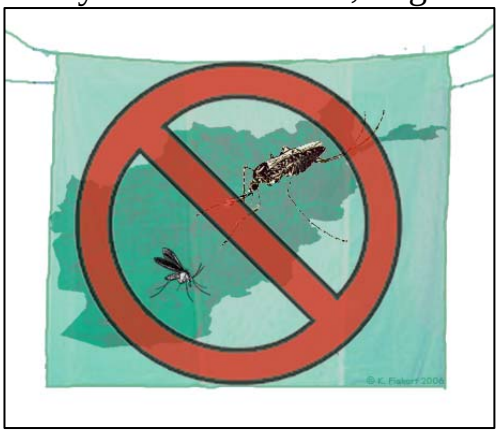
Communication for Behavioural Impact Strategic Plan for Afghanistan

2008 -2012

National Malaria and Leishmaniasis Control Programme
General Directorate of Preventive Medicine and Primary Health care,
Ministry of Public Health, Afghanistan



1 Executive Summary

Several parameters are responsible for the duration and intensity of malaria: altitude, temperature and rainfall. Malaria is most intense below 2,000 metres in snow-fed river valleys and rice cultivation areas. Malaria in Afghanistan is hypoendemic, with seasonal transmission occurring between April and November. The fall in temperature brought on by winter causes transmission to diminish rapidly. Malaria incidence follows a bimodal pattern with *P.vivax* peaking in July/August, while *P.falciparum* peaks in October. The proportion of *P.falciparum* reported cases has decreased from 20% (2002) to 7% (2006).The population exhibits only partial immunity to malaria because of the seasonality and low prevalence of malaria. WHO estimated 1.5 million cases per year in 2007.

Malaria risk in Afghanistan has been differentiated into 3 epidemiological strata at district level: high risk, low risk and little potential for transmission. There are 14 high risk malaria provinces in Afghanistan and there are 14.8 million people, who are living in areas at risk of transmission

The Communication for Behavioural Impact (COMBI) strategy is a key component in the Afghanistan National Malaria Strategic Plan (2006-2010). The COMBI strategy will focus on 4 key interventions highlighted by the National Malaria Strategic Plan:

- Disease management
- Vector control through Long Lasting Insecticidal Nets (LLINs), environmental management, screening and antilarval measures
- Prevention and control of malaria during pregnancy
- Malaria epidemic prevention and control

Overall Goal

To contribute to the decrease in malaria mortality and morbidity burden in Afghanistan.

Behavioural objectives

- To prompt 80% of all suspected malaria sufferers from each of the 14 high risk provinces to seek early diagnosis and treatment, at public and private health clinics, which adhere to the national diagnosis and treatment guidelines.

- To encourage 80% of all individuals from each of the 14 high risk provinces to own and sleep under a LLIN every night throughout the malaria transmission season (1st April to 30th November), especially those experiencing fevers, pregnant women and children under five.

A judicious blend of communication actions will be adopted to achieve the behavioural objectives mentioned above. This will include:

1) Personal selling through Malaria Prevention and Treatment Assistants (MPTA), will make household visits to raise awareness about the campaign, explain the need for early diagnosis and treatment for all suspected malaria cases and the importance for every household member to be sleeping under a Long Lasting Insecticidal Treated Net (LLIN). MPTAs will make three household visits: at the beginning of the malaria season (Phase1: March- May), before the peak of *P.Vivax* malaria (Phase 2: June – August) and lastly before the onset of *P.falciparum* malaria (Phase 3: September- November).

2) Community mobilization activities set out to gain community acceptance, support and action for an intervention. The traditional decision making mechanisms and modes of influence are taken into consideration in order to achieve the desired behavioural objective. Furthermore, the low literacy rates in Afghanistan demands a more interactive platform for communication through the following interpersonal channels:

    - Primary and secondary school promotional activities
    - Local women NGO meetings
    - Community Health Workers
    - Imams
    - Traditional healers
    - Mobile theatre groups

3) Administrative mobilization/ advocacy/ public relations, whereby a high level of advocacy is conducted to raise support from all levels of political administrations, activating governmental machinery, which will ensure sustainable commitment, create and maintain appropriate policies, regulations and legislation. Advocacy will be carried out through various interpersonal (Imams) and media channels (TV and radio) to gain political and social leadership acceptance and commitment. Public relation activities will include newspaper articles, press releases and public service announcements. This will inform, educate and influence perceptions to change behaviour.

4) Sustained, massive advertising: A Radio-TV advertising campaign will be launched in a Massive, Repetitive, Intense, Persistent (MRIP) manner through provincial radio, and television before and during the malaria transmission season.

5) Point of service: Flags bearing the campaign logo should be produced and distributed, along with inexpensive poles to LLIN outlets and government recognized private clinics. These flags emphasize easily accessible and readily available prevention and treatment methods.

Monitoring will follow the implementation of the COMBI strategy in order to assess the progress of the malaria campaign.

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2 Acknowledgements:

The Ministry of Public Health would like to acknowledge all members of the staff of the National Malaria and Leishmaniasis Control Program for organizing a National workshop to develop COMBI Strategy. Special appreciation is extended to Ms. Caroline G Barwa COMBI Consultant, Dr. Najibullah Safi Manager of the National Malaria and Leishmaniasis Control Program and members of the Vector Control Task Force (Waqar Butt, Toby Leslie). Ministry of Public Health is thankful to all, who kindly agreed to be interviewed and provide inputs for the development of COMBI strategy.

Abbreviations:

ANC	Antenatal Clinics
CHW	Community Health Worker
GF (ATM	Global Fund to figh AIDS, TB, Malaria
HN-TPO	Health Net Trans Cultural Psycho social Organization
ITN	Insecticide Treated Nets
KAP	Knowledge, Attitude and Practice
LLIN	Long Lasting Insecticidal Nets
MoE	Ministry of Education
MoPH	Ministry of Public Health
NGO	Non Governmental Organization
NMLCP	National Malaria and Leishmaniasis Control Programme
SEQ	Socio-economic Quartile
TAS	Training and Accreditation
WHO	World Health Organization

3 Malaria in Afghanistan

Several parameters are responsible for the duration and intensity of malaria: altitude, temperature and rainfall. Malaria is most intense below 2,000 metres in snow-fed river valleys and rice cultivation areas. Malaria in Afghanistan is hypoendemic, with seasonal transmission occurring between April and November. The fall in temperature brought on by winter causes transmission to diminish rapidly. Malaria incidence follows a bimodal pattern with *P.vivax* peaking in July/August, while *P.falciparum* peaks in October. The proportion of *P.falciparum* reported cases has decreased from 20% (2002) to 7% (2006). The population exhibits only partial immunity to malaria because of the seasonality and low prevalence of malaria. WHO estimated 1.5 million cases per year in 2007.

Malaria risk in Afghanistan has been differentiated into 3 epidemiological strata at district level: high risk, low risk and little potential for transmission. There are 14 high risk malaria provinces in Afghanistan and there are 14.8 million people, who are living in areas at risk of transmission.

