The Global Fund
To Fight AIDS, Tuberculosis and Malaria

STANDARD CONCEPT NOTE

Investing for impact against HIV, tuberculosis or malaria

A concept note outlines the reasons for Global Fund investment. Each concept note should describe a strategy, supported by technical data that shows why this approach will be effective. Guided by a national health strategy and a national disease strategic plan, it prioritizes a country's needs within a broader context. Further, it describes how implementation of the resulting grants can maximize the impact of the investment, by reaching the greatest number of people and by achieving the greatest possible effect on their health.

A concept note is divided into the following sections:

Section 1: A description of the country's epidemiological situation, including health systems and barriers to access, as well as the national response.

Section 2: Information on the national funding landscape and sustainability.

Section 3: A funding request to the Global Fund, including a programmatic gap analysis, rationale and description, and modular template.

Section 4: Implementation arrangements and risk assessment.

***IMPORTANT NOTE:* This template and its associated key tables are subject to minor modifications pending decisions to be taken in early 2014.**

Applicants should refer to the Standard Concept Note Instructions to complete this template.

SUMMARY INFORMATION			
Applicant Information			
Country	**SENEGAL**	**Component**	**Malaria**
Funding Request Start Date	**1-01-15**	**Funding Request End Date**	**30-06-17**
Principal Recipient(s) (PR)	**Ministry of Health and Medical Prevention of Senegal – PNLP IntraHealth**		

Funding Request Summary Table *

A funding request summary table will be automatically generated in the online grant management platform based on the information presented in the programmatic gap table and modular templates. Detailed information will be provided at the start of 2014.

SECTION 1: COUNTRY CONTEXT

This section requests information on the country context, including the disease epidemiology, the health systems and community systems setting, and the human rights situation. This description is critical for justifying the choice of appropriate interventions.

1.1 Country Disease, Health and Community Systems Context

a) Current and future epidemiology of the disease:

- **Entomology**

Transmission is via three major vectors (*Anopheles gambiae, An. arabiensis* and *An. funestus*). Other secondary vectors are, however, also involved in transmission (*An. melas*, *An. nili*, et *An. pharoensis*) *(*Entomological profile / *Profil entomologique, June 2011).*

An. gambiae s.s, represented by molecular forms S and M (currently *An. gambiae and An. Coluzzii* respectively*)* is present throughout the country, but predominant in the humid southern zones, while *An. arabiensis,* also present in all regions, predominates in the drier zones of the center and north. The species *An. melas* is found in the coastal mangroves and inland along a few rivers until they become salty (tracklist waters) from the sea backwash. *An. pharoensis* is predominantly found in the lower valley of the Senegal River in the north, *An. nili* is only present near rivers in the southern regions.

Susceptibility to insecticides has been monitored at 20 sites across the country since 2008. In 2010, quite significant and widespread resistance to pyrethroids was noted, the highest levels being in Saint Louis and Kedougou. Despite commencing universal coverage of LLINs in 2010, pyrethroid susceptibility improved slightly at most sites between 2010 and 2013. [UCAD Laboratoire Entomologie Vectorielle et Parasitaire]

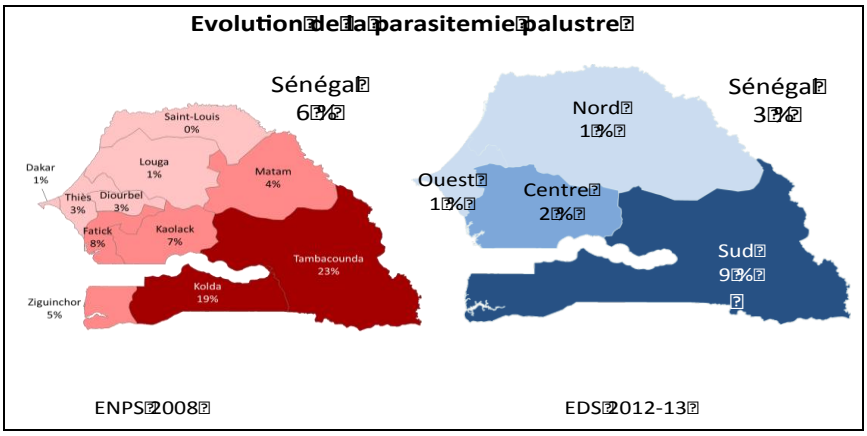
A number of studies have shown that the rate of entomological inoculation rate (EIR) has declined significantly with the introduction of LLINs [Trape *et al.*, Lancet Infectious Disease, 2014], although studies have shown that 45 to 78 percent of household nets become damaged after one year of use (Uganda). One Senegalese study showed that only 36% of household LLINs were in good condition (pHI < 65) after 2 years, while 38% were in poor condition

(pHI > 643).

- **Parasitology**

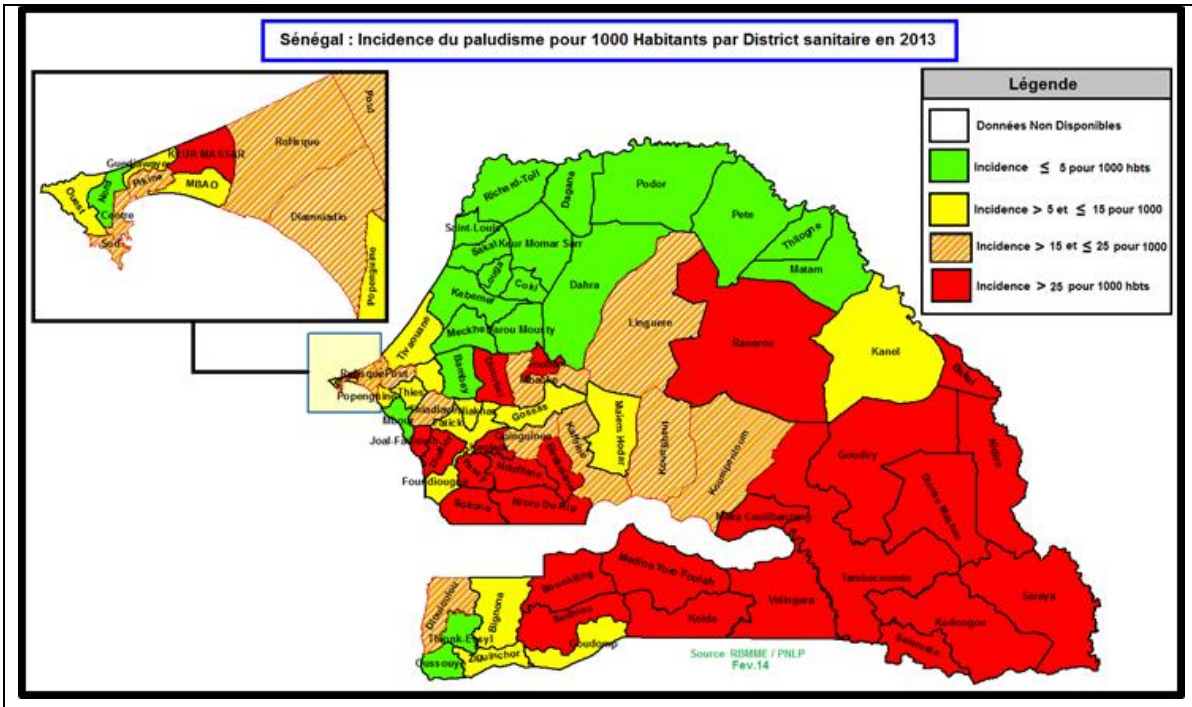
In Senegal, the Plasmodium species present are *Plasmodium falciparum* (99 %) and *P. malariae* (1 percent). Over the last six years, parasite prevalence has fallen from 5.9 % (ref. *Enquête nationale sur le paludisme* - Senegal Malaria Indicator Survey / MIS 2008) in 2008 to 2.8 % in 2013 (ref. *Enquête démographique et de santé continue* / Continuous Demographic and Health Survey / EDSc 2013). This is a significant decline and affects all epidemiological zones. It should also be noted that rural communities are comparatively more exposed to the disease than urban areas, with 3.9 % and 0.4% respectively (EDSc 2013).

***Figure 1:* Change in parasitemia, 2008 to 2013**



Malaria endemicity is greater in the south. In fact, there is 9.1 percent prevalence in the southern regions (Ziguinchor, Tambacounda, Sédhiou, Kolda and Kédougou), while it is 0.7 percent in the north-west (Dakar, Thiès, Louga, St Louis and Matam). The disease is seasonal in nature, with most cases occurring during each region's rainy season. This is confirmed by survey data on parasite prevalence, which gives an average of 4.3 percent during the rainy season and 1.1 percent in the dry season. Stratification by incidence has enabled four strata to be identified (see below, 2013 map).

***Figure 2:* Incidence by health district, per 000 inhabitants, in 2013**



Moreover, from 2008 on, studies revealed that the 5 - 10 year age group (O. Gaye, pers. comm.) is now more severely affected, proof of the decline in endemicity that has taken place, as also demonstrated by the shift in age range of those most affected from under 5 years to older groups. Poor households are clearly more vulnerable to the disease. Malaria prevalence among children from households in the lowest quintile is 8 percent compared to less than 1 percent among children from the highest quintile (ref. EDSc 2013). Housing type and transportation time costs to access treatment are likely risk factors.. This prevalence can be explained by the time taken to approach the health service and the fact that these people are not accustomed to seeking treatment.

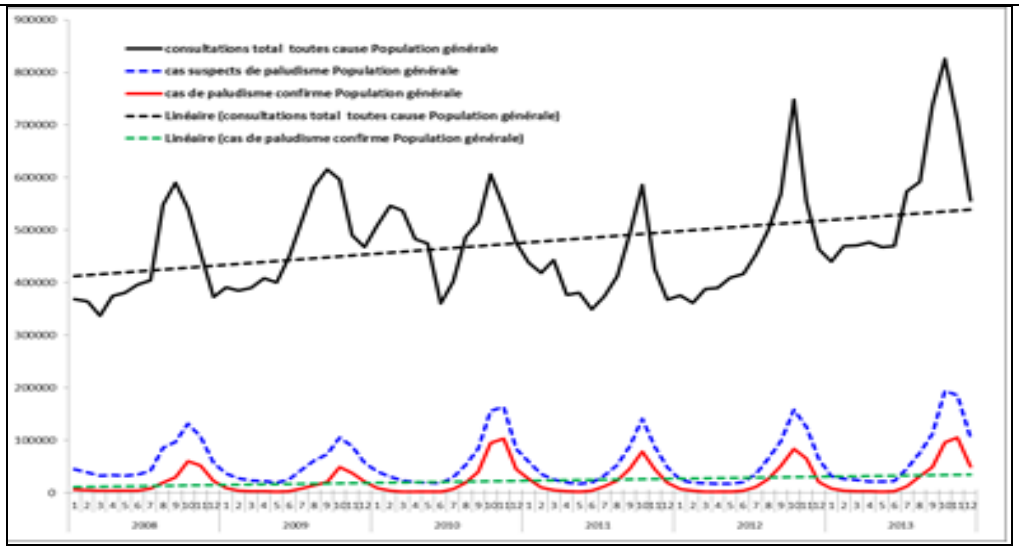
- **Incidence**

Data from the health care facilities shows that the number of cases reported among the population increased from 14 permil to 27 permil between 2009 and 2013. This increase was not uniform across the country as some districts in the north and center recorded a decline in case numbers over the same period (see Strategic Framework, pages 20 and 21).

It should be noted that, despite the decline in parasite prevalence, the number of cases recorded within the health system still increased. This can probably be attributed to increasedtreatment from the health service. Apart from the creation of new jobs and health posts, one clear contribution of the GF grant for Health System Strengthening (HSS) has been covering 46 previously closed delivery points, through the renovation of health care facilities and staff recruitment. The same observation can be made at community level, with 2,143 operational health points. Moreover, the National Malaria Program (*Programme National de Lutte contre le Paludisme* / PNLP) has been able to enroll a significant number of Community Health Workers / CHWs (*Dispensateurs de Soins à domicile* / DSDOM), who care for patients in villages where there is no health infrastructure. (Increasing from 861 in 2009 to 1,992 in 2013). The number of consultants, all categories included, increased from 17,667 in 2010 to 36,649 in 2013.

All these efforts have helped to increase service delivery for malaria and, consequently, notification of cases. Data from health facilities shows that service use, measured in number of consultations for all causes combined, has been steadily increasing since 2009 (see Figure 3).

Figure 3: Trend in morbidity data from 2009 to 2013



b) The key groups affected:

Rural populations: rural inhabitants are at higher risk of catching malaria, as can be seen from the level of prevalence (4 percent in rural and 0.3 percent in urban areas). To this must be added the difficulty rural people have in accessing preventive and curative health services. These difficulties are more geographical (isolation or remoteness) than financial, as artemisinin-based combination therapies (ACT), sulfadoxine-pyrimethamine (SP) and rapid diagnostic tests (RDT) are all provided free of charge. The high level of exposure to mosquito bites should also be noted, a product of their rural environment and the insecure nature / quality of rural housing.

