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 **BASICS**

# COMMUNITY CASE MANAGEMENT OF PNEUMONIA

## BASICS III

## Table of Contents

What is this community case management?.....	1
Why is community case management important to child health? .....	1
What is the implementation process?.....	1
What was USAID/BASICS' involvement? .....	2
Roll-out in one BASICS country .....	3
Results .....	7
What have we learned?.....	9
The way forward .....	10

### **What is this community case management?**

Programs for community case management (CCM) of childhood pneumonia facilitate treatment of non-severe acute respiratory infections and rapid referral of severe cases in communities that have difficult access to health facilities. CCM-pneumonia interventions have also been a critical platform for introducing or improving community approaches to malaria, diarrhea, and malnutrition. The characteristics of CCM in BASICS have been:

- Focus on pneumonia treatment, but integrate it with treatment at community level for malaria, diarrhea, and malnutrition;
- Community health workers (CHWs) treat non-complicated cases and refer severe cases to health facilities;
- CHWs are unpaid community volunteers;
- No active case finding occurs, but home visits are used to follow up cases;
- CHWs operate from health posts that are in their home or in a facility structure built by community.

### **Why is community case management important to child health?**

CCM-pneumonia expands the number of children receiving quality care for an infection that is estimated to cause nearly 20% of all under-five deaths in the developing world. At the same time, this intervention can also have a vital effect on improving facility-based treatment programs since early management of simple pneumonia at the community level reduces the number of cases that develop severe symptoms and, therefore, lowers the frequency of care-seeking at health posts. Furthermore, as the number of non-severely ill children presenting at facilities decreases, health posts are better able to address children in need of the most urgent care.

### **What is the implementation process?**

Implementation of CCM-pneumonia comprises 10 steps. The table below lists these steps and provides links to available resources used to implement them. Resources shown in bold are components of the implementation package developed in DR Congo, and have served as a basis for adaptation in other countries.

	<b>IMPLEMENTATION STEP</b>	<b>KEY RESOURCES</b>
1.	Conducting advocacy	
2.	Setting up a task force and a technical working group to lead the process	
3.	Developing and/or updating guidelines and tools	
4.	Addressing logistical (commodity) needs	
5.	Identifying treatment sites and volunteers	<ul style="list-style-type: none"> <li>• <b>Site Guide</b></li> </ul>
6.	Training	<ul style="list-style-type: none"> <li>• <b>Trainers' Guide</b></li> <li>• <b>Community Health Workers' Manual</b></li> <li>• <b>Community Health Workers' Practice Notebook</b></li> </ul>
7.	Conducting post-training support and supervision, including the use of data for decision-making and monitoring	<ul style="list-style-type: none"> <li>• <b>Supervisors' guide</b></li> <li>• <b>Patient Form</b></li> <li>• <b>Follow-up Form</b></li> <li>• <b>Data Reduction Form</b></li> </ul>
8.	Mobilizing and educating communities	<ul style="list-style-type: none"> <li>• <b>Communications Guide</b></li> </ul>
9.	Reviewing or evaluating early-phase implementation	
10.	Scaling up	

The time necessary for implementation steps one to three—advocacy, task force establishment and tools development—are clearly a function of the country environment. Afterwards, procurement issues related to logistics needs can take a long time to assess and resolve issues. Usually the implementation process requires a minimum of three months for the first five implementation steps to be completed before training. The remaining steps six to eight for implementation take from 8 months to over one year to undertake. Scale-up activities will then be based on results after the initial one year of CCM implementation.

### **What was USAID/BASICS' involvement?**

USAID/BASICS was an active global leader in promoting CCM-pneumonia, highlighted by BASICS organizing three international CCM conferences: Senegal (2006), DR Congo (2007), and Madagascar (2008). The objectives of these BASICS global conferences were to:

- Promote inter-country exchanges that serve as advocacy to countries that had yet to implement CCM programs,
- Providing a field experience for countries that are considering adopting CCM as a critical element of its community-based health programs;

- Review the CCM program of the host country as a means for giving it an international, external review;
- Using field visits to help ministries assess the best means for scaling-up CCM;
- Sharing between countries best practices and lessons learned in various stages of program introduction or scale-up.

