Republic of Malawi

Ministry of Health

National Malaria Control Programme

2015 Mass Distribution Campaign of Long Lasting Insecticidal Treated Mosquito Nets in Twenty-three Districts

Implementation Strategy

February 2015

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List of Acronyms

ANC	Antenatal Care
BCC	Behavior Change Communication
CDC	US Centers for Disease Control and Prevention
CP	Cluster Point (covering numerous villages)
DHMT	District Health Management Team
DHO	District Health Officer
DHS	Demographic and Health Survey
DMC	District Malaria Coordinator
DS	Distribution Site
DTF	District LLIN Task Force
GFATM	Global Fund to Fight AIDS, Tuberculosis, and Malaria
HSA	Health Surveillance Assistant
HH	Household
IEC	Information, Education, Communication
ITN	Insecticide-Treated Net
IRS	Indoor Residual Spraying
LLINs	Long-Lasting Insecticide Treated Mosquito Nets
LSC	Logistics Sub-Committee
MICS	Multiple Indicator Cluster Survey
MoH	Ministry of Health
NGOs	Non-Governmental Organizations
NMSP	National Malaria Strategic Plan
NTF	National Task Force
NMCP	National Malaria Control Program
NSO	National Statistics Office
PMI	U.S. President's Malaria Initiative
RBM	Roll Back Malaria
TSC	Technical Sub-Committee
UNICEF	United Nations Children's Fund
VCO	Vector Control Officer
VPP	Voluntary Pooled Procurement
WHO	World Health Organization

Section One: Background

1.1 Overview of Malaria in Malawi

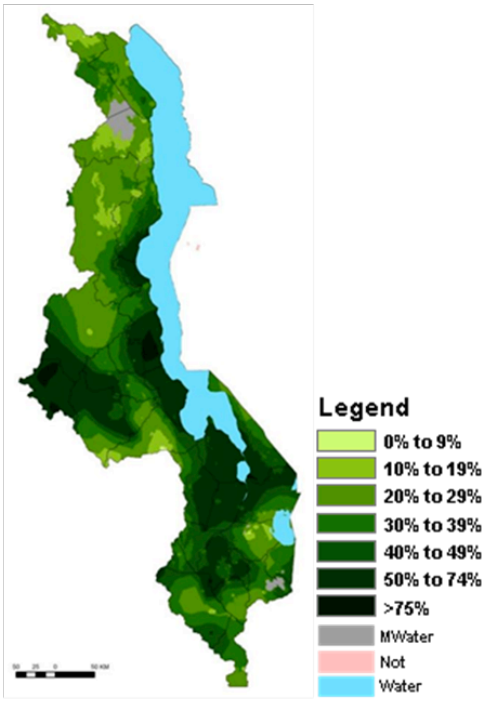
Malawi is a landlocked country bordered by Tanzania to the north, Zambia to the west, and Mozambique to the east and south. The population in 2015 is projected to be 16.3 million, comprised of approximately 51% women and 19% children less than five years old (National Statistical Office of Malawi).

Malaria is endemic in more than 95% of the country. Transmission is perennial in most parts of the country and peaks after the start of the annual rains that typically begin in November and last through April. The highest transmission areas are found along the hotter, wetter, and more humid low-lying areas (lakeshore, Shire River Valley, and central plain), while the lowest risk areas along the hotter, wetter, and more humid low-lying areas (lakeshore, Shire River Valley, and central plain), while the lowest risk areas fall along the highland areas of Rumphi, Mzimba, Chitipa, and Kirk Range (Kazembe, 2006; Okira et al, 2014). *Anopheles funestus* is considered to be the primary vector species; *An. gambiae* s.s. and *An. arabiensis* also are present and may predominate in some areas at certain times of the year. *Plasmodium falciparum* is the most common species of malaria, accounting for 98% of the infections and all severe disease and deaths.

Malaria continues to be a major public health problem. Malaria is responsible for approximately four million suspected cases annually, 40% of all hospitalizations of children less than five years old and 30% of all outpatient visits across all ages. Among children under five years, malaria parasite prevalence by microscopy was 33% nationally (2014 Malaria Indicator Survey, MIS).

Pregnant women and their fetuses are at high risk of the negative consequences of malaria. From 1996-2007, the incidence of

Figure 1: Predicted population-weighted *Plasmodium falciparum* parasite prevalence in children two to ten years of age, Malawi 2010-2012



Okiro EA, Noor AM, Malinga J, Mitto B, Mundia CW, Mathanga D, Mzilahowa T, Snow RW (2014). *An epidemiological profile of malaria and its control in Malawi*. A report prepared for the Ministry of Health, the Roll Back Malaria Partnership and the Department for International Development, UK. March, 2014 Electronic and manual searches for published and unpublished reports were used to identify available malaria prevalence surveys (including the 2010 and 2012 Malawi Malaria Indicator Surveys). Age-corrected survey data (sample size and numbers positive) at known locations (longitude and latitude) and times (year) with a minimal set of conservative, long-term climate and human settlement covariates were used. Covariates statistically significant to the age-corrected infection prevalence were identified (in this case urbanization). Empirical data and spatially matched covariates were used within a Bayesian hierarchical space–time model to produce continuous maps of *Pf*PR_{2-10} for 2010-2012.

placental malaria fell from 25% to 7% at the main referral hospital in Blantyre (Feng, 2010). Although this is a selected population with unusually easy access to the best medical services available in the public sector in Malawi, a similar low level of placental malaria (5%) was measured in a rural area in Machinga District that was evaluated as part of a study monitoring the continued effectiveness of SP (Gutman, 2013).

