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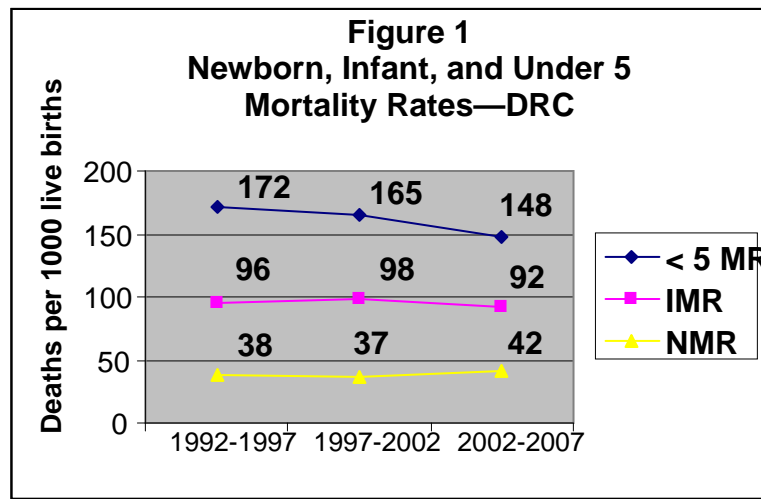
 **BASICS**

**IMPROVING CHILD HEALTH IN
DEMOCRATIC REPUBLIC
OF THE CONGO**

BASICS III

INTRODUCTION

DR Congo has faced a large number of challenges including periods of conflict that has interfered with its development including in the area of health. This is reflected in the high mortality in children. While it is true that there has been some fall in the under-five and infant mortality rates there has been no similar trends in the neonatal mortality rates and the last DHS (period 2002 – 2007) has actually shown an increase in deaths in this vulnerable period of the first four weeks of life (Figure 1)



In DR Congo, USAID/BASICS covered three technical areas: community case management of pneumonia (also including malaria and diarrheal diseases, and with an emphasis on the feeding of sick children); revitalization of diarrhea case management, including the introduction of zinc for treatment; and newborn health.

ACTIVITIES AND RESULTS

Pneumonia

Using pneumonia as a foundation, USAID/BASICS introduced community case treatment (CCM) in DR Congo in December 2005. The successful advocacy that resulted in introduction of CCM is a result of sharing the evidence from BASICS pilot test of CCM in Senegal. As was the case in Senegal, the DR Congo approach also included malaria case management (with ACTs) and diarrhea. A rapid implementation process reached 69 out of the country's 517 districts by April 1, 2009.

Working in an environment where few health workers had been trained in clinical IMCI, USAID/BASICS recognized the need to build Ministry of Health and partner capacity to implement, refine, and sustain effective community-based treatment. This included coverage of areas such as pharmaceutical management, data management, and quality assurance, with overall focus placed on ensuring that each province (equivalent to a region in most countries) could expand CCM with limited input from central level.

Translating health worker CCM capacity into sustainable CCM action involved four key milestones:

1. Setting up a provincial child health committee
2. Planning and following all aspects of implementation

3. Mobilizing resources, including the creation of a line of credit in the provincial health budget
4. Obtaining the involvement of regional ministers and elected officials

Many of the provincial teams took quick and effective ownership of the CCM interventions. For example, the provincial assemblies in Kasai Oriental and Bandundu provinces approved a budget line item for CCM.

Another important action was leveraging partner resources for expansion of CCM in DR Congo, particularly because funding needs can rarely be covered solely by the Ministry or a single partner because partners area of implementation is usually limited to only portions of the country. Leveraging in DR Congo was achieved through: UNICEF, GTZ, WHO, MSH, IRC, CRS, HNI, CCISD/PARS School of Public Health, the national malaria control program, SANRU, and AXxes.

Implementation

CCM Implementation was achieved through a 4-step model used by USAID/BASICS in a number of client countries:

1. Establish a pool of trainers and conduct training-of-trainers in each province.
2. Use one or more zones (equivalent to districts in most countries) within the implementing province as a *practical training ground* for all trainers.
3. Involve the entire pool of trainers in follow-up of trainees in the *practical training ground zone/* health district.
4. Expand training to the remaining zones in the province.

