

## Considerations for logistics macroplanning in the COVID-19 context

V1. March 2021

### Remember the COVID-19 infection prevention measures<sup>1</sup>

- Maintain physical distance of at least one metre from all others, except immediate members of the family or people with whom you share accommodation
- Regularly and thoroughly clean your hands with an alcohol-based sanitizer or wash them with soap and water. WHO recommends washing hands often with soap and water for at least 20 seconds. If soap or hand sanitizer are not available, rub hands vigorously with wood ashes
- Avoid going to crowded places
- Avoid touching your eyes, nose and mouth
- Practise respiratory hygiene by coughing or sneezing into a bent elbow or tissue and then immediately dispose of the tissue<sup>2</sup> and wash your hands
- If you have fever or respiratory symptoms, you should stay home and not go to work
- Wear a fabric mask if there is widespread community transmission, and especially where physical distancing cannot be maintained
- Correctly use and dispose of any COVID-19 infection prevention materials provided. Follow national government guidance for disposal
- Maintain all other measures described even when wearing protective equipment
- Keep up to date with the latest guidance and regulations put in place by WHO and the national government

**NOTE:** As the pandemic evolves, WHO updates the infection prevention measures based on new scientific findings. Check for any updates on <https://www.who.int/emergencies/diseases/novel-coronavirus-2019/advice-for-public>.

**Core AMP documents:** *Key guidance for distribution of insecticide-treated nets (ITNs) during COVID-19 transmission*

*Planning for safe ITN distribution in the context of COVID-19 transmission* See:

<https://allianceformalariaprevention.com/about/amp-guidelines-and-statements/>

**See also AMP Logistics guidance:**

*Accountability and tracking for last mile logistics in the COVID-19 context.*

*Logistics plan of action (LPoA) for a mass distribution campaign in the COVID-19 context.*

*Logistics training in the COVID-19 context.*

<https://allianceformalariaprevention.com/about/amp-guidelines-and-statement/>

### Plan for a well-managed supply chain at the macroplanning stage

Supply chain management and well planned and executed logistics operations are critical to the success of an ITN mass campaign. If ITNs are not available in the right quantities of the right type in the right location at the right time, the national malaria programme and partners cannot achieve the

<sup>1</sup> <https://www.WHO.int/emergencies/diseases/novel-coronavirus-2019/advice-for-public>

<sup>2</sup> Follow WHO and national guidance on waste disposal. Waste should be disposed of appropriately where it will not be in the environment risking contaminating others. See also: <https://www.who.int/publications/i/item/water-sanitation-hygiene-and-waste-management-for-the-covid-19-virus-interim-guidance>

objectives that have been set for increasing protection of household members with effective vector control. In the context of the COVID-19 pandemic, the supply chain functions for ensuring timely availability of sufficient personal protective equipment (PPE) for all campaign actors to mitigate potential transmission of the disease are equally critical for the success of the campaign.

A well-managed supply chain will ensure that the pipeline is monitored for ITNs, PPE and other supplies and equipment for the campaign, allowing for an early warning system if there are delays that will affect the timing of other activities that have been planned in support of the campaign. A well-managed supply chain will ensure that all materials – ITNs, PPE and others – procured for the campaign can be accounted for and reported back on, with appropriate documentation, when the campaign is complete.

Defining the supply chain and the logistics operations at the time of macroplanning is critical as decisions are taken, such as the levels at which ITNs will be stored or how ITNs will be delivered to distribution teams, that have related budget implications. Thinking through the detail of each step in the supply chain is important at the macroplanning stage to ensure that nothing is omitted that will have an effect later in the campaign process.

### **Establish the logistics sub-committee for the campaign**

The logistics sub-committee should be established early to ensure engagement of key partners for coordinated and streamlined planning that incorporates the different resources available across different organizations. The membership of the logistics sub-committee should be determined by the national malaria programme and may include police, army or other military representatives as well as private sector partners.

The purpose of the logistics sub-committee at the macroplanning stage is to:

- Monitor the pipeline for ITNs and PPE in case of delays affecting planned distribution dates
- Define the supply chain (levels at which ITNs and PPE will be stored and transported)
- Define the accountability procedures and tools that will be put in place
- Decide how training, supervision and monitoring of the supply chain will be done
- Define the roles and responsibilities of different actors in the supply chain
- Develop the logistics plan of action for validation by the national coordination committee

During the implementation stage, personnel involved with the logistics sub-committee will be trained and deployed to implement cascade training sessions, as well as supervise and monitor the logistics activities to ensure alignment to the procedures that have been established.