BASICS also participated in other global for a organized by UNICEF, WHO, MSH and the CORE Group. One of the needs identified was he need to develop a common set of indicators that allow for comparison and sharing lessons. This activity is continuing. Common indicators are needed for:

- Quality measurements across various CCM projects
- Promote sharing of experiences, results and impact across countries
- Use indicators to identify most efficient CCM practices.

BASICS was also heavily involved country level CCM programs in twelve countries, shown in Table 1.

**Table 1**  
**BASICS Country-Level Activities in CCM, by stage of implementation**

Countries	Stage of Implementation
Chad, Liberia, Malawi	Advocacy
Benin, Cambodia	Introduction
DR Congo, Madagascar, Rwanda, Senegal	Expansion
Afghanistan, Nicaragua, Niger	Expansion via partners

### **Roll-out in one BASICS country**

One of the key countries in which the Senegal experience paved the way for introduction of CCM was DR Congo. Using pneumonia as a foundation, USAID/BASICS introduced integrated CCM in December 2005, expanding to 69 districts in 9 of the country's 11 regions.

Working in an country 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 capacity into sustainable action involved five key milestones:

1. Establishing a provincial child health committee
2. Planning for implementation roll-out and
3. Monitoring the implementation, qualitatively and quantitatively
4. Mobilizing resources, including creation of a line of credit in the provincial health budget
5. Involving regional ministers and elected officials.

A number of provincial teams established effective ownership of their CCM interventions. For example, the provincial assemblies in Kasai Oriental and Bandundu provinces approved a budget line item for CCM.

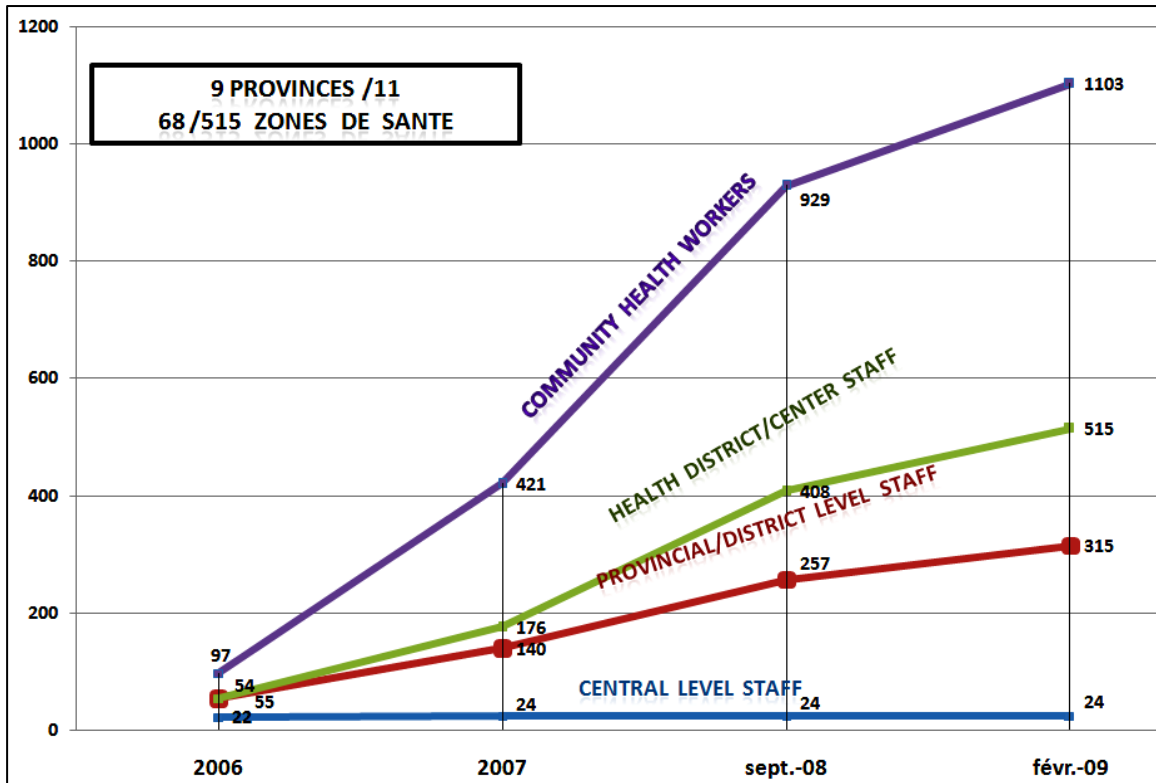
Though provincial ownership was a hallmark of the Congolese CCM program, leveraging partner resources was a complimentary essential condition for expansion in DR Congo because funding needs could not be entirely covered by the Ministry or any single partner. Moreover, numerous partners limited themselves to a confined implementation zone. 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.

