CÔTE D’IVOIRE

Strengthening Integrated Community Case Management (iCCM) of childhood illness in Côte d’Ivoire from 2013 to 2019

unicef
for every child
<table>
<thead>
<tr>
<th>ACRONYMS</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACT</td>
</tr>
<tr>
<td>ARI</td>
</tr>
<tr>
<td>CBO</td>
</tr>
<tr>
<td>CHW</td>
</tr>
<tr>
<td>COGES</td>
</tr>
<tr>
<td>EBF</td>
</tr>
<tr>
<td>iCCM</td>
</tr>
<tr>
<td>NMCP</td>
</tr>
<tr>
<td>NPSP</td>
</tr>
<tr>
<td>PECADOM</td>
</tr>
<tr>
<td>PNC</td>
</tr>
<tr>
<td>PNC</td>
</tr>
<tr>
<td>PSNSC</td>
</tr>
<tr>
<td>RDT</td>
</tr>
<tr>
<td>RMNCH</td>
</tr>
<tr>
<td>SDG</td>
</tr>
</tbody>
</table>
In Côte d’Ivoire, 11 children out of 1,000 die before the age of five, and 65% of these deaths are due to preventable infectious diseases such as malaria (38%), pneumonia (15%) and diarrhea (12%).

To reduce these deaths, in 2014, the Ministry of Health of Côte d’Ivoire, UNICEF, the Reproductive, Maternal, Newborn and Child Health (RMNCH) Trust Fund, and the Global Fund to Fight AIDS, Tuberculosis and Malaria signed a Memorandum of Understanding to support the scale-up of high-impact interventions for reducing child mortality, and in particular interventions related to community-based management of childhood illnesses: iCCM.

Between 2015 and 2017, the implementation of the Global Fund’s malaria strategy covering 51 health districts out of 82, combined with the 2018-2020 consensus among all partners, has resulted in real scale-up of iCCM in all villages located more than 5 km from a health center.

To implement iCCM at scale, UNICEF and its partners had to overcome systemic challenges at the community level, such as the lack of skills of community workers and IMCI health workers, the absence of CHWs in certain remote regions, the shortage and frequent stock-outs of essential drugs, and the lack of supervision to ensure the quality of community interventions.

To address these challenges, UNICEF partnered with the National Malaria Control Program and the Global Fund. This partnership resulted in the identification and selection of 2,123 CHWs from communities in 32 districts located more than 5 km from the nearest health facility. They all received a 12-day theoretical and practical training in integrated chronic disease management. To motivate stakeholders, it was decided to pay a monthly stipend of CFAF 20,000 per CHW, CFAF 2,500 per supervised CHW for the nurse supervisor and CFAF 10,000 for the district community focal point.

Other key activities also included:
- adding diarrhea management to an existing effective malaria control program. The program includes home-based management, support for the development of the National Community Strategy and the National Community Health Strategic Plan, as well as a partnership with the New Public Health Pharmacy (NPSP) for continued supply of essential drugs (ORS/zinc, dispersible amoxicillin, and ACTs, funded by the Global Fund, procured by UNICEF, and distributed through the NPSP);
- introducing, for supervision purposes, bi-monthly coaching between nurses and CHWs, a regular feedback from the community on CHW activities, and a community supervision form managed by nurse supervisors to justify monthly payments to CHWs;
- organizing quarterly meetings between the District Management Team, health zone nurses, and CHWs to identify performance and gaps and to find good resources for scaling up iCCM.

Thanks to support from UNICEF, the Global Fund, and Impact Malaria, the country now has a network of more than 12,000 CHWs trained, deployed, and operational in the field. They are equipped with kits and bicycles to facilitate their movement within the communities.

Though malaria remains the number one cause of morbidity in children under five in 2017 with an incidence of 281‰, its contribution to child mortality has decreased significantly from 38% in 2012 to 7% in 2017.

To ensure the sustainability of this program, the government has agreed to take over from UNICEF the procurement and supply of drugs to health centers through the New Public Health Pharmacy.