The logistics sub-committee will need to meet regularly to develop and finalize their strategies. Shorter and more frequent meetings are recommended, either virtually or face-to-face with COVID-19 prevention measures in place. Hybrid meetings are often organized, particularly when it is necessary to work with people who are in different provinces/regions/not in-country (e.g. partner staff that were repatriated due to the COVID-19 pandemic, external partners and technical assistance, etc.).

### **Align the logistics strategy to the campaign strategy**

Strategy development during the COVID-19 period must be undertaken with representatives of all campaign areas (such as logistics, social and behaviour change [SBC], technical/monitoring and evaluation [M&E], etc.), key partners and stakeholders and members of the national COVID-19 task force. The plans for SBC, logistics, technical/M&E, etc. are directly linked to the overall campaign strategy, so ensuring that the strategy has been developed and agreed before the sub-committees

start working on their own plans is critical to avoid wasting time and redoing documents multiple times due to non-alignment with the strategy adopted.

When defining the strategy for the campaign, it is important to consider that a single approach may not be possible or feasible in the context of COVID-19 transmission<sup>3</sup>. For example, in areas with lower COVID-19 transmission, it may be possible to organize a more “traditional” campaign as per previous campaigns in the country, while areas with high COVID-19 transmission may need a different approach, such as moving to door-to-door delivery. A “one size fits all” approach to mass ITN distribution in the COVID-19 context is unlikely to be successful or to account for the different situations in different parts of the country, so a hybrid approach should be considered from the outset of the macroplanning. The logistics sub-committee must align the logistics planning to the overall campaign strategy that has been adopted.

### **Strategy considerations for logistics in the COVID-19 context**

#### ***For door-to-door distribution consider whether to resupply ITNs to distribution teams each day<sup>4</sup>***

A detailed discussion on resupplying ITNs to door-to-door distribution teams during the day can be found in AMP guidance: *Accountability and ITN tracking for last mile logistics in the COVID-19 context*. <https://allianceformalariaprevention.com/about/amp-guidelines-and-statements/>

#### ***Decide on pre-positioning and temporary community storage sites***

See AMP guidance: *Accountability and ITN tracking for last mile logistics in the COVID-19 context* for a discussion on planning pre-positioning and temporary storage sites.

<https://allianceformalariaprevention.com/about/amp-guidelines-and-statements/>

#### ***Limit the use of conveyors***

Conveyors are often used to ensure proper implementation of the tracking system and correct use of tracking tools. Their use minimizes losses and guarantees that ITNs are sent to the right location.

In line with COVID-19 infection prevention measures and recognizing the difficulties of maintaining physical distancing with additional people in the vehicles used to transport the ITNs, the use of conveyors should be reconsidered. National malaria programmes or partners responsible for supply chain management should review the contracts used for transport and build in or strengthen clauses for penalties in case of missing bales, delivery to the wrong place, delayed delivery, missing tracking tools or other discrepancies that may occur between point of origin and destination. An additional safeguard where it is decided not to use conveyors may be ensuring that increased oversight from the national malaria programme or partners is planned at delivery points and budgeted accordingly.

#### ***Make a specific plan for urban areas***

The overall campaign strategy should define approaches for urban and rural areas that reflect the different operational contexts of each. Logistics planning for fixed site or door-to-door distribution in urban areas is generally challenging due to a number of factors such as road traffic and elevated risk of theft during transportation and at the pre-positioning or distribution point storage sites.

When planning for door-to-door distribution in urban areas factors to take into account are road conditions and traffic. To comply with COVID-19 infection prevention measures, and depending on the context of the urban settlement where door-to-door distribution is planned, there are options for distribution, but all bear some risk:

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<sup>3</sup> See AMP guidance: *Key guidance for distribution of insecticide-treated nets (ITNs) during COVID-19 transmission* <https://allianceformalariaprevention.com/about/amp-guidelines-and-statements/>

<sup>4</sup> For further discussion on last mile logistics and resupplying ITNs during the day, see AMP guidance as above (8).

- Identification of as many pre-positioning sites or temporary storage sites as possible to allow teams to resupply themselves during the day or to reduce the timing to supply or resupply the teams in case of stock rupture. This, however, requires finding secure storage at many sites which may be problematic or may lead to increased logistics costs to provide adequate stores managers and security for more storage sites.
- Use of transport, such as motorcycles or pick-ups as mobile stores supplying and resupplying the distribution teams. Timing in this case is critical, and road conditions and traffic may impede safe and timely delivery. This will also involve additional logistics personnel as the mobile stores should have a stores manager in place to document the transactions between the pre-positioning site and the distribution teams.

No matter what option is selected for urban area distribution, all logistics personnel, including mobile stores managers, would need to be included in the plans and budgets for training.

