



LLINs Mass Distribution Campaign 2022



Final Narrative Report

December 23, 2022

Medical Emergency Resilience Foundation

G-8/1 Islamabad Pakistan



Acronyms

LLINs	Long Lasting Insecticidal Nets
MCPs	Malaria Control Programs
GF	Global Fund
QR code	Quick Response Code
AMP	Alliance for Malaria Prevention
CNIC	Computerized National Identity Card
DoMC	Directorate of Malaria Control
ToT	Training of Trainers
DP	Distribution Point
HH	Household
HHR	Household Registration
ITNs	Insecticide Treated Nets
KP	Khyber Pakhtunkhwa
LSC	Logistics Sub-committee
IHHN	Indus Hospital & Health Network
NSC	National Steering Committee
SBCC	Social and Behavior Change Communication
TOF	Training of facilitators
TPR	Test Positivity Rate
UC	Union Council
VBD	Vector-Borne Diseases
WH	Warehouse
ITN	Insecticide treated mosquito net
LPOA	Logistics plan of action
M&E	Monitoring and evaluation
MEAL	Monitoring, evaluation, accountability and learning
MIS	Management Information System
MP	Micro-planning
MPR	Malaria programme review
IP	Implementing Partners
LSC	Logistic Sub Committe

Executive Summary:

Medical Emergency Resilience Foundation (MERF) is a non-governmental organization Committed to improve access to quality health care services, which are equitable, efficient and affordable in collaboration with governments, international organizations and private entities. Established in 2015, MERF is registered with Securities and Exchange Commission of Pakistan under Companies Act 2017 (Previously Companies Ordinance 1984). The Global Fund (GF) partnership mobilizes and invests to support Programmes run by local experts in more than 100 countries. For Malaria control in Pakistan, Directorate of Malaria Control (DoMC) and the Indus Hospital and Health Network (IHNN) are the Principal Recipients (PRs) of the GF grant. GF also serves as the main stakeholder for all the malaria control activities in Pakistan.

Medical Emergency Resilience Foundation (MERF) supported the Government of Pakistan (Principal recipient of global fund grant) in the distribution of Long-Lasting Insecticide Nets (LLINs) in rural areas of 14 Districts with high burden of malaria. This includes Balochistan, Khyber Pakhtunkhwa (KP) and Sindh provinces. LLINs Mass Campaign was implemented for a period of six months with collaboration of MERF, IHNN, and DoMC as well as provincial government health departments.

Background:

With a population of more than 220 million, Pakistan is the fifth most populous country in the world. It is considered a moderate malaria endemic country, with the highest endemic areas located on the borders with Iran and Afghanistan. According to the 2020 WHO -World Malaria Report (WMR)¹, the incidence of malaria has reduced by 26% from 7 million cases in 2000 to about 5 million in 2019, with about a quarter of this attributable to *Plasmodium vivax*. A quarter of the cases in 2019 were attributable to incidences in Pakistan and Afghanistan for the entire Eastern Mediterranean Region (EMR). The case incidence has reduced to about 40% for Pakistan along with Somalia in 2020 when compared with 2015.

It is estimated that around 98% of the population of the Pakistan lives in areas with risk of malaria, with 29.4% of them being at high malaria risk. There were an estimated 413,533 malaria cases reported in 2019 in Pakistan and thus the country is grouped top amongst the five highest malaria burden countries of the WHO-EMR region. Malaria in Pakistan is typically unstable and the major transmission period is post monsoon i.e. from August to November. *Plasmodium vivax* and *P. falciparum* are the prevalent species of parasites, with *P. vivax* being responsible for 78.1% of reported confirmed cases in the country.

The current National Strategic Plan for Malaria Elimination (NSP-MCE) in Pakistan (2021-2035) and guidelines are in line with WHO guidelines and the Global Technical Strategy (GTS) 2016-2030 recommendations. In the Global Fund intervention districts, the use of insecticide-treated nets (ITNs) is the major preventive intervention alongside indoor residual spraying (IRS), which is reserved for use as an outbreak response.

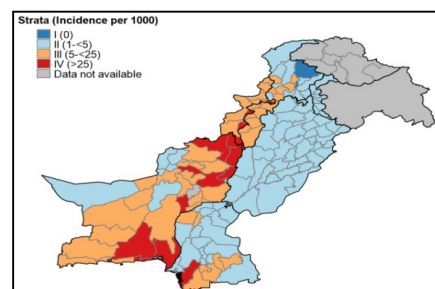
In 2019, Pakistan malaria stratification was updated based on epi-analysis carried out by WHO. The country is divided into three epidemiological strata (NSP-MCE, 2021-2035) as follows:

¹ <https://www.who.int/publications/i/item/9789240015791>

1. Stratum-I Annual parasite index (API)>5, which represents more than 90% of the country's malaria burden, includes 60 districts.
2. Stratum II API 1-5, consists of 77 districts; and
3. Stratum III consists of the rest of the country with an API <1.

The following map shows malaria endemicity in Pakistan following a malaria programme review (MPR) exercise by the World Health Organization.

Based on resource limitations, the country must prioritize the highest endemic districts (N=60) for high impact malaria control interventions such as universal coverage of the rural population with ITNs. As per WHO technical recommendations, ITN and IRS deployment in Pakistan is targeted for Stratum-I (API>5) districts only. The Global Fund mainly provides funds for ITNs.



Implementation Strategy for the Campaign:

The Directorate of Malaria Control (DoMC) and , Indus Hospital & Health Network (IHHN) were the principal recipients (PRs) of global fund grant. Whereas Medical Emergency Resilience Foundation (MERF) Pakistan was implementing partner (IP) for distribution of LLINs via Mass distribution Campaign 2022). The DoMC, IHHN and MERF were responsible for developing and setting the guidelines, policies, and procedures for the successful implementation of the LLINs Mass Distribution Campaign 2022. To ensure adherence to global standards, Alliance for Malaria Prevention (AMP) provided the technical assistance to DoMC and IHHN. During campaign planning and implementation the provincial Programmes were responsible for the provincial level coordination, and the District Health Offices were responsible for the coordination of campaign activities within their districts.

Campaign Goal:

The goal of LLIN Mass Distribution campaign 2022 is to reduce malaria morbidity and mortality through achieving universal coverage and consistent and correct use and maintenance of LLINs by the households in the targeted districts.

Specific Objectives of LLINs 2022 Campaign:

1. To ensure that the 100% of the targeted households are mobilized to participate in the campaign and that the correct SBC messages are passed consistently during each phase of activities.
2. To cover all (100%) of the households living in the targeted districts during the household registration and distribution of coupons to be redeemed for net distribution.
3. To distribute the correct number of ITNs to 80% of the registered households living within the targeted districts based on household registration and ITNs allocation strategy.
4. To ensure that at least 80% of the people in the rural households in the targeted districts are sleeping every night under ITNs received following the 2022 mass distribution campaign.
5. To ensure that all (100%) ITNs are correctly accounted during and at the end of the distribution

Expected Results:

1. 100% of the targeted households are mobilized to participate in the campaign
2. 100% of the of the households living in the targeted districts are registered and provided with coupons

3. 100% of rural households in the targeted districts are provided with the correct number of ITNs according to the ITN allocation
4. 80% of household members in households that received ITNs during the 2022 mass distribution campaign are sleeping under them
5. 100% of ITNs are correctly accounted for during and at the end of the distribution.

Campaign Results achieved:

Following central level Microplanning exercise by the Partners, district micro plans were developed. After the endorsement of the micro plans, provincial and district level, capacity building sessions were conducted which included training on all the key steps of the campaign. Household Registration (HHR) process was carried out in Nine (09) districts of Baluchistan and one (01) in Sindh. However, due to floods 03 districts (02 Balochistan and 01 KP) were completed in phase 11 while 01 district of KP was included in flood emergency response. The household registration through Red Rose and data analysis exercise, supported in decision making on the final LLINs distribution strategy. As a result, the campaign ensured timely positioning of the right quantities of LLINs at various distribution points of the 12 districts. For registration and distribution in all of three provinces, local volunteers were involved to ensure efficiency and effectiveness of the campaign, by utilizing local knowledge and creating pathways to reach vulnerable communities.

Project transparency and accountability to the affected population was ensured through rigorous onsite monitoring by the monitoring teams of the three partners (grant recipient and implementer). All feedbacks /complaints received were entertained following organizational policies.



Distribution Points (DPs) were established considering safety and



accessibility of the beneficiaries. LLINs were distributed to the beneficiaries at the distribution points, upon presentation of the unique coupons as a means of identification of the correct beneficiaries. The distribution was equitable with a robust communication/ public awareness, commodity tracking and monitoring mechanism, in order to help control malaria in some of the most high-risk districts of the country in an effective and cost efficient way. In addition to this, mobile distribution teams were deployed to cater the beneficiaries in hard to reach areas. Therefore, during LLINs Mass Campaign 2022, 730,276 households were registered through both Red Rose application and manual registration. However, 1,366,222 LLINs were distributed for campaign districts to 512,359 HHs in campaign districts and 749,450 bed nets among 618,975 HHs in Flood Emergency Response districts. In total 2,115,672 LLINs were distributed among 1,131,034 HHs including flood emergency response. The distribution of LLINs could not be taken place in Thatta because of unavailability of the LLINs.