The predominant vectors for malaria transmission are *An. stephensi*[1] and, *An. culicifacies* in the Eastern and Southern provinces of Afghanistan. *An. pulcherrimus* and *An. hyrcanus*, are found in the rice fields and mountain streams in Northern Afghanistan. Other malaria vectors include *An. fluviatilus, An. annularis* and *An. superpictus.*

Factors, which have exacerbated malaria transmission include: military conflicts provoking population movement, where people with low immunity to malaria move to or through malaria endemic provinces; a National Malaria and Leishmaniasis Control Programme (NMLCP), which is in need of human, technical and financial resources; past droughts have left many malnourished; drug resistance (chloroquine against *falciparum* malaria); treatment facilities being difficult to access, poor maintenance of irrigation systems leading to increased breeding sites for the immature stages of malaria vectors and a poor health infrastructure. Other constraints facing the NMLCP include: delays in the implementation of programs, low government salaries forcing competent staff to seek employment in the private, NGO or UN sector, political insecurity and instability in some parts of the country.

Financial support from the Global Fund for AIDS, TB and Malaria (GFATM) has enabled the NMLCP to strengthen its capacity to tackle malaria issues. The Vector Taskforce, is comprised of key stakeholders (NMLCP, WHO and NGOs), works in a cohesive manner in overseeing the national malaria treatment and prevention programs. The NMLCP will collaborate with the Tajikistan government on an upcoming cross border malaria control project in the Northeastern provinces. There is also strong political commitment for malaria control at the ministerial level.

4 Baseline Information

Disease Management – The Knowledge, Attitude and Practice (KAP) survey conducted by Health Net TPO[2], revealed a greater perception towards malaria in the East (75%) than the North (11%), which may be explained by the greater control and sensitization efforts in the East due to the higher malaria incidence in the region. Overall, malaria is recognized as a major disease of burden within the community (54%), but 18% failed to raise any health concerns. Exposure and incidence of the disease varied according to the socio-economic status of the respondent, with those from poorer backgrounds having a longer malaria history. Perceptions were found to be uniform among all age and gender categories. Symptoms of malaria were relatively unknown: 37% - fever, 22% chills, 20% headache, 15% vomiting. Therefore inability to recognise the symptoms contribute to the delay in seeking treatment.This is further supported by a KAP survey conducted by Merlin[3], where limited knowledge and understanding of malaria was observed among some sections of the population. There was widespread consumption of inappropriate and often counterfeit medications, despite high levels of knowledge about malaria symptoms and recommended treatments. The general public frequently consulted unqualified microscopists, poorly trained private physicians, and pharmacists. Significant delays occurred between onset of malaria and resort to a qualified medical doctor who could diagnose malaria and manage the case appropriately.

Vector Control – Only 38% observed the connection between mosquitoes and malaria in the KAP survey conducted by HNI (North: 19% and East: 48%)[4]. With 79% reporting that Insecticide Treated Nets (ITNs) were a good form of protection against mosquitoes and 70% reported that ITNs were the best way to protect against malaria but more men than women displayed this knowledge. Majority of the respondents failed to identify mosquitoes as the disease vector (only 38% did) and this needs to be addressed in future malaria campaigns. There were no differences in knowledge between the age group, province or social-economic quartiles. The study found not all ITN owners (63%) used their ITNs the previous night (54%- of those who owned an ITN). The main deterring factors from owning an ITN were cost (~ 60%) and ITNs being inaccessible. People were reported to be paying between $3.50 and $4.00 (subsidised price) for their ITNs. People found the price of ITNs to be expensive or very expensive (67%), with 80% reporting that they found $1-2, a more reasonable price.

Prevention of malaria during pregnancy – The KAP survey undertaken by HNI[5] reported a high knowledge of malaria symptoms (99%), blood test for diagnosis (70%), transmission of malaria by mosquitoes (97%) and prevention by ITN use (81%). There was a high public health clinic attendance among women (83%), who claimed to have used Antenatal Clinic (ANC) services at least once during their pregnancies, with no significant difference among the age groups and socioeconomic quartiles (SEQ). Some claimed to avoid taking medication during pregnancy (43%) on the grounds that the drugs will cause sickness and 32% believed drugs to be harmful. Aside from the health clinics (45%), others sought advice from traditional birth attendants (TBA) (16%), female relatives (12%), and midwives (3%). Age group and SEQ correlates to the preference for the delivery location, with women from the younger age category (15-20) and least poor SEQ going to hospitals, whereas older women and those belonging to the poorest SEQ, choosing to deliver at home. Barriers to seeking treatment from ANC services included transport difficulties (47%), disallowed by their husbands (16%) and some thought ANCs services were [6]not necessary (14%). Perceptions regarding precautionary measures against malaria were relatively high (66%) but was not reflected by ITN ownership (38%), with only 26% claiming to have slept under an ITN the previous night. Cost (95%) was seen as the main barrier to ITN use, while a minority (4%) reported that they were not available. Respondents generally claimed the advantage of sleeping under an ITN was not being bitten by mosquitoes (63%) rather than preventing malaria (17%).

Table summarizing the communication preference by different target audiences 6

Target Audience	Urban	Rural
Men	Radio, TV, Mosque announcements, newspapers	Mosque, radio, Shura, Community Health Workers (CHWs)
Women	Health clinics, TV, Radio, ANC, CHW, newspapers	CHWS, ANC, husbands, Shura
Youth	Schools, university, TV, radio, Mosque, newspapers	Schools, mosques, radio,
Returnees	Radio, TV, Mosque announcements, newspapers	Mosque, radio, Shura, CHWs
Nomads	Radios, vaccination programs	Radios, vaccination programs

5 Overview of the Communication Strategy

The Communication for Behavioural Impact (COMBI) strategy is a key component in the Afghanistan National Malaria Strategic Plan (2006-2010)[7]. The COMBI strategy will focus on 4 key interventions highlighted by the National Malaria Strategic Plan:

- Disease management
- Vector control through LLINs, environmental management, screening and antilarval measures
- Prevention and control of malaria during pregnancy
- Malaria epidemic prevention and control

Interviews with staff from the National Malaria and Leishmaniasis Control Program as well as key stakeholders (WHO, Health Net-TPO and other partner NGOs), 3 day workshop with NMLCP field staff from 12 malaria endemic provinces and three days of rapid market research conducted in 3 Northeast Provinces (Kunduz, Takhar and Baghlan)[8], were instrumental in the design and development of a comprehensive COMBI strategy.

5.1 Guiding principles

1. Behavioural change communication activities will be tailored according to the local cultural setting in the different provinces.

2. The COMBI strategy will build upon existing local knowledge and structures, in order to facilitate a change from within.

3. Local idioms that are more culturally suited to the target audience will be used to enhance the overall effectiveness of communication activities.

4. Identifying local solutions within the community, which can be later amplified, will be crucial for the success of this communication strategy.

5. An efficient malaria control and prevention delivery system must be in place to meet the demand created by the communication activities.

6. The magnitude and intensity of the malaria communication campaign will vary according to the epidemiological strata in Afghanistan.

7. Communication activities will be developed in full consultation with and participation of the community as well as opinion leaders. Working closely with the communities to identify the problem, its impact and jointly deciding the proposed activities and ensure timely feedback.

6 STRATEGIC APPROACH

6.1. Overall Goal

To contribute to the decrease in malaria mortality and morbidity burden in Afghanistan.

6.2. Behavioural objectives

- To prompt 80% of all suspected malaria sufferers from each of the 14 high risk provinces to seek early diagnosis and treatment, at public and private health clinics, which adhere to the national diagnosis and treatment guidelines.

- To encourage 80% of all individuals from each of the 14 high risk provinces to own and sleep under a Long Lasting Insecticidal Net (LLIN) every night throughout the malaria transmission season (1st April to 30th November), especially those experiencing fever, pregnant women and children under five.