With USAID/BASICS' support, pools of trainers were established in 9 of DR Congo's 11 regions.

Click [here](#) to go to the CCM implementation toolkit.

Data management

A key element of implementation was linking CCM data and formal health system data for project monitoring. To this end, the project initiated development of a computer application for CCM data management for coding and analysis of forms used within the intervention. Additionally, BASICS needed to measure progress in CCM behavior change communications (BCC). As this was not part of the formal HMIS system a Lot Quality Assurance Sampling (LQAS) approach was introduced as a national strategy for measuring BCC progress.

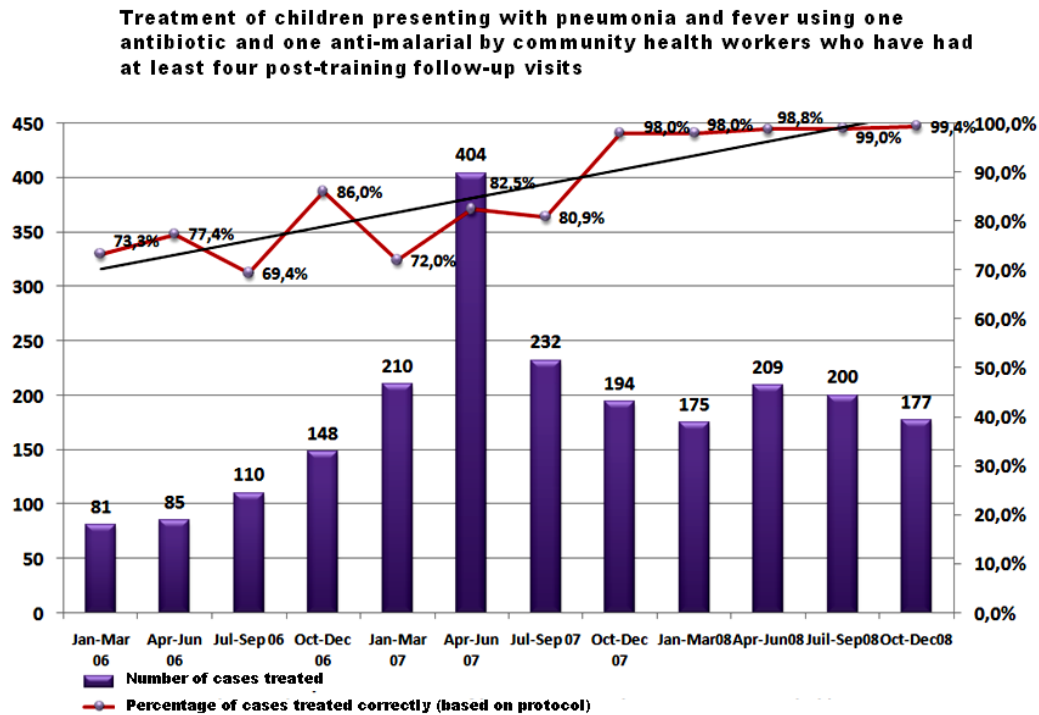
Results

By 30 March 2009, USAID/BASICS program activities in DR Congo, CCM activity had been implemented in 14% (70 of 515) of the country's districts that represented 10 of 11 provinces. This required BASICS to train 1,123 community health workers in CCM.

As has been seen in a number of countries, the quality of community health worker management of pneumonia, diarrhea, and malaria cases in DR Congo was strong early in the implementation cycle and improved with regular supervision. Figure 2 shows that as the number of pneumonia cases being managed by community health workers increased overall, the percentage of children receiving correct treatment rose from 73 to 99% between January 2006 and December 2008. This was a strong showing relating to the quality of clinical treatment children were receiving in the CCM districts.

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Figure 2



The DR Congo CCM experience became the central theme for a CCM regional meeting hosted in Kinshasa in October 2007. Participants included 81 Congolese delegates and 31 international attendees from 9 Francophone African countries and the United States.

Diarrheal Disease Management

In DR Congo, the introduction of zinc for the treatment of diarrhea provided an opportunity to revitalize diarrhea case management for the Ministry of Health and its partners, including: BASICS, CRS, GTZ, HKI, IRC, MSH, UNICEF, WHO, and AXxes.