Flood-zone populations: the flooding observed over the last few years in some areas, particularly the Dakar suburbs, where most poor people live, has led to the closure of health and educational facilities and the displacement of people during periods of high transmission.

Mobile populations: people living in the gold mining areas of Kédougou and nomadic groups are also difficult to reach with curative and preventive services. In Kédougou, gold washers move frequently, as new seams are discovered. These movements can create imbalances in areas where there are health structures or result in increased population in areas where there are none, thus increasing the people's exposure.

Nomadic pastoralists in search of pasture have to move often and live a vulnerable lifestyle with limited access to health care. They move south (area of high prevalence) during the dry season and then return north (area of low transmission) where the rainy season is shorter. The number of people affected by this phenomenon is difficult to ascertain. In cooperation with the Ministry that has responsibility for pastoralism, the Ministry of Health and Social Action (MSAS) is going to establish a way of determining this figure. A study into the prevalence of malaria among transhumant and pastoralists populations is underway with USAID (mapping and knowledge, attitude and practice / KAP survey).

c) Key human rights barriers and gender inequalities that may impede access to health services.

Gender-related practices likely to influence access to preventive and curative care in Senegal are reflected in the fact that decision-making power rests primarily with the men in terms of when care is sought within a household *(Health Seeking Behaviour for Childhood Malaria: Household Dynamics in Rural Senegal, J. Biosoc. sci, page 1 of 19, 2008 Cambridge University Press)*. However, no difference has been noted between men and women as regards the possession or use of long-lasting insecticidal nets (LLIN) (EDSc 2013).

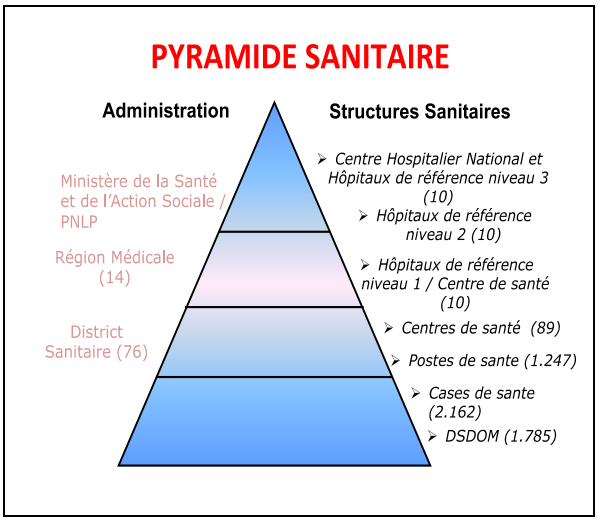
Policies aimed at providing universal access to malaria interventions, namely free ACTs and RDTs for the general population, SP for pregnant women, LLINs through campaigns and routine distribution for pregnant women and pupils, all reduce the risk of gender inequality. To this must be added the fact that the Senegalese State is implementing a policy of universal health coverage to increase access to health care based on, among other things, the promotion of mutual societies, the "Sesame" plan (free health

care for the over 60s) and free health care for those aged under 5 (cf. national Universal Health Coverage / *Couverture maladie universelle* / CMU document).

d) The health systems and community systems context.

- **Health system**

Figure 4: *National Health Pyramid*



The second phase of the 2009 – 2018 National Health Development Plan (*Plan National de Développement Sanitaire* / PNDS) endeavors to increase passive coverage through health centers while ensuring that the disparities between districts are corrected. This strategy also covers all actions aimed at improving access to drugs and specialist care for all. It is a question of making innovations to the health care system in order to guarantee access to vulnerable groups (pregnant women, children aged under 5).

Considerable efforts have been made to provide passive cover, with the aim of improving geographical access to services. Between 2009 and 2013, the number of hospitals was therefore increased from 22 to 31, and health posts from 76 to 88. This increase in supply, through the creation of new health infrastructure, has above all been felt at the peripheral level, with 1,247 health posts and 2,162 health points (ref. Health Map / *Carte sanitaire* 2013). The health care system still suffers from constraints and gaps, which are having a negative impact on service coverage and quality. In line with health mapping standards, the health system has: (i) 1 hospital for every 378,093 inhabitants (as opposed to 1/300,000 for 1 Public Health Facility / EPS 2); (ii) 1 health post for every 146,081 inhabitants (as opposed to 1/150,000); (iii) 1 health post for every 10,301 inhabitants (as opposed to 1 rural health post per 5,000 inhabitants and 1 urban health post per 10,000 inhabitants).

In terms of the procurement system, there is no Regional Supply Pharmacy *(Pharmacie Régionale d'Approvisionnement* / PRA) in three of the 14 regions, and there is a lack of appropriate logistics at the level of the National Pharmacy of Senegal (*Pharmacie Nationale d'Approvisionnemen*t / PNA) To this must be added the weaknesses in input management at the peripheral level.

Due to the absence of a comprehensive national database, several programs have developed information systems in parallel to the national information system, in order to ensure the availability of data on the necessary indicators.

- **Private sector**

Private sector health provision is structured in a very similar way to that of the public sector, with posts, centers and hospitals. Paramedical, medical and clinical surgeries offer services and contribute to improving health care provision, according to the staff provided. In 2013, the private sector made a significant contribution to fighting malaria, with more than 60 percent of private structures offering malaria diagnostic and treatment services (ref. IntraHealth situation analysis in the private sector). The private sector is, however, constrained by a failure to adequately observe the malaria prevention, treatment and data gathering guidelines.

- **Community system**

The community system comprises two types of actor: (i) community outreach workers who carry out prevention and promotion work; and (ii) community care workers: home care providers (*Dispensateurs de Soins à Domicile* / DSDOM) and community health workers (CHW). These two areas of work are both under the supervision of the nurse in charge of the local health post, who provides training and supervision.

Within each district, there is a community malaria support network made up of community-based organizations (CBO) who enter into agreements with the district to implement a package of communication activities at the community level in the context of implementing the district community malaria plan.

On a strategic level, the active involvement of civil society in reflecting on the issues, resource mobilization and implementation monitoring is also noteworthy. This group of actors involves CBOs, NGOs, women's groups, youth groups, community and religious leaders as well as the media and is organized into networks and alliances for capacity building and skills development.

A community health unit was created in 2013 within the MSAS, under the general health directorate. Its aim is to promote, organize and coordinate integrated community health. The 2014-2018 National Strategic Community Health Plan (*Plan National Stratégique de Santé Communautaire* / PNSSC) is in keeping with the desire to strengthen and integrate community health provision within the health care system.

Nonetheless, due to their limited resources and reliance on donors, weaknesses do exist at the district level in relation to involving partners in the production, financing and implementation of community plans. Challenges have also been identified in terms of community capacity and skills building, monitoring and evaluation and coordination of community activities. More specifically, this relates to: (i) the population's access to basic health care and services, which is still poor, due primarily to a lack of operational capability at the level of some peripheral health care facilities (health posts and points); (ii) insufficient quantity and quality of human resources, particularly in the most remote areas of south-east Senegal, where malaria prevalence is highest; and (iii) stock-outs of essential drugs.

Moreover, challenges still remain in the area of community care, with gaps noted in terms of observing the national malaria prevention and treatment guidelines, information gathering and community activity monitoring. This restricts the optimal implementation of malaria strategies on an operational level. The situation is similar as regards the lack of status enjoyed by community health actors and the regulatory and legislative frameworks. This status lies at the heart of the sustainability of their work, and this point constitutes one of the key factors identified in the MSAS community health strategic plan.

1.2 National Disease Strategic Plans

The 2014-2018 National Strategic Framework (CSN) drew its inspiration from the mid-term evaluation of the 2011-2015 National Strategic Plan (PSN), and this also enabled new actions to be incorporated in order to achieve the goals set.

a. Aims, objectives and priority program areas

The aims, objectives and priority program areas are set out in the strategic framework.

(* = new goals)

- **Aims:**
  - *To reduce malaria-related morbidity in order to achieve the epidemiological pre-elimination threshold by 2018.*
  - *To reduce malaria-related mortality by 75 percent by 2018.*

- **Objectives:**
  - *To protect at least 80 percent of pregnant women through Intermittent Preventive Treatment (IPT) using SP.* (3 doses)*
  - *To protect at least 80 percent of pregnant women through long-lasting insecticidal nets (LLIN).*
  - *To provide Seasonal Malaria Chemoprevention (SMC) to 98 percent of targeted children.**
  - *To get at least 80 percent of the population sleeping under LLINs.*
  - *To protect at least 90 percent of the population through Indoor Residual Spraying (IRS) in targeted areas.*
  - *To treat at least 95 percent of productive breeding sites in targeted areas.*

- *To diagnose 100 percent of suspected cases via rapid diagnostic tests (RDTs), microscopy and, where necessary, molecular biology in the pre-elimination areas.*
- *To diagnose at least 95 percent of suspected cases by RDT or thick smear.*
- *To treat 100 percent of confirmed cases of malaria according to national guidelines.*
- *To provide pre-referral treatment to 100 percent of severe malaria cases among children under the age of 10.**
- *To detect 100 percent of epidemics and emergency situations early on.*
- *To control 100 percent of epidemics and emergency situations in the two weeks following their detection.*

- **Priority areas:**

Seven areas of intervention were chosen to achieve the objectives set out in the 2014 - 2018 strategic plan. Two of them were technical and five were support areas.

- Technical areas:

1. Case management:

This covers the strategies to be developed in order to provide the population with universal access to diagnosis (RDTs, thick smear) and treatment with ACTs. It will contribute to reducing malaria morbimortality.

2. Prevention:

Focus will be placed on working towards universal coverage of LLINs through mass campaigns and routine distribution. The latter will use different channels, namely: (i) Ante-Natal Care (ANC), (ii) into communities via CBOs, (iii) via schools and (iv) via the private sector.
SP will be administered to pregnant women under direct observation (IPT).
IRS will also be implemented in selected areas in order to ensure a greater impact in terms of lowering transmission and thus lowering the number of cases.
The larval management program will be rolled out in areas where this is possible.
SMC will also be implemented in parts of the country where the rainy season lasts 4 months, with 60 percent of malaria cases occurring during this period. This will be through the administration of SP and amodiaquine to children aged 3 months to 10 years.

***- Support areas*:**

1. Specific interventions will focus on strengthening the management unit and coordination mechanisms.
2. IEC/BCC and health promotion will be strengthened by focusing on evidence-based strategies.
3. Surveillance and Response will form a priority intervention. There will be weekly surveillance in areas of low transmission and monthly in the rest of the country. Investigation of cases will be conducted in the pre-elimination areas. Reactive monitoring resulting from the passive detection of cases will be vital. Specific surveillance of mobile populations (transhumant pastoralists/migrants) will be provided by establishing a system of home-based care (*Prise en charge à domicile* / PECADOM) in the different shifting communities. The DSDOMs will, in particular, notify the morbidity data gathered. Decisions regarding implementation arrangements will be taken on the basis of the outcome of the study on transhumance.
4. Supply and Inventory Management will be improved in order to avoid stock-outs through good planning and also good distribution of supplies.
5. Strengthened Monitoring/Evaluation and Research will enable better monitoring of progress and a consolidation of lessons learned. The use of New Information and Communication Technologies (NICT) will be encouraged in order to improve the gathering, analysis and use of data.

