

Roll Back Malaria: Country Needs Assessment

Republic of Congo Report



May 2008

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Executive Summary

The Global Roll back Malaria (RBM) Partnership charged the Harmonization Working Group (HWG) in May 2007 with identifying and quantifying financial and technical gaps that are hampering countries from scaling up malaria control activities and achieving the RBM 2010 and national targets. To this end, a comprehensive needs assessment was conducted in Congo Brazzaville from 26th April to 7th May 2008 led by the National Malaria Control Programme (NMCP) and supported by stakeholders, partners and consultants from the Malaria Consortium and UNICEF.

Congo has a current population of an estimated 3,665,148 people of whom 100% are at risk from malaria. Malaria is both the main cause of morbidity and mortality in Congo (NMCP, 2007). Congo is making progress towards the achievement of the 2010 targets, although the level of progress in many cases is difficult to determine because of the lack of data which hampers the NMCP's ability to measure change over time. Progress in the Congo context can therefore be viewed better in terms of scale up of activity although plans are underway to develop systems to better allow measurement of impact.

The last five years have seen a significant increase in the number of Insecticide Treated Nets (ITNs) distributed, although not all of these nets were Long Lasting Insecticidal Nets (LLINs). The Congo NMCP strategic plan aims for 80% of pregnant women and children under five to sleep under a LLIN by 2012. Two major distribution activities are adopted in order to achieve rapid scale up of LLIN distribution -1) LLIN distribution through immunization campaigns, and 2) routine distribution through ANC and maternity wards and yearly 'pre-school consultations'. Going forward, it would be preferable to focus on a large scale campaign distribution, with replacement of LLINs every three to four years, supported by routine distribution. This will require significant emphasis on logistics support and health systems strengthening in the context of malaria, which should be the NMCP's focus in the medium term. A shift in focus from policy to implementation needs to take place. The shortage of LLINs in country will need to be addressed to enable scale up of campaigns and enable routine distributions. While significant support to the health and logistics system will also be required, more funds and partners are needed to increase the availability of nets. The number of LLINs required to reach the RBM target is 2,957,000 and the funding gap is USD 18,912,750.

The indoor residual spraying (IRS) target specified in the Strategic Plan is for at least 80% of houses or structures in targeted areas to be sprayed by 2012. It is not possible to comment on either the current challenges or those associated with scale up given the lack of implementation experience. Currently no resources for IRS are available. The NMCP could consider whether this intervention should be a priority at this point, given the current low coverage of LLINs and the potential preventive impact acquired from achieving universal coverage of LLINs.

The NMCP has adopted two targets for intermittent preventive treatment (IPT), the proportion of pregnant women taking IPT and the proportion receiving sulphadoxine pyremethamine (SP) for IPT, although it has not included the RBM target of proportion of pregnant women taking at least 2 doses of SP for IPT. This was based on the capacity of the health management information system (HMIS) for the collection of routine data and what was considered achievable within the timeframe. With already high levels of ANC attendance of first visit and relatively encouraging levels for subsequent visits, the NMCP targets should be achievable, although it would be preferable to measure the proportion taking 2 doses if the

HMIS allows. Country estimates of comprehensive costs in the delivery of both doses of IPTp were not available.

The 5 year National Malaria Strategic Plan (2007- 2012) specifies its goal to significantly increase the diagnosis and treatment of patients with suspected malaria at the community, peripheral, intermediate and central health service delivery level. The level of diagnostics capacity across the health system (the baseline) is not known and most cases are currently treated presumptively. The target of 60% of malaria cases correctly confirmed by laboratory diagnosis at health centres by 2012 is ambitious. The NMCP is planning on procuring and distributing (for the first time) RDTs throughout the lower levels of the health system, but only as an interim measure while the capacity for microscopy is developed. Diagnostics is an area which remains significantly under-funded. In recent years, the bulk of funds have come from the MoH. The funding gap to reach RBM targets is USD 6,706,450. Achievement of this target is reliant on the training of all health workers in diagnosis, large scale upgrading of laboratory capacity and effective monitoring and quality control.

The national treatment policy was changed to artemisinin-combination therapies (ACTs) in 2006 and currently Aretemether + Amodiaquine is officially the first line treatment for uncomplicated malaria. While, the NMCP are clear on the direction malaria treatment should be taken in, more work remains to finalise the indicators and the specific targets. Little baseline data is available, although it is estimated that 42% of children aged 0 to 5 years who had fever have taken malaria treatment in urban areas with 20% within 24 hours, against respectively 52% and 23% in rural areas (NMCP, 2008). In an attempt to increase the proportion of the population accessing treatment from health facilities, the government have also just introduced a new programme of free malaria management targeted at pregnant women and children under five. UNICEF contributed funds for ACTs in 2006 and 2007 but will not be committing further funds for ACTs in the foreseeable future now the government has raised its commitment. The funding gap to achieve the RBM target is USD 18, 609,663. Availability of ACTs is the most major bottleneck to implementation of this activity, particularly given the rise in demand following the introduction of the Free Treatment Programme. The impact of the Free Treatment Programme on malaria morbidity and mortality and in terms of its effect on cost recovery at the health facility level will need to be closely monitored. It is also important that the Free Treatment Programme is supported by a scale up in diagnosis at health facilities.

The cross-cutting areas are a significant weakness for the scale-up of malaria control activities. No current communication strategy exists for either health generally or malaria specifically, although there are plans to conduct a situation analysis (primarily through a survey) which will inform the development of a health communications strategy. This is currently awaiting funds. Also, there is no formally agreed, independent M&E plan although this is currently included as part of the National Malaria Strategic Plan which covers the period 2008-12. Funds have not so far been available for implementation and the capacity of the NMCP in implementing an effective M&E system is weak.

The needs assessment quantification of costs necessary for the NMCP to meet the 2010 RBM targets indicates that over USD 71 million will be necessary between 2008 and 2013. The NMCP receives notable donor support from just two external partners, UNICEF and WHO. Both donors fund a range of core interventions, including some of the management and commodity costs. However, there is a real need to expand the number of partners if the NMCP is to scale up its activities to reach targets and to enable the capacity to effectively implement large scale project grants.

List of acronyms

ACT	Artemisinin-based Combination Therapy
AIDS	Acquired Immune Deficiency Syndrome
AL	Artemether – Lumathantrine (CoArtem)
ANC	Ante Natal Care
BCC	Behaviour Change Communication
CBI	Community Based Initiative
CBO	Community Based Organisation
CCM	Country Coordinating Mechanism
CHW	Community Health Worker
CME	Continuing Medical Education
CQ	Chloroquine
DHS	Demographic Health Survey
EPI	Expanded Programme on Immunisation
EU	European Union
HWG	Harmonization Working Group
GFATM	Global Fund to Fight AIDS, TB and Malaria
HBMF/M	Home-Based Management of Fever/Malaria
HIV	Human Immunodeficiency Virus
HMIS	Health Management Information System
HSS	Health Systems Strengthening
IRS	Indoor Residual Spraying
IEC	Information, Education, Communication
IMCI	Integrated Management of Childhood Illnesses
IPT	Intermittent Preventive Treatment
IPTp	Intermittent Preventive Treatment during pregnancy
ITN	Insecticide Treated Net
KABP	Knowledge, Attitude, Behaviours and Practice
KAP	Knowledge, Attitude, Practice
LLIN	Long Lasting Insecticidal Net
MCH	Maternal and Child Health
MGDs	Millennium Development Goals
MIP	Malaria in Pregnancy
MIS	Malaria Indicator Survey
MOH	Ministry of Health
M&E	Monitoring and Evaluation
NGO	Non-Government Organisation
NMCP	National Malaria Control Programme
PLHA	Person Living with HIV/AIDS
PMI	President's Malaria Initiative
RDT	Rapid Diagnostic Tests
RBM	Roll Back Malaria
RH	Reproductive Health
SP	Sulphadoxine-Pyrimethamine
SWAP	Sector Wide Approach
TOT	Training of Trainers
UNDP	United Nations Development Programme
UNICEF	United Nations Children Fund
WB	World Bank
WHO	World Health Organisation
WMD	World Malaria Day

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1. Introduction

Malaria continues to be the main public health problem in many Sub-Saharan African countries. Despite the availability of increased financial resources and concerted efforts by national malaria programmes, we have not seen an impact on malaria to the scale expected and there has been a growing acknowledgement that it will require a massive scale-up of core interventions if malaria morbidity and mortality is to be halved by 2010.

This needs assessment aimed to determine the programmatic, financial and operational gaps, as well as constraints and opportunities, in the achievement of the global 2010 Roll Back Malaria (RBM) targets, as well as those set by the Republic of Congo. The assessment was conducted at a time conducive to the application of the assessment outcomes and recommendations into the development of the Global Fund Round 8 proposal. Congo has not yet submitted a successful Global Fund application.

This, and other country-specific RBM needs assessments, will share common methodologies to allow for the compilation of a continent-wide assessment and the subsequent development of a malaria control business plan for Africa.

The needs assessment was carried out by a consultant from UNICEF (New York), Aboubacar Kampo, and a consultant from the Malaria Consortium, Clare Riches (leader), from the 26th April to 7th May 2008. The visit was coordinated by the Malaria Consortium and the team were hosted in-country by UNICEF Congo. The report was written by Clare Riches, Malaria Consortium.

2. Methodology

The team collected data and information from various sources (Annex), including the National Control Strategic Plan 2007-11, the National Health Development Plan 2006-10 and various other documentation relating to plans or the implementation of the malaria control programme and its core interventions. Documentation from other Ministry of Health departments as well as key external partners, who also contribute the planning, delivery and monitoring of the malaria control programme, were also reviewed.

In-depth interviews were conducted (Annex) with the National Malaria Control Programme (NMCP) using the RBM Needs Assessment guidelines for the collection of both qualitative and quantitative data to acquire a solid understanding of the programme. Key informant interviews were then conducted with other Ministry of Health staff, partners and donors. A field visit was also conducted to an Integrated Health Centre (Centre de Santé Intégrés, CSI) in the Pool region of Congo.

An initial meeting was held on the 26th April with the NMCP and the key partners (UNICEF and WHO) to discuss the purpose, methodology and anticipated output of the mission. A feedback meeting to discuss the initial findings was held during the Global Fund Round 8 proposal planning retreat on the 7th May, again with the NMCP and partners.

There were several limitations to the assessment, which to some extent hindered delivery, that are important to note for the benefit of further RBM needs assessments. These are namely the lack of top level and official fore-warning of the assessment, the absence of an in-country consultant to coordinate and arrange meetings with key informants in advance, the existence

of other RBM-associated meetings requiring attendance of the NMCP and two public holidays during the visit which limited the availability of key informants.

3. Demographic, socio-economic and epidemiological profile

Geography and climate

Situated on the Western coast of Africa, striding the equator and bordering 5 other countries, this Central African country covers a geographical area of 342,000km². Congo's climate is tropical, with temperatures averaging 25°C and humidity high for much of the year, with some regional variations. Around 60% of the country is covered by forest and the hydraulic system is dominated by the river basins of the Congo (230,000km²) and the Kouilou-Niari (56,000km²).

Demography

Congo has a current population of an estimated 3,665,148 people and a growth rate of 3.2%. The population is unevenly distributed, with over 70% of the population concentrated in urban areas, predominantly in the largest cities of Brazzaville (the political capital) and Pointe-Noire (the economic capital). Congo has a young population, with children under five constituting 20% of the population. Administratively, there are 12 provinces, 6 municipalities, 19 districts and 86 administrative districts in Congo.

Socio-economic and health situation

The socio-economic situation of Congo has greatly deteriorated in recent years because of political instability and destruction of infrastructure both in the 1990s and during the resurgence of instability between 2001 and 2003. Congo continues to have a weakly diversified and poorly structured economy which is primarily based on the exploitation of natural resources of petrol and wood. Congo is also one of Africa's most indebted countries, with the debt per capita estimated at US\$900 in 2002 (MoH, 2008).

While recent years have seen an improvement, the deterioration of the economic situation over the past twenty years has inevitably been accompanied by a fall in the level of public spending in the key sectors of health, infrastructure and education. Congo's literacy rate has reportedly fallen from 100% ten years ago to a rate now of 78% (DHS, 2005). Congo is classed 142nd out of 177 countries in the Human Development Index Report (HDR 2005, UNDP) and 50% of the population continue to live below the poverty line (UNICEF, 2006).

The under five mortality rate in Congo continues to raise concern at 117/1000 (DHS, 2005), although it is not as high as some of its neighbours', with DRC's rate at 148/1000 and Angola's rate at 169/1000 (World Population Prospects, 2006). While scope for improvement remains, at 781/100,000, Congo's maternal mortality rate is not as high as some of its neighbour's - DRC's rate for example is at 1289/100,000 (DRC DHS, 2007). This lower rate is likely to be facilitated by both relatively high Ante-Natal Care attendance and proportion of deliveries by professionals, which are 88% and 82% respectively (DHS, 2005).

The communication and infrastructural networks are characterized by advanced deterioration, which has a significant impact on the delivery of all public health services. Congo's road network of 17,300km includes an estimated 1,235km of maintained tarmac road only and the rural roads are mostly impassable, particularly during the rainy season. Rail and river transport links have also not been maintained and air transport is poorly developed.

Table 1. Socio-economic and health indicators

Indicator	Rate/Ratio	Source (and year)
Crude Birth Rate	40/1000	DHS, 2005
Crude Death Rate	6.39/1000 (f) 6.99/1000 (m)	DHS, 2005
Growth Rate	3.2%	NMCP, 2008
Infant Mortality	75/1000	DHS, 2005
Child Mortality	44/1000	DHS, 2005
Under Five Mortality	117/1000	DHS, 2005
Maternal Mortality Ratio	781/100,000	DHS, 2005
Women receiving Antenatal Care	88%	DHS, 2005
Deliveries by professionals	82%	DHS, 2005
Total Fertility Rate	168/1000	DHS, 2005
HIV prevalence in 14-49yr cohort	5.3%	ONUSIDA, 2006
Life expectancy	50.6 (m), 53.1 (f)	World Mortality Report 2005 – Congo, UN Department of Economic and Social Affairs, 2006
Literacy	78%	DHS, 2005
Population below poverty line	50%	UNICEF, 2006

Table 2. Demography

Indicator	2008	2009	2010	2011	2012	2013	Source (and year)
Total population	3,665,148	3,782,433	3,903,471	4,028,382	4,157,290	4,290,323	NMCP, 2007
Average Household Size	5.2	5.2	5.2	5.2	5.2	5.2	DHS, 2005
Total households	704,836	727,391	750,667	774,689	799,479	825,062	DHS, 2005
Number of pregnant woman*	146,606	151,297	156,139	161,135	166,292	171,613	NMCP, 2007
Number of infant	131,436	135,642	139,982	144,462	149,084	153,855	NMCP, 2007
Number of under-fives*	733,030	756,487	780,694	805,676	831,458	858,065	NMCP, 2007
Percentage of population living in urban areas	70%	70.5%	71%	71.5%	72%	72.5%	MoH, 2008

* The rate of urbanisation is not known thus the percentage of population living in urban areas is estimated to increase at a rate of 0.5% per year.

Epidemiology and burden of malaria

According to the Ministry of Health, Congo's epidemiological profile is marked by a dominance of infectious diseases, most notably malaria, a resurgence of previously-controlled epidemics, including tuberculosis, trypanosomiasis and schistosomiasis, a quiet progression of HIV/AIDS and a steady increase in the burden of non-communicable diseases.

In Congo, the malaria transmission is hyper-endemic, with transmission stable throughout the year. 100% of Congo's population are therefore at risk from malaria. *Plasmodium falciparum*, the most virulent strain, is responsible for more than 90% of cases, either alone or in the form of mixed infections with other strains. *Plasmodium ovale* (6.75%) and *Plasmodium malariae* (3.75%) are ranked second. The main vectors are *Anopheles gambiae* (90%) and *Anopheles funestus* (NMCP, 2008).

Malaria is both the main cause of morbidity and mortality in Congo, being the leading cause of consultations (54%), hospitalizations (51%) and causes of death (35%) (NMCP, 2007). In 2007, 92,406 cases and 203 deaths from malaria were registered (NMCP, 2007), although not all cases were confirmed. Given only approximately 70% have access to health services, and a large number of cases occur in the community and therefore are not detected through the HMIS system, the actual number of cases could also be much higher. Despite the efforts undertaken by the government, the malaria situation has unfortunately changed little in recent years.

Other principle causes of morbidity and mortality across the population include diarrhea, respiratory tract infections, pneumonia and tuberculosis (NMCP, 2008).

Table 3. Population at risk of malaria by epidemiological stratification

Indicator	Number	Percentage	Source (and year)
Population living in stable malaria areas	3,665,148	100	NMCP, 2007 (estimated for 2008)
Population living in unstable malaria areas	0	0	-
Population living in malaria free areas	0	0	-

*While in principle 100% of the population are considered to live in highly endemic areas, given more than 50% of the population live in urban areas which are known to have lower transmission levels, during the calculations conducted for presentation in this report, 70% of the population were allocated as having high to very high risk of malaria, and 30% medium to low risk of malaria. This will allow more realistic cost and commodity estimations.

4. Progress, estimated gaps and requirements

4.1. Progress towards 2010 targets

Congo is making progress towards the achievement of the 2010 targets, although the level of progress in many cases is difficult to determine because of the lack of data which hampers the NMCP's ability to measure change over time. Progress in the Congo context can therefore be viewed better in terms of scale up of activity although plans are underway to develop systems to better allow measurement of impact.

The last five years have seen a significant increase in the number of Insecticide Treated Nets (ITNs) distributed, although not all of these nets were Long Lasting Insecticidal Nets (LLINs). There is still significant progress to be made in order to reach targets however and clarification on the best route to scale up is paramount. The NMCP has adopted a progressive approach to coverage which has had patchy outcomes. Going forward, it would be preferable to focus on a large scale campaign distribution, with replacement of LLINs every three to four years, supported by routine distribution. This will require significant emphasis on logistics support and health systems strengthening in the context of malaria, which should be the NMCP's focus in the medium term – a shift in focus from policy to implementation needs to take place.

No progress has been made towards the Indoor Residual Spraying (IRS) target as yet, as funding for the intervention has not been successful. Given the need to prioritise interventions to achieve the most impact on malaria morbidity and mortality, alongside the current challenges relating to coordination and logistics which may significantly hamper the introduction of a large scale intervention of the nature of IRS, it is worth considering whether an emphasis on LLINs is preferable in the medium term coupled with a focus on enhanced diagnostics and appropriate case management.

The NMCP has adopted two targets for IPT, the proportion of pregnant women taking IPT and the proportion receiving SP for IPT, although it has not included the RBM target of proportion of pregnant women taking at least 2 doses of SP for IPT. The reason for this was based on the capacity of the HMIS for the collection of routine data and what was considered achievable within the timeframe. With already high levels of ANC attendance of first visit and relatively encouraging levels for subsequent visits, the NMCP targets should be achievable, although it would be preferable to measure the proportion taking 2 doses if the HMIS allows.

Significant progress remains to be made with regards to diagnosis. The level of diagnostics capacity across the health system (the baseline) is not known and most cases are currently treated presumptively. The target of 60% of malaria cases correctly confirmed by laboratory diagnosis at health centres by 2012 is ambitious. The NMCP is planning on procuring and distributing (for the first time) RDTs throughout the lower levels of the health system, but only as an interim measure while the capacity for microscopy is developed. Effective diagnosis is also critical given the introduction of the Free Treatment Policy and the realistic potential for incentives for misdiagnosis. Achievement of this target is reliant on the training of all health workers in diagnosis, large scale upgrading of laboratory capacity and effective monitoring and quality control. The current coordination and communication challenges between different MoH departments will exacerbate progress in this area.

Little information is also available to inform the baseline for the NMCP treatment indicators. Some of the indicators will not be easily measurable and require review (details in the Treatment section). The introduction of the Free Treatment Policy is likely to spearhead

progress in this area, although the programme will need careful management and monitoring to avoid adverse implications, such as misdiagnosis or reduced income of the health facilities to affect capacity to purchase other drugs. It is also not yet known when the Community Health Worker cadre will be fully trained and thus when community malaria treatment will become possible. The NMCP has also introduced an indicator relating to stock outs, although again, no baseline data is available. Significant improvements will need to be made within supply management and in the coordination between the Ministries of Health, Finance and Transport in order to achieve this target.

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Table 4. RBM Core (and Country-specific) Indicators and Targets¹

Indicators	Baseline Year (indicate)	NMCP Target 2008	NMCP Target 2009	NMCP Target 2010	NMCP Target 2011	NMCP Target 2012	NMCP Target 2013	RBM Target 2010	NMCP Achieved 2006/2007
Crude death rate (under five)	117/1000 (DHS, 2005)					58.5%			
Mortality attributed to malaria (all ages)						Reduce by 50%		50% reduction from 2000	
Mortality attributed to malaria (under five)	115/1000 (MSPP, 2000)					57.5%			
Malaria hospital mortality rate	No Data					Reduce by 50%			
% of under fives with fever getting appropriate treatment from health centre consultation within 24 hours of onset	No Data					60%			
% of under fives with fever getting appropriate treatment at the community level within 24 hours of onset	No Data					60%			
% of community members, in particular mothers and caretakers of children, who correctly refer cases within the community	No Data					80%			
No. of doses ACT distributed to children under five	No Data								

¹ Original RBM 2010 targets: http://rbm.who.int/docs/abuja_declaration.pdf

Updated RBM 2010 targets: http://www.who.int/gb/ebwha/pdf_files/WHA58-REC1/english/Resolutions.pdf and http://rbm.who.int/forumV/docs/gsp_en.pdf

Indicators	Baseline Year (indicate)	NMCP Target 2008	NMCP Target 2009	NMCP Target 2010	NMCP Target 2011	NMCP Target 2012	NMCP Target 2013	RBM Target 2010	NMCP Achieved 2006/2007
No. of health centres with no stock outs of more than a week over the last 3 months	No Data					80%			
No. of personnel trained by level (malariaology, epidemiology, management, case management, M&E etc)	Not specified					Not specified			
% of malaria cases correctly confirmed by laboratory diagnosis at health centres	No Data					60%			
% pregnant women taking IPT	65% (EDS, 2005)					90%			
% pregnant women receiving SP for IPT	3% (EDS, 2005)					138,826 (Or 80%)			
% pregnant women sleeping under an ITN	4.9% (EDS, 2005)					80%		80%	
% of under fives sleeping under an ITN	7.1% (EDS, 2005)					80%		80%	
% of households having at least one ITN	8% (EDS, 2005)					90%			
Number of nets distributed to target population (pregnant women and children under five)	214,950 (NMCP, 2006)					832,153			
Proportion of houses or structures in targeted areas that are sprayed	No Data					80%		At least 80% in targeted areas	

Indicators	Baseline Year (indicate)	NMCP Target 2008	NMCP Target 2009	NMCP Target 2010	NMCP Target 2011	NMCP Target 2012	NMCP Target 2013	RBM Target 2010	NMCP Achieved 2006/2007
Completion rate for M&E reports, including epidemiological surveillance reports	10% (PNDS, 2006)					90%			
No. of functional RBM sentinel sites for the surveillance of the effectiveness of malaria treatment	0 (NMCP, 2008)					6			
No. of tests conducted on vector sensitivity to insecticide	0 (NMCP, 2008)					24			

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4.2. Current financing

The health sector and the NMCP are both significantly under-funded. The state provides a large part of health financing and in recent years the government has made efforts to increase the level of the health budget, although the share of the state budget allocated to health still hardly reaches 5%.

