to:

- Document the promising practices implemented by the MOH and its partners that have contributed to the success of iCCM in the DRC
- Document past and current bottlenecks and difficulties in iCCM program implementation and the approaches that were used to overcome them
- Draw lessons from the DRC experience to build a basic model for developing future programs and for reorienting existing programs
- Document evidence of the effectiveness of the iCCM program in the DRC

METHODOLOGY

The methodology included a review of documents and health sector data as well as quantitative and qualitative methods for data collection from a sampling of national, regional, district, and community-level sources. The qualitative data collection focused on opinions and perceptions and included two principal methods: (1) semi-structured interviews with key informants, program managers, and implementation partners; and (2) focus group discussions with head nurses, mothers and caregivers, community relays, support groups such as churches, and the iCCM site management committee, or COGESITE (Comité de Gestion de Site). The purpose of the quantitative data collection was to gather information on stock status— through inventory and review of management tools—and the performance of the iCCM site relays— through review of the national iCCM database.

Text box 1: Basic Terminology Used in DRC

- **Health Province and District:** Form the intermediate level of the health pyramid. Their role consists in providing technical support to health zones*. In DRC, health districts *ensure roles similar to those of provinces or regions in most other French-speaking countries*. They are geographically much larger.
- **Health Zone (HZ):** Is the operational unit of the National Health Policy’s implementation. It is a decentralized organization in charge of planning and implementing the Primary Healthcare strategy and operating in accordance with the strategies, instructions, and standards laid down by the central level of the health system*. In DRC, HZs *ensure roles similar to those of Health Districts in most other French-speaking countries*.
- **Community care site:** Clearly defined geographic area where one or several hard-to-reach village(s) or community(ies) benefit from care delivery by two volunteer relays trained and supervised to manage specific common conditions, especially in under-five children**.

- **Health Zone Community Animator:** HZ staff in charge of all community activities.
- **Community Relays:** Term which refers to any “volunteer, from a village or street, appointed by the residents of the said village or street, to ensure the link between individual family members and the health service. As such, he/she agrees to devote part of his/her time to activities of community interest to contribute to the development goals of his/her village/street in a sustainable way”***. In practice, there are two types of community relays:
 - **Site Relays (SR):** Relays who received formal training, enabling them to manage sick children at the community level.
 - **Promotional Relays (PR):** Relays trained to conduct health-related communication activities and mobilization in their community. *They mainly work on Information, Education, and Communication.*

Sources:

*RECUEIL DES NORMES DE LA ZONE DE SANTE, August 2006

**SITES DES SOINS COMMUNAUTAIRES : GUIDE DE MISE EN ŒUVRE, 2007

***MANUEL DES PROCEDURES DU RELAIS COMMUNAUTAIRE, CELLULE D'ANIMATION COMMUNAUTAIRE ET COMITE DE DEVELOPPEMENT DE L'AIRE DE SANTE, accessible on <http://www.sanru.cd/Documents.php>

Overview of the Health Sector and iCCM in the DRC

The DRC is the second-most populated country in sub-Saharan Africa, with a population estimated at more than 64 million spread out over 2,345,000 km². The country is organized administratively into 11 provinces, and each province is divided into districts. The armed conflicts raging in the country since 1996 have destroyed the structure of Congolese society, decimated the infrastructure, and had a dramatic impact on the economic and health situation of the population. Poverty has reached appalling proportions, affecting 71% of the population.

THE PUBLIC HEALTH SYSTEM

The public health system in the DRC has three levels:

- The central level
- The intermediate level, which includes 11 provincial offices and 65 health districts
- The periphery, which includes in theory 515 health zones with 393 general hospitals and 8,266 health centers

At the community level, prevention and promotion activities have traditionally been carried out by community relays (*relais communautaires*) who work on a voluntary basis. With the advent of the iCCM approach, there are now two types of relays at the community level. The *promotional relays* contribute their time to social mobilization and communication activities. The *iCCM site relays* receive structured training and supervision, allowing them to provide curative care to sick children. The iCCM strategy is implemented at “sites,” which are not physical entities but rather geographical areas consisting of several villages. The actual care is usually provided in the home of the iCCM site relay.

The head nurse at the affiliated health center supervises the relays and is involved in their selection and training. He or she is the key MOH person who interacts with the iCCM site relay, providing technical guidance as well as moral support and encouragement.

THE iCCM APPROACH IN THE DRC

The choice of iCCM as an approach for combating childhood illness in the DRC is obvious when one considers two facts: (1) the extremely high child mortality rate and (2) the difficulty of physical access to health care due to the geography of the country and the lack of security in certain areas. Only 35% of the population lives within five kilometers of a health facility.

The principal causes of childhood mortality in the DRC are malaria, acute respiratory infections (ARIs), diarrheal diseases, and malnutrition. In December 2005 the MOH initiated iCCM for childhood illness. Given the high child morbidity and mortality and the lack of care in many areas, the MOH made an important strategic decision to include treatment for malaria, ARI, diarrhea, and malnutrition from the beginning, rather than phasing in the interventions over time. Five years later (as of September 2010), there were 716 iCCM sites, covering a population estimated at more than 1,600,000 people.