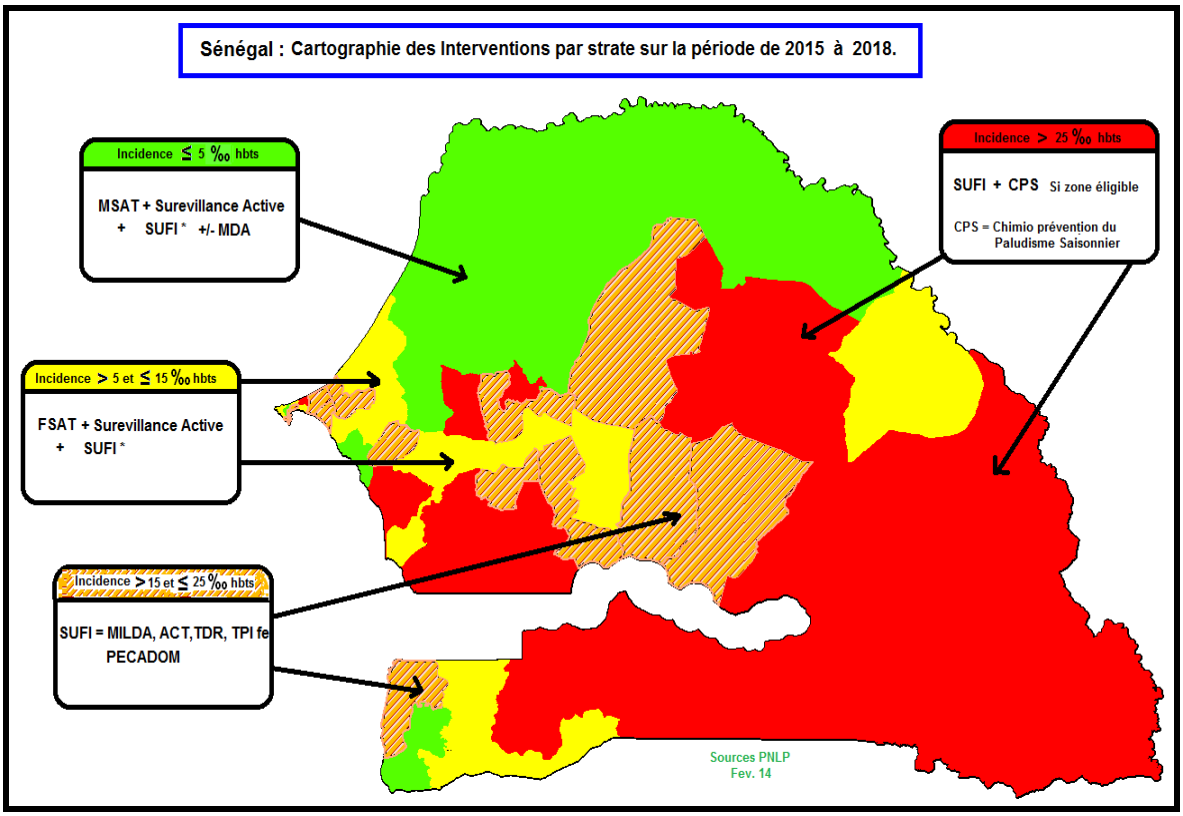
The resulting interventions will, among other things, take not only the current epidemiological profile of the disease into account but also the outcomes of the program review. The PNLP will target interventions in line with the epidemiological characteristics of the disease. Two areas of differing endemicity have been identified nationally:

- The northern zone (stratum 1 on the table: regions of St. Louis, Matam and Louga) with low endemicity, where the program is aimed at consolidating the achievements made in pre-elimination.

- The rest of the country (strata 2, 3 and 4 on the table) where endemicity is greater. Here, further scaling up of interventions will enable greater malaria control to be provided and progress to be

made towards pre-elimination.

Figure 5: Interventions mapping by stratum (Stratum 1 = green; stratum 2 = yellow, stratum 3 = brown and stratum 4 = red)



Key:

STRATA	INTERVENTIONS	
Incidence ≤ 5 ‰	Mass screening & Treatment/MSAT + Active Surveillance + Scaling up for Impact/SUFI + Mass Drug Administration/MDA	
Incidence > 5 and ≤ 15 ‰	Focal Screening and Treat/FSAT + Active Surveillance + SUFI	
Incidence > 15 and ≤ 25 ‰	SUFI = LLIN, ACT, RDT and IPT among pregnant women, + PECADOM	
Incidence > 25 ‰	SUFI and SMC, if eligible. SMC = Seasonal Malaria Chemoprevention.	

***Table 1:* Districts by incidence in 2013**

Strata	INCID / 1000 (2013)	POPULATION (2013)
1	**Fewer than 5 cases per 1000 inhab.**	**3 466 475**
20 districts: LOUGA, DAGANA, PODOR, KEBEMER, MATAM, SAINT-LOUIS, RICHARD TOLL, KEUR MOMAR SARR, PETE, THILOGNE, DAHRA, THIONCK ESSYL, SAKAL, COKI, OUSSOUYE, MBOUR, BAMBEY, MEKHE, DAROU MOUSTY, NORD.		
Interventions: MSAT + Active Surveillance + SUFI* + MDA		
2	**Between 5 and 15 cases per 1000 inhab.**	**3 225 048**

16 districts: POPENGUINE, GUEDIAWAYE, TIVAOUANE, BIGNONA, GOUDOMP, KHOMBOLE, FOUNDIOUGNE, ZIGUINCHOR, MALEM HODAR, KANEL, GOSSAS, THIES, FATICK, NIAKHAR, MBAO, DAKAR-OUEST.		
Interventions: Focal screening and treatment (FSAT) + Active Surveillance + SUFI*		
3	**Between 15 and 25 cases per 1000 inhab.**	**2 557 618**
14 districts: DAKAR-SUD, MBACKE, LINGUERE, KOUNGHEUL, KAFFRINE, DAKAR-CENTRE, RUFISQUE, GUINGUINEO, DIAMNIADIO, THIADIAYE, KOUMPENTOUM, PIKINE, DIOULOULOU, POUT.		
Interventions: SUFI = LLIN, ACT, RDT, IPT, PECADOM		
4	**More than 25 cases per 1000 inhab.**	**4 326 096**
26 districts: DIOFFIOR, NDOFFANE, TOUBA, KEUR MASSAR, PASSY, BIRKELANE, VELINGARA, BAKEL, JOAL, RANEROU, SEDHIOU, NIORO, BOUNKILING, DIOURBEL, SOKONE, TAMBA, KAOLACK, MAKA COLIBANTANG, KOLDA, GOUDIRY, MEDINA YERO FOULAH, KEDOUGOU, KIDIRA, DIANKE MAKHAN, SARAYA, SALEMATA.		
Interventions: SUFI + SMC, if area eligible.		

The plans for implementing MSAT and FSAT have been developed in the context of the strategic framework and the epidemic response framework. The FSAT activities, including IEC/BCC, are subsidized by the Malaria Control and Elimination Partnership in Africa (MACEPA) and thus do not form part of this current funding application.

b. Implementation to date, including the main outcomes and impact achieved:

Coverage of, and access to, the different malaria prevention and treatment actions being implemented showed significant progress nationally between 2005 and 2013. This progress was possible because of the organizational set-up established by the PNLP. Parasite prevalence thus fell from 5.9 percent in 2008 to 2.8 percent in 2013 (ref MIS 2008, EDSc 2013).

- **Vector control**

Vector control activities, in particular LLINs, were made available to people throughout the country.

Larva Management Program (Lutte anti larvaire (LAL): operations to destroy identifiable and accessible breeding sites are now being undertaken by the communities. From 2015, biolarvicides will be used in the Dakar suburbs, where repeated flooding has led to a resurgence in the transmission and incidence of malaria year-on-year since 2005.

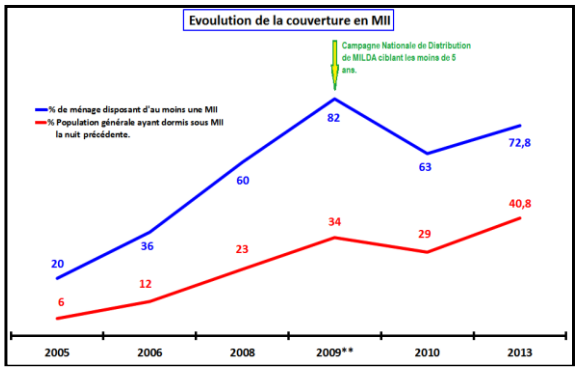


Figure 6: Trend in coverage of insecticide-treated nets (ITN)

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Promoting the use of LLIN: The National Malaria Program began net distributions through CBOs in 2004. In 2008 and 2009, Senegal distributed LLINs to children under 5. By bringing in universal coverage (UC) of LLINs gradually (region by region) from 2010 on, the National Malaria Program aims to cover all beds and sleeping areas in the country between 2010 and 2013. This distribution strategy will enable all segments of the population to be reached. It is based around the organization of mass free distribution campaigns, underpinned by a mechanism for the routine distribution of LLINs through various channels (cf. page 5 of Concept Note).

The campaign should have ended in 2012 but the late start-up of Phase 1 of Round 10 meant that the

two final regions were only covered in 2013. In order to cover the whole country, the activity therefore lasted 4 years. The first regions, which should have been covered once more in 2013, were only reached in 2014; this was due to the late start-up of Phase 1.

Previously, campaigns were targeted at children under 5 years and pregnant women. The decline in availability in 2010 following targeted distribution to under 5s can probably be explained by an underperforming centralized routine distribution system that prevented the replacement of LLINs (Ref. 2009 Post-Campaign Survey).

Indoor Residual Spraying: IRS started in 2007 in three districts and is currently being implemented in four districts with the support of the President's Malaria Initiative (PMI). From 2015 on, hotspots will be targeted in districts where the incidence is less than 50 per 1,000. For areas of very high incidence, IRS will be conducted at district level. The districts will be chosen on the basis of entomological studies indicating that vector behavior makes them susceptible to this strategy. Surveillance of susceptibility to insecticides is regularly conducted in order to ascertain the status of useable products. Pyrethrinoids are excluded out of a concern to preserve the effectiveness of the LLINs.

LLINs will continue to be distributed in the same districts in order to complement these interventions and ensure better utilization (possession and use).

LLINs will continue to be distributed in the same districts in order to complement resistance management. In fact, resistance to pyrethroids has already been noted in Senegal. This is why the use of organophosphates and carbamates will be able to significantly reduce the population of pyrethrinoid-resistant mosquitos.

- **Preventing pregnancy-associated malaria**

IPT is currently provided free of charge at all levels of the health system. National IPT coverage has improved considerably in recent years, increasing from 12 percent in 2005 to 42.2 percent in 2013. In 2013, the guidelines were updated to include WHO's recommendation of 3 doses of SP. Pregnant women also benefit from a special promotion for the use of LLINs. The use of insecticide-treated nets among pregnant women thus increased from 9 percent in 2005 to 51.1 percent in 2013 (ref. Demographic and Health Survey / EDS 2013).

- **Seasonal Malaria Chemoprevention**

SMC is a new intervention that will target children aged 3 months to 10 years in four regions of high malaria transmission (Kolda, Kédougou, Sédhiou and Tambacounda). This relates to the intermittent administration (at one month intervals) of a complete sulfadoxine-pyrimethamine and amodiaquine (AQ) treatment (1 dose of SP and 3 of AQ) during the 3 to 4-month peak in malaria during the rainy season. In the seasonal malaria chemoprevention zones, care and treatment of confirmed cases will be provided with amodiaquine-free ACTs.

- **Case management**

Treatment of uncomplicated cases of malaria has, since 2006, involved artemisinin-based combination therapy, available in all health facilities down to the community level. Severe cases are treated within health facilities with quinine, injectable artesunate and artemether (Annex: new Care Guidelines). ACTs are also used to treat cases of pregnancy-associated malaria. In order to improve early treatment yet more, a pre-referral treatment for severe cases among children under 5 years has now been established and will commence in 2014 following training sessions. This involves using rectal artesunate suppositories. In order to improve the level of confirmation of malaria cases, rapid diagnostic tests were introduced in 2007 in all health centers and posts, and established at community level in 2008. Microscopy is still vital in health center and hospital laboratories. These facilities receive support in the form of equipment and materials that enable them to conduct thick smears more economically. The number of suspected and tested cases thus rose from 2012 (665,708 suspected and 555 724 tested) to 2013 (867,154 suspected and 758,700 tested), and the gap between the number of cases confirmed and the number treated with ACTs fell significantly (cf. Table of Routine Data).

To improve access to treatment, in 2008 the PNLP commenced home-based care (PECADOM) with community volunteers dispensing ACT following confirmation of cases by RDT. Home-based care

enabled the treatment and diagnosis of 6,198 cases of malaria in 2009 and 39,725 cases in 2013. In 2012, treatment of diarrhea and acute respiratory infections (ARIs) was incorporated into the package of services offered by these care providers. For integrated home-based care, the State and UNICEF will be primarily involved in purchasing the inputs for diseases other than malaria in the context of the child monitoring plan (annexed).

Home-based Care Plus is a component of integrated home-based care that involves active research of cases with regular home visits. It is supported by the PMI.

- **A surveillance system**

An adapted surveillance system has been established in Senegal in line with the level of malarial endemicity found in the different areas of the country

- Geographical pre-elimination zones: combine passive and reactive active detection
- Areas of low transmission: combine passive and proactive active detection
- Areas of average and high transmission (disease control zones): the mechanism corresponds to routine surveillance conducting passive detection

This system relies on all of the health facilities and also includes sentinel sites, which will be extended to ensure better coverage of the national territory.

The sentinel sites: sentinel surveillance at sites is aimed at providing the entomological, parasitological and environmental data necessary to assess changes in malaria in each area of the country.

Surveillance of susceptibility to ACTs is conducted at two sentinel sites per year, rotating every two years at a total of 4 sites.

With regard to surveillance of susceptibility to insecticides, 20 sites are monitored annually.