For the next steps, UNICEF will pursue its advocacy with the government to include the incentive compensation of these community stakeholders in the State budget, and to ensure the continued availability of community health products.
Since the end of the political crisis in 2011, Côte d’Ivoire has managed to reach an average growth rate of 8% per year. Yet, despite this significant economic progress, in 2012 Côte d’Ivoire still had very low-quality child health indicators. Infant and child mortality remains high and worrying, with 11 children out of 100 dying before the age of five. The three leading causes of child mortality, representing about 65% of these deaths, are related to infectious diseases such as malaria (38%), pneumonia (15%), and diarrhea (12%), all of which are preventable and treatable.

Malaria remains the most prevalent disease. Indeed, in 2013, more than 3.5 million cases were recorded in public health centers, with an incidence of 105 per 1,000 among the general population and up to 295 per 1,000 among children under five. In 2012, 41% of consultations in Côte d’Ivoire health centers were related to malaria.

Recent studies have shown that scaling up Integrated Community Case Management (iCCM) of childhood illness can reduce child mortality by up to 40 percent.

Various partnerships have been created to facilitate the scaling-up of iCCM, such as the Memorandum of Understanding between UNICEF, the Reproductive, Maternal, Newborn and Child Health (RMNCH) Trust Fund and the Global Fund, which was signed in 2014 to support the scaling-up of high-impact integrated interventions for child mortality reduction.

There is genuine political will from the Ivorian government and strong commitment from partners to provide a Community Health Strategic Plan including:
- community case management,
- consensus among stakeholders to set up a mechanism to motivate community workers, and
- the extensive use of amoxicillin for pneumonia treatment at community level.

A review of all strategies and actions at the community level was conducted by the Ministry of Health with a view to developing synergy in health, WASH, and nutrition interventions.

UNICEF Côte d’Ivoire, in collaboration with the Global Fund and other partners, is thus looking to expand and strengthen iCCM over the next few years.

The 51 districts targeted by the Global Fund Malaria Concept Note were selected for their high contribution to malaria-related morbidity and mortality and thus to infant and child mortality.

2. AHSR 2012
Current bottlenecks contribute to high infant and child mortality from preventable diseases. In addition to the lack of knowledge of preventable diseases, vaccines administered and the immunization schedule by mothers and caregivers, the situational review in these communities has revealed the main obstacles to iCCM roll-out.

**BOTTLENECK 1**
**LACK OF CHWS TO PROVIDE FIRST CONTACT**
The lack of community health workers or health care providers, especially in remote or inaccessible areas, is an obstacle to first contact with communities, especially the most vulnerable.

**BOTTLENECK 2**
**WEAK SYSTEMS AND LIMITED SUPPLY OF ESSENTIAL DRUGS AND SUPPLIES**
The low availability and supply of essential medicines and medicines for the management of major diseases at the community level limit the reach of community stakeholders.

**BOTTLENECK 3**
**LACK OF A SURVEILLANCE SYSTEM FOR COMMUNITY-BASED INTERVENTIONS**
The lack of a system for monitoring the quality of community-based interventions and the increase in demand for care at community level creates difficulties in the implementation of iCCM.
3. STRATEGIES IMPLEMENTED

BOTTLENECK 1: Lack of CHWs to provide first contact

STRATEGY 1.1
REVITALIZING THE CHW NETWORK THROUGH A PHASED APPROACH

Activity 1: Tripartite Partnership with the National Malaria Control Program (NMCP), the Global Fund and UNICEF

As part of the national-level mobilization and to speed up the reduction of child mortality through vigorous measures, UNICEF, in addition to the provision of free care for children under five and pregnant women, has been conducting a series of awareness-raising activities with the government and partners to integrate the community component in the search for solutions. In 2013, through its long-standing collaboration with the NMCP, UNICEF leveraged and entered into a funding agreement with the Global Fund for the management of malaria control at the community level over the period 2013-2015.

Activity 2: Identification, training, and deployment of CHWs in 32 target districts

Through evidence-based advocacy highlighting the high malaria mortality and weak service delivery at community level, UNICEF facilitated the recruitment and operationalization of CHWs from communities located more than 5 km from a health facility.

