

# The Alliance for Malaria Prevention

Operational guidance for insecticide-treated net (ITN)  
distribution in complex operating environments (COE)



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# Acronyms and abbreviations

<b>ANC</b>	Antenatal care
<b>COE</b>	Complex (or challenging) operating environment
<b>CRSPC</b>	Country Regional Support Partner Committee
<b>DHS</b>	Demographic and Health Survey
<b>DP</b>	Distribution point
<b>EPI</b>	Expanded programme on immunization
<b>IDMC</b>	Internal Displacement Monitoring Centre
<b>IDP</b>	Internally displaced person
<b>IRS</b>	Indoor residual spraying
<b>ITN</b>	Insecticide-treated net
<b>LQAS</b>	Lot quality assurance sampling
<b>MICS</b>	Multiple Indicator Cluster Survey
<b>MIS</b>	Management information system
<b>MOH</b>	Ministry of Health
<b>NFI</b>	Non-food item
<b>NGO</b>	Non-governmental organization
<b>NMCP</b>	National Malaria Control Programme
<b>NMEP</b>	National Malaria Elimination Programme
<b>OCHA</b>	United Nations Office for the Coordination of Humanitarian Affairs
<b>PLHIV</b>	People living with HIV
<b>RBM</b>	Roll Back Malaria
<b>TFC</b>	Therapeutic feeding centre
<b>UNHCR</b>	United Nations High Commission for Refugees
<b>UNICEF</b>	United Nations Children's Fund
<b>WHO</b>	World Health Organization



# Part 1: Background

## 1. Definition of complex operating environment (COE)

For the purposes of this document, the term complex operating environment will be used. This term combines the World Health Organization (WHO) definition of a complex emergency with aspects highlighted in the Global Fund's challenging operating environment policy<sup>1</sup>. According to WHO, *Complex emergencies are situations of disrupted livelihoods and threats to life produced by warfare, civil disturbance and large-scale movements of people, in which any emergency response has to be conducted in a difficult political and security environment. Complex emergencies combine internal conflict with large-scale displacements of people, mass famine or food shortage, and fragile or failing economic, political, and social institutions. Often, complex emergencies are also exacerbated by natural disasters*<sup>2</sup>.

Thus, a complex operating environment is a country or part of a country in a situation of disrupted livelihoods and threats to life produced by warfare, civil disturbance, natural disaster and large-scale movements of people, which have led to or exacerbated weak governance, poor access to health services, mass famine or food shortage, fragile or failing economic, political and social institutions and created an operating environment with high risks, insecurity and threats to delivery of health care services and to health care workers. COEs are exemplified by high health and humanitarian needs and high operational and financial risks to delivery of services. They represent situations that are unique in terms of ability to measure impact of interventions given a fluid context and population.



1. [www.theglobalfund.org/media/4802/publication\\_challengingoperatingenvironments\\_focuson\\_en.pdf](http://www.theglobalfund.org/media/4802/publication_challengingoperatingenvironments_focuson_en.pdf).
2. [www.who.int/environmental\\_health\\_emergencies/complex\\_emergencies/en/](http://www.who.int/environmental_health_emergencies/complex_emergencies/en/).

## 2. Malaria in COE

Humanitarian emergencies and natural disasters can disrupt functionality in many health areas, including interrupting vector control and case management programmes for malaria. Up to 30 per cent of malaria deaths in Africa occur in the wake of war, local violence or other emergencies such as natural disasters<sup>3,4</sup>. Humanitarian emergencies can undermine pre-existing malaria control measures and lead to a collapse of health services. Emergencies have, in many cases, become protracted, leaving countries with areas that vary in terms of security and accessibility depending on the situation at any given time.

There is the potential for the epidemiology of malaria to be modified in COE. In areas where significant advances have been achieved in reducing the transmission and disease burden due to concerted control efforts, humanitarian emergencies or natural disasters are likely to halt and even reverse such progress because of interruptions to the control programme interventions. Large scale population movements can lead to an increased risk of epidemics as displaced populations can move from areas of low endemicity to areas of high endemicity and vice versa. Natural disasters, especially floods and heavy rainfall, increase the likelihood of epidemics or lead to a medium to long-term amplification of transmission.

The coordinated response to malaria in humanitarian emergencies may include a number of different interventions: provision of insecticide-treated nets (ITNs), durable wall linings, indoor residual spraying (IRS) and other vector control technology; diagnostic testing and use of effective anti-malaria drugs for confirmed cases; drug administration; as well as other malaria case management and vector control activities. However, resource limitations, inaccessibility, insecurity,

inadequate infrastructure and lack of capacity are barriers to carrying out effective malaria control and prevention programmes in such settings.