6.3. Strategic approaches

To assess the role of communication in this behaviour change process it is necessary to understand if the lack of malaria treatment and prevention behaviour is due to a lack of awareness that malaria is an important disease, negative attitudes towards the disease or lack of skills or "know how" to make a change. Therefore, it is imperative to have a firm understanding of the competitive behaviours among the target audience, whether in relation to malaria treatment or prevention. This will allow for the most appropriate and effective communication intervention to be adopted. Target groups must be understood in terms of their reasons for their actions or barriers to change. This approach aims to engage in four key tactics, which will create competitive advantages: increasing benefits of the desired target behaviour, decreasing the barriers and costs related to the desired behaviour, decreasing the value of the competing behaviour and increasing the cost of the competing behaviour.

7 Strategic Approach: Disease Management

7.1 Disease Management

- All suspected malaria sufferers must be encouraged to seek confirmation of their status from public or private health clinics to avoid misdiagnosis (automatic assumption that fever always relates to malaria) followed by self medication. This will prevent prolonged suffering and address the real cause of their ailment.

- Individuals must be made aware of the two different treatment courses available depending upon which of the two types of malaria they have been infected with, which can only be determined through examination of their blood sample. This will not only be more time efficient with respect to the patient's recovery period, but will also avoid wasteful expenditure on self prescribed drugs.

- The most common barriers associated with delay in seeking diagnosis and treatment are lack of money for those who are compelled to attend private clinics rather than distant public clinics, lack of transport and living in remote villages[9]. These barriers will be more difficult to challenge as they are a reflection of the current developmental stage the society is at. Basic Health Centers[10], which covers a catchment area of 15,000-30,000 people, need to be equipped with the necessary diagnostic tools – either qualified microscopists or rapid diagnostic tests and the inclusion of ACT in the list of essential drugs should be given serious consideration. Communication is used to support the use of services and provisions, but when these are not in place then it allows individuals to revert to their "undesirable" habits, which in this case would be delay in seeking diagnosis and treatment. Alternatively early recognition of the signs and symptoms of severe malaria will quicken referrals to public or private health facilities.

- There are a growing proportion of people who value the benefits of these public health facilities but their surrounding environment and daily struggles makes it difficult for them to take full advantage of these services. Therefore, people may be keen to perform the desired behaviour: seeking early diagnosis and treatment but limited accessibility and financial insecurities are proving to be a hindrance.

- Individuals who allow their occupation to take priority over their health must realise that the delay in seeking treatment will indirectly affect their productivity levels in their line of work[11].

- Self medication continues to be a serious cause for concern. People must understand that self diagnosis and self prescribing medication with chloroquine[12] or paracetamol[13] is futile without following the standard procedures of a blood test. Encouraging individuals to seek the necessary guidance and advice rather than self medicate can be overcome if the outcomes of their competing behaviour are seen as counterproductive in the long term.

- The reluctance in the immediate attendance to one's needs, is not only worsening the patient's condition but delays the recovery period, allows for the unnecessary expenditure on counterfeit medicine and waste of valuable resources.

- There are a proportion of people who look upon malaria as a minor illness, thinking their condition will subside with time and are unable to identify the signs and symptoms of the

disease[14]. A clear knowledge objective is needed to correct this misconception and stress the repercussions for those displaying this attitude and belief.

7.2 Target Audience

- Women
- Men

7.3 Communication Objective

- 80% of individuals from each of the 14 high risk provinces will seek immediate diagnosis and treatment for all suspected malaria cases.
- 80% of individuals from each of the 14 high risk provinces will know that they are susceptible to two different malaria infections: ***P. vivax***, which results in recurring malaria episodes and *P. falciparum*, which is more lethal of the two, especially among pregnant women and children under five.
- 80% of individuals from each of the 14 high risk provinces will recognize the signs and symptoms of uncomplicated and severe malaria.
- 80% of individuals from each of the 14 high risk provinces will know they should go to private health facilities, which have received a training and accreditation scheme (TAS) certificate[15], for their malaria diagnosis and treatment.
- 80% of individuals from each of the 14 high risk provinces will know the different recommended drug treatments to take depending upon the malaria species they are infected with, so as to encourage people to seek confirmation of their suspected malaria status.

7.4 Communication methods

Change Agent	Method	Channel	Message
Malaria Prevention and Treatment Assistant (MPTA)/ Shura (Village Health Committee)	House to house visits will be conducted in 3 phases: 1) March –May 2) June- August 3) September-November	Interpersonal	Recognition of uncomplicated and severe malaria, prompt action in seeking early confirmation of suspected malaria status and treatment. They must attend public or private (which have been awarded a TAS certificate) health clinics.
Women Group Leaders (Local NGOs)	Interactive discussions at regular women group meetings	Interpersonal	Early recognition of uncomplicated and severe malaria followed by prompt diagnosis and treatment at clinics will speed the recovery process and avoid further complications. They must attend public or private health clinics, which have undergone TAS. Less time will be spent ill and wasteful expenditure on self medication should be avoided.
Community Health Workers	Counselling sessions at health posts.	Interpersonal	Early recognition of uncomplicated and severe malaria. Not to self medicate or delay in seeking diagnosis and treatment from public or private (received TAS certificate) health facilities.
Religious leader/ Imams	Dialogue for interaction at Mosques	Interpersonal	Priority has to be given to health rather than work at times of illness. Any delay in seeking diagnosis and treatment will just prolong suffering and minimize work output. Avoid self medicating and always go to public or private health clinics (received TAS certificate).
Radio, TV	Spots	Mass media	Any time someone suffers from fever, chills and body ache, they should go to the clinic for a blood test. Avoid medication which is not prescribed by the doctor.
Traditional Healer	Direct communication	Interpersonal	As soon as anyone suffers from fever, body ache and chills – they need to come to the clinic to get diagnosed.
Newspapers	Articles	Printed materials	Malaria is a serious disease, affecting everyone; the vulnerable groups are pregnant women and children under five. All community members must make an effort to recognize malaria symptoms, seek prompt diagnosis and treatment at public or private (received TAS certificate) health clinics.

8 Strategic Approach: Malaria Vector Control

8.1 Malaria Vector Control

- The majority acknowledge that ITNs/LLINs offer protection against mosquitoes, scorpions, sandflies and snakes[16]. All respondents participating in the rapid assessment stated that ITNs/LLINs were necessary in preventing malaria.

- Households which spend a substantial amount of time and money on treatment (100-2,000 AFG), should be persuaded of the long term benefits of purchasing an ITN/LLIN[17]. Although those prone to *P. Vivax* relapses must understand that continuous treatment is unavoidable and the financial benefits are not immediate.

- The campaign must highlight the increased longevity (3 -5 years) and durability of LLINs compared to conventional ITNs found in the private sector, which may be of a lower quality and may require retreatment[18]. Repetitive washing of LLINs must be kept to a minimum (10-15 washes) and LLINs should not be dried in direct sunlight. Care should also be taken when hanging the LLINs to dry so that they don't get torn, when placed on slender tree branches.

- The well accepted benefits of ITN/LLIN among communities have created a demand. There is a current willingness and ability among financially secure consumers to pay between 100 and 200 Afghani for their LLINs[19], suggesting that upcoming LLINs sales (subsidised price: US$2) will be well received.

- However affordability remains an issue among the rural poor[20]. Equitable access to LLINs should be further explored to see if those from poorer socioeconomic backgrounds have the monetary means to afford an LLIN even at the subsidized price of US$2.

