

Community Approaches to Child Health in Cameroon:

Applying the Community-based Integrated Management of Childhood Illness (C-IMCI) Framework

January 2009



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Abstract

From 2000-2004, Plan International, an international nongovernmental organization, implemented a community-based project in East Province, Cameroon to reduce child mortality. The project strategy was based on the Community Integrated Management of Childhood Illness (C-IMCI) Framework developed by the CORE Group and partners. The project was implemented over a four-year period and funded through the U.S. Agency for International Development (USAID) Child Survival and Health Grants Program (CSHGP). Plan International developed strategies under each of the framework's three elements: (1) Improving partnerships between health facilities and the communities they serve; (2) Increasing appropriate and accessible health care and information from community-based providers; and (3) Integrating promotion of key family practices critical for child health and nutrition as well as applying strategies under the framework's multi-sectoral platform. Through knowledge, practice and coverage surveys, Plan was able to assess changes in behavior over the course of its four-year child survival program. In total, Plan measured 16 indicators at baseline and at the end of the project related to IMCI, malaria, diarrhea, immunization, and nutrition. Through KPC surveys, Plan was able to assess changes in quality of care at the facility level and in community and home health practices, and strengthen community organizations over the course of its four-year child survival program. Given the positive results of its initial program, Plan has since scaled up the strategy and is now covering three of Cameroon's 10 provinces under a 5-year expanded impact program, which will operate through 2010.

Overall, Plan's use of the C-IMCI Framework as an organizing concept under its child survival program, and subsequent scale-up, provides one of the first opportunities to observe intentional use and field interpretation of the framework. Plan has found C-IMCI to be a useful concept, providing organizing parameters for a more comprehensive and effective community-based approach.

Program innovations included supporting health facility management committees by involving women leaders from existing women's groups (Element 1); promoting home-based management of illnesses through trained community health agents (Element 2); linking community-level health data to national data collection systems, and using behavior mapping to increase outreach to vulnerable households in need (Element 3); and building the management capacity of health committees to develop and implement a vision statement and action plan (Multi-Sectoral Platform). Overall, the C-IMCI Framework provides an easy-to-understand platform for assessing various locations within the community where health services and counseling can be provided, and key family practices can be strengthened.

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Plan International

Plan International is a non-profit, child-focused development organization without religious or political affiliation. Founded in 1937 on the vision of “a world in which all children realize their full potential in societies which respect people’s rights and dignity,” Plan is a federation of 17 national offices that raise funds and support 49 country offices in the developing world. Plan’s core competencies include education, health, habitat, livelihood and relationship building. Plan International is a member of the CORE Group.

CORE Group

The CORE Group is a membership association of international nongovernmental organizations that work together to promote and improve primary health care programs for women and children and the communities in which they live. The CORE Group’s mission is to strengthen local capacity on a global scale to measurably improve the health and well being of children and women in developing countries through collaborative NGO action and learning. Collectively, its member organizations work in more than 180 countries, supporting health and development programs.

USAID Child Survival and Health Grants Program

The Plan International projects described in this document were funded under the U.S. Agency for International Development (USAID) Child Survival and Health Grants Program. Plan’s first child survival project in Cameroon was implemented from 2000–2004; a second, expanded impact child survival project runs from 2005 to 2010.

The purpose of the Child Survival and Health Grants Program is to contribute to sustained improvements in child survival and health outcomes by supporting the work of nongovernmental organizations and their in-country partners. This work is aimed at reducing infant, child, maternal and infectious disease-related morbidity and mortality in developing countries. Sustained health improvements are achieved through capacity building of communities and local organizations and improved health systems and policies. In addition, the program seeks opportunities to scale up successful strategies to the national level and to contribute to the global capacity and leadership for child survival and health through the dissemination of best practices.

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Acronyms

ACT	Artemisinin Combination Therapy
APPEC	Association for the Self-Promotion of the East Province Population
BCC	behavior change communication
CBO	community-based organization
CHIS	community-based health information system
C-IMCI	Community Integrated Management of Childhood Illness
COGE	Health Area Management Committee
COSA	Health Area Committee members
HIS	health information system
HKI	Helen Keller International
IHC	Integrated Health Center
IMCI	Integrated Management of Childhood Illness
ITN	insecticide-treated net
KPC	knowledge, practice, coverage
MOH	Ministry of Health
MSP	multi-sectoral platform
NGO	nongovernmental organization
PSI	Population Services International
TBA	traditional birth attendant
UNICEF	United Nations Children's Fund
USAID	United States Agency for International Development
WHO	World Health Organization

I. Introduction

In 2001, Plan International, an international nongovernmental organization (NGO), initiated a community-based program in East Province, Cameroon to reduce child mortality. The project strategy was based on the Community *Integrated Management of Childhood Illness (C-IMCI)* Framework developed by the CORE Group and partners in January 2001. The project was implemented over a four-year period and funded through the U.S. Agency for International Development (USAID) Child Survival and Health Grants Program (CSHGP). Given the success of this initial program, Plan has since scaled up the strategy and is now covering three of Cameroon's 10 provinces under a 5-year expanded program which will operate through 2010. This paper explores how the C-IMCI Framework was applied by Plan in Cameroon, its effectiveness as a strategic approach and the lessons learned from the Plan/Cameroon experience.

Integrated Management of Childhood Illness (IMCI)

In 1992, the World Health Organization (WHO) and the United Nations Children's Fund (UNICEF) developed the IMCI strategy to address the five major causes of child mortality (diarrhea, pneumonia, malaria, measles and malnutrition) using an integrated 'whole child' approach. This strategy recognizes that children often suffer from multiple illness events at the same time or in close proximity to each other, yet are typically diagnosed by health personnel only for the reported illness. Using a set of flow charts and guidelines, trained health care providers can classify and treat a range of nutritional and infectious disease problems that commonly affect children in that country. In addition to facility-based training, IMCI also recognized the importance of improving the health system infrastructure and supplies, and the role of community and households in determining mortality outcomes.

As of 2006, an estimated 92 countries were engaged in some phase of IMCI roll-out, and training had been completed in more than 50 percent of districts in at least 23 of those countries.¹

Although much of the country-based effort and resource allocation has focused on the first two components of IMCI, many critics noted that training health workers and improving health systems alone would not result in reductions in child mortality because a significant portion of the world's children will never reach a health facility. This is primarily a consequence of distance but is also due to cost barriers, health beliefs, and cultural and language barriers. Public health experts recognize that community-based activities must be a priority

"To be successful in reducing child mortality, programmes must move beyond health facilities and develop new and more effective ways of reaching children with proven interventions to prevent mortality. In most high-mortality settings, this means providing case management services at community level, as well as focusing on prevention and on reducing rates of undernutrition."

*— WHO IMCI/MCE
Main Findings*

1. WHO/ Public Health Mapping and GIS Communicable Diseases, 2007.

and should be broader in scope than simply improving *family and community health practices*. Since 2000, WHO has conducted multi-country evaluations on IMCI, which have underscored this point. The most recent multi-country evaluations progress report (2003) also emphasizes that “... efforts to implement interventions at family and community levels have been too slow and too widely dispersed to achieve even minimal coverage.”²

Community Integrated Management of Childhood Illness (C-IMCI)

This community “gap” in IMCI was recognized early on in the planning and initial roll-out of the framework. Discussion ensued among various groups about what the community component should look like. Rather than formulate one definitive approach, different models evolved among adopting countries. The CORE Group, a major advocate of C-IMCI, began hosting workshops on the subject in 2001. At a seminal workshop in January 2001, CORE members and key partners (WHO & UNICEF) agreed on a vision and framework for C-IMCI (Figure 1), or Community Approaches to Child Health.

The **first element** responds to relationship and quality issues that have deterred community members from using health facilities. It implies that the health system and community must work together as a team to improve health. To forge a true partnership, the community needs to be given influence and decision-making power within the health facility.