Early engagement of government security authorities is essential to guarantee the security of nets and campaign personnel. Providing the route mapping of the supply chain, the planning for movement of door-to-door teams and/or the list of fixed distribution points highlighting those that seem to have more risk, will allow the security personnel to design a security perimeter, minimizing the risk of theft.

### **Develop the logistics plan of action**

The macroplanning phase<sup>5</sup> of a mass ITN campaign takes place well in advance of implementation. During macroplanning, the main strategy for distribution is decided, whether single phase door-to-door (household registration and ITN distribution at the same time), two phase door-to-door (household registration followed later by ITN distribution) or door-to-door registration followed by modified fixed site distribution<sup>6</sup> or a hybrid of these strategies.

Once the strategy is decided, the logistics sub-committee will be able to develop the logistics plan of action (LPoA)<sup>7</sup>. This document is usually an annex to the main campaign plan of action<sup>8</sup>. It describes how the supply chain/logistics operation will function, including training and ITN accountability mechanisms. It is primarily concerned with procurement and supply chain planning for ITNs and their accountability during storage and transport to the distribution teams, whether door-to-door or fixed site, as well as planning and tracking reverse movement of surplus ITNs. In the COVID-19 context, the LPoA must also take into account procurement and management of PPE, other materials that may be increased in quantity, such as megaphones and batteries, and management of waste that may be contaminated by the COVID-19 virus (packaging and used PPE<sup>9</sup>). Procedures for safe handling of ITN bales during reception, storage, transport and transfer to distribution teams must also be put in place. ITN supply chain activities – reception of ITNs in country and delivery to warehouses, community stores, distribution points, pre-positioning sites or temporary storage sites, training of personnel involved in the supply chain, ITN tracking system for accountability, last mile logistics, waste management and reverse logistics are detailed in the LPoA, as well as roles and responsibilities of campaign personnel along the supply chain.

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<sup>5</sup> See AMP guidance: *Considerations for macroplanning in the context of COVID-19 transmission*.

<https://allianceformalariaprevention.com/about/amp-guidelines-and-statements/>

<sup>6</sup> For a discussion of different distribution strategies see AMP guidance: *Key guidance for distribution of insecticide-treated nets during COVID-19 transmission*. <https://allianceformalariaprevention.com/about/amp-guidelines-and-statements/>

<sup>7</sup> See AMP guidance: *Logistics plan of action for a mass ITN distribution campaign in the COVID-19 context*.

<https://allianceformalariaprevention.com/about/amp-guidelines-and-statements/>

<sup>8</sup> See AMP guidance: *ITN mass distribution campaign plan of action (PoA) in the COVID-19 context*.

<https://allianceformalariaprevention.com/about/amp-guidelines-and-statements/>

<sup>9</sup> See AMP: *Guidance on managing waste generated during mass ITN distribution campaigns in the covid-19 context*.

<https://allianceformalariaprevention.com/about/amp-guidelines-and-statements/>

Based on the overall campaign strategy, the logistics sub-committee should determine the following essential aspects for the implementation of the campaign:

- Levels at which the ITNs will be stored to define the number of personnel required for the management of the supply chain (for example, one warehouse manager and one assistant at district level or one stores manager at pre-positioning sites), which in turn will allow for quantification for training, PPE, etc. In an effort to avoid multiple points of ITN handling in the supply chain, previous logistics plans may be revised to limit the number of storage levels (e.g. transport from central warehousing directly to district instead of central to regional and then district).
- Types of transport and potential numbers of vehicles/transport types that will need to be acquired, recognizing that, in the COVID-19 context, at the community level, local transporters or local transport means may need to be used for the ITN transport to minimize rejection of ITNs if outsiders bring them to the community. Decisions around the last-mile supply chain, such as minimizing outside contacts, may limit the transport options (e.g. no 10 tonne vehicles even if the quantity of ITNs and routes allow for this size of truck). These issues must be clearly described in the LPOA in order to be budgeted correctly. Where necessary, approvals from financial partners for deviation from procurement procedures may be required.
- Specification and quantification of logistics tracking tools. Training is likely to be modified in the COVID-19 context and it may be necessary to adapt, combine or simplify existing tools or introduce new tools, as well as standard operating procedures (SOPs) to remind logistics and supply chain personnel of how tools should be used and how data and incidents should be reported.
- How PPE will be tracked and managed throughout the supply chain to ensure that there are sufficient quantities for all campaign actors according to the planning and that there is no leakage of PPE out of the supply chain. PPE may be managed using the same tracking tools as ITNs and correct use of the tools for PPE should be included in the practical training and any necessary standard operating procedures developed. To avoid accountability problems, tools should be clearly identified as for ITNs or PPE and quantification done to ensure that sufficient tools exist for accounting for both ITNs and PPE.
- Structure that will be put in place for supervision and monitoring of the supply chain<sup>10</sup>, both through members of the logistics sub-committee and by other supervisors and monitors involved in ensuring high-quality activity implementation and accountability for ITNs.
- How waste will be managed<sup>8</sup> and by whom, in order to ensure that quantification and budgets account for any packaging or transport of waste or any additional protective equipment that may be required.