In these situations, prevention, diagnosis and treatment for all diseases, including malaria, are less accessible: modified and flexible strategies are needed to reach the population. The main goal of health service delivery in COE is to attempt to maintain and increase population access to prevention, diagnostic and treatment measures, and to decrease malaria morbidity and mortality. It is important that the vector control option selected is context-specific and can be easily deployed to targeted areas and households, as well as used by those targeted.

There are significant risks involved with operations to distribute ITNs in COE, including for health workers, commodities and funds, but there are also opportunities. Morbidity and mortality can be reduced through continuous provision of prevention, diagnosis and treatment services at all levels, starting with the community.

In planning for ITN distribution in COE, a number of considerations should be taken into account. This document discusses some of the issues identified to date and provides a preliminary framework for such planning. The framework builds on the AMP *Toolkit for mass distribution campaigns to increase coverage and use of long-lasting insecticide-treated nets* (see [allianceformalariaprevention.com/amp-tools/amp-toolkit/](http://allianceformalariaprevention.com/amp-tools/amp-toolkit/)) in non-COE contexts and will be further developed with country and partner experiences and recommendations over the coming years. National Malaria Control and Elimination Programmes (NMCPs/NMEPs) and partners implementing ITN distribution in complex operating environments are encouraged to send their experiences, tools, lessons learned, recommendations and case studies to the AMP partnership ([allianceformalariaprevention@gmail.com](mailto:allianceformalariaprevention@gmail.com)).

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3. [www.who.int/malaria/publications/atoz/brochure\\_rbm.pdf](http://www.who.int/malaria/publications/atoz/brochure_rbm.pdf). Page 11.

4. Anderson J, Doocy S, Haskew C, Spiegel P, Moss WJ. The burden of malaria in post-emergency refugee sites: A retrospective study. *Conflict and Health*. 2011;5:17. doi:10.1186/1752-1505-5-17.



### 3. Assessing the problem and finding appropriate solutions

Prior to moving forward with interventions to combat malaria in COE, it is critical to assess if malaria is a problem, how big the problem is, what the vectors are and what the most appropriate solutions are for the context, including the behaviour patterns of the targeted

population. Epidemiological and entomological assessments are required to ensure that the intervention identified will address the needs and achieve morbidity and mortality reductions where malaria is a critical problem. See also *Malaria control in humanitarian emergencies – An inter-agency field handbook*<sup>5</sup> and *Integrated vector management in humanitarian emergencies, the MENTOR Initiative*<sup>6</sup>.



5. [www.who.int/malaria/publications/atoz/9789241548656/en/](http://www.who.int/malaria/publications/atoz/9789241548656/en/).

6. [thementorinitiative.org/wp-content/uploads/2016/11/IVM-Toolkit\\_English\\_17Nov\\_2016.pdf](http://thementorinitiative.org/wp-content/uploads/2016/11/IVM-Toolkit_English_17Nov_2016.pdf).

## Part 2: Practical considerations

### 4. ITN distribution

In COE, however ITNs are planned to be distributed, there is a need to ensure security and contingency planning are considered throughout the planning, budgeting and implementation. See Section 9: Security for more details. There is also a need to budget carefully for unexpected events and to align the budget across funding and implementing partners as best as possible. See the AMP toolkit, Appendix 3A<sup>7</sup>, for an example of a budget for a mass ITN distribution campaign.

#### 4.1 Distribution channels

ITN distribution can occur via a number of channels, and the feasibility, coverage, costs and risks for each should be assessed to allow for the most accurate quantification possible. Unless nets are already available in the country to be distributed, some level of planning and quantification will be required – either for procurement of a stock of nets to be kept in reserve based on anticipated needs or for planned mass, continuous or targeted (e.g. to displaced populations) distribution. Given the protracted and uneven nature of COE areas within countries, a country may be planning for a relatively “standard” ITN campaign in some areas, while in others significant modification and adaptation will be required to reach the targeted areas and populations.

The ITN distribution channels need to be considered for the different contexts and situations, as well as for what is most feasible to act in a timely manner in the case of a crisis. Alternatively, a country may experience a shock event, such as an earthquake, flood or disease outbreak, which is completely unforeseen and

requires immediate response to address urgent humanitarian needs.