At the start of the campaign, the Partners established a few sub-committees to carry out specific tasks related to various dimensions of the mass campaign and during the campaign provided updates to the National Steering Committee (NSC) on regular basis. These include Social and Behavior Change Communication (SBCC) mechanism, Logistics Sub (LSC), Implementation Committee and SBCC remained an integral part of this project in all phases and focused on delivering key messages during HHR and

distribution, running a live awareness session at each distribution point and convincing local authorities and community members to be a part of the campaign to make it successful.

Major challenge faced was flood 2022 in Sindh, KP and Balochistan with high level of intensity. Furthermore, variance in the Microplanning data, transport and mobility issues in flood hit areas, seasonal migration, communication channels connectivity issues, outreach to far flung areas, custom clearance challenges, Polio Campaign, Local bodies election etc. also impacted implementation. Political as well as bureaucratic challenges were also faced. However, all these challenges were rightly identified and addressed immediately. Thus, 99 percent redemption rate of this Mass Campaign 2022 was achieved within the given timeframe.

1. Introduction:

LLINs Mass Distribution Campaign 2022 guided by the National Strategic Plan (NSP) 2015-2020 for malaria, using a mass distribution approach. The campaign has targeted in 14 districts with the total project duration of six months including Preparation, Coordination, Microplanning and HHR, Logistics, SBCC, distribution of LLINs, reverse logistics, rapid monitoring and closing. Campaign was initially planned to be executed in 14 districts of KP, Baluchistan and Sindh provinces but due to flood emergency, it was re-planned to target 12 districts as campaign. The targeted beneficiaries are from the high-risk districts as per the LLINs distribution strategy. Keeping in the flood situation in the country, 4 districts more added for distribution of LLINs as Flood Emergency Response and one of the campaign districts is also included in Flood Emergency Response and one campaign district, Thatta was excluded from distribution because of unavailability of LLINs.

A. Project Strategy:

The project implemented based on the established LLINs distribution strategy, outlined in the Alliance for Malaria Prevention (AMP) toolkit to achieve the national target of universal coverage through mass distribution. In addition, LLINs distribution strategy based on lessons learnt exercise(s) at the end of the project was ensured.

The total duration of the LLINs Mass Campaign 2022 was from April 2022 to Jan 2023 as per agreed work plan with DoMC and IHNN. MERF was responsible for all the preparatory work, participation of Microplanning, registration of households, transport, pre-positioning, distribution, supervision, evaluation and closing of the mass LLINs campaign in 14 districts of three provinces of Pakistan.

LLINs Distribution Plan for 14 Districts			
Province/Area Name	No. of Districts	Projected Rural Households (2022)	Total # LLINs required
Khyber Pakhtunkhwa	02	262,139	1,062,491
Sindh	01	217,613	503,734
Balochistan	11	493,579	1,436,366
Total	14	973,331	3,002,591

For the 2022 ITNs mass distribution campaign, all rural households of the 14 districts were targeted such as Balochistan: 11 districts, KP- 02 Districts, Sindh-01 District.

MERF used the Red Rose mobile application technology, generated LLINs database for HHR and distribution at DP level. Red Rose is a database management application that provides end to end solution for humanitarian projects. Pakistan is one of the 40 countries where Red Rose has been used for several humanitarian related projects. It has created the ONE system, which enables humanitarian organizations to deliver all modalities of aid to beneficiaries at the touch of a button using its web-based platform and offline capable mobile apps.

The campaign strategy was to employ a **fixed-site two-phase distribution** strategy with household registration followed by net distribution to targeted households. However, a single-phase fixed site distribution was adopted in some parts of the targeted areas. A conventional fixed site distribution where household registration process was taken place and data compilation, net prepositioning, SBCC and other related activities were conducted for 3-4 weeks and afterwards followed by distribution of nets to

households. There are FIVE stages of the campaign; following four were covered by MERF while macroplanning was already covered by PRs.

1. Microplanning
2. Household Registration
3. Distribution
4. Reverse/Closing

1- Microplanning

A microplanning exercise was undertaken by the PRs before the proper launch of the campaign from 13 to 16 April 2022 at Shangrila Resort Murree. The microplanning exercise was essential to understand and gauge the level of effort required for this project. Therefore, before commencing the 5-days District-level Micro planning workshops, MERF organized a national level training of facilitators for microplanning. MERF staff, district and provincial PRs and SRs staff members attended this training. PRs facilitated this workshop with simulation exercises. MERF facilitated the workshop logistically. The total number of participants were 111. The detail of 5 days activities is given below:



Day one

As the total number of participants was more than planned, they were divided into two groups. The training took place simultaneously at the same location but in different rooms, one group was led by IHHN and the other by DoMC. After introduction, a general overview of the mass distribution campaign 2022 and an overview of microplanning was given to the participants of the training during which the participants were able to understand about the campaign coordination mechanisms and major phases of the campaign activities such as macroplanning, microplanning, HHR, Distribution and reverse logistics including closing.

What is microplanning, why do we develop a micro-plan and what are the outputs of microplanning in all the targeted districts all their topics were delivered and covered through a microplanning tool process and were conveyed step wise to the participants of the training through presentations.

All the activities were followed by a mapping exercise to develop operational maps including Distribution points (DPs), catchment areas, capture population, number of nets to be distributed, storage locations (Warehouses) and access routes etc. Day one of the training was concluded with a group work on mapping of their respective districts.

Day two

The group work of plenary mapping exercise was presented on day two and was followed up with in depth discussion to avoid any errors while mapping out their targeted areas (*district wise mapping*). Microplanning tool was also reviewed on Excel workbook through which the participants were able to understand how to transfer mapping data into the microplanning template and how the links and formulas for the microplanning works. It also demonstrated, how to develop HHR and distribution plan including micro-transport and SBCC micro-plan. The second day was concluded while participants exercised the micro-planning tools during group work.



Day three

On day three, topics covered during day two were recapped which was followed by another group work in which two groups were formed and were asked to fill out the microplanning templates shared with them by the facilitator.

Both groups were given separate tasks:

- **Group 1:** To develop a micro-storage and transport plan
First group was asked to fill out the template by using maps and population data to depict each DP and the villages associated with it.
- **Group 2:** To develop a communications plan
The second group was instructed to use maps and Social Behaviors Communication Change (SBCC) data to fill in the template for the SBC micro-plan.

Both the groups presented their work and the facilitator then provided a feedback on both the developed plans. Timelines and other administrative arrangements for the microplanning workshops at district levels were shared and discussed, and that is how the day three of the training was wrapped up.

Day four

During the fourth and the last day of the training, the previous day was reflected and all the participants were engaged in developing their micro-plans. Later on, each team presented their group work, facilitators gave their feedback accordingly on the plans and maps were reviewed. All the participants confirmed that they would hold district level workshop for development of actual micro plans in the following week after training with the logistics support of MERF. All the participants were awarded with workshop completion certificates. MERF team facilitated the workshop logistically including boarding, loading, travel and per diem for the participants and facilitators amicably.



a. District Level Microplanning

After successful completion of National level TOFs, district level workshops were held aiming to build the capacity of staff who will be engaged for district level micro planning activities for mass distribution of LLINs campaign. The district stakeholders were already intimated regarding the National-level workshop on mass distribution of LLINs. The DHOs ensured their support and cooperation and officially nominated the DDHOs, DSVs, and EPI, DHIS coordinators for the workshop. All the nominated staff attended the micro planning workshops and provided their valuable input for developing a productive and more inclusive micro plan for implementation of mass distribution campaign of LLINs. District-level micro planning workshops were organized from 19-23 April 2022 in BRSP and NRSP's district offices of Baluchistan and Sindh while this workshop in KP was organized later from 11-15 May 2022. The staff of MERF and SRs, who were trained during national level microplanning workshop, were facilitators of the district level workshop. Overall, logistic support was the responsibility of MERF.

It effectively harnessed the enthusiasm, experience of participants, and reach wide-ranging consensus to develop a productive micro plan for mass distribution of long-lasting insecticidal nets (LLINs) in an effort to defeat malaria and other vector borne diseases in target districts. The main objective of conducting district-level workshop was to gather real time data for identification of distribution points, required number of LLINs and human resource for registration of beneficiaries and then for the distribution of LLINs to registered beneficiaries. This workshop also helped to put forth the ground realities and existing

dynamics of each district to develop a realistic, well-organized and efficient plan of action for distribution of LLINs in the said districts.

Microplanning resulted in two vital outcomes:

1. Refining of the macro-plan at the lowest operational level (District and UC) to reflect local context and ensure sufficient resources for implementation.
2. Refining, at central level, of the estimated global budget and district level resource allocation to address actual needs at the operational level.