The operating budget allocated to the NMCP by the government was FCFA 95,000,000 (US\$223,004) in 2007 against FCFA 60,000,000 (US\$140,845) in 2006, although additional funds are made available for the purchase of commodities.

For 2008, FCFA 350,000,000 (US\$ 821,596) has been allocated to malaria control commodities, mainly treatment, because of the introduction of free malaria treatment for children under 15 years and pregnant women (discussed in detail in the Treatment section). FCFA 350,000,000 (US\$ 821,596) has also been budgeted for the NMCP to cover programmatic activities and management costs although it is important to note this amount refers to funds budgeted as opposed to allocated. In previous years, as the amounts for 2006 and 2007 suggest, around a third of the amount budget has been received. State funds committed to commodities only have been included in Table 6 which outlines current financing by year. While funds allocated by the state are clearly insufficient in order to scale up activities to reach targets without significant additional donor support, the NMCP has received a steady increase in state financing in recent years. MoH budgeting happens on a year by year basis.

While the MoH generally benefits from bilateral and multilateral cooperation, donor and partner support, the NMCP receives notable donor support from just two external partners, UNICEF and WHO. As demonstrated in Table 5, both donors fund a range of core interventions, including some of the management and commodity costs. Contributions from both partners are decreasing over time due to internal funding constraints and to enable an increase in the MoH's contribution towards some of the key interventions with the aim of enhanced sustainability. In the past, Japanese Foreign Assistance (JICA) has provided specific financial assistance to the NMCP, although there are currently no further funds committed. A Sector Wide Approach (SWAP) is currently being finalised and the World Bank may also fund some LLINs through this structure if this is approved. During 2008, new opportunities to support the acquisition and the distribution of LLINs through UNITAID and the Foundation have also been possible.

There is a real need to expand the number of partners if the NMCP is to scale up its activities to reach targets and to enable the capacity to effectively implement large scale project grants such as through the Global Fund. The NMCP currently has little experience in managing large grants as donor support currently tends to come tied to activities the partner is implementing. Despite three applications, Congo has yet to receive support from the Global Fund.

Table 5. Main Donors and Areas of Support

Organization	Areas of Support									
	ITNs	IRS	Larval Control	IPT	Diagnosis	Treatment	IEC/BCC	Epidemics	M&E	Program me Mangmt
Ministry of Health	x	-	-	x	x	x	x	-	x	x
UNICEF*	x	-	-	x	-	x	x	-	-	-
WHO	x	-	-	x	x	x	x	-	x	x

*UNICEF directly supported the provision of SP for IPT and ACT for treatment in both 2006 and 2007, although support for al malaria commodities apart from LLINS is stopping from 2008 onwards.

Table 6. Current financing by year (2008-2013) (USD)

Organization	2008	2009	2010	2011	2012	2013	Source
Ministry of Health*	821,596	-	-	-	-	-	NMCP, 2008
UNICEF**	48,450	-	-	-	-	-	UNICEF, 2008
WHO***	200,000	200,000	-	-	-	-	WHO, 2008
Total Funds Available (\$)	1,070,046	200,000	0	0	0	0	

* Funds for commodities only. Additional funds have been budgeted for the NMCP for 2008 at the sum of US\$ 821,596 (FCA 350,000,000, broken down by FCFA 280,000,000 for direct programmatic activities and FCFA 70,000,000 for programme management). However, because these funds are budgeted as opposed to necessarily allocated and previous years experience suggests commitment of only a proportion of these funds, these additional funds will not be included in this table.

** Funds allocated for LLINs only. Additional funds are allocated to the strengthening of the health system but are not earmarked for malaria specifically and so will not be included in this table.

*** Funds committed equate to 400,000 over two years. Details of how the funds will be split between the two years was not available and so for this purpose, it is assumed that the amount will be split evenly.

NB Funds for LLINs from the World Bank to be implemented through the SWAP have not been included because they have not yet been confirmed and therefore figures were not available. An exchange rate of 1US\$: FCFA 426 has been used throughout this report

4.3. Estimated gaps and requirements to attain 2010 targets

Tables 7– 1 are summary tables of all requirements, both financial (Tables 8-11) and otherwise (Table 7).

Table 7. Summary of targets, strategies, progress and additional activities needed by core intervention area.

Core interventions	Key targets	Strategies and approaches to achieve targets	Progress and bottlenecks	Additional activities needed
ITNs	<p>80% of pregnant women and children under five to sleep under a LLIN by 2012</p> <p>90% of households having at least one ITN by 2012</p>	<ul style="list-style-type: none"> - LLIN distribution through immunization campaigns - Routine distribution through ANC and maternity wards and yearly 'pre-school consultations' 	<ul style="list-style-type: none"> - 325,000 ITNs distributed through campaigns between 2002-2006 - Net ownership relatively high at 75.5% but of ITN and LLINs, low - General low availability of LLINs - Lack of clarity of route to scale up - Insufficient oversight by the NMCP and coordination with other government departments - Port-related taxes and tariffs and delays - All transport routes pose significant challenges - Tracking of distributions and progress and little knowledge of usage 	<ul style="list-style-type: none"> - Provision of LLINs - Leadership of NMCP to be enhanced, aided by the development of an implementation plan - Review of LLIN distribution strategies in terms of impact - Advocacy for the removal of tariffs and taxes - Standardised database for LLIN monitoring at all levels of the health system - Measurement of LLIN usage - Ensure communications aspects central
IRS	<p>80% of houses or structures in targeted areas to be sprayed by 2012</p>	<ul style="list-style-type: none"> - Targeted areas to include target homes and public buildings in the peri-urban areas of Congo's 3 major cities where currently approximately 57% of the population live - Strategy not outlined in detail 	<ul style="list-style-type: none"> - Lack of implementation experience to date 	<ul style="list-style-type: none"> - Clarity on whether this intervention should be considered a priority at this point
Malaria in Pregnancy	<p>90% of pregnant women taking IPT by</p>	<ul style="list-style-type: none"> - ANC administration of 2 doses of SP for women at least 	<ul style="list-style-type: none"> - ANC attendance relatively high but data on IPT uptake of 1st and 2nd doses less clear 	<ul style="list-style-type: none"> - Completion of guidelines on prevention and treatment of malaria in pregnancy

Core interventions	Key targets	Strategies and approaches to achieve targets	Progress and bottlenecks	Additional activities needed
	2012 and 80% receiving SP for IPT by 2012	16 weeks pregnant - Free IPT through public health system following introduction of Free Treatment Policy in May 2008	- Insufficient availability of SP throughout the health system - Little availability of reliable data with which to monitor progress - Coordination between the NMCP and DSF creates implementation challenges	and resultant training among health service providers - Increase availability of SP - Improvements in monitoring system - Improvements in coordination between government departments and partners
Diagnosis	60% of malaria cases (both complicated and uncomplicated) correctly diagnosed at health centres by 2012	- Introduction of RDTs at health facilities without the capacity to perform microscopy and then in time, the gradual extension of microscopy to all hospitals and CSIs	- Majority of suspected malaria cases are treated presumptively. Microscopy only requested for suspected complicated malaria or treatment failure. - No RDTs so far distributed through health system - Lack of data on diagnostics capacity throughout the health system - Process by which cases should be confirmed not clearly defined - No effective HMIS system which allows ongoing monitoring of the proportion of confirmed as opposed to presumptive cases - No quality assurance or quality control system	- An audit of diagnostics capacity throughout health system to support the development of an implementation plan - Defining of approach of laboratory diagnosis - Strengthening of system for monitoring presumptive and confirmed cases - Introduction of a quality assurance and quality control system for microscopy and RDTs
Treatment	60% of under fives with fever getting appropriate treatment from health centre consultation within 24 hours of onset by 2012	- Extension of application of the new treatment policy through dissemination and training - Treatment with ACTs at health facility (CSI) level - HBMF through CHWs once training has been conducted - Introduction of the Free	- Some health workers already been trained in new treatment policy and guidelines - CHW cadre has yet to be trained on any significant scale - Clarity needed on treatment indicators - Potential impact of Free Treatment Policy on running of health facilities and quality of care - No system in place which allows the quality	- Clarification and finalization of treatment indicators - Roll-out of ACTs to health facilities - Forecasting financial implications and trouble-shooting around introduction of Free Treatment Policy - Development of an effective monitoring system to enable better tracking of drugs and quantification, as well as a

Core interventions	Key targets	Strategies and approaches to achieve targets	Progress and bottlenecks	Additional activities needed
	<p>60 % of under fives with fever getting appropriate treatment at the community level within 24 hours of onset by 2012</p> <p>80% of community members, in particular mothers and caretakers of children, who correctly refer cases within the community by 2012</p> <p>80% of health centres with no stock outs of more than a week over the last 3 months by 2012.</p>	<p>Treatment Policy for malaria management targeted at pregnant women and children under five</p>	<p>control of drugs and laboratory supplies - Proliferation of unregulated private sector</p>	<p>pharmacovigilance system - Formal regulatory guidelines to be developed and monitored for the private sector</p>

Table 8a. Summary of overall funding gaps by intervention area (USD)

Core interventions	2008	2009	2010	2011	2012	2013	TOTAL
ITNs	7,192,350	882,000	912,000	7,958,400	966,000	1,002,000	18,912,750
IRS	2,075,038	2,141,439	2,209,965	2,280,684	2,353,666	2,428,983	13,489,774
IPT	7,330	7,565	7,807	8,057	8,315	8,581	47,654
Diagnosis	2,394,514	2,372,930	2,195,486	1,847,364	1,852,509	1,911,790	12,574,593
Treatment	5,132,260	4,198,900	2,898,524	2,132,704	2,090,194	2,157,081	18,609,663
IEC	722,523	692,523	692,523	692,523	692,523	692,523	4,185,139
Epidemics & Emergencies	N/A						
M&E	708,705	957,628	476,628	501,628	527,628	501,628	3,673,846
Management	Not available						
TOTAL	18232720	11252985	9392933	15421360	8490834	8702586	71493419

* This table is compiled as a summary of the financial gaps to reach 2010 targets as detailed in Tables 10a-e & Table 11

Table 8b. Summary of overall funding gaps by cost type (USD)

Cost type	2008	2009	2010	2011	2012	2013	TOTAL
Commodities	Not available						
Delivery costs							
Infrastructure							
Operational costs							
Training							
IEC							
Monitoring & Evaluation							
Management							
TOTAL							

Table 9. Summary of major commodity requirements

Commodity		2008	2009	2010	2011	2012	2013	TOTAL
LLINs	Target coverage (RBM or national if higher)	(calculations based on 100% coverage – see indicators for targets)	(calculations based on 100% coverage – see indicators for targets)	(calculations based on 100% coverage – see indicators for targets)	(calculations based on 100% coverage – see indicators for targets)	(calculations based on 100% coverage – see indicators for targets)	(calculations based on 100% coverage – see indicators for targets)	-
	No. required (RBM / national targets)	1,110,000	147,000	152,000	1,220,000	161,000	167,000	2,957,000
	GAP – no. of LLINs	1,110,000	147,000	152,000	1,220,000	161,000	167,000	2,957,000
Insecticide for IRS	Target coverage (RBM or national if higher)	(calculations based on 46% population coverage i.e. 80% of urban population – see indicators for targets)	(calculations based on 46% population coverage i.e. 80% of urban population – see indicators for targets)	(calculations based on 46% population coverage i.e. 80% of urban population – see indicators for targets)	(calculations based on 46% population coverage i.e. 80% of urban population – see indicators for targets)	(calculations based on 46% population coverage i.e. 80% of urban population – see indicators for targets)	(calculations based on 46% population coverage i.e. 80% of urban population – see indicators for targets)	-
	No. required (RBM / national targets)	179,785	185,538	191,475	197,603	203,926	210,451	1,168,778
	GAP – No. of <i>units</i> insecticide	179,785	185,538	191,475	197,603	203,926	210,451	1,168,778

RDTs	Target coverage (RBM or national if higher)	60% of population	60% of population	60% of population	60% of population	60% of population	60% of population	-
	No. required (RBM / national targets)	0	553,684	1,024,560	862,103	864,504	892,168	4,197,020
	GAP – No. of RDTs	0	553,684	1,024,560	862,103	864,504	892,168	4,197,020
AS-AQ doses	Target coverage (RBM or national if higher)	(calculations based on 100% coverage – see indicators for targets)	(calculations based on 100% coverage – see indicators for targets)	(calculations based on 100% coverage – see indicators for targets)	(calculations based on 100% coverage – see indicators for targets)	(calculations based on 100% coverage – see indicators for targets)	(calculations based on 100% coverage – see indicators for targets)	-
	No. doses required (RBM / national targets)	4,039,106	3,325,260	2,303,348	1,642,943	1,600,817	1,652,043	14,563,517
	GAP – number of 1 st line doses	4,039,106	3,325,260	2,303,348	1,642,943	1,600,817	1,652,043	14,563,517
SP for IPT	Target coverage (RBM or national if higher)	(calculations based on 100% coverage – see indicators for targets)	(calculations based on 100% coverage – see indicators for targets)	(calculations based on 100% coverage – see indicators for targets)	(calculations based on 100% coverage – see indicators for targets)	(calculations based on 100% coverage – see indicators for targets)	(calculations based on 100% coverage – see indicators for targets)	-
	No. of doses required (RBM / national targets)	293,212	302,595	312,278	322,271	332,583	343,226	1,906,164
	GAP – No. of SP doses	293,212	302,595	312,278	322,271	332,583	343,226	1,906,164

Table 10a. Funding Requirements Linked to Targets – Commodity and delivery costs, ITNs (USD)

ITNs	2008	2009	2010	2011	2012	2013	TOTAL
Financial need for 100% coverage	-	-	-	-	-	-	-
RBM Target (or national target if higher)*	-	-	-	-	-	-	-
Financial needs to reach RBM (or national) target	7,192,350	882,000	912,000	7,958,400	966,000	1,002,000	18,912,750
Resources available	48,450	0	0	0	0	0	48,450
GAP TO REACH RBM TARGET (or national if higher)	7,143,900	882,000	912,000	7,320,000	966,000	1,002,000	18,864,300

* Note only commodity and delivery costs are included in the above figures. All cross cutting costs are included in Table 9.

Table 10b. Funding Requirements Linked to Targets – Commodity and delivery costs, IRS (USD)

IRS	2008	2009	2010	2011	2012	2013	TOTAL
Financial need for national plans at RBM targeted coverage level of 80%	2,075,038	2,141,439	2,209,965	2,280,684	2,353,666	2,428,983	13,489,774
Resources available	0	0	0	0	0	0	0
GAP to fulfil national plans	2,075,038	2,141,439	2,209,965	2,280,684	2,353,666	2,428,983	13,489,774

* Note only commodity and delivery costs are included in the above figures. All cross cutting costs are included in Table 9.

** For IRS it is not applicable to differentiate between 100% and RBM targets. Costs are based on country scale up plans. RBM targets are related to coverage within targeted communities. Country budgets will be generated based on costs for completing IRS in specified areas of the country. The budgets will always be costed for spraying 100% of households / structures in those areas. The target of 80% coverage does not have any implication on budgeting or resources required and therefore is not included as part of this table.

Table 10c. Funding Requirements Linked to Targets – Commodity costs, IPT (USD)

IPT	2008	2009	2010	2011	2012	2013	TOTAL
Financial need for 100% coverage	-	-	-	-	-	-	-
RBM Target (or national target if higher)*	-	-	-	-	-	-	-
Financial needs to reach RBM (or national) target	7,330	7,565	7,807	8,057	8,315	8,581	47,654
Resources available	0	0	0	0	0	0	0
GAP TO REACH RBM TARGET (or national if higher)	7,330	7,565	7,807	8,057	8,315	8,581	47,654

Note for Tables 10c – e. Only commodity rather than commodity and delivery costs should be presented. Complete delivery costs for treatment and diagnosis are considered broader health system costs that do not fall under a malaria specific funding need. Issues that are specific to these malaria areas and can be considered a factor in delivery costs such as training and supervision are included elsewhere in the health systems, programme management and institutional strengthening sections.

Table 10d. Funding Requirements Linked to Targets – Commodity costs, Diagnosis (USD)

DIAGNOSIS	2008	2009	2010	2011	2012	2013	TOTAL
Financial need for 100% coverage	-	-	-	-	-	-	-
RBM Target (or national target if higher)*	-	-	-	-	-	-	-
Financial needs to reach RBM (or national) target	2,394,514	2,372,930	2,195,486	1,847,364	1,852,509	1,911,790	12,574,593
Resources available	0	0	0	0	0	0	0
FUNDING GAP TO REACH RBM TARGET (or national if higher)	2,394,514	2,372,930	2,195,486	1,847,364	1,852,509	1,911,790	12,574,593

Table 10e. Funding Requirements Linked to Targets – Commodity costs, Treatment (USD)

TREATMENT	2008	2009	2010	2011	2012	2013	TOTAL
Financial need for 100% coverage	-	-	-	-	-	-	-
RBM Target (or national target if higher)*	-	-	-	-	-	-	-
Financial needs to reach RBM (or national) target	5,132,260	4,198,900	2,898,524	2,132,704	2,090,194	2,157,081	18,609,663
Resources available	0	0	0	0	0	0	0
FUNDING GAP TO REACH RBM TARGET (or national if higher)	5,132,260	4,198,900	2,898,524	2,132,704	2,090,194	2,157,081	18,609,663

Table 11. Funding Requirements - Crossing cutting areas (USD)

Intervention area	2008	2009	2010	2011	2012	2013	TOTAL
IEC							
Financial need	722,523	692,523	692,523	692,523	692,523	692,523	4,185,139
Resources available	0	0	0	0	0	0	0
GAP	722,523	692,523	692,523	692,523	692,523	692,523	4,185,139
M&E:							
Financial need	736,705	957,628	476,628	501,628	527,628	501,628	3,701,846
Resources Available	0	0	0	0	0	0	0
GAP	736,705	957,628	476,628	501,628	527,628	501,628	3,701,846
Management	Not available						
Financial need							
Resources Available							
GAP							
Other (e.g. TA)	(TA has been costed as specified under M&E/OR)						
Financial need							
Resources Available							
GAP							
TOTAL NEED							
TOTAL AVAILABLE							
TOTAL GAP	Not available						

* Table 11 includes total costs and gaps in cross cutting areas to support full national scale up. It is expected that RBM 80% targets for commodity delivery and use will only be reached if these cross cutting areas are fully supported. There is therefore no breakdown into costs for full scale up versus 80% scale up for these cross cutting areas.

Summary of Technical Assistance needs

ITNs

Priority areas for TA

- Support in the development of an implementation plan for the scale up of net distribution to achieve universal coverage.
- The development of LLIN tracking surveys to monitor distribution which feed into programme indicators, including relating to the usage of nets.
- Support in the development of standardised, comparable databases for use by the NMCP and MoH staff at central and CSS levels in order to track LLIN distributions conducted by the MoH and partners.

Possible areas for TA

- Review of the logistics experience of the private sector in relation to distributing commodities to hard-to-reach areas.

Malaria in Pregnancy (IPT)

Priority areas for TA

- The finalisation of the guidelines on prevention and management of malaria during pregnancy and in the revision of the HMIS system.

Diagnosis

Priority areas for TA

- Support for the audit of the laboratory and diagnostics capacity of the health system.
- Support could also be provided in some capacity in the development of a quality assurance system for the piloting of RDTs (monitoring the introduction in terms of usability, accuracy, patient preference and cost).

Treatment

Priority areas for TA

- Detailed forecasts for the financial implications of the Free Treatment Programme and development of plans for managing those implications.
- Evaluation of the role of the unregulated private sector in the treatment of malaria.

Possible areas for TA

- The development of a framework for the engagement of the private sector in the malaria control policy.
- The development of a system for the effective quality control of drugs and laboratory supplies, as well as the development of a pharmacovigilance system.

Advocacy/ BCC/IEC

Priority areas for TA

- The development of an advocacy plan.

Possible areas for TA

- Planning for BCC.

Surveillance, Monitoring and Evaluation and Operational Research

Priority areas for TA

- Acquire clarification on indicators.
- The development of a NMCP database to track progress against all NMCP indicators.

Possible areas for TA

- The review and implementation of the HMIS.
- The development of an operational research plan, the conduct of various operational research studies and the use of results to inform strategy and planning for further phases of interventions.

Programme Management and Health Systems

Possible areas for TA

- The development of an implementation plan for scale-up for impact.