The majority of countries undertaking distribution of ITNs – COE or non-COE – are receiving funding from donors, in addition to any government financing made available, and are therefore working on either an annual or multi-year cycle for planning. While unexpected events may occur – such as an earthquake, disease outbreak or flood – that require additional commodities to be procured outside the planning cycle, it may be possible to use the already planned/procured commodities to address the urgent malaria prevention and case management needs in the humanitarian crisis, as the planned activities may not be feasible in the event of a major response operation.

Country planning for vector control, including ITNs, is normally on an annual or multi-year basis. Based on the timing for proposals for funding, countries will need to determine when ITNs are due for replacement, how much uptake of ITNs through routine or other channels there has been and any needs for special and key populations. Quantification of needs, based on population projection and type of distribution channel, is done well in advance of the scheduled distribution period to align with the timeline for procurement and delivery of nets to the country. The situation between planning and implementation must be monitored to allow for modifications to delivery levels and strategies for distribution if the context changes and the feasibility of the initially proposed strategies and channels is in doubt. While a universal coverage campaign may have been planned at the outset, intervening events may make this impossible and alternatives, such as distribution to at risk

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7. [allianceformalariaprevention.com/amp-tools/amp-toolkit](http://allianceformalariaprevention.com/amp-tools/amp-toolkit).

populations in camps for internally displaced persons (IDP) or refugees or an expanded routine distribution (e.g. via therapeutic feeding centres or mother/child mobile clinics) to maximize the number of nets getting to households, may be the only options, although they will not achieve universal coverage.

The table below, from *Malaria Control in Humanitarian Emergencies: An Inter-Agency Field Handbook*<sup>8</sup>, provides an overview of recommended priority ITN distribution by phase of emergency and level of transmission (see Handbook for description of other vector control options):

Acute phase emergencies in high/moderate transmission areas	Acute-phase emergencies in low transmission areas	Post-acute or chronic emergencies in high/moderate transmission areas	Post-acute or chronic emergencies in low transmission areas
<p>Ideally, ITN coverage of the whole community should be the objective. If insufficient ITNs are stockpiled, prioritize highest risk groups:</p> <ol style="list-style-type: none"> <li>1. All beds/patients in hospitals and therapeutic feeding centres (TFC), and households of TFC patients on discharge</li> <li>2. Pregnant women and children under five years of age</li> <li>3. Population living in areas of high transmission (so-called “hot spot” transmission zones)</li> </ol>	<p>Use ITNs only in clinical settings (e.g. TFC beds, hospital beds) with no community distribution schemes.</p>	<p>Universal coverage is ideal. If resources do not allow this:</p> <ol style="list-style-type: none"> <li>1. Target distribution to areas and populations most at risk</li> <li>2. Provide full ITN coverage to households with pregnant women or children under five years of age, with catch-up distribution schemes through antenatal care (ANC), immunization programmes and primary health care services</li> <li>2. Provide ITNs to people living with HIV (PLHIV), who are more at risk of developing severe malaria</li> </ol>	<p>Select intervention according to local practice. Where nets have previously been distributed with success and high use rates, this should be considered. Where other interventions have been used, such as indoor residual spraying (IRS), these should be continued if population acceptance is high.</p>

It is important that opportunities – such as vaccination campaigns or mother-child health outreach clinics, therapeutic feeding programmes and other health, shelter or other activities targeting the most vulnerable populations – are considered for use as platforms for distribution of nets. Flexibility and multiple channel delivery are required to reach as many people as possible.

#### 4.2 ITN distribution to displaced populations residing in camps

One of the key challenges in complex operating environments is population movement. During COE, populations may move within a country or leave the country to find safe space. In

most countries experiencing COE, as well as neighbouring countries, there is a combination of “formal” and “informal” camps for internally displaced people (IDPs) and refugees. In formal camps, there is often a (or many) national or international (or combination) organization(s) responsible for providing humanitarian assistance to people moving to and residing within the camps. In these situations, it is possible to work through these organizations to distribute ITNs and other malaria commodities. In informal camps, there is typically no organization providing humanitarian assistance and it will be necessary to work with the population to determine the best means for ensuring access to malaria prevention and case management commodities.

8. World Health Organization. See: [www.who.int/malaria/publications/atoz/9789241548656/en/](http://www.who.int/malaria/publications/atoz/9789241548656/en/).