Table 2: Summary of performance in the different areas

Indicator	2005 EDS	2006 MIS	2008 MIS	2009 EPC (*Enquête post-censitaire* / Post-census survey)	2010 EDS	2013 EDSc
% households with at least one ITN	20	36	60	82	63	72.8
% general population having slept under an ITN	6	12	23	34	29	40.8
% children aged under 5 years who slept under an ITN the previous night	7	16	29	48	35	45.8
% households in target districts protected by IRS	--	--	80	--	80	99.7
% pregnant women who slept under an ITN the previous night	9	17	29	49	37	51.1
% women who received 2 doses or more during their last pregnancy over the last two years	12	49	54	--	41	42.2

Table 2a: Routine data

Indicators	2009	2010	2011	2012	2013
% of suspected malaria cases benefiting from parasitology test*	86	91.7	92.2	83.5	87.5

% of uncomplicated cases treated with ACT	--	65	71.2	65	95.6

c. Limitations on implementation and any lessons learned that will inform future implementation:

Limitations and lessons learned were identified during the mid-term review of the 2011-2013 National Strategic Plan (*Plan Stratégique National* / PSN).

Table 3: Limitations on implementation

Areas	Limitations on implementation	Lessons learned and their impact on future implementation
Strengthened prevention	- Delays in mobilizing resources for the UC cam -Four years to cover the country (instead of two), Loss of effectiveness of LLINs prior to renewal	- Need for a single national campaign instead of a phased approach (gradual roll-out to the regions) for ensuring simultaneous access to ITNs on the part of the whole population. - Need for a robust routine distribution system
	Delay in early seeking of ANC services Failure to follow directly-observed therapy / DOT guidelines (lack of water, buckets, etc.)	Ensure messages are better adapted, on the basis of the KAP study, for a prompt use of services Provide the necessary equipment for DOT and ensure its upkeep for effectiveness
Improved case management	Failure to respect treatment guidelines in the private sector and, to a lesser extent, in hospitals	Develop strategies adapted to the private sector and hospitals for better ownership of the national guidelines with a view to offering better quality care to the people using them.
	Delay in implementing home-based care due to financing and monitoring difficulties on the part of the district supervisory teams	Take advantage of the integrated nature of the home-based care programs in order to share costs and ensure better access to health care on the part of rural, remote or mobile groups.
	The frequent lack of availability of supplies at the community level, and sometimes in the health facilities	Introduction of RDTs in individual kits in order to facilitate the dividing up of boxes Improve the transfer of supplies to all levels
Surveillance and Response	Non-inclusion of malaria among weekly notifiable diseases (*Surveillance Intégrée des Maladies et de la Riposte* / Integrated Surveillance of Diseases and the Response / SIMR)	Introduce ICT to support the weekly reporting cycle, in cooperation with the division of epidemiological surveillance, with a view to facilitating its integration into the SIMR.
	Weaknesses in implementing the alert system (calculating alert thresholds)	Need to ensure availability of high-quality (rapid and complete) morbidity and mortality data and to calculate the thresholds at the start of each year in order to provide early detection of epidemics
Program management	Insufficient State budget allocated to health (12%) and insufficient health budget allocated to PNLP (0.5%) Insufficient information management system noted by external audit	Strengthen advocacy work with the State to mobilize internal resources, in cooperation with partners. Need to create a filing room / system
IEC	Insufficient monitoring and evaluation of communication activities Lack of data on the effectiveness of IEC/BCC strategies Lack of an annual media plan	Harmonize the IEC indicators and provide coordination and planning of IEC/BCC activities through the IEC Malaria Commission with a view to improving the implementation of activities. Advocacy with partners responsible for communications and operational research into communication

Supply and Inventory Management	Stock-outs indicated at delivery points	Need to strengthen logistical capacity of the PNA and operational-level management with a view to making products permanently available
Monitoring & Evaluation (M&E)	Health information is gathered at operational level but not analyzed at all levels for decision-making. Information is retained by health workers for union reasons.	Training of staff in M&E and in malariology will enable improved analysis and use of information for decision-making. The establishment of the DHIS 2 in cooperation with the Health Information System Division (*Division du Système d'Informations Sanitaires* / DSIS) will enable high-quality prompt and complete data gathering and analysis Need for a socially conducive environment, with motivated staff to ensure good functioning of the system at all levels

d. The main areas related to the national health strategy

The outcomes of work to combat malaria are positively influenced by the implementation of the national health strategy, as set out in the PNDS 2009-2018 and broken down into the following areas: (i) improved provision and quality of health services; (ii) improved performance in terms of preventing and combating the disease; (iii) improved mother and child health; (iv) improved mother and child nutritional status; (v) strengthened community health system; (vi) improved health governance.

The PNDS planning cycle runs over a 10-year period and is implemented, among other things, through the PSN programs, which are five-yearly. This planning schedule enables implementation strategies to be adapted to outcomes.

The mid-term sector expenditure framework (*Cadre de dépense sectoriel à moyen terme* - CDSMT), which is a three-year planning document that offers the possibility of rolling over any activities that are not implemented, is produced on the basis of the annual work plans of the different centers with MSAS responsibility, including the PNLP. Implementation of the PNDS, particularly its staff recruitment and training, infrastructure construction and equipment components (PNDS, pages 42 to 44) and institutional reforms (creation of a general health directorate and regional directorates) will have a positive impact on program performance. The same can be said for the new decentralization policy (Action III of decentralization), which devolves greater responsibility to the local authorities in the areas of planning, monitoring and evaluation of activities. The PNDS strategy of providing geographical and financial access to quality drugs (PNDS, p.44) takes into account the PNLP's concern to ensure improved availability of inputs. The production of a health information policy with a clear vision and objectives, taking into account the need for improved coordination of all sub-systems and decentralization to the regional level, will contribute to ensuring better availability of data at all levels.

f) the process and timescale for producing a new plan

The national processes for examining and amending strategic malaria plans are based on the malaria program reviews (MPR) produced by Roll-Back Malaria's Monitoring and Evaluation Reference Group (MERG) (annexed) and validated by WHO. The most recent dates from 2013. This exhaustive and inclusive approach first comprises a documentary review followed by a field-based phase for better mid-term evaluation of the implementation of strategic plans. The PNLP now follows this approach through the Malaria Partners Consultation Framework (*Cadre de Concertation des Partenaires de la Lutte contre le paludisme* / CCPLP) and the Task Force established to ensure that the State and its partners fulfil their commitments.

Through the community associations established in the context of the work on malaria, it has been possible to involve key groups in the different production workshops. Particular attention has been paid to the nature and composition of these associations in order to ensure that a gender approach is pursued. The associations' experiences regarding "best practice" in their work were also a decisive factor when selecting the key people to support the program throughout the process. The commitment of the NGOs has enabled better coverage of community aspects in the context of this inclusive approach.

A new mid-term review of the program will be organized in 2016 in order to update and optimize the

implementation of the 2014-2018 strategic framework.

SECTION 2: FUNDING LANDSCAPE, ADDITIONALITY AND SUSTAINABILITY

2.1 Overall Funding Landscape for Upcoming Implementation Period

a) **the areas of the program currently receiving financial support.**

The funding received in Senegal over the course of the last five years, for the six service delivery areas can be seen in the table below, broken down by intervention and by technical and financial partner.

***Table 4:* Different areas financed by the partners**

Partner	Area of Service Delivery										
	Prevention				Care and support		IEC/ BCC	Surveillance	M&E/OR	PM	
	LLIN	IRS	IPT	SMC	RDT	ACT		FSAT MSAT			
State	X		X	X	X	X	X	X	X	X	
Global Fund	X				X	X	X	x	X	X	
USAID - PMI	X	X	X	X	X	X	X	x	X	X	
World Bank Booster Program	X						X				
UNICEF	X			X			X			X	
WHO			X			X		X	X	X	
IDB	X				X		X			X	
Chinese cooperation						x				x	
Private Sector	X						X			X	
MACEPA/Gates								X			
	NB:, OR=Operational Research, PM=Program Management										

NB: In terms of research, the PMI is supporting the Anti-larvae Program to map breeding sites and produce vectors in flooded areas of the Dakar suburbs. PMI's support began in 2007 and that of the Global Fund in 2002 with the Round 1 grant, followed by Rounds 4, 7 and 10.

The PNLP has, over the last five years, mobilized 160,798,814 EUR, most of which was donated by USAID/PMI.

Table 5: Trend in the contributions of State and partners, 2009 to 2014 (in EUR)

Partenaires	2009	2010	2011	2012	2013	2014
ETAT	1,646,449	1,317,160	754,368	651,867	1,251,867	1,272,280
USAID/PMI	13,329,502	13,209,194	16,585,264	24,123,938	18,168,690	15,988,700
UNICEF	470,392	470,392	470,392	31,790	58,689	117,386
OMS	263,708	74,690	279,377	29,241	17,677	7,331
FM/STP	9,823,835	1,922,016	828,668	15,296,254	14,302,916	7,949,364
BID	6,214,036	-	-	-	-	
JAPON				7,263		
FRANCE				145,370		
MACEPA/Gates	-	-	95,809	209,251	176,336	238,330
TOTAL	31,747,922	16,993,452	19,013,878	40,494,974	33,976,175	25,573,391

The areas not submitted for Global Fund financing from 2015 to mid-2017 are:

- Areas fully covered:
  - IPT entirely financed by the State (free policy) and USAID/PMI.
  - Surveillance of vectors/susceptibility to insecticides covered by USAID/PMI.
  - Surveillance of parasite susceptibility to ACTs is covered by USAID/PMI
  - Monitoring LLIN durability is provided by USAID/PMI
  - SMC covered by USAID/PMI and UNICEF.
  - Care and support: RDT and ACT covered by USAID/PMI and IDB, drugs for severe cases covered by USAID/PMI and State.
  - Pre-referral treatment of severe cases among children under 5 years with rectal artesunate suppositories has now been established and will commence in 2014 with the technical and financial assistance of USAID/PMI.
  - Drugs within the context of integrated home-based care (antibiotics, oral rehydration salts/ORS, zinc) are financed by the State and UNICEF.

MSAT and FSAT are entirely covered by MACEPA. These interventions will be in pre-elimination areas of low prevalence

- Areas partly covered:
  - Vector Control` Program: IRS in 4 districts covered by USAID/PMI.

- Areas not covered
  - Anti-larvae Program.

b. The availability of funds for each program area and the source of such funding (government and/or donor). Highlight any program areas that are adequately resourced (and are therefore not included in the request to the Global Fund).

The State will provide counterpart funding of 5 percent of the amount granted. Through the Directorate for Administration and Management of Equipment (*Direction de l'Administration et Gestion de l'Equipement* / DAGE), the MSAS will include this in its budget in the Amending Finance Law. A letter of commitment issued by MSAS will underpin the country's willingness to pay (budget session in October of the current year). Monitoring of the State's respect for its commitments will be done by the PNLP, in coordination with the Country Coordinating Mechanism (CCM) and the CCPLP in the context of coordinating bodies (monitoring tools).

Letters of commitment and investment plans will be requested from the other partners. Each quarter, implementation progress will be considered in the quarterly partners' review.

c. How the proposed Global Fund investment has leveraged other donor resources.

This funding application will be used as an advocacy tool to mobilize resources enabling the PNLP and its technical partners to achieve the objectives set. The advocacy strategy developed will take account of the major players in the malaria sector and will be built around targets identified as being essential to achieving the PNLP's objectives. This funding application includes resources to support the development and implementation of an advocacy plan. The private sector will be considered an essential partner with which to develop a solid basis on which to ensure future efforts. The advocacy strategy will be accompanied by a funding matrix (or contributions matrix) enabling the commitments of both the State and its partners to be established. Disbursements will continue to be made on this basis and according to the outcomes achieved, as well as financial supporting documentation. The CCPLP will ensure coordination of implementation. The internal and external control and audits system for the strategic framework will be strengthened to guarantee good governance.

d. For program areas that have significant funding gaps, planned actions to address these gaps.

The areas with significant funding gaps are LLINs and IEC/BCC.

For LLINs, the country intends to conduct a national mass distribution campaign in 2016 and the deficit relates to the purchase of LLINs and the campaign's operational costs.

Plan A: The gaps will therefore be taken into account in the funding application sent to the Global Fund with the sum allocated and the sum aboveto enable the campaign to be organized in 2016 and to ensure continuity of routine distribution, as recommended by the WHO.

Plan B: Without above-allocation financing, the country will no longer be able to conduct a national campaign in 2016. The regions covered in 2012 (4) and 2013 (4) will therefore be prioritized in 2015 (4) and 2016 (4) for a regional universal coverage campaign. We have already commenced discussions with other donors to fill this gap. The advocacy plan developed with this funding will be used to mobilize additional funds for LLINs. The country will, however, continue to seek additional financing from other partners in order fill the gap in routine distribution and to replace the LLINs distributed in 2014. For example, if necessary, we could negotiate a redeployment of PMI's planned IRS funding to LLINs.

For IEC/BCC: the gap identified relates to the communication campaigns that will accompany the broad program implementation strategies (UC, MSAT, SMC). The gap will be covered by the Global Fund, PMI and MACEPA. Efforts to mobilize domestic resources will continue, particularly in relation to the private sector, in the context of the "Zero Malaria" campaign(see "Zero Palu" document), and through implementing the advocacy plan financed by this application.