A number of financial partners helped make this achievement possible. The 13 principal partners or groups of partners who contributed logistical, technical, and financial resources are Basic Support for Institutionalizing Child Survival (BASICS) and the Maternal and Child Health Integrated Program (MCHIP), both supported by USAID; the Integrated Health Services Project (AXxes), supported by USAID; the United Nations Children’s Fund (UNICEF); the World Health Organization (WHO); Management Sciences for Health (MSH)/Rational Pharmaceutical Management Plus (RPM+); the German Organization for Technical Cooperation (GTZ); the *Centre de Coopération Internationale en Santé et Développement* (CCISD) with the *Projet d’Appui à la Réhabilitation du Secteur de la Santé* (PARSS); Health Net International; the International Rescue Committee; Catholic Relief Services; the *Eglise du Christ au Congo* (ECC) with the *Programme Multisectoriel d’Urgence, de Reconstruction et de Réhabilitation* (PMURR); the School of Public Health (ESP) with the Global Fund and the National Malaria Control Program (PNLP); and the *Association de Santé Familiale* (ASF) with Population Services International (PSI) and the Canadian International Development Agency (CIDA).

With a long history of community involvement in health care, there were many steps that led the DRC to this stage. The following section summarizes important milestones.

HISTORICAL OVERVIEW OF iCCM

Community-based care in the DRC went through three phases:

Phase I: The Cradle for iCCM

The concept of providing health care through community-level workers dates as far back as the colonial era, but more recent roots for iCCM are found in the DRC’s primary health care strategy, initiated after the Alma Ata Conference in 1978. Unfortunately, progress on implementing the strategy came to a halt between 1990 and 2002, when conflict in the country deterred international cooperation.

Phase II: Advocacy and Initial Learning Phase

Implementation of the primary health care strategy continued after a transitional government was established in 2003. The 2003–2007 period included the following developments:

2003: The DRC’s transitional government was established and the MOH began searching for up-to-date solutions to improve the health status of the population, including the use of community volunteers to fill gaps.

2004: In October, findings from Senegal’s research on community-based treatment of ARIs created interest in and momentum for iCCM within the MOH. Consensus meetings were held and the decision was made to integrate the management of four diseases—malaria, diarrhea, ARIs, and malnutrition—into the iCCM package from the beginning.

2005: The MOH Secretary-General established a Steering Committee to be in charge of implementing the iCCM strategy; the Steering Committee immediately developed an implementation plan, established scale-up criteria, and conducted and used the findings from field surveys to choose the first sites for the launch.

2006: In March, representatives from the DRC attended the Sub-Regional Conference on community case management of pneumonia in Senegal and presented their experience on integrated approach. Subsequent iCCM sites are established.

2007: Based on lessons learned from two years of experiences in the field, the MOH finalizes the implementation guide for establishing iCCM sites in June and the MOH prepares to scale up the strategy. The Minister of Health himself wrote the preface for the guide. By October, partners had already trained 421 iCCM site relays and there were 224 functioning iCCM sites.