Main Activities of the Workshops

Day 1 and Day 2

Mapping is believed to be the crucial first step for producing quality micro-plans. This makes it important to assume that filling the micro plan templates is based on very detailed mapping that shows each community and how these communities are connected to each distribution point. Maps help in the process of identifying DPs and their catchment areas, identifying hard-to-reach areas, and illustrating the local dynamics and key features that must be considered in planning as well as in implementation phases of the campaign. In all target districts, very illustrative maps were



developed with the support of nominated team for workshops. The maps are symbolized with important landmarks and legends such as District Headquarters hospitals, main highways, mountains, forests, mosques, basic health units, rural health centers, schools, LLIN storage/warehouse, and the identified distribution points considering its catchment population. The district maps are also classified into tehsils and UCs for better comprehension of teams for micro planning. The mapping activity continued

for two consecutive days.

Day 3, Day 4 and Day 5

Following the mapping exercises, the participants of the workshops in all target districts started working on micro planning templates. MERF, BRSP, IHHN and Department of Health colleagues jointly worked on template and recorded required data from different sources. EPI and Polio data was taken to estimate the population whereas assistance of district administration was acquired to authenticate the district population, number of villages, and number of union councils in respective districts. The District Health officers of target districts not only supervised the overall exercise but also put their necessary input for further streamlining the micro plan. All partners agreed that an error-free micro planning would help to prepare a road map for not only an organized registration of beneficiaries for the campaign but also for timely and smooth distribution. The micro plan will be endorsed by the District Health Officer and then will be shared with Provincial Directorate on Malaria/VBD Control Program for further actions. The micro planning activity was also monitored by officials of The Indus Hospital and Balochistan Rural Support Program in respective districts. The micro planning activity continued for 3 days in most of



the districts. However, in Khuzdar, Lasbela and Washuk districts, it took additional a day or two to be completed.



As far as districts of **KP** are concerned, the workshop took place from 11-15 May 2022 in their respective districts.

A Five-day workshop on District Level Micro plan for LLIN (Long Lasting insecticide nets) was arranged by Medical Emergency Resilience Foundation (MERF) to understand campaign process and develop district micro-plan for LLINs campaign through mapping exercise for upcoming assessment and distribution of LLINs in the targeted districts for the campaign.



A total number of 15 participants from District Health Office, DMU, IHHN, Rep from WHO & Vector Borne Disease (VBD), FPHC representative, Public Health Coordinators in both districts Tank and D.I Khan participated in the five-day workshop on District Level Microplanning on mass distribution of LLINs.



Overall objective of the workshop was to develop a quality Micro-Plan on district Level to trickle down the assessment and distribution of the LLINs nets in the district and to implement the mass Distribution activities on District level with the collaboration of Indus Hospital Health Network (IHHN) and DoMC. This workshop also helped us to put forth the ground realities and existing dynamics of each district before the higher ups to devise a well-organized and efficient plan of action for distribution of

LLINs in the said districts.

During the workshop, all the participants prioritized developing their Micro-plan's and the District map through a group mapping exercise for the assessment and distribution of the mass distribution. The facilitators' mode of facilitation for the participants was through power point slides; group work, mapping exercise and discussions through recapping the previous days of the workshop.

Micro planning

Following the mapping exercises, the participants of the workshops started working as per micro planning templates in all targeted districts. MERF, along with district stakeholders and Department of Health colleagues jointly worked on template and recorded required data from different sources. EPI and Polio data was taken to estimate the population whereas assistance of district administration was acquired to authenticate the district population, number of villages, and number of union councils in respective districts. The District Health Officers of target districts not only supervised the overall exercise but also put their necessary input for further streamlining the micro plans. All partners agreed that realistic micro planning would help to prepare a road map for an organized registration of beneficiaries and for timely and smooth distribution.

The micro plans were endorsed by the District Health Officers and then was shared with Provincial Malaria/VBD Control Program for further review. The officials of IHHN and DoMC in respective districts monitored the micro planning activity. The provincial teams reviewed and shared the cleaned plans with national teams for further inputs. After detailed review and cleaning, were endorsed by National Steering Committee and shared with MERF for implementation.

2- Coordination

The success of mass ITN distribution campaigns were largely dependent on strong and viable coordination among all government stakeholders and partners. During the planning and implementation of mass ITN distribution coordination was ensured through active participation of all stakeholders (including government departments) which ultimately resulted in better ownership and sustainability of the campaign. Since the project had an immediate nature and specific milestones to achieve; therefore, several committees and sub-committees were formed for more integration. These committees contributed in a smooth and reliable way by adopting a coordination mechanism.

For effective coordination during the LLINs mass campaign 2022, the following committees and implementation arrangements were established.

a. National Steering Committee

A National Steering Committee (NSC), with representation from all stakeholders and partners, leading the planning and implementation of the campaign under the chairmanship of the Director DoMC. The



NSC ensured the coordination, tracked the progress against the set timelines, and signed agreements with implementing partners of the campaign. This committee also had a major role in validation of the campaign plan of action, budget and timeline, microplans, HHR Data and final distribution data along with all campaign deliverables in addition to creating the necessary liaison with international partners for resource mobilization. The NSC coordinated campaign activities from the planning and design phase, through implementation, monitoring and evaluation, and reporting. In total 4 NSC meetings were held including one virtual meeting.

b. Provincial Coordination Committees

Provincial level coordination committees were established in Sindh, Balochistan and KP. The Provincial Coordination Committees (PCC), having members from Provincial Malaria/Vector-Borne Diseases (VBDs) Control Programmes, SRs, IHNN, DoMC, DHOs & representatives from respective districts and implementing partner (IP) working at the provincial levels, all were responsible for the coordination of campaign



activities within their provinces. Regular provincial level meetings of the coordination committee served to streamline the processes and involve the relevant local authorities for improving and harmonizing operations. PCCs were responsible for recommendation of field level all activities, performed by IP. They were also responsible for monitoring and facilitation of MERF activities. They guided MERF as per the ground realities. The role of PCC remained very crucial for NSC to make the decision especially during flood situation. They played vital role to devise the strategy for flood emergency response in the target districts. They played the role of bridge between provincial government and federal leadership/NSC. They supported MERF for timely implementation of campaign activities.

c. District Coordination Committees

For the 2022 campaign, DHOs/DCs notified DCCs in their respective districts for coordination and implementation of the campaign activities. DHOs coordinated, supported and guided all campaign activities within their districts. DHOs guided the planning for implementation of the campaign in their

districts and endorsed the results of all major campaign activities such as the Microplanning, district level training, household registration, and distribution of ITNs. District level coordination was strong with the Deputy Commissioner support in all targeted districts.

During the campaign, the District Coordination Committee (DCC) monitored the progress of all activities



within its district. The DCC ensured effective implementation of campaign activities in the union councils (UCs), identified and addressed potential bottlenecks in collaboration with implementing partner(s). The Deputy Commissioner and District Health Officer (DHO) chaired the District Coordination Committee meeting of each district, as they were the key members of DCC. They held meetings as per agreed protocols.

Their inputs guided PCC to make the decision timely.

d. Sub-Committees

Sub-committees were very important part for the smooth implementation of the activities of the campaign. The prime objective of sub-committees was to use in-house expertise to provide technical support on developing strategic and operational plans, activities, and tools. They divided the workload and capitalized on the skills and expertise, which were available among the various departments and partner organizations.

The following four core sub-committees worked as "technical limbs" of the NSC during the 2022 LLINs mass campaign and provided updates to the NSC on the progress in their specific areas:

1. Implementation
2. SBC
3. Logistics
4. M & E

The DoMC & IHNN defined the roles and responsibilities of these sub-committees in their respective terms of references, which were reviewed and agreed upon by all members of the sub-committees and presented to the NSC for validation and approval with technical support of AMP consultants.

Each sub-committee developed a plan of action, budget and timeline for their activities.

- 1- Implementation sub-Committee**
Campaign plan of action, Timeline, Training Material
- 2- Social and behavior change sub-committee**
Communication plan of action and SBCC material
- 3- Logistics sub-committee**
Logistics plan of action, transportation plan
- 4- M&E sub-committee**
Monitoring and evaluation plan

The detail of meetings of committee and the sub-committees, held during campaign is given below:

Committees and Technical Sub-committees			
Sr. N	Committees	Meetings Held	Members

1.	National Steering Committee	Four	Directors, managers and thematic area specialists from DOMC, IHHN, MERF along with presentation of provincial programs
2.	Implementation Sub Committee	Fifteen	Campaign management team from DOMC, IHHN and MERF, consultants.
3.	Logistics Sub Committee	Six	Logistic and procurement managers and specialists from DOMC, IHHN and MERF.
4.	Social and Behavioral Change Committee	Ten	Behavior change communication personnel from DOMC, IHHN and MERF
5.	Monitoring and Evaluation Sub Committee	Four	M&E managers from DOMC, IHHN
6.	Provincial Coordination Committee	Four in each province	Provincial coordination teams containing senior and Programmes management from Provincial Health Department, DoMC, IHHN, SRs and MERF of KP, Sindh and Balochistan Branches.
7.	District Coordination Committee	Fifteen in each district	Representatives from District Health Department, DMU, MERF and IHHN, Pakistan People's Health Initiatives, District Administration/ chair. Provincial & national level staff from Health, IHHN and MERF during HHR and Distribution at district