2,123 CHWs were identified according to the criteria outlined in the 2017-2021 National Community Health Strategic Plan (PSNSC).

Training has been planned and delivered in collaboration with the National Directorate for Community Health using the following scheme:
- a pool of national trainers from different central-level health programs trained a pool of regional and district-level trainers;
- a pool of regional and district-level trainers trained the direct nurse and midwife supervisors of CHWs;
- the direct CHW nurse and midwife supervisors in turn trained the CHWs in the communities.

The community was not involved in the training of CHWs, due to its technical nature, but participated in the selection of CHWs based on the criteria outlined in the National Community Health Strategic Plan.

The training lasted 12 days, with 6 days of theory in the classroom and 6 days of practice in a health center.

During the first sessions, the participants were given a general overview of community interventions and more specifically of the role of CHWs and the content of their service package.

To support them in getting the community on board, communication techniques for behavior change were taught and the promotional activities of the CHW package were detailed: registration of the newborn, exclusive breastfeeding (EBF) up to 6 months of age and complementary feeding, vitamin A supplementation and deworming, and iodized salt consumption in households.

They were also explained their role in early childhood development and family planning, the fight against gender-based violence and violence against children, TB and HIV control, and the promotion of hygiene, sanitation, the use of drinking water, and waste and wastewater management.

Sessions related to the CHW package prevention activities included: antenatal care (ANC), postnatal care (PNC), and newborn monitoring, infant immunization, malnutrition, malaria, and tuberculosis prevention.
Concerning the home-based management of illnesses (diarrhea, fever, malaria, and acute respiratory infections), the diagnosis and care solutions for these illnesses were presented to CHWs and tested by them (rehydration solution, screening test, use of paracetamol, amoxicillin, etc.). CHWs were also trained in the home-based follow-up of high blood pressure, diabetes, HIV/AIDS, and tuberculosis treatments initiated by the health center's provider.

The surveillance activities of the CHW service package (diseases under surveillance at community level, unusual health events, information circuit for epidemiological surveillance) as well as the community-based support activities were described: supervision and presentation of the supervision grid, management of supplies, presentation of and exercises in filling out the dispensing form, motivation of CHWs, presentation of and exercises in filling out the CHW book and the CHW register, and preparation of the CHW’s monthly activity report.

Finally, CHWs participated in practical tests on site, in particular on how to perform RDTs and the correct course of action, how to recognize and manage ARIs and how to recognize and manage diarrhea. They then completed a practical case management training in the affiliated health center.

STRATEGY 1.2
PROGRESSIVE DEPLOYMENT OF COMMUNITY-BASED CARE

• Activity 1: Pilot start of the «Home Charge» strategy (PECADOM) in malaria control
  The first phase of the PECADOM - Home-based management - consisted of providing RDTs and drugs (artemisinin-based combination therapy and ACTs) to CHWs trained in the target districts. This approach was tested in 2013 in 32 of the country's 86 districts. The encouraging results noted in the implementation motivated UNICEF and its partners to extend diarrhea case management to trained CHWs with a commitment to fully support the supply of ORS/ZINC. As of 2014, the approach was renamed PECADOM and expanded to 51 districts.

• Activity 2: Support for the development of the National Community Health Strategic Plan
  While steering the implementation of iCCM, UNICEF supported the government in repositioning the community strategy in the health system through the development of the National Community Health Strategic Plan to harmonize CHW package specifications and integrate the community itself in the supervision of its activities.
  The Plan also defines additional roles for CHWs, including treatment of ARIs with amoxicillin, promotion and prevention activities, awareness of essential family practices, active screening for acute malnutrition, community distribution of vitamin A, immunization follow-up, etc.