Zinc for the treatment of diarrhea was first introduced in DR Congo by IRC in 2004 in the Kabare health zone. USAID/BASICS and Management Sciences for Health began working with the Ministry of Health in 2006 to develop a national strategy, using experiences from Madagascar as a basis for designing a program for zinc introduction. A key element of the strategy was establishing a task force to advocate a revitalization of diarrhea disease management approach that included the introduction of zinc. The process made use of an existing technical working group of partners who had been involved in the introduction of an integrated community case management intervention that included

pneumonia, malaria, and diarrhea since 2004. Using an existing technical working group had three distinct strategic advantages: (1) members were already working together and had momentum to move faster on revitalization activities; (2) despite a lack of availability of zinc in DR Congo, the group had included zinc (as well as low-osmolarity oral rehydration solution) in the integrated community case management package, and had advocated for its acquisition; and (3) procurement of zinc through UNICEF was made possible even before product registration because UNICEF was part of the working group. UNICEF ordered 3.5 million zinc tablets with the initial shipment of zinc arriving in December 2006.

The larger task force held its first meeting in April 2007, using the opportunity to identify priority areas for action and to develop a work plan. Three working sub-groups were formed to work in parallel on products, a literature review and qualitative study, and training materials. Within two months, zinc and low osmolarity oral rehydration solution were registered, paving the way for utilization in treatment of diarrhea throughout the country.

Concurrent with the task force increasing the availability of low osmolarity ORS and zinc, the need for training large numbers of health workers was also addressed. Recognizing that different health workers have different training needs, three training approaches were employed:

1. Health workers already trained in IMCI received a one-day day orientation on new protocols, as well as refresher training in IMCI.
2. Health workers not yet trained in IMCI, but already scheduled for such were trained immediately,
3. Health workers not yet trained in IMCI and not scheduled for such training attended a 2-day session that focused on diarrhea case management, as well as systematic assessment of children presenting with any symptom illness at a health facility.

At the community level, when zinc became available, active community health workers were briefed during a post-training follow-up meeting and new community health workers had zinc incorporated into their diarrhea training.

Concurrent with the implementation of the introduction of zinc and revitalization of diarrhea disease case management, the task force reviewed and revised the national policy on diarrhea case management. This enabled the Ministry of Health to adopt a national policy on diarrhea case management revitalization and zinc treatment of diarrhea in May 2008.

These efforts in policy development and implementation of zinc generated great interest among partners and MOH officials. The result was the active implementation would quickly deplete the supply of 3.5 million tablets procured by UNICEF. Since this supply would not be sufficient due to the increased demand for zinc, the MOH and partners took three actions to address this need:

- Representatives from the private sector and central medical stores were invited to two meetings aimed at gaining their participation in providing the needed zinc supply.
- Zinc distribution was restricted to targeted health zones, allowing a continuous availability there while efforts were being undertaken to expand supply nationally so other health zones could start treating diarrhea with zinc.
- A price level was set to ensure access to zinc through adequate resupply of stocks as it became more widely used.

At present, zinc is being used for diarrhea treatment in 100 out of 515 districts (19%) in DR Congo, with extension to hard-to-reach areas through community case management in 43 health zones.

These efforts were supplemented with increased monitoring of efforts through studies and development of health education messages through the media of posters, radio and TV spots, and dramas.

The team planned to launch the revitalization of diarrhea case management through a national day lead by the Minister of Health, but were slowed by zinc availability until UNICEF agreed to procure 60 million tablets of zinc.

Click [here](#) to download *Qualitative study on the management of diarrhea and the introduction of zinc in the DRC (French)*

Newborn Health

USAID/BASICS commenced advocacy efforts on behalf of newborn care, in part due to the dramatic needs of newborn shown in Figure 1, to focus attention on the pressing need to address neonatal mortality. As a result of those initial efforts, the USAID Mission, the Ministry of Health and AXxes planned to implement activities in collaboration with BASICS to promote newborn health. In addition, because of the high maternal mortality ratio, it was decided to link activities to promote newborn health with active management of the third stage of labor (AMTSL) with a focus on the postpartum/postnatal period which is the most neglected phase in the pregnancy, delivery and postnatal continuum of care. BASICS linked with POPPHI to provide technical support for these activities. USAID/BASICS provided technical support for the implementation of activities to promote selected aspects of maternal and newborn health. The key implementing groups were the Ministry of Health and AXxes, and a consortium of 4 NGOs—IMA, ECC, CRS and World Vision International.