4. Capacity Building / Trainings

Based on endorsed microplans, MERF engaged local volunteers and supervisors in each district with the coordination of DCC. Deployment of female volunteers was not a viable option due to cultural and security reasons in most of the areas. However, Lasbela, Ziarat and Kohlu districts of Balochistan, Thatta of Sindh and DI Khan of KP served as an exception and their teams comprised of almost 15-20 percent of female volunteers. All the volunteers were selected based on a criterion of at least matriculation education, 18 years old; possessing CNIC should be local of the district of duty and must be android literate

Considering the nature of this project, it was vital to conduct trainings on program implementation and logistics. Therefore, a two-tier approach was adopted at provincial and district level. These trainings mainly focused on the operations and enabled supervisors and volunteers for HHR, logistics and distribution based on the training manuals developed by PRs with the support of AMP consultants. Learning techniques were utilized for conducting all sessions. Facilitators were actively involved with group works and had an open forum for discussions during conducting all the sessions. The structure of field teams finalized as follow based on PoA, shared by PRs. The trainings were organized at three level, provincial, district and UC levels. Detail is given below:

a. Training of Trainers (TOT)- Provincial Level

A five-day TOT was organized in 03 provinces of Pakistan namely KP, Baluchistan and Sindh. The trainings were facilitated by PRs while district and provincial staff of MERF, PRs and SRs attended these provincial level trainings. Four participants from each district (02 MERF, 02 SRs) were among the participants and 4-6 participants from provincial teams of PRs and SRs. The objective of the ToTs to train the district teams who further organized and facilitated the district level ToTs for UC supervisors in their respective districts. MERF was responsible for all logistic arrangements of provincial as well district levels ToTs. The participants were trained on the following topics;



- Malaria awareness
- SBCC
- HHR
- RedRose
- Logistics
- Distribution
- Field Level arrangement
- Coupons Management

The training agenda and training material developed by PRs with the technical support of AMP consultants. The trainings were organized from June 14- July 01, 2022 at Peshawar, Quetta and Karachi. The detail of the participants is given below in the table:

Sr.	Province	City	Districts	Number of Participants	Date
1.	KPK	Peshawar	02	08	14 to 18 June
2.	Balochistan	Quetta	09	36	21 to 25 June
3.	Sindh	Karachi	12	48	28 June to 1 July
	Total			92	

All the participants were awarded with completion certificates at the end of each training. They were also provided with all the training material in soft for district level ToTs. In KP and Baluchistan, RedRose software was not ready, they were trained on methodology, exercise simulation etc., but software was provided them later with complete orientation remotely, however complete Red rose version was available in Karachi, they were oriented completely on the software, use and simulation exercise was also practised at the three locations for HHR and distribution.

b. Training of Trainers (TOT) - District Level

After the completion of 5 days provincial ToTs, same training trickled down for supervisors at district level, the training duration was 3-days. During these days, participants were trained on registration, logistics, and use of RedRose, distribution, SBCC, Coupon management and DP management with simulation. They were provided with required material for volunteers training and HHR. MERF and SRs

staff, trained in provincial level ToTs, facilitated these ToTs. The role of SRs was facilitation as well as monitoring of the trainings.

The detail of supervisors who were trained, is given below:

S.No.	Name of Province	Location	No. of Participants
1.	Sindh	Thatta	52
2.	Balochistan	Awaran	22
3.	Balochistan	Lasbela	42
4.	Balochistan	Shirani	19
5.	Balochistan	Kohlu	31
6.	Balochistan	Washuk	23
7.	Balochistan	Harnai	10
8.	Balochistan	Sibi	20
9.	Balochistan	Barkhan	28
10.	Balochistan	Ziarat	32
11.	Balochistan	Kila Saifullah	28
12.	Balochistan	Khuzdar	51
13.	Khyber Pakhtunkhwa	Tank	33
14.	Khyber Pakhtunkhwa	D.I.Khan	88
Total Supervisors			479

c. Volunteers Training

Followed by provincial and district level ToTs, 2-days trainings of volunteers was held on Household Registration at UC level by the supervisors, each supervisor has 5 teams of volunteers , one team consists of two volunteers, one for SBCC and other for HHR. Each supervisor was responsible for training of the respective teams. The training covers the following:

- Overview of the ITN distribution campaign;
- How to approach and introduce yourself to households;
- How to undertake HH registration using mobile phones as well as on paper tools;
- Dissemination of key malaria and campaign information to households; and

The role of volunteers was most important during HHR and distribution that's why small group of volunteers was selected for training so that they could understand each point in better way. During this training, volunteer were trained on HHR, SBCC, use of RedRose and coupon management. The SRs and PRs monitored theses trainings.

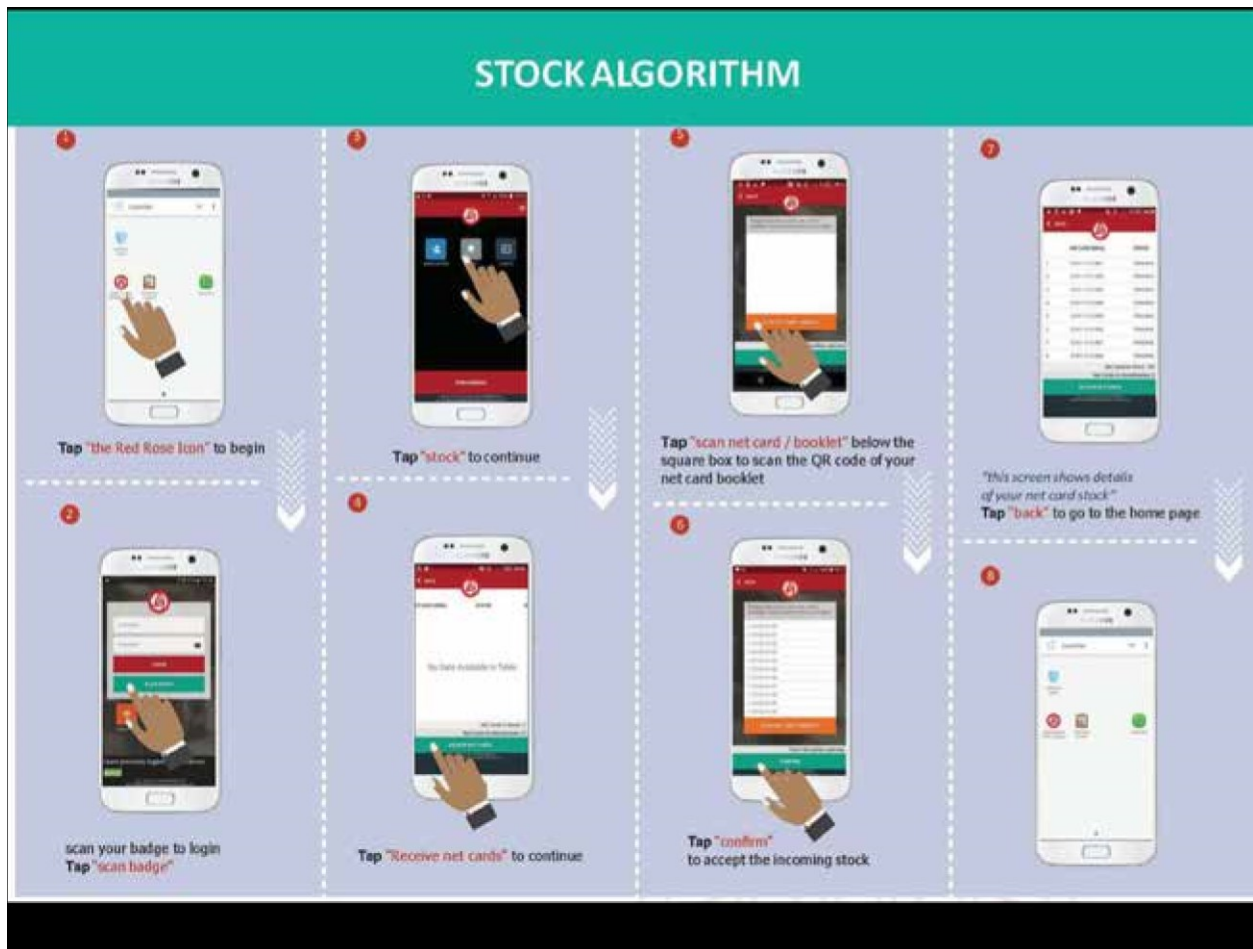
The detail of trained volunteers in each district is given below in the table:

	Province	District	No. of participants
1.	Sindh	Thatta	595
2.	Balochistan	Awaran	234
3.	Balochistan	Lasbela	446
4.	Balochistan	Sherani	186
5.	Balochistan	Kohlu	364
6.	Balochistan	Washuk	245
7.	Balochistan	Harnai	115
8.	Balochistan	Sibi	193
9.	Balochistan	Barkhan	324
10.	Balochistan	Ziarat	208
11.	Balochistan	Killa Saifullah	359
12.	Balochistan	Khuzdar	638
13.	Khyber Pakhtunkhwa	Tank	411
14.	Khyber Pakhtunkhwa	D.I.Khan	882
Total Volunteers			5,200

5. Household Registration Using Red Rose Coupons

During LLINs mass campaign 2022, Red Rose android-based application was used to register the targeted HHs. RedRose Turkey based Software Company, which also provided coupons for HHR. One Million coupons were printed in Turkey and imported to Pakistan. It took long to print and import. However finally by end of July, coupons were ready to be used for project implementation.