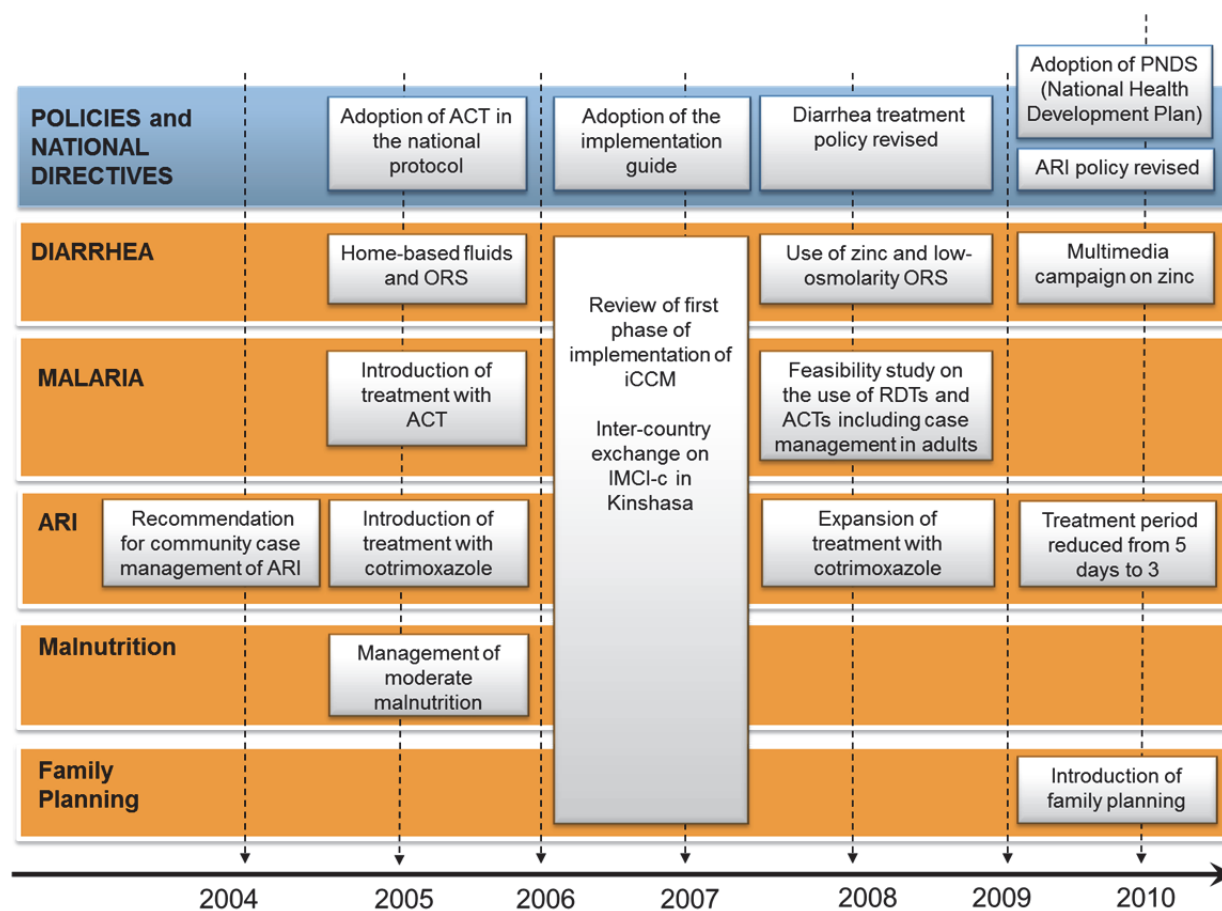
Phase III: Expansion Phase

2008: Scale-up began in earnest.

2009: Churches are mobilized to disseminate key child health messages. Scale-up continues; by September, the iCCM strategy has reached 10 of the 11 provinces and 78 of the 515 health zones.

2010: Family planning is added to the package of services, with pilots for community-based distribution of contraceptives launched in six health zones. In September–October the documentation exercise takes place.

As illustrated below, an important part of the development of the iCCM approach was the major changes in policies and protocols instituted by the MOH.



FINDINGS

Although this exercise was not intended to quantitatively measure increased access and improved outcomes, there are a number of positive findings indicating effectiveness of the approach. The findings also include challenges and barriers to successful implementation. To ensure that the analysis of findings from the documentation exercise captures the key components of iCCM programs, this section follows the iCCM benchmarks framework endorsed by the CCM Task Force (www.CCMCentral.com). The framework includes eight components: (1) coordination and policy setting, (2) financing, (3) human resources, (4) supply chain management, (5) service delivery and referral, (6) communication and social mobilization, (7) supervision and performance quality assurance, and (8) M&E and the health information system.

COORDINATION AND POLICY SETTING

There are numerous indications of strong and decisive ownership of the iCCM strategy on the part of the MOH. For example, the Minister of Health himself is personally involved, presiding over high-level meetings and writing the preface to the iCCM implementation guide. The establishment of a Steering Committee also helped to move the strategy forward quickly.

Coordination: At the *central* level, the management of the Integrated Management of Childhood Illness (IMCI) program is divided between the National ARI Program (*Programme National de Lutte contre les ARI*), which is responsible for IMCI at the clinical level, and the National Program for Control of Diarrheal Diseases (*Programme National de Lutte contre les Maladies Diarrhéiques*, or PNLMD), which oversees iCCM of childhood illness. The PNLMD has effectively coordinated the various actors, creating a framework for collaboration for many partners while still maintaining the MOH's vision for iCCM. The process for decision-making via consensus is sometimes long and arduous because the other programs involved are not under the supervision of the PNLMD; this dynamic has not, however, had a negative influence on the collaboration.

As for coordination of the technical interventions, the iCCM strategy is well-codified with policy, strategy, and implementation guides that clearly lay out roles and responsibilities, support structures, training guidelines, and monitoring instructions. However, as of late 2010 the iCCM strategy still lacked a strategic plan for scale-up with financing identified in advance. In the absence of such a plan, site selection is negotiated on an almost ad hoc basis between the MOH and individual development partners.

At the *decentralized* levels (provinces, districts, and health zones), two scenarios exist. At the most decentralized level, the health zones are directly responsible for overseeing the iCCM approach, applying the policies and directives developed at the central level. Their roles are clear and are reflected in the activities they carry out: planning, implementation, monitoring, and overall management of iCCM activities. The other scenario concerns the provincial and district levels of the MOH, which are to provide "technical support," although what this means is not always clearly understood. Some provincial teams have received skills training in order to support iCCM at the health zone level, but financial constraints have hampered further capacity-building in other provinces and districts. As a result, the sense of ownership for the iCCM approach is much weaker at these levels.