The key program components were:

1. Maternal care during pregnancy, delivery and the post-partum period in the peripheral health facilities with emphasis on the active management of the third stage of labor (AMTSL)
2. Essential newborn care (ENC) in the peripheral health facilities including resuscitation for birth asphyxia, treatment of minor infections and administration of the 1st dose of antibiotics for major infections prior to referral
3. Promotion of essential preventive care for the mother and the newborn at the community level with identification of danger signs and appropriate care-seeking

Following the training of 29 National, 97 Provincial, 95 health zone trainers during the second half of 2008, training of 498 facility health workers and 60 community health workers was conducted between January and May of 2009. Follow-up supervision and expanded training was conducted by AXxes.

A comprehensive set of tools were developed or adapted from existing BASICS and POPPHI maternal and newborn health tools. The tools developed for DRC are in Table 1—the tools may be downloaded by clicking on titles.

Table 1
Newborn and Maternal Care Tools Developed or Adapted by BASICS with Support from POPPHI

(Click [here](#) to go to the BASICS Essential Newborn Care Toolkit)

Facility Level Training Tools
The Reference Manual, including job aids
Technical Presentations (power point)
Facilitators' Guide
Participants' Notebook
Clinical Log Book with learning and evaluation checklists
Community Level Training Tools
A set of counseling cards
Guide for Training Community Health Workers
Tools for Monitoring and Evaluation
Supervisory Checklists (same as the Evaluation Checklists in the Training Tools)
Outline for various registers for collecting data: <ul style="list-style-type: none"> ▪ Delivery Room Register ▪ Postnatal Visit Register ▪ Clinic Register for the sick child
Pictorial guide for collection of data by community health worker
Questionnaire for determining maternal knowledge and behavior to be applied through the LQAS methodology

Results

In relation to eight key skills, a survey of 60 trainers in Kinshasa & Kasai Oriental and 101 health workers in Katanga, South Kivu, and Kinshasa showed an average improvement of knowledge of 47%, with the greatest improvement (66%) seen in the care of low birth-weight babies. These improvements in knowledge of trainers and health workers are provided in Table 2 and 3, respectively.

Table 2 Improvement in Knowledge - Trainers in Kinshasa & Kasai Oriental		
Key Knowledge Tested	PRE-TEST (% properly knowing proper care and procedure) (n = 60)	POST-TEST (% properly knowing proper care and procedure) (n = 60)
Care of the newborn at birth	78	87
Resuscitation	47	83
Breastfeeding	32	82
Care of the newborn with sepsis	28	87
Care of the low birth weight infant	28	90
Routine care of the mother and baby	50	67
Prevention of Postpartum hemorrhage	37	73
Care during the first 6 hours	33	87

Key Knowledge Tested	PRETEST (% properly knowing proper care and procedure) (n = 101)	POST-TEST (% properly knowing proper care and procedure) (n = 101)
Care of the newborn at birth	81	87
Resuscitation	59	90
Breastfeeding	25	88
Care of the newborn with sepsis	53	94
Care of the low birth weight infant	32	92
Routine care of the mother and baby	36	85
Prevention of Postpartum hemorrhage	34	84
Care during the first 6 hours	15	80

An assessment of skill gains, not just knowledge, of 59 health workers in Kolwezi and Kamina suggested that only minimal further skills gains (3%) were realized between the completion of classroom learning and the addition of clinical practice sessions (see Table 4).

Key Skill Competence Tested	PRETEST-- before clinical practice (% properly demonstrating skill) (n = 59)	POST-TEST— at end of course (% properly demonstrating skill) (n = 59)
Active management of the third stage (AMSTL) and essential newborn care (ENC)	83	87
Care of the newborn at birth	81	90
Resuscitation	83	88
Systematic examination of the newborn	94	91
Breastfeeding	97	94

Further training in other regions and follow-up supervision and repeat survey of maternal knowledge and behavior will be carried out by the implementing partner AXxes with the tools provided by BASICS.