Sleeping under Long Lasting Insecticide Treated Nets (LLINs) is one of the most effective ways of preventing malaria. LLINs can reduce the number of uncomplicated malaria episodes in areas of high malaria transmission by half (50%), and have an even bigger impact in areas of medium or lower transmission. LLINs have also been shown to reduce childhood mortality substantially. LLINs are preferred because they do not require re-treatment and remain effective for three to five years. For this reason, the Ministry of Health (MoH) in Malawi has adopted the international recommendation from the World Health Organization (WHO) that all public sector distributions should involve LLINs rather than conventional nets as its policy.

1.2 Use of LLINs for Malaria Prevention

The MoH adopted use of LLINs as one of the major interventions in 2005 and adopted a universal coverage approach in the Malaria Strategic Plan 2011 – 2015. This intervention is likewise maintained in the revised strategic plan of 2011- 2016, "Towards Universal Access," with the aim of having the whole population of the country sleeping under LLINs by end December 2016. In the past, the focus has been on protecting the most vulnerable people (pregnant women and children under five), and distributions of LLINs have been targeted at these groups. The revised Malaria Strategic Plan aims at achieving "Universal Coverage on the road to malaria elimination" for all interventions (prevention and treatment), including LLINs. Universal coverage involves reaching 100% of the population at risk of malaria with prevention and treatment services. For Malawi, universal coverage for LLINs is defined as one LLIN for every 1.8 people. With high population coverage for prevention and treatment interventions, malaria morbidity and mortality can be significantly reduced.

1.3 Lessons Learned from Previous LLIN Campaigns

Malawi has nearly 10 years of experience implementing mosquito net distribution campaigns. In 2006, the NMCP and partners distributed 660,000 ITNs to extremely poor households. Two years later, the NMCP and partners distributed 1,100,000 ITNs to selected pregnant women and under-five children who had not received ITNs during routine distributions in health facilities. Universal net access campaigns were first conducted between December 2010 and June 2011 in the districts of Nkhotakota, Salima, Mwanza, Neno, Likoma and Phalombe. Drawing from these experiences as well as execution of other limited campaigns, such as mass immunizations at district level, Malawi implemented a nation-wide universal access campaign in 2012 during which 5.6 million were distributed countrywide. Most recently, in December 2014, 1,158,968 LLINs were distributed in the first phase of the current national campaign. Six districts (Nkhotakhota, Mchinji, Likoma, Mwanza, Neno, and Phalombe) were targeted in this mini-campaign based on the time elapsed since they were covered under previous campaigns.

The NMCP and partners have reviewed lessons learned from previous mass campaigns to improve performance moving forward. In particular, the recent mini-campaign conducted

in December 2014 provides an excellent opportunity reflect on the success and opportunities for improvement in all mass campaign activities. These experiences are summarized below.

- In terms of the **preparatory phase,** the process generally went well, including training and household registration. The LLIN National Task Force (NTF) actively engaged district stakeholders in the process. The household registration approach worked well, with virtually all households being recorded on the designated forms. To further streamline this process in the main campaign, sleeping spaces (as opposed to the number of household members) will be used to calculate LLIN distribution volumes to maximize LLIN usage. With regard to registration form management, the system used in the mini-campaign generally worked well but there were several areas for improvement. For the next campaign, the LLIN NTF has resolved that triplicate registration forms will be kept at the health center for safekeeping from registration until the actual LLIN distribution process. After distribution, the registration form will be fully completed and filed.

- With regard to **micro-planning**, the process used in the mini-campaign generally worked well. To further strengthen the process, the LLIN NTF has resolved to provide districts with more detailed micro-planning guidance and to emphasize supportive supervision during the household registration process. Another lesson learned from previous campaigns is the importance of involving various partners to leverage their strengths and resources. This worked particularly well in the mini-campaign and will be taken forward in subsequent campaigns. Likewise, the NTF's consistent leadership throughout process directly contributed to the success of the mini campaign. This body will continue to meet regularly and actively steer campaign planning and execution.

- In the areas of **warehousing and transportation**, clear standard operating procedures (SOPs) for distribution agents have worked well in the past and will be emphasized in upcoming campaign activities. Likewise collaboration of the distribution agent with district authorities led to more efficient clustering of delivery sites and minimized logistical challenges. Based on this experience all distribution agents contracted for campaigns will be instructed to meet with district officials on site in the week prior to distribution to confirm all arrangements in detail.

- With regard to distribution itself, the recent mini-campaign showed that the community mobilization strategy is highly effective with most districts able to mobilize entire populations with only a few days' notice. In most sites, correct quantities of LLINs were delivered on-time, demonstrating that the micro-planning process and final distribution planning were effective processes. Throughout the mini-campaign there was good crowd control, distribution was carried out in an orderly fashion and no security incidents or leakages were reported. Traditional leaders were highly involved and successfully verified registered households during distribution. Where challenges arose, partners worked well together to resolve issues on-site in good time. Given these successes, the LLIN NTF has decided to maintain the distribution strategy for rural areas in the mass campaign and will complement this with addition verification and security measures for urban areas.