Policy Setting: The Steering Committee made two strategic decisions early on in order to provide community-level services as quickly as possible: (1) to bypass the pilot phase, moving

directly into implementation, a decision based in large part on the success of Senegal's pilot iCCM phase, and (2) to integrate malaria, ARI, diarrhea, and malnutrition into the iCCM package at the same time, rather than phasing in one intervention at a time.

Promising Practices in Advocacy and Planning:

- A clear commitment of political authorities at the highest level through the personal involvement of the Minister of Health and senior MOH officials
- A decisive and well-supported position for an integrated package of services
- All stakeholders and technical and financial partners represented on the Steering Committee
- Roles and responsibilities clearly defined at the central and operational levels
- The beginnings of skill-building at the decentralized level, resulting in a strong sense of ownership and leadership on the part of the provincial ministers who were trained

Challenges and Barriers:

- No strategic plan to guide the prioritization and allocation of adequate technical, financial, and human resources, making it impossible to set quantifiable objectives, to plan for expansion according to priority areas, and to ensure adequate monitoring of progress and coverage
- Lack of long-term positioning among partners, resulting in a lot of energy being devoted to resource mobilization
- Insufficient number of coordination meetings during the expansion phase, resulting in insufficient information sharing, especially on new guidelines for the various programs involved
- Activities begun at the decentralized level for reinforcing skills not advancing, making the role played by the provincial and district levels in the strategy less discernible

FINANCING

The documentation team made the following observations about financial contributions on the part of the government, the partners, and the beneficiaries:

Government: The government's health budget in general and the budget for maternal and child health in particular are extremely low due to the many competing demands for resources, including the rebuilding of infrastructure. A number of these major infrastructure projects are almost finished, and it is possible that the budget for social services such as health may eventually increase. At this time there is no specific budget line item for community activities; the government's contribution for all intents and purposes is limited to salaries of civil servants and the infrastructure itself. However, the decentralization process in the DRC calls for the eventual transfer of the health sector to local governing bodies. This would present an opportunity for resource mobilization for the iCCM approach. The two provinces that have already had powers transferred to them have adopted a budget line item for iCCM sites.

The lack of a plan for medium- and long-term financing puts the funding of the iCCM approach at risk. Currently, partners provide funding for short-term projects supporting implementation in a limited geographical area. This situation is exacerbated by the lack of a strategic plan for scale-up. On a more positive note, the National Health Development Plan, undergoing the approval process in 2010, will definitely provide a basis for lining up partners to make longer-term commitments to iCCM.

Partners: At the beginning of the iCCM activities, most partners in the health sector did not have a specific budget for the iCCM sites. The MOH undertook the following two actions:

- Initiating a door-to-door advocacy effort to see what could be renegotiated with the partners. As a result, many of the partners adjusted their budgets to provide support to the iCCM sites.
- Developing a program package with a consolidated budget, so that the partners' individual contributions could be used in a complementary and synergistic way to support the iCCM approach. USAID, through the BASICS project, played a key role in this mobilization, and the World Bank has maintained the initial impetus.

Beneficiaries: Although very small in actual amount, the direct participation of beneficiaries in paying for health care costs is highly symbolic. In the vast majority of sites, families are charged a fee for services, which covers the care provided and the drugs prescribed. Each health zone, with its implementing partners, sets the amount that it charges. There are no guidelines or attempts to standardize the amount charged from one health zone to another.

Promising Practices in Financing:

- Decentralization, which transfers power and responsibilities for the health sector to provinces and local communities and creates opportunities for resource mobilization
- Symbolic participation of the beneficiary population in the cost of care
- Projected increase for the social services in the central government's budget
- Development of the National Health Development Plan, which could help to align partners around common objectives and priorities

Challenges and Barriers:

- Weak financial contribution on the part of the government
- Low exploitation of opportunities for mobilizing financial resources on the part of authorities at decentralized levels
- No budget line for community-level activities
- Inability to negotiate a longer-term commitment from financial partners, to plan ahead, and to mobilize potential resources beyond the life cycle of projects
- Even with cost recovery, cannot resupply drugs because the products are highly subsidized

HUMAN RESOURCES

The four major areas reviewed by the documentation team were capacity-building, recruitment procedures for the iCCM site relays, the question of incentives for the iCCM site relays, and the situation of the promotional relays.

Capacity-Building: A great deal of effort has been expended to develop and reinforce skills to support the iCCM approach at all levels of the health system. For the MOH personnel this included developing iCCM expertise at the central level, training trainers at the provincial level, and developing a pool of 35 trainers who specialize in Lot Quality Assurance Sampling (LQAS) for monitoring BCC activities.

The provincial or district-level trainers train the iCCM site relays over a five-day period, with more than a third of the time devoted to practical exercises. The head nurses who supervise the relays are also involved in the training, which helps facilitate a good working relationship

between the relays and their direct supervisors. Following their initial training, the iCCM site relays also benefit from post-training monitoring. In general, the relays acknowledge that the training they have received allows them to handle with confidence the cases they receive. They appreciate the quality of the initial training and the post-training monitoring visits and seem to have mastered even difficult tasks such as correctly administering a rapid diagnostic test.