- Communities must realise they still remain susceptible to mosquito bites irrespective of the changing weather conditions: windy nights, or the cold months (October onwards) prior to the winter season when sleeping preferences change to the indoors[21]. This requires a firm understanding of the mosquito's role in the transmission cycle of the malaria parasite between April and November so as to ensure consistent LLIN use every night especially among the vulnerable groups: pregnant women and children under five.

- Clinically diagnosed malaria patients must be aware that they act as reservoirs of the malaria parasite for transmission to others through the mosquito vector and so have a responsibility to continually use their LLINs throughout the malaria transmission season.

- Non-users of ITNs/LLINs who claim to enjoy the nights in the open air, can be persuaded of the good night's rest an LLIN offers without the relentless biting which occurs throughout the night had they slept without any protection[22].

- Reemphasis on these nets being LLINs rather than ITNs is necessary to allay concerns about the smell of the insecticidal residue after retreatment and mild skin irritations[23], which will not occur with LLINs.

- Individuals should have some knowledge on how a LLIN achieves its protective effect: a proportion of mosquitoes are either killed or repelled upon contact with the LLIN, which also acts as a mechanical barrier to the entry of mosquitoes.

- Disproportionate LLIN users within a community will mean more mosquitoes being deflected from protected individuals to unprotected individuals, who will then suffer the consequences of these infective bites.

- Malaria transmission peaks coincides with the harvest season when there is a high labour demand. Therefore low cost protection against disability and death can be seen as an incentive against food insecurity.

- CHWs should distribute LLINs through their health posts to people who live in remote areas and will not have access to a LLIN retail outlet.

- In most households the male heads oversee the budget and monitor the expenditure on miscellaneous items - they are the decisive stakeholders in the procurement of LLINs and should be targeted. Women will be assigned the daily task of putting up the LLINs and the long term maintenance of LLINs. Both these groups have to be targeted to encourage LLIN procurement and continuous use throughout the malaria transmission period[24].

- Methods to control larvae include the following[25]:
  - eliminating or changing the breeding sites to make it unsuitable for the development of larvae;
  - making the breeding site inaccessible to adult mosquitoes;
  - releasing fish or other predators that feed on larvae;
  - applying larvicides.

- In places with intense transmission of malaria, almost all anopheline breeding sites need to be eliminated in order to achieve a reduction in the prevalence of malaria. Even a much reduced population density of anopheline mosquitoes may be able to maintain a high prevalence.

- Effective larval control is most feasible where breeding sites are limited in number, easily recognizable and easily accessible. It is also preferred where the mosquito breeds only during a short period, measures to control adult mosquitoes are ineffective or culturally unacceptable and permanent source reduction measures are more cost-effective than repetitive control measures.
  With these criteria in mind should the NMLCP decide to undertake larval control measures, this will require a high level of community participation and sensitisation on how the immature stages of the mosquito are targeted by the different larval control practices, whether it is environmental management, biological control (e.g. larvivorous fish), or larvicidal application (e.g. bacterial larvicides, insect growth regulators and organophosphorous compounds).

- Suggestions have been made for environmental modification through the filling of mosquito breeding sites with soil, stones, rubble, ash or rubbish is the most permanent control measure available. It is most suitable for reducing breeding in small depressions, water holes, borrow-pits, abandoned ditches or pools which do not require much filling material. On a small scale, no special expertise is needed and communities can carry out the work with shovels, picks, wheelbarrows and carts. The filling material should be obtained without creating new breeding sites. Refuse (eg. garbage) can be used for filling; it should be compacted and covered with earth to prevent breeding by flies. To make it more aesthetically pleasing all fills should be topped with clean earth. Requests can be made to industrial or agricultural firms to divert their trucks transporting waste materials at no extra cost to places that need to be filled.

- Screening of doors, windows and other openings in houses prevents insects from entering, while maintaining some ventilation. The openings in the netting should be 1.5 mm or less to stop mosquitoes entering and much smaller for sandflies. Screening needs to be regularly inspected for tears and holes. Screening is relatively common among the more affluent households in Afghanistan and should be further promoted, particularly in urban areas. The possibility of encouraging the use of insecticide treated screens should also be explored. The toxic effect of the insecticide prevents mosquitoes from searching for holes or small openings and so the screen does not need to fit the window or door perfectly and a wider mesh size can be used which allows better ventilation in the hot weather. The overall advantage of screens is that once installed little or no action on a daily basis is required from household members.

8.2 Target Audience

All members of the community

8.3 Communication Objective

- 80% of individuals from each of the 14 high risk provinces will sleep under a LLIN every night throughout the malaria transmission season (April-November).

- 80% of individuals from each of the 14 high risk provinces will know the benefits LLINs offer to all household members in protection against mosquito vectors responsible for malaria transmission.

- 80% of individuals from each of the 14 high risk provinces will know that all malaria patients must continue to use LLINs during the malaria transmission season.

- 80% of individuals from each of the 14 high risk provinces will know the role mosquitoes play in the transmission of the malaria parasite between April and November.

- 80% of individuals from each of the 14 high risk provinces will know how the LLIN is an effective tool against malaria: kills, repels and acts as a mechanical barrier to mosquitoes.

- 90% of individuals from each of the 14 high risk provinces will know that careful maintenance of LLINs is required in order to maintain their effectiveness for the estimated lifespan (3-5 years).

- 90% of individuals from each of the 14 high risk provinces will keep repetitive washing of LLINs to a minimum (10-15 washing) and dry their LLINs away from direct sunlight.

- 90% of individuals from each of the 14 high risk provinces will know which retail outlets they can purchase their subsidized LLINs from.

- 90% of individuals from each of the 14 high risk provinces will know that all pregnant women are entitled to a free LLIN from public health facilities.

- 70% of individuals from each of the 14 high risk provinces will know where and how to eliminate the common breeding sites for *Anopheles* species.

- 50% of individuals from each of the 14 high risk provinces will screen the windows and door entrances to their house.

8.4 Communication methods

Change Agent	Method	Channel	Message
Malaria Prevention and Treatment Assistant (MPTA)/ Shura (Village Health Committee)	House to house visits will be conducted in 3 phases: 1) March –May 2) June- August 3) September-November	Interpersonal	It is important for every household member to be protected against mosquitoes by sleeping under a LLIN every night during the malaria transmission season (April- November). You will sleep better; avoid any physical discomfort from being ill, save money on malaria treatment and transport to the health clinic. Mosquitoes can still bite you even when the weather is windy or cold, so always sleep under a LLIN. Which retail outlets to buy LLINs from. The lifecycle of the mosquito and ways to eliminate the breeding sites. Screening windows and door entrances are an effective way to prevent mosquitoes from entering your house.
Posters	Affix of Posters at Public Health facilities / Shops/Pharmacies	Printed material	LLINs are available here and the cost
Leaders of women groups (local NGOs)	Interactive discussions at regular women group meetings	Interpersonal	Sleep under a LLIN every night throughout the malaria transmission season (April-November), especially pregnant women and children under five. Mosquitoes can still bite you even when the weather is windy or cold, so always sleep under a LLIN. Continue to sleep under a LLIN even when you suspect or have been diagnosed with malaria. The lifecycle of the mosquito and ways to eliminate breeding sites. Screening windows and door entrances are an effective way to prevent mosquitoes from entering your house.