The **second element** advocates for effective and substantial scale-up in health service coverage through training, equipping and supporting community-based providers. This is especially critical where significant portions of the population live long distances from the nearest health facility.

The **third element** focuses on 16 key family practices (see Appendix for full list) associated with physical and mental development, disease prevention, appropriate home care and care-seeking. These are practices for which

Figure 1: Household and Community IMCI—An Implementation Framework



2. Multi-Country Evaluation of IMCI: Effectiveness, Cost and Impact. Progress Report May 2002-April 2003 Department of Child and Adolescent Health and Development – World Health Organization.

there is broad consensus and an evidence base to support a link to reducing child mortality.

Finally, the framework includes a **multi-sectoral platform**, which recognizes the impact other sectors have on health outcomes. These non-health sectors form a community context or platform upon which the three elements operate and which can influence both the strength and sustainability of health outcomes. In addition to the framework shown above, the CORE Group has developed a facilitators’ guide and an evaluation of the use and impact of multi-sectoral approaches.^{3,4}

II. Background

Plan’s 2000-2004 child survival project was implemented in East Province, the largest of the Cameroon’s ten provinces, encompassing almost one-quarter of the country’s land mass. Its population is primarily rural and dispersed, however, and represents only 4 percent of the country’s population. The program operated in three health districts (Bertoua, Doume and Nguelemendouka), covering a total population of 211,264.⁵ The coverage area included 267 communities located in 27 health areas. The catchment area included 38,009 children under five, 8,447 infants and 48,568 women of reproductive age. Ethnically, 75 percent of the population is Bantu and 25 percent are Pygmy. The Pygmy population in Cameroon has been quite marginalized, but is slowly transitioning from forest dwelling to landed agriculturalist. The Association for the Self-Promotion of the East Province Population (APPEC), a Cameroonian NGO, has worked extensively with this population. Plan contracted APPEC to assist in the development of child survival materials for training

Figure 2: Cameroon with highlighted East Province

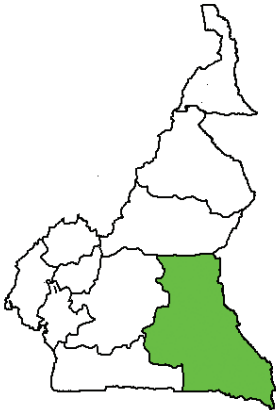


Table 1: Cause-related under-5 mortality in Cameroon: 1997

Region	Malaria	Pneumonia	Diarrhea
Country (Cameroon) ⁶	46%	14%	10%
Bertoua	39%	10%	12%
Doume and NG	45%	22%	13%

3. CORE Group. The household and Community Integrated Management of Childhood Illness (HH/C IMCI) Framework Facilitator’s Guide: A Tool for Collaboration. 2003.

4. CORE Group. Reaching Communities for Child Health: Advancing Health Outcomes through Multi-Sectoral Approaches, December 2004.

5. 2000 Ministry of Health Eastern Health Delegation Report.

6. National Health Management Information System: Annual Activity Report for First Level Health Care Facilities, 1997.

and education of Pygmy and other non-literate communities and to conduct community mobilization efforts.

East Province was chosen because of its poor health indicators and inadequate access to health services. It is the poorest province in the country with high rates of infant mortality, under-five mortality and maternal mortality (77 and 151 per 1,000 and 430 per 100,000 live births respectively).⁷ At the beginning of Plan's child survival program, mortality rates had been rising despite government efforts to reduce morbidity and mortality. Malaria, diarrhea, measles, respiratory infections, and malnutrition were the main causes of under-5 mortality. In the three health districts selected, the causes of mortality (as reported through clinic data) roughly mirrored national data for malaria, pneumonia and diarrhea. Both Plan and the government of Cameroon identified low utilization of health facilities as a key barrier to improving health. In the program area, only 10 to 20 percent of the population utilized public health services.⁸ This was not a problem unique to the East Province but a pattern experienced nationwide.

Reasons for low utilization included long distances to facilities, irregular clinic hours, poor quality of care, and costly payment for consultation and drugs. As a result of these barriers, Cameroonians were likely to choose home care or community-based traditional healers as their primary mode of treatment. The government of Cameroon proposed several new structures to redress the problem, described below. It is important to note that IMCI had yet to be rolled out in Cameroon when Plan's program began; Plan would play a central role in piloting the first IMCI trainings in Cameroon through its child survival program.

Health Policy and Services

East Province is divided into 12 health districts, which are further divided into health areas. Each health area is served by primary health clinics (referred to as *Integrated Health Centers* or *IHCs*). When the program began, IHCs in East Province were severely understaffed, health personnel were often not trained sufficiently and turnover was high. In contrast, clinics close to the city were overstaffed. Some health areas still lacked an actual IHC. Nurses did not want to be "sent to the bush" due to the isolation and poor support, and inadequate supervision and training led to lack of motivation and almost non-existent community outreach.

This situation was exacerbated by the fact that, over a number of years prior to the program, all MOH salaries had been cut by two-thirds. Ideally, each IHC should be staffed with a nurse, nurse assistant, laboratory technician and a community-employed pharmacy worker (supported and managed by the health area management committee). In practice, however, one nurse assistant usually carries out all medical activities in the health center. Pharmacies with

essential drugs are located at the IHCs and are sustained through revolving drug funds. The lack of quality management of these funds prior to the project was not uncommon, and in many cases fund mismanagement affected drug availability. Most communities are within a 1- to 3-hour walk to an IHC but some may be located as far as six hours away.

The Cameroon government adopted the Bamako Initiative strategies—introduced by African Ministers of Health in 1987—to strengthen primary health care services with a goal of achieving universal access. It adopted five strategies to achieve this goal, which included (i) revitalize public health systems by renovations and extension of peripheral health care delivery systems; (ii) decentralize decision-making from the national to the district level; (iii) institute community financing to cover some local operating costs of primary health care; (iv) co-manage basic health services with the community, including the management of locally generated funds; and (v) define and provide a minimum package of essential health services.

Implementation of the first strategy in Cameroon included training and provision of first-line drugs to community health workers for specific, uncomplicated conditions. However, some community health workers went beyond their training and skill level and began providing drugs, including injectable drugs, not authorized or provided through the Ministry of Health (MOH). At that time, Cameroon's market was flooded with cheap, readily available antibiotics and other pharmaceuticals from Nigeria. Community health workers purchased these drugs over the counter, providing them to patients in their role as MOH community representatives. That experience led the government of Cameroon to cease support of community health workers, thus creating an obstacle to community-based delivery of health services.

In 1989 the government issued a directive to establish Health Area Committees and Health Area Management Committees for each IHC in an effort to increase facility utilization rates. In French, these are referred to, respectively, as *Comité Santé* (COSA) and *Comité de Gestion* (COGE). Under this system, each community selects two or three representatives to serve on the COSA. Representatives identify relevant health issues in the community and support health outreach activities from the local health unit. They meet every three months to discuss health issues and explore potential solutions. Prior to the start of the child survival program, only 20 percent of COSAs were active in East Province. Though the policy existed, there was no clear road map on how to implement it and build management capacity to support the new structures.

The COGE subcommittee is a sub-unit of the COSA. The COGE is made up of approximately five COSA members and manages the revolving drug fund. The COGE appoints a community member as a pharmacist and has the power to fire that person as well. COGE members meet monthly to discuss management and administrative issues related to the health center, especially the revolving drug fund for the health center pharmacy.

III. Application of C-IMCI within Cameroon

Beginning in 2005, Plan scaled up its child survival program using the C-IMCI Framework, which had proved to be effective in Plan’s 2000-2004 child survival program. This new, expanded impact program, funded under a five-year, \$5 million grant from USAID’s Child Survival and Health Grants Program, covers 11 districts (compared to three under the first child survival program) in three provinces (compared to one province in the first program) and reaches a population size five times larger than the original program.