When the strategy is clearly defined during the macroplanning phase, the list of logistics information to be collected for microplanning<sup>11</sup> will be more precise and accurate, which will allow the development of good logistics operational plans (micro transport and storage plans).

### ***Develop the ITN tracking and accountability system***

During COVID-19, the normal tracking tools (stock sheet, waybill and tally sheet) can be used<sup>12</sup>. In storage, from first storage at national level through to storage at distribution points or pre-positioning sites, the stock sheet records every movement of stock into and out of the storage

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<sup>10</sup> See AMP guidance: *Supervision of an ITN mass distribution campaign in the context of COVID-19 transmission* and accompanying SOPs. <https://allianceformalariaprevention.com/about/amp-guidelines-and-statements/>

<sup>11</sup> See AMP guidance: *Microplanning for a mass ITN distribution campaign in the COVID-19 context*. <https://allianceformalariaprevention.com/about/amp-guidelines-and-statements/>

<sup>12</sup> For a detailed description of tracking tools, see: AMP Toolkit, Chapter 5, Brief 6: *Management of the supply chain*. <https://allianceformalariaprevention.com/amp-tools/amp-toolkit/>

location at each level defined in the supply chain structure. Every time ITNs are transported from one point to another, the waybill records the transactions, providing a linkage and paper trail for high ITN accountability.

If fixed site distribution is the strategy, all the normal tracking tools can be used without adaptation. For “last mile logistics”<sup>13</sup>, however, there may need to be some modification to the tracking tools.

- ITNs for outreach sites may need to be sent to community stores where they are stored for a day or more or to identified distribution points that will only be used for one day without ITN storage. Where ITNs will be stored in community stores, the logistics sub-committee should consider the use of a simplified stock card to account for the movement of ITNs “in” to the distribution point or pre-positioning site stores and “out” to the distribution teams. Distribution teams, in turn, should use a tally sheet to document ITNs “in” to the distribution point and account for ITNs “out” for distribution to households. At the end of distribution from the outreach site, the simplified stock card and tally sheets will be collected and sent back to the respective pre-positioning site or distribution point stores for reconciliation.
- Mobile distribution points involve the distribution team members moving in a selected means of transport. In this case, the mobile distribution point will serve simultaneously as a store (mobile store) and a distribution point to serve households. In this case, the stock “in” and “out” would be recorded on the fixed distribution point stock sheet and the essential tracking tool to be used during the distribution is the tally sheet, accounting for ITNs “in” from the distribution point or pre-positioning site stores and “out” for distribution.

For door-to-door distribution, all the normal tracking tools can be used without adaptation. For “last mile logistics”<sup>14</sup>, however, there may need to be some modification to the tracking tools depending on whether teams are resupplying themselves from a pre-positioning site or community stores or whether they are being resupplied with ITNs during the day. In the latter case, a simple tool to track the movement of the ITNs from the pre-positioning site to the door-to-door teams should be introduced, used each day as part of the ITN reconciliation and archived with the tracking tools (stock sheet, tally sheets, etc.) from the PPS or community stores.

### ***Determine quantification, procurement, delivery and management of PPE***

Decisions about the type of PPE required for different campaign personnel and activities should be taken in collaboration with the COVID-19 task force. Once these decisions have been taken, including type of mask (reusable fabric or disposable), use of infrared thermometers for training or at storage locations for loaders and offloaders, sanitizer and/or handwashing stations, etc., the logistics sub-committee should ensure that the quantification has been done for all campaign actors, including contingency stock in case of damage or loss of PPE during the implementation of activities. Procurement of PPE must take place early and the timing for delivery of PPE to the implementation levels should be incorporated into the campaign timeline. The logistics sub-committee should consider the need for PPE for early activities, such as microplanning or advocacy meetings, to avoid late delivery and subsequent late implementation of these activities or implementation of the activities while not adhering to the COVID-19 infection prevention measures that have been put in place.

The logistics sub-committee should determine how PPE will be transported (e.g. with the ITNs or separately) as well as the tracking system that will be used to ensure high accountability for the PPE during the implementation of activities and for reporting after the campaign is complete. The

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<sup>13</sup> See AMP guidance: *Accountability and ITN tracking for last mile logistics in the COVID-19 context*. <https://allianceformalariaprevention.com/about/amp-guidelines-and-statements/>

<sup>14</sup> See AMP guidance: *Accountability and ITN tracking for last mile logistics in the COVID-19 context*. <https://allianceformalariaprevention.com/about/amp-guidelines-and-statements/>

logistics sub-committee should work with other sub-committees to establish packing lists that clearly indicate the PPE designated for different personnel or activities to ensure that the allocation of the PPE received is done correctly and everyone involved in the campaign can adhere to the COVID-19 infection prevention measures.