A third group to be trained is the church volunteers who have undertaken BCC activities in a number of health zones with notable success. The cascade training approach starts with religious leaders who, once they have been trained, select members of their respective churches to become trainers. When the trainers have acquired the necessary skills, they transmit what they have learned to others. An example: In 2008 in Makala Province, 40 church leaders were trained, and they in turn selected 58 people from their churches to train as trainers of trainers (TOTs). These TOTs trained more than 1,000 people to disseminate BCC messages, and they in turn passed the messages on to more than 14,000 people. This is a promising approach that merits dissemination.

Recruitment of iCCM Site Relays: The procedure for recruiting iCCM site relays is highly participative, as they are chosen by their respective communities. The head nurses who will supervise the relays are also involved in identifying the sites and facilitating the organization of the elections.

Incentives for the iCCM Site Relays: The topic of financial and material incentives for the iCCM site relays inspires an impassioned debate. Generally, they site relays work on a voluntary basis and receive no financial compensation per se. Some officials think the iCCM site relays will become discouraged without regular financial or in-kind compensation. However, the retention level is good, with more than 90 percent of the iCCM site relays still active after the first three years of implementation. A word of caution is in order: Any move to grant some form of financial incentive to the relays must be carefully weighed, with the long-term consequences thought out and planned for in advance.

Promotional Relays: Before the iCCM activities began, all of the relays worked in prevention, education, and promotional activities. Because of the nature of their work, the iCCM site relays must be closely monitored to avoid any mistakes that could endanger the children being treated or the strategy as a whole. It is not surprising that the status of the iCCM site relays is more highly valued by the community, community leaders, and health personnel. Understandably, this creates a certain sense of frustration among promotional relays. This frustration is augmented by the fact that church volunteers are used for BCC activities, since BCC is supposed to be part of the promotional relay's mandate.

Promising Practices in Human Resources Management:

- Consideration of the overall health system when doing capacity-building
- Codified cascade training
- Transparent recruitment procedures for selecting the iCCM site relays
- Training religious leaders to disseminate BCC messages as a more cost-effective way to reach the population

Challenges and Barriers:

- Noncompliance with the length of training and training procedures, requiring subsequent adjustments and additional intervention from the central level
- Unresolved questions about financial incentives for the iCCM site relays

- Decreased attention to the work of the promotional relays
- Lack of financial resources to systematically train everyone at all levels

SUPPLY CHAIN MANAGEMENT

The iCCM supply system is quite complex. According to a document published in 2010, the National System for Essential Drug Supply has 19 separate agencies supplying 99 distribution circuits involving 52 different partners.³ The report acknowledges that this fragmentation undermines the efficiency of the entire procurement cycle, that it creates wide disparities, and that it blocks the accountability of public sector actors. Adding to the fragmentation of the system, drugs are usually given as a donation by a partner in a specific geographical area and the MOH offers no guiding strategy and makes no attempt to harmonize prices. Other challenges include weak pharmaceutical regulation and the impossibility of total cost recovery given the extreme poverty of the majority of the population.

The importance of the supply chain component cannot be underestimated. The availability of drugs at the service delivery point is essential for an iCCM site to be truly functional. Unfortunately, stock-outs occur frequently at all levels of the health system, including at the iCCM sites. This is due to basic problems with supply chain management. When stock-outs occur, the iCCM site relays may buy other drugs, even though the origin and quality are questionable. The iCCM activities have given the relays legitimacy in the eyes of the population, and mistakes with drugs could negatively affect the whole approach.

Promising Practices in Supply Chain Management:

- Simple, standardized approach to forecasting needs
- Management tools available (tally books, order books, registers)
- Wooden boxes for holding drugs and supplies adapted to the place of service delivery (home of the iCCM site relay), easy to handle, allow a quick check "on sight," and meet safety standards

Challenges and Barriers:

- Very complex supply system
- Difficulties in regulating the pharmaceutical sector
- Impossible to put in place a sustainable system for replenishing stocks
- Massive fraud and illicit procurement channels, raising questions about the quality of the drugs procured
- Frequent stock-outs at iCCM sites

SERVICE DELIVERY AND REFERRAL

Service Delivery: The package of services provided clearly responds to the country's priorities as it targets treatments for the three deadliest childhood diseases: artemisinin-based combination therapy (ACT) for malaria, zinc and oral rehydration salts for diarrhea, and cotrimoxazole for pneumonia. Family planning services were included in 2010. As for nutrition, the iCCM site relays currently refer severe cases and counsel the caregivers of children with mild

³ Programme National d'Approvisionnement en Médicaments et OMS. 2010. Cartographie des systèmes d'approvisionnement et de distribution des médicaments et autres produits de santé en RDC. Accessed on January 31, 2012 at: <http://apps.who.int/medicinedocs/documents/s17032f/s17032f.pdf>

malnutrition. Before extending the iCCM package to cover acute malnutrition, the protocol for iCCM of malnutrition needs to be updated to conform to UNICEF and WHO recommendations.