The volunteers were responsible for HHR and distribution. They were trained on using this application during registration and distribution phase. For registration, firstly the stock booklet scanned to register each HH by adding details such as, head of household details, name of district, tehsils, union council and village of the respondents. Once all the required information is added in Red Rose, the DP of that specific HH needs to be assigned by the volunteer and mentioning the same on the beneficiary coupon. Once all the information is recorded, the volunteer would then scan the coupons having QR code to identify number of LLINs to be given to each HH. It gives a QR code to the registered HH, which is also transferred in their database. The QR code is then validated at the DP to handover the LLINs to the beneficiaries.



Red Rose software used for door-to-door HHR as well as distribution of LLINs. For registration of HHs, information such as number of persons in a HH, their CNIC number and house address were recorded. For this campaign, the operational definition of HH was a family consisting of husband, wife and unmarried children living together on a permanent or long-term basis in the same house. However, owing to the local context, the definition was adapted. The change in the definition included the following.

1. Unmarried siblings (adult or minors) living permanently or on a long-term basis (i.e. not just visiting) in the household with their married sibling, considered as part of the household.
2. Parents living permanently or on a long-term basis (i.e. not just visiting) in the household, and dependent on the household, considered as part of the household.
3. Where a husband has more than one wife, each wife (and her children) considered a separate household. The husband counted as part of one of the households.
4. The threshold defined by the PRs was that HHR must not be less than 60 percent; otherwise, the entire HHR repeated in order to ensure blanket coverage. However, 100 percent blanket coverage was achieved by MERF, not a single HH was left unassisted.

In total **764,107** households were registered during door to door HHR process. For this stage, proper teams were setup, each team consisted of two volunteers; one was to register HH and one was for SBCC. However, the criterion for composition of teams was re-adjusted in some areas according to the situation and ground realities. In few instances, one supervisor was managing more than one DP while at some points one DP had more than one supervisor, depending on the caseload.

For registration of HHs and distribution of LLINs, special coupons were designed which QR codes and printed from Turkey. Once the registration process was completed, these coupons were handed over to the head of HH. Each coupon had a unique QR code, as can be seen in the picture below, which was then scanned with the Red Rose software to authenticate the beneficiaries coming for collection of LLINs. At the time of registration, doors were marked with a specific HH marking.



Red Rose application ensured swift collection of data, which was cleaned and validated by UC supervisors on daily basis. In addition, it also aided in timely detection of any anomalies as well as their rectification. During the registration of a household, the following information was collected:

1. District Name
2. UC Name
3. DP name
4. Village Name
5. Name of Head of HH
6. CNIC Number (Compulsory)
7. Total Family Members
8. Coupon Serial Number

Seven days were dedicated for HHR in all districts and three additional days for mop-up to register any missing household. Mop-up exercise was extended for an additional days, because of flood situation, seasonal migration of the community as well as request from the local authorities in some districts especially in Thatta of Sindh and KSF, Khuzdar and Washuk of Baluchistan. It helped in reaching the aim of 100 percent registration of HHs. However, HHR process was prolonged in Thatta because of the huge difference in microplan and actual number of HH. In 1st phase of registration, process was completed in 10 districts and in 2nd phase due to flood situation 3 districts named Kohlu, Lasbela and Tank 5 days for Registration and 02 Days for Mop-up were allocated. Kohlu was included in the list of HHR, completed in

the 1st phase of HHR. HHR in Lasbela and Tank were completed in second phase of HHR with 5 days plus two days for mop up.

a. Door marking

For the household registration, it was important to have a way of marking households that had to be visited to avoid duplication of registration. A permanent marker or chalk marking were used to show houses that have been visited, as well as those that have been missed or require follow-up visits. Adequate quantities of markers and chalk were included in the quantification requirements for the campaign. In general, a volunteer visited 30-40 households per day for the household registration.

b. Visibility of Registration Teams

To ensure acceptance among local population during the registration process, and where appropriate, the UC supervisors and community-level personnel were identifiable through visibility materials such as Jackets for supervisors and nametags were for volunteers that helped them to be recognized quickly as associated with the LLINs distribution campaign. The SBC sub-committee was leading the development of the 2022 campaign logo and material.



c. Supervision of Household Registration

Supervision was important throughout the household registration period but was particularly critical during the first days when problems were most likely occurred due to unclear understanding of tasks particularly related to definition of a household and data collection. A team supervisor (average of 1 supervisor for every 5-registration teams) was provided supportive supervision and on job training using supervision checklists developed at central level.



They were responsible for supervision of the household visits, the collection of data, issuing of coupons and the communication of messages. Where monitoring data showed missed communities or households, the supervisor was responsible for discussing the situation with the teams under their responsibility during their daily meeting and for identifying corrective actions to be taken. The supervisor was responsible to take follow up to confirm that action has been taken and errors corrected. Where the problem was with data collection or summarizing daily data, the corrective action had included on-job training where the supervisor participated in a few household visits to observe and then discussed how it could be improved. The supervisor worked directly with the teams under their responsibility at the end of each day to ensure that the summary of their data is correct.

d. Monitoring of Household Registration

Internal monitoring of the household registration was carried out to ensure transparency of the registration process and identify any missed communities or households or other issues affecting implementation quality (e.g. SBC messages were not being communicated during HH visits). Monitoring teams of DoMC, IHNN and designated personnel from provincial malaria control programs in collaboration with MERF district supervisors, started the rapid monitoring of the HHR process on the second day of HHR and continue through the completion of the household registration process. During

HHR process, daily meetings were held at DHO office under the chair of DCC chairperson to discuss the issues, MERF ensured to address the highlighted issues by monitors.

Despite all such challenges, the HHR phase was completed to the satisfaction of all the stakeholders, achieving the registration of 730,276 households in rural areas of the targeted districts in three provinces including phase 1 and 2 process of HHR.

e. Data Validation

764,106 HHs were registered during HHR including Red Rose registrations as well as missing, manual registrations and single-phase fixed site distribution of 13 districts while one campaign district was included in Flood Emergency Response. 33,830 HHs were either duplicated or rejected due to CNIC duplications. Based on the micro plans 3,402,300 LLINs were planned to be distributed among 889,000 HHs in 14 districts. Owing to the variance in numbers, the total number of HHR stood 730,276 after data cleaning, the plan was disturbed because flooding situation in the country.

Following data cleaning, synthesizing and submission by the MERF MIS team, the HHR data was validated and endorsed for decision-making on the final ITNs allocations by the NSC, two weeks after completion of the household registration. The household registration data was used as the basis for monitoring the progress of the ITNs distribution and macro & micro transportation as well.

f. Missed and Paper based HHR

Due to flood and seasonal migration of beneficiaries, and missed areas based on the information, provided by DHO/DCs, they were covered during distribution.

Very few households in two districts of Baluchistan, namely Washuk and Harnai, one day before the HHR, the security situation in two UCs of district Harnai changed and the team had to register HH manual with continuous coordination with security agencies. Secondly, the far flung areas of district Washuk, mobiles were not available with team, manual registration was done in few villages. 3,091 HH in District Harnai and 2,560 HH in District Washuk registered manually.

6. Flood Emergency Response

Since the monsoon season began in mid-June, floods affected at least 33 million people and killed at least 1,718 as of Oct. 14. 206 million people required humanitarian assistance, including around 8.2 million in flood-affected areas who need health services. The floods in Pakistan, especially in Sindh and Balochistan, are caused by heavy rainfall and heat waves in the coastal areas. The floods have caused a large amount of increased flow in the Indus River. Overall, there have been 1,663 deaths all across Pakistan. In Balochistan 72,235 houses, in Sindh 1,823,360 houses, in KP 91,463 houses and in Punjab 67,981 houses were damaged partially or completely. 11,142,095 animals were lost during the floods all over the country.

Provincial Government of Baluchistan and Sindh through PDMA requested to distribute LLINs in the areas other than campaign districts. PDMA Sindh taken the LLINs with proper request from provincial to federal secretariat and distributed the LLINs among the vulnerable people in Sindh other than Thatta i.e. only campaign district in Sindh.

However on the request of Provincial Government Baluchistan, PRs with the consultation of GF, approved distribution of 260,950 LLINs among the most affected of four districts of Naseerabad division. MERF was

responsible for transportation from regional WH to District WHs and further transportation for distribution within the district with the coordination of district health department/administration. A committee was notified by Director provincial malaria program, Baluchistan. The committee was responsible for allocation of the most affected areas and storage of LLINs at district level and for monitoring and endorsement of the distribution, completed by MERF. MERF completed transportation through already engaged transporter. MERF completed the distribution of all LLINs with the coordination of district coordination committee. DC/DHO of the respective district chaired it. The local volunteers were engaged for distribution of LLINs. The situation on ground was very bad, water was stagnant in most of the areas due to flood. The affected were camped at the roadside; they were provided with nets as per agreed criteria. Flood Emergency Response activity was carried out in 4 Districts of Balochistan i.e. Jaffarabad, Naseerabad, Jhal Magsi and Sohbat Pur and One District in KP which was DI-Khan. 2 nets were given to the married person and 1 was given to the unmarried person on showing CNIC in Baluchistan while one net to everyone on showing CNIC in D.I.Khan. The committee had regular monitoring distribution. The DC/DHO as chair has endorsed the distribution of LLINs in their respective district on provision of all the distribution detail.