Training was carried out through a four step model used by BASICS in several countries:

1. Training of trainers: Establish a pool of trainers by conducting training-of-trainers in each province.
2. Establishing practicum zones: Use one or more zones within the implementing province as a *practical training ground* for all trainers.
3. Follow-up of training: Involve the entire pool of trainers in follow-up of trainees in the *practical training ground zone*/ health district.
4. Scale-up: Expand training to the remaining zones in the province.

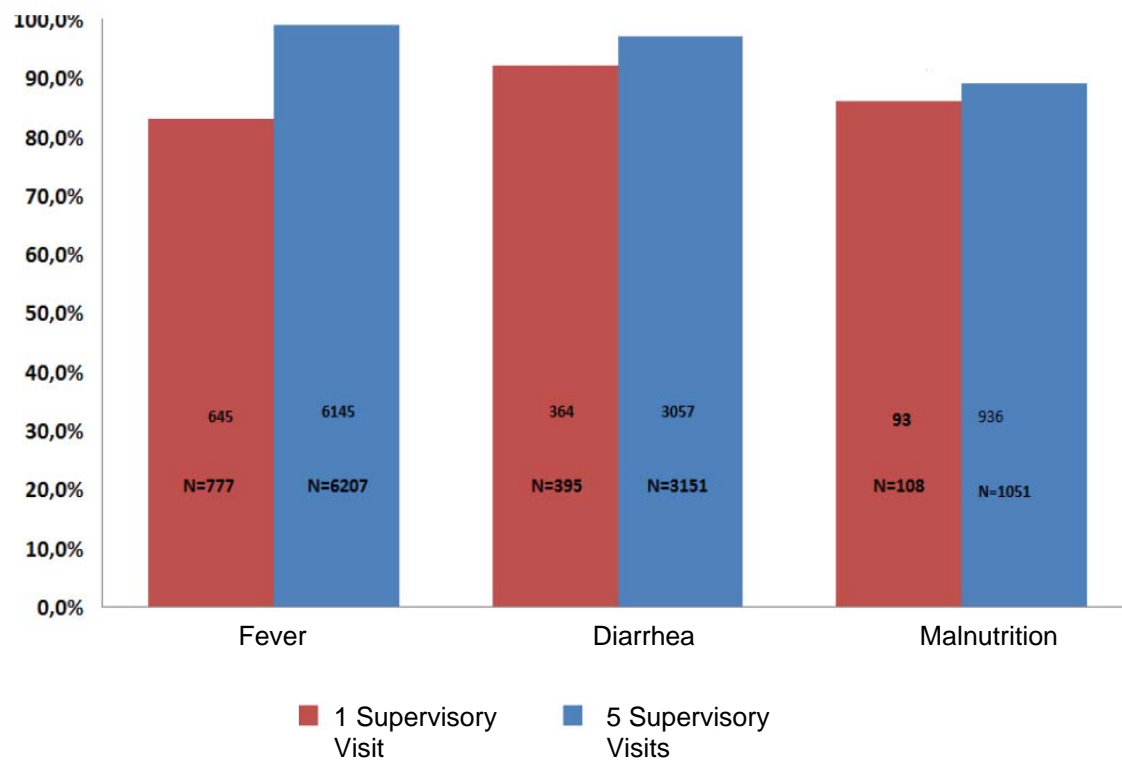
The capacity building at various levels of DRC health system are shown in Figure 1.