The beneficiary population greatly appreciates the iCCM services. Mothers, for example, appreciate (1) the fact that their children are correctly cared for, (2) the quality of the welcome and the willingness of the relays to help them, and (3) the proximity of services. Members of the COGESITE and religious leaders were also unanimous in expressing their satisfaction. They appreciate the fact that coverage extends to several surrounding villages, offering access to care to a larger population. The personal qualities of the iCCM site relays and the perception that people are using traditional healers and sorcerers less often are also cited as positive factors.

Referral: From a technical standpoint, the iCCM site relays understand when they need to refer a sick child to the health facility, and the good relationships between the relays and the head nurses facilitate the referral system. However, families do not often follow through with the referral, either because it is difficult for them to reach the health center or because they have concerns about the cost of services once they arrive, or both. A second issue related to referral is that head nurses rarely provide feedback to the relays who refer sick children.

Promising Practices in Service Delivery and Referral:

- Inclusion of all four conditions (ARI, malaria, diarrhea, and malnutrition) in the iCCM package to fight the major causes of mortality and meet the pressing needs of the country
- Integration of preventive activities
- Understanding of the criteria for making referrals and compliance with the procedures by the iCCM site relays
- Facilitation of the referral system thanks to the promotion and maintenance of good working relationships between the iCCM site relays and the MOH personnel

Challenges and Barriers:

- Physical distance and geographical barriers that make it difficult for families to travel to health facilities when referrals are made
- Concerns about the anticipated cost of services at the referral facility

Proposed Solution:

- Promote a preferential rate for those children who are referred

COMMUNICATION AND SOCIAL MOBILIZATION

Communication and social mobilization lead the community to adopt favorable health practices, seek care in a timely fashion, and comply with treatment instructions. The iCCM site relays sometimes advise clients on these matters during treatment, but other categories of community-level volunteers carry out community-wide education and social mobilization. These include the promotional relays, each of whom is theoretically responsible for 15–20 households. However, given the vast expanse of the DRC, the size of its population, and the costs associated with training the promotional relays for a week, it is not feasible to train the number of promotional relays needed for all the households. For this reason, the DRC is trying additional solutions for communication and social mobilization.

As described in the Human Resources section, thousands of people were reached with BCC messages when religious leaders were trained as TOTs. The TOT approach has a ripple effect,

reaching many more people in a relatively short period of time. Monitoring this activity using LQAS showed impressive results. Involving religious leaders and their congregations also eliminates the problem of financial incentives because the religious leaders do not ask for payment. Other approaches for effective communication at the local level include listening clubs and mothers' groups.

Promising Practices in Communication and Social Mobilization:

- Development of innovative approaches with churches
- Use of LQAS to monitor the results of BCC activities

Challenges and Barriers:

- Initial focus was on the clinical side, resulting in a delayed start for BCC activities
- Limited attention paid to monitoring BCC activities
- Initial advocacy efforts did not take into account communication and social mobilization
- Communication approach that is not fully integrated into the activities package
- No national plan for the communication component

SUPERVISION AND PERFORMANCE QUALITY ASSURANCE

Supervision and ongoing performance quality assurance are key to the success of iCCM and to maintaining community confidence in iCCM services.

Supervision: The iCCM strategy provides for three categories of support: periodic one-day post-training monitoring meetings organized by the head nurses for the iCCM relays; routine supervisory visits to the iCCM site relays by the head nurses or by a staff member of the central office of the health zone (usually the community animator); and supervision by supervisors from the central and provincial levels. Given the difficulties inherent in having the head nurses conduct routine visits to several iCCM site relays (e.g., finances, time, distance, and availability of transport), the strategy for capacity-building relies on the post-training meetings.

The post-training sessions give provincial and district officials an opportunity to observe supervision and training, but as noted in the Coordination and Policy Setting section, the role of the provincial and district personnel in providing support is still under development; not all provincial and district teams have benefited from training to better understand and carry out their support role.

Quality Assurance: Two procedures are used to monitor the quality of care provided by the iCCM site relays: an analysis of the case management forms that relays fill out for each new case, and an analysis of the individual monitoring forms that the supervisors fill out when observing the relays. A computer application, described in the Monitoring and Evaluation section, facilitates the analysis of the data from these two exercises.

An analysis of 15,741 case management forms filled out by the iCCM site relays between October 2009 and June 2011 showed positive results in terms of quality of care:

- Almost all of the relays correctly diagnosed children presenting with the five most common conditions.
- The treatment prescribed for the diagnosis was correct in 94% of the cases of malaria, 92% of the cases of pneumonia, and 81% of the cases of malnutrition. The figures were somewhat lower

for prescribing the correct treatment for diarrhea (62%), uncomplicated cough (60%), and danger signs (63%).