Change Agent	Method	Channel	Message
Religious leader/ Imams	Dialogue for interaction at Mosques.	Interpersonal	It is the responsibility of the head of households to ensure the good health of all their family members by purchasing and using LLINs every night throughout the malaria transmission season (April-November).
Community Health Workers	Counselling Sessions at health posts	Interpersonal	It is important for every household member to be protected against mosquitoes by sleeping under a LLIN every night during the malaria transmission season (April- November). You will sleep better; avoid any physical discomfort from being ill, save money on malaria treatment and transport to the health clinic. Mosquitoes can still bite you even when the weather is windy or cold, so always sleep under a LLIN. Which retail outlets to buy LLINs from and CHWs should distribute LLINs to people living in remote areas. The lifecycle of the mosquito and ways to eliminate the breeding sites. Screening windows and door entrances are an effective way to prevent mosquitoes from entering your house.
Mobile Theatre groups	Short plays	Local media	Sleeping without a LLIN makes you susceptible to mosquito bites, you fall ill with malaria, and have to waste time, money and effort to seek treatment. The lifecycle of the mosquito and ways to eliminate the breeding sites. Inform crowds where they can buy LLINs from. Screening windows and door entrances are an effective way to prevent mosquitoes from entering your house.
Radio, TV	Spots	Mass media	Everyone should sleep under a LLIN every night for protection against mosquito bites between April and November. Always try to buy a LLIN as they will be effective for a longer time.

Change Agent	Method	Channel	Message
Primary and secondary school children	Will conduct LLIN utilization survey	Interpersonal	Inform families about the signs and symptoms of uncomplicated and severe malaria. Encourage LLIN use on a nightly basis throughout the malaria transmission season April-November). The lifecycle of the mosquito and ways to eliminate breeding sites.
Newspapers	Articles	Printed materials	Mosquitoes are responsible for the transmission of malaria; therefore LLINs are the most effective preventative measure that all individuals can take against the disease. LLINs have to be used every night throughout the malaria transmission season (April- November).

9 Strategic Approach: Prevention of Malaria in Pregnancy

9.1 Malaria in Pregnancy

- There is a general consensus that malaria is a grave concern among women, as with any other complications during pregnancy[26]. However, this needs to be recognised throughout all age groups and socioeconomic backgrounds. Therefore, timely recognition of uncomplicated and severe malaria followed by confirmation through diagnosis and treatment must be seen as a priority among all women of child bearing age.

- Delay in recognition, diagnosis or completion of treatment will have dire consequences for the patient; further complications, prolonged recovery period and emotional turmoil. Pregnant women who suffer from malaria especially if primagravidae, are more likely to experience miscarriages, difficulties in delivery and low birth weights, which increases mortality risk in the first years of life[27].

- All pregnant women must be encouraged to attend antenatal clinics in the first trimester of their pregnancy, so as to take advantage of the freely distributed LLINs. Nightly protection through the consistent use of LLINs throughout the transmission season (April to November) is crucial to avoid any complications during and after the pregnancy period.

- Malaria counselling sessions at the ANC should reinforce LLINs as an effective preventative measure against the transmission of malaria by mosquitoes and how pregnant women are more vulnerable to infections of the malaria parasite because of their lower immunity, hence the need for them to consistently use LLINs between the months of April and November.

- Any monetary cost to LLINs is removed by the entitlement of all pregnant women to a LLIN voucher system from ANCs, which can be redeemed in exchange for a LLIN at a LLIN retail outlet.

- Accessibility to ANCs will prove to be problematic for those living in remote rural areas, where reliable transportation networks are not in place[28]. Enlisting health posts in districts with difficult terrain for free LLIN distribution via CHWs rather than dispensing vouchers should be considered so as to make it more convenient for the target audience to perform the desired behavior.

- Generally, permission has to be granted from those holding the senior positions within Afghan households (husbands, father in laws, mother in laws or brother in laws) for pregnant women to visit a ANC[29]. Therefore, the severity of the disease and consequences if ignored has to be vigorously stressed upon these decision makers in order to expedite the recovery process and ensure the continuous use of LLIN protection throughout the pregnancy period.

- Advice sought from female relatives[30] should be discouraged on the grounds that misinformation could prolong the illness and allow conditions to deteriorate. Analogies can be made to self medication for pregnant women, which is commonly disapproved of within the community because of fear in harming the mother or child, if the drugs are expired or possible death[31]. Reassurances on the safety of medically prescribed drugs during pregnancy should be

emphasised. Therefore, diagnosis and treatment by medically qualified personnel needs to be adhered to.

9.2 Target Audience

Women of child bearing age

9.3 Communication Objective

- 70% of pregnant women from each of the 14 high risk provinces will seek prompt diagnosis and treatment for all suspected cases of malaria from public or private (TAS awarded) health clinics.

- 70% of pregnant women from each of the 14 high risk provinces will sleep consistently under LLINs throughout the malaria transmission season (April-November).

- 70% of women of child bearing age from each of the 14 high risk malaria provinces will know they need to attend the ANC as soon as they become pregnant.

- 70% of pregnant women from each of the 14 high risk malaria provinces will know that they are more susceptible than others to malaria.

- 70% of pregnant women from each of the 14 high risk provinces will know the dangers associated with malaria during pregnancy.

- 70% of women of child bearing age from each of the 14 high risk provinces will recognize the signs and symptoms of uncomplicated malaria.

- 70% of women of child bearing age from each of 14 high risk provinces will recognize the signs and symptoms of severe malaria.

- 70% of pregnant women from each of the 14 high risk provinces will know the benefits LLINs offer to women during the pregnancy period.

- 70% of pregnant women from each of the 14 high risk malaria provinces that will know they can get a LLIN voucher from the ANC and which LLIN retail outlets they can collect their free LLINs from.

9.4 Communication method

Change Agent	Method	Channel	Message
Malaria Prevention and Treatment Assistant (MPTA)/ Shura (Village Health Committee)	House to house visits will be conducted in 3 phases: 1) March –May 2) June- August 3) September-November	Interpersonal	Recognition of uncomplicated and severe malaria, prompt action in seeking early confirmation of malaria status and treatment. Pregnant women must attend public or private (which have been awarded a TAS certificate) health clinics. It is important for pregnant women to be protected against mosquitoes by sleeping under a LLIN every night during the malaria transmission season (April- November). Pregnant women can collect a voucher from the ANC which they can redeem at a LLIN retail outlet in exchange for their free LLIN. Mosquitoes can still bite you even when the weather is windy or cold, so always sleep under a LLIN.
Community Health Workers	Counselling Sessions at Health Posts	Interpersonal	It is important for every pregnant woman to be protected against mosquitoes by sleeping under a LLIN every night during the malaria transmission season (April-November). You will sleep better; avoid any physical discomfort from being ill, save money on malaria treatment and transport to the health clinic. Mosquitoes can still bite you even when the weather is windy or cold, so always sleep under a LLIN. Pregnant women can collect a voucher from the ANC which they can redeem at a LLIN retail outlet in exchange for their free LLIN or CHWs distribute free LLINs to pregnant women living in remote areas. Early recognition of uncomplicated and severe malaria. Not to self medicate or delay in seeking diagnosis and treatment from public or private (received TAS certificate) health facilities.