1.4 Campaign Phases

The 2014/2015 national mass campaign has three key phases. The first phase was the mini-campaign carried out in Nkhotakota, Mchinji, Likoma, Mwanza, Neno, and Phalombe districts in December 2014, with a total of 1,058,968 LLINs distributed. The mini-campaign, supported by the Global Fund, focused on distributing a consignment of nets already available in country. Target districts were selected based on time elapsed since previous distribution and increased reported incidence of malaria cases. Distribution under the mini campaign occurred from Dec. 3rd to Dec. 14th, 2014 and benefited an estimated 2,117,936 people. Selected support for the mini-campaign was also provided by the U.S. President's Malaria Initiative (PMI), particularly in the areas of briefing sessions, micro-planning activities and the household registration process.

The second phase of the national campaign includes the coverage of four districts by Concern Universal with support from the Against Malaria Foundation. In September-October 2014, Dedza district received 245,489 nets out the 280,057 required to achieve universal coverage. The procurement of remaining nets is ongoing and a mop-up distribution will take place in the coming months. Dowa district is now in the process of registration, verification and data entry phase and the distribution is expected to start in March 2015. For Balaka and Ntcheu districts, distribution is scheduled for mid-2015 (June/August) to reconcile with the main campaign phase.

The main campaign will be carried out in all districts not covered during the mini-campaign or under Concern universal distribution activities. Therefore the main campaign will cover a total of 19 districts and the distribution will be done in three different steps:

No.	Mini-campaign	No.	Concern Universal distribution activities	No.	Main Campaign
1	Likoma	1	Balaka	1	Blantyre
2	Mchinji	2	Dedza	2	Chikwawa
3	Mwanza	3	Dowa	3	Chiradzulu
4	Neno	4	Ntcheu	4	Chitipa
5	Nkhotakhota			5	Karonga
6	Phalombe			6	Kasungu
				7	Lilongwe
				8	Machinga
				9	Mangochi
				10	Mulanje
				11	Mzimba North
				12	Mzimba South
				13	Nkhata Bay
				14	Nsanje
				15	Ntchisi
				16	Rumphi
				17	Salima
				18	Thyolo
				19	Zomba

For the purpose of this approach, three zones have been identified based on regional demarcation. Due to different weather patterns, the actual distribution exercise will be conducted in three months starting with the southern zone, then central and finally the Northern zone as summarized in the table1 below:

TABLE1: Population and LLINs required by district and by zone

DISTRICT	2015 Projected Population	LLINs Required
ZONE1: SOUTH WEST AND SOUTH EAST		
Blantyre City	884,497	491,387
Blantyre Rural	398,835	221,575
Chikwawa	533,714	296,508
Chiradzulu	318,323	176,846
Nsanje	281,552	156,418
Machinga	608,182	337,879
Mangochi	1,017,070	565,039
Mulanje	572,305	317,947
Thyolo	643,836	357,687
Zomba City	138,583	76,991
Zomba Rural	660,896	367,164
TOTAL	6,057,793	3,365,441
ZONE2: CENTRAL AND CENTRAL WEST		
Kasungu	826,285	459,047
Lilongwe City	1,037,294	576,274
Lilongwe Rural	1,455,501	808,612
Mzuzu City	223,740	124,300
Ntchisi	285,892	158,829
Salima	419,448	233,027
TOTAL	4,248,160	2,360,089
ZONE3: NORTH ZONE		
Chitipa	216,912	120,507
Karonga	337,448	187,471
Mzimba	895,550	497,528
Nkhata Bay	269,069	149,483
Rumphi	208,616	115,898
TOTAL	1,927,595	1,070,887
Total	**12,233,548**	**6,796,417**

	Zone1	South West and South East Zones
	Zone2	Central and Central West Zones
	Zone3	North Zone

The National LLIN Task Force has developed a detailed road-map to guide implementation, which is included in Annex X. The intended timing of activities is presented in this document with the understanding that actual dates will be updated as activities are implemented. As per the road map, LLIN NTF members will orient district stakeholders in March 2015 in preparation for household registration, planned for April 2015. This registration process will aid in district micro-planning and confirm final calculations of LLINs needed to achieve universal coverage. Final distribution plans will be confirmed in May 2015, and orientation on distribution for HSAs and district volunteers will be conducted during the same month. Distribution of nets will be carried out in phases from July to September 2015.

1.5 The Purpose of this Implementation Strategy

The purpose of this implementation strategy is to provide guidance to conduct the mass-campaign in a standardized way throughout the 19 districts. NMCP and the LLIN NTF are

likewise providing oversight and guidance for Concern Universal's universal coverage distribution activities. The implementation strategy outlines the steps to be followed in undertaking each activity and provides development partners with a clear understanding of the process to be followed, timing of key activities and required resources. The document also builds on lessons learned from previous mass campaigns to ensure as successful an outcome as possible.