In countries with malaria transmission, IDP and refugee populations may be at high risk of contracting malaria, particularly when they are moving to and from areas of different transmission. There are a number of different scenarios possible<sup>9</sup>:

- *Population in low transmission area moving into another low transmission area.* Risk of infection is low and no action is needed unless there is an outbreak. Effective case management should be a priority followed by vector control. Where transmission is low due to previous vector control efforts, vector control mechanisms should be re-established and/or maintained.
- *Population in low transmission area moving into high transmission area.* Risk of infection is high, and the displaced population may be vulnerable to acute malaria infection. Population may not be aware of how to prevent malaria or that they should seek diagnosis for fevers promptly. Health education and behaviour change communication are critically important, as are vector control and access to diagnosis and treatment.
- *Population in high transmission area moving to low transmission area.* High risk of introduction of malaria to the new area. Malaria protection for the displaced population plus the local population should be considered and diagnosis and treatment should be available and accessible.
- *Population in high transmission area moving into another high transmission area.* There is continued risk, particularly where displaced persons have lost established vector control protection, such as nets, IRS, etc. This protection will need to be re-established.

9. Inter-Agency Field Handbook. See: [www.who.int/malaria/publications/atoz/9789241548656/en/](http://www.who.int/malaria/publications/atoz/9789241548656/en/).

IDPs and refugees are often housed in camps where overcrowding and poor sanitation (e.g. poor drainage around water taps) may contribute to the spread of malaria. The vector control choice (both method and chemical) is important to ensure that it is used and effective<sup>10, 11</sup>. Tent structures, for example, provide a challenge for ITNs, as some may not be of sufficient size or construction to be suitable for hanging nets. Some tents can be sprayed with a residual insecticide instead, but duration of effect depends on the compound used and the type of tent material.

If ITNs are feasible, they should be provided to individuals and families on arrival in camps as part of the humanitarian assistance packages of non-food items (NFIs) (e.g. tarps, cooking utensils, soap, etc.). Individuals and families in formal IDP camps are often allocated materials for tents or other structures and each of these structures should have at least one ITN depending on size and feasibility for hanging. Where ITNs are bundled with other items and package content is not differentiated between individuals and families, individuals should be encouraged to provide any extra nets to larger families with greater needs.

For informal camps, where there is no organization providing regular humanitarian assistance, these populations should be identified through the health cluster and security and population movement updates and a plan to reach them developed using locally based organizations that can access the population, assess need and deliver interventions. Where the government has access to the informal camps, it may also be responsible for provision of humanitarian assistance, particularly during periods where government control of areas is being re-established.

When individuals and families are relocating from camps to their place of origin or elsewhere to re-establish their households, they should be provided with ITNs as part of the relocation or returnee package depending on the malaria epidemiology in the area to which they are relocating. In situations where people remain in camps for extended periods of time, there should be a plan for replacement of ITNs every two years, rather than the currently recommended three years, given the environment and likely rapid physical degradation of net fabric<sup>12</sup>.

In IDP and refugee camps, the pros and cons of different ITN allocation strategies should be weighed. While it is ideal to reach the targets for universal coverage (one net to two persons), equity within and stability of the camp are important considerations. Where it is important to avoid issues within the camp based on unequal allocation of ITNs to households, it may be necessary to set a standard number of nets that each family will receive, regardless of the number of people in the family or living in the same structure. The standard number of ITNs should be determined based on the average family size, living conditions and the structures being used to house displaced individuals and families. The number of nets per family is often set at two or three, but there is no fixed recommendation as the decision should be based on context. In some cases, the number of nets available will be very limited due to insufficient funds at the time of procurement to meet needs or to continued movement of people to the camp. In these cases, it may be possible to provide only one net per family or structure. Where equity issues are not considered problematic, the allocation of ITNs can be based on what a country would normally do during a mass distribution (e.g. one to two

10. Inter-Agency Field Handbook. See: [www.who.int/malaria/publications/atoz/9789241548656/en/](http://www.who.int/malaria/publications/atoz/9789241548656/en/).

11. Integrated vector management in humanitarian emergencies (2016), The MENTOR Initiative. See: [thementorinitiative.org/wp-content/uploads/2016/11/IVM-Toolkit\\_English\\_17Nov\\_2016.pdf](http://thementorinitiative.org/wp-content/uploads/2016/11/IVM-Toolkit_English_17Nov_2016.pdf).

12. Allan R, O'Reilly L, Gilbos V, Kilian A. 2012. An observational study of material durability of three World Health Organization-recommended long-lasting Insecticidal nets in eastern Chad. *Am J Trop Med Hyg*, 87: 407-411. See: [www.ncbi.nlm.nih.gov/pmc/articles/PMC3435340/](http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3435340/).

people or one per sleeping space). The allocation of ITNs to individuals and families should be agreed upon among all partners supporting the camp to ensure a harmonized approach to their distribution and consistent communication messages about the net allocation.