Change Agent	Method	Channel	Message
Women Group Leaders (local NGOs)	Interactive discussions at regular women group meetings	Interpersonal	Early recognition of uncomplicated and severe malaria followed by prompt diagnosis and treatment at clinics will speed the recovery process and limit any complications during pregnancy. They must attend public or private (which have been awarded a TAS certificate) health clinics. As soon as a woman realizes she is pregnant, she must attend a ANC to get a LLIN voucher and go to a LLIN outlet to exchange the voucher for a LLIN. Sleep under a LLIN every night throughout the malaria transmission season (April-November). Mosquitoes can still bite you even when the weather is windy or cold, so always sleep under a LLIN. Continue to sleep under a LLIN even when you suspect or have been diagnosed with malaria.
Religious leader/ Imams	Dialogue for interaction at Mosques.	Interpersonal	Any delay in seeking diagnosis and treatment will lead to further complications in pregnancy. Always go to public or private (which have been awarded a TAS certificate) health clinics. It is the responsibility of the head of households to ensure the good health of his pregnant wife by making sure she goes to a ANC to collect a LLIN voucher, which entitles her to a free LLIN from a LLIN retail outlet and use it every night throughout the malaria transmission season.
Theatre groups	Short plays	Local media	Pregnant women will suffer severe repercussions if they fail to recognize the signs and symptoms of severe malaria. If a pregnant woman suspects she is suffering from malaria then she must immediately attend a ANC to avoid further complications during her pregnancy. They must attend public or private (which have been awarded a TAS certificate) health clinics. Pregnant women are entitled to a LLIN voucher from the ANC, which will be exchanged for a free LLIN at a LLIN retail outlet. It is very dangerous for any pregnant woman to sleep even one night without a LLIN during the malaria transmission season.

Change Agent	Method	Channel	Message
Radio, TV	Spots	Mass media	Any time someone suffers from fever, chills and body ache, they should go to the clinic for a blood test. The signs and symptoms of uncomplicated and severe malaria. Pregnant women should sleep under a LLIN every night for protection against mosquito bites between April and November. Always try to buy a LLIN as they will be effective for a longer time.
Traditional Healer	Direct communication	Interpersonal	As soon as any pregnant women suffer from fever, body ache, and chills – they need to come to the clinic to get diagnosed.

10 Strategic Approach: Epidemic Prevention and Control

10.1 Epidemic Prevention & Control

- Malaria transmission in Afghanistan is seasonal and of low endemicity, leaving the population with poor immunity. Coupled with poor health infrastructure, limited access to health care facilities, ongoing population movement, drought and flood inflicted damage to the ecological surroundings have all contributed to Afghanistan being labelled as an epidemic prone country.

- To facilitate an immediate response to an outbreak, this requires all community members to be familiar with the rudimentary steps for treatment and prevention of malaria. These actions are vital in preventing conditions from escalating any further.

- Early recognition, diagnosis and effective treatment of malaria among all age groups is essential in efforts to contain the outbreak.

- High LLIN coverage must be achieved to prevent new infections from occurring.

- The application of pyrethroids (deltamethrin) to cattle otherwise referred to as "cattle sponging" may be considered for epidemics[32],[33] only. The short residual efficacy of these treatments on livestock needs a quick, intensive campaign style approach where all livestock within a community are treated simultaneously so as to have the maximum impact on malaria transmission. Cattle owners should be made aware of the additional benefits of cattle sponging - ectoparasites responsible for transmitting diseases such as babesiosis, anaplasmosis and theileriosis will also be controlled, leading to an improvement in livestock health and productivity. The small amounts of insecticide absorbed through the skin are thought to be readily metabolised and not lethal to the consumers. Communities should be aware of the method regarding cattle sponging.

- Repetitive washing of permethrin treated sheets and blankets (should they be distributed in an epidemic) will need to be kept to a minimum or not at all in order to maintain the effectiveness of the insecticide against malaria vectors[34].

10.2 Target Audience

- Women of child bearing age

- Men

10.3 Communication Objective

- 80% of individuals in each epidemic prone province will recognize the signs and symptoms of uncomplicated and severe malaria.

- 80% of individuals in epidemic prone provinces will seek immediate diagnosis and treatment of all suspected cases of malaria.

- 80% of individuals in epidemic prone provinces will know the protective effects of LLINs against mosquitoes, especially among pregnant women and children under five.

- 80% of individuals in epidemic prone provinces will sleep under LLINs consistently throughout the duration of the epidemic.

- 80% of individuals in epidemic prone provinces will know the benefits and the method of cattle sponging.

- 80% of individuals in epidemic prone provinces will not wash their permethrin treated sheets and blankets.

10.4 Communication methods

Change Agent	Method	Channel	Message
Shura	Community meetings	Interpersonal	Recognition of uncomplicated and severe malaria, prompt action in seeking early confirmation of malaria status and treatment. Always go to public or private health clinics (awarded TAS certificate). It is important for everyone to be protected against mosquitoes by sleeping under a LLIN every night throughout the epidemic. Inform the public where they can get their LLINs from including LLIN vouchers for pregnant women. Mosquitoes can still bite you even when the weather is windy or cold, so always sleep under a LLIN
Religious leaders/ Imams	Dialogue for interaction at Mosques.	Interpersonal	Don't delay in seeking diagnosis and treatment for all suspected malaria cases. Always go to public or private health clinics (awarded TAS certificate). It is the responsibility of the head of the household to ensure the good health of his whole family by making sure they all sleep under a LLIN every night throughout the epidemic.

Change Agent	Method	Channel	Message
Community Health Workers	Counselling sessions at health posts.	Interpersonal	Early recognition of uncomplicated and severe malaria. Not to delay in seeking diagnosis from public or private (awarded TAS certificate) health facilities. Inform the public where they can get their LLINs from including LLIN vouchers for pregnant women. Free LLINs will be given to pregnant women living in remote areas. Continue to sleep under a LLIN throughout the epidemic, even when you suspect or have been diagnosed with malaria
Radio, TV	Spots	Mass media	Any time someone suffers from fever, chills and body ache, they should go to the clinic for a blood test. The signs and symptoms of uncomplicated and severe malaria. Everyone should sleep under a LLIN every night for protection against mosquito bites throughout the epidemic.
Communicating via loudspeakers	Mobile vehicles touring through the affected districts	Local media	Any time someone suffers from fever, chills and body ache, they should go to the clinic for a blood test. Everyone should sleep under a LLIN every night for protection against mosquito bites throughout the epidemic.

11 IMPLEMENTATION PLAN

11.1 Advocacy/Public Relations/Administrative Mobilization

The mass media will place malaria case management and prevention on the public and administrative agenda. This will involve meetings/discussions with various categories of government, community committees and partnerships, official memoranda.

i. A briefing paper (in Dari and Pashto), highlighting the main features of the COMBI campaign, will be prepared by the NMLCP and shared at the central, provincial and district levels of the Ministerial departments for Public Health, Education, Women affairs and Information as well as the Vector Taskforce Committee and local women NGOs.

ii. The Vector Taskforce Committee will meet to discuss the details of the COMBI workplan and agree upon a framework for the management, implementation and monitoring duties for the COMBI program.

iii. Meetings will be held with governors from all provinces to secure support for the COMBI strategy and will be responsible for mobilizing the provincial, district and village shura.

iv. Meeting with the Provincial Director of Public Health and staff to arrange a meeting with all provincial health partners in forming a dedicated Provincial COMBI Implementation Team (should include Provincial Malaria Centre Coordinators, Director of Provincial Radio and WHO Roll Back Malaria focal points). The Provincial COMBI Implementation Team will oversee implementation and monitor the progress of the campaign.