For IRS, advocacy work will be conducted to plug the gap and extend the work to eligible districts not covered by USAID/PMI.

2.2 Counterpart Financing Requirements

a. Availability of reliable data to assess compliance

Shared financial data on counterpart funding has been taken from the strategic framework and the budget implementation reports of the MSAS and its partners.

b. Minimum threshold government contribution to disease program

The Senegalese State's 5 percent contribution will be used as counterpart funding to leverage further funds from partners such as the Global Fund, USAID/PMI, IDB and also to finance the Pest Control Service (*Service de Lutte Anti-Parasitaire* / SLAP) and the PNLP.

c. Increasing government contribution to disease program

The national authorities in Senegal are proving willing in this regard, in particular the President of the Republic. Combating malaria is one of the national priorities set out in the national health policy. This can be seen in the gradual increase that has occurred in the health budget and the creation of a specific budget line for malaria, both in the Multi-annual Expenditure Planning Document (*Document de Programmation Pluriannuelle des Dépenses* / DPPD) and in the PNDS. It is also reflected in the actions of the Sector Investment Plan (*Plan d'Investissement Sectoriel* / PIS). This has resulted in an annual operating budget of 118,910 EUR for the PNLP and 44,200 EUR for the SLAP since 2011. The 5 percent counterpart funding from the MSAS for the different partnerships is in keeping with the consolidated investment budget (*Budget consolidé d'investissement* / BCI) held at the level of the DAGE for malaria actions. Moreover, the State will support malaria work with sectoral support (tax exemptions for ACTs, RDT, LLIN and staff recruitment). The State is currently providing free intermittent preventive treatment for pregnant women with sulfadoxine-pyrimethamine.

***Table 6:* Trend in State contribution, 2009 to 2014 (in EUR)**

Nature	2009	2010	2011	2012	2013	2014
Counterpart to IDB project included in the BCI	544,243	367,402	57,687	3,256	-	-

Counterpart to PMI project included in the BCI	914,694	762,245	533,572	152,449	806,760	880,453
SLAP operating budget	68,602	68,602	44,200	44,200	44,200	44,200
PNLP operating budget	118,910	118,910	118,910	118,910	118,910	118,910
Total Malaria budget line (in EUR)	1,646,449	1,317,160	754,368	318,815	969,870	904,028

d. Increasing government contribution to health sector

The Government's contribution to MSAS increased from 121,049,401 to 154,287,280 EUR between 2009 and 2013.

***Table 7:* Trend in Ministry for Health and Social Action budget, 2009 to 2013**

Budget	2009	2010	2011	2012	2013
Ministry of Health budget according to the Amended Finance Law	121,049,401	131,302,859	122,506,371	130,076,833	154,287,280

SECTION 3: FUNDING REQUEST TO THE GLOBAL FUND

This section details the request for funding and how the investment is strategically targeted to achieve greater impact on the disease and health systems**.** It requests an analysis of the key programmatic gaps, which forms the basis upon which the request is prioritized. The modular template (Table 3) organizes the request to clearly link the selected modules of interventions to the goals and objectives of the program, and associates these with indicators, targets, and costs.

3.1 Programmatic Gap Analysis

Table 2 analyzes programmatic gaps in LLIN

Note: Only the programmatic gaps in LLIN are included in this funding request, The modules that are difficult to quantify relate to IEC/BCC and M&E activities for home-based care (PECADOM):

- **IEC/BCC**

The gaps to be filled in terms of IEC/BCC and health promotion have been identified for the actions of several modules such as care and support, the Anti-larvae Program and SMC. Actions involving vector control, IPT, case management and SMC implementation will need a good communication strategy for behavior change in order to achieve the intended outcomes. The communication and promotion component has not often received sufficient financial resources to enable it to support the program in achieving its objectives. Moreover, communication has suffered from a lack of baseline data and indicators, making it difficult to implement evidence-based campaigns and to evaluate progress achieved with the support of all partners involved in combating malaria in Senegal.

With regard to advocacy, the objectives stated in the strategic framework require the combined efforts and national resource mobilization of both public and private sectors. Advocacy will therefore play an important role in mobilizing the resources to ensure full coverage of the national territory, and should have a positive effect on the use of malaria prevention and treatment services.

The communities are essential tools in promoting behavior change. The experience of the actions underway has shown the importance of using the communities to conduct outreach activities to combat malaria, such as home visits, educational talks and social campaigns.

This outreach work will be accompanied by institutional communication through the publication of a quarterly information bulletin and regular updating of the website.

- **M&E activities for home-based care**

M&E activities for home-based care relates to the scaling up of the supervision at all levels (central, ECD and ICP for the DSDOM) in the areas where integrated home-based care is being conducted and the evaluation meetings.

3.2 Applicant Funding Request

A 2014-2018 strategic framework resulting from the 2011-2015 PSN has been produced for the purposes of this proposal. The framework's global needs amount to 81,395,509,295 FCFA or 124,086,654 EUR. This strategic framework takes into account all the necessary requirements of the malaria program (government, non-government and community structures) in order to reflect the implementation of the program's strategies. The State supports the malaria program through an annual budget and sectoral support (tax exemptions, ACT subsidies and staff recruitment). The State is currently providing free preventive treatment for pregnant women in the form of sulfadoxine-pyrimethamine.

In addition to the funds mobilized to strengthen the malaria budget, the State provides counterpart funding to important projects aimed at further strengthening the work on malaria, funded by loans from international donors such as the Islamic Development Bank (IDB).

Funding envisaged from other partners and the State for the period 2014-2018, in addition to that from the Global Fund, is estimated at 77,748,138 EUR. Overall, the basic funding promises made by the partners in the context of external funding are being upheld.

For the 2015 – 2017 period, which covers the funding application to the Global Fund, the total amount is 28 103,520 203 F CFA or 43 025 915 EUR, of which 28,357,744 EUR for indicative financing and 14 668 171 EUR for above-allocation financing. This global amount has been obtained by identifying different budget lines (see Table 7).

NB: The Indicative budget of 28 357 744EUR devoted to malaria for this submission does not take the contribution of the malaria component of the HSS into account, which is 3,152,252 EUR, or around 10 percent, as recommended by the CCM. The activities in question relate primarily to district supervision, data management in the DHIS2 software, the supervision of private dispensing pharmacies, the supervision of community actors and institutional support for the Department for Pharmaceutical Medicines (*Direction de la Pharmacie et du Médicament* / DPM) and National Drug Control Laboratory (L*aboratoire National de Contrôle des Médicaments* / LNCM), as well as the strengthening of the supply system through the PNA.

Table 8 : Breakdown of budget for the funding application, by module (in EUR)

Domaines d'Interventions	**Somme**	2015	2016	2017	TOTAL	Part
Lutte Anti Vectorielle	Allouée	11 803 714	3 698 071	-	**15 501 785**	**55%**
	au-delà	9 892 346	3 261 377	-	**13 153 723**	**90%**
Gestion du Programme	Allouée	1 731 347	2 077 924	1 849 666	**5 658 937**	**20%**
	au-delà	109 100	25 100	25 100	**159 300**	**1%**

Prise en Charge ***	Allouée	741 111	570 334	568 743	**1 880 188**	**7%**
	au-delà	217 285	177 815	200 685	**595 785**	**4%**
Renforcement des systèmes communautaires	Allouée	1 345 896	1 211 787	634 798	**3 192 481**	**11%**
	au-delà	-	-	576 989	**576 989**	**4%**
Suivi Evaluation / RO	Allouée	850 840	734 195	539 318	**2 124 353**	**7%**
	au-delà	-	-	182 374	**182 374**	**1%**
TOTAL BUDGET	**Allouée**	**16 472 908**	**8 292 311**	**3 592 525**	**28 357 744**	**100%**
	au-delà	**10 218 730**	**3 464 292**	**985 148**	**14 668 171**	**100%**
	TOTAL	**26 691 638**	**11 756 603**	**4 577 673**	**43 025 915**	**100%**
Part		**62%**	**27%**	**11%**	**100%**	

This concept note is requesting 50 percent of the financial needs of the strategic framework for the period January 2015 to December 2017. Mobilization of these resources will contribute to further rolling back malaria in Senegal and leading the country towards pre-elimination. The budget for this two-and-a-half year funding application over 3 years is far greater in the first year, which corresponds to the year in which funding is requested for the mass campaign (65 percent of budget). The second year accounts for 27 percent and the third year 11 percent. The most significant of the different interventions that will have a real impact on program performance are as follows:

- *Vector control:*

This amounts to 28,655,508 EUR or 70 percent of the global funding (43 025 915 EUR). This funding application includes the sum allocated and the sum above allocation and is essentially devoted to purchasing 7,731,218 LLINs, of which:

- 3,967,635 are requested as Indicative for the 2016 mass campaign;
- 1,901,691 are requested as above-indicative for the 2016 mass campaign;
- 1,211,678 are requested as above-indicative for 2016 routine distributions;
- 650,214 are requested as above-indicative for 2017 routine distributions.

The purchase of LLINs will be done systematically in the year prior to their use in order to ensure their availability.

Amendments are going to be made to the LLIN mass distribution campaign strategy. Instead of annual campaigns by phase and by region, one single national distribution campaign covering all regions simultaneously will be organized every 3 years.

In fact, repeated planning for the implementation of a gradual distribution strategy is forming a major constraint to the coordination of operational schedules and to the quantification process. Moreover, less time is being devoted to monitoring the effective use of the LLINs that are distributed. The theoretical efficacy of LLINs also varies according to the distribution phase, given that the nets distributed differ in terms of lifespan and are distributed in different areas. A simultaneous national distribution campaign, however, will enable a more rational use of the national media (TV/radio) specifically for this campaign.

In order to maximize performance, a monitoring and coordination mechanism will be established at the level of the national supply system. Regular meetings of the platform, which groups together the programs, partners and PNA, will be organized. This grant will contribute 7,274 EUR to coordinating and monitoring inputs management in the context of cost sharing with the PNA and other priority programs.

- *Case management:*

The overall amount for case management submitted to the Global Fund is 2475 973 EUR, or 6 percent of the global budget, not including the necessary inputs. This relates to the financing of the

actual activities and not the inputs, which will be covered by partners.

To ensure better management of malaria cases and respect for guidelines, private and public actors' capacity will be strengthened through the allocation of a 150 449 EUR budget. This will be a question of providing training and refresher courses for public and private sector service providers, and training and refresher courses for pharmacists/biologists and laboratory technicians on microscopic diagnosis and polychain reaction (PCR) with 30 496 EUR. An annual paludology course for senior (doctors, pharmacists) and intermediate (senior health technicians involved in program management) staff at the operational level will also be organized, with a budget of 384,057 EUR. These trained health providers will be the support staff for training, monitoring and supervision.

Confirmation of suspected cases in pre-elimination zones will be strengthened through microscopy with a PCR check to detect low parasitemia. Quarterly field visits will be organized during implementation to conduct PCR, with a budget of 22 865 EUR.

At community level, M&E activities for integrated home-based care will be strengthened with an allocated budget of 821 434 EUR.

Community-level supplies and quality assurance and control for diagnosis will primarily be financed by the PMI. Institutional support for the pre-qualification of the drug control laboratory, along with quality control in the dispensing pharmacies, is paid into the HSS.

The other different activities together come to 506 733 EUR and relate to implementing evidence-based communication campaigns plus malaria action plans for the education sector in the context of a multi-sectoral approach.

- Moreover, an amount 238 442 EUR is requested, primarily for activities aimed at quantifying the needs at each level and purchasing laboratory consumables.*Surveillance and Response:*

The budget for surveillance and response is 312 495 EUR, or 0,7% percent of the overall budget. These actions relate to improving early detection and detection of epidemics and intensifying the response to, and investigation of, cases. Entomological surveillance consists of conducting surveys aimed at establishing the vector species involved in transmission, establishing their trophic behavior and studying their susceptibility to WHOPES-approved insecticides.

- *Supply and inventory management:*

The amount requested is 225 278 EUR and corresponds primarily to activities to quantify the needs at each level and the acquisition of laboratory consumables.

- *Monitoring & Evaluation / Operational research:*

The anticipated budget for M&E is 2 306 727 EUR, or 5 percent of the overall budget of the funding application. This covers the collection, dissemination and sharing of information at all levels in order to improve decision-making. This strategy will be supported by ongoing supervision of service providers, with an allocated budget of 902 099 EUR.The budget for monitoring the quality of pharmacovigilance in pregnant women under ACT is 70 743 EUR. Formative research, which includes the different program themes and will enable a solid communication plan to be produced on the basis of behavior change, will be undertaken in the first year with a budget of 22,105 EUR.

The budget for supervision of CBO activities comes to 291 240 EUR, and the budget for quarterly reviews totals 402 770 EUR. Other different activities account for 1922 639 EUR and relate primarily to evaluation of the strategic framework, the supervision of providers and quarterly reviews of the activities for malaria prevention.