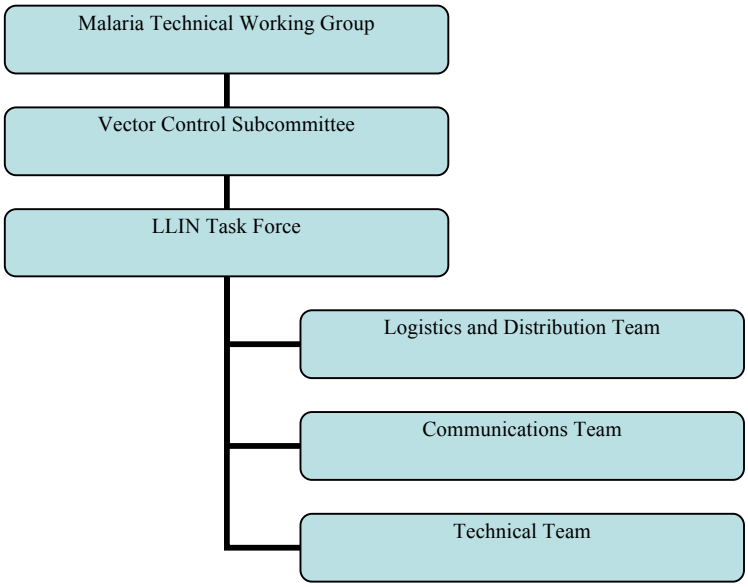
Section Two: Implementation Model for Main Campaign

The main campaign will target those areas not previously covered during the mini-campaign or the activities supported by Concern Universal. The total quantity of LLINs to be distributed for the 19 remaining districts according to project census data is estimated at 6,796,416, however the precise volume can only be confirmed after household registration. Over 9.2 million LLINs will be available for distribution based on the requested submitted to Global Fund in 2014.

2.1 Coordination Mechanisms

2.1.1 National level

The LLIN National Task Force (LLIN NTF), under the Vector Control Subcommittee through NMCP, was tasked with overseeing the preparations for the 2014/2015 national mass campaign. The LLIN NTF includes implementers, development partners and key stakeholders from the Ministry of Health (see Annex B for full list of the membership). Throughout the campaign planning period, the NTF meets on a biweekly basis with additional ad hoc meeting as required to ensure that key planning steps are carried out at the appropriate time. However, the teams within the NTF meet more regularly and meetings intensify as the warehousing and distribution exercise draws closer. The diagram below shows the coordination structure and terms of reference for the various groups are included in Annex X:



Within the LLIN Task Force, there are three smaller teams responsible for developing detailed guidance, standard operating procedures and other tools to support campaign planning and implementation. The Logistics and Distribution Team is responsible for providing technical oversight on the warehousing, distribution planning and security arrangements. The Communications Team provides guides all mass media, behavior change communication and community mobilization activities. Finally, the Technical Team is responsible for strategy development, monitoring and evaluation (including tool development), training and micro-planning (including development of guidance and supporting tools).

2.1.2 District Level

The LLIN district task forces (DTF) have been established and include the District Health Management Team (DHMT), other key line ministry representatives (agriculture, information, community services, etc.) and NGOs. Coordination meetings will be conducted on a bi-weekly basis during micro planning, orientation, household registration, verification and actual distribution. Ad hoc meetings will be called to address any issues arising and resolve bottlenecks. Prior to the LLIN distributions in each district, the LLIN DTF will brief District Executive Committee (DEC) and District Development Committee (including traditional authorities) to sensitize them and advocate for their support during the whole process. The LLIN DTF will also meet after distribution to reflect on lessons learned and make recommendations for the improvement of future campaigns. The task force will share with all district partners and at national level on the progress, outcomes and action points. The NTF has produced a handbook that provides guidelines on how to coordinate and implement a mass campaign at district level. For example it highlights programmatic activities, logistical guidance and the distribution exercise among other things.

2.2 Planning Process

2.2.1 Quantification of LLINs

For 19 districts to be covered during the main phase of the national mass campaign, approximately 6,796,416 LLINs will be required for distribution, pending confirmation during household registration. This preliminary estimate takes into consideration the six districts covered during the mini-campaign conducted in 2014 as well as the four districts to be covered by Concern Universal. Using the universal coverage guide of one LLIN for 1.8 people per household, approximately 12,233,548 people will benefit from nets during the campaign. Using Malawi census population projections for 2015, LLINs would be allocated across the 19 districts (See table1)

A door-to-door registration of beneficiaries (described below) will be conducted two months prior to the main campaign to establish the precise number of LLINs required per household. Initial estimates were developed based on projected data from the 2008 Malawi Census. During the 2014 mini-campaign, household registration results showed an increased volume of nets required by a margin of approximately 30%. The quantification by district and per distribution point will be revised based on the resulting data. Sleeping spaces will be used to determine the number of nets the household is expected to receive during the main campaign. If the registration process confirms a larger number of beneficiaries than available LLINs, the LLIN NTF will convene to determine the appropriate action, likely mobilizing additional LLINs to ensure universal coverage for all districts.

Likewise if the registration process indicates a lower number of LLINs required, the LLIN NTF will convene and propose recommendations for the Global Fund's consideration.

2.2.2 Selection of the distribution agent(s)

For the interim storage of the LLINs at regional and district warehouses as well as the distribution of the nets up to the designated distribution sites, a distribution agent will be contracted. The Ministry of Health (MoH) has carried out a restricted tendering process to identify a suitable distribution agent. The Services Contract was tendered out in five lots according to the five zones.

After receiving the statement of requirements from the National Malaria Control Programme (NMCP), the Procurement Unit of the MoH invited seven firms to submit bids on 3rd December 2014. The bid opening ceremony was held on 23rd December 2014. Three proposals have been submitted on time while one was rejected due to late submission.