- The relays were almost perfect in determining the appropriate dosage of medication, based on the age of the child, except in treatment for diarrhea (86%).

A review of 1,208 individual monitoring forms filled out by supervisors of iCCM site relays showed that the knowledge and skills level of the iCCM relays improved each time they participated in a post-training monitoring session. However, the relays' knowledge of all the danger signs was very low during their first sessions, and they also showed a need for improvement in counting a child's respiratory rate.

Promising Practices in Supervision and Performance Quality Assurance:

- Development of a systematic approach to supervision with well-developed, appropriate tools
- Use of group meetings, rather than costly visits to iCCM sites, for post-training monitoring
- Use of data to target the iCCM relays' weak points
- Development of a computer application for monitoring quality

Challenges and Barriers:

- Continued capacity-building at provincial and district levels dependent on funding that is not always certain
- Slow pace of capacity development at the province and district levels hinders their assuming responsibility for monitoring the iCCM site relays, including the mobilization of resources

MONITORING AND EVALUATION AND THE HEALTH INFORMATION SYSTEM

The M&E system for iCCM was defined from the start of the activities and has improved over time. M&E responsibilities initially were shared between the health zones at the operational level and the central level, while the roles of the provinces and districts at the intermediate level were being developed. Major efforts have been made to integrate data from the iCCM sites into the monthly reports of their affiliated health facilities. Two issues were noted:

- The terminology used for IMCI does not correspond exactly to the terminology used for the National Health Information System (*Système National d'Information Sanitaire*, or SNIS).
- Logistical difficulties such as a lack of transport or stock-out of forms hinder the transmission of data.

Another concern is that the standard SNIS tools currently in use do not permit one to discern the contributions of the iCCM sites.

Computerized Database for Monitoring Quality of Care: The DRC developed a computerized database that includes data on case management, observations on the performance of the iCCM site relays, and information on the sites and the relays themselves. The database has a user-friendly computer application that requires little computer knowledge. Data entry and analysis take place at the central level. Attempts to decentralize the process have failed because of three problems: power outages, lack of human resources to do data entry, and lack of computer maintenance, leading to breakdowns and repeated virus infections. The documentation team

found that use of the information generated from the database was very limited, despite its potential.

Use of LQAS for Monitoring BCC and Social Mobilization Efforts: As described previously in this document, teams of MOH personnel were trained to use LQAS for measuring changes resulting from BCC activities. The advantage of this methodology is that it costs much less than standard surveys and the personnel can conduct the monitoring as part of their routine supervision and training activities. However, the documentation team found that the potential of LQAS had not been sufficiently exploited. The teams did not continue the surveys as originally planned and there have been no discussions about enlarging the scope of this methodology.

Promising Practices in M&E and the Health Information System:

- Continuing efforts to integrate community-level data into the SNIS
- Development of software specifically for data management
- Innovative initiative to monitor the results of BCC (LQAS)

Challenges and Barriers:

- Centralized management of the database and limited use of the data generated
- No follow-up with the LQAS methodology and under-utilization of the personnel trained to continue with the methodology
- Lack of archival records of care at the iCCM site level and intermediate level (records held at the central level), limiting the scope of analysis and use of information at the local level

LESSONS LEARNED

The lessons learned from the DRC experience with iCCM are organized into four broad categories: establishing a favorable policy environment and effective institutional support, reinforcing links between the health system and the communities, rapidly scaling up the delivery of quality services by CHWs (or iCCM relays in the DRC) to households, and designing and implementing BCC activities for iCCM.

ESTABLISHING A FAVORABLE POLICY ENVIRONMENT AND EFFECTIVE INSTITUTIONAL SUPPORT

Strengths

The commitment and leadership of authorities at the highest levels from the beginning helped to ensure the success of the coordination and resource mobilization efforts. The Minister of Health, heads of departments, and heads of provinces were personally involved, and political and administrative authorities at intermediate levels acted as "champions" of the iCCM cause.

The MOH had a clearly defined vision of an integrated package and maintained that vision from the beginning, which made it possible to influence donors and redirect funding that was originally intended for a particular disease to the complete iCCM package.

Partnership between the MOH and implementing partners (nongovernmental organizations) meant that the iCCM strategy, program documents, and implementation could be harmonized, standardized and funded throughout the DRC by a significant number of partners. During the process, progress was presented in a clear and concise manner and shared with all stakeholders and with other countries in the subregion.

Points to Consider from the Beginning of iCCM Activities

Lack of a long-term plan for expansion is a constraint when prioritizing and strategically allocating technical, financial, and human resources. The DRC's National Health Development Plan, which was in the process of being adopted in 2010, is an important step toward developing a long-term plan that defines quantifiable targets, looks ahead to the expansion of iCCM, ensures gradual implementation in the highest-priority areas, and provides for the monitoring of progress and coverage over time.

Coordination and monitoring at the decentralized level is an important feature of the iCCM strategy. Systematic and continuous capacity-building at this level (province and district) needs to be taken into account in order to optimize implementation. The devolution of power and management to the decentralized level, which has been planned for in the future, justifies according more importance to the provincial and district structures.