The logistics sub-committee should update all logistics training and supervision tools to include the management and accountability for the PPE procured for the campaign.

#### ***Establish a waste management plan for ITN and PPE waste<sup>15</sup>***

During the COVID-19 pandemic, more waste will be generated through mass campaign distribution than previously, where only the individual ITN packages (where ordered), gloves for people handling unpackaged ITNs as distributors and the bale sacks required a plan for their management. With the COVID-19 pandemic, the procurement, management and waste management of PPE (including re-usable or disposable masks, hand sanitizer bottles, etc. depending on what is procured) must be part of the LPoA and included in the budget. Used PPE is considered as hazardous waste, so it is important to look at the options for waste management in the macroplanning period (and verify them during the microplanning phase) as these may have budget implications that need to be taken into account. It will be important to liaise with both the ministry responsible for environmental affairs and the national COVID-19 task force.

#### ***Plan supervision and monitoring***

Supervision and monitoring of supply chain and logistics activities are often overlooked or are implemented in an *ad hoc* manner by supervisors and monitors who may not be adequately trained on how the supply chain functions and how the tracking tools should be checked to ensure accountability, etc. Given that the ITN distribution will be taking place in the COVID-19 context, where many people have suffered economic and food insecurity, ensuring effective supervision and monitoring of the supply chain is important to minimize leakage or loss of ITNs and PPE.

It is important that the logistics sub-committee meets with the technical/M&E sub-committee, as well as the SBC sub-committee, to determine the supervision and monitoring strategy for the campaign implementation. The levels from which supervision or monitoring will take place and the human resources required must be quantified and roles and responsibilities of supervisors and monitors outlined<sup>16</sup>, particularly where integrated supervision will be taking place (i.e. supervisors are covering all campaign areas and not only their own area of expertise).

Once the levels of supervision and monitoring are defined, as well as the roles and responsibilities of supervisors and monitors at each level, the tools required can be developed with the involvement of all sub-committees (e.g. technical/M&E, logistics and SBC). Supervision and monitoring tools should be developed specific to the roles and responsibilities of the campaign personnel. For example, national, regional and district personnel may all be doing cross-cutting supervision, ensuring that all campaign activities are implemented as planned and at the quality expected. Alternatively, decisions may be taken for members of the logistics sub-committee or logistics focal persons (e.g. regional or district logistics officer or health facility pharmacy manager) to focus solely on supply chain management, including adherence to COVID-19 infection prevention during storage and transport of ITNs, as well as reverse logistics and waste management.

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<sup>15</sup> See AMP: *Guidance on managing waste generated during mass ITN distribution campaigns in the covid-19 context.*  
<https://allianceformalariaprevention.com/about/amp-guidelines-and-statements/>

<sup>16</sup> See AMP guidance: *Supervision of an ITN mass distribution campaign in the context of COVID-19 transmission.*  
<https://allianceformalariaprevention.com/about/amp-guidelines-and-statements/>

Supervision should be well planned to limit duplication. Supervisory visits should adhere to COVID-19 infection prevention measures at storage locations and distribution or pre-positioning sites. This includes asking the stores manager to bring the stock sheets, waybills or other tracking tools outside to do the paper-based verification of the quantities and transactions. When undertaking physical inventories, supervisors and monitors should try to limit their time inside the storage location and should ensure that they wear masks correctly and wash or sanitize their hands before entering the warehouse and when they exit. As much as possible, they should avoid touching surfaces, including bales, while in the stores.

***Plan for logistics training***<sup>17,18</sup>

In the COVID-19 context, it is likely that training will need to be significantly adapted to ensure adherence to COVID-19 infection prevention measures that have been put in place by the national government. Training materials will also need to be updated to include both COVID-19 infection prevention and high accountability for PPE procured for the campaign. For example, safer handling procedures should be developed for workers transporting, loading, unloading, storing and distributing ITNs.

It will be very important, given the critical logistics functions for ensuring success of the ITN distribution, to ensure that careful consideration is given to the training cascade, including whether virtual sessions are possible and at what levels, as well as where face-to-face training is essential to ensure that content of the training is correctly understood. The training duration should be carefully considered against the agenda. Where consideration is being given to reducing the number of days for the training, it is critical that reductions are made in the session times for the presentation and plenary sessions and not for the practical sessions and scenario work. Contents of training packages should be reviewed and reduced to the essential practical activities that logistics personnel need to know, such as how to fill in the various forms and logistics tracking tools, reconciliation procedures, data collection and transmission, logistics reports, etc. Activities where logistics personnel can practise filling in the tracking documents are essential.

