Malaria Control and Treatment in the Eastern Region of the Democratic Republic of the Congo (DRC)

February 2006

OVERVIEW

<table>
<thead>
<tr>
<th>Target country:</th>
<th>DRC</th>
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<tbody>
<tr>
<td>Beneficiary population:</td>
<td>3.3 million children under-five in Maniema, Ituri, North and South Kivu</td>
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<tr>
<td>Implementation period:</td>
<td>12 months starting March 2006</td>
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<tr>
<td>Amount:</td>
<td>5 281 980 USD</td>
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<tr>
<td>Starting date:</td>
<td>February 2006</td>
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<td>Ending date:</td>
<td></td>
</tr>
<tr>
<td>Applicant organization:</td>
<td>WHO</td>
</tr>
<tr>
<td>Contributions sought from:</td>
<td>Donor States</td>
</tr>
<tr>
<td>Contact HQ:</td>
<td>Ms Marianne Muller</td>
</tr>
<tr>
<td></td>
<td>Donor Relations Unit</td>
</tr>
<tr>
<td></td>
<td>Health Action in Crises</td>
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<tr>
<td></td>
<td>Tel: +41 22 791 4690</td>
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<tr>
<td></td>
<td>Fax: +41 22 791 4844</td>
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<tr>
<td></td>
<td>Email: <a href="mailto:mullerm@who.int">mullerm@who.int</a></td>
</tr>
<tr>
<td>Contact in field:</td>
<td>WHO Representative A.I</td>
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<tr>
<td></td>
<td>Dr. Jean Baptiste Roungou</td>
</tr>
<tr>
<td></td>
<td>Kinshasa, DRC</td>
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<tr>
<td></td>
<td>Telephone: +243 81700 6400</td>
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<td></td>
<td>Mobile: +2438840789</td>
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<td></td>
<td>Fax: GPN 5401 9097</td>
</tr>
<tr>
<td></td>
<td>Email: <a href="mailto:Tapsoba@cd.afro.int">Tapsoba@cd.afro.int</a></td>
</tr>
<tr>
<td></td>
<td><a href="mailto:omskin@cd.afro.who.int">omskin@cd.afro.who.int</a></td>
</tr>
<tr>
<td></td>
<td><a href="mailto:roungouj@cd.afro.who.int">roungouj@cd.afro.who.int</a></td>
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<tr>
<td>Bank account:</td>
<td>No.: 240-CO158.200.3</td>
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<tr>
<td></td>
<td>1211 Geneva 2</td>
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PROBLEM ADDRESSED

Malaria is by far the biggest killer in the Democratic Republic of the Congo (DRC). In March 2005, the Ministry of Health (MOH) DRC issued a new malaria treatment protocol based on the combination of Artesunate + Amodiaquine for the treatment of uncomplicated malaria cases, which replaces the existing protocols using Sulfadoxine-Pyrimethamine (SP). This strategic shift of treatment protocol has technical, organizational and financial implications country-wide. The new treatment is very expensive compared to the old one, which puts the question of access for vulnerable groups back on the table. This is especially the case in the war-affected areas in the East, where the majority of the country's 3.2 million IDPs/returnees and 350 000 refugees are residing. Extreme vulnerability is compounded by cyclic fighting between various factions, accompanied by more destruction, population movement, outbreaks of gender-based violence (GBV) and injuries.
TARGET POPULATION

The target population is around 3.3 million children under-five in Maniema, Ituri, North and South Kivu (out of the 18.3 million living in these four provinces). The main focus of the project is on saving the lives of children with severe malaria by providing appropriate treatment in the health centres and hospitals. In addition, a set of measures will be implemented to enforce the new malaria treatment protocols and to support partners in providing preventive and curative measures.

PROJECT SUMMARY

Modest estimates, according to the malaria strategic plan 2002-2006, indicated that some US$ 71 000 000 was needed to address the malaria problem in DRC in terms of prevention and treatment. These estimates were made before the adoption by the Ministère de la santé publique (Ministry of Health - MOH) of the new Artesunate Combination Treatment (ACT) protocols which are 10 to 12 times more expensive than the Sulfadoxine-Pyrimethamine (SP). The amount needed for 2006 - 2010 is US$ 344 573 093 according to the National Malaria Control Programme in DRC.

This project touches on part of the humanitarian aspects of malaria treatment. The direct life-saving measures include providing treatment for 150 000 cases of severe malaria in children under five combined with preventive and capacity building activities to ensure the sustainability of the treatment outcome and to address aspects of morbidity.