The distribution was made paper based/manually in Baluchistan while ODK was used in D.I.Khan, as D.I.Khan was campaign district initially, later on after flood, it was included in flood emergency response. 488,500 LLINs were distributed among 488,500 individuals in DI Khan with coordination and supervision of DHO as DCC chair.

7. Pre-Positioning/Campaign Logistics

Logistics, as a critical support service, requires effective planning for the smooth flow of ITNs and other critical campaign supplies from the top to the bottom of the supply chain in a well-coordinated manner. MERF applied the international best practices to execute this phase in a professional and successful manner. For identification of transport vendors, tender was announced through newspapers. After a highly competitive bidding process, a very experienced vendor was selected transport service providers for macro, micro transportation and reverse logistics. In the meantime, based on the micro-plans, district warehouses and distribution points were identified in all targeted Districts of KP, Sindh and Balochistan. During the warehouse identification process, it was ensured that the selected facilities meet the required criteria and fulfill the protocols. The whole process was scrutinized and endorsed by the Logistics Sub Committee (LSC), comprising all stakeholders.

a. Logistics Tasks

Following different logistics activities and tasks were carried out and completed during entire campaign.

1. In person and virtual trainings were organized and proper logistics training sessions were successfully delivered to provincial, districts and UCs level staff and volunteers, facilitated by both PRs and MERF.
2. Printing of Logistics Tools endorsed and approved by LSC (Logistics Sub Committee) in compliance with AMP (Alliance for Malaria Prevention) and distributed to field teams.
3. Procured and distributed DPs tool kits to DPs staff in campaign districts.

4. Identified, selected, and procured transportation services for macro, micro and reverse transport of LLINs and waste material.
5. Identified, accessed, and selected warehouses at district level by signing lease agreements with owner, with sufficient storage capacity in compliance with Logistics SoPs and guidelines.
6. Macro Transportation Plan was developed, endorsed, and implemented. Successfully completed the macro transportation from PRs/ SRs regional warehouses to MERF's warehouses at districts level as per approved quantity of LLINs.
7. Micro transportations plans were developed based on actual household registration and pre-positioned at DPs stores in respective districts.
8. Reverse transportation leftover LLINs, empty sacks/ waste material and all registration/ distribution record was successfully completed.
9. Handing over of leftover LLINs from MERF to PRs at their regional warehouses.
10. Implemented, prepared, and submitted "LLINs Logistics Report & Reconciliation Tool", the approved reporting tool of AMP (Alliance for Malaria Prevention).

The macro transportation phase was completed in September. In micro transportation, all types of transport vehicles were used according to the need of the relevant area. During this phase, the LLINs were shifted from district warehouses to the DPs in the last week of September, well before the launch of the distribution process. During the pre-positioning phase, all storages, handling, and transportation of stock was documented as per AMP Standard Tracking Tools (stock sheet, waybill and DP stock control sheet). Based on the requirements of DoMC and IHNN, a comprehensive dispatch plan was prepared. Transport at the provincial level was mobilized using the AMP approved waybill, specifying origin and destination of the vehicle. Waybill was designated as the accountable document for an effective control mechanism. Warehouses were established at the district level and adequate staff was appointed as per international supply chain standards, including security, commodity tracking, warehouse management and operational staff. All dispatches during the transport process were secured through contractual clauses against any pilferage. Additionally, an effective and cost-efficient reverse logistics plan was chalked out and executed for transportation of un-distributed/remaining LLINs back to the regional warehouses.

b. Implementation of logistics plans

Based on "Logistics Plan of Action", developed by LSC (Logistics Sub Committee), stepwise implementations were executed for the LLINs Campaign 2022. Upon final screened data after household registration, macro transportation was done according to actual quantity of LLINs required in each district of the campaign. In addition to regular campaign districts, four (4) additional districts were also served with transportation of LLINs to respond flood emergency. All Macro Transportation was completed from Regional Warehouse of PRs (DoMC and IHNN) in KP, Sindh and Balochistan. Macro transport is tabulated as below:

Sr. No	Table-7 Originating Warehouse	Destination District Warehouse	Number of Bales required	LLINs in PCS	Number of LLINs Required
1	NRSP WH Sujawal	Awaran	1,669		83,450

2	NRSP WH Sujawal & DoMC WH Quetta	Lasbella	4,582		229,100
3	NRSP WH Sujawal & DoMC WH Quetta	Khuzdar	4,726		236,300
4	NRSP WH Sujawal	Thatta	3		150
5	Quetta WH	Sherani	1,103		55,150
6	Quetta WH	Kohlu	1,743		87,150
7	Quetta WH	Washuk	1,400		70,000
8	Quetta WH	Harnai	899		44,950
9	Quetta WH	Sibi	1,242		62,100
10	Quetta WH	Barkhan	1,912		95,600
11	Quetta WH	Ziarat	1,533		76,650
12	Quetta WH	Killa Saifullah	2,583		129,150
13	Quetta WH	Jhal Magsi	539		26,950
14	Quetta WH	Sohbat Pur	733		36,650
15	Quetta WH	Naseerabad	1,960		98,000
16	Quetta WH	Jaffarabad	1,987		99,350
17	Peshawar WH	Tank	2,440	28	122,028
18	Bannu	Tank	1,963		98,150
19	Bannu	D I khan	9,770		488,500
Total			42,787	28	2,139,378

c. Flood Challenges

1. After selection of warehouses, macro transportation phase started as per agreed timelines. Unfortunately, heavy monsoon rains caused devastating floods which resulted, the destruction of infrastructure. Provinces, districts and cities became disconnected because roads and bridges were badly damages and destroyed.
2. floods and continue rains also affected the transportation of LLINs and got delayed till the rehabilitation of roads and highways. there was risk involved if doing transportation in rainy weather and expected chances of LLINs damages by getting wet.
3. Thirdly due to massive floods, communities in Sindh and Balochistan were in dire need of relief items. Therefore, the chances of looting, grabbing, and snatching activities by the local community of transitional areas, was high.
4. Due to heavy rains and floods campaign activities were implemented later than the initially planned schedule. This created difference of understanding since the time of trainings until the implementation process started.

d. Identification of Warehousing / Storage and Security:

MERF, in consultation with the logistics subcommittee (LSC), identified the warehouses for storage of the nets at the district level. Warehouse assessments was carried out by the LSC (using checklist develop for this purpose) and shared with the IP. LSC finally certified the suitability of the recommended warehouse. The districts warehouses were staffed by the MERF, who took reasonable measures to ensure the safety and security of ITNs at district-level warehouses.

At district level, one district store officer and one assistant were assigned. Security guards (one for daytime and two during nights) were hired for each district store. For the PPS, there was one storekeeper and two security guards who ensured 24-hour security of ITNs.

e. Dispatch and Transport

Macro transportation was involved in delivery from the provincial/district warehouses to the districts and lateral movement from the district warehouses in Mirpurkhas, Thatta and Bannu. This was adopted with 10 days of Delay of approval of transport working days. The macro storage plan using the macro-quantification data was used as a guide at this level. Standard DoMC tools for dispatch (waybill) were used.

The **waybill** (WB) is one of the three essential ITN tracking tools were used during the mass distribution campaigns. The purpose was to control and record the movement of ITNs from point A to point B. Transactions at every level that involve movement of ITNs from one point to another was documented using a waybill with a corresponding entry in the warehouse stock sheet. Logistics reports to account for ITNs received and sent out was generated at each of the warehouses at both provincial and district levels.

The management of ITNs at the districts, including further deliveries to last mile distribution points, was the responsibility of the IP. The logistics personnel ensured that nets were transported to the correct locations in the right quantities and according to the timelines established. They also ensured that the appropriate tracking tools (as listed in the LPOA) were used throughout the supply chain for high accountability for the ITNs.

f. Micro Logistics

a. Identification of Warehousing/Storage and Security

Following the household registration, the data quickly consolidated, validated, and used to update the micro-transport plans with the actual number of nets needed per DP. Once NSC endorsed the needs per distribution point, the transport operations begin, ensuring that nets were pre-positioned for distribution 2-3 days in advance of the startup. The LSC members were leading the coordination and monitoring of the supply chain. Pre-positioning of ITNs at DPs took around 10 working days.

Identification of suitable DP storage was done during microplanning. The LSC ensured that the list of DPs should finalize during the microplanning to enable micro logistics planning up to the DP level. This was also supported the campaign communication strategy during the HHR, ensuring families attended the correct DP for net redemption. Transportation arrangements for other campaign materials like PPE and SBC materials were planned with the LSC in advance.