• Activity 3: Developing the community strategy
  Integrated Community Case Management (iCCM) of childhood illness has become a reality since 2019 in all 113 districts of the country thanks to these steering phases, the development of the National Plan, and the support of the Global Fund, UNICEF, and Impact Malaria. To date, 9,648 CHWs have been motivated by these three partners.
**BOTTLENECK 2: Weak systems and limited supply of essential drugs and supplies**

**STRATEGY 2.1**

**STRENGTHENING THE SUPPLY SYSTEM**

- **Activity 1: Signing of a partnership with the New Public Health Pharmacy (NPSP)**
  UNICEF called on the NPSP to ensure a continuous supply in the health districts. Originally, this partnership consisted of the complementary distribution of the ORS/ZINC compound to CHWs for diarrhea treatment, while the RDT and ACT for malaria treatment were already covered by Global Fund financing. Amoxicillin 250 mg dispersible tablet was then added for pneumonia management by CHWs.

  UNICEF procured the drugs through the Copenhagen Central Purchasing Agency and made them available directly to the NPSP, which in turn distributed them in the field through the National Supply System.

  Subsequently, UNICEF stopped the provision of ORS/ZINC and Amoxicillin 250 mg until the end of 2019. The Ivorian State took over in 2020 with the allocation of a government budget following joint advocacy by UNICEF and the Global Fund.

- **Activity 2: Establishing a follow-up mechanism for drug dispensing**
  To guarantee the effective destination of products and drugs, the NPSP forwarded to all districts a directive explaining the mechanism for the provision and free use of these drugs by CHWs. At the same time, district pharmacy managers were made aware of these procedures and a communication campaign was conducted to encourage district head nurses to monitor the proper implementation of this procedure in the field.

**STRATEGY 2.2**

**ENSURING THE SUSTAINABILITY OF CHW PUBLIC PROCUREMENT**

- **Activity 1: Advocacy for continuity of supply**
  UNICEF benefited from the government’s commitment to reduce child mortality through targeted free education in its advocacy for the inclusion of medicines for CHWs. This advocacy was based on the promotion of the community approach as well as on the relevance of expenditures and savings made.

**BOTTLENECK 3: Lack of a surveillance system for community intervention control**

**STRATEGY 3.1**

**REVIEW OF THE SURVEILLANCE APPROACH**

- **Activity 1: Approaching supervision differently**
  An approach to supervision has been developed through the NMCP to encourage nurses and midwives in charge of health zones to have a monthly contact with CHWs. They meet on a monthly basis, either at the health center or in the CHW’s community, for sessions to monitor the quality of care provided, provide coaching and repositioning, if necessary, and prepare the monthly report. These sessions provide the basis for assessing CHWs’ performance and activating the payment of their monthly income.

- **Activity 2: Involving the community in the monitoring mechanism**
  Through community leaders, the community was involved in the selection and monitoring of CHW activities. The CHW’s work is documented by regular feedback to the nurse supervisor and field visits recorded on the supervision form.
STRATEGY 3.2
STRENGTHENING THE COORDINATION OF INTERVENTIONS

- **Activity 1: Establish a framework for community actors at the district level**
  This consultation framework, in the form of a quarterly meeting between the district management team, health zone nurses and CHWs, is an opportunity to share experiences and bottlenecks encountered in the implementation of activities in the field. A report and an action plan including the names of those responsible for the action to be taken are prepared. The district head nurse is then in charge of monitoring the proper implementation of these actions.

- **Activity 2: Establishment of a national framework for consultation with community stakeholders**
  This national framework, whose secretariat is run by the Directorate for Community Health, is intended to ensure the implementation of the National Community Health Strategic Plan and to make sure all the activities are being carried out in the field. It is composed of three sub-committees: (i) coordination, orientation, and planning; (ii) resource mobilization; and (iii) monitoring-evaluation of community activities, sharing of experiences and best practices. It meets every six months to consolidate the organizational framework for community health and to improve the quality of community interventions.
STRATEGY 1.1 RESULTS
REVITALIZING THE CHW NETWORK THROUGH A PHASED APPROACH

Thanks to support from UNICEF, the Global Fund, and Impact Malaria, the country now has a network of more than 12,000 CHWs trained, deployed, and operational in the field.