The project also aims at advocating for and enforcing the introduction of the new treatment protocol and its provision for vulnerable persons (especially children). Another objective is to work with partners (NGOs and international and national actors) to strengthen case management, surveillance, prevention (bednet) supervision, health promotion (training and health education) and institutional capacity building in the affected regions.

CONTRIBUTION TO THE MDG

The Project contributes to the UN millennium Development Goals (MDG):

a) Reduce child mortality (MDG4),
b) Improve maternal health (MDG5)
c) Combat malaria, HIV/AIDS and other diseases (MDG6).
I. OVERVIEW

- Malaria is endemic in DRC and the risk exists throughout the year in almost the entire country (97% of DRC is endemic and the remaining 3%, in the mountainous areas in the east, are considered at risk of epidemic). The climate is eminently suitable for the transmission of stable malaria with seasonal fluctuations in transmission intensity. This is mainly in the eastern and southern parts of the country where the rainy season lasts from September/October to May with a break in February-March which is considered the dry season. The protozoan parasite Plasmodium falciparum causes 95% of all malaria cases and the remaining 5% being due to P. malariae and P. ovale. The main vectors are Anopheles gambiae s.l. and A. funestus. The complex emergency situation in certain areas of the country has worsened the condition of the vulnerable groups as non-immune populations move from areas of no malaria/low transmission to highly endemic areas. Available data shows that the disease accounts for 68% of outpatient visits and 30% of hospital admissions all over the country.

- Malaria remains one of the most important causes of mortality and morbidity in DRC especially among pregnant women and young children (up to 45% of child mortality is due to malaria) Furthermore, it is thought to contribute indirectly to HIV transmission in anaemic patients during non-tested transfusion (up to 85% of blood transfusion is due to anaemia caused by malaria).

- The surveillance network for reporting malaria notifications needs to be improved. Between 2001 and 2004 in vivo drug study results have shown overall treatment failure rates to SP, the first-line antimalarial, as high as 22%, 40% and 61% in 3 sites. DRC changed its treatment protocols replacing SP with ACT as the first-line drug for antimalarial treatment in March 2005.

- The main malaria control strategies include: appropriate case management both in community and health infrastructures, scaling up the use of insecticide-treated mosquito nets, intermittent preventive treatment for pregnant women and malaria epidemic prevention and control measures. Through the RBM partnership, efforts to strengthen malaria surveillance, operational research, community involvement and health education have also been promoted. Other activities carried out by different RBM partners include strengthening human resources in health through training, improving drug and medical equipment supplies, ITN distribution, supervision, monitoring and evaluation.

- A successful proposal for malaria from the Global Fund to fight AIDS, Tuberculosis and Malaria (the Global fund) was approved in October 2004 for two years and will supply almost US$ 25 million. The initial MOH request was for US$ 54 million for five years. Around US$ 20 million has been provided so far and an instalment will follow every 3 months until September 2006. Gaps in funding should be filled by the government, multi- and bilateral cooperation, the World Bank and the Global Fund in the future rounds. This proposal aims to bring resources to the conflict-affected region. Limited funding is also available through the WHO regular budget for capacity building of the MOH. In February 2006, a major shipment of ACT (out of 30 million doses to be provided by MOH/MSP in 2006 with support of the World Bank, the Global Fund and the European Commission) is expected to arrive in the country.

II. THE NATIONAL HEALTH SYSTEM

- The country is divided into 11 administrative provinces: Bandundu, Bas-Congo, Equateur, Kasai-Occidental, Kasai-Oriental, Katanga, Kinshasa city, Maniema, Nord-Kivu, Orientale, Sud-Kivu. Each province is sub-divided into Zones de Santé (Health Districts) and each district into administrative areas (zones).

- The National Health System is organized in four tiers:
• Central, including the Public Health Ministry and the General Secretariat
• Provincial, including the Health Provincial Inspection
• District with three divisions (General, Medical and Hygiene Services)
• Local, which corresponds to the Zone de Santé (health area, nominally in the number of 307) headed by a Provincial Medical Officer
• 400 hospitals (1 general hospital per 180 397 inhabitants), 5 078 health centres (1 health centre per 10 218 inhabitants)
• 1 doctor per 22.637 inhabitants, 1 nurse per 1 714 inhabitants, 1 pharmacist per 384 649 inhabitants, 1 dentist per 426 995 inhabitants.
• Recently, there has been a proliferation of educational institutions. A flood of poorly educated doctors and nurses threatens to further weaken the health and social system.
• There has also been a change in MOH administrative structures. Zones de Santé (ZS) have increased from 6 to 13 directorates and from 17 to 52 programmes. The number of zones de santé increased to 515 from 320. Some of these zones are virtual and may remain this way for lack of needed resources.
• Access to secondary-level care is still a serious, unresolved problem. This level of care receives very little international support when compared with primary health care services. Capacity for treatment of severe illnesses is very limited, or patients have no access due to the high costs, as procedures are often not subsidized. The majority of the people of the Democratic Republic of the Congo live on the equivalent of US$ 0.20 per person per day.