While IDPs and refugees may be well accepted by the host population upon initial arrival due to the plight that led to their displacement, this good will often does not last long in resource-constrained environments. To avoid tension and strained relations between host and displaced populations, host communities should be considered in the planning for the ITN distribution if a recent distribution has not taken place and if the population in the host and surrounding communities has limited access to ITNs despite a moderate or high malaria burden. Where the host population is unprotected, they should be included in the quantification of needs. Planners should determine whether the same ITN allocation criteria will apply (e.g. a fixed number of nets per structure) or whether the criteria will be changed in line with universal coverage targets, i.e. allocating either one net to two persons or one net per sleeping space.

Where a country is planning for a mass ITN distribution in an area with refugee or IDP camps, they must ensure that these populations are included in the planning, including the specific strategy and method of ITN allocation, as well as advocacy, social mobilization and behaviour change communication activities.

### 4.3 ITN distribution to non-displaced populations

WHO recommends a variety of channels and approaches to reach universal coverage with ITNs<sup>13, 14</sup>.

#### 4.3.1 Stand-alone mass campaigns

The planning for a stand-alone mass campaign to achieve universal coverage is similar to that for a non-COE environment, but there are some specific issues that should be considered, including whether it will be feasible to do a two-phase campaign (i.e. household registration followed by ITN distribution) or whether the two phases should be collapsed to a single-phase campaign to limit time spent in insecure areas and delays in getting ITNs into households during periods of accessibility (due to conflict, epidemics or natural disaster).

Some of the questions to answer during the planning for a stand-alone mass distribution in COE include:

1. If mass distribution is feasible, will it include a separate household registration and ITN distribution phase or will the two activities be carried out simultaneously? Will the ITNs be given to households through fixed site or door-to-door distribution?
2. What is the method by which ITNs will be allocated to households, for example counting people/sleeping spaces, fixed number of nets per household, one net per child under five, etc.?
3. If fixed site distribution is decided, what method will be used to identify beneficiaries at distribution sites? Will it be household register, voucher or coupon, wristband, etc.? Note that this question is less important in the case of distribution targeting children under five and pregnant women who can potentially be visibly identified.
4. What method, if door-to-door distribution or using household registration, will be used to identify households that have received ITNs (e.g. chalk marking, sticker, door sign, etc.)?

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13. Achieving and maintaining universal coverage with long-lasting insecticidal nets for malaria control. See: [apps.who.int/iris/bitstream/handle/10665/259478/WHO-HTM-GMP-2017.20-eng.pdf;jsessionid=9D48F7779528CC5905405A20F1ADA17C?sequence=1](https://apps.who.int/iris/bitstream/handle/10665/259478/WHO-HTM-GMP-2017.20-eng.pdf;jsessionid=9D48F7779528CC5905405A20F1ADA17C?sequence=1)

14. AMP Toolkit: A toolkit for mass distribution campaigns to increase coverage and use of long-lasting insecticide-treated nets. See: [allianceformalariaprevention.com/amp-tools/amp-toolkit/](https://allianceformalariaprevention.com/amp-tools/amp-toolkit/).



5. What are the specific considerations that need to be taken into account for urban distribution?

Some of the specific issues to consider for mass distribution of ITNs in COE include:

#### 4.3.1.1 *Definition of a household*

One of the key things to consider when determining how ITNs will be allocated to households is how a household will be defined.

In many COE, displaced families may move in with relatives or friends in more stable areas, relying on the host family for shelter pending a return to their own area. These displaced families should be defined as a separate household from the host household to increase intra-household coverage and provide nets that can be taken when the family relocates. It should be clearly communicated during the household registration or door-to-door distribution that the nets being received belong to the specific families living in

the household. Where there may be sensitivities around registration or identification of displaced families, this should be considered from the outset of the planning and decisions taken to ensure that these families are not penalized during the distribution and that risks related to their registration are minimized (e.g. not collecting names, changing the maximum number of ITNs per household in specific areas to allow host and displaced families to receive nets without being defined as separate households, etc.).

#### 4.3.1.2 *Household allocation of ITNs*

Ideally, universal coverage of the total population will be achieved during mass campaign distribution where this is possible, depending on access, security, logistics, etc. Flexible approaches will be needed and options that fit the context should be proposed following consideration of risks and how they can be mitigated (see Section 9.7: *Risk assessment and mitigation* and AMP Toolkit, Chapter 5, Brief 3: *Risk mitigation planning*<sup>15</sup> for a discussion of risk mitigation for logistics).