5. Core interventions

5.1. Prevention

5.1.1. ITNs

a. Situation analysis

i. Policies, strategies and approaches

The Congo NMCP strategic plan aims for 80% of pregnant women and children under five to sleep under a LLIN by 2012 (revised version, June 2007). Distribution campaigns aim to provide one LLIN per child under five and one LLIN per pregnant woman. In doing so the programme considers that this will provide 90% households with at least one LLIN by 2012 (also a target). Operationally, it is also hoped that this approach will ensure a minimum coverage of three LLINs per household, although this is not specified formally as a target.

According to the National Malaria Strategic Plan, two major distribution activities are adopted in order to achieve rapid scale up of LLIN distribution and replace the high numbers of non-treated nets in communities. These are LLIN distribution through immunization campaigns, and routine distribution through ANC and maternity wards and yearly 'pre-school consultations'. The Strategic Plan states that for effective distributions, collaborations with the Family Health Department and EPI programme are required. So far, a mass general campaign approach has not been planned. Through the above distribution mechanisms, the nets are provided free to pregnant women and children under 5 years. Other population groups must obtain nets at a cost from the commercial sector.

While these approaches are clear in the minds of the NMCP, there are currently no guidelines outlining methods of, and plans for, distributions to inform actual implementation. Similarly, there is no information on costings for LLINs by type of campaign. Some confusion also remains with regards to the LLIN distribution targets, whether they be one net per child under five and pregnant women, or three nets per household. The maximum number of LLINs each household can receive under the former approach is also not specified within the policy, although in previous distributions, one net per household has also been specified because of limitations in the number of nets.

In Congo, net ownership of any net is relatively high but that of ITNs is low (see Implementation Status). Prior to a measles campaign distribution in 2007, it is estimated that just 130,000 LLINs had been distributed across the country through relatively small scale initiatives. While the revised Strategic Plan emphasises the replacement of untreated nets with LLINs as opposed to net retreatment, net treatment is still included as a strategy in the Health Development Plan. If sufficient insecticide becomes available, the NMCP believes that net treatment will commence once again. However, no indicators exist to monitor the activity.

There is no clear standardized tracking system of LLINs from province out to district and down to health facility level or community, nor a centralized database which aggregates information on the distribution of all nets, including those by partners. A strategy through which the NMCP will mitigate the leakage of nets has also not been developed.

Finally, there is no mention in the National Malaria Control Strategic Plan of the need for LLINs to meet WHO Pesticide Evaluation Scheme (WHOPES) standards or of an approval process for LLINs procurement.

ii. Financing

In the main, the nets distributed over the past three years have been provided by UNICEF. Their contribution however is decreasing over time with the idea that the government will in turn step up its contribution. UNICEF's contribution to LLINs was \$1,089,000 in 2006, \$826,750 in 2007 and is \$48,450 in 2008. For 2008, the UNICEF nets will be distributed through the new biannual Child Health Weeks. The World Bank through the Sector Wide Approach (SWAP) may fund the LLINs for the second Child Health Week although this has yet to be confirmed. The MoH have contributed a small contribution towards LLINs over the past three years, although the exact contribution is not available.

UNICEF have procured LLINs at a cost of US\$5.5 per net, with 20% added for transport, customs clearance and taxes (thus approximately US\$6.6 per net). The cost per net for direct MoH procurements is not clear. Despite advocacy for exemptions from taxes on imports of LLINs included in the Strategic Plan, these have so far not been levied.

iii. Implementation status

Between 2002 and 2006, 325,000 ITNs were distributed through campaigns. It is estimated that about 130,000 of these were LLINs. A further 525,686 LLINs, donated by UNICEF, were distributed through a UNICEF measles campaign in 2007- the largest campaign distribution to have so far taken place in Congo. Current plans are for 172,426 UNICEF nets to be distributed in 2008 through the first biannual Child Health Week to take place in July. These weeks, which will distribute LLINs alongside routine immunisation, drugs for Vitamin A, onchocerciasis treatment and activities to promote breastfeeding and good sanitation, will target new cohorts of pregnant women and will be staggered around the country. Sufficient nets are available to cover 100% of pregnant women. It is presumed that distributions through the 'pre-school consultations' will also continue once the Child Health Weeks are established.

Data is not available on nets distributed through routine distribution – 'pre-school consultation' attendee numbers are not collected and the HMIS which could provide data on nets distributed through ANC, is not operational. However, it appears that few nets have been allocated to ANC distribution in recent years anyhow as a result of insufficient capacity at the lower levels of the health system.

While the number of nets distributed each year has steadily increased since 2002, net distributions have yet to reach a large scale. While this has been done to avoid excess logistical strain, coverage remains patchy and the monitoring system is not in place to track net life by location and thus inform plans for redistribution. The number of distribution mechanisms planned may have also created confusion as to the intervention targets, and most effective mechanisms considering impact and cost.

According to the recent DHS (2005), net ownership is relatively high at 75.5% (proportion of households with at least one net). Ownership of an ITN is low, with the proportion of households with at least one ITN and one LLIN being 9.2% and 8% respectively, although it is expected that these proportions have increased in recent years. While few evaluations have been conducted on usage, the NMCP have assumed that low usage (estimated at less than 20%) (Strategic Plan, 2007) may be a problem, which could be a result of low availability of insecticide-treated nets and thus a loss in confidence in net effectiveness. This is a rational assumption. While little indicative data is available, reselling is not reportedly a significant problem (a small number of nets sold over the river in DRC after free distributions),

indicating scope for more sensitization and IEC activities to raise the perceived value of the nets.

Data on the number of nets sold in the commercial sector is not available, given it is not collated in one place and there is little data from communities on the source of net. There is little coordination between the MoH and the commercial sector with regards to net distribution. Reportedly, commercial sector nets are sold at a wide range of prices; there are many different brands and few are insecticide-treated. The NMCP believes the demand for commercial sector nets exists, although to what extent is questionable given a possible low usage, an increase in free distribution and little reselling of free nets. Hard data is required to explore this further.

While net retreatment is no longer prioritised, 25 retreatment centres were rehabilitated across the country over the last six years, although with the lack of available insecticide, the centres have only seen spots of activity, mainly between 2002 and 2005. Only one of the centres is now active, being run by an NGO which buys the insecticide from DRC. A pool of 1000 'imprégnateurs', who are charged with the actual retreatment, related logistics and education activities, were also trained during this period, mostly within the community, but 250 staff were also trained at health facilities.

- *Management and partners' roles*

Most of the campaign nets distributions to date have been funded and led by UNICEF, in coordination with the MoH and in particular the SCAS department (Service de Coordination des Actions Sanitaire) which coordinates logistical activities for various MoH programmes. The NMCP itself is little involved in the actual distribution which challenges their leadership and supervision of the activity, as well as the ongoing development of their experience related to net campaign distributions.

Both JICA and WHO have funded and distributed nets prior to 2006 and PSI have sold some subsidised nets in the past although all were relatively small scale distributions and no longer continue. Since 2005, a network of local NGO partners has become organised, initially to provide support on net retreatment but are now turning their attention to net distributions, related education activities and social mobilisation. Support is needed to build the capacity and train the NGOs if they are to effectively fill the implementation gaps and support the NMCP.

- *Procurement and logistics*

LLINs are currently being brought into the country by different donors, largely UNICEF, and then distributed in coordination with the SCAS department to the districts where the campaigns are to be located.

While the Strategic Plan talks about advocacy for exemption from taxes on inputs such as nets, this has yet to have any effect. The procedures at port can cause delays of several months, after which transport from the port to their final destination can also take some time because of poor infrastructural and communications networks. Congo's road network of 17,300km includes just 1,235km of maintained tarmac, the rural roads are mostly impassable and even more so during the rainy season. This has contributed to the pressure on the already limited railway system and there can be delays of 2 -3 months before a wagon becomes available to transport goods between Point-Noire and Brazzaville. The boats on the rivers are often either unavailable (chartered only) or not effectively maintained and therefore frequently breakdown. The water is also often too low during the dry season for cargo boats to operate. The in-country air transport system is not well developed and is expensive. Coordination also poses a significant challenge, in particular ensuring sufficient human

resource capacity at different points on route to activate further transport, storage or general quality control.

There are also problems associated with storage capacity. At the central level, the warehouse has a maximum capacity of just 10,000 nets. There is regional capacity for storage now the MoH has inherited all the warehouses from the former Pharmaceutical Supplier (PHARMAPPRO) and the National Centre for Essential Medicine (CENAMES), although there are also concerns about capacity for an increase in stocks. There are constant stock outs of nets because there are so few available for routine distributions.

- *Communications*

There is currently no communications plan to guide the NMCP's activities, although a communications strategy to guide all MoH programmes is under development by the Service for Communication and Information. The Strategic Plan emphasises that IEC and BCC activities will accompany all net distributions, but no specific plans or guidelines have been developed. IEC and BCC activities appear to be largely dependent on the input of the donor of the nets. Beyond specific distribution activities, the MoH and NMCP periodically promote ITNs through radio spots, newspapers, television and megaphones in communities, usually around specific events such as World Malaria Day.

Over the past five years, no new malaria materials have been developed by the MoH. Flipcharts and posters have been developed by UNICEF, but capacity and coordination issues and the relatively small scale of the distributions to date have prevented an extensive distribution. While routine distributions have not been prioritised, no materials are reportedly available at most health facilities to educate about the treatment or prevention of malaria, including the use and importance of nets.

While the DHS has collected information on net ownership, little data has been collected on awareness and usage of nets from which conclusions can be drawn to inform the planning for future distributions.

- *M&E*

The NMCP are aware that the tracking of nets and monitoring and evaluation of net distributions is an area of weakness.

Out of the 4 indicators adopted by the NMCP, one relates to ownership (% of households having at least one ITN), two to use (% pregnant women and under fives sleeping under an ITN) and one is a process indicator (number of nets distributed to target population (pregnant women and children under five)). The DHS, which takes place every five years, and the ECOM (Enquete Congolaise Aupres des Menages), which takes place every two years, inform on progress relating to net ownership only. Smaller scale surveys, such as a NMCP KAP study done in Pointe-Noire are conducted opportunistically, but can not be used to draw any wider conclusions beyond the local area. MIS and MICS surveys are planned for the future.

Data on ITNs distributed through ANC is in theory recorded by the HMIS, but few nets have been distributed through ANC recently and the HMIS is not currently operational. Data on 'pre-school consultation' attendees is also not routinely collected. Furthermore, no database is currently available to track distributions and inform planning to fill gaps.

Capacity limitations and coordination issues between different MoH departments also prevent the effective dissemination, collation and analysis of available data. There is little proactive data collection done by the NMCP.

b. Gaps and requirements

i. Key bottlenecks and challenges

Listed below are key challenges currently faced but which will also affect rapid scale up.

Shortage of LLINs

The shortage of LLINs in country will need to be addressed to enable scale up of campaigns and enable routine distributions. While significant support to the health and logistics system will also be required, more funds and partners are needed to increase the availability of nets.

Oversight by the NMCP

A gap exists between policy and implementation. The number of departments involved in the delivery of net distributions (including separate departments for logistics and procurements, communication strategy and health system monitoring) and the little coordination between them, hampers NMCP oversight. Overall accountability of the NMCP is necessary to ensure quality delivery according to the Strategic Plan. Planning for implementation has also tended to be *ad hoc* and dependant on the availability of funds and NMCP plans can also be thwarted by those of donors. This challenge is not unique to net distribution.

Lack of clarity on route to scale up

A gradual approach towards universal coverage has been adopted in Congo because of the perceived low capacity of the system to effectively cope with larger scale distributions. While this is rational on some level, the result has been patchy coverage. Without an effective monitoring system in place to track net life by location, planning for redistribution is challenging and gaps will inevitably remain. The range of distribution mechanisms utilised has also created confusion as to the intervention targets, and most effective mechanisms considering impact and cost.

Port-related taxes and tariffs and delays

A resolution must be found within the MoH to address the high taxes and tariffs imposed on ITNs entering the country and the delays encountered in clearing customs. Such obstacles also hinder the involvement of the private sector in procuring WHOPEs-approved nets manufactured abroad.

Transport of LLINs throughout the country

As described above, there are a number of problems associated with each transport mode. While around 60% of the population live in urban areas, the remainder of the people are scattered across relatively hard-to-reach areas. This is a key challenge to the distribution of LLINs, but not an obstacle if appropriate support is given to distribution costs. Sufficient storage capacity will also need to be made available at all levels of the health system.

Monitoring and evaluation

There is currently no effective net tracking system at any level of the health system. Even where data may be collected at local levels, such as by NGOs or health facilities who may be involved in routine distribution, it is rare that this data reaches the central level. The lack of coordination and communication between MoH departments also prevents the sharing and use of any data collected. There is little emphasis on usage in any of the systematic surveys conducted which would inform the planning, particularly of IEC strategies, for future distributions.

ii. Proposed solutions to attain 2010 targets

Provision of LLINs

To reach the targets, it is critical that a sufficient number of nets become available through the support of an enhanced number of partners. Support should simultaneously be provided to address some of the major bottlenecks which could hamper effective distribution.

Enhance leadership of NMCP

The NMCP should engage other departments and ministries for a more effective harmonisation in strategies to enable more effective and coordinated net distributions according to the Strategic Plan. An implementation plan should be developed in coordination with other departments and subsequently communicated and disseminated. This will also provide guidance on priority areas for which additional funds could be sought. More effective data collection and dissemination on an ongoing basis will also facilitate the NMCP's capacity for leadership – specific recommendations are included in the 'Monitoring and Evaluation' section of this report.

Review strategies in terms of impact

It is critical that the NMCP prioritises the prevention of malaria, as this will have the most significant impact on morbidity and will reduce the need for treatment. To achieve the most impact over a certain period of time at the lowest possible cost, it is important to allocate resources effectively to priority interventions. It is suggested that with partner support, the NMCP leads a mass general LLIN campaign across the country as soon as an effective tracking, sufficient storage capacity and plans for IEC/BCC around net distributions are all in place. As Table 12 demonstrates, just 2,032,000 LLINs are needed to reach 100% coverage of targeted population (pregnant women and children under five) for the period 2008-12 through 2 rounds of mass distributions. Routine LLIN distribution through ANC should simultaneously be adopted as a keep-up strategy. This will require training of health workers on the importance and use of nets and IEC to beneficiaries. The increased sensitization within the communities to the value of the nets should also create an incentive for the further development of the private sector to meet the enhanced demand for replacement nets. Specific implementation plans aiming at high impact through cost-effective approaches will also be more attractive to donors.

Advocacy for the removal of tariffs and taxes

The MoH needs to demonstrate commitment to this scale up by advocating for the removal of tariffs and taxes on malaria-related commodities. Advocacy could go as far as to request that malaria goods are prioritised at ports of entry for more efficient clearance.

Transport networks

Beyond advocacy of the government and departments to support the rehabilitation of the transport system, for the mass LLIN campaign distribution, sub-contractors may be the most reliable option for the distribution of nets through a challenging transport system. However, keep-up strategies for LLINs will demand a regularised distribution through the national supply system. It may be useful to explore successful experiences of managing the logistical challenges of distributions from the private sector within the context of Congo, for example, Coca-Cola and recharge mobile phone cards which are reportedly available in some hard-to-reach areas.

Standardised database for LLIN monitoring

Systems need to be put in place to ensure that net distributions can be tracked at the central, provincial and district levels. The NMCP must also be proactive in the collection of data from other departments and in particular the HMIS department. It is recognised that the HMIS is currently not operational and under review and so support should be given towards it

becoming effective and integrated with other programmes as soon as possible. A standardised database that is comparable between provinces and which can be merged at central level should be developed. It would also be useful if the database could capture data on other NMCP interventions beyond nets.

Measure utilisation of nets

Data is required on the utilisation of nets by target groups, particularly as the number of nets distributed increases. Currently, questions in the data collection surveys such as the DHS and ECOM do not ask whether someone or the target group *slept* underneath the net the previous night.

Ensure communications central to interventions

Communication activities, including relating to IEC, BCC, sensitization and social mobilization, should be placed at the centre of all interventions. On completion of the communications plan, NMCP staff may require additional training in this area.

Technical Assistance is suggested in the following areas:

- Support in the development of an implementation plan for the scale up of net distribution to achieve universal coverage.

Estimated days: 30 (5 for situational analysis, 15 for coordination with all departments and partners on operational implementation strategy, 10 for writing of plan in coordination with NMCP, feedback and subsequent adjustments.)

- The development of LLIN tracking surveys to monitor distribution which feed into programme indicators, including relating to the usage of nets.

Estimated days: 30 (5 for development of protocol with NMCP, 5 for training of selected NMCP and district health team personnel on tracking surveys, monitoring and evaluation of net distributions, storage and analysis of data, 10 for the development of the surveys in coordination with the NMCP, 10 for the pre-test and subsequent adjustment. Additional support may then be provided during the initial conduct of the surveys).

- Support in the development of standardised, comparable databases for use by the NMCP and MoH staff at central and CSS levels in order to track LLIN distributions conducted by the MoH and partners.

Estimated days: 65 (15 days for initial assessments at central and CSS levels to determine current data collection, 25 days for development and trial of database, 25 days for training and monitoring of use of database in coordination with NMCP).

- Technical assistance could also be provided in reviewing the logistics experience of the private sector in relation to distributing commodities to hard-to-reach areas.

Table 12. ITN funding needs to attain RBM 2010 Targets (costs in USD)

Number and cost of LLINs to be delivered to achieve target	2008	2009	2010	2011	2012	2013	Total
<i>Delivery Approach 1 (mass distributions aimed at pregnant women and under fives)</i>							
A. Average cost per LLIN delivered*	6.6	6.6	6.6	6.6	6.6	6.6	
B. Number of LLINs to be delivered to reach 100% coverage	968,000	0	0	1,064,000	0	0	2,032,000
C. Number of LLINs to be delivered to reach RBM targets (or national if higher)	968,000	0	0	1,064,000	0	0	2,032,000
D. Available resources for LLIN distribution	48,450	0	0	0	0	0	48,450
E. Funding gap for RBM / National (A1 * C1) – D1	6,340,350	0	0	7,022,400	0	0	13,362,750
<i>Delivery Approach 2 (routine distribution through ANC at health facilities)</i>							
A. Average cost per LLIN delivered*	6	6	6	6	6	6	-
B. Number of LLINs to be delivered to reach 100% coverage	142,000	147,000	152,000	156,000	161,000	167,000	925,000
C. Number of LLINs to be delivered to reach RBM targets (or national if higher)	142,000	147,000	152,000	156,000	161,000	167,000	925,000
D. Available resources for LLIN distribution	0	0	0	0	0	0	
E. Funding gap for RBM / National (A1 * C1) – D1	852,000	882,000	912,000	936,000	966,000	1,002,000	5,550,000

TOTAL number of LLINs to be delivered to achieve 100% coverage (B1+B2)	1,110,000	147,000	152,000	1,220,000	161,000	167,000	2,957,000
TOTAL number of LLINs to be delivered to achieve RBM targets (or national if higher) (C1+C2)	1,110,000	147,000	152,000	1,220,000	161,000	167,000	2,957,000
TOTAL available resources for LLIN distribution (D1+D2)	48,450	0	0	0	0	0	48,450
TOTAL FUNDING GAP to reach RBM targets (or national if higher) (E1 + E2)	7,192,350	882,000	912,000	7,958,400	966,000	1,002,000	18,912,750
COMMODITY GAP to reach RBM targets – number of LLINs****	1,110,000	147,000	152,000	1,220,000	161,000	167,000	2,957,000

*Total costs in this table include the cost of the LLIN and delivery only. Other cross cutting costs such as IEC are included in later cross cutting costings

** Includes UNICEF committed funds only. MoH will commit some funds for LLINs but proportion is not clear.

*** UNICEF funds for LLINs are for campaigns as opposed to routine distributions. Again, MoH will commit some funds for LLINs through ANC but proportion is not clear.

**** No set number of LLINs have already been committed.

5.1.2. IRS

a. Situation analysis

i. Policies, strategies and approaches

The IRS target specified in the Strategic Plan is at least 80% of houses or structures in targeted areas to be sprayed by 2012. The targeted areas include target homes and public buildings in the peri-urban areas of Congo's 3 major cities where currently approximately 57% of the population live. IRS is seen as a compliment to the LLIN strategy, with the strategy being the spraying of urban structures, followed by the universal coverage of LLINs, coupled with ongoing environmental management to reduce the number and scale of breeding sites as part of a comprehensive vector control strategy.

iii. Financing

No funds are currently committed to the implementation of IRS.

iv. Implementation status

Aside from some small scale and largely unmonitored IRS done through NGOs and the private sector, for which data is not available, IRS has not been implemented for a number of decades in Congo. There is no specific IRS strategy or plan, with the most advanced planning in relation to IRS documented in the Global Fund Round 7 application, which was not successful. As stated in this proposal, if funding is to be approved, the city of Pointe-Noire would be used as a pilot site, with rounds of spraying taking place once every two years thereafter. The density of mosquitoes would be monitored through epidemiological surveys. The intervention would be coordinated by the MoH, who would sub-contract out sections of activities to partners.

b. Gaps and requirements

It is not possible to comment on either the current challenges or those associated with scale up given the lack of implementation experience.

The NMCP could consider whether this intervention should be a priority at this point, given the current low coverage of LLINs and the potential preventive impact acquired from achieving universal coverage of LLINs. This intervention will also be at a significantly reduced cost than IRS implemented at a scale sufficient to reach target, as comparing Table 12 with Table 13 demonstrates.