Plan is implementing its scale-up program in partnership with Population Services International (PSI) and Helen Keller International (HKI), international NGOs with complementary expertise and responsibilities. Plan provides oversight to the community health program including linkages into a multi-sectoral platform; PSI contributes social marketing expertise; and HKI contributes to nutrition policies, programs and capacity building. The partnership also includes the MOH and 11 local NGOs.

Table 2: IMCI Elements and Strategies, 2000–2004

IMCI Elements	Plan Strategies in Cameroon, 2000–2004
Element 1: Improving partnerships between health facilities and the communities they serve	<ol style="list-style-type: none"> 1. Strengthen COSAs/COGEs. 2. Train IHC staff to be responsive to communities. 3. Support COSA/COGE through existing women’s groups.
Element 2: Increasing appropriate and accessible health care and information from community-based providers	<ol style="list-style-type: none"> 1. Establish a referral system. 2. Conduct Health and Nutrition Action Days. 3. Promote home-based management of illnesses.
Element 3: Integrating promotion of key family practices critical for child health and nutrition	<ol style="list-style-type: none"> 1. Hold Sunday gatherings and home visits. 2. Introduce a community-based behavior mapping system. 3. Introduce a Community-based Health Information System.
Multi-sectoral Platform	<ol style="list-style-type: none"> 1. Leverage use of non-health community-based organizations. 2. Promote joint multi-sectoral programming. 3. Promote health area and district capacity building.

C-IMCI Element 1: Improving partnerships between health facilities and the communities they serve.

In undertaking Element 1 strategies, Plan/Cameroon took full advantage of existing MOH policies, as well as established community structures, to strengthen partnerships between the communities and health facilities. As stated earlier, the government issued a directive in 1989 to establish coordination mechanisms (COSAs & COGEs) between the community and the first-tier health facilities (IHCs). This was done to meet obligations under the Bamako Initiative and increase utilization rates. However, very few COSA/COGEs were operable in East Province (only 20 percent) when Plan initiated its child survival activities. Under this program, Plan worked with local IHCs and communities to establish, strengthen and support the COSAs and COGEs. Improving partnerships meant building the capacity of health facility workers as well as capitalizing on pre-existing mother's groups within the community to support the COSA/COGEs and community activities.

I. STRENGTHEN COSAs/COGEs: The policy that established COSAs and COGEs provided little direction as to the scope of committees, their make-up, or activities. Plan used the absence of any specific guidance on COSA/COGE development to create its own program model, which it felt was most conducive to strengthening the facility-community partnership. For example, most COSA/COGEs that had been developed prior to the program were male-dominated committees. In mobilizing communities for recruitment of COSA/COGE members under the child survival program, Plan effectively advocated for female leadership, drawing heavily from established women's groups. This was a critical step in giving voice to primary recipients of health care services and the principal caretakers of children. By the end of the program, Plan helped to establish 27 COSA/COGEs, with females making up roughly 30 percent of its members.

Plan strengthened the COSA to become a regular conduit of information to and from the community, as well as a mechanism to coordinate activities. Plan staff provided training in creating an organizational vision as well as training in planning and management. When COSA representatives met with health facility staff, they would often come with complaints or concerns expressed by the communities they represented. More often than not, complaints related to poor quality of services and lack of community outreach activities. It is part of the IHCs' mandate to conduct outreach activities, especially for communities that are furthest from the health facility. However, among the target communities, this rarely happened prior to the 2000-2004 child survival program. COSA meetings were an opportunity for community representatives to lobby health facility staff for those outreach visits and/or be informed about upcoming visits.

As a result, outreach activities increased substantially. At the start of the program, the 27 IHCs within the program area conducted virtually no outreach.



"There were no instruction manuals with the COSA policy. It was there but not enforced. It's one of those silent policies that sits on the shelf."

— Dr. Pierre-Marie Metangmo, former Senior Health Program Manager – Plan International

By 2004 each of the IHCs had established at least three outreach posts in their respective health areas and provided a minimum package of health activities once each month. COSA representatives played a critical role by informing community members of the day, place and time activities were scheduled to ensure maximum participation. If there was a particular focus of the outreach, such as Vitamin A distribution or immunization, the COSA representatives could further specify the purpose and type of participation required. While Plan facilitated outreach efforts under the child survival program through subsidized transport costs (no longer practiced), COSA meetings helped put pressure on health staff to meet their outreach obligations.

In a strategic move, Plan also proposed that representatives of the COSA participate in quarterly district health meetings. Prior to this, these meetings were limited to health district and health area staff only, with no community representation. With COSA members present at these meetings, community corroboration of reports and information given by IHC representatives helped to check, validate and give greater weight to requests for assistance made by the IHC. COSA representatives were also involved in the collection of community information and prepared monthly community health information reports.

2. TRAIN IHC STAFF TO BE RESPONSIVE TO COMMUNITIES: Training of facility-based staff in IMCI has been a critical component of Plan's child survival work in Cameroon. Drug availability and quality of care are primary concerns of community members and critical to their perception of facility staff and their competencies. For facility staff, IMCI was considered state-of-the-art training and provided them with motivation to improve services.

Plan also trained health workers and their supervisors to value the community as an essential arm of their work. At the start of the child survival project, the operating environment between health personnel and health committee members was hampered by mutual suspicion. The focus was on who managed funds generated from the pharmacy rather than how to improve the health status of the population. Plan discussed the importance of listening to community members (using adult learning theory) and responding to their collective needs. Plan conducted planning meetings with COSA and health facility staff together. Visioning exercises permitted the two parties to come up with outcome objectives aimed at improving the health situation of children under five, pregnant women and the population as a whole. Discussions were based on the indicators attached to the project's baseline surveys, project objectives, and what the health staff, the health committee and other project stakeholder and project staff should do to improve the health situation.

In addition, health staff were technically considered *members* of the COSA and the COGE. Their member status meant that they also were de facto representatives of, and answerable to, the community. This was another small but important strategy for strengthening the clinic-community partnership.

In the community of Bandoougou, COSA representatives used community reports to bring attention to poor immunization coverage. This encouraged the IHC to intensify outreach and even pushed district officials to replace the broken refrigeration system at the IHC. COSA representatives in another district also successfully negotiated procurement of net retreatment kits based on community data.

— *Dr. Joseph Shu Atanga. MD, MPH, Plan National Coordinator, Expanded Impact Child Survival Project*

Finally, as outreach activities increased, IHC personnel's understanding and connection with the community deepened. Staff were better able to appreciate the conditions in which their clients live and the distances that must be traveled to reach health facilities.

3. SUPPORT COSA/COGES THROUGH EXISTING WOMEN'S GROUPS: Within Cameroon there is a strong culture of women-led community-based organizations (CBOs). They exist in almost every community and meet regularly. Some are involved in income-generation activities and some in agriculture, while others are more social in nature. Support for these organizations is managed through the Ministry of Women's Affairs. This ministry allocates resources and provides extension agents specifically for the purpose of helping women form these CBOs. Plan knew that COSA representatives, who were new and not well established, would need support at the community level. The more established CBOs provided an ideal community network for this support. More often than not, COSA representatives were actually drawn from the CBOs as they were a natural reservoir of female leaders within the community. CBOs were used to help mobilize community members during outreach activities and would also help collect and consolidate community information to be submitted monthly to the IHCs and discussed during quarterly COSA meetings.

▲ SCALE-UP UNDER EXPANDED IMPACT PROGRAM: Under the 2005-2010 expanded impact program, Plan continues to use the C-IMCI Framework to guide discussion and planning with districts. Outreach efforts are no longer subsidized by Plan but are considered a regular part of MOH activities.



Plan enlisted women's groups to introduce and manage community health activities.

Also, as a result of visioning exercises conducted by Plan under the earlier child survival project, it is now MOH policy that all COSAs have written vision statements. This is being applied across the country.