These CHWs are equipped with kits and bicycles to facilitate their movement within the communities.

Chart 1: Mapping of the Community-Based Intervention

STRATEGY 1.2 RESULTS
MAINTAINING THE PROGRESSIVE DEPLOYMENT OF COMMUNITY-BASED CARE

Significant progress has been made in reducing child mortality, although this is not yet visible in the figures.

Until 2013, malaria was the leading cause of morbidity in children under five (with an incidence of 281‰ in 2017), but its share in the causes of death among children under five fell sharply from 38% in 2009, to 7% in 2017.
Nowadays, deaths among children under five are mainly due to acute respiratory infections - ARIs (19.2%) and diarrhea (15.7%). Malaria comes third with 11.8%, followed by injuries (9.7%) and finally HIV/AIDS (4.5%).

The analysis of the 2020 DHS will help to assess the impact of the community approach.

STRATEGY 2.1 RESULTS
STRENGTHENING THE SUPPLY SYSTEM
All CHWs are regularly provisioned with supplies and medicines. The NPSP supplies the districts, which then distribute them to the health zones.

STRATEGY 2.2 RESULTS
ENSURING CHW ACCESS TO PUBLIC PROCUREMENT
As part of its current social program, the government has agreed to take over from UNICEF the procurement and supply of medicines to CHWs through the NPSP. Orders have already been placed and the supply of medicines to CHWs will henceforth be an integral part of the NPSP’s activities.

STRATEGY 3.1 RESULTS
REVIEWING THE SURVEILLANCE APPROACH
Surveillance in many regions is only related to malaria control activities. In addition, close supervision and reminders at the central level have been conducted in order to implement the integrated and expanded approach in the field.

However, the integrated surveillance approach is not effective in all districts and there is still much to be done to meet the goals.

STRATEGY 3.2 RESULTS
STRENGTHENING THE COORDINATION OF INTERVENTIONS
Despite the existence of consultation frameworks, meetings are not held regularly enough. To improve the coordination of community-based care, interaction among stakeholders should be strengthened.

4. WHO, Global Health Observatory data repository
Several lessons have been learned, particularly with respect to the deployment process. For iCCM deployment, it is necessary to:

- base advocacy on tangible results
- consider the major role of technical and financial partners in the implementation of operational strategies to reduce infant and child mortality
- adopt a progressive and coordinated approach between the government and partners;
- integrate the community in problem solving
- have relevant tools to produce harmonized and centralized data so that each stakeholder can speak the same language and communicate with the operational level and decision-making authorities on the observations made.
This iCCM deployment approach is simple, with clearly identified steps, and can be easily replicated.

However, the government's policy and ambition to reduce child mortality require upstream preparation of the health system, alignment of key stakeholders and partners, and availability of real data as a tool for advocacy.
7. NEXT STEPS

Coordination and consultation among stakeholders should be pursued for effective scaling up of iCCM.

To ensure the sustainability of activities, the monthly allowance paid to CHWs, which is now funded by development partners, should also be included in the State budget, especially in local authorities’ budgets (municipalities, regional councils) as required by the national strategy. The private sector could also be mobilized.

Community involvement is needed through the revitalization of the health management committees (COGES). These committees, composed of members of the community, integrate the monitoring of services provided by CHWs and health personnel at the community level.

The following steps should be taken to effectively scale up iCCM:
- reposition or upgrade every two years the community actors: CHWs, nurse and midwife supervisors and community focal points in each district;
- continue advocating with the government for the effective inclusion in the State budget of the monthly motivation allowance paid to community actors;
- ensure effective availability of drugs and inputs to CHWs
- revitalize the COGES and make them all operational.
According to the Global Fund, the implementation of iCCM at the national level includes:

- maintaining the annual State budget line of approximately US$1.7 million for the procurement of non-malaria commodities (amoxicillin and ORS/Zinc) as described in the “willingness to pay” established for the period 2021-2023
- strengthening ORS/Zinc coverage in villages with high population density and high malaria endemicity to achieve optimal coverage throughout the country.