- *Program management:*

The estimated amount for program management in this funding application is 5 818 237EUR over 3 years, or 14 percent of the overall budget. Program management presents major challenges in terms of improving implementation performance. For this, concrete actions such as those specified in the

action plan for the strategic framework (p 63) will be implemented. The main actions included in this application to the Global Fund can be grouped into the following headings:

- Policy, Planning, Coordination and Management 241 734 EUR
- Grant management 5 559 124 EUR;
- Support for the procurement management system 17 379 EUR

For the PR2, the human resources of Phase 1 of Round 10 for the 6 regions have been maintained for this application even though the interventions cover the 14 regions of the country.
This funding application will complement the efforts already being made by the State and its partners. In fact, activities such as strengthening of PNLP coordination will be financed out of the State budget or covered by direct funding from USAID.

- *Strengthening of the Community System:*

The community system will be strengthened through training and refresher courses for community outreach workers to ensure better implementation of the package of activities to be devolved to them. The system for monitoring, evaluating and implementing community-level activities will also be strengthened. The overall amount anticipated is 3 769 470 EUR, or 9 percent of the global budget. These community-based interventions will be implemented in the 76 districts of the country.

The PR 2 will enter into contracts with sub-recipients who will rely on CBOs to implement a high-quality community package in cooperation with the health districts. This package comprises: the use of LLINs, early treatment-seeking, IPT, destruction of breeding sites, contracts with community radio stations and activity monitoring. The messages contained in this package will be adapted to the epidemiological situation in the intervention zones and the results of the behavior surveys. Specific questions will be included in the National Malaria Survey questionnaires for 2014.

The contribution of community actions to program performance, in terms of the population's support of the program's strategies (early treatment-seeking, IPT, use of LLINs, seasonal malaria chemoprevention, acceptability of IRS), confirms that we should retain these community actions within the strategy. Due to budgetary restrictions, these community actions have been revised downwards in relation to Phase 1 of Round 10.

With the support of the CCM, the PRs will ensure a synergy of interventions and the implementation of an integrated TB/HIV/malaria package at community level to ensure sustainability and the collaboration with the community health cell. CBO activities will be strengthened by mobile communication unit field trips that will crisscross the districts every 6 months to raise awareness, under the supervision of the districts and SR.

3.3 Modular Template

a) Explain the rationale for the selection and prioritization of modules and interventions.

- ***Vector control:***

After allocating the amount for HSS, the available budget (28,366,173 EUR) for this application is insufficient to cover the gaps emerging from our analysis of the needs contained in our Strategic Framework. In fact, vector control with LLINs alone requires a budget of 28,655,508 EUR, which exceeds the sum allocated.
To achieve the goals of the 2014-2018 Strategic Framework, we need to implement all interventions for which a gap has been identified, hence the need to request above-allocation financing. This has led us to prioritize the choice of interventions for the amounts allocated, on the understanding that we cannot use up the entire budget allocated to LLINs. This is why, bearing in mind the financing alternatives that may exist depending on the interventions selected within the Concept Note, we have decided to prioritize part of the LLINs in the sum for above-allocation

financing. In fact, the risk of not obtaining the above-allocation sum for LLINs may be better circumvented by the implementation of Plan B (see page 16) and the possibility of PMI diverting their funding towards LLINs rather than other activities. To this must be added the possibility of promoting this kind of investment more robustly than other interventions to the private sector and other donors.

This module has been chosen for its direct impact on reducing transmission and the number of malaria cases. As such, it constitutes a priority for the pre-elimination objective.
LLINs are a targeted intervention given their proven efficacy from both an individual and a collective viewpoint, as compared to anti-larvae programs. An analysis of implementation performance has shown gaps both in terms of availability and use. An implementation strategy such as UC, which has been implemented by the PNLP, offers significant potential for ensuring high availability within a relatively short time.
Part of the sum allocated is reserved for the costs of this intervention (LLIN and operating costs). Identifying a gap aimed at incentive financing will enable all the needs of the mass campaign to be covered and, where appropriate, the benefits to be sustained through routine distribution.

- *Case management:*

Care and support is a fundamental strategy of any program aimed at combating disease. It is essential whatever the level of endemicity in the country or zone in question. Effective diagnosis and treatment tools now exist and must be scaled up to cover all people who need them.
Three implementation strategies will be developed: capacity building, strengthened biological diagnosis and community care.

Capacity building:

To ensure better quality of care, it is essential that the actors' knowledge and practices are in keeping with the most recent international norms and standards. This has led the PNLP to revise its care and prevention guidelines, and to train the providers in these. With regard to severe malaria, the review focuses on introducing injectable artesunate as a first line and injectable artemether and quinine as a second. The artemisinin derivatives are characterized by their rapid action, reducing the risk of death from severe malaria but also reducing the episodes of hypoglycemia that occur in patients treated with quinine. These molecules are designed only for use in health centers and hospitals.
The pre-referral treatment approach within the new strategies should also be noted, which consists of the use of artesunate rectal suppositories before referring children under the age of 5 with severe malaria; this considerably improves their subsequent prognosis.
For uncomplicated malaria in pregnant women, the use of ACTs has also been recommended for the treatment of cases during the 2nd and 3rd trimesters of pregnancy. This will enable: better access to treatment; reduced treatment and indirect costs; reduced delays in hospitalizing patients; improved hospital indicators such as average length of stay; fewer undesirable side-effects related to quinine; and the efficacy of quinine will be preserved.
This training of providers in the use of these effective tools, through the Global Fund, will have a clear impact on malaria-related mortality.
Malariology courses for middle and senior management will enable better malaria management at all levels.

Improving biological diagnosis:

Following the introduction of the T3 notion (Test, Treat, Track), all cases of notified malaria must be confirmed biologically, and the RDTs have greatly contributed to this objective through their ease of use and their quality. For cases of severe malaria, the reference examination remains microscopy and the PNLP must continue to provide referral structures with consumables out of this financing, microscopes already being available (in case of need, the PMI is able to provide more).
Moreover, in areas of low prevalence (less than 5 permil), PCR needs to be used to measure the number of cases with a low parasite density not detectable by RDT and microscopy.

Community care:

Home-based care in its comprehensive form enables the care package provided by the community-level DSDOM to be extended to the treatment of diarrhea and ARIs, above all among children under 5 years, through the use of appropriate diagnostic resources and easy-to-use treatments. It will facilitate treatment in the most remote areas, thus reducing delays in the provision of care and enabling a clear impact to be achieved with regard to infant mortality, a large proportion of which is due to these three illnesses. As indicated in the iCCM (integrated Community Case Management), aspects of training, monitoring and purchase of anti-malarial inputs will be covered by the Global Fund. Anti-malarial inputs will not be purchased by the Global Fund, nor drugs for treating diarrhea and ARIs, which will be provided by the State and UNICEF. The funding of anti-malarial inputs will be covered by PMI/USAID and the Chinese Cooperation.

- ***Surveillance and Response:***

Stratification has enabled zones of very low prevalence to be identified (north of the country). These are already considered pre-elimination areas at risk of epidemic. These areas must be subjected to strengthened surveillance with weekly notification and the calculation of an alert threshold in order to be able to organize a rapid response in case of need. All cases identified will need to be documented and investigated, with an absolute need to track all potential cases by involving the private medical sector and dispensing pharmacies.

The other strata will form the object of standard surveillance with sites providing weekly notification and other facilities producing monthly reports.

- ***Supply and inventory management:***

Ensuring the permanent availability of, and access to, drugs and products on the part of the whole population is a priority for any health program, hence the importance of supply and inventory management. This application to the Global Fund will primarily involve LLINs, other inputs being provided by the PMI and other partners.

Apart from these purchases, and with a view to considerably improving the continuous availability of quality inputs at all treatment centers, particular focus will be placed on strengthening the procurement and supply management system with the aim of optimizing performance. Capacity building of the structures and organizations involved in procurement and in the supply chain (design of new tools, definition of a new political and regulatory framework more adapted to management and procurement of drugs and malarial products, capacity building at the operational stock management level, the involvement of the private sector in the distribution of malarial products) is intended to contribute significantly to improving the supply of inputs to treatment centers.

- ***Epidemiological surveillance and operational research:***

The PNLP has established a system for monitoring implementation and performance that relies on the health system and is incorporated into the national health information system within the Department for Planning, Research and Monitoring (*Direction de la Planification, de la Recherche et du Suivi* / DPRS). This information system, hosted by the DSIS, enables data to be collected on activities in the public, semi-public, private and community sectors.

Once the DHIS 2 is operational and the health and demographic surveys implemented (ongoing EDS), this will enable improvements in the regularity and availability of information and will help mitigate certain perturbations linked to mood swings (information retention).

Monitoring and evaluation procedures will be based on the PNLP's M&E manual. The M&E plan helps to measure progress according to the outcome indicators described for each objective. The plan combines the monitoring of routine data, surveys within the target facilities and a final evaluation in order to determine the effects and impact of the project.

Regular data and information management:

For ongoing program monitoring, a robust routine is essential as this enables the provision of regular and reliable information and enables malfunctions to be rectified in time. The health facilities produce monthly reports, which they send to the medical regions and the PNLP every quarter. This data is shared and validated during a review that includes all actors concerned, thus enabling the

central level to provide feedback to the intermediary and operational levels.

Supervision of service providers:
The district-level (health center, health center and community level) and hospital providers are supervised by the PNLP and medical regions twice a year. This formative supervision enables quality service delivery to be assured through a problem resolution plan. The health district also receives support for the monthly supervision of sentinel sites and the home care providers. Experience has shown that their performance is negatively affected whenever health workers go a long time without any supervision, hence the need to prioritize this request for funding.

Evaluation:
2015 will correspond to the end of the 2011-2015 strategic plan and its final evaluation (and the mid-term evaluation of the 2014-2018 strategic framework). The program review to be undertaken will enable performance to be measured and recommendations to be made for the 2016-2020 plan.
Formative research and evaluation of campaigns for communication and health promotion. This will be conducted in order to identify decisive factors in people's behavior, the profiles of target groups, the most appropriate channels of communication and the most appropriate support. This research will also highlight the specific features of large geographic regions and the resulting communication strategy will be linked to current epidemiological realities.

Pharmacovigilance of pregnant women
Pharmacovigilance concerns all drugs in Senegal and is conducted in the whole country. For the particular case of pharmacovigilance in pregnant women under ACTtreatment, active monitoring will be conducted at 05 sentinel sites in the areas where it is possible to have more cases of malaria in pregnant women. It is important to conduct this active monitoring because the administration of ACT to pregnant women is a new intervention and our national pharmacovigilance system is not yet effective enough to handle the side effects that may occur in this target group.
Monitoring the quality of RDTs at operational level will be conducted in collaboration with UCAD.

- ***Program management:***

Strengthening program management is a priority objective of this funding application, and is also supported by the Government and its counterparts with the aim of optimizing the implementation of all malaria actions in Senegal.
PNLP management has been considerably improved and strengthened since 2005 thanks to an increase in staff and better organization of the coordination unit. This has been made possible through the mobilization of financial resources, a stronger partnership and the remarkable results in terms of malaria prevention and control obtained in the country. Nonetheless, challenges still remain, particularly in terms of the important objective of pre-elimination, which requires better intra- and extra-sectoral coordination of work, capacity building and the smooth running of the PR coordination units. To this must be added the fact that the number of partners has increased and so the volume of financial flows requires greater management coordination capacity in order to ensure good governance.

An organizational audit has therefore been commissioned to help better adapt the management to the new situation. The results of this audit will be available at the end of August 2014, along with an action plan for implementing the recommendations.

- ***Strengthening the Community System:***

Community-based interventions will be implemented in the 76 districts of the country. The community system will be strengthened through training, refresher courses and supervision of community workers for better implementation of the care package (LLIN distribution, awareness raising on use of LLINs, early treatment-seeking, IPT, destruction of breeding sites during home visits, educational talks, social campaigns and radio broadcasts, sanitation) that will be devolved to them.
The contribution of community actions to program performance, in terms of the population's support of the program's strategies (early treatment-seeking, IPT, use of LLINs, seasonal malaria chemoprevention, acceptability of IRS), confirms that we should retain and even expand these

community actions within the strategy.

b) Describe the expected impact and outcomes, referring to evidence of effectiveness of the interventions being proposed. Highlight the additional gains expected through the above-indicative financing.

- ***Vector control:***

The success of the mass campaign using quality LLINs will contribute to lowering the incidence of malaria and, consequently, to a significant decline in the country-level budget required to purchase inputs for the treatment of cases.
The priority given to this strategy of universal coverage of LLINs has led to an incentive funding application to cover the needs identified in the mass campaign and routine distributions through various channels (school, community, health).