MERF provided the validated quantities of ITNs for each DP (based on the endorsed final household registration data from NSC) to the transport contractors with the number, name and location of distribution points identified, as well as the name of the receiver of the ITNs. A copy of all transport plans with these details has been prepared for available to members of the LSC in advance of any transport operation. Logistics reports for each DP were prepared to ensure that all ITNs delivered at each DP were reconciled and accounted for.

b. Supply Chain Management: ITN Tracking, Monitoring, and Reporting

Supply chain management best practices were put in place to ensure the logistics operation could be carried out as early as possible. MERF was responsible for the logistics operation ensured all transportation arrangements to support the logistics operation conducted well in advance. This involved early contracting of the transport sub-contractor including putting all systems in place for accountability of ITNs, as well as a plan for reverse logistics and reconciliation of nets in the entire supply chain. The ITN supply chain management included oversight of the transport planning, dispatching, warehousing and tracking of the ITNs along the entire in-country supply chain.

The tracking of ITNs from the DoMC pipeline to MERF pipeline involved the use of Goods Received Notes and Waybills. Other tools were used for this campaign also included the stock sheet and DP stock control sheet. At the DP level, the inventory management of the ITNs was used the DP stock control sheet. To achieve close control and accurate accountability for the ITNs, logistics personnel strictly followed the guidelines given in the logistics plan of action.

8. Distribution

After completion of HHR, the DPs teams trained on distribution process including logistics arrangements at each DP with complete documentation. Based on the microplanning and HHR data DPs were set in each district and beneficiaries were informed about their respective DPs during HHR. Few changes were made in some districts where flood affected the proposed DPs. The DPs name in the Red Rose were as provided based on microplans but after flood, there were changes made in the field in the light of ground realities. The names in Red Rose remained same because it was not possible to change them at this stage however in the field they were set up as per reality. The communities were informed accordingly. The coupons which were handed over to them had all the required information such as date, time and DP from where they can collect their LLINs and they were updated according to change. Each DP team comprised of 5 volunteers including a DP In-charge, a SBCC volunteer, a crowd controller, a coupon verifier, a storekeeper and two security guards. It was continued for 5 days and 2 days for mop up in 09 districts of Baluchistan. However, distribution could not be take place in Thatta because LLINs were not available. Only 150 LLINs were distributed on the day of campaign launch. The distribution in District Lasbela of Baluchistan and district Tank of KP was started in 2nd phase in the 1st and 2nd week of October, 2022.

During flood, many houses were damaged badly and washed away all their belongings, coupons were either washed away or damaged and was not redeemable. After discussion and endorsement by PRs, LLINs were distributed on CNIC redemption with consultation of Red rose team. Paper based distribution took place at few DPs of Washuk and Harnai where HHR was done manually. Where communities were unable to come to DPs and reside far away, mobile distribution was done. This was continued for period of 7-9 days.

As during HHR, the detail of security agencies, workers, Taliban was collected, based on the available nets, PRs approved distribution in security agencies, workers and labours if they are from out of districts. Security agencies allowed to distribute LLINs through Red Rose in district KSF, Barkhan, Lasbela and Khuzdar. Continuous efforts and monitoring by field and programme staff led to a 99 percent redemption rate of LLINs, ensured through this campaign.

a. Campaign Launch

Distributions in all districts were initiated through Campaign launching ceremonies. Senior Govt officials including Federal Minister for the Ministry of National Health Services, Regulations and Coordination, chief minister Baluchistan, Secretary Health and DG Health Services Baluchistan, DCs, were invited for initiating the distribution of bed nets for better ownership of the campaign. The Chief Minister Baluchistan attended the launch ceremony of bed nets distribution in District Awaran and Federal Minister for the Ministry of National Health Services, Regulations and Coordination attended the launching ceremony in District Thatta-Sindh, DGs Health Services, Director VBDs, were also present on



the launching ceremonies. Deputy Commissioners and District Health Officers launched the distribution in their respective districts.

b. Distribution

Distributions teams organized distribution points as per the protocols laid out by AMP consultants. 5 x boxes were placed at distribution desks for redeemed coupons storage, the detail is given below:

1. Box-1- 1 x LLIN
2. Box-2- 2 x LLINs
3. Box-3 - 3 x LLINs
4. Box-4 Rejected or duplicated

The HH having coupon entered at DP, SBCC volunteer explained the message from displayed banner and installed LLIN as sample. After this the beneficiary went to coupon verifier, he/she scanned the Red Rose coupon to know about the exact number of LLINs to be handed over to the beneficiary specified by Red Rose based on the household size. After this, beneficiary details were verified and each of them received their LLINs. AMP guide was developed, which was followed and implemented by supervisors. Following arrangements were made at each DP to ensure smooth distribution:

Red Rose application was used for identification of number of HHs to receive LLINs at each DP. Using the coupon QR code, volunteers were able to access an already uploaded database on their mobile phones to authenticate CNIC numbers of registered beneficiaries during HHR. This helped in verifying the identity by Crowd control to ensure that people coming to receive LLINs are advised/ guided to be in queue properly.

1. Removal of LLINs from their packing before distribution among beneficiaries. Wastes were retained at each DP for later and proper disposal.
2. On spot SBCC sessions, where information regarding usage and storage of LLINs was disseminated.
3. The figure below represents district wise distribution of LLINs

There were a few distribution protocols, which were already developed before starting this process. As per those protocols, each DP had to distribute LLINs to 100 HH per day considering the technicalities and

to ensure completion of distribution as per given time. Mobile distribution was also undertaken where deemed necessary.

1. Mobile DPs were established in some areas, especially due to long distances and scattered populations.
2. It was found that in some hard areas' beneficiaries were unable or unwilling to come to fix DPs to get their LLINs. Hence, mobile teams were set up in addition to the already established mobile DPs for door-to-door distribution and ensuring blanket coverage.
3. LLINs distribution record is maintained on Red Rose application. Distributed coupons, distributed nets along with remaining nets were reconciled through Red Rose daily, as well as at the end of the distribution period.
4. The current monsoon flood damaged the belongings of population in different districts of Baluchistan, they also washed away coupons along with their belongings, those who lost their coupons, provided LLINs on the verification of CNIC through Red Rose.
5. In addition, in few districts i.e. LLINs were distributed among security agencies in KSF, Lasbela, and Khuzdar & Barkhan and among workers in KSF and Lasbela.
6. HHR process could not be started in few UCs of District Khuzdar because of stagnant water and there was no way to reach there so single phase fixed site distribution process was adopted with approval. 35,187 LLINs were distributed among 12,578 HH using ODK software.
7. The strenuous efforts resulted in achieving an overall target of distribution of a total of **2,115,672** LLINs in **512,359** HH in 12 campaign districts while 618,975 HH in 5 flood districts. The overall LLINs distribution percentage stood at 99 percent.

It is success of the campaign that marginalized women from these conservative communities also came to collect their LLINs for the health of their families. There were woman beneficiaries who appreciated the efforts of MERF and informed that they are satisfied by the entire process. They also mentioned that the SBCC session was very useful and helped to develop their understanding on the usage and handling of LLINs.

9. Reverse Logistics Control and Accountability

a- Returning undistributed nets to district/ provincial level

Reverse logistics was the movement of the undistributed ITNs from the distribution point back to the district warehouse and then finally to the provincial warehouse. In each district, the IP ensured that the inventory management tools (waybill) were used to record reverse movement of the leftover nets back to the district warehouse.

1. The IP arranged the transport of the remaining ITNs to the district stores.
2. Undistributed ITNs returned to the designated district level store and provincial warehouse after completion of the distribution.
3. Registration team comprised of 02 volunteers, 1 for SBCC and other for HHR.

10. Social and Behavioral Change Communication (SBCC)

The campaign involved direct interaction with the community; therefore, it was essential to have an appropriate communication strategy designed for the target population. It was designed for every tier of

the campaign starting with promotion, introductory messages during registration, delivering key messages about LLINs usage and its benefits, marking doors and again information on the usage of LLINs at distribution points.

It was a vital component of the campaign, aimed at ensuring acceptance among the local population during the registration and distribution phases. During the HHR phase, volunteers delivered key SBCC messages before starting the household data collection. For BCC, key messages were developed and different ways of communication such as airing of radio spot, SMS broadcast Social Media, Visibility & SBCC banners, Mosque announcements, provincial & district advocacy meetings and launches Ceremonies of the distribution. The messages were about transmission of malaria, LLINs usage, care and repair, how to install and hang the nets, storage of nets during daytime and when these should be used.



The HHs provided information material in local language at the DP level regarding the use of LLINs. As part of the media outreach plan, relevant Deputy Commissioners held press conferences in all the target districts to effectively promote the LLINs Campaign in their respective areas.

Considering the recommendations of the SBCC sub-committee, the district supervisors and volunteers were provided with visibility material for identification and acceptance in the communities. This component of the campaign helped in reaching out to the people on an individual and communal level to raise awareness and how they can cooperate with the MERFteams to gain maximum benefits.