Table 13. IRS funding needs to support national scale up plans at RBM 2010 coverage targets (costs in USD)

Number and cost of households (HH) to be sprayed	2008	2009	2010	2011	2012	2013	Total
A. Average cost per HH sprayed*	8	8	8	8	8	8	-
B. Total number of HH targeted to be sprayed	259,380	267,680	276,246	285,085	294,208	303,623	1,686,222
C. Available resources for IRS	0	0	0	0	0	0	0
FUNDING GAP (A * B) - C	2,075,038	2,141,439	2,209,965	2,280,684	2,353,666	2,428,983	13,489,774
**Total amount of insecticide required	179,785	185,538	191,475	197,603	203,926	210,451	1,168,778

(sachets of DDT – for informal and informal structures, 670gram/sachet and dosage 2,000 mg/m2)							
COMMODITY GAP – sachets of insecticide	179,785	185,538	191,475	197,603	203,926	210,451	1,168,778

5.1.3. Larval control

a. Situation analysis

i. *Policies, strategies and approaches*

Larval control is not included in the Strategic Plan, although the NMCP is interested in exploring environmental management as part of a comprehensive vector control strategy. The environment is not addressed at all in the Strategic Plan and is addressed only briefly in the Health Strategic Plan. It is recognised that environmental management efforts may be addressed through a wider health sanitation or urban clean-up programme, prior to the initiation of a specific programme led by the NMCP.

ii. *Implementation Status*

It is understood that no specific funds are available within the MoH to support environmental management efforts. The extent of environmental clean up already done or being planned by other ministries or partners was not explored as part of this assessment. It is understood that the private sector is beginning to get more involved in urban clean-up activities.

5.1.4. Malaria in Pregnancy (IPT)

a. Situation analysis

i. *Policies, strategies and approaches*

The Strategic Plan specifies the IPT targets to be 90% of pregnant women taking IPT by 2012 and 80% receiving Sulfadoxine Pyrimethamine (SP) for IPT by 2012. The RBM target of the proportion of pregnant women taking at least 2 doses of SP for IPT is not included as a target.

The treatment of pregnant women is clearly described in the National Malaria Policy and treatment protocols as 2 doses of SP for women at least 16 weeks pregnant. There is no specific policy document for Malaria in Pregnancy (MIP), although MIP is included in both the National Malaria Strategic Plan and the Health Development Plan. Specific guidelines on the prevention and management of malaria during pregnancy are reportedly still under development. On completion, the NMCP will work with the Department for Family Health (DSF) for the integration of IPT (in particular SP - taken under supervision) and LLIN distribution into the standard focused ANC package, which also includes case management. IPT has however been available through both the public and private health systems for some years. SP was introduced in 2006, with chloroquine/ nivaquine being the first line drug for IPT prior to this. SP is available without prescription.

In May 2008, the MoH new Free Treatment Policy for malaria was introduced, which permits free treatment to children under 15 years and pregnant women. For pregnant women, this concerns free IPT, free treatment for simple and complicated malaria as well as the distribution of free LLINs. However, given the Congo health system still operates on an out-of-pocket-payment basis (OPP), the patient must still pay for the ANC consultation – unless the patient is sick with malaria, in which case the consultation is free. The Free Treatment Policy will be covered on a more general level in the Treatment section of this report.

ii. *Financing*

JICA has supported some training for providers in delivering the ANC package, but no longer provides any financial support to the NMCP. UNICEF has contributed to the commodity cost of SP, at amounts of US\$187,200 in 2006 and US\$67,859 in 2007, as well as towards the costs for the provider training. Due to the introduction of the new Free Treatment Policy, whereby the government now pays drug commodity costs, from 2008 UNICEF will gradually reorient its financial support towards underfinanced interventions. As part of the policy, the government intends to reimburse the CSIs for their resultant loss of income, although it is currently not clear what specific plans for this are in place.

Country estimates of comprehensive costs in the delivery of both doses of IPTp were not available.

iii. Implementation status

ANC attendance in Congo has been relatively high for some time. This may be explained by the fact that Traditional Birth Attendants were not introduced in Congo. Extra 'taxes' (to the sum of approximately FCFA 10,000 to 15,000) used to be applicable for deliveries if the patient did not attend ANC beforehand (and in some places this continues today) and there is also a general assumption that good deliveries are done at the CSIs. It was hoped that the high ANC attendance would permit a rapid scale up of IPT.

Currently, ANC attendance is reported at 88% with 74% of those making at least the 4 recommended visits (DHS, 2005). The proportion of pregnant women taking IPT is estimated at 65% as shown in Table 14 below. While not unexpected, Table 14 also shows a significant difference between urban and rural populations. The NMCP considers the explanation for the higher number of ANC attendees than those taking IPT being drug stock outs, the fact that if pregnant women come for their first ANC visit within 3 months then they will be recorded as an ANC attendant but not be eligible for IPT, and if the patient attends for ANC but is sick with malaria, then they will instead be given malaria treatment.

Data separating the proportion taking the first and second dose is not available, although if it is assumed that 65% take the first dose, then the number of women taking their second anti-natal vaccine can be used as a proxy for proportion taking the second dose, which is 45% (DHS, 2005).

Table 14. Proportion of pregnant women taking IPT during pregnancy broken down by region.

Location	% of pregnant women who have taken IPT during pregnancy
Urban	79.1
Rural	51.2
<i>Region</i>	
Brazzaville	83.3
Pointe-Noire	78.4
South	46.4
North	61.9
Average	64.6

Source: (DHS, 2005)

Reportedly, the main reason pregnant women come to the CSIs is for deliveries. While this is positive, there is scope for more sensitization and education within communities to encourage women to come for actual ante-natal care, including for preventive measures. It is expected however that the prospect of free preventive treatment and LLINs as a result of the Free Treatment Policy, and the related IEC around its introduction, will contribute to raising further the proportion of ANC attendees and those returning for their second dose of IPT.

As outlined in the Strategic Plan, the intention is to train all providers in the newly focused ANC package. A core group of trainers has already been formed and 2 out of the country's 12 provinces have already received training in IPT. It is understood that no post-training supervision has been conducted. Included in the Strategic Plan is also the training of the private sector and community health workers on aspects of the ANC package, although this has yet to be realised (community health workers have not yet received general training and therefore not yet operating as a formal health cadre).

- *Management and partners' roles*

For the effective delivery of IPT, coordination between the NMCP and DSF is required, although there are currently not the forums, frequency in communication or existing coordination which would facilitate this. However, the finalisation of the guidelines on the prevention and management of malaria during pregnancy is likely to facilitate discussion around roles and responsibilities.

UNICEF is the main partner supporting the delivery of IPT, through the direct provision of SP. Both UNICEF and WHO continue to provide technical support in the development of related guidelines. During the small scale LLIN distributions at the community level conducted by local NGOs, some promotion of ANC visits to CSIs is also likely.

The private sector does have a role in the dispensing of IPT but its scale is difficult to quantify. The supervision of the private sector is also not regular or systematic.

- *Procurement and logistics*

SP is now included on the list of essential medicines and so there are less stock outs than when the drug was funded from the 'global budget'. No data is available on the frequency or duration of continuing stock outs. Concerns remain over the insufficiency of funds for an effective allocation of drugs, even with the funds allocated to the Free Treatment Policy. Not all CSIs are regularly using SP (the CSI visited in the peri-urban area of Brazzaville was dispensing quinine for IPT).

- *Communications*

No specific communications materials promoting ANC and educating about the increased risk of malaria during pregnancy and preventive options are available. However, it is understood that certain communication documents were developed by the NMCP and DSF with financial and technical support from UNICEF and PSI/ASF (posters on the prevention of malaria complications in pregnancy) but were not disseminated. It is possible that IEC in relation to MIP has not been considered a priority given ANC attendance is already relatively high. There also seems to be some confusion around whether IEC activities around MIP are the responsibility of the NMCP or the DSF.

UNICEF, in coordination with churches, has established the 'life savers' information and training initiative for adolescents, mothers and nurses to promote the adoption of good nutrition and hygiene practices. Tools (books containing key messages for the trainers) are currently under development. UNICEF has also distributed materials relating to the essential package of family care which includes information about increased malaria risk during pregnancy and preventive measures including IPT. As part of this programme, 'formateurs' (trainers) are assigned to churches to sensitize and raise awareness about essential family practices. The introduction of the Child Health Weeks in July will also provide another forum for such IEC and ANC promotion.

- *M&E*

ANC attendance data is collected at CSI level and in theory, is sent up to CSS level where it is collated and forwarded to the central level as part of the HMIS data. In practice, however, the HMIS is not operational and this data is only really accessible from the CSI level directly. No information is routinely collected on uptake

of IPT, although the monitoring of the implementation of IPT is mentioned in the Strategic Plan as a joint responsibility between the NMCP and DSF. It is understood that this is expected to be addressed as part of the revision of the HMIS system which is currently underway.

Support supervision is integrated and is covered in the section on Monitoring and Evaluation.

b. Gaps and requirements

i. Key bottlenecks and challenges

Listed below are key challenges currently faced but which will also affect rapid scale up.

Finalisation of guidelines and subsequent training in MIP and IPT

The completion of the guidelines on prevention and management of malaria during pregnancy would facilitate the planning, coordination, quality delivery and monitoring of IPT. Without completion of training in the new guidelines MIP and on IPT, a quality of service delivery can also not be assured.

Availability of SP

There are indications that SP is not available throughout the health system.

Availability of data

The unavailability of data on ANC attendance and uptake of IPT presents significant challenges in the ongoing monitoring of IPT uptake, planning for scale up and overall management and oversight of the intervention. While not necessary for monitoring progress to achieve the country target, separate data on the proportion of pregnant women who take the first and second dose of IPT is important to monitor the extent to which the IPT course is taken effectively and the resultant impact expected in terms of malaria prevention.

Coordination

The involvement of both the NMCP and DSF in coordination of activities to raise ANC attendance and IPT uptake, as well as that of other departments such as the logistics, communications and HMIS departments, has created complications because departmental roles, responsibilities and areas of accountability are not clear and agreed. There is currently little coordination and communication between the departments or forums to encourage this. The involvement of an external consultant such as UNICEF seems to facilitate coordination on a project level.

ii. Proposed solutions to attain 2010 targets

Finalise guidelines and conduct training

It is important that the NMCP and DSF coordinate to complete and disseminate the guidelines on prevention and management of malaria during pregnancy as soon as possible. This will also enable the completion of a quality cascade training programme. Post-training supervision should also be conducted through routine support supervision.

Improve availability of SP

Now SP is now included on the essential drugs list and its procurement will be given more priority because of the new Free Treatment Policy for malaria, it is likely that the availability of SP will improve. Training in the new guidelines will also support this as it is currently not clear whether CSIs are or will be ordering SP and whether this is checked (and rectified) at central level. The availability of SP should be monitored closely through the routine support supervision visits.

Improve monitoring system

It is important that ANC registers collect data on ANC attendance, and uptake of first and second dose of IPT. This data should be incorporated into the HMIS system. Record keeping should be an integral part of the CSI training in MIP and IPT. The CSS teams will also need particular support in the review and compilation of the data. The revision of the HMIS should also be addressed as a matter of priority and all involved government

departments, including staff from different levels of the health system, should be given the opportunity to input into the revision process. On approval, the new system will need to be effectively communicated and where required, training should be conducted. The new system will need to be supported and monitored closely.

Improve coordination

Specific steps should be taken to improve communication and coordination, such as regular meetings between departments (and partners) and among staff with specific roles which cross over between departments. All departments and partners will need to be clear on specific roles, responsibilities and accountabilities.

Technical Assistance is suggested in the following areas:

- Ongoing technical support could be provided in the finalisation of the guidelines on prevention and management of malaria during pregnancy and in the revision of the HMIS system.

Table 15. IPT funding needs to attain RBM 2010 targets (costs in USD)

Number and cost of pregnant women receiving IPT	2008	2009	2010	2011	2012	2013	Total
A. Average Cost of IPT (2 doses) per pregnant woman*	0.05	0.05	0.05	0.05	0.05	0.05	-
B. Number of pregnant women targeted to reach 100% coverage	146,606	151,297	156,139	161,135	166,292	171,613	953,082
C. Number of pregnant women targeted to reach RBM targets (or national if higher)	146,606	151,297	156,139	161,135	166,292	171,613	953,082
D. Available resources for IPT	0	0	0	0	0	0	0
FUNDING GAP to reach RBM targets (or national if higher) (A*C) - D	7,330	7,565	7,807	8,057	8,315	8,581	47,654
Total number of SP doses required to reach RBM targets (or national if higher)	586,424	605,189	624,555	644,541	665,166	686,452	3,812,327
COMMODITY GAP to reach RBM targets (or national if higher)-number of SP doses	586,424	605,189	624,555	644,541	665,166	686,452	3,812,327

* MoH will commit some funds for IPT but proportion is not yet clear.

5.2. Case Management

5.2.1. Diagnosis

a. Situation analysis

i. Policies, strategies and approaches

The diagnostics target outlined in the Strategic Plan is 60% of malaria cases (both complicated and uncomplicated) correctly diagnosed at health centres by 2012. This target is applicable to the community, peripheral, intermediary and central health service delivery levels where the approach is to build capacity in diagnostic laboratories of facilities to ensure rational use of ACTs.

The overall strategy for reaching this target consists of the dissemination of, and training in, national malaria case management guidelines, the introduction of rapid diagnostic tests (RDTs) at health facilities without the capacity to perform microscopy and then in time, the gradual extension, or strengthening, of microscopy in all hospitals and CSIs with associated introduction and maintenance of necessary equipment. RDTs are therefore seen as an interim measure with priority given to raising universal capacity for microscopy. Collaboration will be established with universities and the Faculty of Medicine and the National Laboratory of Public Health for quality control and monitoring post training. The General Direction of Pharmacies, Laboratories (DPHLM) is the department charged with the management of all government laboratories.

The possibility of using these tests at the community level will also be explored, although no firm plans have been developed around this because the community health worker cadre has yet to be officially formed and trained. Community treatment is included in the Strategic Plan, however, and there is also an agreed indicator to monitor performance in this.

While a systematic approach for laboratory diagnosis to confirm cases is not clearly defined and promoted by the national policy or included in the national treatment guidelines, the role and importance of laboratory diagnostics are clearly outlined in the NMCP policies, guidelines and protocols, as well as norms and procedures on how to read and analyse blood smears for malaria. All norms, guidelines and protocols are in line with WHO recommendations. There is currently no national system in place for quality assurance.

The current situation is one in which diagnosis is established based on clinical signs and cases are treated presumptively, at least at the CSI level. Laboratory confirmation through microscopy (blood smear) is usually only requested for suspected complicated malaria or treatment failure. RDTs have yet to be rolled out. While little indicative data is available, current capacity for diagnosis is weak at all levels of the health system. The current situation is covered in more depth in Implementation Status.

ii. Financing

Diagnostics is an area which remains significantly under-funded. In recent years, the bulk of funds have come from the MoH. Going forward, UNICEF and WHO will both be contributing some funds to the training in diagnosis and case management according to the new guidelines. In the past, both have also contributed a certain amount of funds to laboratory supplies, although amounts in relation to malaria specifically are difficult to determine.

iii. Implementation status

Parasitology in general is a neglected and underserved activity in Congo which is perhaps surprising given that approximately 70% of diseases are due to parasites. Currently, the majority of suspected malaria cases are treated presumptively. The proportion of all fever cases to be diagnosed using microscopy in the public sector

is estimated at 15% (for both children under five and population above five). RDTs have so far not been rolled out for use in the public health sector. There are three different types of malaria in Congo, but more than 90% of malaria cases are *P. falciparum*, therefore although RDTs with species differentials could be recommended it does not seem necessary.

According to the NMCP, laboratory confirmation through microscopy (blood smear) is only requested for suspected complicated malaria or treatment failure. However, the extent to which this is done, or can be done given current capacity, is not clear. No data is available on the extent of the capacity for diagnosis in terms of the proportion of confirmed cases currently treated, the number of staff trained in microscopy, the number or laboratories with diagnostic capacity and equipment availability. A situation analysis on the laboratory situation and diagnostics capacity across the public health system has not been done in the last twenty years and relevant data is not collected or collated on a regular basis. However, the laboratory situation is reportedly poor, with functional laboratories only appearing to exist in the main hospitals of main cities, although some CSIs also have the capacity to perform microscopy and it is possible that diagnosis may be happening more at CSI level than is assumed at central level (as suggested by the field visit). Laboratory confirmation is also performed in the modern clinics in the private sector, although no data is available on scale.

The tendency towards presumptive treatment may also be supported by frequent stock outs of laboratory supplies and poor maintenance of laboratory equipment, even where equipment is available. Maintenance has been non-existent for several years and the department in MoH responsible for maintenance has essentially disappeared over the years due to lack of funding.

While policies and plans clearly outline diagnosis and the treatment of confirmed cases a priority, there is no implementation plan as such detailing exactly how the target will be achieved. Similarly, while training at all levels of the health system is included in the Strategic Plan, a training plan has yet to be developed and implemented on a significant scale. Training is not currently done systematically, but rather when financing allows. The current training tools are comprehensive, although there may be a need for adaptations to enable them to also be used a practical guide on an ongoing basis. Suggestions include more illustrated materials on the how to conduct a blood smear, as well as examples of microscopy readings. The tools and guidelines are also only available at the national laboratory and main hospitals in the main cities. A RDT training module has also yet to be developed.

- *Management and partners' roles*

WHO and UNICEF are involved in the training of staff in diagnostics and case management. In some districts, international NGOs such as MSF-Holland have also trained their staff in the use of RDTs, but this has not necessarily involved the government health system. Congo is currently witnessing a reduction of international NGO presence, however. The private sector is not included in any diagnosis plans.

- *Procurement and logistics*

There has been little procurement of diagnostics supplies and equipment in recent years. The procurements for all supplies and equipment are done by a specific MOH department responsible for logistics, the SCAS department (Service de Coordination des Actions Sanitaire). NMCP currently have no role in these procurements.

- *Communications*

Technical guidelines and manuals are available for microscopy training. There are no specific posters or education sessions for patients or the population to be made aware of when they should be tested for malaria.

- *M&E*

With the HMIS system currently ineffective, there is no ongoing monitoring of the proportion of confirmed as opposed to presumptive cases. There is also no national system in place for quality control in diagnostics. Where quality assurance procedures are implemented, this is mostly done often in relation to epidemic diseases, for which malaria is not considered in Congo.

b. Gaps and requirements

i. Key bottlenecks and challenges

Listed below are key challenges currently faced but which will also affect rapid scale up.

Lack of data on diagnostics capacity throughout the health system

A situational analysis on the laboratory and diagnostics capacity across the public health system has not been done over the last two decades, nor is there an effective system for the collection, collation and dissemination of data which would permit tracking of progress (such as the proportion of confirmed cases against presumptive cases, the distribution of supplies). With no data available on the capacity for diagnosis (in terms of number of functional laboratories, availability of equipment and the number of trained microscopists), it is difficult to effectively plan for scale up in order to meet the 2012 target.

Lack of systematic approach for laboratory diagnosis

The process by which cases should be confirmed is not clearly defined. Similarly, the process by which microscopy will replace RDTs and the extent to which RDTs is an interim measure is not clear. There is also a need for clarification on plans for raising diagnostics capacity at the community level.

Monitoring

There is currently no effective HMIS system which will allow ongoing monitoring of the proportion of confirmed as opposed to presumptive cases. This is increasingly important following mass campaigns of LLINs, which would be expected to reduce the number of cases, and with the introduction of free treatment.

Quality assurance for microscopy

This will become increasingly important with the large scale introduction of ACTs and again, the introduction of free treatment. RDT quality assurance should be included into this overall system.

ii. Proposed solutions to attain 2010 targets

Conduct an audit of diagnostics capacity throughout health system to support the development of an implementation plan

A national inventory on laboratory and diagnostics capacity elaborating on the number of health facilities with functional laboratories and with functional microscopes and the number of staff who have been trained in the last five years in laboratory malaria diagnostic needs to be conducted so a realistic implementation plan and budget, reflective of actual needs, can be developed for scale up. The implementation plan will need to include a training plan and schedule, including cascade training. The plan should also include indicators for tracking of progress and intermediary targets to ensure progress towards the 2012 target. It would also be useful if the implementation plan could address necessary coordination between MoH departments and RBM partners. The plan should also support laboratory activities in an integrated way rather than specifically relating to hemorrhagic fever and therefore other departments such as those responsible for HIV/AIDS and epidemics should also be involved. This may also facilitate the allocation of more funds to the exercise.

Define approach for laboratory diagnosis

There is scope for expanding the detail in the policy relating to diagnostics and in particular the process by which cases should be confirmed and by which microscopy will replace RDTs as well as plans for raising diagnostics capacity at the community level. This will also help guide the development of the implementation plan.

Strengthen system for monitoring presumptive and confirmed cases

It is recognised that the HMIS is currently not operational and under review and so support should be given towards it becoming effective and integrated with other programmes. In many cases, data exists at the health facility level but it does not get passed up the system. Regular support supervision, with the aid of checklists, will assist in the collection of quality data. This will also help provide incentives for strong record keeping, as will feedback of the compiled data and (basic) analysis of the data back down the system. Effective monitoring of confirmed/ presumptive cases is increasingly important alongside the implementation of other malaria control interventions as a means of measuring their effect.

Introduce a quality assurance system for microscopy and RDTs

This will become increasingly important with the large scale introduction of ACTs and the new Free Treatment Policy (see Treatment section). RDT quality assurance should be included into this overall system. The national laboratory is well positioned to perform this role as it already performs this on a more localised scale. Plans for QA should be appropriate and adapted to the context. More simplistic measures e.g. the exchange of slides between health facilities could be considered for example, as well as more complex options such as regional reference laboratories. The introduction of RDTs should also be monitored through an initial pilot study to assess usability, accuracy, patient preference and cost. The results from this can help guide expansion and the development of the monitoring and QA plan.

Technical Assistance is suggested in the following areas:

- Support for the audit of the laboratory and diagnostics capacity of the health system.

Estimated days: 61 (3 for initial planning sessions, 3 for developing the methodology, 30 for leading the audit teams, 25 for compiling results, report and feedback sessions). Additional days could be added for support in the development of the implementation plan.

- Support could also be provided in some capacity in the development of a quality assurance system for the piloting of RDTs (monitoring the introduction in terms of usability, accuracy, patient preference and cost).