C-IMCI Element 2: Increasing appropriate and accessible health care and information from community-based providers

Element 2 presented the greatest challenge to fully implementing the framework in Cameroon. As described above, in 2000, the MOH didn't acknowledge the term *community health worker* because it connoted *treatment* agents, which the MOH deemed a failure. In this environment, there was no room for support of community-based treatment other than that provided by visiting MOH personnel. Plan established a referral system between community-based structures and Integrated Health Centers. This approach ultimately helped the MOH regain confidence in community health agents as reliable partners. In 2005, the MOH changed its policy to support home-based management of malaria administered through trained community health agents. In addition, community health agents have managed growth monitoring, vitamin A and zinc distribution and have worked on the national program for the control of river blindness.

I. ESTABLISH REFERRAL SYSTEM: Plan utilized COSA representatives, members of the women's CBOs, traditional birth attendants (TBAs) and even traditional healers as referral agents. The MOH supported educating COSA representatives on promotion of good health practices, identification of danger signs and referrals to health facilities. Plan extended the knowledge and practice associated with referral to the women's groups as well, especially as it related to malnutrition. Because women's groups (called *women's champions* by Plan) were trained to conduct growth monitoring, they were also trained to refer those children with poor or negative growth trends to COSA representatives or facilities. Plan staff also trained TBAs in early recognition and referral of pregnancies with danger signs.

If a child with a danger sign is recognized by a women's group member, TBA or traditional healer, the case is referred to a COSA representative. If the problem isn't a condition that they can take care of themselves (i.e., moderate dehydration), they are then referred to the nearest health facility. The referral is recorded in a community registry, which is part of the Community-based Health Information System (CHIS) (discussed under Element 3).



2. CONDUCT HEALTH AND NUTRITION ACTION DAYS: Together with the COSAs and women's groups, Plan staff conducted Health and Nutrition Action Days monthly at specified outreach posts in East Province. Activities included:

– **Special activities:** Vitamin A supplementation to children 6-59 months, deworming for children 12–59 months and mosquito net re-treatment.

– **Routine activities:** Activities already part of the health facility outreach package including: vaccination, growth monitoring, nutrition demonstration and distribution of vaccination/growth monitoring cards.

– **Promotional activities:** Delivery of key messages accompanied by demonstrations of exclusive breastfeeding, hand washing, use of oral rehydration solution in diarrhea and intermittent preventive treatment and iron intake during pregnancy.

Health facility and community coordinators optimized participation by holding Health and Nutrition Action Days on regularly scheduled market days. In some cases they functioned more like health fairs by using the event as an opportunity to cover several issues and develop greater awareness about child health. Outreach is not done everywhere. COSA representatives and health facility staff use CHIS and clinic HIS data to determine where there is low facility utilization, poor health behaviors and high disease incidence.



COSAs and women's groups sponsored monthly Health and Nutrition Action Days at outreach posts in East Province.

3. PROMOTE HOME-BASED MANAGEMENT OF ILLNESSES: During the original child survival program, home-based illness management was quite restricted. In essence, use of oral rehydration solution was the only officially sanctioned home-based treatment that could be administered by non-health staff. However, Plan supported growth monitoring and nutritional rehabilitation using a specific 11-day program. These activities were conducted by COSA representatives and women's groups. The child survival program supplied scales and other equipment; women's group members conducted monthly growth monitoring and nutrition rehabilitation sessions in their own communities. Women's group members followed children identified to be moderately malnourished through home visits. Severe and complicated cases of malnutrition were referred first to the IHC for treatment.

▲ SCALE-UP UNDER EXPANDED IMPACT PROGRAM: In 2005, the MOH reversed its policy on malaria treatment by community-based providers (they had previously been prohibited from administering treatment). From Plan's perspective, this reversal was due, in part, to the success of the COSA and women's groups operating responsibly and effectively under the C-IMCI strategy implemented during the 2000-2004 child survival program. Data presented by District Medical Officers at quarterly coordination meetings showed that performance indicators for program districts were significantly better than those of non-program districts. This information was shared with the Secretary of Health in 2003 at a program steering committee meeting, during which the IHC and district health staff, local NGO partners and CBO representatives shared their experiences related to the child survival program. This meeting was instrumental in helping to change the government's perspective on community capacity, along with efforts of global initiatives such as Roll Back Malaria, which strongly endorse home-based management of malaria.

Under the new policy, COSA representatives are trained as first-line providers for malarial case management. Because the MOH was concerned about ensuring the quality of training, supervision and follow-up, MOH staff asked Plan, through its scale-up program, to supervise training in the three provinces in which the MOH operates, as well as one province outside its operating area. As a result, the expanded impact program now provides expert support for home-based management of malaria training in 40 percent of the country. This support includes curriculum review, coordination of logistics, quality control, supervision of provincial level training, and submission of reports. Plan also participated in workshops led by the MOH for the initial development of guides and training manuals for home-based management of malaria using the new Artemisinin combination therapy (ACT) regimen.

The MOH has now deployed ACT stocks to provincial public health delegations for transmission to districts and communities. As is the practice within health facilities, initial provision is supposed to serve as seed stock, which



Under a new policy in Cameroon, COSA members are trained as first-line providers for malarial case management.

would then be replenished using payment provided by recipients (i.e., a revolving drug fund). Management of these resources falls under the supervision of the COGE and the head of each IHC. The MOH continues to be concerned about supervision. Plan has proposed using two of its scale-up districts to pilot use of ACT. In this way, lessons can be learned about effective supervision prior to broader distribution.

Plan is also currently conducting operations research in one district on the treatment and prevention of diarrhea through the use of zinc tablets. In that district, Plan has provided zinc to IHCs as well as to women's groups. If any child is identified as having diarrhea, the women's group or IHC provides the zinc tablets for free along with instructions on use. This is combined with oral rehydration solution therapy. A follow-up home visit is conducted to see if the child has taken the full regimen. Zinc is now included in the MOH policy on standard management for childhood diarrhea and is on the list of essential drugs in Cameroon. The administration of zinc is included in the IMCI protocols for treatment of diarrhea.

Plan and the MOH have jointly developed a detailed C-IMCI training manual encompassing technical areas such as diarrhea, nutrition, malaria, and immunization. The manual also addresses community management issues such as educational talks, counseling and home visits. Under the new training regimen, COSA representatives and members of the women's groups are trained in symptomatic recognition of danger signs for various childhood diseases.

Also, under the scale-up, Plan staff are using the Positive Deviance (PD)/Hearth methodology⁷ where community-based growth monitoring reveals high prevalence of underweight children. Moreover, the Health and Nutrition Action Days have transitioned from one-day events held each month to weekly events held twice a year. Based on the model that Plan introduced, the MOH, in partnership with UNICEF, WHO, Plan Cameroon and Helen Keller International, is currently organizing Health and Nutrition Action Weeks nationwide (in all 178 health districts).

C-IMCI Element 3: Integrating promotion of key family practices critical for child health and nutrition

Women's groups served as the principal vehicle through which Plan worked to modify key family practices. Through these groups Plan implemented health promotion and monitoring using group gatherings, behavior mapping and a CHIS that not only gathered health-related data but encouraged and promoted behavior change. Plan staff sought to improve 21 behaviors, primarily focused on malaria, diarrhea, immunization and nutrition.

I. HOLD SUNDAY GATHERINGS AND HOME VISITS: Women's groups exist in virtually every Cameroonian community and provide services to their members and/or to the community at large. Prior to Plan's program, many of the women's groups operating within the target communities were not associated with health programs but were formed to support micro-lending and income generation activities. Typically, these groups gather on Sundays after church at one of the member's homes. Plan staff leveraged this already established community structure to promote health practices. The women's groups were open to playing a role within the program because it was an opportunity to learn and apply new skills. The women who participate in these groups are more likely to be educated and exhibit leadership qualities. While they may not represent those who need to modify their behavior, they are an ideal group to model and transfer information to a broader community of peers.