v. An official memorandum from the Minister of Health will be issued to all staff members of the MoPH, informing them of the launch of the COMBI program and enlisting their support throughout the program.

vi. The COMBI Management Team will meet on a weekly basis for phase 1(March –May) and 2 (June- August) of the campaign, thereafter on a monthly basis. The team should include senior members from the Ministry of Public Health, Information, Education, UN agencies, NGOs, and will be chaired by the Director General of Preventive Medicine and Primary Healthcare.

vii. Meet with the respective Provincial and District Health Coordinators to recruit Malaria Prevention and Treatment Assistants through the Shura system, which operates at the Village Health Committee level.

viii. Meet with the Provincial representatives from the Ministry of Education (MOE) to circulate the brief, COMBI action plan and introduce plans to involve the school in promoting malaria awareness.

ix. The MOE will issue an official memorandum to the Provincial Education Officers/School Inspectors in which the teacher and student participation is strongly encouraged.

x. An official memorandum will be issued by the Provincial Education Director to primary and secondary school, outlining the malaria promotional activities and encouraging strong participation.

xi. Meetings will be held with the Provincial Governors, religious leaders and directors of health to gather further support for the campaign.

xii. Regular staff meetings and the issue of memoranda will take place as part of the administrative mobilization

xiii. Press and media activities will involve close collaboration with the Ministry of Information. Activities include:

- Hold a press conference in which a brief press release (outlining the 3 phases of the COMBI campaign) and briefing documents will be circulated among all participants at the provincial and district level. This should be attended by qualified technical staff members and a WHO statement endorsing this campaign should also be presented.

- Hold a press conference with the MOE in which a brief press release on the school promotional activities will be circulated among all participants at the provincial level.

- Prepare a press release of a feature article for distribution among printed media on raising awareness of the upcoming malaria transmission season, how important timely diagnosis and treatment is and the benefits of sleeping under an LLIN every night until November.

-A short press release should be prepared and incorporated in the news programs of the major radio and television networks.

- Weekly press releases, which should start in March, will continue throughout the campaign; informing the public of the launch of promotional activities and their progress.

- Malaria treatment and prevention will be featured on the existing weekly radio and TV talk shows and programmes, in March, June and September. This will extend to provincial TV and radio.

11.2 Personal selling: Malaria Prevention and Treatment Assistants (MPTAs) (Carried out in June, August and October)

Personal selling through Malaria Prevention and Treatment Assistants (MPTA) will make household visits to raise awareness about the campaign, explain the need for early diagnosis and treatment for all suspected malaria cases and the importance for every household member to be sleeping under a LLIN. MPTAs will make three household visits: at the beginning of the malaria season (Phase1: March- May), before the peak of *P.Vivax* malaria (Phase 2: June-August) and lastly before the onset of *P.falciparum* malaria (Phase 3: September - November).

i. A network of Malaria Prevention and Treatment Assistants (MPTAs) will be handpicked from the Shura committee: 2 women and 2 men and allocated a set number of households in his/her village.

ii. All MPTAs will have undergone one day of training, where they would have gathered substantial knowledge on malaria treatment and prevention as well as communications skills for approaching households. They will be equipped with a standard malaria advocacy package.

iii. MPTAs will be given the necessary stationary tools (register booklet, pens, badges and flags) to perform their duties for their three rounds of each household.

iv. Vests bearing the COMBI campaign logo and their designated title should be worn by all MPTAs.

v. Green flags bearing the COMBI campaign logo should be designed, produced and distributed on the first home visits made by MPTAs. These flags will be used to identify households which have actively joined the community effort against malaria.

vi. During the first visit, the MPTA will introduce the concept of the campaign; distribute the flags, record family size, how many people slept under a ITN/LLIN the previous night, who slept under them. MPTAs will inform each household of the benefits of a LLIN for every family member, especially now that the malaria season is drawing near. MPTAs will show them a sample LLIN; tell them where and when they should purchase their LLIN. Pregnant women are entitled to a free LLIN through the voucher system from ANCs. MPTA will also inform them of the signs and symptoms of *Vivax* malaria, the need to seek early confirmation of all suspected malaria cases and treatment from either public health facilities or private health facilities, which have received a TAS certificate. MPTAs will also briefly mention the benefits of screening and environmental management.

vii. During the second visit before the malaria peak season, MPTAs will reiterate their previous message, with special emphasis on pregnant women and children under five. All suspected malaria sufferers must be strongly encouraged to continue sleeping under an LLIN. MPTAs should register how many ITNs/LLINs were used the previous night and by whom. They should also discourage anyone from self medication and advise anyone suffering from fever, chills or body ache to get a blood test.

viii. During the third visit before the onset of *falciparum malaria.* MPTAs should register how many ITNs/LLINs were used the previous night and by whom. Remind households that the malaria season will continue until the end of November and that they should continue to sleep under their LLINs, especially pregnant women and children under five. They should also advise households to be more vigilant against the signs and symptoms of severe malaria, which is especially lethal to pregnant women and children under five. Emphasis should be made on immediate diagnosis and treatment.

ix. Produce certificate of appreciation, which will be given to all MPTAs at the end of the campaign. The registration booklets will be collected from them for monitoring and evaluation purposes.

11.3 Community Mobilization and Promotional Activities

i. Brief meetings should be held with the Shura, Imams, traditional healers and local women NGOs to sensitize them about malaria: transmission cycle, what prevention method to follow, how it is important to have maximum LLIN coverage within communities, the importance of being able to recognize the signs and symptoms of malaria, the need to seek early diagnosis and treatment from public or private (received TAS certificate) health facilities.

ii. Community meetings chaired by the Shuras should be conducted in March followed by ongoing updates of the campaign until November.

iii. School children will act as change agents in their families; this school promotion activity will focus on educating the younger generation about malaria treatment and prevention.

iv. NMLCP in coordination with the MOE should supply each school with a malaria treatment and prevention pack (single sheets on malaria treatment and prevention facts for all the primary and secondary school members). The teacher will read out loud the malaria fact sheet, answer any questions, and then give one sheet to each child, who will then be asked to read it later to their parents. A simple exercise will be included whereby the school children will keep a record of how many ITNs/LLINs there are in their house and who sleeps under them. Each child will be expected to register these details on a prepared handout, along with their school, village, district and province. The goal is to get children to relay key messages to their family members by discussing the need for every household member to be sleeping under an LLIN before the malaria season and to continue sleeping under an LLIN from April to November even when suffering from a fever. They will also disseminate information on where to buy LLINs from. Children will also reinforce current knowledge on the signs and symptoms of *Vivax* malaria, the importance of seeking early diagnosis and treatment at public or private (TAS approved) health facilities.

v. A second malaria promotional school activity should take place in September at primary and secondary schools where children will again carry out a survey of how many ITNs/LLINs there are in their household and who is sleeping under them. When discussing the contents of the malaria fact sheet with their family, they will place special emphasis on every household member to continue on sleeping under LLINs until November even though the weather has become mild. The school children will also raise awareness of *falciparum* malaria, which is lethal to pregnant women and children under five; hence the need to recognize the symptoms immediately and seek treatment before the patient's condition worsens.

vi. Mobile theatre groups will perform short plays based on characters, who do not seek timely diagnosis and treatment and don't sleep under LLINs. The mobile theatre groups will start touring the districts 6 weeks before the malaria peak season. The audience will be informed where they can purchase LLINs, pregnant women are entitled to a free LLIN through the voucher system from ANCs and that people should go to public and private (received TAS certificate) health clinics. The benefits of screening and environmental management will also be explained to the audience.