The bid evaluation report is currently under review with support from the Procurement Oversight Agent. Some corrections had to be made to reduce the number of districts to take into account the mini-campaign and the distribution activities implemented by Concern Universal as referenced above. The bid evaluation report will be sent to The Global Fund for their endorsement after which it will be sent to Office of Director of Public Procurement (ODPP). The lowest bidder will be awarded the contract as per lot basis. A bid negotiation meeting will be held during post-qualification to make sure the bidders can provide the capacities they have promised to provide. After that the draft contracts will be awarded and sent to Global Fund for review.

It will be the distribution agent's responsibility to identify regional and district warehouses, store the nets in the regional and district warehouses, and transport the nets from the regional, to the district warehouses and to all distribution sites. The distribution agent will furthermore be responsible for providing security services at the storage facilities, providing adequate vehicles for transport, verifying receipt and inventorying the goods and stocks, etc. The distribution agent will also closely work with the districts (DHMTs) on developing detailed distribution plans.

2.2.3 Identification of storage facilities

The selected contractor(s) will have national and regional warehouses with sufficient capacity to warehouse the total volume of required LLINs. The LLIN NTF, with representatives from the DHMT, will inspect all regional and district warehouses in the presence of distribution agent to address any gaps noted or improvements needed. Supervision of the warehouses/storage facilities will done using the standard monitoring form (Annex C). The contractor, in collaboration with the LLIN DTF, will arrange for secure transfer of LLINs from national and regional warehouses to district warehouses prior to the campaign as per the approved road map. The final delivery of the consignment to the distribution point will be based on the precise number of LLINs as listed in the approved distribution plan. Detail on distribution mechanisms is provided below.

2.2.4 Micro-planning at district level

The National Task Force conducted initial district-based briefing sessions for the members of the District Health Management Teams in June 2014. Each DHMT formed an LLIN DTF, which then agreed to develop a plan of action for the campaign. To inform the district micro-planning process, LLIN NTF members developed guidance on the micro-planning

process as well as necessary data collection forms. These documents will be presented to LLIN DTFs in the 19 districts during more detailed briefing sessions. The guidance document includes information on community mobilization, registration, distribution site selection, distribution methodology, etc. The micro-planning process is expected to clarify district needs with regard to stationary, fuel, vehicle support, personnel (specifically Health Surveillance Assistants and Supervisors), and allowance requirements for staff engaged in the distribution. This information will be provided by every district and collated at national level to contribute to the national campaign plan across the 19 districts. As part of the micro-planning, districts will propose facility and community-based distribution points in each cluster (a grouping of distribution points) and will refine and finalize the operational plan and budget for the campaign. The LLIN NTF will review these district level plans to ensure consistency with the overall campaign and approach and guidance.

2.2.5 Briefing of District Stakeholders

LLIN NTF members will brief key district stakeholders on the overall campaign process. First, a detailed session will be held with malaria coordinators, district environmental health officers and district accounts personnel on campaign implementation and district budget development, as these individuals will be critical members of the LLIN District Task Force (DTF). Subsequently, a broader group of district stakeholders, including District Health Management Team members, District Executive Committee members and traditional leaders, will be briefed on the key elements of the campaign process.

2.2.6 Orientation of Health Surveillance Assistants

With support from LLIN NTF, district supervisors who participated in briefing sessions will conduct subsequent orientation of Health Surveillance Assistants (HSAs) selected to assist with the campaign. This orientation will be a one-day session conducted two months prior to distribution. This session will equip HSAs with the appropriate knowledge and skills to carry out the door-to-door registration exercise, community social mobilization, actual distribution of LLINs to beneficiaries and post campaign activities. All data collection tools will be reviewed during the orientation sessions and HSAs will have the opportunity to practice using the tools to ensure competence.

2.3 Registration of beneficiaries

2.3.1 Door-to-door registration

HSAs and volunteers will be responsible for household registration and will use triplicate forms to ensure accountability. Registration will be carried out in March 2015. On average, it is estimated that one HSA can register at least 30 households each day. The 19 districts participating in the mass-campaign have indicated that 5334 HSAs, 376 supervisors and a significant pool of volunteers are available. Thus it will be feasible to carry out the exercise as planned over a 15 day period.

During household registration, the HSA will register all household members, irrespective of age group or net ownership status. Registration forms will include the number of household members and sleeping spaces. Sleeping spaces will be used to determine the number of nets the household is expected to receive during the main campaign. Upon completion, the HSAs will submit completed forms to supervisors for verification.

2.3.2 Verification and Compilation of Household Registration Data

Following the household registration, supervisors will collect the forms from the villages under their responsibilities. Each HSA supervisor must verify at least 5% of registration forms using the verification form. Any HSA registration forms found to have significant or widespread abnormalities will trigger a more detailed verification. If necessary, the registration process will be re-done until an acceptable level of quality is reached. All summary forms must be supported by completed verification forms and will be submitted to national level for data entry. This information will be used to generate a detailed list for each district, including LLIN quantities by village, to be provided to the LLIN DTF for clustering of distribution sites.

After registration, the triplicate registration forms will be kept at the health center for safekeeping until the actual LLIN distribution process. Once distribution has been completed, the registration form will be fully completed and filed for record keeping. The original will be filed at the health center, the first copy will be kept at district level, and the second copy will be forwarded to NMCP for data entry. Household registration forms from village level to district and national summaries are included in Annex D.