**Figure 1**  
**BASICS CCM Capacity Building Efforts at Various Levels of Health System,**  
**2006-2009 Democratic Republic of Congo**

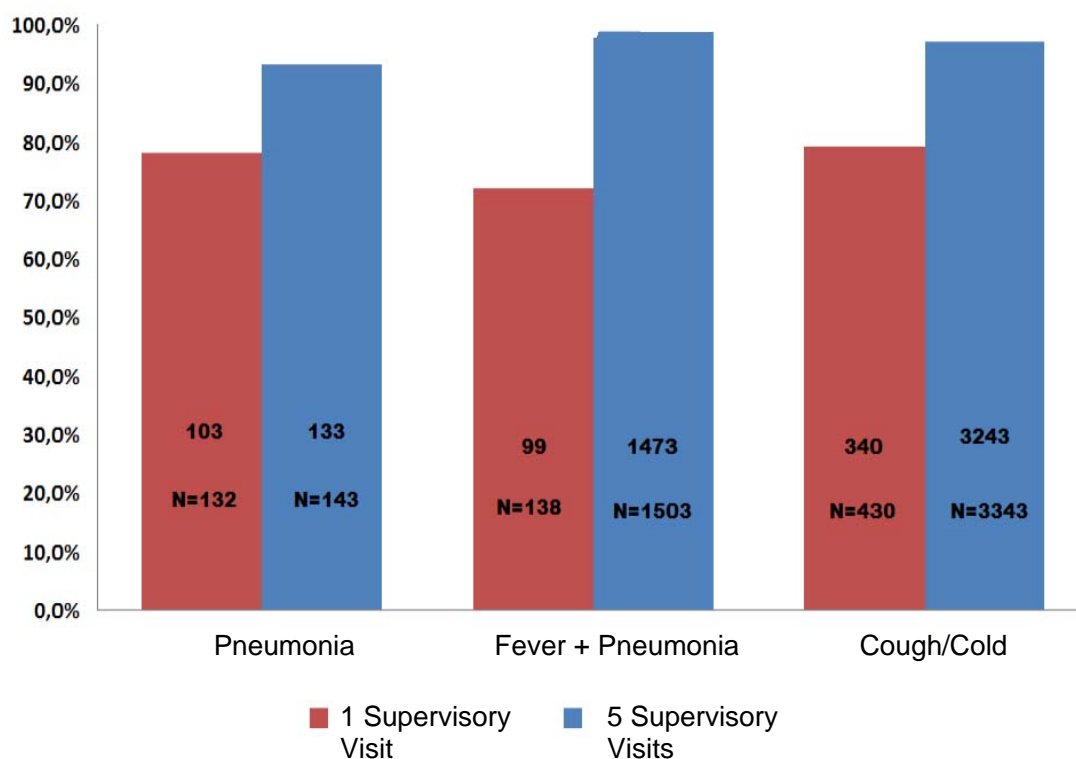


The critical issue of supervision in the implementation and scaling up of CCM is shown in Figures 2 and 3. It demonstrates that the correctly correlating the symptoms of presenting patients with proper classification of their illness (Figure 2) and correct classification of treatment by CHWs (Figure 3) improved dramatically with increased supervision—for those patients presenting with fever and pneumonia, the correct classification of treatment improves from 72% after a single supervisory visit to 98% after 5 visits by the supervisor. The importance of supervision of CHWs cannot be stressed sufficiently in terms of how it impacts quality of care of patients.

**Figure 2**  
**Percent of Patients Presenting with Fever, Diarrhea and Malnutrition Symptoms**  
**Correctly Classified and Treated by CHW, After one and five supervisory visits,**  
**DRC**



**Figure 3**  
**Percent of Patients Presenting with Pneumonia, Fever and Pneumonia and Cough and Cold Symptoms Correctly Classified and Treated by CHW, After one and five supervisory visits, DRC**



**Results**

Capacity building of health workers in various countries in CCM has proceeded under BASICS. Table 2 shows that, in the four countries where USAID/BASICS provided technical assistance for the scale-up of CCM, more than 5000 community health workers were trained.