Summary of SBCC Activities		
Activity	Objective /Target	Achievement/Results
Airing of Radio Spots: Through national media channel which has radio footprints in campaign areas	<p>To promote participation in HHR 3 days prior to the start of HHR and will continue to be aired during the 10 days scheduled for HHR.</p> <ul style="list-style-type: none"> Target Audience: For HHR all rural population of targeted districts For Distribution only registered beneficiaries Medium: Radio Channels: FM/MW Frequency: 20 spots per day per region of coverage area Languages: National & most common local languages of 3 provinces 	<p>Radio spots airing details: 20 spot per day per radio channel aired on Radio Pakistan in targeted district in local languages during HHR phase. Total spots aired:1120</p>
SMS Broadcast: Through different	<p>Pre-registration, Registration and Distribution communication rely through SMS to inform the public about HHR dates and Distribution dates related information sent to focused districts population</p>	<p>Messages broadcast during HHR: During HHR A total numbers of 1,781,140 SMS were sent related to HHR</p>

<p>nationwide telcos</p>	<ul style="list-style-type: none"> • Language: Urdu • Medium: Mobile phones • Channels: Telecom companies including Ufone, Zong& Jazz 	<p>& distribution dates pre & during registration phase & distribution phase. 3 types of messages were sent for these phases per phone user.</p>
<p>Social Media Through Facebook platform</p>	<p>Communication in the all phases (pre & during registration and Pre, During & Post Distribution) will occur throughout the campaign days through Facebook boosts in targeted districts to inform the public about registration process, dates, key messages, uses & care and repurpose of LLINs.</p>	<ul style="list-style-type: none"> • Total Audience Reached in targeted districts: 208,499 • Page Followers: 6185 • Page likes: 5902
<p>Visibility & SBCC Banners: (Including A3 Poster, demo of LLIN & SBCC Sessions)</p>	<p>Health education and net demonstration will be conducted by UC volunteers at each distribution point. A banner with key messages with graphics illustrations, LLIN hang up, care and use of LLIN will on display at all distribution points.</p> <p>A3 Poster with SBCC messages need to be presented during HHR to educate and advocate HHR targeted population during house-to-house visits of HHR teams Language: Mainly in Urdu, Sindhi in Sindh Medium: Panaflex banners</p>	<p>Banners for DP visibility (size 8 ft x 4 ft) were placed at every DP for DP identification and location SBCC banners (size 7 ft x 4 ft) were also affixed along with SBCC volunteer to brief public about use, care and repurposing of LLIN. Total banners displayed= 1800</p> <ul style="list-style-type: none"> • A3 size poster with key SBCC was provided to every team during HHR registration to educate and sensitize households during door-to-door registration phase. • A total number of 2500 posters were printed for registration phase.
<p>Mosque Announcements: /Town Criers:</p>	<p>In communities not within radio signal footprints, SMS coverage social mobilization effort will rely on the mosque announcements. Mosque announcement will be done during pre-registration, registration and distribution phases.</p> <p>Medium: Mosque Sound System Languages: Local languages as per respective regions</p>	<p>At every UC and village level where there is no other mean of communication like SMS, Radio signal mosque announcements are most reliable source which were ensure at village of every UC during HHR & distribution phases. There was 400+ UC in targeted districts of LLIN campaign and mosque announcements of dates & process of registration and distribution was communicated through these announcements at villages' local mosques.</p>
<p>Launches: Distribution Inauguration events</p>	<p>A launch event to be conducted at Provincial & district levels. Directorate General Health Offices (in Quetta Balochistan, Peshawar KP and Hyderabad Sindh) four</p>	<ul style="list-style-type: none"> • Sindh-Thatta by Federal Minister Health • Balochistan – by Chief Minister • Balochistan – Sibi by DG Health

	or five days prior to the start of LLINs distribution in the campaign districts.	<ul style="list-style-type: none"> • KP - Tank and DI launching at district level by DHO & ADC respectively. • At district levels respective DCO/DHO launched the distribution events.
Campaign Hotline:	MERF will operate a campaign hotline dedicated number 0303-6666440 to answer queries by the public to have their participation in the different phases in the campaign during household registration and distribution. The hotline operators will also serve to dispel misinformation and disinformation related to LLINs and the campaign activities.	
Press/ Media/ Social Media others:	Other than dedicated social media local news channels, print media and social media pages of different stakeholders' own media/channels	During HHR & Distribution phase campaign stakeholders & local press of national, provincial & district level showcasing campaign activities at their WebPages, social media and press. A total of 14 news, press clips and social media post were monitored.
Advocacy: Provincial & Districts levels	To ensure consistent, correct and standard information is communicated to mobilize political, technical, operational and financial (including in-kind) resources before, during and after the ITN distribution, provincial level advocacy meetings will be conducted followed by district level advocacy meetings	Provincial and district level advocacy events were organized before launching of campaign. <ul style="list-style-type: none"> • At provincial level • At district level Advocacy material/kit including factsheet, bags with shields, calendar of activities & agenda at provincial & district level meetings were shared with respective teams for this activity.

11. Rapid Monitoring

Considering the complex nature of this project, rapid on spot monitoring and evaluation was conducted by PRs as well as SRs and MERF. Several strategies were used for monitoring, including surprise spot checks or informed visits to field during HHR, distribution and prepositioning at warehouses. Beneficiaries were also interviewed by monitoring and evaluation teams to gauge if the right information is being disseminated through SBCC and what is their understanding of the information provided. Below are some key findings of the rapid monitoring exercise.

1. During monitoring it was observed that volunteers were facing issues with the Red Rose software application. They were unable to scan the QR code of few coupons whereas, on some occasions the application did not work due to connectivity issues. However, upon conveying the matter to the concerned teams, it was resolved on spot.

2. It was observed that all the relevant staff was dedicatedly working towards forward and reverse logistics, HHR and distribution of nets. However, at some DPs, stock sheets were not properly maintained but teams instructed to correct it as soon as possible.
3. At all the DPs, volunteers divided the coupons in different boxes to maintain their individuality. These boxes were marked in a way that number LLINs against each coupon could easily be identified.
4. On few instances, DPs were moved from their original place to another location because community elders did not allow distribution at their original location. However, shifting those DPs to the other places created confusion among the beneficiaries, but matter was resolved by making announcements in the local mosques.
5. It was noticed that few DPs were closed before the designated time. The matter was immediately conveyed to their district supervisors and they remained open till the given time in the remaining distribution days.
6. After visiting the DPs, monitoring team witnessed issue of waste management. This was conveyed to the relevant personnel and solution was provided to the volunteers. All the waste is to incinerate properly.

12. Incineration of Waste Material

After the completion of distribution of LLINs, total quantity of empty sacks/ waste material was reversed at three main locations/ sites (BMC Hospital Quetta, DHQ Hospital Thatta and THQ Hospital Mola Khan Sarai-South Waziristan) where incinerators are available with enough capacity for disposal.

During incineration process health, environmental and safety precautions were adopted and incineration process was completed as following:

a. Bolan Medical Complex Hospital, Quetta

Empty sack/ waste material from Sibi, Washuk, Sherani, Killa Saifullah, Kohlu, Barkhan, Harnai and Ziarat, were reversed transported at Quetta and dumped at Bolan Medical Complex Hospital, Quetta for incineration purpose. Approximately 9660 empty sacks/ waste material has been successfully incinerated at Quetta. Pictorial evidences are as below:



b. THQ Mola Khan Sarai Hospital, South Waziristan

Empty sack/ waste material from D.I Khan and Tank, were reversed transported at THQ Mola Khan Sarai Hospital in South Waziristan, KP for incineration purpose. Approximately 12050 empty sacks/ waste material has been successfully incinerated at South Waziristan, KP. Pictorial evidences are as below:



c. DHQ Hospital Makli, Thatta

Empty sacks/ waste material from Awaran, Khuzdar and Lasbela (Hub), were reversed at DHQ Hospital Makli, Thatta Sindh for incineration purpose. Approximately 9370 empty sacks/ waste material was received and has been successfully incinerated at Thatta. Pictorial evidences are as below:



13. Challenges & Mitigation Strategy

Since the project was one time distribution and had to cover all the households of the targeted districts; therefore, some challenges faced (predictable and unpredictable). Following table indicates the challenges faced in each phase and their complimenting recommendations:

Challenges	Mitigation Strategy
<ol style="list-style-type: none"> 1. During TOT, software for Red Rose application was not in ready form to be installed or practice thus participants were not given time for practice on how to use the red rose application 2. Due to heavy rains and flood situation in few areas of Sindh and Balochistan, time duration of registration process prolonged from 10-15 days and more coupons were used too. 3. Due to flood, there was no internet availability/connectivity, no clearance from Govt for travel & transportation as roads were broken. Field staff was unable to travel from one to another place. 4. There was a clash between distribution and Polio Campaign dates in KP Sindh and Balochistan and due to local bodies' election in Sindh only, in this situation registration was not possible as per given timeline as people were engaged in election process and polio campaign 	<ol style="list-style-type: none"> 1. Videos of RedRose how to install and use, were prepared and shared with them, they were oriented online. 2. HHR was done in phases and coupons were used of other districts as well. 3. It delayed the process; teams had to travel after 2-3 days for internet connection. HHR was delayed in certain districts. 4. Changes were made in registration and distribution dates due to Polio Campaign KP Sindh and Balochistan and local bodies election in Sindh