III. PROJECT JUSTIFICATION

1. The malaria situation has been aggravated by the war, population displacement, collapse of health structures and preventive programmes and lack of surveillance. The official facility-based data on malaria morbidity probably accounts for less than 5 -10% of the actual malaria morbidity. UNICEF estimates that only 45% of those in need of malaria treatment receive it, indicating that most patients receive treatment outside reporting facilities, or none. P-Falciparum is responsible for 95% of the infections.

2. Increasing resistance of the malaria parasite (P.Falciparum) towards sulfadoxine+pyrimethamine (SP), the previous first-line drug (since 2001) which varied considerably in the country from 20 - 60%, justified the March 2005 review of national treatment strategies. Partners are now accumulating the logistic and financial prerequisites for the health zones which should shift to Artemisinin-based Combination Therapy (ACT). Some NGOs already changed the first-line treatment to ACTs. Major support to MOH for the enforcement of the new treatment protocol is needed.

3. Because of the enormous dimension of malaria in DRC in terms of costs, organization and logistic support, the project aims at enforcing the new malaria protocols and improving access to proper treatment for children with severe malaria. The project aims to advocate for freedom of access to ACT in the disaster-affected east.

4. Preventive programmes have so far been very limited. It is estimated that only 1 - 6% of the population use insecticide-treated bed nets (ITN). During 2003-04 the distribution of 500 000 bed nets has been planned, but so far only 24 000 have been distributed. Preventive treatment for pregnant women is not widely implemented. The project aims at supporting preventive measures undertaken by partners through provision of technical assistance, guidelines and training.

5. To tackle this major public health concern more resources are needed. This project also aims at encouraging partners to focus on increasing access to effective treatment and insecticide treated bednets. Priority should be given to areas with a vulnerable population and the longest transmission season.
IV. GENERAL OBJECTIVE

To save lives of children affected with malaria and to contribute to the reduction of avoidable morbidity and mortality of Malaria in Eastern DRC.

V. SPECIFIC OBJECTIVES

- Enforcement of the capacity for malaria case management among children under five through provision of ACT drugs, protocol, guidelines, technical material, training of health workers and NGO staff at provincial and ZS levels.
- Supporting malaria prevention including advocating access to bed nets, intermittent preventive treatment and health education.
- Support to integrated disease surveillance, follow up and evaluation.
- Technical supervision to ensure the application of new malaria protocols in the conflict affected areas.
- Capacity building of MOH and NGOs in the conflict affected region for management, health promotion and operational research.

VI. OUTPUTS

- Drug availability in health centres and hospitals for all children affected by malaria in the Eastern region.
- Malaria surveillance strengthened in all districts as part of diseases monitored under surveillance in the eastern region.
- 100% of the Zones de Santé in the Eastern Region will be oriented towards the new treatment protocols.
- Partners coping with preventive and curative programmes in the region coordinated.
- Policy guidelines, curriculum development, faculty training, accreditation and licensure procedures developed by MOH available in the ZS level.
- Community strengthened by health education and dissemination of health information, of knowledge and of valid information on malaria.

VII. ACTIVITIES/INDICATORS

Objective 1. Enforcement of the capacity for malaria case management among children under 5 through the use of appropriate drugs including drugs for severe malaria, provision of protocol, guidelines, technical material, training of health workers and NGO staff at provincial and ZS levels.

Activities

- Diffusion of the new treatment protocols
- Training/ refresher courses for senior nurses in treatment of simple and complicated malaria in health centres and hospitals
- Provision of quinine, IV fluids (for severe malaria cases), ACT, consumable lab material and reagents.