In total, Plan worked with 120 women's groups over the course of its 2000-2004 child survival program. Each women's group received a six-day training on child health issues, covering six intervention areas (malaria, diarrhea, malnutrition, immunization, acute respiratory tract infections and HIV/AIDS) as well as capacity building and sustainability. Group members were also trained on community prevention of malaria through use of insecticide-treated nets and re-impregnation of those nets. Some members were further trained on nutrition rehabilitation using locally available foods. The groups used their regular Sunday gatherings to share information, discuss health issues and educate mothers. Non-member mothers were invited to these events which were held somewhere in the neighborhood.

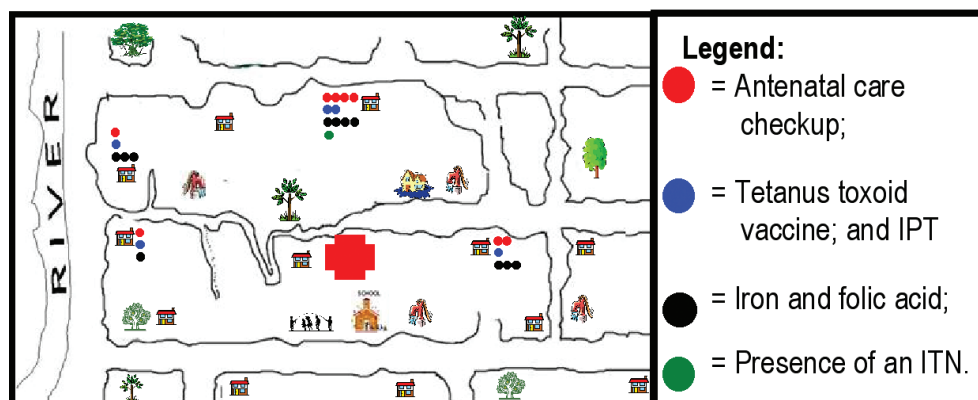


Women's Groups: Radio Health Messages

- Vaccination of children and pregnant women is necessary for life;
- It is critical to sleep under an insecticide-treated mosquito net; re-treat mosquito nets every six months; and refer children with fever to health care facilities.
- Hand washing at critical times (i.e., before food preparation, before eating, before feeding a child, after defecation) is important for your child's health;
- Exclusive breastfeeding, including immediately after birth with no other food or water for six months, is the best immunization for your baby.

7. Under a new policy in Cameroon, COSA members are trained as first-line providers for malarial case management.

Figure 3: Behavior Map



Women’s group members also counseled mothers and caretakers at their homes using flip charts and posters. Each member was assigned a block within the neighborhood on which she was responsible to educate residents and conduct follow-up. Plan also helped the groups develop songs, dramas, and nutritional demonstrations. The program used radio as a means to communicate key health messages (see box). Quantitative results from the final evaluation showed good progress had been made in changing a number of health practices (see Table 3 in Results section).

2. INTRODUCE BEHAVIOR MAPPING: Plan Cameroon borrowed the “behavior map” concept from its Nepal program. The map facilitates monitoring and follow-up of a selected group of behaviors on an individual, house-by-house basis. The maps are hand-drawn illustrations of various landmarks and dwellings and give a snapshot of health problems in the community.

The mapping activity was carried out as follows: Households with children under five and/or pregnant women were assigned to one of the women’s group members. Each member covered a particular block within the community, representing approximately 10 households. At monthly meetings, members updated the status of health indicators per household (based on household visits) with the use of colored dots applied next to the corresponding house on the map. For example, if a woman in house A received her second tetanus toxoid vaccination, a blue dot was placed next to her home. While it was too onerous to cover all behaviors assessed under the program using the map, mapping four or five key behaviors that are simple to validate either through observation or questioning of the caretaker was considered a manageable task.

The most important outcome of the mapping activity was the community discussion that ensued. For example, if most of the homes with pregnant women had red dots indicating they had received antenatal care, members discussed why the few remaining pregnant women had not gone in for their check-up. Members debated whether lack of care-seeking was due to the home’s remote

location or because families were marginalized and therefore less accustomed to visiting clinics. Following the discussion, members strategized and redoubled their efforts to encourage and assist women in attending a clinic. Because the map is a visual representation of each group member's health promotion success, it motivates each member to make sure that their block is full of dots.

3. INTRODUCE A COMMUNITY-BASED HEALTH INFORMATION SYSTEM (CHIS): Plan introduced community-level data collection that linked to the MOH system in Cameroon for the first time. Currently, such data tracks child deaths, use of insecticide-treated nets (pregnant women and children), children who are underweight, and children who are behind on their immunization schedule. Data are collected by women's groups, based on a population scale, then communicated to the first-level facility by COSA members. COSA managers find this information useful for decision-making related to which area would benefit from more outreach. COSA members then communicate decisions taken at the facility level back to the women's group members.

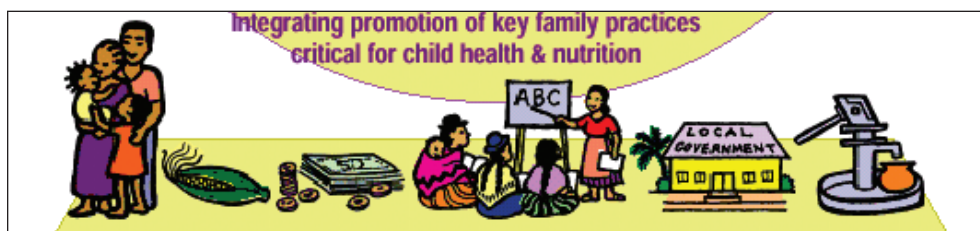
The MOH's community outreach strategy, adopted in 2000, allowed for reporting of local data to happen organically. Because community members were allowed to play an active part in health facility management, the MOH accepted information gathered by community members. Previously, the MOH perceived community-level data collection as disorganized. Plan's work with women's groups—and linking these groups to COSAs—made the process more organized and effective.

In Plan's first child survival program, information gathered during the behavior mapping session was reported in the CHIS. Using the data gathered from this tool, it was easy to monitor, for example, gaps in vaccination coverage or use of insecticide-treated mosquito nets. Through aggregation, health officials were able to identify trends and problem areas over a number of communities, and desegregation permitted Health Areas to pinpoint specific problem blocks or households within communities. Data on growth monitoring were also collected through the CHIS. As mentioned above, women's groups carried out growth monitoring activities on a regular basis. Anthropometric data was recorded on individual growth cards held by the mothers but was also retained for entry into the system. The CHIS also included a registry of referrals and community follow-up as discussed under Element 2.

The registry could be checked against clinic records to determine whether or not community members actually followed through with recommended care-seeking, and follow-up data helped inform the clinic of outcomes once a patient left the clinic. Finally, the CHIS was used as a means to record numbers of pregnant women, children under five and births (the system covered 100 percent of households within the targeted communities). Hence, with

the CHIS, health facilities had access to more precise data rather than simply using projections based on outdated Demographic and Health Surveys or other general demographic information. COSA representatives aggregated all information with the assistance of the women's groups. COSAs then presented the CHIS report to IHC staff during regular meetings.

▲ **SCALE-UP UNDER EXPANDED IMPACT PROGRAM:** Under the 2005-2010 expanded impact program, Plan, together with the MOH and other partners, developed a national C-IMCI module (i.e., training of community health workers and women's groups) into a five-day training-of-trainers curriculum. As a result, a total of 6,616 community members and 217 women's groups have been trained in health promotion and use of the CHIS. Under the expanded impact program, Plan also initiated a doer/non-doer survey to better understand influences on health behaviors and target groups for behavior change. For example, men were found to be a critical target group responsible for animal protein consumption by infants since they are hunters or fishermen or are often responsible for the purchase of meat and/or fish for household consumption. Messages targeting the husbands were developed to modify their current practice of selling their entire catch to instead save some for their children.