Where supervision and monitoring will be cross-cutting, supervisors and monitors need the same knowledge about logistics forms and procedures as the people they will be overseeing. In this case, it will be important to ensure that agendas for training at all levels include sufficient time for presenting logistics tools and procedures and practising with how they should be checked during visits to storage locations.

***Ensure alignment on data collection needs and tools with the technical/M&E sub-committee***

It is important that the data collection process and tools for the ITN distribution are discussed and agreed upon between the logistics and technical/M&E sub-committees. This will ensure that key data are collected, duplication of tools is avoided, which may be particularly important in the context of modified training, and that reconciliation between programme and logistics data is facilitated.

All data collection tools to be used must be aligned to the strategy adopted and meet the needs for programme and logistics reporting. For example, for single-phase door-to-door distribution, household registration and ITN distribution data may be collected on one single tool. Where this is

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<sup>17</sup> See AMP guidance: *Training for a mass ITN distribution campaign in the context of COVID-19 transmission*. <https://allianceformalariaprevention.com/about/amp-guidelines-and-statements/>

<sup>18</sup> See AMP guidance: *Logistics training in the COVID-19 context*. <https://allianceformalariaprevention.com/about/amp-guidelines-and-statements/>

the case, it is important to ensure that the tool contains all the information required for both programme and logistics and that the information, once summarized, can be easily transferred to summary tools specific to the data chain for both technical areas. Alternatively, the logistics sub-committee may require a tally sheet in addition to the household registration/ITN distribution form in order to retain close control of the ITNs distributed each day.

Tools developed should ensure that it is possible to collect the needed data for programmatic and logistics reporting and triangulate those data with data from the community stores or distribution points to assess the accountability for the ITNs received, distributed and remaining on a daily basis. The tools should ensure that campaign supervisors and monitors are able to verify ITN and PPE tracking and reconciliation and assess progress against targets in terms of the number of households served by the teams during the day and number of ITNs distributed (technical/M&E). The same tools can also support analysis to indicate a need to increase (limiting resupply and serving more households) or reduce (limiting reverse logistics) the quantity of ITNs supplied to teams on a daily basis in line with the number of working hours and daily progress achieved.

***Ensure the macro quantification is aligned with the strategy***

Once the supply chain is defined for ITNs and for PPE, as well as reverse logistics and management of waste, the macro quantification should be completed, including all personnel involved in the campaign and the materials they will require to achieve their different tasks. COVID-19 infection prevention materials (such as handwashing stations, alcohol-based sanitizer, disinfectant for warehouse spaces and training venues, PPE, etc.) must be quantified for all personnel involved in the campaign, from community leaders to national monitors, as well as for all activities (such as workshops, briefings, trainings, ITN exchange at delivery points, etc.).

***Ensure that key populations have been considered***

In all countries that submitted an application for Global Fund financial resources, an exercise has taken place at the time of the development of the grant to identify key populations who are most at risk of malaria or at risk of not being reached by malaria services. These may include ethnically or socially marginalized populations, migrant workers, enclaved areas due to local insecurity, female-headed households or those containing people with disabilities, etc. Some of the key populations identified may be in communities that are very difficult to access and the logistics sub-committee must make sure that approaches to reach these populations successfully have been determined and budgeted for. In the context of COVID-19, there may also be households that are quarantined or locations where suspected and confirmed cases are accommodated to limit transmission in the broader community. The technical/M&E and logistics sub-committees should work together with the COVID-19 national task force to determine how these people will receive ITNs safely.

***Consider security***

Security considerations for ITNs, PPE and for campaign personnel should be taken into account during the macroplanning phase. Even in countries that are relatively secure, there may be problems that arise during the ITN distribution in the COVID-19 context such as aggression towards ITN transporters or distributors due to fear of COVID-19 transmission.

Security should be considered for all storage points that will be used for ITNs and PPE throughout the supply chain. At the upper levels of the supply chain (e.g. point of delivery through to distribution point or pre-positioning site), security should be formally contracted and should be sufficient for both day and night. At the distribution point or pre-positioning site, security is often already provided (e.g. where ITNs are stored at health facilities) or can be managed by members of the community as part of their contribution to the success of the campaign. Areas of known risk or

insecurity should be accounted for during planning and budgeting to ensure sufficient security measures are in place for the ITNs and other campaign materials.