2.3.3 Selection of Distribution Sites

While the micro-planning process will generate a list of planned distribution sites, the actual number of distribution sites to be served will be established by the LLIN DTF based on results of the household registration and verification process. The final list of confirmed distribution sites will be shared with the distribution agent and district stakeholders at least three to four weeks prior to the commencement of distribution. For rural districts, proposed distribution sites will be reviewed by the DHMT, distribution agent and a representative of the LLIN NTF looking at cost effectiveness, waiting time, transport distances, security requirements, and efficiency. Distribution points serving small populations will be combined where possible to minimize cost and ensure that distribution agents are able to distribute a high volume of LLINs each day.

2.3.4 Beneficiary Verification during Distribution

Given that this campaign will include both rural as well as highly populated urban areas, Malawi will use approaches for accountability. In rural areas, Malawi will continued to use traditional leaders (specifically, Village Headmen) to review the household listings and verify the identity of their subjects as they come forward to receive LLINs during the actual distribution. This has proven very effective during previous campaigns and no changes are proposed for the approach in the main campaign.

For urban and peri-urban locations, the verification strategy will depend on the particular area. In peri-urban areas where village units are still used, traditional leaders, such as village headmen, will verify beneficiary identity. In more densely populated or urban areas, Ward councilors and block leaders will be responsible for identifying LLIN beneficiaries as per the household registration forms. Multiple distribution sites within small geographic area to minimize bulking of LLINs in single locations and to proper crowd control at all times.

2.4 LLINs Distribution

2.5.1 Transfer of LLINs to Distribution Sites

2.5.1.1 Transportation

In consultation with the NMCP, the contracted distribution agent will be responsible for transporting LLINs from port to the regional, the regional to district warehouses after the verification process has been completed and detailed distribution plans have been approved. The contractor will be responsible for transporting LLINs to the actual distribution sites as per the approved distribution schedule. The contractor will be responsible providing vehicles within the limits of the distribution contract budget.

2.5.1.2 Warehousing

The distribution agent(s) and the LLIN DTF will identify regional and district warehouses. Warehouses will be identified based on: a) overall capacity, b) location, c) accessibility, d) condition (dry and protected from weather elements) and e) security (lockable doors, windows, exterior lighting and access control). The standard warehouse review checklist, referenced above, will be used for consistent inspections of all warehouses. NTF will verify selected warehouses to ensure that district task force members have followed all recommended practices. Only warehouse facilities found to meet the required standards will be approved for use.

2.5.1.3 Security

Planning for the security of the LLINs is essential. The NMCP has planned well established measures to guard against theft or leakage during transportation and storage:

- Implementing a well-designed and sound LLIN tracking system: At each step of the supply chain where LLINs change hands, the names and signatures of people involved will be required on serialized, carbon copy delivery notes. This system will act as a deterrent to LLIN leakage since it allows for rapid identification of leakage responsible parties.
- Secured storage facilities and staging locations: All storage facilities must have locking doors or gates (chains and padlocks) and must be guarded day and night. The distribution agent is required to provide a minimum of two security personnel for each storage location at district level. In the event that LLINs must be stored at distribution points, the HSA and village headman will responsible for arranging security and this situation will be considered for a maximum of one day. In areas with a higher security risk (for example, peri-urban areas), more security personnel will be employed. Security personnel will be responsible for guarding loading areas at all times.
- The contractor will be required to provide constant supervision in overseeing loading and off-loading while Distribution Site Teams will ensure that delivery notes are properly signed to confirm loading and receiving.
- Urban distribution of LLINs may be subject to security problems due to the large number of recipients per distribution site. Provision of security will be done in all sites in the cities of Lilongwe, Blantyre, Mzuzu and Zomba. Police will be hired in conjunction with the DHMTs to control crowds and ensure a peaceful process. Each LLIN distribution site in the city will be allocated a required number of police personnel in line with expected number of distribution beneficiaries. Police will be at each distribution site before the arrival of LLINs, during the actual distribution

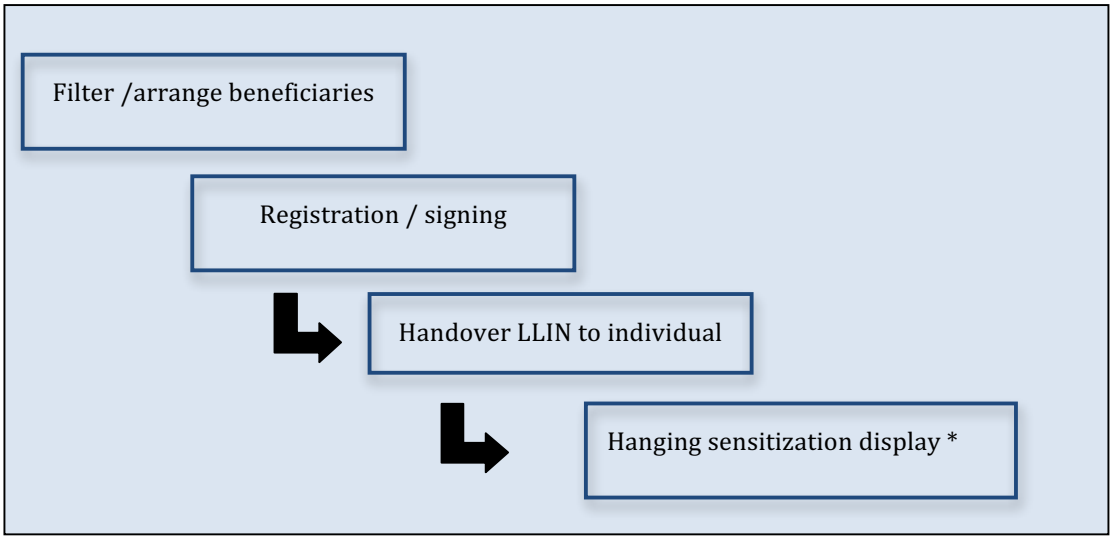
and up to the closure of the site. Where necessary, NMCP may engage the Malawi Defence Force to provide additional LLIN security and crowd control.