C-IMCI Multi-sectoral Platform (MSP): Optimizing a multi-sectoral platform to support sustainable child health and nutrition

According to the CORE Group's *Reaching Communities for Child Health: Advancing Health Outcomes through Multi-Sectoral Approaches*, optimizing the multi-sectoral platform can be approached in three different ways:

MSP APPROACH #1: Communicating key family practices and/or extending health services through other sectors;

MSP APPROACH #2: Conducting joint activities with non-health sectors to address local key determinants of child health; and/or

MSP APPROACH #3: Working through local government to increase capacity and funding for community health programming.

Under both the original child survival and expanded impact programs, Plan used all three of these approaches.

1. LEVERAGE USE OF NON-HEALTH COMMUNITY-BASED ORGANIZATIONS: In many countries, non-health sectors are more mature, better resourced and more expansive at the community level than the health sector. This was the case in Cameroon; women's groups associated with micro-enterprise or other activities were a case in point. The pervasiveness and strength of women's groups made them an ideal vehicle for introducing and managing health programs at the community level. Moreover, the fact that they existed prior to the program and had motivations for assembly beyond the scope of the program made it more likely that groups would continue to exist and promote health activities—even if the intensity of those activities subsided.

While Plan provided technical training and capacity building, it did not have to invest the level of resources that would have been required to develop new community-based health groups had the women's groups not been used. Also, while not directly used to support health services, Plan used the Ministry of Water (with whom it had a relationship), as well as other government ministries, to facilitate access to communities where it had not worked previously. Plan did this by asking representatives from these offices, who were known in the community, to provide introductions to the program, thereby giving legitimacy and de facto government support to Plan activities in those communities.

Use of non-health groups has its limitations, however. Because health was not the CBOs' principal purpose for existence, health-related activities at times took a back seat to other group activities. Plan found that if staff were not continually engaging these groups, health activities would drop off. Also, some non-health sector structures may not be optimal for disseminating information or supporting activities among a particular target group. For example, if the CBOs in Cameroon were male-dominated, it would not have been an effective means for educating women. Both advantages and disadvantages must be weighed when determining if a particular sector or group would be helpful in advancing a program's health objectives.

2. PROMOTE JOINT MULTI-SECTORAL PROGRAMMING: Joint multi-sectoral programming within Plan communities was already an integral part of the organization's child sponsorship program. Within these areas, Plan conducted activities in water and sanitation, education, livelihood, and habitat. Plan, however, did not have the resources to support the same multi-sectoral efforts in the non-Plan sponsorship communities (which was roughly 55 percent of the catchment area under the child survival program and an even greater percentage under the expanded impact program). In those communities, there were no significant efforts to coordinate with other sectors. Plan did invite agricultural extension workers operating in the communities to attend health meetings to emphasize the relationship between agriculture, nutrition and health, but no real coordination at decision-making levels occurred.

Undertaking this approach does not require an organization to actually finance and manage other sector programs, as Plan was able to do in its sponsorship

communities, but it does require active coordination with non-health sector ministries, NGOs or community groups in an effort to plan jointly and coordinate multi-sectoral activities so that they strengthen and reinforce each other.

3. PROMOTE HEALTH AREA AND DISTRICT CAPACITY BUILDING:

The third approach to optimizing the multi-sectoral platform is to address capacity building to increase an institution's ability to manage and support health programming. In a number of countries undergoing decentralization, municipalities and other local governing structures are taking on larger roles in financing and managing health facilities and activities within their area. Under such a scenario, this approach might mean working with municipal governments on budget planning and prioritization, leading to more or better targeted spending on health. In Cameroon, decision-making and financing of health services remains within the MOH. Decentralization has meant, however, that provincial, district and health area personnel have more decision-making authority. In this context, Plan has worked within the health system to build management capacity at these levels.

Development and strengthening of the health committees (COSAs) is discussed under Element 1; this strategy included assisting the COSAs in writing a vision statement and action plan. The development process has now become part of MOH policy in an effort to re-orient primary health care in Cameroon. Resulting action plans place a strong emphasis on outreach. Prior to the child survival program, none of the COSAs had action plans, but all of them had plans upon completion. With support from the program, COSA members also formed the Association of Community Health Resource Persons (COSAs, minus health facility staff persons) which held regular monthly meetings. Seventy-five percent of the 27 associations also developed action plans.

Plan also helped the COGEs to establish policies and trained them in record-keeping and general management of financial resources. This is critical as the mismanagement of drug funds has led to the dysfunction of many community clinics throughout Africa.

Another area of weakness was supervision at both the health facility and community level. When the program started, there were no supervisory tools available, so program partners developed new instruments for both facility and communities. Plan staff developed a CBO supervisory checklist, which was used by the IHC chiefs to supervise CBO members, and identify problems at the local level. Problem solving between health facility staff and communities was done through discussions at health area committee meetings. During the life of the program, health staff were encouraged to supervise COGE representatives and other community resource persons, with Plan supporting the

cost of fuel for that outreach. It is important to note that Plan encountered strong resistance from local IHC chiefs who felt the checklist was a program-imposed activity.

▲ **SCALE-UP UNDER EXPANDED IMPACT PROGRAM:** Since 2005, Plan has transferred more ownership and autonomy to the District Medical Teams by training them in monitoring activities using Lot Quality Assurance Sampling and Rapid Health Facility Assessment tools. Because of the success of the original child survival program and the larger geographic scope of the expanded program, the current program has greater policy influence; Plan staff now hold regular, formal meetings at the national level. In fact, the expanded impact program includes specific policy objectives to support further scale-up of C-IMCI. With a larger catchment area, the MSP strategies of working with non-health CBOs, as well as capacity building for health area and district staff, increased substantially. Under the expanded impact program, Plan is now working in 106 health areas as opposed to 27 under the child survival program. Proportionally, however, the number of Plan sponsorship communities has decreased since the overall program increased. This means that the percentage of communities benefiting from joint multi-sectoral programming has actually decreased under the expanded impact program.

IV. Results, Conclusions and Lessons Learned

Initial Project Results, 2000–2004

Through household-level Knowledge, Practice and Coverage (KPC) surveys and Health Facility Assessments (HFAs), Plan was able to assess changes in care at the facility level, community and home health practices and strengthening of community organizations over the course of its 2000–2004 child survival project. Results are presented in Table 3 (page 22). The beneficiary population was 212,000.

HEALTH RESULTS

Generally speaking, all of the indicators showed improvements from baseline. Quality of care at the facility level increased among all indicators measured through HFAs, and KPC survey data indicated that quality of community and home care practices improved for those children who attended health facilities. During the project period, Plan was able to mobilize communities to discuss and prioritize health issues. The project's successful work with women's groups, COSAs and COGEs created a solid foundation for strengthening community organizations in the future.

Project results were a natural outgrowth of the initial strategies planned for each IMCI element and the multi-sectoral platform, outlined in Table 2 earlier in this paper. However, while the behavioral indicators allowed Plan to properly assess the effectiveness of Element 3 strategies, the program did not develop specific indicators to measure progress towards, or impact of, each of the other framework elements and the MSP. For example, the principal purpose in Cameroon for Element 1 activities was to increase facility usage, yet, there was no specific indicator that looked at increased usage under the child survival program. In the future, child survival programs might consider different process indicators to determine which elements of the IMCI framework, including the multi-sectoral platform, require further investment.

POLICY CHANGE

As discussed earlier in this paper (under C-IMCI Element 2), the major policy success emanating from the 2000–2004 child survival project was the change in national policy on community treatment of malaria.

The MOH's 2005 policy reversal in this area was influenced by the success of the COSAs and women's groups mobilized under the Plan project. Their success in home-based management of malaria helped to change the government's perspective on community capacity. Today, community medication relays are composed primarily of COSA members who are well-connected to health facilities and, by extension, oversight provided by MOH workers.