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11.4 Sustained Massive Advertising

A Radio-TV advertising campaign will be launched in a Massive, Repetitive, Intense, Persistent (MRIP) manner through provincial radio, and limited television before and during the malaria transmission season.

11.5 Point-of-Service Promotion

i. Flags bearing the campaign logo should be produced and distributed, along with inexpensive poles to LLIN outlets and government recognized private clinics.

ii. Malaria factsheets, outlining the campaign aims and messages for target audiences, should be prepared and distributed to all community health workers.

iii. Community health workers should offer counselling sessions on recognition of malaria symptoms, diagnosis, treatment and prevention using LLINs. They will play a pivotal role in delivering LLINs to people who live in remote areas.

12 Monitoring and Evaluation

12.1 Outcome Indicators

Communication Objectives	Outcome Indicators
80% of individuals from each of the 14 risk priority provinces will seek immediate diagnosis and treatment for all suspected malaria cases.	• Proportion of patients with uncomplicated malaria getting correct treatment at health facility and community levels according to national guidelines within 24 hrs of onset of symptoms in each of the 14 high risk provinces. • Proportion of patients with severe malaria getting correct treatment at health facility and community levels according to national guidelines within 24 hrs of onset of symptoms in each of the 14 high risk provinces.
80% of individuals from each of the 14 high risk provinces will sleep under a LLIN every night throughout the malaria transmission season (April-November).	• Proportion of households who slept under a LLIN last night in each of the 14 high risk provinces.
50% of all households from each of the 14 risk provinces will screen the windows and door entrances to their house.	• Proportion of individuals which have screened their households in each of the 14 high risk provinces
70% of pregnant women from each of the 14 high risk provinces will seek prompt diagnosis and treatment for all suspected cases of malaria from public or private (TAS awarded) health clinics.	• Proportion of pregnant women with severe malaria getting correct treatment at health facility and community levels according to national guidelines within 24 hrs of onset of symptoms in each of the 14 high risk provinces.

Communication Objectives	Outcome Indicators
70% of pregnant women from each of the 14 high risk provinces will sleep consistently under LLINs throughout the malaria transmission season (April-November).	• Proportion of pregnant women who slept under a LLIN last night in each of the 14 high risk provinces.
80% of individuals in epidemic prone provinces will seek immediate diagnosis and treatment of all suspected cases of malaria.	• Proportion of patients with uncomplicated malaria getting correct treatment at health facility and community levels according to national guidelines within 24 hrs of onset of symptoms from each epidemic prone province. • Proportion of patients with severe malaria getting correct treatment at health facility and community levels according to national guidelines within 24 hrs of onset of symptoms from each epidemic prone province.
80% of individuals in epidemic prone provinces will sleep under LLINs consistently throughout the duration of the epidemic.	• Proportion of people who slept under a LLIN last night from each epidemic prone province.

12.2 Tracking Survey

It is difficult to evaluate the gains in knowledge, attitudes or practices if there has been no assessment at the outset of the communication planning. Assessing the effectiveness of communication effects is complicated because communication is not an isolated event and it is hard to attribute an effect from the communication. Most target groups are bombarded constantly with messages from a large number of senders.

Tracking surveys will be conducted in one locality in each district in each of the 14 high risk provinces. These surveys will determine the following:

(a) The proportion of the people who receive the malaria prevention and control messages and through which media.
(b) The proportion of respondents who understand the malaria prevention and control messages (together with their comments on these messages).
(c) The performance of the Malaria Prevention and Treatment Assistants (MPTAs).
(d) The number and proportion of school handouts reaching homes.
(e) The number of districts toured by the mobile theatre groups.
(f) The frequency of shura, local women NGOs, community health workers and Mosque meetings.
(g) The proportion of health facilities and community facilities, which are sufficiently stocked with LLINs and antimalarial drugs.
(h)The number of LLINs sold at each LLIN outlet and consumer's demographic profile.
(i) The number of vouchers redeemed at LLIN outlets.

13 Budget

Item	Quantity	Unit Cost	Total
Administrative mobilization/Public relations			
Briefing paper (based on COMBI plan)			
Provincial and district advocacy meetings (refreshment costs)			
Press kits			
Press conferences			
Feature articles (Dari and Pushto)			
Malaria Prevention and Treatment Assistants			
Training for MPTAs			
Cotton vests campaign logo			
ID badges			
Registration Books			
Pens			
Flags (for household display)			
Samples of LLINs (for MPTAs to explain to families)			
MPTA Certificates			
Community mobilization			
Advocacy meetings… at village level with shuras, Imams, women NGOs, CHWs and traditional healers			
Flags			
Posters stating LLINs are sold here and price			
School sheets with key malaria prevention and treatment messages and a chart to record household LLIN utilization rate			
Mobile theatre groups			

Item	Quantity	Unit Cost	Total
Advertising			
Newspaper ads			
Radio spots			
Television spots			
Point-of-Service Promotion			
Design and print of flags bearing the campaign logo			
Print malaria factsheets for CHWs			
Monitoring and supervision			
LLIN acquisition			
LLIN utilization			
Tracking surveys			
National/provincial management team visits and meetings			
Collation and dissemination of data			
GRAND TOTAL			

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[12] *Howard, N. (2000) Mosquitoes, Money and malaria: Socio-economic determinants of insecticide treated bednet purchase and programme sustainability in Eastern Afghanistan. London School of Hygiene and Tropical Medicine: Unpublished MSc Thesis Another study in Nangarhar Province reported 49% of respondents (n=414) consider children to be at greatest risk of malaria (22% consider both women and children, but only 6% specifically mentioned pregnant women and children under five as taught in local health messages); 73% considered chloroquine as the best treatment for malaria, while only 7% favoured traditional methods. Home treatments included tea made from shamaki roots (said to contain quinine), yoghurt, buttermilk, and various plants. Approximately 45% of respondents went to a clinic for treatment (because it is cheapest), but if treatment was unsatisfactory about 29% also went to private doctors. Only 25% went initially to a doctor.*

[13] *Rapid assessment conducted in Kunduz, Takhar and Baghlan*

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[29] *Rapid assessment conducted at Kunduz, Takhar and Baghlan.*

[30] *Feedback from workshop with representatives from Nangarhar, laghman, Kunar, Badakhshan, Takhar, Baghlan, Helamand, Kunduz, Fariab, Balkh, Khoost and Herat.*

[31] *Rapid assessment conducted at Kunduz, Takhar and Baghlan.*

[32] *Hewitt S., Rowland M. (1999) Control of zoophilic malaria vectors by applying pyrethroid insecticides to cattle. TMIH 4(7);481-486*

[33] *Rowland M., Durrani N., Kenward M., Mohammed N., Urahman H., Hewitt S. (2001) Control of malaria in Pakistan by applying deltamethrin insecticide to cattle: a community randomised trial. The Lancet 357; 1837-1841*

[34] *Rowland M., Durrani N., Hewitt S., Mohammed N., Bouma M., Carneiro I., Rozendaal., Schapira A. (1999) Permethrin treated chaddars and top-sheets; appropriate technology for protection against malaria in Afghanistan and other complex emergencies. Transactions of the Royal Society of Tropical Medicine and Hygiene. 93;465-472*