For door-to-door distribution of ITNs, security may be required for the ITNs and/or for campaign personnel. The security function for door-to-door teams may be combined with the resupply function for teams or may be completely separate based on the roles and responsibilities defined for each. For fixed site distribution, security will be required outside the distribution area to ensure that people comply with COVID-19 infection prevention measures such as physical distancing and handwashing, as well as inside the distribution area for security of ITNs and personnel and maintenance of order and physical distancing. Advocacy and community engagement are important parts of ensuring adequate security. Where community leaders and members are involved and engaged<sup>19</sup>, security of distribution teams may be part of their contribution to the campaign, provided at low cost or free of charge. Where communities will provide security for distribution teams, they should be provided with the necessary PPE to perform their tasks.

The logistics sub-committee should work with the technical/M&E and SBC sub-committees to develop incident management forms that can be used to record any type of incident that occurs during the campaign and represents a risk to the safety of personnel and ITNs or PPE and other campaign materials.

The security considerations will have an effect on the budget, so should be defined clearly and quantified, including materials for security personnel such as PPE and standard operating procedures.

### ***Consider insurance***

As in pre-COVID-19 campaigns, the issue of insurance must be considered. It may be more difficult to get cover in countries where the economic impact of COVID-19 has been greater or there is insecurity, as there is an increased risk of theft of ITNs and/or leakage, but it is important for insurance to be in place at all levels of the supply chain. At levels where it is possible, insurance during transport should be included as part of the call for tenders, and where private companies will be used for warehousing insurance should also be included. It is important to remember that no amount of insurance will compensate for lack of good security and strict adherence to tracking tools and practices on filling them in and undertaking daily reconciliation of data.

### ***Prepare standard operating procedures (SOPs)***

A number of simple SOPs should be developed to guide and serve as reminders during training and implementation such as:

- For transportation of ITNs: COVID-19 infection prevention measures that must be followed; disinfection of means of transport; correct use of PPE, including management and waste management; transportation for fixed, outreach and mobile sites; procedures for handling bales during reception, offloading, storage, loading and transfer to distribution teams.
- For warehouse personnel: COVID-19 infection prevention measures that must be followed; proper stacking; use of tracking documents; tracking of PPE; re-supply of ITNs and PPE; safe bale handling procedures; storage space disinfection and cleaning; correct use of PPE; handwashing before and after handling bales; management of ITN and PPE waste.
- For multiproduct campaigns with storage of more than one ITN type in a warehouse: no offloading of different types of ITNs at the same time; management of requests for additional ITNs to fill gaps during implementation; ITN stacking and spacing by type and storage space calculation adjustments; managing the transition from standard to new ITN

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<sup>19</sup> See AMP guidance: *Engagement of community leaders in ITN distribution in the context of COVID-19 transmission*. <https://allianceformalariaprevention.com/about/amp-guidelines-and-statements/>

types in the continuous distribution system during reverse logistics (or as per planning if one type of ITN is being transported out of health facilities while another is transported in during the campaign logistics operations) to ensure accountability for all ITNs; proper reporting.

- For reverse logistics: procedures for reverse logistics; what level to reverse/return to and when; correct tracking tools; closing the campaign.
- For how to fill in the tracking tools: stock sheet, waybill, tally sheet, inventory and/or reconciliation forms, as well as any tools used to track last mile logistics for outreach and mobile fixed sites and door-to-door distribution teams.

SOPs will also be prepared for the following functions jointly between the technical/M&E and logistics sub-committees:

- For distribution point personnel: how to set up a distribution point; management and communication in the triage area; roles and responsibilities; ensuring adherence to COVID-19 infection prevention (such as marking spaces to ensure physical distancing, handwashing at entry and exit points, limiting the number of people entering the distribution area, etc.); tools to use during the ITN distribution, including tally sheets, and how to properly fill them in; daily data verification and summary procedures; safety and security of ITNs.
- For fixed site distribution team supervisors: daily health checks; set-up of distribution point; management of distribution point; adherence to COVID-19 infection prevention measures by personnel and ITN recipients; daily data verification and summary procedures; daily and final reconciliation of ITNs and PPE; safety and security of distribution teams as well as ITNs and campaign materials.
- For door-to-door distribution teams: how to follow the established daily route planning to ensure timely resupply of ITNs; tools to use to account for ITNs distributed to households and for daily reconciliation and how to properly fill them in; daily data verification and summary procedures, safety and security of teams, ITNs and campaign materials.
- For door-to-door distribution team supervisors: how to develop daily route maps for teams to facilitate logistics and SBC planning; daily health checks; facilitating communication between distribution teams and logistics personnel for ITN resupply or end of day return to stores; daily data verification and summary procedures; daily and final reconciliation of ITNs and PPE; safety and security of distribution teams, ITNs and campaign materials.