Table 16. Diagnostic services funding needs to attain RBM 2010 targets (costs in USD)

Number and cost of malaria diagnostic services	Age Group	2008		2009		2010		2011		2012		2013		TOTAL	
		Micro-scropy	RDTs	Micro-scropy	RDTs	Micro-scropy	RDTs	Micro-scropy	RDTs	Micro-scropy	RDTs	Micro-scropy	RDTs	Micro-scropy	RDTs
A. Average cost per diagnostic test	All	0.50	0.80	0.50	0.80	0.50	0.80	0.50	0.80	0.50	0.80	0.50	0.80	-	-
B. Number of suspected malaria (fever) cases targeted to be tested to reach 100% coverage	< 5 yrs	1,607,195	1,071,463	1,574,850	1,049,900	1,409,107	939,405	1,097,310	731,540	1,086,386	724,257	1,121,150	747,433	7,895,998	5,263,998
	> 5 yrs	2,224,028	1,482,685	2,221,838	1,481,225	2,103,671	1,402,447	1,858,473	1,238,982	1,877,629	1,251,753	1,937,713	1,291,809	12,223,351	8,148,901
	Total (<5+>5 yr)	3,831,222	2,554,148	3,796,688	2,531,125	3,512,778	2,341,852	2,955,783	1,970,522	2,964,015	1,976,010	3,058,863	2,039,242	20,119,349	13,412,899
C. Number of suspected malaria (fever) cases targeted to be tested to reach RBM targets (or national if higher)	< 5 yrs	937,530	669,664	918,663	656,188	821,979	587,128	640,098	457,213	633,725	452,661	654,004	467,146	4,605,999	3,289,999
	> 5 yrs	1,297,349	926,678	1,296,072	925,766	1,227,141	876,529	1,084,109	774,364	1,095,284	782,346	1,130,333	807,381	7,130,288	5,093,063
	Total (<5+>5 yr)	2,234,880	1,596,343	2,214,735	1,581,953	2,049,120	1,463,657	1,724,207	1,231,576	1,729,009	1,235,006	1,784,337	1,274,526	11,736,287	8,383,062
D. Available resources for malaria diagnostic services	All	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FUNDING GAP to reach RBM targets (or national if higher) (A*C) - D	All	1,117,440	1,277,074	1,107,367	1,265,563	1,024,560	1,170,926	862,103	985,261	864,504	988,005	892,168	1,019,621	5,868,143	6,706,450

Total number of RDTs required to reach RBM targets (or national if higher)	All													
		0		553,684		1,024,560		862,103		864,504		892,168		4,197,020
COMMODITY GAP to reach RBM targets (or national if higher) - number of RDTs**	All													
		0		553,684		1,024,560		862,103		864,504		892,168		4,197,020

DRAFT

5.2.2. Treatment

a. Situation analysis

i. Policies, strategies and approaches

The 5 year National Malaria Strategic Plan (2007- 2012) specifies its goal to significantly increase the diagnosis and treatment of patients with suspected malaria at the community, peripheral, intermediate and central health service delivery level. A number of specific targets are outlined in the Strategic Plan. These are outlined in the Indicators section towards the beginning of this report, but for reference are also listed below.

1. 60% of under fives with fever getting appropriate treatment from health centre consultation within 24 hours of onset by 2012
2. 60 % of under fives with fever getting appropriate treatment at the community level within 24 hours of onset by 2012
3. 80% of community members, in particular mothers and caretakers of children, who correctly refer cases within the community by 2012
4. X No. of doses ACT distributed to children under five
5. 80% of health centres with no stock outs of more than a week over the last 3 months by 2012
6. X No. of personnel trained by level (malariology, epidemiology, management, case management, M&E etc)

While the NMCP are clear on the direction malaria treatment should be taken in, more work remains to finalise the indicators and the specific targets (in particular no. 2 conflicts with no. 1 and no. 3 may not be measurable and no. 4 and no. 5 need specified targets and clarification in definition). Little baseline data is available, although it is estimated that 42% of children aged 0 to 5 years who had fever have taken malaria treatment in urban areas with 20% within 24 hours, against respectively 52% and 23% in rural areas (NMCP,2008).

The Strategic Plan outlines a number of approaches for achieving these targets. In summary, these include the extension of application of the new treatment policy through dissemination and training, the creation of systems for the quantification and distribution of ACTs, the supply of ACTs along with microscopes and RDTs, the development of an implementation monitoring plan, the production and distribution of IEC materials, the development of a quality control system (to include post-training follow up), the involvement of the private sector in the distribution of ACTs, the integration of new malaria treatment guidelines in the IMCI modules and general improvements in the skills of service providers at the health facility and community levels.

The treatment policy has largely been based in drug efficacy studies. Studies (conducted by Kounikou et al, 2004) revealed that resistance to Chloroquine was as high as 89.7% and to SP, 14%. In consultation with implementing partners, the NMCP therefore adopted new treatment protocols using combinations of artemisine derivates which conform with WHO recommendations. Since 2006, Congo's treatment regimes have been:

Uncomplicated malaria

- First line: Artesunate + Amodiaquine (AS-AQ)
- Second Line: Arthemether + Lumefantrine (AL)

Malaria in pregnancy

- IPT: SP
- Treatment of uncomplicated and severe malaria: quinine (oral route)

Severe malaria

- Quinine (intravenous route)

A training manual has been developed in line with the national policies and according to WHO recommendations, although it has been adapted to the local context. The general training approach is workshops of 25-35 people including public and parts of the private sector, followed up with supervisory training visit on the job site. The approach includes cascade training down the system. Plans include the training of NGOs and religious organization which are involved in the delivery of malaria treatment, and the private sector if a need is expressed and funds are available.

The Strategic Plan also includes plans to train community health workers in the provision of treatment directly within the community (Home-Based Management of Fever – HBMF). Reportedly, more than half of those suffering from malaria are treated outside the structures of care (EDSC-1, 2005) and thus a HBMF approach is considered rational. Only one district, supported by a Scandinavian NGO, is currently using community health workers for HBMF.

In an attempt to increase the proportion of the population accessing treatment from health facilities, the government have also just introduced a new programme of free malaria management targeted at pregnant women and children under five (the introduction was intended to be in 2 May 2008 although some delays are expected). The programme will allow access to free malaria treatment and the consultation if the diagnosis of malaria has been made. Currently, an estimated 70% of the population have access to the public health system, boosted by the fact that almost 60% live in urban areas, although a significant proportion of the population continue to go to priests, traditional healers or the informal private sector as their first preference for the management of malaria.

The programme will be carried out in two phases, with phase one involving a 3 months pilot in 28 health centres and application only to the treatment of simple malaria cases, IPT and distribution of ITNs. Phase two is expected to commence at the end of this year and involves nationwide scale up and application to include severe malaria. In total, the programme hopes to cover 244 CSIs, 486 health centres / clinics and 26 hospitals (details on the total scale of the health system are included in the ‘Health Systems Strengthening’ section). The initiative is highly encouraging in the fight against malaria and is expected to significantly boost the number of patients receiving appropriate malaria treatment. It will be important to monitor the programme carefully however (see the Challenges and Bottlenecks section).

ii. Financing

UNICEF contributed US\$136,000 in both 2006 and 2007 for ACTs but will not be committing further funds for ACTs in the foreseeable future now the government has raised its commitment. The government are to contribute FCFA 33 billion (US\$ 77,464,788) for commodities in 2008, including ACTs. This amount represents a marked increase from previous years to account for the large scale roll out of ACTs to prepare for the Free Treatment Policy. In reality, however, the NMCP does not always receive total funds allocated (see the Health Financing section). The government has also expressed plans to compensate the health facilities for the loss of income through the availability of free malaria treatment (approximately 50% of health facilities’ income is currently from suspected cases of malaria) but the actual plan for this is not clear and has not been communicated down the health system (see the Challenges and Bottlenecks section).

iii. Implementation status

As outlined in the Diagnostics section, treatment is currently presumptive in Congo (based essentially on fever signs) at the peripheral level (CSI). At central level or referral level, laboratory confirmation is only obligatory for patients with treatment failure and in severe malaria cases. Treatment can be purchased in any pharmacies without any prescription. Self-medication, purchased from pharmacies or medicines or health care acquired from priests or traditional healers are also common in Congo. It is currently estimated that 70% of patient arrive at the health facility having already started some kind of medication (NMCP, 2008), many turning to

the health facility as a last resort. There is no data available on the proportion of population using the private sector and this is difficult to estimate.

888 health workers have reportedly been trained in the new treatment policy and guidelines. There is no firm estimation as to the number of staff currently working in the public health system and therefore the remaining gap. The community health worker cadre has also yet to be trained on any significant scale, although plans are in place. In practice, the NMCP has also not really been involved in training in private sector. In fact, there are no effective regulatory, reporting or supervision mechanisms in place for monitoring activity in the private sector.

According to the NMCP, treatment guidelines and protocols have been distributed to all the health facilities. Algorithms for treatment are intended to be displayed at all health facilities, but the extent to which this happens is not clear. Regular stock outs of drugs also result in non-compliance to the treatment policy. In which case, it is not infrequent for quinine and SP to be given instead.

The high number of illegal drugs also presents a significant problem in Congo. It is understood that 25% of the drug market is controlled by illegal medicine traffickers.

- *Management and partners' roles*

Despite the existence of clear procedures in policies and protocols, the involvement of the private sector and collaborating partners is poor. The private sector (including the not-for-profit private sector) seems to operate in parallel to the public sector, with little if any oversight, control or supervision. There is also no standard or recognised system for referral from the private sector to the public sector.

- *Procurement and logistics*

All drugs for the public sector, including ACTs, are procured by the DPHLM (Direction General de Pharmacie, Laboratoire et Medicament) through COMEG (Congolese des Medicaments Essentiels Generiques). NMCP is usually involved in the planning for procurements, but there is no regular or systematic collaboration. Consequently, the NMCP has almost no information on the quantities, timeframes and locations of drug distributions. This information is held at the DPHLM, although not necessarily shared with the NMCP.

Drug importation to the private sector is on a much large scale and is controlled by 6 importers: Laborex, SEP, Coophraco, Saipharma, Beta Pharma and Zenupha. A small number of NGOs and religious organizations such as UNICEF, CARITAS, the Salvation Army and Red Cross also import drugs directly, although only UNICEF has been involved in importing ACTs for public sector use.

Since the adoption of the new malaria treatment policy in 2006, a plan for the deployment of ACTs has not been developed. The importance of such a system is amplified with the introduction of the Free Treatment Policy and a consequent rise in the quantity of ACTs likely to be required. 225,000 treatments have already been distributed to the 28 designated health centres involved in the phase one pilot of the Free Treatment Policy. These treatments have so far been pre-financed by COMEG. In order to make another drug order, the government will need to clear the first bill which has so far not been done. Financial administrative procedures for disbursement of expenditures are heavy and cumbersome which lead to significant and frequent delays in payment. There is therefore a serious risk that drugs stock out will compromise the effectiveness of the Free Treatment programme.

There is one national warehouse for public sector drug supplies which is located at COMEG. The capacity is just 200m², which is insufficient given the expected rise in drug quantities needed throughout the system. From here the drugs are distributed to the provincial stores of which there are twelve. The drugs are then collected by CSS/ CSIs directly. There are usually no buffer stocks of ACTs in national or district stores.

- *Communications*

As is discussed in more depth in the IEC/BCC section, very few communication materials or tools have been developed to support NMCP activities since 2000.

Provincial level campaigns to publicize the new Free Treatment Programme are mentioned in the related policy document. Activities include community meetings to raise awareness, the sensitization of communities through various communication and advocacy activities, the strengthening of the capacity of communications networks, broadcasting on free treatment for malaria and the development and dissemination of posters to promote free malaria treatment. The extent to which these activities have already been carried out is not clear, although the NMCP has not generally been involved in the leadership or coordination of these activities. Currently, it appears that health facilities have few, if any, tools to support health education to patients or to inform patients about malaria drugs.

The MoH does utilise radio and television to distribute messages on malaria, including recently relating to the Free Treatment Policy. Since approximately 60% of the population is urban and the majority of urban dwellers have access to television and/ or radio, this has a wide reach, although not to those with already reduced access to the health system.

- *M&E*

The only data available at the NMCP is some information on the morbidity and mortality of cases which is sent up to the HMIS from health facility levels through the CSS level, although not universally or regularly. There is no differentiation between presumptive and confirmed cases. Some compilation and analysis is done at central level (little is done at CSS level), but the completeness, regularity and on time reporting of data is weak and the data is very often incomplete (with likely underreporting of cases). The quality of the data compromises utilising the data for advocacy, planning and evaluation purposes.

A specific M&E plan is intended for the Free Treatment Policy. The plan is to include the quarterly monitoring of activities, a mid-term and annual evaluation to review changes in mortality and morbidity and health facility case load, the availability of medicine and consumables, and the cascade training and supervision at all levels of the health system. The plan is for the NMCP to manage the data and produce regular reports.

Support supervision used to be integrated but lately has become specific and relative to the unit which is financing the supervision. The NMCP does not have a supervisory check list. Supervisions are done based on funding availability.

Finally, there is no routine or functional pharmacovigilance system. There is also no operational system for monitoring the quality of malaria case management in the private sector.

b. Gaps and requirements

i. Key bottlenecks and challenges

Listed below are key challenges currently faced but which will also affect rapid scale up.

Clarity on indicators

More work remains to finalise the indicators and the specific targets. The indicators as drafted currently will not easily facilitate the tracking of progress as some require tighter definitions. Attention is also needed to ensure the treatment indicators work well as a 'package'.

Availability of ACT

This is one of the most major, and most obvious, bottlenecks to implementation of this activity, particularly given the rise in demand following the introduction of the Free Treatment Programme.

Free Treatment Policy

The health system of Congo operates on a cost recovery system scheme (based on out-of-pocket payments), where an estimated 50% of income is due to malaria. Implementing a free of charge programme for malaria cases will inevitably have an impact on the running cost of health facilities. Detailed forecasts for the financial implications of the programme were not conducted and the actual process for compensating CSIs for this loss of income is not clear, raising significant concerns at health facilities. An additional concerning implication if the financial aspect is not addressed is the motivation for potential mismanagement and incorrect diagnosis of malaria to enhance income from the sale of alternative drugs. A lower than expected malaria case load could also be misinterpreted, for example insufficient IEC or the effectiveness of mass LLIN distributions. It is presumed that when the CHWs are trained, they will also supply free malaria treatment, although how the programme will be implemented at the community level is not addressed in the Free Treatment Policy. Partners have also expressed concern that if the introduction of free malaria drugs is problematic, this may have negative implications for introduction further medicine to the free treatment package.

Diagnostics

Whether cases are confirmed by laboratory diagnosis or RDTs or not will obviously influence the amount of ACTs available at health facilities to which they are supplied. Increased diagnosis will be increasingly important with the introduction of the Free Treatment Policy.

Monitoring system

There is currently no effective HMIS system which will allow ongoing monitoring of the proportion of confirmed as opposed to presumptive cases and other data required for measuring progress towards targets. An effective monitoring system will also be critical for monitoring the effect of the Free Treatment Policy. Because the programme is only targeted at pregnant women and children under five, there are concerns that a parallel reporting system will be initiated which will further add to the workload of the health facility staff which may affect the quality of reporting.

Quality control of drugs

There is no system in place which allows the quality control of drugs and laboratory supplies. In hospitals small, ambulant pharmacies are created by the health workers themselves, so it is common to find nothing at the hospital pharmacy but all drugs available among the health workers. The National Laboratory is mandated with the quality control and tracking of drugs but does not have the capacity to fulfil this function effectively. Currently all drugs purchased are based on the liability and credentials of the manufacturer alone and no testing is done on importation. There are also a high number of illegal drugs in country - 25% of the drug market is reportedly controlled by illegal medicine traffickers. There is also no data available on the extent to which treatment guidelines are followed.

Proliferation of unregulated private sector

With the absence of an effective system for regulating the private sector, there are a large number of unregulated health facilities and pharmacies throughout the country who are importing low quality medications.

ii. Proposed solutions to attain 2010 targets

Clarify and finalise indicators

The final agreement of indicators should be done as a matter of priority, in consultation with partners who will also be involved in implementation towards meeting target.

Roll-out of ACTs to health facilities

Ideally this should happen as rapidly as possible. To facilitate implementation, the NMCP could take advantage of other partners working in different parts of the country to whom they could distribute ACTs.

Efforts should also be made to improve the financial administrative procedures for disbursement of expenditures to enable faster payments for drugs which will reduce delays in procurement and stock outs.

Address concerns related to the Free Treatment Policy

Detailed forecasts for the financial implications of the programme should be done utilising all available data as soon as possible, utilising partner support where useful. Based on the outcomes of this, health facilities should be compensated in advance for expected losses or support provided for alternative means for recouping funds. Effective monitoring and supervision systems will need to be in place to review the impact of the programme as well as to track any possible adverse effects on diagnosis (also see below on monitoring). It is also important to clarify how the policy will be implemented at the community level. Finally, as part of the intended monitoring plan of the programme, solid documentation of the programme experience will be useful as preparation for the introduction of further medicine to the free treatment package.

Strengthen capacity for diagnostics

The diagnostic capacity at the health facility level should be strengthened (see Diagnostics section).

Strengthen the system for monitoring and supervision

It is recognised that the HMIS is currently not operational and under review and so support should be given towards it becoming effective and integrated with other programmes. In many cases, data exists at the health facility level but it does not get passed up the system. Effective monitoring of confirmed/ presumptive cases will be increasingly important with the introduction of the Free Treatment Policy and the need to diagnose all patients before dispensing free treatment. Attempts should be made for the monitoring of the impact and effect of the Free Treatment Policy to be integrated with the routine HMIS system. Regular support supervision, with the aid of checklists, will assist in the collection of quality data and the monitoring of the implementation of the Free Treatment Policy. This will also help provide incentives for strong record keeping, as will feedback of the compiled data and (basic) analysis of the data back down the system.

Quality control of drugs and pharmacovigilance

A more effective systematic monitoring system will enable better tracking of drugs through the system and improved quantification. A system will also need to be developed which enables an effective quality control of drugs and laboratory supplies. The National Laboratory is well positioned to perform this role but as mentioned previously, it will need support for its capacity to be suitably strengthened. Enhanced supervision will also enable some monitoring of adherence to guidelines, although large scale post-training follow-up is also recommended once training on the new treatment policy and Free Treatment Programme have been completed, for which the private sector should have some involvement (see below). A pharmacovigilance system should also be developed for the use of Amodiaquine.

Proliferation of unregulated private sector

It is important that formal regulatory guidelines are developed, including clinic/ pharmacy registration, reporting and monitoring processes and that they are both enforced by the public sector and respected by the private sector. There must be continued coordination with the private sector to ensure that all NMCP policies and directives are adhered to and in order to raise the quality of medicines available in the private sector. An initial approach could be to explore which private sector facilities are registered or certified by the Ministry of Health and to make them aware of the national treatment policies. A further step could be to incorporate private health facility teams into training on the treatment guidelines, or pharmacists into information workshops on the laws and regulations around ACT use.

Technical Assistance is suggested in the following areas:

- Detailed forecasts for the financial implications of the Free Treatment programme and development of plans for managing those implications

Estimated days: 60 days (20 for briefing and situation analysis, 30 for wider consultation and review of implications and possible solutions, 10 for planning and developing in consultation with MoH a procedure for managing those implications)

- Evaluation of the role of the unregulated private sector in the treatment of malaria

Estimated days: 43 days (3 for initial briefings and development of methodology, 35 for the evaluation and 5 for feedback and establishment of next steps)

- Technical assistance could be provided in the development of a framework for the engagement of the private sector in the malaria control policy.
- Technical assistance could also be provided in the development of a system for the effective quality control of drugs and laboratory supplies, as well as the development of a pharmacovigilance system.

Table 17. Treatment funding needs to attain RBM 2010 targets (costs in USD)

Number and cost of malaria treatments	Age group	2008	2009	2010	2011	2012	2013	Total
Average cost per treatment*	5-11 mo.	0.9	0.9	0.9	0.9	0.9	0.9	-
	1-6 yr	1	1	1	1	1	1	-
	7-13 yr	1.2	1.2	1.2	1.2	1.2	1.2	-
	> 14 yr	1.8	1.8	1.8	1.8	1.8	1.8	-
	Total	-	-	-	-	-	-	-
Number of cases targeted for treatment	5-11 mo.	112,876	88,484	59,607	53,529	54,212	55,947	424,656
	1-6 yr	2,021,954	1,701,917	1,193,035	758,492	721,782	744,879	7,142,060
	7-13 yr	698,299	575,664	399,047	282,706	275,098	283,901	2,514,716
	> 14 yr	1,205,976	959,194	651,659	548,216	549,724	567,315	4,482,085
	Total	4,039,106	3,325,260	2,303,348	1,642,943	1,600,817	1,652,043	14,563,517
Available Resources*	All	0	0	0	0	0	0	0
FUNDING GAP	All	5,132,260	4,198,900	2,898,524	2,132,704	2,090,194	2,157,081	18,609,663
Total number of 1 ST line doses required		4,039,106	3,325,260	2,303,348	1,642,943	1,600,817	1,652,043	14,563,517
COMMODITY GAP - number of 1 ST line doses		4,039,106	3,325,260	2,303,348	1,642,943	1,600,817	1,652,043	14,563,517

* MoH will commit some funds for ACTs but proportion is not yet clear.

6. Cross-cutting issues

6.1. Epidemic/Emergency Control

a. Situation analysis

Over the past 6 years, a number of epidemics have been declared in the country, notably measles, whooping cough, monkey pox, cholera and Ebola. Each health district in Congo is affected at least on a semi-regular basis by at least one epidemic. Malaria is stable for all Congo's population, so no specific policy exists in relation to malaria epidemics, nor is malaria included in the Epidemic Response Policy document (for the period 2008-10). Flooding during the rainy seasons is relatively regular, although while this can increase malaria morbidity, these cases are addressed through the routine functioning of the public health service.

No sentinel sites currently exist, although the Strategic Plan specifies a target of 6 functional RBM sentinel sites for the surveillance of the effectiveness of malaria treatment by 2012.

6.2. Advocacy/BCC/IEC

a. Situation analysis

i. Policies, strategies and approaches

Communication and health promotion is covered by the Service for Information, Education and Communication. This is a 'service' or unit as opposed to department or programme within the MoH and therefore has less authority. No current communication strategy exists for either health generally or malaria specifically, although there are plans to conduct a situation analysis (primarily though a survey) which will inform the development of a health communications strategy, although this is currently awaiting funds. The previous communications strategy was written in 2002 and is no longer considered applicable. In the absence of an overarching strategy, implementation plans guide the yearly activity of the Service.