2.5.2 Distribution of LLINs to beneficiaries

The site supervisor, HSAs, volunteers and village headman will constitute the distribution team. They will take responsibility for all distribution activities to be conducted in the campaign. In addition to these individuals, extra personnel will be provided for site security where the environment is considered high risk (e.g., urban or peri-urban areas). Distribution will be carried out at sites identified during the micro planning exercise that were later confirmed using household registration data.

The distribution team will guide beneficiaries to remain seated by village. From this point, individuals are called to receive LLINs and beneficiaries approach the distribution table. No crowds or disorderly conduct will be tolerated and historically this has not been an issue. Generally, the distribution will proceed as outlined in the diagram below:

Figure 2. Distribution model per site.



* Where there are adequate numbers of volunteers, LLIN hanging displays will be mounted.

The district supervisor will bring the household registration form for each village to the designated distribution site. One or two members of the distribution team (HSA/ volunteers) will have the household registration lists that detail the number of nets each household should receive. These individuals will crosscheck the beneficiary name and numbers of nets recorded with the information in the household register form.

The local village headman and his assistant will be responsible for security of the area and ensuring order as well as verification of the beneficiaries from his/her village. In urban areas this will be complemented with police personnel. One member of the distribution team will be responsible for tallying the number of nets distributed using the Tally Sheet (Annex E). Distribution figures will be totaled and reported in detail using the Distribution Summary Report (Annex F) and District Distribution Summary Report (Annex G). The Distribution and Supervision Monitoring Form (Annex H) will also be used to assist in supportive supervision.

Beneficiaries will come to the distribution site on the day and time specified during the community mobilization. Prior to distribution, the HSA will do a group counseling session covering proper airing, hanging, use and care of the LLIN. The HSA/volunteer will check the name on the household registration sheet and expected number of LLINs to be issued. Nets will be issued to the beneficiary in the torn plastic packaging improve aeration and deter resale. Malawi does not have facilities to recycle or dispose of the plastic packaging containing the nets. In keeping with WHO guidance, therefore, all recipients will be advised not to use the packaging for any household purpose and to dispose of the packaging immediately by burial, away from any water source. The beneficiary will receive the number of LLINs specified on the household registration form and will sign or mark at the relevant place on the household register. In case of discrepancy in the expected number of nets, the number recorded in the household registration form will be taken as correct.. Where possible, at each distribution site, an HSA will hang an LLIN to demonstrate proper use.

All supervisors must ensure that the correct household registers are brought to their respective distribution points on the designated day as well as to verify that they are turned over to the HSA for use during distribution. Supervisors will bring the signed household registration forms and tally sheets to the district level at the end of the distribution exercise. The LLIN DTF will collate this information on the district LLIN distribution summary form (Annex G) and forward it to national level.

For secure storage, any LLINs not distributed on the designated day will be taken to the designated health facility for the distribution point. District supervisors will be responsible distributing net to any registered beneficiary who failed to access the net on the designated date.

Section Three: Advocacy, BCC and Social Mobilization

Advocacy and social mobilization are crucial for ensuring maximum protective effect of the LLINs. Beneficiaries must understand the importance of correct and nightly net use all year round. Available BCC materials including posters, leaflets, radio jingles and radio spots will be reviewed, revised as appropriate and reproduced to support the mass campaign. As much is possible, broader health BCC activities, such as community action groups, radio programs, and billboards will align messages around LLIN use with the mass campaign. Following past LLIN distributions, it has been observed that households may take up to a week to hang their nets over their sleeping places. Such a practice, although based on anecdotal evidence, discourages regular and nightly utilization. Therefore the BCC materials will help encourage households to hang and use their LLINs immediately.

The registration of beneficiaries will provide an opportunity for advocacy, social mobilization and behavior change communication through the door-to-door visits of the HSA and volunteers. During the registration, households will be told about the dangers of malaria and the importance of nightly use of LLINs for malaria prevention.

It will be important for communities and households to be mobilized just prior to the distribution so that they are aware of the date, time and location of the distribution. This mobilization will be done through community meetings, door-to-door visits and other channels such as churches, mosques, markets and public places. During the HSA orientation, key messages for the mobilization, distribution and hang up activities will be provided. This will ensure consistency and clarity in the information being provided to households and communities.