Table 3: Plan Cameroon Child Survival Project Results, 2000–04

Indicator	Baseline	End Point
1. Improving Quality of Care/ Facility Level		
Percentage of children, 0-23 months, seen at health facilities that were assessed for all danger signs. (HFA)	10.5 %	33.9 %
Percentage of children with simple diarrhea, seen in health facilities, that were correctly treated (HFA)	23 %	66.7 %
Percentage of caretakers who were correctly counseled about their sick child (HFA)	36.3 %	69.4 %
Percentage of caretakers who were given oral medications, who know how to correctly administer the treatment (HFA)	44.8 %	61.7 %
Percentage of children seen in health facilities that had immunization status checked (HFA)	29.5 %	78.7 %
Percentage of children seen at health facilities who had nutrition status plotted on the road to health chart. (HFA)	3.2 %	54.3 %
2. Changing Community and Home Health Practices		
Percentage of mothers who know at least two danger signs that children need to be seen at a health facility (KPC)	58.5 %	65.0 %
Percentage of mothers of children 0-6 months of age who exclusively breastfed their child (KPC)	29 %	56.9 %
Percentage of children 12-23 months who were fully immunized before their first birthday (KPC)	24.7 %	54.9 %
Percentage of children, 0-23 months, and their mothers who sleep under an ITN (KPC)	0.4 %	33.6 %
Percentage of mothers of children 0-23 months who received iron/folic acid supplementation during the last pregnancy (KPC)	28.4 %	51.4 %
Hand washing with soap or ash by mothers of children 0-23 months before food preparation for the child (KPC)	42.2 %	49.4 %
Hand washing with soap or ash by mothers of children 0-23 months before feeding the child (KPC)	35.4 %	62.5 %
Hand washing with soap or ash by mothers of children 0-23 months after cleaning a child who has defecated (KPC)	18.7 %	51.1 %
Percentage of children, 0-23 months, who attended a growth monitoring session during the last four months and whose weight was recorded on a growth monitoring chart (KPC)	11 %	44.4 %
3. Mobilizing and Strengthening Community Organizations		
Percentage of health area committees with action plans. (Project monitoring system)	20 %	100 %*
Percentage of health areas with joint village plans for addressing health issues. (Project monitoring system, interviews)	0 %	100 %*
Percentage of COSAs that hold regular meetings with health facility staff. (Interviews)	20 %	60 %
Percentage of Associations of Community Health Resource Persons (ACHRP) that hold regular meetings. (Project monitoring system)	0 %	80 %

*100% for some specific activities such as outreach and vaccination

COMMUNITY EMPOWERMENT

In the area of community empowerment, the project's success in introducing community-level data to the MOH system for the first time was significant (for full discussion, see C-IMCI Element 3, above). Because community members played an active part in health facility management under the child survival program, the MOH accepted information gathered by these members. Previously, the MOH perceived community-level data collection as disorganized. Plan's work with women's groups—and linking these groups to COSAs—made the process more organized and effective. Community decision-making was also greatly enhanced through data collection. For example, reported data motivated several communities to engage more broadly with the pygmy minority, which appeared to have poorer health indicators.

Mid-term Scale-up Results, 2006–2008

In its expanded impact child survival project in Cameroon (2005–2010), Plan has partnered with PSI and HKI to jointly engage the MOH, the National Malaria Control Program, and the University of Yaounde to improve both policy and health outcomes related to child survival. As part of the consortium, Plan manages the community health program; PSI supports media messaging and equipping of community sale points for health commodities; and HKI strengthens nutrition policies, programs and capacity for implementation and integration into primary health care services.

Mid-term results, reported from 2006 to 2008, include those listed in Table 4 (page 24) for a beneficiary population of 681,000.

Conclusions

The C-IMCI Framework was designed as a tool to assist NGOs, Ministries of Health and donors in organizing a comprehensive approach for community health action. Because Plan applied the framework successfully in its 2000–2004 child survival program, Plan was able to initiate a substantial scale-up program in 2005—from three districts in one province to 11 districts across three provinces, and a five-fold increase in population covered. Between 2000 and 2004, the beneficiary population for the child survival project in the East (including three health districts) was 95,024. The total budget for child survival interventions was US\$1.86 million, at a cost of \$6.50 per beneficiary per year.

RELEVANCE

The C-IMCI framework provided the organizing principle upon which Plan's initial child survival program was based. It was introduced during the initial stages of planning and used frequently within Plan to discuss the program.

“The community was able to appreciate that there was institutionalized assistance at the household and community level—a source of organized information and support for children and their mothers.”

— Dr. Pierre-Marie Metangmo, former Senior Health Program Manager – Plan International

Table 4: Plan Expanded Impact Child Survival Project Results, 2006–08

Indicator	Baseline	End Point
1. Improving Quality of Care/ Facility Level		
Percentage of children age 0-59 months who received a full-course of recommended anti-malarial (according to the MOH's recently approved home-management protocols) within the 24 hours of the onset of fever	11.7 %	36.6 %
Percentage of children with signs of severe childhood illness who were seen by a qualified public or private provider in the past two weeks.	37.4 %	51 %
Percentage of children age 12–23 months who are fully vaccinated (against the five vaccine-preventable diseases) before the first birthday	70.5 %	73 %
2. Changing Community and Home Health Practices		
Percentage of children age 0–23 months who slept under an insecticide-treated net the previous night.	11.8 %	60.7 %
Percentage of women who completed Intermittent Presumptive Treatment during their current or last pregnancy.	18.5 %	51.4 %
Percentage of children age 0–23 months who are under-weight (-2 SD from the median weight-for-age, according to the WHO/NCHS reference population).	15.9 %	9.4 %
Percentage of children age 0–5 months who were exclusively breast-fed during the last 24 hours	50.8 %*	63.1 %
Percentage of mothers of children age 0–23 months who report that they wash their hands with soap/ash before food preparation, before feeding children, after defecation and after attending a child who has defecated.	7.7 %	15.5 %
Percentage of mothers of children age 0–23 months who know at least two signs of childhood illness (fast breathing and chest in-drawing) that indicate the need for treatment.	65.9 %	70.4 %

**The baseline is already significantly higher than the national average because two of the three target provinces already had higher than average exclusive breastfeeding rates, and the project is not being implemented in the provinces with extremely low rates.*

Plan also introduced the framework to partners at the district and health area levels. Under the expanded impact program, Plan used the framework during a three-day workshop as a jumping off point to discuss and plan specific strategies.

After initial program planning, use of the framework is less apparent—especially as a tool for national-level advocacy. While Plan has a strong and growing relationship with the MOH, and the expanded impact program features prominently in the Ministry's national health portfolio, there is little awareness or identification of advocacy gains attached to the framework itself. Moreover, C-IMCI in Cameroon is often used to refer to the training module for community health workers rather than the holistic model that the CORE Group framework represents. This is a missed opportunity to build consensus and coalesce understanding around an overall concept rather than simply advocating

for specific activities. If, for example, the framework were to be adopted as part of MOH policy, it could serve as a national guideline for comprehensive community action even as specific strategies change.

Overall, the C-IMCI framework provided an easy-to-understand platform for assessing various locations within the community where services and counseling could be provided: at a governmental facility, in the private sector, within a household or within other sectors. Such a platform helps program planners determine health gaps, coverage and opportunities for health improvement through household and community interventions.

APPLICATION

The framework's most dynamic aspect is that it is intentionally non-prescriptive in what strategy or action must take place under each element and the MSP. This is left up to the user to determine based on the conditions, context and resources particular to each NGO, country and program. Plan/Cameroon was able to identify mechanisms with which the organization could fulfill all three elements and the MSP. Plan capitalized on a policy approved more than a decade earlier that supported community involvement through the COSAs and used that mechanism to achieve Element 1.

Even within a restricted policy environment for community-based providers, Plan was able to establish referral and increased outreach services coordinated and managed by COSA representatives and women's groups. The success of this effort helped to pave the way for a policy change in home-based management of malaria. Under Element 3, Plan took advantage of existing, well-established community social structures (i.e., women's groups) to disseminate information, promote and monitor behavioral change. Essentially, these organizations became "care groups," with members assuming health promotion and monitoring responsibilities for various blocs within the community.