Lessons Learned

The BASICS program focused on the integration of AMTSL with essential newborn care with focus on the postnatal period. The importance of this integration cannot be overstated. The main advantages of this integration were:

1. It was consistent with the MOH's vision to address as a priority the high mortality rates of mothers and newborns.
2. Funds could be shared between the two technical areas of maternal health and child survival.
3. Time management and fund allocation were more efficient with this combined training, supervision and monitoring and evaluation.

Other lessons learned included:

- The routine health registers lacked information on essential newborn care (ENC) and AMTSL. For this reason, constant advocacy is required to promote their inclusion in the national health information system (indicators, registers and other tools).
- Supervision by centrally-based teams is more difficult and less frequent given the long distances, the inaccessibility of health zones and air travel problems. Increased involvement of the provincial teams may be more helpful. In addition, both provincial and health zone supervisors need to take ownership.
- Procurement of equipment takes a long time and hence this must be taken into account in planning programs
- Supervision to improve quality of service is one of the most difficult parts of program implementation. It requires strong advocacy and motivation of trained supervisors.. Group supervision may help, among others, to save time and money.
- There is need to lay increased emphasis on community-based interventions in order to obtain improved results.

Lessons were also learned from challenges of an integrated program:

- Some of the implementation processes of integration took more time and effort.
- Tools were more bulky and hence more costly to reproduce.
- There were increased number of messages to be conveyed by health workers
- Training and supervision periods took longer.
- Where staff was inadequate and work load high, new elements such as the newborn tended to get neglected

Recommendations :

1. Prepare more compact training modules with checklists and job aids to reduce printing and training costs (particularly important when several technical areas are integrated).
2. Ensure that key new elements such as newborn care and AMTSL do not get neglected during the process of integration with more established components
3. Develop innovative, efficient and low-cost methods of supervision, data collection and other elements of monitoring and evaluation.
4. Increase local ownership of programs at peripheral (provincial) levels.

Further training in newborn care in regions not covered during BASICS activities will be carried out by the implementing partner AXxes with the tools provided by BASICS. A seamless transfer of the USAID/BASICS country program in DR Congo and of the project's staff to its successor, MCHIP, occurred on April 1, 2009. These should enable DRC to continue to make significant progress on improved care for newborns.

Click on the titles below to access reports and other materials developed during USAID/BASICS' DR Congo country program.

Title	Type	Technical Focus Area(s)
<p>Community Case Management Implementation Package:</p> <ul style="list-style-type: none"> • Implementation Guide • Communications Guide • Trainers' Guide • Trainee's Practice Book • Community Health Workers' Guide • Supervisors' Guide 	Training curriculum and guides	<ul style="list-style-type: none"> ▪ Pneumonia ▪ Malaria ▪ Diarrhea
<p>Community Case Management Forms:</p> <ul style="list-style-type: none"> • Data collection form • Individual patient form • Patient follow-up form 	Management forms	<ul style="list-style-type: none"> ▪ Pneumonia ▪ Malaria ▪ Diarrhea
<p>Qualitative Study of Diarrhea Case Management and the Introduction of Zinc in DR Congo</p>	Assessment report	<ul style="list-style-type: none"> ▪ Diarrhea
<p>Literature Review for Partners Participating in the Introduction of Low-osmolarity ORS and Zinc in DR Congo</p>	Literature review	<ul style="list-style-type: none"> ▪ Diarrhea

Title	Type	Technical Focus Area(s)
Essential Newborn Care Implementation Package		Newborn Health
<p>The Reference Manual, including job aids</p> <p>Technical Presentations (power point)</p> <p>Facilitators' Guide</p> <p>Participants' Notebook</p> <p>Clinical Log Book with learning and evaluation checklists</p>	Facility-level training tools for Essential Newborn Care	
<p>A set of counseling cards</p> <p>Guide for Training Community Health Workers</p>	Facility-level training tools for Essential Newborn Care	
<p>Supervisory Checklists (same as the Evaluation Checklists in the Training Tools)</p> <p>Outline for various registers for collecting data:</p> <ul style="list-style-type: none"> • Delivery Room Register • Postnatal Visit Register • Clinic Register for the sick child <p>Pictorial guide for collection of data by community health worker</p> <p>Questionnaire for determining maternal knowledge and behavior to be applied through the LQAS methodology</p>	Monitoring and evaluation tools for Essential Newborn Care	