**Table 2**  
**Capacity Building: Health Workers Trained by BASICS in CCM, by Country**

Country	Provinces/Regions		Districts		Community HW trained
	Total	Training Pool	Total	Covered	Total
<b>DR Congo</b>	11	9	517	69	1103
<b>Madagascar</b>	22	9	111	21	907
<b>Senegal</b>	On going expansion in 37 districts information				
<b>Rwanda</b>	-	-	30	7	3000+

To allow for further capacity development of health workers, various tools were developed by BAISC for CCM training. Table 3 summarizes the various tools use in different countries.

**Table 3**  
**Capacity Building: Health Workers Trained by BASICS in CCM, by Country**

COUNTRY	Implementation Guidelines	Facilitators' Manual	CHW Support Tools	CHW Training Manual	Application and Use
<b>DR Congo</b>	X	X	X	X	X
<b>Madagascar</b>	X	X	X	X	X
<b>Senegal</b>	X	X	X	X	X
<b>Rwanda</b>	X	X	X	X	

The results from CCM implementation in Rwanda, Madagascar, Senegal and DRC suggest a healthy contribution of integrated CCM to child health at the community level. Addressing pneumonia is an essential and central element of any CCM program. Data collected from 97 community treatment sites in Madagascar for the period between April 2007 and July 2008 showed that, among 4,065 total cases of childhood illness seen (some presenting multiple symptoms), 12% were treated for non-severe pneumonia and 2% were referred for severe pneumonia. In DR Congo, a review of nearly 30,000 patient management forms filled out by CHWs showed similar results: 11% of all cases were treated for non-severe pneumonia and more than 2,000 children were referred to peripheral health facilities for a range of severe illnesses.

## What have we learned?

### Policy: Identify Ministry Champions for CCM

The primary obstacle to adoption of CCM by countries is usually concern over the ability of volunteers to administer antibiotics to patients for pneumonia when they are not directly supervised by professional medical professionals. The problem of introducing CCM comes from physicians who have concerns about community health worker correctly diagnosing, the efficacy of treatment prescribed by CHWs and potential development of resistance due to over prescribing of antibiotics by CHWs. The benefits of CCM outweigh the potential hazards, a number of country experiences have shown. However, this policy issue continues to be an obstacle to CCM program development in many countries.

USAID/BASICS sought to address this problem by identifying senior-level CCM champions in ministries of health and working with them to promote consensus for introduction of CCM. Due to turn over of senior officials of the ministry it was found that CCM had to be incorporated into existing ministry policy structures, such as IMCI working groups, so CCM would continue even if there was change of leadership. Then there could be the formation of smaller technical working groups to develop tools and guidelines for CCM.

### Leveraging: Promoting collaboration to maximize resources and expertise for CCM

The current difficult funding environment in most countries makes leveraging of partners to generate sufficient resources for CCM. The leveraging is not only for financial resources but also to access expertise and the range of skills that must be brought together to ensure proper rollout and scaling-up of CCM. These partners range from larger organizations, such as UNICEF, to CORE to small NGOs. Joint planning of CCM is essential to help solidify these partnerships and gain momentum in promoting CCM.

### Quality: Paramount to Ensure Quality for CCM to Expand

USAID/BASICS' experience in expanding CCM shows an extremely favorable picture of volunteer capacity. However, CCM must demonstrate that CHWs can provide quality assessment and treatment. This requires a strong and supportive supervisory system for CHWs. Figures 2 and 3 above demonstrated how with greater supervision, quality of assessment and treatment were increased.

## **The way forward**

CCM is a critical strategy for covering large populations, especially in rural and remote areas with basic health care for the health problems causing a great deal of the infant and child mortality and morbidity. CCM also has a role in urban settings, especially for the urban poor communities in cities. With increasing rates of migration to urban areas there will be greater access gaps for those remaining in rural communities. Thus, CCM scale-up must be evaluated based on its potential impact in relation to its cost. Larger villages, where a greater number of children live can be helped to improve health indicators through a strong CCM program.

The BASICSS experience suggests that CCM can be expanded further with the following actions:

- Use malaria, HIV/AIDS, and newborn health programming opportunities to promote an integrated CCM approach;
- Continue operational research to demonstrate results which will build momentum for expansion of CCM programs
- Use greater county-to-country exchange of information and experiences to develop a core “CCM best practices” body of information for other countries to use to improve the effectiveness and efficiency of their CCM programs.