The MSP was easy to implement within Plan sponsorship communities because multi-sectoral programming is an integral part of Plan's approach within these communities. Plan's use of non-health CBOs provides an example of how another sector can be engaged to achieve health objectives. Non-technical capacity building (such as training in bookkeeping) for district and health area staff, as well as the COSA/COGEs, was also relevant to the MSP approach.

CONTRIBUTION TO SUCCESS

The child survival program made measurable improvements in health behaviors as well as clinical skills. One weakness of the program relative to the framework, however, is that C-IMCI was not used as the basis for developing a performance monitoring plan. As a result, there are very few indicators that demonstrate outcomes or impact under Element 1, 2 or the MSP. This probably would not have

been the case if the framework had been clearly presented as part of the program design. As such, design objectives and their indicators would have been an articulation and measurement of each of the three elements and the MSP.

Overall, Plan's use of the C-IMCI Framework as an organizing concept under its child survival program, and its subsequent scale-up activities, provided an excellent opportunity to observe intentional use and field interpretation of the framework. Plan staff have found it to be a useful concept in providing organizing parameters for a more comprehensive and effective community-based approach.

Lessons Learned

OVERALL C-IMCI FRAMEWORK

1. The C-IMCI Framework is a useful tool for development of broad project design that improves child health by involving the community in multiple ways within a health systems framework.

Use of the framework in Cameroon increased the health literacy of individual households; by the end of the program, community members' knowledge of when and how to engage with health facilities had increased markedly. The framework also provided guidance on when and how to involve other sectors in improving health outcomes, and helped clarify when other health determinants, whether social or economic, impeded or facilitated practice of key health behaviors in the community.

2. Aligning strategies with each C-IMCI element helps program staff identify health gaps and coverage.

Plan developed its child survival program strategies in Cameroon to correspond with each element of the C-IMCI Framework and multi-sectoral platform, outlined in Table 2. This kind of planning was a good way to show where the community was already covered by facility providers or other groups, which program activities would be most effective, and which local partners would contribute most to program goals.

3. Development of specific indicators for each of the three elements and the MSP during the design phase would have strengthened the project, enabling staff to monitor and invest appropriately in the different strategies.

From a design perspective, it would have been helpful if Plan had used the C-IMCI Framework as the overall results framework of the program rather than just as a tool to help organize and explain activities post-design. The 2000–2004 child survival project was designed prior to the creation of the C-IMCI Framework so it wasn't possible to use it during the design phase of the project. In using C-IMCI as a results framework, Plan would have been

required to identify indicators specific to each element and the MSP, and staff may have been more deliberative in defining activities under each element of the framework. Plan staff did, however, identify sustainability indicators across the six components of the CSSA framework, some of which double up as indicators for the C-IMCI framework.

4. National-level support for and understanding of C-IMCI is critical to ensuring community involvement and improving health outcomes.

In Cameroon, use of the framework as an advocacy tool at the national level has been weak. While there may be an understanding among MOH staff regarding the specific activities which reflect the three elements and MSP, they are not consciously recognized as part of one conceptual model called C-IMCI. Lack of clear recognition and understanding at the national level means that while specific activities may be endorsed, the model or overall approach under which those activities are unified is not part of the national dialogue.

THREE ELEMENTS AND MULTI-SECTORAL PLATFORM

5. Leveraging existing community resources helps ensure buy-in and sustainability. (Element 1)

Plan's decision to provide training and capacity building assistance to already existing women's groups lent critical support to health facility management committees. Plan successfully advocated for female leadership in these committees, giving voice to primary recipients of health care services and the principal caretakers of children. This strategy also precluded the need to create new community groups to introduce health programs, decreased initial program investment and accelerated program implementation. Support for women's groups, which had reported success in introducing and managing microfinance activities, made it more likely that the groups would continue to exist and promote health activities after the project had ended.

6. Training community health agents in home-based management of illness results in better health outcomes. (Element 2)

In program districts where COSAs and women's groups were trained to administer first-line anti-malarials, recognize danger signs, and refer children to health facilities when appropriate, performance indicators were significantly better than those of non-program districts.

7. Behavior mapping helps program staff reach vulnerable households in need and motivates community volunteers. (Element 3)

Use of the behavior mapping tool, borrowed from a Plan program in Nepal, enabled program staff and women's group members to pinpoint households

most in need and return to those households most frequently. The tool generated valuable community discussion during which members strategized to assist women in seeking facility care when appropriate. By presenting a visual representation of each women's group member's health promotion success, the tool motivated each member to improve performance and contribute to team goals.

8. Linking local and national data collection helps communities solve problems more effectively. (Element 3)

As a result of Plan's 2000-04 child survival project, community-level health data were linked with the MOH data collection system for the first time in Cameroon. Such data, which track child deaths, use of insecticide-treated nets, and children who are underweight, are now collected by women's groups and fed to first-level health facilities. This more comprehensive data sharing enables COSA managers to better determine which areas in the community might benefit from greater outreach, and has strengthened communication between COSAs and women's group members.

9. Child survival programs can work successfully in tandem with programs in other sectors. (Multi-sectoral Platform)

Plan's child survival programs lend themselves to support from other sectors (e.g. basic education, water and sanitation, livelihoods, community empowerment). The C-IMCI Framework thus became an important tool to harmonize Plan Cameroon's five-year program strategy (across many sectors) in East Province. Effective use of a multi-sectoral platform is possible if all actors understand project goals and how they might contribute to those goals. In Cameroon, the MOH coordination team that brings together health practitioners and other development actors at the district level has been successful in coordinating multi-sectoral activity since 2005. The success of the District Health and Nutrition Weeks, for example, has depended largely on this collaboration.

In addition, Plan's child survival programs helped build the capacity of health committees to better manage their finances, and develop and implement vision statements and action plans, leading to a stronger emphasis on health outreach.



Use of a behavior map helped Plan staff and women's groups reach households most in need.

Appendix

Key Family Practices

The C-IMCI Framework uses 16 key family practices to decrease mortality and morbidity in children under five and enable children to develop and grow. They are as follows:

For physical growth and mental development:

- Breastfeed infants exclusively for at least six months. (HIV-positive mothers need special counseling on infant feeding to understand and practice the safest options.)
- Starting at about six months of age, feed children freshly prepared energy- and nutrient-rich complementary foods, while continuing to breastfeed up to two years or longer.
- Ensure that children receive adequate amounts of micronutrients (vitamin A and iron, in particular), either in their diets or through supplementation.
- Promote mental and social development by responding to a child's needs for care through talking, playing, and providing a stimulating environment.

For disease prevention:

- Take children as scheduled to complete the full course of immunizations (BCG, DPT, OPV, and measles) before their first birthdays.
- Dispose of feces, including children's feces, safely; wash hands after defecation, before preparing meals, and before feeding children.
- Protect children in malaria-endemic areas by ensuring that they sleep under insecticide-treated bed nets.
- Adopt and sustain appropriate behavior regarding prevention and care for HIV/AIDS affected people, including orphans.

For appropriate home care:

- Continue to feed and offer more fluids, including breast milk, to children when they are sick.
- Give sick children appropriate home treatment for infections.
- Take appropriate actions to prevent and manage child injuries and accidents.
- Prevent child abuse and neglect and take appropriate action when it has occurred.
- Ensure that men actively participate in providing child care and are involved in the reproductive health of the family.

For seeking care:

- Recognize when sick children need treatment outside the home and seek care from appropriate providers.
- Follow the health worker's advice about treatment, follow-up, and referral.
- Ensure that every pregnant woman has adequate antenatal care. This includes having at least four antenatal visits with an appropriate health care provider and receiving the recommended doses of the tetanus toxoid vaccination. The mother also needs support from her family and community in seeking care at the time of delivery and during the postpartum and lactation period.