While not specified in the overall NMCP targets, the NMCP is aiming for at least 80% of community members to have acquired knowledge, attitudes and practices to prevent malaria in their communities and homes and seek appropriate care in cases of malaria by 2012. The NMCP expects the overall communications strategy to guide their approach towards achieving this target and to work with WHO, UNICEF and other partners to develop a more detailed plan involving various IEC, BCC and social mobilisation activities involving community-based organisations. The NMCP admits that communications is a weak area for the MoH generally, with a particular gap in experience in relation to BCC strategies.

Advocacy is also an area which is addressed little in both policies and plans and not really intentionally applied in practice. There are therefore no audiences identified as specific advocacy targets related to required aspects of 'change' to support the Strategic Plan. With little experience in advocacy, its potential has yet to be recognised.

ii. Financing

As with most NMCP activities, the planning of communications activities is done according to the budget allocated to the NMCP by the MoH and these funds are not always committed in full or may be delayed. Additional communications activities only take place when funds are available from partners and these may be more in line with the partner's areas of interest, rather than specifically in line with the NMCP's priorities. The existence of a MoH communications strategy and the specification of key activities will help guide partners towards specific areas of NMCP interest. Partner funding contributions do seem to be falling generally, however. The NMCP are not currently proactive in exploring funding opportunities to provide support in this area.

There is also weak support financially for advocacy activity. The only advocacy activity included in the budget is advocacy for the exemption of nets and insecticides from tax duties, although it is not expected that funds will be available to support this activity.

iii. Implementation status

Communication is acknowledged as an area of weakness within the NMCP, although its importance is increasingly being recognised. There does remain a significant gap between what is specified in the National Malaria Policy and Strategic Plan and what happens in practice.

The Service of Information, Education and Communication has been running since 2001 and is now 11 people strong, although it remains debilitated by lack of funds, operational support, equipment and skills. The Service is also not really active at the community level, with no focal people in any of the departments.

Despite arguably being the biggest public health problem within the country, no malaria-specific IEC materials have been produced over the past few years by the Service. However, some materials have been developed by partners relating to specific activities, such as small posters and flipchart materials to educate people about the recent new availability of free malaria treatment (funded in the main by UNICEF) and some leaflets to accompany small scale LLIN distributions. A commission for the review of all IEC materials, including those developed within the MoH and by partners, exists under the coordination of the SCAS department, although the commission has not met for the purpose of malaria materials in recent years because few new malaria materials have been developed. While the National Malaria Control Policy specifies the conduct of Knowledge Attitude and Practice (KAP) surveys to precede the development of IEC materials and activities, no KAP surveys have been done since 2000.

Community based and linked activities have been limited in recent years to those accompanying specific interventions, notably ITN distribution, and have generally been on a small scale. The NMCP is only becoming aware of these activities now the NGO network is in operation, indicating scope for mobilising the NGOs to fill specific gaps if IEC/BCC activities are given more support and priority. A programme to train health workers in IEC recently has been initiated by the Service, however, with the aim of training 2 health workers in IEC per CSS. The 2008 target is to train 14 trainers in the Brazzaville department who will then go on to train another 30. IEC will also be part of CHW training curriculum, which is currently under development, although there are no CHW training implementation plan currently in place or funds available to support it.

Malaria is included in Congo's public education curriculum. At primary level, malaria and health are covered in "Lessons des Choses" ("Lessons Learnt") and at secondary level, in "Science of the Life and Earth". The curriculum was last updated in 2004, which the NMCP was involved in (although copies of these curricula were not available). An international NGO (IPHD) also developed some specific educational materials for malaria in 2003/4 which are still used to schools today, although the NMCP was not sure to the extent.

There is no private sector network capacity building strategy in place in relation to communications. Any communication activities conducted by the private sector tend to be done independently, although these are likely to be small scale, centring principally on direct patient – provider consultation communication. There is a will among the NMCP to coordinate more with the private sector with regards to communications.

Advocacy has so far received little attention or fore-thought. Advocacy activities tend not to be coordinated by the NMCP, but usually related to key events and thus organised by the MoH, without necessarily the NMCP's involvement. The Head of State is involved in advocacy related to malaria, for example announcements in key media of the importance of free malaria treatment and the use of ITNs and the need for partners to lend their support. There is not normally sufficient planning in order to maximise benefits. Beyond the President, there are no noteworthy opinion leaders, 'champions' or celebrities involved in raising the profile of malaria. Coordination seems to be more the main issue here.

Health and administrative authorities at provincial level are only involved in advocacy on a small scale, such as district ceremonies to raise the visibility of malaria around World Malaria Day. These activities are not normally coordinated centrally. It is possible the NGOs may be implementing advocacy activities at more local levels and if so NMCP awareness and coordination in these are likely to increase now the NGO network is operational.

There is no specific coordinating mechanism between the NMCP and partners in relation to advocacy needs and activities. The only available forum is the national malaria Task Force meetings, which rarely take place now the task force is relatively non-functional. The media have been interested and involved in malaria activities and information is disseminated through newspapers, radio spots and television programmes, although this is normally led by the Communications Department, although the NMCP does sometimes liaise with the media directly depending on the level of profile of the media piece. Newsletters or websites have not been explored as a means of raising funds or support.

b. Gaps and requirements

i. Key bottlenecks and challenges

Listed below are key challenges currently faced but which will also affect rapid scale up.

Lack of guidance and direction in the area of communications and advocacy

The absence of an agreed communications plan or strategy relating specifically to malaria, to include key messages, approaches and audiences relating to the range of implementation activities, advocacy targets and strategies to support the overall aims of the Strategic Plan and the how this relates to the overall MoH strategy, has prevented the prioritisation of communications and advocacy within the NMCP and a coordinated involvement of partner activity.

Financial resources and general capacity

Material production, dissemination and testing (pre and post) are limited by the availability of financial resources. The infrastructure of the working environment presents a significant obstacle – the Service has just one computer for 13 staff members, for example. At the provincial level, advocating for funds or donor support for local activities is a recognised responsibility, although there is little clarity on the best ways to do this. While there are plans to build the capacity of health staff in the area of communications further down the health system, there are as yet no specific communications focal points at the provincial/ CSS level. The Service and NMCP also recognise that BCC is a weak area.

Leadership, coordination and clarification of roles

There is a problem in the coordination of both communication and advocacy activities between the different health and administrative authorities, at different levels of the health system, and with partners. The development of IEC materials is centrally coordinated and overseen by the Service, however the Service sees the testing and evaluation of the tools as the NMCP's role and thus they have little knowledge as to whether their tools are effective. There is no formal system to encourage or facilitate the sharing of experiences, tools and materials across different programmes or departments within the MoH, which as well as building capacity and no doubt raising the quality of work, could also reduce costs. There is also no clear leadership which would also ensure all communications and advocacy activities are in support of the National Malaria Strategic Plan. Currently, coordination only happens informally or in relation to specific events, although it is recognised that the lack of communication and advocacy activity also prevents the development of such systems.

ii. Proposed solutions to attain 2010 targets

Ensure communications activities are guided by an agreed strategy and implementation plan

While a communications strategy is being planned by the Service, it is critical that it addresses malaria specifically, as well as in the context of health more generally. The strategy will need to agree key messages applicable across a range of interventions, outline a range of approaches appropriate to various activities and

audiences and specify the roles of different departments, levels of the health system and partners. Communication indicators (impact and activity) will also need to be defined in order to monitor progress. The plan should include ongoing operational research, such as in connection to the pre- and post-test of materials, to identify whether different approaches are needed for different audiences and the need for adaptations. There should also be a training and capacity building element to the strategy.

Develop an advocacy plan

The NMCP should prepare a plan for advocacy and outline specific activities and contacts that need to be made in order for advocacy to be effective. The following should be included as advocacy priorities:

- *Advocate with government for the lifting of taxes and tariffs* on imported goods for malaria control – and complement this with advocating for the removal of procedures which are causing unnecessarily long time delays in goods leaving clearing port
- *Advocate for the importance of routine data collection* against agreed indicators and that partners also report related key outputs to the NMCP/ local Task Forces (see below)
- *Advocate with partners (i.e. MSF)* for them to ensure any primary health care package inherently includes the malaria package to ensure integration of activities and MoH ownership
- *Advocate for training* in use of malaria package to be integrated with training/refresher training in the other components of primary health care in order to reduce risk of programme verticalisation
- *Advocate and support central and intermediary levels to dynamise their Task Forces (see below)* in order for these to become functional decision making bodies moving interventions forward at the appropriate level; ensuring partner (in particular) attendance is with organisational representatives at that level
- *Provide guidance/training to intermediary level in how to mobilise resources* based on provincial plans of action
- *Advocate for the importance of effective systems to regulate the private sector*, including criteria for licences, reporting procedures, supervision mechanisms and areas of public-private coordination such as relating to training and referral

Provision of financial resources

Effective planning will facilitate the allocation of further funds as it will give heightened priority to communications and advocacy work and identify clear areas for donor support. Communications should be an integral part of all malaria control activities and should be planned and budgeted as such.

Develop forums and systems for more effective coordination

Effective coordination is required within the MoH, with the NMCP taking a leadership role in all malaria-related communications and advocacy activities. A NMCP mandate for leadership role will also allow a faster development of capacity. The NMCP needs to be proactive in coordinating and mobilizing partners in relation to communication and advocacy activities, and the Task Force should be re-established to provide such a mechanism. In terms of advocacy, the NMCP should identify a few high impact activities at opportune moments for which to plan effectively in coordination with other MoH departments and partners, particularly as experience is being built. It will also be important to engage the private sector. Qualified individuals as focal points for communications and/or advocacy should be appointed in each province. Specific malaria task forces could also be developed at the district level to enable more effective coordination of all local level communications and advocacy activities, including among partners, in line with central strategies and plans.

Technical Assistance is suggested in the following areas:

- The development of an advocacy plan

Estimated days: 45 days (15 days for related situation analysis and needs assessment, 10 for support to exchange visits to other counties to share experience in advocacy to support malaria control targets, 20 for the development of an advocacy plan in coordination with NMCP).

Technical assistance could also be explored to build capacity generally, or in connection to a specific planned intervention or activity, in the area of BCC.

Table 18. Advocacy, IEC / BCC funding needs (costs in USD)

	2008	2009	2010	2011	2012	2013	Total
Costs for planned advocacy activities	117	117	117	117	117	117	704
Costs for planned BCC/IEC activities	152,406	152,406	152,406	152,406	152,406	152,406	914,435
Additional funds for advocacy activities**	70,000	40,000	40,000	40,000	40,000	40,000	270,000
Additional funds for BCC/IEC activities	500,000	500,000	500,000	500,000	500,000	500,000	3,000,000
Total estimated costs	722,523	692,523	692,523	692,523	692,523	692,523	4,185,139
Available resources for advocacy	0	0	0	0	0	0	0
Available resources for BCC/IEC	0	0	0	0	0	0	0
Total available resources	0	0	0	0	0	0	0
FUNDING GAP – advocacy	70,117	40,117	40,117	40,117	40,117	40,117	270,704
FUNDING GAP – BCC/IEC	652,406	652,406	652,406	652,406	652,406	652,406	3,914,435
TOTAL FUNDING GAP	722,523	692,523	692,523	692,523	692,523	692,523	4,185,139

*Planned activities are minimal (particularly for advocacy) partly because of low availability of funds. Costs are specified in the Strategic Plan budget as applicable to the five year period and so have been split evenly across each year.

**Development of advocacy plan and resultant activities, including exchange visit.

***BCC/IEC an integral part of all interventions.

**** MoH will commit some funds for advocacy and BCC/IEC but proportion is not yet clear.

6.3. Surveillance, Monitoring and Evaluation & Operational research

a. Situation analysis

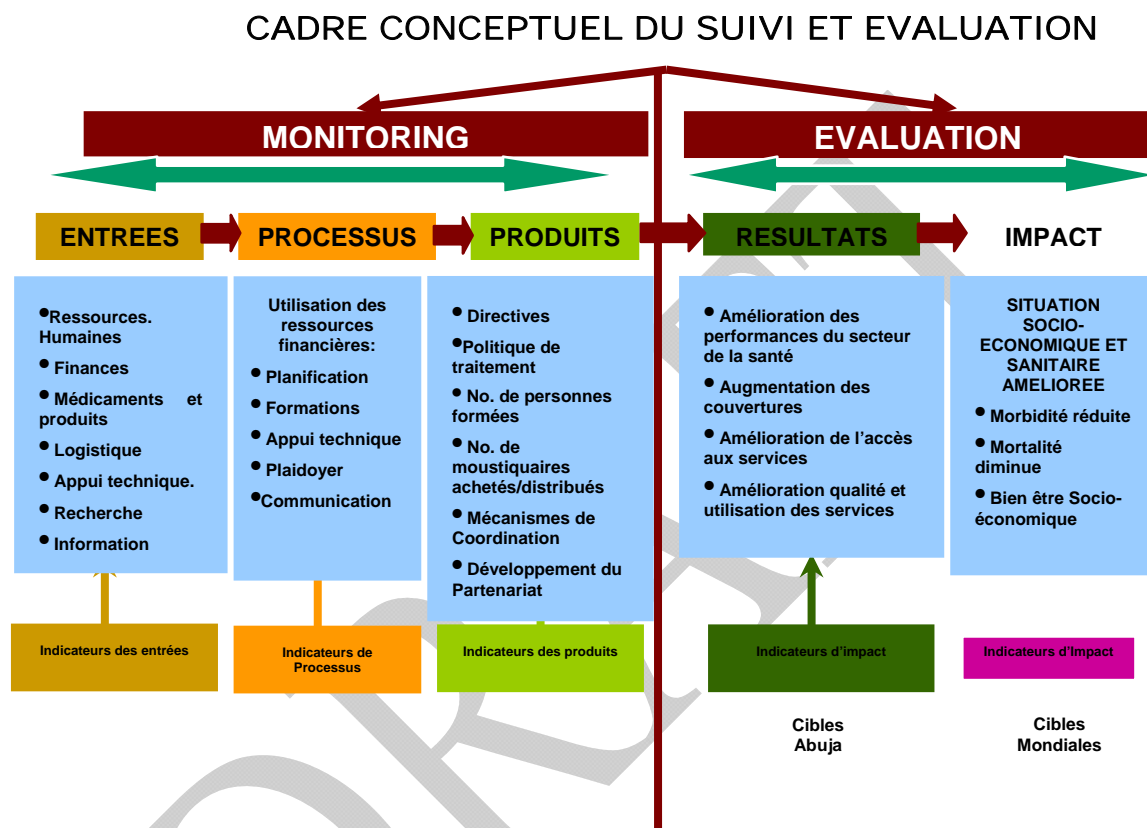
i. *Policies, strategies and approaches*

There is no formally agreed, independent M&E plan. This is currently included as part of the National Malaria Strategic Plan which covers the period 2008-12. There are plans to develop a specific M&E strategy, however.

The objectives of the M&E strategy as outlined in the Strategic Plan are (1) for at least 90% of CSS and sentinel sites to collect, process, analyse data and use the information for decision-making, (2) the rate of completeness and timeliness of M&E reports to at reach least 80%, and (3) CSS' to receive 100% information from CSIs to be sent to the next level, all to be achieved by 2012. The indicators relating to M&E as outlined in the list of indicators are complimentary but differ slightly (included towards the beginning of this report). They include a 90% completion rate for M&E reports, including epidemiological surveillance reports by, and 6 RBM sentinel sites for the surveillance of the effectiveness of malaria treatment to be functional by 2012.

The strategies by which the objectives will be achieved are principally the development of a single system for monitoring programme performance and evaluating results and impact, the timeliness of M&E reports and the transfer and feedback of information between the central, departmental, CSS and community and levels. During the 5-year plan period, particular emphasis will be placed on the introduction of the concept of the "Three Ones" - one strategic plan/operational plan, one coordinating authority and one M&E plan. The conceptual M&E framework of the NMCP is included in a diagram below.

Figure 1: The conceptual M&E framework of the NMCP



To ensure the successful implementation of the M&E plan, data is required from a number of sources.

- The HMIS for data on morbidity, mortality and CSI activities
- The bi-annual monitoring reports of health centres and hospitals
- The Epidemiological Surveillance System
- The sentinel sites, responsible for collecting data on morbidity, mortality, anti-malarial drug efficacy, vector resistance to insecticides and quality control of malaria diagnosis
- Surveys carried out in collaboration with partners i.e. DHS, MICS
- The results of operational research (conducted by the NMCP, universities and other research institutions)

To enable analysis and use of the data, there are plans to introduce within the first year of the 5 year plan period, a database to facilitate the compilation, analysis and review of progress against the NMCP's indicators. Current plans are for the Epidemiological Surveillance Unit and staff with statistics experience at the NMCP to be responsible for managing the database and produce quarterly, bi-annually and annual reports.

Support supervision visits are planned to be carried out once every quarter by the NMCP and on a monthly

basis by the CSS officer. Local health committees also exist to communicate the health needs of the communities and challenges in service delivery as perceived by the users. CSIs meet with the health committees every quarter.

So far, operational research has included studies relating to resistance to anti-malarial drugs and one small scale KAP study conducted in 2000, although it is clear that the NMCP wish to give more emphasis to this area. Suggested operational research studies listed in the Strategic Plan budget include a study reviewing the efficacy of IPT among pregnant women, the Malaria Indicator Survey and health facility surveys.

ii. Financing

M&E and operational research are included in the Strategic Plan budget. Funds have not so far been available for implementation. For the five year period, the budget for operational research totals EUR509,238 (US\$784,227) and for M&E, EUR141,589 (US\$218,047). The M&E budget is perhaps significantly less than what it should be.

iii. Implementation status

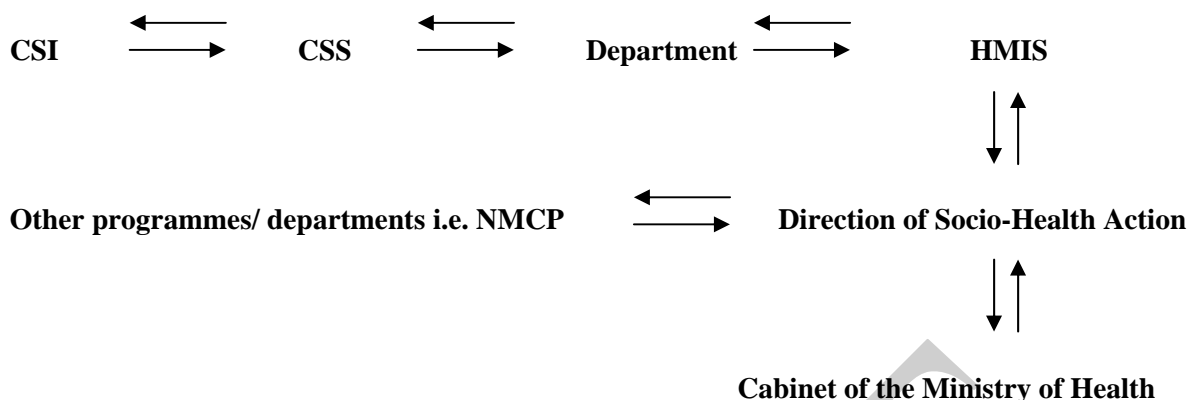
As things currently stand, the NMCP is not adequately equipped to either effectively monitor or evaluate malaria control improvements over the years or track current progress towards its 2012 targets.

As already discussed in relation to specific interventions, some clarity is needed in relation to some of the indicators and little baseline data is available to enable a better understanding of the gap remaining between current status and target. Where available, baseline data has been taken from the DHS (most recent being 2005) and the ECOM (most recent being 2004). Neither a MIS nor a MICS have so far been conducted in Congo.

The capacity of the NMCP in implement an effective M&E system is weak. There is insufficient access to and availability of equipment necessary to support a functioning M&E system. At the central level, there is one computer allocated for the 13 staff members of the NMCP, one operating printer, one (semi-operating) photocopier, and no access to the internet. No central database/server exists which allows departments to share information. The NMCP also has no databases, although one is planned, but has not been initiated and enabling funds are not in place. The infrastructure of the working environment is even more challenging further down the system. To some extent, the skilled personnel are available (at least at the central level) but they are hampered by lack of enabling resources, materials, support, funds and consequently lack motivation. The staff are also not benefiting from further training or practical experience. There are 4 MFP located at the district level, but they are varied in their level of skills and experience and also lack resources and motivation.

Strictly speaking, the HMIS is not operational. Figure 2 provides an overview of the M&E data collection and feedback mechanisms for the MoH and NMCP, as is currently intended. In practice, however, there are few 'points forts' (strengths) within the system which would facilitate the communication of accurate, reliable and quality data relating to actual implementation. Data appears to be available at the CSI and some CSS levels, but this data does not get transferred up the system, resulting in significant gaps in data at the central level. This has had the effect of creating a number of parallel data collection systems, as different MoH departments have developed their own monitoring and surveillance systems specific to their needs, although few are operating at a useful quality. The data currently collected and used 'routinely' by the NMCP is irregular data from the HMIS, data collected by the Epidemics and Emergencies Department (only morbidity and mortality cases) and data collected directly by NMCP through surveys from the field (although these are few due to resource constraints). The HMIS is currently being revised, although no details on process or expected outcome of this were available.

Figure 2: Overview of M&E data collection and reporting system and feedback mechanisms for MoH and NMCP, as is currently intended



Support supervision used to be integrated but lately have become specific and relative to the programme which is financing the supervision. NMCP support supervision is in practice done irregularly, depending on funding availability. The NMCP does not have a supervisory check list. Monthly support supervision by the CSS officer level is dependent on funds at the CSI level which funds the visit. It is understood that these visits are integrated and a support supervision check list is available. However, no documents exist to define the minimum standards and norms for CSIs, which makes inspection based on perception rather than established norms.

b. Gaps and requirements

i. Key bottlenecks and challenges

Listed below are key challenges currently faced but which will also affect rapid scale up.