**Indicators**
- Percentage of children under 5 in disaster affected areas with malaria, receiving treatment according to the new protocol
- Percentage of Health services with new treatment protocols
- Number of health providers trained

**Objective 2.** Promote malaria prevention including vector control and intermittent preventive treatment.

**Activities**
- Advocating for the removal of user fees for ACT and bed nets (or their provision free of charge) for the affected population
- Support for training of community leaders and school children on bed net use and protection against malaria by NGOs and MOH
- Advocacy of provision (by partners) of SP for pregnant women

**Indicators**
- Meeting records with MOH and NGOs on malaria control and prevention
- Availability of guidelines and reference material
- Training material available to NGOs at ZS

**Objective 3.** Support to integrated disease surveillance, follow up and evaluation.

**Activities**
- Training of health providers
- To support the monitoring of the efficacy of anti-malaria therapy
- Elaboration of plans to respond to possible epidemics

**Indicators**
- Number of health providers trained
- Reports from sentinel sites
- Data on drug efficacy/resistance

**Objective 4.** Technical supervision to ensure the application of new malaria protocols in the conflict affected areas.

**Activities**
- Distribution of supervision protocols
- Training of staff on supervision
- Logistic support to supervision in remote areas

**Indicators**
- Supervision protocols at ZS level
- Number of staff trained on supervision
- List of equipment and incentives provided for supervisors
Objective 5. Capacity building for management, supervision, advocacy and operational research for the MOH and NGOs in the conflict affected region.

Activities

- Diffusion of national policy to NGOs and ZS
- Training of higher cadre of MOH
- Programme review
- Production of advocacy material
- Training of trainers

Indicators

- Policy document available at ZS levels
- Number of IPS staff trained
- Review documents
- Advocacy material available to Bureau de Chef - zone de santé and NGOs in the field
### IX. INDICATIVE BUDGET

<table>
<thead>
<tr>
<th>Title</th>
<th>Cost (USD)</th>
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<tbody>
<tr>
<td>Printing and diffusion of the new treatment protocols</td>
<td>50 000</td>
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<tr>
<td>Train senior nurses and doctors in treatment of simple</td>
<td>180 000</td>
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<tr>
<td>and complicated malaria in health centers and hospitals</td>
<td></td>
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<tr>
<td>Provide effective anti malarial drugs for severe cases, ACT</td>
<td>3 600 000</td>
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<tr>
<td>drugs, lab supplies and consumables in health centers and hospitals</td>
<td></td>
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<td>in target areas</td>
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<tr>
<td>Advocating subsidy of ACT, bed nets and insecticides or their</td>
<td>60 000</td>
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<tr>
<td>provision free of charge to affected population</td>
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<tr>
<td>Technical support to partners at regional, country, provincial, ZS</td>
<td>150 000</td>
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<tr>
<td>and community level</td>
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<tr>
<td>Support to supervision (distribution of supervision protocols,</td>
<td>140 000</td>
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<tr>
<td>training of staff on supervision and logistic support to supervision</td>
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<td>in remote areas</td>
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<tr>
<td>Support to malaria control unit in Kinshasa</td>
<td>20 000</td>
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<tr>
<td>Capacity building of MOH at national Provincial level</td>
<td>200 000</td>
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<tr>
<td>(supporting malaria programme at MOH, Support to GIS, missions etc.)</td>
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<tr>
<td>Technical and laboratory assistance to partners for surveillance,</td>
<td>100 000</td>
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<tr>
<td>prevention and promotion against malaria</td>
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<tr>
<td>Elaboration of plans to respond to possible epidemics</td>
<td>30 000</td>
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<tr>
<td>Project monitoring, Management and Reporting</td>
<td>453 000</td>
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<tr>
<td>Programme Support costs</td>
<td>298 980</td>
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<tr>
<td>Total</td>
<td>5 281 980</td>
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</table>
### VIII. LOGICAL FRAMEWORK