SOPs should provide details of procedures to follow and they should either form the base of the training or be reviewed in detail, including how they should be used, during training. The logistics sub-committee should decide which personnel in the supply chain will need SOPs and which elements of the above should be included in the specific SOPs for each actor. It is important that the logistics sub-committee works with the technical/M&E and SBC sub-committees for any SOPs defined for actors at the lowest level of the supply chain (e.g. door-to-door or distribution teams and their supervisors) given the overlapping roles and responsibilities across technical areas at this level.

### ***Consider risk assessment and mitigation***

It is very important that the logistics aspects for the overall campaign risk management plan are clearly identified and addressed during the macroplanning and refined during the microplanning phase. Mitigation of risk should:

- Ensure correct quantification of required tracking tools for all levels of the supply chain
- Ensure adequate selection and quantification for the selected means of transport in line with the adopted delivery strategy
- Define parameters for the identification and selection of distribution points and pre-positioning sites
- Ensure adequate quantification and selection of number of human resources required for the management of logistics operations at the different levels of the supply chain

- Ensure correct quantification of PPE to be used during all campaign activities (during training, household registration and distribution) to support the procurement process and ensure timely delivery to the storage locations
- Ensure that the right quantities of developed SOPs are printed to support high accountability for the ITNs and PPE procured for the campaign
- Ensure that all waste generated during the campaign is managed appropriately to limit the possibility of COVID-19 transmission from materials and to mitigate against potential environmental damage

***Ensure that the logistics timeline is aligned with the overall campaign timeline***

The detailed campaign timeline is a key tool for ensuring that campaign activities remain on track to meet the established deadlines for each key milestone (e.g. submission of macroplanning package, finalization of microplans, etc.). Key barriers to meeting campaign timelines, which are exacerbated by supply chain pressures due to the COVID-19 pandemic, include decision-making around PPE requirements and local procurement for all equipment, services and materials. With existing supply chain pressures, as well as local or national lockdowns, procurement timelines may be significantly longer than during previous campaigns. This must be included in the campaign timeline to ensure that the dates set for distribution reflect the reality of the processes and procedures that are in place and must be followed. The logistics timeline must be aligned with the overall campaign timeline. It should be remembered that timelines are living documents and should be reviewed and adjusted as circumstances change. This might be particularly important in the COVID-19 context, where change, such as stricter prevention regulations, or delays because of transport unavailability, can be unforeseen and very rapid.

***Ensure that the budget is completely aligned to the plans***

Prior to final submission of the macroplanning package for review and validation, the members of the different sub-committees and the national coordination committee should organize a working session to review the narrative plans, the risk assessment and mitigation plan and the timelines to ensure that everything required for the campaign, in particular anything related to adaptations for the COVID-19 context, has been included. On the basis that the plans are complete, a line-by-line review of the budget should take place to ensure that there is full alignment between what is described in the different plans and what is requested in terms of funding for the different activities. Only after the final budget review and verification that all activities are aligned across the macroplanning package should the documents be submitted for review, validation and approval.

***Develop a Plan B***

The COVID-19 situation is changing continuously, with rules and restrictions being loosened or tightened on the basis of COVID-19 case burden in local areas and/or nationally. Since macroplanning typically takes place a minimum of six months before the planned campaign distribution dates and often much earlier (e.g. 9—12 months before the planned ITN distribution), it is essential to consider an alternative plan or plans in case of a major change in the country's COVID-19 situation. Even if community transmission is low and restrictions have been partially lifted, it is essential to remain cautious and to plan carefully for the ITN distribution to minimize contact between people as much as possible. Local lockdowns may be implemented in areas where there are increased case numbers, which may require a completely different approach to the logistics operation, such as transferring ITNs to community or neighbourhood representatives at pick up points.

### **Refine plans at the microplanning<sup>20</sup> phase**

Microplanning is one of the most critical phases of the campaign. During microplanning the macro information and data are reviewed and refined with information and data from the implementation level to develop operational plans and associated budgets that are aligned to the context in which the campaign will take place. Maps are prepared of each target district and the micro positioning plan (identifying distribution points and communities in their catchment area) and micro transport plan (district level to distribution or pre-positioning sites) are developed. If door-to-door distribution is the strategy, the information collected is essential for the planning of last mile logistics (micro micro transport plan) and for pre-positioning sites or temporary storage sites. For modified or adapted fixed site distribution, a micro micro transport plan may also be required for reaching remote and hard-to-reach communities with mobile teams, as well as for identifying outreach sites for communities that are too distant from the fixed distribution point to participate without incurring significant costs (time or money).

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<sup>20</sup> See AMP guidance documents: *Microplanning in the context of COVID-19 transmission. Standard operating procedures for how to complete the microplanning template. Microplanning generic template.* <https://allianceformalariaprevention.com/about/amp-guidelines-and-statements/>