Clarity on indicators

This has already been discussed in relation to specific interventions.

Lack of effective data collection system

This is the most significant obstacle to the effective implementation of the M&E plan and tracking progress towards 2012 targets. Even where data is collected, there is no system in place to control the quality of such data. It is important that the NMCP are clear on priority areas of M&E work to enable tracking of progress towards 2012 targets, including ongoing routine data collection and information needed to plan and evaluate key activities, and how this data can be collected in cost effective ways.

Coordination and information exchange

Coordination around M&E and information exchange of data between MoH departments does not currently happen on a systematic basis. In a relatively new initiative introduced by the new Minister of Health, the different heads of the programmes (DLM level and NMCP level) meet monthly to update on and discuss the programmes, and as part of this may data highlights such as new results from any surveys or studies. While welcome, what is urgently needed is a regular, transparent, effective and quality system of data collection and dissemination across the different levels of the health system and between departments. Lack of personal accountability and clear assignment of roles within and between departments also acts as a disincentive to the sharing of data.

Regular and systematic feedback of data back down the system and to partners is also an issue and will no doubt affect the quality of the data collected and motivation to do so. While rare, even specific evaluations in relation to interventions are not generally disseminated or discussed. There is an annual meeting at the central MOH which involves selected staff from the departments and which provides a forum for reporting, sharing

experiences, review, planning and the provision of feedback, but again, there is a need for a more systematic feedback system. There is also no system at the central or local levels through which partners can report key output data relating to their own projects, also necessary for tracking progress towards targets.

Lack of clear operational research plan

Some operational research priorities have been identified but there is no schedule available which is closely related to implementation plans and priorities to enable a case for support to be made internally within the MoH or to facilitate requests to partners.

ii. Proposed solutions to attain 2010 targets

Clarity on indicators

More work remains to finalise the indicators and the specific targets. On completion, it would be useful if these were listed in a simple table which is easily accessible and can be used to guide donors and partners on what the NMCP wants to be measured.

The development of an effective data collection and dissemination system and agreement on roles

Priority should be given to supporting the review and subsequent implementation of the HMIS. It is critical that the HMIS review involves all programmes and departments who will utilise the data to monitor their performance. Once operational, while the HMIS department will take responsibility for the collection and dissemination of data, it is important that the NMCP takes final responsibility for the ensuring receipt of all key data to enable tracking against agreed indicators. One individual within the programme should be tasked with oversight of this. It will also be important to establish and communicate with partners which indicators can be collected by HMIS and which will need evaluation studies. This could be outlined in a simple, one page document.

Regular support supervision, with the aid of checklists, will assist in the collection of quality data. This will also help provide incentives for strong record keeping, as will feedback of the compiled data and (basic) analysis of the data back down the system. The development of a specific NMCP database to enable storage, compilation and analysis of data (including data from partners) to inform progress against 2012 targets and the planning and evaluation of specific interventions is also a priority. It is suggested that the database be used to produce quarterly reports on progress against all indicators and be used as a basis for discussion internally and with partners. Emphasis should also be placed on conducting mid-term and final reviews at an appropriate scale of all strategic and implementation plans.

Reporting systems should also be developed to facilitate partners' reporting of programmatic output data. A system should be developed, perhaps mirroring the format of the database, to allow partners to report key output data to the NMCP on a regular basis. Regular meetings are also suggested at district level to ensure the MoH remains up to date on partner activities and related opportunities, as well as the results of any studies or evaluations conducted.

Develop a clear operational research plan

The development of an implementation plan for the programme and clarity on indicators and M&E priorities will facilitate the development of an operational research schedule. It is important that operational research is attached to priority interventions as part of the scale up and conducted at a scale no larger than at which it is required.

As is already outlined in the Strategic Plan, it will be important to explore research partnerships with a range of partners, research institutions and sub-regional institutions (such as the Network of Central Africa for Monitoring the Treatment of Malaria (RACTAP)).

Some suggested operational research priorities include:

- Malaria Indicator Survey (already planned)
- LLIN tracking and usage

- Insecticide resistance monitoring
- Improving quality of care
- Diagnostics – compliance
- Treatment seeking behaviour – impact of Free Treatment Policy and following introduction of CHWs
- Ongoing drug efficacy monitoring

Technical Assistance is suggested in the following areas:

- Acquire clarification on indicators

Estimated days: 4 days (meetings with the NMCP and partners to acquire background to the development of the indicators, monitoring needs and agreement of final indicators and targets)

- The development of a NMCP database to track progress against all NMCP indicators

Estimated days: 29 days (4 days to establish database needs and current capacity for its development and use, 10 days for its development, 5 days for review and adjustments, 10 days for training of a cadre of trainers)

- Technical assistance could also be explored for the review and implementation of the HMIS
- Technical assistance could also be required for the development of an operational research plan, the conduct of various operational research studies and the use of results to inform strategy and planning for further phases of interventions.

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Table 19. Surveillance, monitoring & evaluation and operational Research funding needs (costs in USD)

Monitoring and evaluation needs	2008	2009	2010	2011	2012	2013	Total
Routine surveillance	40,000	40,000	40,000	40,000	40,000	40,000	240,000
Routine Logistics Monitoring	40,000	40,000	40,000	40,000	40,000	40,000	240,000
Supervision for above and data utilization	25,000	25,000	25,000	25,000	25,000	25,000	150,000
Meetings for decision making and review	30,000	20,000	20,000	20,000	20,000	20,000	130,000
Drug efficacy monitoring *	90,000	90,000	90,000	90,000	90,000	90,000	540,000
Insecticide resistance monitoring **	0	26,924	26,924	26,924	26,924	26,924	134,619
MIS survey	0	400,000	0	0	0	0	400,000
Pharmacovigilance ***	150,000	50,000	50,000	50,000	50,000	50,000	400,000
LLIN tracking surveys ****	0	12,000	6,000	6,000	12,000	6,000	42,000
KAP impact assessment		50,000	0	0	50,000	0	100,000
IRS quality assurance *****	0	30,000	0	30,000	0	30,000	90,000
Strengthening capacity to enforce regulations*****	45,000	5,000	10,000	5,000	5,000	5,000	75,000
Equipment (computers, GPS, PDAs etc)	100,000	10,000	10,000	10,000	10,000	10,000	150,000
Operational research*****	130,705	130,705	130,705	130,705	130,705	130,705	784,227
Other studies*****	78,000	20,000	20,000	20,000	20,000	20,000	178,000
Other costs (i.e. reports)	8,000	8,000	8,000	8,000	8,000	8,000	48,000
Total estimated costs	736,705	957,628	476,628	501,628	527,628	501,628	3,701,846
Available resources*****	0	0	0	0	0	0	0
FUNDING GAP	736,705	957,628	476,628	501,628	527,628	501,628	3,701,846

* 3 sites (at least initially), at a cost of \$30,000 per site per year.

** Costs taken from Strategic Plan budget.

*** Start-up cost is expected at around three times the recurrent costs once system is in place.

**** Estimated cost of \$6,000 per survey. Increased emphasis after mass campaigns.

***** If intervention takes place, IRS quality assurance, spray operator performance, bioassays, knockdowns, window traps etc costed at \$30,000 per year.

***** Includes cost of development of database in 2008

***** Total cost taken from Strategic Plan budget and split by year.

***** Including audit of the laboratory and diagnostics capacity of the health system and evaluation of the role of the unregulated private sector in the treatment of malaria in year one, plus small contingency for other studies (both considered operational research).
 ***** MoH will commit some funds for operational research and M&E but proportion is not yet clear.

7. Programme Management and Health Systems

7.1. Programme Management and Health Systems

a. Situation analysis

i. The NMCP's mandated role, decision-making authority and management.

The national malaria control project, previously housed within the Direction Générale de la Santé (DGS), became an operational independent programme in 1985. The National Malaria Control Programme is now housed within the Direction de la Lutte contre la Maladie. (DLM). Figure 3 shows the location of the NMCP within the MoH. Like all other programmes, the NMCP is a vertical programme maintaining relatively little collaboration with other programmes and health strategies. Yet because of the extent of its burden in Congo, malaria is consistently given prominence in health and development strategies and plans.

As outlined in the Strategic Plan, the NMCP is mandated with the coordination of malaria control activities at the national level and more specifically:

- The design and development of the national policy and strategic plans
- The development and dissemination of tools for implementation (guidelines, plans for deployment of inputs, supervision, monitoring and evaluation)
- The monitoring of implementation activities
- The organization of training and supervision activities
- The organization of annual meetings to review progress in malaria control activities

There are 13 members of the NMCP across the health system. As outlined in the Strategic plan, at the central level personnel include:

- A National Coordinator responsible for guidance, planning and monitoring activities and who reports to the Head of the DLM
- Deputy National Coordinator responsible for providing support to the activities of the National Coordinator
- An official in charge of training / retraining and supervision / monitoring and evaluation
- An official in charge of epidemiological surveillance and statistics
- An official in charge of preventive actions
- An official in charge of the IEC
- An official in charge of research
- An official in charge of logistics
- An official in charge of administration and relations with partners in health development

At the intermediate level, there are also 4 Malarial Focal People (MFPs) although activities are integrated and are under the responsibility of Departmental directorates. The NMCP therefore has little input with regards to identifying priority areas of work for the MFPs in line with the Strategic Plan.

In the peripheral level, CSS' have a key role in the implementation of key activities, including:

- Micro planning for the scale-up of interventions
- Organization of cascade training for health providers at the facility and community levels in collaboration with departments and the NMCP
- Organization of monthly support supervision visits
- Establishment of a multi-sectoral framework to support activities

The NMCP, as with the majority if not all other programmes, has not been granted financial autonomy and therefore does not manage its own budget. At the beginning of the year, the NMCP receives a total budget commitment, from which some proportion of funds follows later for implementation. A report on expenditure is received at the end of the financial year.

The mandate for law enforcement in relation to all activities including malaria implemented by all partners, including the private sector, lies with the Action General de la Santé.

ii. NMCP enabling environment

There is insufficient access to the office space, equipment and communication networks which significantly limits the operation of the NMCP. The NMCP at central level is housed in 3 rooms – a personal office for the National Coordinator and two rooms for the remaining staff members. In terms of equipment, the NMCP has been allocated one computer, one semi-functioning photocopier and one printer. There is no access to the internet. The programme has access to just one vehicle. Transportation is seen as a major impediment to the scale up of activities at all levels of the health system. Allowances and per diems are seen as insufficient to enable NMCP staff members to carry out their tasks. The availability of resources and equipment at the intermediary level is also weak.

iii. Planning, monitoring and evaluation within NMCP

As has been discussed elsewhere, the NMCP is hampered in its capacity to adequately forecast its needs, largely due to the status of the current data provided by HMIS, which is unreliable in regularity, coverage and quality. Planning for the implementation of activities only generally takes place at central level and the capacity for this is weak because of the fragmentation of the health system and the insufficient coordination with other departments involved in implementation. A stronger leadership role is required by the NMCP. The Programme has clearly defined goals and objectives, but more clarity is required in relation to the indicators and targets. While yearly operational plans are developed, it is important they are comprehensive in relation to all interventions, as well as the roles and responsibilities of all programmes and other stakeholders involved in delivery. The NMCP does have the capacity to plan and forecast financial resource needs but the fact that the entirety of funds allocated are not usually committed and that it does not have autonomy of the budget is a constraint for both planning and monitoring spend. The NMCP is aware that it does not currently have the capacity to scale-up malaria control efforts. While the NMCP could explore contracting out some components of its programme, it is critical that its leadership role and capacity for planning and implementation is strengthened alongside.

iv. Internal linkages and coordination within Ministry of Health

Internal linkages within the MOH tend to operate on an informal basis and there is recognition that the lack of systematic and effective coordination hampers the planning, implementation and evaluation of many of the programmes, including the NMCP. There are signs that this is improving with the arrival of the new Minister of Health in April 2007 committed to the development of systems for more effective working although significant work remains in order to agree, and provide incentives for the sustainability of, regular communication channels and information sharing networks and to achieve clarity around the roles and responsibilities of the different units and programmes. There is also a weakness in the coordination with related government sectors, such as urban planning, water and sanitation.

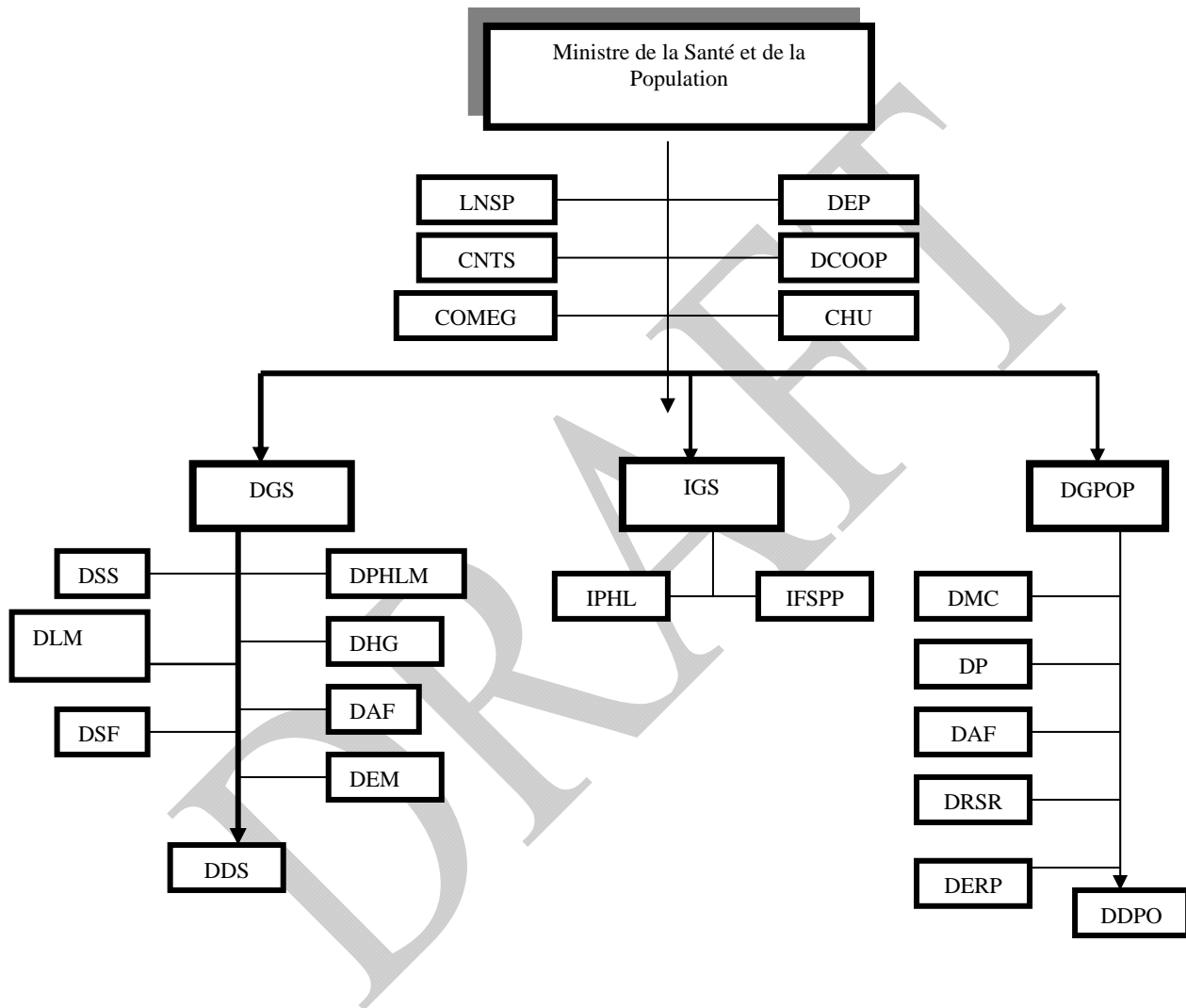
v. Co-ordination and main roles of RBM partners at national and sub national levels

There are really only two RBM partners – UNICEF and WHO. There is generally little effective coordination of partners and partners receive little guidance from the NMCP. Instead, partners tend to suggest activity ideas in line with their own priorities which, while not necessarily conflicting many not be NMCP priorities, are usually accepted. The specific roles of the RBM partners are outlined in Table 20. The Ministry is however moving toward a Sector Wide Approach (SWAp) in January 2009 which will allow pooled resources from the

World Bank and other bilaterals and yearly joint evaluations on performance. How this will affect the NMCP is not yet clear.

While formed some time ago, there is now no functioning national Task Force for malaria. There is a national NGO network for malaria which was formed about two years ago which is beginning to operate relatively well and allows a forum for the government to request support and monitor activity. The network mainly consists of small, national NGOs who implement local activities on a small scale. There is generally no coordination of malaria control activities at the intermediary and peripheral levels of the health system.

Figure 3: Organogram of the MoH. The NMCP is located within the DLM (highlighted).



Légende :

- LNSP = Laboratoire National de Santé Publique
- CNTS = Centre National de Transfusion Sanguine
- COMEG = Congolaise des Médicaments Essentiels et Génériques
- DEP = Direction des Etudes et de la Planification
- DCOOP = Direction de la Coopération
- CHU = Centre Hospitalier et Universitaire
- DGS = Direction Générale de la Santé
- DSS = Direction des Services Sanitaires
- DLM = Direction de la Lutte contre la Maladie
- DSF = Direction de la Santé de la Famille
- DPHLM = Direction des Pharmacies, Laboratoires et du Médicament
- DHG = Direction de l'Hygiène Générale
- DAF = Direction de l'Administration et des Finances
- DEM = Direction de l'Équipement et de la Maintenance
- DDS = Direction Départementale de la Santé
- IGS = Inspection Générale de la Santé
- IPHL = Inspection des Pharmacies et Laboratoires
- IFSPP = Inspection des Formations Sanitaires Publiques et Privées
- DGPOP = Direction Générale de la Population
- DMC = Direction de Migration et des Catastrophes
- DP = Direction de la Prospective
- DAF = Direction de l'Administration et des Finances
- DRSR = Direction de la Recherche en Santé de la Reproduction
- DERP = Direction des Etudes, de la Recherche et de la Planification
- DDPOP = Direction Départementale de la Population

b. Gaps and requirements to allow NMCP to perform its role

i. Key bottlenecks and challenges

Listed below are key challenges currently faced but which will also affect rapid scale up.

Vision and leadership of NMCP

Currently the policy and strategic plan outline approaches in relation to all interventions with little discussion as to the route to scale up for impact and therefore the prioritisation of interventions and alignment of available resources.

Basic office equipment and improved office environment

The lack of equipment, office space and supportive working environment significantly hampers productivity and reduces motivation among staff. The programme also requires the use of more vehicles to support its work.

Inadequate human resources in quantity and quality

In practice, at the central level, the NMCP suffers from insufficient personnel in terms of number as well as limited management and in some areas, insufficient technical skills and experience. The MFPs at the intermediary level are mainly health technicians who have received no specialist training in malaria, as well as little on-the-job training and ongoing technical support. As a result of an enhanced emphasis on policies and plans over implementation in recent years, and because of the fragmented nature of the MoH and the tendency to 'outsource' operational activities, many of the NMCP staff also have only limited experience in the implementation of malaria control interventions. Logistics capacity is therefore also weak. In practice, there are also no job descriptions to enable clarity of roles and responsibilities and to facilitate the recruitment of suitable personnel in line with strategic priorities. The NMCP is not usually involved in the recruitment of NMCP personnel as this is normally carried out by the Ministry of Public Works who may not be familiar with NMCP skills gaps and strategic direction. The shortage of technically trained malaria professionals able to implement and manage key activities is reflected at all levels of the health system, with the central level also inequipped to provide adequate technical support to the departmental level. The low number of daily working hours (intended as 7am – 2pm) also reduces the capacity of staff across the public sector.

Lack of data

The absence of baseline and routine data will continue to pose a real challenge to the planning, implementation and evaluation of activities, particularly as activities are scaled up.

Lack of financial autonomy of the NMCP and availability of funds

The lack of financial autonomy reduces the capacity of the NMCP to make decisions around strategy and implementation, to develop realistic proposals for external funding applications and take an overall leadership role. Because a report on expenditure is received at the end of the financial year, tracking of spend is difficult. Specific requests for additional funds from the MoH during the year are also not usually granted.

Communication with intermediary level

In general, there is little communication across different layers of the health system and between different programmes at the central MoH.

Insufficient number of partners

Very few RBM partners are currently supporting the NMCP - at the national level, only UNICEF and WHO. Little is known about the NGO activity at department levels, although there is more coordination around this now the National NGO network for malaria has been established.

ii. Proposed solutions

Emphasise implementation plan for scale-up for impact

An implementation plan must emphasise the prioritisation of interventions and alignment of available resources. For example, the prioritisation of a mass LLIN campaign is likely to be relatively cost effective in comparison with IRS and achieve high impact at this point. A broad approach to malaria control must also be taken, thereby giving sufficient weight to aspects such as behaviour, rather than focusing on enhancing service delivery. It will also be important to conduct evaluations (mid term and final) of strategic plans to review progress against targets and cost.

Improve basic office equipment and office environment

Necessary office equipment such as computers, faxes, printers and photocopiers would facilitate communication and day to day work of the programme. Key items will need to be purchased, donated or arrangements for sharing agreed with other programmes. There is also a need for more vehicles to support the day to day activities of the programme, communication and enhanced involvement in field activities.

Train or recruit to increase programme capacity

There is a particular need to increase the capacity of the programme in the areas of logistics, M&E, IEC and BCC, operational research. At least 1 entomologist is also required to strengthen the preventive side of the programme, especially with regards to monitoring and evaluation of LLIN distribution and insecticide resistance. The programme could also benefit from a management consultancy on direction, leadership, teamwork and integration. Partner support and capacity building is also required in the area of planning for implementation. Where possible, MFPs should also be identified within each district. Technical management lines for the MFPs to the NMCP could also be explored, alongside personnel management lines to the Head of District. Job descriptions should also be developed for all current staff and positions required. The NMCP should also advocate for its involvement in the recruitment process for all NMCP staff.