- ***Case management:***

Capacity building:
The introduction of new treatment interventions into the national malaria strategy in Senegal should enable the care of malaria cases to be optimized, reducing the length of hospitalization and the costs related to complications due to late treatment. This could also enable a better rationalization of the treatments provided, with a lowering of the cost of care at household level.
To achieve the objectives set by the PNLP for 2018, notification will need to be improved as will treatment of cases at community level (home-based care and health points) with an extension of the care package to ARIs and diarrhea. In fact, all these strategies will enable malaria-related mortality to be reduced.

Strengthening of biological diagnosis:
In order to correctly assess the epidemiological status of malaria and ensure quality care, diagnostic tools must be available throughout the country. Through this grant, the PNLP wants to improve diagnosis of severe cases and cases with a very low level of parasitemia in pre-elimination areas.

Strengthening community care and support:
Strengthening home-based care will enable the early treatment of cases, and this will have a positive impact in terms of reducing the number of severe cases and malaria-related deaths, in addition to lowering the average unit cost of treatment. This represents a beneficial approach to tackling poverty at household level in peripheral areas, in addition to strengthening the life skills of family members.

The close monitoring of cases that home care providers can offer results in early treatment of cases at home, thus contributing to reduced time off work and school due to malaria. This culminates in improved family productivity but also time saved for health professionals. This time saved can be redirected towards other interventions, particularly in the community.

IEC/BCC health promotion:
The communication strategy that will emerge from the planned formative research will be linked to current epidemiological realities. The rationale is that the provision of good information will have a positive impact on both morbidity and mortality through early treatment-seeking at health care facilities. Advocacy coupled with community-level interventions will encourage an informed decision-making process around establishing national policies and finding the necessary resources to implement them. This will help create an environment favorable to scaling up malaria interventions. Advocacy aimed at the public sector will enable the production or adjustment of policies and laws essential to the good implementation of the strategies described in the PNLP communication plan. Part of the promotional materials are in the above-allocation amount

- ***Surveillance and Response:***

Surveillance and response are obligatory activities for any program aimed at combating a communicable disease. In Senegal, sentinel surveillance sites have been established since 2008

and the systematic investigation of cases in Richard Toll district has demonstrated the relevance of this strategy in terms of this funding application.

- ***Supply and inventory management:***

Capacity building of structures (PNA, PRA) and actors in charge of inventory management (depositaries) at operational level will enable storage and transfer standards to be more rapidly achieved with the aim of ensuring satisfactory availability of quality products at all levels.

Improvements in the information system will enable all actors to have access to the necessary real-time data to ensure correct distribution and effective monitoring of inputs.
Private sector involvement in the distribution of basic quality drugs and products will enable universal access to be achieved.

- ***Monitoring & Evaluation and Operational Research:***

Monitoring of malaria actions enables their quality to be guaranteed; evaluating them enables lessons to be learned that can serve to guide short, medium and long-term strategies. This activity therefore offers a greater guarantee of efficacy, and thus a good return on the resources invested. Operational research will be strengthened, enabling informed decision-making for improved performance in program design and implementation.

- ***Program management:***

Achieving the objective of pre-elimination requires the ability to adapt program leadership and management skills to the changes occurring in the internal and external program environments. External actors involved in malaria work have multiplied at central, intermediate and operational levels, and the semi-public and private sectors have become increasingly involved, to the benefit of different treatment initiatives.
Competition for public resources is becoming increasingly difficult within the country, with the focus now on performance in the new context of results-based management. The financial and technical partners' assistance arrangements are in keeping with this dynamic, and in accordance with the principles of the Paris Declaration. This why priority programs such as malaria will be increasingly financed through innovative performance-related mechanisms. It is therefore becoming essential to establish an appropriate management structure at the level of the PNLP in order to optimize the capacity for absorbing these funds and to ensure effective program management. This process will mean building on lessons learned during the four five-year strategic plans that have been implemented over the past 17 years.

- ***Strengthening of the Community System***

A synergy of interventions and the implementation of the integrated TB/HIV/malaria package at community level will contribute to the sustainability of actions at this level. When a chosen SR benefits from a Global Fund grant for TB or HIV, this funding will include training, a package of community activities, supervision and reporting. An integrated approach and synergy will also be established in the PR2's HIV and TB work, with CCM facilitation. Rigorous selection of CBOs will be vital in order to identify strong organizations capable of implementing this integrated approach.

3.4 Focus on Key Populations and/or Highest-impact Interventions

This question is <u>not</u> applicable for low-income countries.

Senegal is a low-income country.

SECTION 4: IMPLEMENTATION ARRANGEMENTS AND RISK ASSESSMENT

4.1 Overview of Implementation Arrangements

a) The reason why the proposed implementation arrangement does not reflect a dual-track financing arrangement, if appropriate

The dual-track financing recommended by the Global Fund has been followed by the CCM and offers an opportunity to strengthen cooperation between the MSAS and other actors involved in combating malaria.

b) If more than one Principal Recipient is nominated, how coordination will occur between Principal Recipients.

This situation offers an unprecedented opportunity to strengthen already existing synergies between State and civil society actors in order to support the efforts to accelerate malaria control with a view to its pre-elimination. Better coordination is an important factor for program success and will thus enable optimal implementation of activities.

During phase 1 of round 10, great efforts were made to prevent the risk of duplicating interventions at community level. In fact, the two PRs' areas of intervention were clearly delineated within the implementation strategy. There was regular verification of all CBOs, although this represented a constraint and a work overload. Nonetheless, the mapping done by the 2 PRs in round 10 showed that there was still a risk of duplication in joint intervention areas.

For this proposal, a harmonized package of community-based interventions will therefore be implemented by a single PR with CBOs/community networks throughout the country.

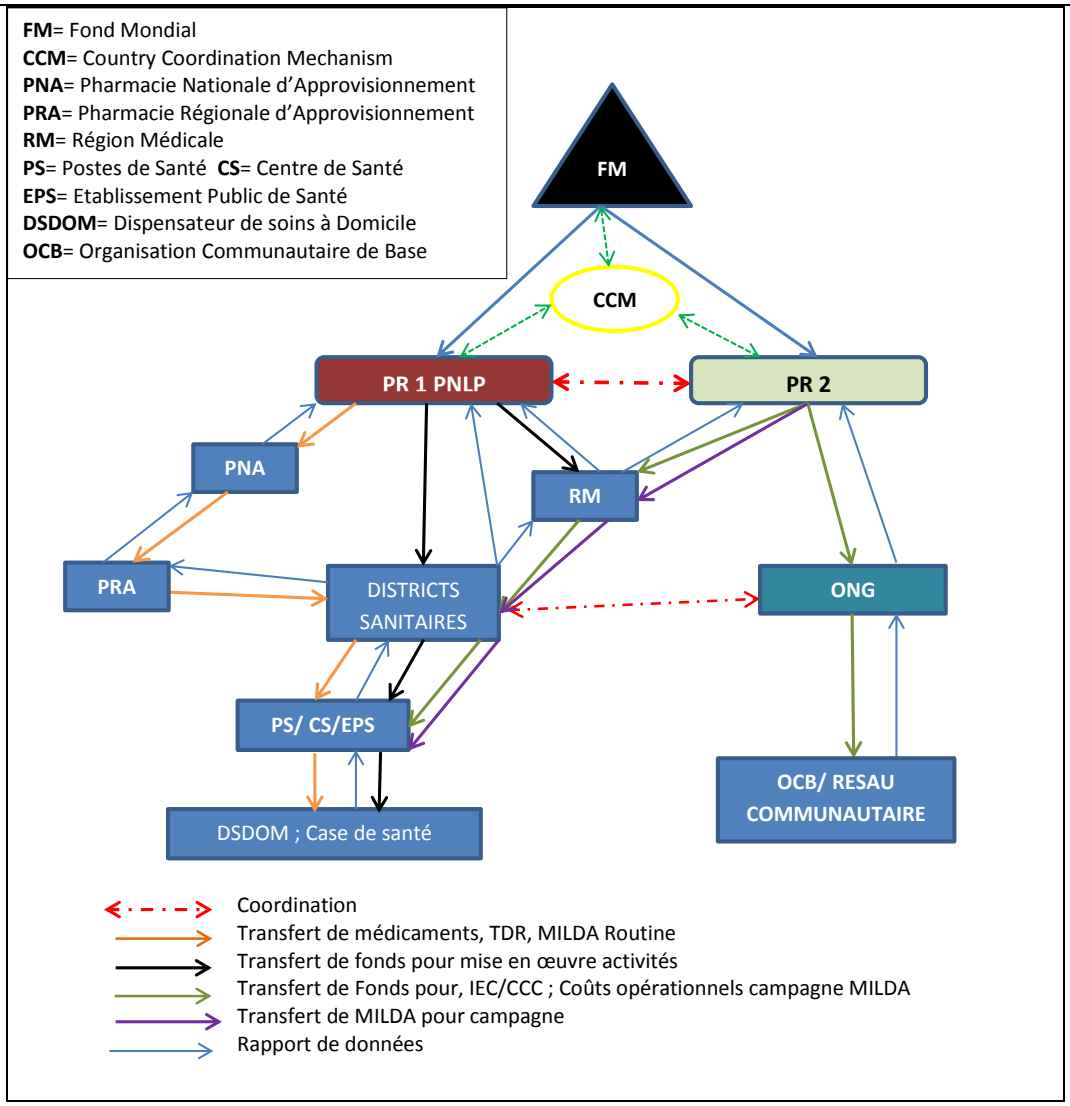
Coordination will be established through a partnership agreement signed between the Senegal CCM and the 2 PRs. This will primarily be based on programmatic and technical management mechanisms, budgetary monitoring and an evaluation of the involvement of the PRs and SRs.

The joint coordination committee (*Comité conjoint de coordination* / CCC), comprising the two PR coordinators, M&E officers, program officers from the two PRs and the coordinator of the CCM technical secretariat, which has been in place since the first dual-track financing with R10, will be improved in operational terms.

The PNLP coordinator will hold the chair and the PR2 coordinator will be the general secretary. It will meet each month and alternate between the two PRs. The joint committee meetings could be expanded every so often to all SRs and partners in order to provide an update on activities.

The CCC will have the following primary responsibilities: (i) to coordinate the action plans of the 2 PRs and SRs; (ii) to ensure coherence in the implementation of activities, in accordance with the annual work plan; (iii) to harmonize the training and supervision plans; (iv) to facilitate thematic working groups, particularly with regard to social campaigns, community management and M&E; (v) to ensure respect for the information sharing and feedback system; (vi) to conduct a joint review of implementation on the basis of existing mechanisms; (vii) to provide technical assistance where needed.

Figure 7 : Organizational Chart



The Malaria Partners Consultation Framework will also be an ideal body for regular monitoring of the implementation of activities devolved to the 2 PRs and thus a guarantee of the success of this dual-track financing.

c) The type of sub-recipient management arrangements likely to be put into place and whether sub-recipients have been identified.

Each PR will monitor implementation of the SRs' activities that are its responsibility, in accordance with pre-established conditions. These conditions will be submitted to the CCM and Global Fund for approval at project start-up. Quarterly joint reviews of data held by the district and regional teams will be conducted jointly by the two PRs, and the SRs will be invited to participate in these meetings. The specific indictors for PR2 will, to this end, be included in the framework of district presentations; it will be the same for the quarterly reviews with SRs, which will also involve PR1.

Supervision of SRs will be conducted by each PR, in accordance with its sphere of responsibility, in terms of technical monitoring of the implementation of the relevant interventions.

A mid-term project review will be conducted after 18 months of implementation. At this time, all actors, PR1, PR2 and SRs will share the results of project implementation and difficulties arising, and will propose corrective solutions to address the weaknesses.

d) how will coordination occur between each nominated PR and its respective sub-recipient(s).

Each PR will sign a funding agreement with its SRs, to be submitted to the CCM. Coordination of

implementation will take place every three months, following reviews, supervisory and technical audit missions and data quality control. An implementation M&E manual with, among other things, information gathering and reporting materials, will be developed for each PR and shared with the SRs.

4.2 Ensuring Implementation Efficiencies

a) Describe how the funding requested links to existing Global Fund grants or other funding requests being submitted by the national coordinating body.

This funding application is a continuation of grants underway under R10 and consolidates the previous grants obtained by the PLNP and IntraHealth. Within its applications to renew and consolidate grants already underway, the CCM has focused on coordinating and aligning all country grants with the national planning cycles and establishing evaluation and reporting systems. This will enable better strategic monitoring aimed at improving the performance of the PRs. As Senegal is the beneficiary of an HSS grant under R10, this includes cross-cutting interventions and supports the grants for disease-fighting programs. For this new funding application, the same process will be vital and several interventions have been identified as eligible for the HSS (institutional support for central services**,** district supervision by the medical regions and purchase of equipment for facilities).