Advocacy efforts must not be allowed to weaken during the expansion of the iCCM approach. Advocacy is essential and must be sustained throughout the scale-up process in order to secure and mobilize the necessary human and financial resources.

REINFORCING LINKS BETWEEN THE HEALTH SYSTEM AND COMMUNITIES

Strengths

Structured approaches to supervision helped to ensure quality performance by the iCCM site relays. Post-training meetings are an effective and realistic alternative to on-site supervision visits, which are costly and difficult to carry out. Supervisory visits from the supervisors at the district and provincial levels should not be neglected.

Head nurses at health facilities played a critical role in the implementation of the iCCM strategy. Without this formal liaison within the health system, it would have been difficult to establish or maintain a quality iCCM approach.

Integration of the iCCM data management system into the SNIS was emphasized from the beginning. Particular attention was paid to the collection of information at the iCCM site level and special efforts were made to that end.

Points to Consider from the Beginning of the iCCM Activities

Strengthen the contribution of the beneficiary community. The involvement of community members in iCCM activities is very limited in DRC. A more participatory approach should be promoted and encouraged from the beginning to support CHWs' activities. The management committees should play more tangible roles in decision-making, planning, program implementation, and monitoring at the local level.

RAPIDLY SCALING UP THE DELIVERY OF QUALITY SERVICES TO HOUSEHOLDS

Strengths

Technical and operational documents (e.g., implementation guide and the package of training and supervision materials) were well-codified and available. These documents describe in explicit detail the responsibilities of the iCCM site relays; delineate their areas of expertise; define the structures that support them; and explain the processes for training the relays, monitoring activities, and program support.

Immediate integration of three diseases and malnutrition in the iCCM package was part of the integrated vision for clinical IMCI in the DRC. The classic package of services offered at the iCCM sites targeted the biggest killers: malaria, diarrhea, and pneumonia. The MOH has managed on several occasions to influence its partners to reorient their vertical projects toward an integrated approach.

The decision to proceed immediately to expansion without going through the pilot phase is an example of using the iCCM lessons learned from another country (Senegal). From the beginning, tasks and responsibilities were delegated and planning for gradual expansion was put in place.

Points to Consider from the Beginning of the iCCM Activities

The iCCM sites experienced frequent stock-outs due to the weakness of the supply chain. From the beginning, it is important that the partners who are providing drugs set standards and harmonize the supply chain of medicines and small equipment necessary for the proper functioning of iCCM. To the extent possible, the supply chain should be incorporated into the logistics system of the health sector.

The iCCM strategy was not always implemented in line with WHO's protocol for the management of acute malnutrition. Yet there was a common curative objective, and iCCM site relays were often called upon for cases of malnutrition.

Exploitation of potential links with other community-level activities (e.g., vaccination and the community-based family planning program) could allow for economies of scale. At the same time, it is important to ensure that the iCCM activities run efficiently and that the addition of new components will not jeopardize the gains made to date.

Implementation requires addressing the problem of financial incentives for the iCCM relays. The iCCM approach worldwide, being based on volunteerism, is continually debating the sustainability issue. Some countries have committed to paying community health workers; others refuse. It is up to each country to decide for itself, but other incentive systems certainly need to be exploited.

DESIGNING AND IMPLEMENTING BCC ACTIVITIES FOR iCCM

Strengths

Working with churches was a more suitable, simpler, and less expensive outreach communication strategy to promote positive health behaviour, illustrating good use of local resources (namely, religious leaders and local groups) to transmit messages in the immediate vicinity.

Points to Consider from the Beginning of the iCCM Activities

Set up a comprehensive and coherent curative and preventive package from the beginning, so that prevention does not become secondary. The iCCM approach must fit into a model where measures for preventing common diseases (hygiene, water, sanitation, family planning, nutrition, immunization, and so on) are recognized as a priority for improving children's health.

CONCLUSION

Despite several obstacles, the MOH was able to successfully mobilize partners to implement the iCCM approach in 10 of 11 provinces. Given the constraints in the DRC, this is an impressive accomplishment in five years' time. There are several factors behind this success: the leadership and political commitment at all levels; the motivation and willingness of the iCCM site relays; the unfailing support of technical and financial partners; an innovative strategy for information, education, and communication; clearly developed technical guidelines; and the support of the administrative authorities and MOH staff at the operational level who provided encouragement and technical assistance to the iCCM site relays on a daily basis. Although the iCCM strategy does not yet cover the whole country, the lessons learned in the DRC may be useful to other countries that are trying to reduce child mortality.

The DRC will have to address a number of challenges in order to expand the strategy to a countrywide level and to institutionalize it. These challenges include developing a strategic plan and a multiyear budget; fixing the supply chain management problems, focusing particularly on stock-outs of essential drugs and management tools; ensuring that roles and responsibilities are well defined at all levels; and revitalizing the promotion and prevention components to ensure better synergy between the curative and the preventive sides.