Section Four: Monitoring and Evaluation

4.1 Monitoring

The primary goal of the NMCP Strategic Plan (2011 – 2016) is the achievement of Universal Coverage in the prevention and treatment of malaria, reducing malaria incidence from 332/1000 in 2012 to 150/1000 by 2016 and malaria deaths by at least 50% of 2012 levels by 2016. The campaign will support the achievement of one of the strategic plan's key objectives: by 2016, at least 80% of the population use one or more malaria preventative interventions. It will also support the achievement of several relevant targets for the vector control thematic area of the strategy:

Indicator	Target (2015)
% households owning at least one LLIN	85%
% under-5 children who slept under an ITN last night	80%
% pregnant women who slept under an ITN last night	75%

The campaign intends to achieve universal coverage (in the 19 districts) defined as one LLIN for every two individuals. The expected results associated with the mass campaign include:

- 100% of households in the 19 districts registered as beneficiaries for LLIN distribution
- 100% of registered beneficiaries receive LLINs
- 80% LLIN use by beneficiaries

The primary output indicator for the 2014 campaign is the number of LLINs distributed.

In order to monitor the various activities and processes required for a successful campaign, a variety of reporting forms will be used. As described elsewhere in this strategy, a comprehensive household registration will be conducted prior to the campaign to provide accurate estimates of LLINs required per district. In order to do this, a household registration form will be used. The data from the household registration form will be aggregated at village, district and national level. (See Annex D). The triplicate copy of the household registration form will be used during the actual day of the distribution to identify the beneficiaries. As indicated, all recipients will sign for receipt of nets. A tally sheet will be used to summarize the number of nets districted per site. At the end of the distribution, a distribution site report will be prepared and submitted to the district, where a district distribution report will be prepared and submitted to the national level. From the district summaries, a national report will be prepared for the number of nets distributed. (See Annexes E through G). The information from all the districts will be used to calculate the administrative coverage of the campaign.

4.2 Evaluation

The 2015 Demographic and Health Survey (DHS) will provide valuable information for outcome level indicators for all phases of the campaign. However, the timing of the DHS is not confirmed and it is possible that the DHS will be conducted before the main campaign

phase covering the remaining 19 districts. As such, the 2016 MIS will be main source for assessing the coverage of all phases of the mass campaign.

After completion of mass distribution, the Malaria Indicator Survey (MIS) planned for 2016 will be used to assess the results at the outcome level. The MIS will be used to assess LLIN coverage at household level and use of nets by individual household members, as per the following indicators:

- Percentage of households with at least one LLIN
- Percentage of households with at least one LLIN for every two persons who stayed in the household last night
- Percentage who slept under an LLIN last night (total and disaggregated by children under five and pregnant women)

All indicators outlined above will be included in the overall campaign report covering both the mini-campaign six districts, Concern Universal distribution activities in four districts, and the national mass campaign covering the remaining 19 districts.

4.3 Accountability and Transparency

Millions of LLINs represent millions of dollars and the possibility of saving millions of lives. It is for these reasons that all those involved in mass distribution campaigns, and specifically those managing the LLIN supply chain, must ensure that logistics operations (transport and storage) are carried out in the most controlled, accountable and transparent manner. The National Malaria Control Program will oversee the selected distribution agent responsible for carrying out the storage and transport of the LLINs from zone level to distribution sites. To accomplish this, the DHMTs and distribution agent will put in place proper LLIN tracking tools to record every movement of the LLINs at each step of the supply chain, and ensure that responsibility is transferred accordingly, with names and signatures of those responsible on the tracking documents. Two essential tracking tools have been developed to be used throughout the operation:

- The delivery note (see example in Annex I) will accompany the LLINs as they travel from point A to point B along the supply chain. All distribution agent staff will be required to use them. They are serialized and in carbon copy to avoid duplication.
- The warehouse stock-card (see example in Annex J) will be used at every storage facility in the supply chain to record stock coming and going out of the warehouses to the distribution point.

4.4 Supportive Supervision

Monitoring will be routinely conducted and integrated within the campaign implementation process such as logistics, operations, advocacy and social mobilization. Supervisors in the 19 districts will be responsible for data collection, compilation and transfer to central level where analysis will be done. A team of NMCP staff will be deployed in the field to support briefing and orientation sessions, household registration and verification, and the actual distribution and reporting. Throughout the distribution process, feedback will be on-going at all levels to ensure that any issues are addressed and best practices are quickly adopted.

4.5 Report writing

After distribution, the contracted distribution agent will be responsible for producing a consolidated logistics report. The report will include the total number of LLINS received in the initial consignment and number of LLINS distributed by district and distribution site. In the event of any variance in the figures, the contracted distribution agent will be required to provide a detailed written account. In the event that the service provider fails to deliver any or all of the goods or perform the related services within the period specified, the contract provides for the Ministry of Health to make deductions as appropriate.

The distribution supervisor will summarize the number of nets distributed per site using the daily tally sheet into the distribution summary report form. The distribution site report form will be submitted to the district malaria coordinator, who will then aggregate the data from all the district distribution sites into a district summary distribution report form. The District Malaria Coordinator will write a comprehensive district report within two months of the end of main campaign distribution. These reports shall be compiled into the national report by the secretariat of the NTF. The national monitoring teams in each of the 19 districts shall ensure that each activity report is compiled in order to facilitate the timely final report.

The final report will be shared with key stakeholders including the Global Fund and PMI. It will also be disseminated nationally through the LLIN Task Force and District Malaria Coordinators. Specific effort will be made to apply any lessons learned to future campaign activities.