<table>
<thead>
<tr>
<th>Intervention Logic</th>
<th>Objectively Verifiable Indicators</th>
<th>Sources of Verification</th>
<th>Risks and Assumptions</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Overall Objectives</strong></td>
<td>To contribute to the reduction of morbidity and mortality among children under 5 in the eastern region</td>
<td>Mortality of children under 5 in the eastern region reduced by 50%</td>
<td>NGO and MOH report Mortality surveys in 2006</td>
</tr>
<tr>
<td><strong>Specific Project Purpose</strong></td>
<td>Targeting children under 5 in the war-affected area (provinces Ituri, North and South Kivu and Maniema) Enforcing the introduction and use of new antimalarial ACT treatment protocols by all actors in the war-affected region and beyond Contribution to strengthening malaria integrated surveillance, malaria prevention, health education and advocacy and building the capacity of MOH in the Eastern region</td>
<td>Children with severe malaria have access to proper treatment Children affected by malaria diagnosed and treated using the new protocol All actors using the new ACT-based treatment protocol by the end of 2006 Old SP linked protocol not applicable in health centres and hospitals in the East Malaria included among surveillance targeted diseases in all target areas Partners undertaking preventive measures and cover all areas not covered by WHO</td>
<td>Field visits Hospital and clinics records BC-ZS supervisory reports Hospital and clinic records Field visits Surveillance report in the four provinces BC-ZS and NGOs report</td>
</tr>
<tr>
<td><strong>Outcome</strong></td>
<td>Drug availability in health centres and hospitals for children affected by severe malaria in the Eastern region Malaria surveillance strengthened and monitored under surveillance</td>
<td>Technical support provided to the Malaria Task Forces at provincial levels Treatment of uncomplicated and severe malaria according to the new treatment policy available in hospitals</td>
<td>Expert mission reports Training course documents (list of trainees, curriculum etc.)</td>
</tr>
<tr>
<td>Activities</td>
<td>Inputs: See budget</td>
<td>Functions: Systems for transport and distribution of medicines and supplies</td>
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<tr>
<td>---------------------------------------------------------------------------</td>
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<tr>
<td>➢ Diffusion of the new treatment protocols</td>
<td>➢ % of children under 5 with malaria receiving prompt and effective treatment according to the new national policy</td>
<td>➢ Activities</td>
<td></td>
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<tr>
<td>➢ Training of trainers</td>
<td>➢ % of Health services with new treatment protocols</td>
<td>➢ Diffusion of the new treatment protocols</td>
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<tr>
<td>➢ Training of higher cadre of MOH</td>
<td>➢ Number of IPS staff trained</td>
<td>➢ Training of trainers</td>
<td></td>
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<tr>
<td>➢ Training senior nurses in treatment of simple and complicated malaria in health centers and hospitals</td>
<td>➢ Number of health providers trained</td>
<td>➢ Training of higher cadre of MOH</td>
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<tr>
<td>➢ Training of other health providers</td>
<td>➢ Meeting records with MOH</td>
<td>➢ Training senior nurses in treatment of simple and complicated malaria in health centers and hospitals</td>
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<td>➢ Provision of ACT, consumable lab material and reagents</td>
<td>➢ Provision of ACT, consumable lab material and reagents</td>
<td>➢ Provision of ACT, consumable lab material and reagents</td>
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<tr>
<td>➢ Advocating subsidy of bed nets</td>
<td>➢ Meeting records with MOH</td>
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</table>

100% of the Zone de Santé (Health District) in the Eastern Region will be oriented towards the new treatment protocols. Partners coping with preventive and curative programmes in the region coordinated. Policy guidelines, curriculum development, faculty training, accreditation and licensure procedures developed by MOH available in the ZS level. Community strengthened by health education and dissemination of health information, of knowledge and of valid information on malaria.

Number of senior nurses and doctors trained in treatment of simple and complicated malaria in health centres and hospitals.

IEC material available in ZS, and MIPs.

Filed visits and interviews.

Delivery certificates and handover documents.

Purchase and distribution documents.

NGO reports.

Zonal (ZS) reports.

Field visits.

Provincial health report.
| Malaria Control and Treatment in the Eastern Region of the Democratic Republic of the Congo (DRC)  
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<td>and insecticides or their provision free of charge to affected population</td>
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<td>- Support to training of community leaders</td>
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<td>- Provision (by partners) of SP for pregnant women</td>
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<td>- Technical Support to Regional, country and provincial teams</td>
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<td>- To support monitor the efficacy of anti-malaria therapy</td>
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<td>- Elaboration and diffusion of national policy to NGOs and ZS</td>
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<td>- Production of advocacy material</td>
</tr>
<tr>
<td>and NGOs</td>
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<tr>
<td>- Availability of guidelines and reference material</td>
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<tr>
<td>- Training material available to NGOs at ZS</td>
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<tr>
<td>- Reports from partners NGOs</td>
</tr>
<tr>
<td>- Consultant report</td>
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<tr>
<td>- Reports from sentinel sites</td>
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<tr>
<td>- Reports on cases of resistance/side effects</td>
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<tr>
<td>- Supervision protocols at ZS level</td>
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<td>- Advocacy material available at BC-ZS and with NGOs in the field</td>
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<td>able lab material and reagents</td>
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