The MSAS, private sector, civil society and technical and financial partners are well represented in the CCPLP and are involved in financing the Strategic Framework, which is the single intervention framework for malaria in Senegal. As with other strategies and activities supported with funding from other partners and the State, the activities implemented within this grant will be in addition to those of the other partners, in the context of operational plans to be drawn up.

b) Explain how this request complements (and does not duplicate) any human resources, training, monitoring and evaluation, and supervision activities.

The strengthening of community organizations will form a major focus aimed at ensuring that results will be achieved and high-quality services provided. This grant will enable the scaling up of community-level integrated care, relying on the strategy of home-based care alongside actions implemented in the context of the child survival plan. A significant number of home care providers will receive training, particularly in care and support. These home care providers are community service providers who complement the workforce devoted to care and support. The mapping of community actors will be updated under the guidance of the national coordination body.

Most of the public sector organizations involved in implementing this grant already have proven experience in malaria actions. For greater program efficacy, technical and financial capacity building of these sectors is anticipated to ensure quality interventions and reporting.

The Ministry of Health conducts regular evaluations of the PNDS, and these cover all programs involved in combating the disease. Annual evaluations of the three-year plans are given in an annual report on implementation of the CDSMT, which is a results-based mechanism. An internal monitoring committee meets every three months to monitor and assess national program implementation.

4.3 Minimum Standards for Principal Recipients and Program Delivery

PR 1	**MSAS**	**Sector**	**Public**

Does this Principal Recipient currently manage a Global Fund grant(s) for this disease component or a cross-cutting health system strengthening grant(s)?	**Yes**

Minimum Standards	CCM assessment
1. The Principal Recipient demonstrates effective management structures and planning	Yes, the PR has an effective planning and management unit organized into offices (Administrative and Financial Office, M&E Office, Care and Support Office, Prevention Partnership Office) with good experience of handling Global Fund grants.
2. The Principal Recipient has the capacity and systems for effective management and oversight of sub-recipients (and relevant sub-sub-recipients)	Yes, the PR is capable of providing strategic management and monitoring of SRs(health districts) under the coordination of the M&E office and with the support of the program focal points responsible for monitoring implementation of activities at SR level.
3. The internal control system of the Principal Recipient is effective to prevent and detect misuse or fraud	Yes, an internal auditor has been in place since the implementation of R10; he is responsible for supporting the financial team in their management of both internal risks and those at the level of SR in order to prevent abuses and fraud; regular meetings for technical and financial monitoring are therefore held in order to improve the management of the funding received.
4. The financial management system of the Principal Recipient is effective and accurate	Yes, the financial management system of the PR is effective and accurate as this body has good experience of managing funding from the Global Fund and other partners; this system has also been strengthened with accountants (2), an internal auditor (1) and a financial assistant (1) in order to improve the quality of financial management.
5. Central warehousing and regional warehouse have capacity, and are aligned with good storage practices to ensure adequate condition, integrity and security of health products	Yes, the PNA has a central warehouse and PRAs, which will be strengthened by USAID/PMI/Abt, and they follow good storage practices to ensure the adequate conditions, integrity and security of health products.
6. The distribution systems and transportation arrangements are efficient to ensure continued and secured supply of health products to end users to avoid treatment/program disruptions	Yes, through the PNA, which is in the process of establishing a push model, the distribution systems and transportation arrangements will be improved and will ensure a continuous and secure supply of health products to end users.
7. Data-collection capacity and tools are in place to monitor program performance	Yes, the M&E plan, the M&E procedures manual, the Results-Based Management, Monitoring and Evaluation (RBMME) and the data gathering tools developed by the M&E unit all ensure good availability of program outcomes.
8. A functional routine reporting system with reasonable coverage is in place to report program performance timely and accurately	Yes, the system established by the PNLP to provide routine information is hosted by the national health information system and enables timely program results to be provided; the data are collected regularly through periodic reviews organized with the medical regions and health districts.
9. Implementers have capacity to comply with quality requirements and to monitor product quality throughout	Yes with the arrangement established by the National Drugs Control Laboratory, the Parasitology Laboratory and the Vector Ecology Laboratory, which enables monitoring of the quality of the main inputs (ACT, RDT, LLLIN) to be provided at all levels.

the in-country supply chain	

4.3 Minimum Standards for Principal Recipients and Program Delivery			
Complete this table for each nominated Principal Recipient. For more information on minimum standards, please refer to the concept note instructions.			
PR 2 Name	INTRAHEALTH	Sector	Civil society
Does this Principal Recipient currently manage a Global Fund grant(s) for this disease component or a cross-cutting health system strengthening grant(s)?		Yes	
Minimum Standards		**CCM assessment**	
10. The Principal Recipient demonstrates effective management structures and planning	YES. IntraHealth has been implementing various projects in Senegal since 2006, financed by different donors, including USAID, the Bill and Melinda Gates Foundation, the Hewlett Foundation, the Pfizer Foundation, Merck for Mothers and the Global Fund. IntraHealth's office in Senegal has a Finance and Sub-Recipients Division comprising a Finance and Sub-Recipients Director, 1 Deputy Director, 4 Financial Assistants, 2 Accounting Assistants, 2 Sub-Recipients Officers and 1 Sub-Recipients Assistant. IntraHealth also has a General Services and Human Resources Division comprising a General Services and Human Resources Director, 5 Administrative Assistants, 2 Procurement/Supply Assistants, 2 Human Resource Assistants, 1 Travel and Logistics Assistant and 1 IT and Networks Assistant. These management structures have enabled it to manage a diversified portfolio of donors, including the Global Fund since 2012. Moreover, IntraHealth benefits from the technical support of the Finance and Contracts Department of its head office, based in North Carolina.		
11. The Principal Recipient has the capacity and systems for effective management and oversight of sub-recipients (and relevant sub-sub-recipients)	IntraHealth has good experience of managing SRs and has a sub-contracts finance and monitoring department that supervises grants management, with the support of head office; it also has an M&E unit. A plan for building SR capacity is being implemented, following an evaluation of the programmatic and management capacities of the SRs. Strategic monitoring is conducted through supervisory visits. IntraHealth is currently working through 24 civil society and international NGO sub-contractors and 45 government sub-recipients to implement its projects.		
12. The internal control system of the Principal Recipient is effective to prevent and detect misuse or fraud	IntraHealth is regularly audited internally by its head office and externally at the request of the financial partners.		
13. The financial management system of the Principal Recipient is effective and accurate	IntraHealth has a management system that uses Quick Books; this is in line with OHADA accounting standards and the organization's financial statements are consolidated monthly. When financing activities at operational level, the organization uses a system whereby advances are agreed on the basis of an action plan, and funds are requested on a monthly or quarterly basis.		
14. Central warehousing and	Yes. An exploratory visit is conducted to the LLIN storage sites at district level prior to each campaign to assess the security of the proposed sites, evaluate		

regional warehouse have capacity, and are aligned with good storage practices to ensure adequate condition, integrity and security of health products	their storage capacity and approve the choice of sites.
15. The distribution systems and transportation arrangements are efficient to ensure continued and secured supply of health products to end users to avoid treatment/program disruptions	Yes. The LLINs are transported from the central level to the districts by a selected transport company. This company loads the LLINs, transports them, delivers them to the districts (under necessary LLIN conservation conditions, out of sunlight, protected from theft and other bad weather) and sends final delivery reports on the LLINs.
16. Data-collection capacity and tools are in place to monitor program performance	Yes. The M&E manual comprises tools for information gathering at community level with the CBOs, and also monthly and quarterly reporting templates. IntraHealth has developed an electronic database for the compilation of quarterly reports. IntraHealth's M&E unit and the M&E officers of the SRs ensure effective quality control.
17. A functional routine reporting system with reasonable coverage is in place to report program performance timely and accurately	Yes. The reporting system established by IntraHealth enables high-quality and timely data to be gathered from the CBOs via the SRs, and also from the districts via the regions for the mass LLIN distribution campaigns. The information gathering and transmission procedures, along with the roles and responsibilities of each actor, are set out in the M&E manual. Reviews are regularly conducted with the different actors to ensure the data is used for programming purposes.
18. Implementers have capacity to comply with quality requirements and to monitor product quality throughout the in-country supply chain	IntraHealth does not undertake quality control of the LLINs.

4.4 Current or Anticipated Risks to Program Delivery and Principal Recipient(s) Performance

a. With reference to the portfolio analysis, describe any major risks in the country and implementation environment that might negatively affect the performance of the proposed interventions including external risks, Principal Recipient and key implementers' capacity, and past and current performance issues.

b. Describe the proposed risk-mitigation measures (including technical assistance) included in the funding request.

a) major risk existing in the country and implementation environment

b) Describe the proposed risk-mitigation measures

Table 8: Risk factors and proposed mitigation measures

Risk factors	Risk-mitigation measures
PRs' program management capacity	
Likely weaknesses of the selected PRs in terms of handling this new funding mechanism	The country dialogue process already commenced with the CCM takes into account the need to select PRs that are experienced in handling Global Fund grants and have a record of good performance. A clear description of the roles and responsibilities of PRs will therefore be needed prior to the selection phase. The CCM will then evaluate the capacities of the relevant PRs. A technical assistance plan will be produced to overcome any possible weaknesses.
Lack of sufficiently qualified staff within the PR management units	The national program has commissioned an organizational audit that will enable gaps to be identified and recommendations to be implemented with the support of the PMI/USAID. For the PR2, the selection process will require an organizational audit prior to final selection. The PRs' management units will thus be better structured prior to any implementation. Ongoing capacity building of management unit staff will be maintained throughout the program.
Weaknesses in the planning and control systems.	Audit plans, internal control and monitoring of implementation at the level of PRs will enable weaknesses to be identified and an action plan to be established that will resolve any problems identified.
Procurement	

Delays in the delivery of inputs Stock-outs	- The establishment of a management platform between the PNA and the priority programs will encourage closer and more reactive management of inputs. There will be fewer stock-outs at delivery points. - The ongoing capacity building anticipated by the program will enable possible weaknesses at the level of stock management in the periphery to be overcome. - A capacity building plan for staff responsible for procurement and inventory will be produced. - An early warning system will be established at all levels (regular inventory, respect for stock security). - The supply and inventory management manuals will be updated to ensure respect for Global Fund procedures, right from procurement through to patient use.
Strategic Governance and Monitoring	
Weaknesses in coordinating with other programs financed by the donors	- The National Coordinating Body (*Instance de Coordination Nationale* /ICN) will, along with all partners involved in the work, ensure respect for its own admissibility criteria. - Existing coordination mechanisms such as the CCPLP and MSAS strategic monitoring meetings will facilitate coordination with other programs and enable a harmonization and strengthening of national M&E systems.
Financial management	
Weaknesses in financial planning and budget production, with an inappropriate cost management system	- The administrative, financial and accounting management procedures manuals will be updated and approved by the Global Fund. - The PR and SR selection process will ensure that there is a competent management team, once the selection criteria have been taken into account. - Accounts will be opened for all PRs, SRs and CBOs for grant management. - The needs identified in terms of capacity building, training, M&E and strategic monitoring will be centralized and part of the CCM's management role will be to facilitate and provide technical assistance to PRs as needed.
SR/CBO capacities	
Weaknesses in SR management capacity	-The SR/CBO selection process will follow clearly-defined criteria that include a good evaluation of the capacities of the SRs/CBOs. - Technical assistance and capacity building plans will be produced following an evaluation of SR/CBO capacities. - The SR/CBO sharing and capacity building bodies will be maintained.

Programmatic and financial risk at the level of SRs and CBOs (deviation from objectives, fraud)	- Regular review of action plan implementation - Training/supervision of CBOs by district and at central level - Monitoring use of financial management documents and Monitoring & Evaluation by the SRs and CBOs (cash book, management tools) - Technical and budgetary implementation reports
Monitoring/evaluation	
Weaknesses in data quality Social climate, data retention	- Regular organization of on-site data quality evaluations with a tool developed within the program supervision schedule. - Organization of quarterly data gathering reviews and validation. - The M&E plans of the two PRs will be updated with the monitoring and information gathering tools. - The automation of health information via the use of tablets and mobile phones. - Ongoing data gathering with the opportunity for ongoing health and demographic surveys, which will take certain malaria indicators into account. - The establishment of the DHIS2 software in the DSIS platform will enable prompt and complete data gathering and analysis. - The social dialogue commenced by the government will enable the

CORE TABLES, CCM ELIGIBILITY AND ENDORSEMENT OF THE CONCEPT NOTE

Before submitting the concept note, ensure that all the core tables, CCM eligibility and endorsement of the concept note shown below have been filled in using the online grant management platform or, in exceptional cases, attached to the application using the offline templates provided. These documents can only be submitted by email if the applicant receives Secretariat permission to do so.

☐X Table 1: Financial Gap Analysis and Counterpart Financing Table

☐X Table 2: Programmatic Gap Table(s)

☐X Table 3: Modular Template

☐X Table 4: List of Abbreviations and Annexes

☐ CCM Eligibility Requirements

☐ CCM Endorsement of Concept Note