Development of an effective data collection and dissemination system

This has been covered in the section on Surveillance, M&E and Operational Research.

Advocate for the enhanced financial autonomy of programmes

The NMCP could join up with other programmes to advocate for more autonomy of their budgets to allow more control of spend and capacity for planning and strategy. This may also allow other departments to report to the NMCP which will enable more leadership. Enhanced financial autonomy will also support the NMCP's capacity to develop proposals for external grants.

Improve systems to improve communication with intermediary level

A clear implementation plan which clearly defines roles and responsibilities across the health system and the improvement in various systems, including relating to data, coordination and management, should improve the communication with the intermediary level.

Acquire more RBM partners and revitalise Task Force

On completion of the implementation plan, the NMCP should proactively seek the support of additional partners for implementation support in scale up and to acquire a wider funding base. Priority should also be given to the revitalisation of the National Malaria Task Force to coordinate and guide partner activity. If Global Fund money is acquired, the Global Fund Country Coordinating Mechanism will also need to report to this Task Force.

Technical Assistance is suggested in the following areas:

- Technical assistance could be useful in the development of an implementation plan for scale-up for impact.

Table 20. RBM partners, roles and coverage/implementation capacity and support needs

Partner	Role	Coverage/implementation capacity	Support needs
UNICEF-Congo	Donor, technical and implementation support	National level	None
WHO-Congo	Donor, technical and implementation support	National level	None

Figure 4: Partnership coordination mechanism

NB There are also a number of key partners who support the health system generally and thereby also the malaria control programme (for example PSI, MSF, ICRC, ASF) although they are not considered RBM partners given there is no direct support to malaria specifically.

7.2. Supply management

a. Situation analysis

i. Ministry of Health supply management systems

All laboratory supplies and drug for the public sector, including ACTs, are procured by the DPHLM (Direction General de Pharmacie, Laboratoire et Medicament). Drugs orders are requested monthly from individual CSIs, aggregated at CSS levels and forwarded to the central level. Normally drugs are funded by the individual CSIs but malaria drugs are now being subsidized by the central government with the introduction of the new Free Treatment Policy.

COMÉQ has been designated the principal supplier for the Free Treatment Programme and drugs will be purchased from WHO qualified suppliers. There is one national warehouse for public sector drug supplies which is located at COMÉQ. The capacity is just 200m², which is insufficient given expected rise in drug quantities. From here the drugs are distributed to the 12 provincial stores. The drugs are then collected by CSS/ CSIs directly. There are no usually no buffer stocks of ACTs in national or district stores.

The procurement and management of LLINs has been discussed in the ITNs section

ii. Civil society and private sector supply management systems

Drug importation to the private sector is on a much large scale and is controlled by 6 importers: Laborex, SEP, Coophraco, Saipharma, Beta Pharma and Zenupha. A small number of NGOs and religious organizations such as UNICEF, CARITAS, the Salvation Army and Red Cross also import drugs directly, although only UNICEF has been involved in importing ACTs for public sector use.

b. Gaps and requirements to allow NMCP to perform its role

i. Key bottlenecks and challenges

Listed below are key challenges currently faced but which will also affect rapid scale up.

National supply management system not fully functional or supported

As has been discussed in the Treatment section, financial administrative procedures for disbursement of expenditures are cumbersome which lead to significant and frequent delays in payment for drugs by the government to COMÉQ which is already having a significant impact on the distribution of drugs to support the Free Treatment Policy. The first batch of treatments have in fact been pre-financed by COMÉQ and in order to make another drug order, the government will need to clear the first bill which has so far not been done. No additional drugs order has also been placed to ensure continuity of supply. There is also little data within the country to enable reliable quantification of need and duration of stocks.

There is no pharmacovigilance or quality control system for drugs in place. There is no capacity for oversight at central level as to whether drug orders requested are balanced against need as signified by HMIS data. Inaccurate ordering will have significant impact on the income of the CSI and may also lead to expiration of drugs which will further affect CSI income, although this should be less of a problem for malaria drugs now the Free Treatment Programme is in place. There are also a high number of illegal drugs available across the country. The challenges of transporting commodities to health facilities have already been discussed. Drugs tend to be flown in to avoid the burden of customs at the shipping port, Pointe-Noire.

NMCP is usually involved in the planning for procurements, but there is no regular or systematic collaboration. Consequently, the NMCP has almost no information on the quantities, timeframes and locations

of drug distributions. This information is held at the DPHLM, although not necessarily shared with the NMCP.

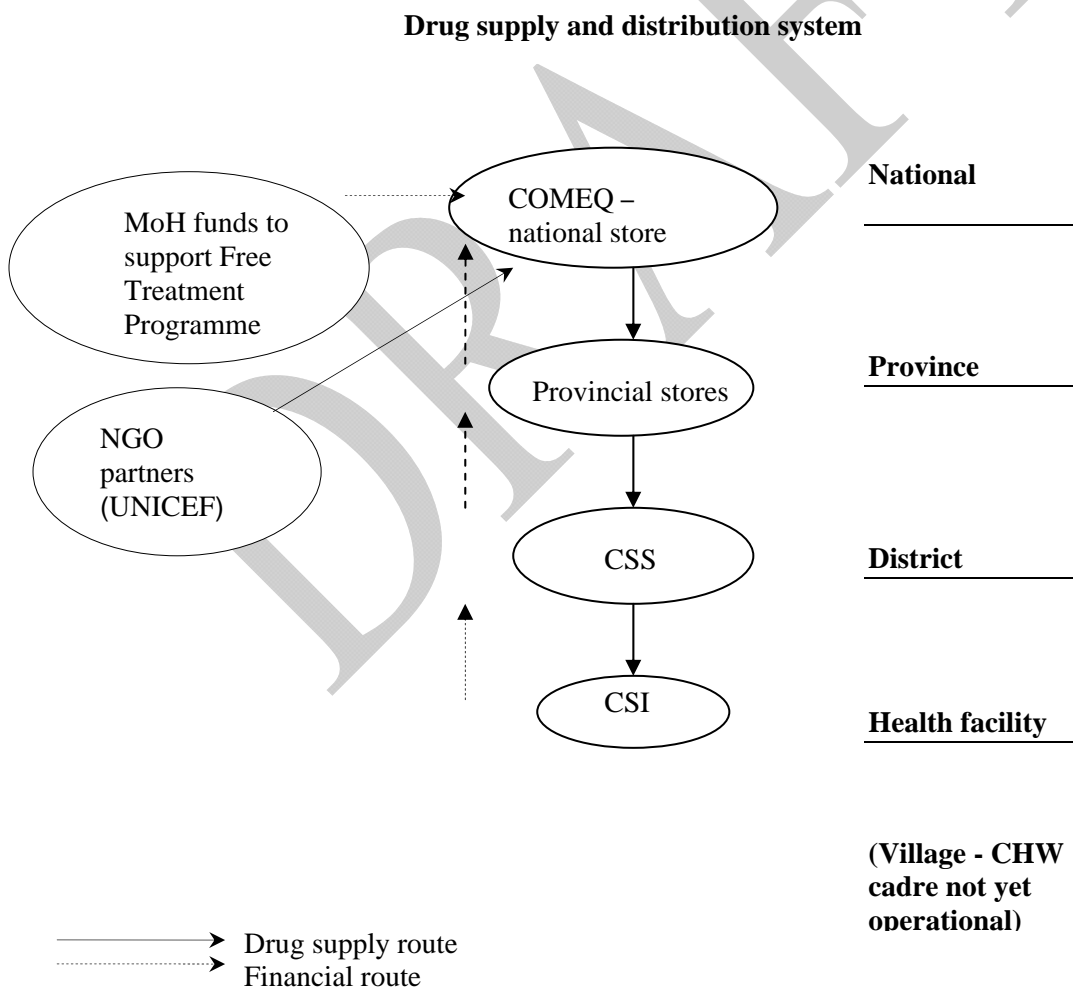
Challenges and proposed solutions associated with LLIN procurements and distributions have been discussed in the ITNs section.

ii. Proposed solutions

Strengthen the supply management system

The stronger leadership of the NMCP, coordination of partners and communication with the peripheral levels of the health system should support the more effective functioning of the supply management system. An implementation plan could also include a logistics plan for all commodities in which sufficient emphasis should be given to ACTs because of their short half life. A more effective systematic monitoring system to enable better tracking of drugs through the system and improved quantification is also required and has been discussed in the Treatment section. Training could also be provided in stock and supply management to all levels of the health system. The European Union is extending and reinforcing COMEG’s capacity, although this must be accompanied by additional support by the Ministry of Transport and Finance.

Figure 5: Schematic diagrams showing supply management systems for core interventions



LLINs supply and distribution system

The supply and distribution system for LLINs would be similar to the above although LLINs are not really being distributed through the health system currently. The financial route back up the system would also not exist.

7.3. Health Systems Strengthening**a. Situation analysis***i. The public sector health system*

Congo's health system is essentially structured around four operational levels. The central level has a role in strategic and regulatory planning, monitoring and evaluation, coordination, mobilization and allocation of resources. The intermediary level, which consists of twelve Health Departments (at the provincial level), plays a role in providing technical support to CSS' (district level) in the transmission of information, the implementation of national standards and support supervision. This level also includes general hospitals or '2nd referral' hospitals. The CSS level is then divided into areas of health and covers between 50,000 and 100,000 inhabitants in rural areas and 100,000 to 300,000 inhabitants in urban areas. The CSS provides support to their health areas in key aspects such as planning, training, equipment and supervision. Each CSS also consists of a network of integrated health centres (CSIs) supported by a base hospital or '1st referral' hospital. The CSI is the basic operational unit and the point of intersection between the health service and the community, where primary health care is provided. The eventual aim of the MoH is to have a full functional system, which at the primary level, includes the package of minimum health services. The CSIs do not cover the whole country. Other health posts and dispensaries exist which provide first point of contact in some areas, although the CSIs are being progressively extended. The spread of hospitals and CSIs by Health Department is shown in Table 21.

In general, there is little accurate information on the capacity of public and private providers, in terms of scope, functionality, personnel and services at different levels of the system. For a number of reasons already discussed in this report, the capacity of the central level management is not sufficient for effective malaria control. There is no functional system of information management to effectively carry out the NMCP's mandate (although the HMIS is currently being strengthened). Communication between different levels of the health system is also not systematic or regular. Collaboration between NMCP and other service delivery programmes such as Maternal and Reproductive Child Health Services (DSF) happens on a non-systematic, informal basis, focused around specific needs. There is no regular sharing of information through which opportunities could be maximised and costs reduced.

Little is known about the laboratory infrastructure, functionality, capacity and extent of diagnostics services across the country. The supply distribution system is also not adequate to meet the needs of the NMCP considering the challenges related to administration, logistics and coordination.

Table 21: Health care establishments in the public health system (data is estimated)

Health Department (province)	Hospitals	Integrated Health Centres (CSIs) and Dispensaries
Brazzaville	5	31
Bouenza	5	44
Cuvette Centrale	6	78
Cuvette Ouest	4	34
Kouilou and Pointe-Noire	6	49
Lékoumou	1	34
Likouala	4	33
Niari	3	61
Plateaux	3	82
Pool	2	97
Sangha	3	21
Total	42	563

Source: DSS, 2007

ii. The for-profit and not-for-profit health systems

The private (for-profit) sector constitutes the clinics, medic-social centres, medical cabinets, care cabinets, medical biology analysis laboratories and pharmaceutical depots. The not-for-profit sector is composed of clinics supported by various religious denominations, NGOs and other associations. In general, there is a weak regulation of the private sector and there has so far been little attempt to engage the for-profit and not-for-profit health sector in malaria control activities.

Licenses for private sector health establishments are acquired from the DSS, although there appears to be neither criteria in place for approval nor standardized license fee structure by size or services. The allocation of licenses seems to be relatively subjective and discretionary. The supervision of the private sector to ensure adherence to national policy and quality in service delivery is the responsibility of another department (Expectation de la Sante) though again, the criteria by which this is conducted is not clear. There is also no specified process through which the private sector reports to the DSS.

It is therefore difficult to acquire reliable data on the size and scope of the for-profit and not-for-profit health sector, although the private sector is expected to be expanding at some pace. Some estimates for private health care establishments are included in Table 22.

Table 22: Health care establishments in the private sector (data is estimated)

	Clinics	Medic-social centres	Medical cabinets	Care cabinets	Total
Brazzaville	15	25	60	104	194
Pointe-Noire	18	13	22	57	110
Interior	4	20	4	40	68
Total	37	58	86	201	372

Source: DSS, 2007

iii. The reach of the health system

The public health system is expected to reach about 70% of the population, facilitated by the fact that approximately 60% of the population live in urban and peri-urban areas. It is however difficult to estimate the proportion of fever cases treated in health facilities. It is also difficult to estimate the proportion of the population who access the private sector.

iv. Human resources: NMCP and national issues

There are 13 staff members of the NMCP, including 4 MFPS at the intermediary level (more detail is provided in the section on Programme Management and Health Systems). The programme is not so much understaffed

as lacking capacity in terms of skills and experience. Two key reasons for this are that the NMCP is not involved in the recruitment of personnel and the insufficient financing of posts hampers the recruitment of well qualified people. There are currently no job descriptions, work plans, appraisals of performance or resources available for training. No HR plan exists at the NMCP level. The NMCP recognises that staff motivation is a problem.

v. Human resources: sub national and service delivery levels

Not much is known at the central level about the levels of staffing in different departments throughout the country. There are also no staffing norms at department or health facility levels. The CHW cadre has yet to be established.

vi. Human resources: initiatives to improve human resource situation

The CHW training will commence as soon as money is available, which will bring basic malaria prevention and treatment services to the community level. The pre-service training curricula for different health cadres does not currently properly reflect national malaria policies and strategies. There are also few in-service training programmes for different health cadres.

b. Gaps and requirements to strengthen the health system

i. Key bottlenecks and challenges

Listed below are key challenges currently faced but which will also affect rapid scale up.

Lack of knowledge as to the exact number of staff in the health system

An evaluation or review of the health system has never been conducted. There are therefore no central statistics that are reliable enough to delineate how many health facilities are present in the country's public health system. Nor is there a list of current staff in the health system or staffing norms developed. This makes it extremely difficult for planning, measuring progress against indicators and budgeting at the central level.

Little or no regulation of the private sector

As the private sector is relatively strong and growing in Congo, there is an urgent need to plan to regularise it and ensure that ACTs in particular are being administered properly through this sector.

Lack of initiatives to improve human resource situation

The current level of skills and experience relating to malaria control activities across the health system, the current processes for the recruitment, management and supervision of staff and the resources available for training and to encourage motivation present significant challenges for the effective scale-up of activities.

ii. Proposed solutions

An audit of the health system

An audit of the public health system should be conducted to define the staff and health facility capacity. Staffing norms for different cadres at different levels of the health system should also be developed.

Improve regularisation of the private sector

There is an urgent need for mobilisation and support to the DSS to regularise the private sector to ensure that patients in the private sector facilities receive effective treatment and instructions on doses and that artesunate is not being sold as a monotherapy. Regularisation will also enable the collection of data on the scale and capacity of the private sector which will facilitate planning in areas of public-private partnership such as training and referral.

Introduce initiatives to improve human resource situation

Training, recruiting and addressing systems to increase programme capacity has been covered in the section 'Programme Management and Health Systems'.

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Table 23. Summary of Programme Management and Institutional Strengthening funding needs

Area	2008	2009	2010	2011	2012	2013	TOTAL
Institutional Strengthening							
Strengthening of Training Institutes							
Strengthening entomology laboratory and insectary	25,000	5,000	5,000	5,000	5,000	5,000	50,000
Strengthening national malaria diagnostics and quality assurance scheme	40,000	10,000	10,000	10,000	10,000	10,000	90,000
Development of training curricula pre-service	50,000	0	0	25,000	0	0	75,000
Development of training curricula in-service	50,000	0	0	0	0	0	50,000
Equipment							
Computers	400,000	54,483	54,483	54,483	54,483	54,483	672,415
Vehicles/ Motorcycles	55,207	55,207	55,207	55,207	55,207	55,207	331,240
General; Office costs	8,216	8,216	8,216	8,216	8,216	8,216	49,296
Human Resources, Training and Development**							
Development and coordination of Task Force*	10,000	4,635	4,635	4,635	4,635	4,635	33,175
Training of health workers in vector control*	6,852	6,852	6,852	6,852	6,852	6,852	41,112
Training of 2 agents in epidemiology*	0	41,110	0	0	0	0	41,110
Training of NMCP management in management and leadership*	0	26,490	0	0	0	0	26,490
Training of health workers on malaria and planning its control	70,000	70,000	70,000	70,000	70,000	70,000	420,000
Training of Community Health Workers (HBMF and IEC/BCC)	0	150,000	70,000	70,000	70,000	70,000	430,000
Training in laboratory diagnosis for laboratory technicians*	14,897	14,897	14,897	14,897	14,897	14,897	89,382
Training of health workers on case management	80,000	80,000	80,000	80,000	80,000	80,000	480,000
Training in database management	40,000	5,000	5,000	5,000	5,000	5,000	65,000
Training in supply management - all levels of health system*	30,000	4,082	4,082	4,082	4,082	4,082	50,410

IEC/BCC - Provincial level - communication sectors on material development	50,000	0	50,000	0	50,000	0	150,000
Unspecified technical assistance***	85,633	85,633	85,633	0	0	0	256,899
Staff salaries	Not available						0
Total estimated costs	1,015,805	621,605	524,005	413,372	438,372	388,372	
Available resources****	0	0	0	0	0	0	
FUNDING GAP	1,015,805	621,605	524,005	413,372	438,372	388,372	

*Costs from Strategic Plan budget used as a guide.

** Human Resources apart from training and supervision issues have not been addressed as they are part of the great health system requirements.

***TA requirements outlined throughout the report are included as part of this table (priority areas of TA only)

**** Some funds will be available from the MoH although the amount is not specified.

Data from this table are included in the summary table, Table 11.

DRAFT

Annexes

List of people interviewed

- 1) Dr François Libama, Chargé de Programme, PNLP
- 2) Dr Roger Germain Bouka, Chargé de Programme Suppléant, PNLP
- 3) M. Gabriel Moutima PNLP (S&É et formation) (tél. 528 53 38)
- 4) M. Gustava Mbota, PNLP (coordination des activités du programme) (tél. 793 40 85)
- 5) M. Patrick Bitsindu, Spécialiste du Contrôle des Vecteurs, DLM
- 6) Mme Victoria Mkala, Direction de la Santé de la Famille (tél. 522 50 10)
- 7) Mme Odelle Dathet, Direction de la Nutrition, ASF
- 8) M. Makanga Bienvenu, Direction de la Santé Scolarisée, ASF (tél. 557 69 47)
- 9) Dr Jean Joseph Akouala, Responsable de Service, Épidémies et Urgences (tél. 554 32 73)
- 10) Dr Koen Vanormelingen, Représentant, UNICEF Congo (tél. 242 81 50 24)
- 11) Dr Salvator Nibitanga, Responsable de la Santé/Nutrition, UNICEF Congo (tél. 81 50 24)
- 12) Dr Godefroy Mallandah, Agent responsable de la Santé de la Mère et de l'Enfant, UNICEF Congo
- 13) M. Ngoko Norbert, Chef de Section Tormelions Sanitaire Privées, Direction Services Sanitaires (DSS) (tél. 665 30 03)
- 14) M. Georges Miambanzila, Collaborateur, Service d'Information, d'Éducation et de Communication, Ministère de la Santé (tél. 531 11 98)
- 15) Pr Mamado D. Ball, Représentant de l'OMS au Congo (tél. 663 83 29)
- 16) Dr Richelot Ayangma, Conseiller / Programme élargi d'immunisation, OMS Congo (tél. 663 83 29)
- 17) Dr Norbert Bidounga, conseiller SIDA-Tuberculose-Paludisme, OMS/Congo (tel. 551.05.36)
- 18) Dr Étienne Nokondgimsha, Directeur de Pharmacie et Laboratoire (tél. 526 9958).
- 19) M. Alex Bitouala, Assistant Santé – Santé Publique, CSC Nganga – Lingolo
- 20) Mlle Nassambia Chaulott, Sage Femme en chef, CSI Nganga-Lingolo, CSS de Makélélé, Région du Bassin
- 21) Dr J Crepin Akenande, Comeg-Congo, (tél. 666 19 91)
- 22) Dr Marie Paula Fargier, Comeg-Congo, (tél. 572 72 57)
- 23) Professeur Dokekias Elira, Comité de Gratuité (Directeur des Transfusions Sanguines)

List of Resources used

- 1) Plan Stratégique de Lutte Contre Le Paludisme 2007-11, PNLP
- 2) Plan Stratégique de Lutte Contre Le Paludisme, 2007-11 (relu), PNLP
- 3) Politique Nationale de Lutte Contre Le Paludisme au Congo, NMCP, Mai 2005
- 4) Plan National de Developpement Sanitaire (P.N.D.S), 2006 – 2010, Ministere De La Sante
- 5) Plan D'Action 2008, PNLP
- 6) Rapport Annuel, PNLP, 2007
- 7) Enquête Demographique et de la Santé, 2005
- 8) Enquête Congolais Aupres Des Menages (ECOM), Ministere du Plan, de l'Amenagement du Territoire et de l'Intregation Economique, Centre National de la Statistique et des Etudes Economiques, Direction Generale, 2005
- 9) Enquête sur les Connaissances, Attitudes et Pratiques sur la Prevention et le Traitement du Paludisme – Questionnaire des Menages
- 10) Enquête sur la Disponibilite et l'utilisation de la Moustiquaire Ordinaire et celle Impregnee d'Insecticide aupres des Menages à Impfondo et à Pointe-Noire, PNLP
- 11) Mise en Oeuvre de la Gratuite du Traitement contre le Paludisme chez les Enfants de 0 à 15 ans et les Femmes Enceintes, Ministere De La Sante
- 12) Rapport De L'Atelier, Gratuité du traitement antipaludique, Ministère de la santé, des Affaires sociales et de la Famille, Direction Générale de la santé, Direction de la lutte contre la Maladie, Février, 2008
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