15. [allianceformalariaprevention.com/amp-tools/amp-toolkit/](http://allianceformalariaprevention.com/amp-tools/amp-toolkit/).

The way that ITNs are allocated to households should be discussed and decisions taken on whether the number of nets per household will be fixed or whether ITNs will be allocated based on number of people or number of sleeping spaces. The communication related to the allocation of the ITNs is important to avoid rumours starting, so deciding on the ITN allocation strategy early in the planning, and then not changing the strategy, is critical for planning for key messages to be disseminated.

### COUNTRY CASE STUDY

In Liberia, during the Ebola outbreak, a door-to-door, single phase distribution strategy was adopted and the number of nets for the ITN distribution was fixed at three per household. This allowed for limited contact between individuals and helped to avoid delays in getting ITNs out that would occur by separating the household registration and ITN distribution process. The strategy of three ITNs per household was in line with the NMCP strategy for the previous campaign, which provided one net to two persons to a maximum of three per household.

It might also be possible to determine the allocation strategy based on the average number of people per household from previous distribution or other data, although this may be difficult if the data quality is questionable.

#### **4.3.1.3 Capping the number of nets allocated to households**

If the decision is to set a maximum number of nets per household, which is typically necessary to avoid stock ruptures during the ITN distribution, this should be decided at the outset and clearly communicated in social mobilization messages. It is not advised, in the situation of COE, to change ITN allocation strategies halfway through the distribution due to an insufficient number of nets, as this may create hostilities

and frustration for beneficiaries receiving fewer nets than expected. If the allocation is done later (e.g. not at the time that the registration is taking place, but during the data management), then it is possible to change the allocation strategy between the registration and the distribution because the number of nets to be received will not be communicated to households during the registration. However, this is likely to increase the time for data management and will still require strong communication messages to explain the allocation rationale and the delay in receiving nets after registration.

#### **4.3.1.4 Beneficiary identification**

Methods of beneficiary identification should be examined to determine what is most feasible for the context. Where there is a possibility that there could be population movement between the household registration and the ITN distribution and where the campaign cannot be done in a single phase (see below on household registration), more durable identification should be considered, such as plastic bracelets that are attached during the household registration and cut off at the distribution point in exchange for nets. However, these may not be acceptable to the population, so there must be some type of pre-test of the bracelets to ensure that they will be worn by the beneficiaries until removed during the exchange for nets.

Where coupons or vouchers, as well as plastic bracelets/wristbands, are being used, consideration must be given to design and colours. Note that this is a concern for all visibility materials for the campaign, since colours are often associated with specific political or other groups. The beneficiary identification selected should be neutral, with logos of partners and ITN-specific images if they are needed. Where there are concerns about the quality and confidentiality of the vouchers (falsification), or where bracelets are selected as the method of beneficiary identification, it may be necessary to procure outside the country. Early procurement will be important to avoid campaign delays. See



AMP Toolkit, Chapter 3, *Planning for mass distribution campaigns*, page 9, for a comparison between vouchers or coupons and wristbands<sup>16</sup>.

There may be a higher chance of loss or damage to coupons or vouchers, or removal of plastic bracelets, between the time they are received and the time they are exchanged for nets. It is important to try to limit the time between the household registration and the ITN distribution, but also to have a mitigation and management plan in place at distribution points for households that have lost their vouchers between registration and distribution, as well as households that were not registered. A policy of “no voucher, no net” may not be an option, but the context should be assessed to see if that is possible.

Where it is possible to implement monitoring for coverage of the household registration, this should be done to allow mop-up and minimize problems at the distribution points.

Communication throughout the period of data management, pre-positioning and training for ITN distribution is important to ensure that people understand when the campaign will be starting and to explain delays if dates were communicated earlier. Distribution

point personnel must be trained on clear and consistent communication for households that are unregistered or have lost vouchers to prevent problems arising.

#### 4.3.1.5 Sensitivities to data collection

Household registration data collection varies by country, but typically includes the name of the household head, the number of people or sleeping spaces in the household and the number of nets required, as well as the number of vouchers or coupons distributed where they are being used. At times, additional information is collected if available, such as a mobile phone number or national identity card number. Decisions regarding the information to be collected should be taken based on a solid understanding of the sensitivities to data collection in the area and the levels of literacy of campaign personnel. These decisions should include the minimum data required for a household to receive nets. For example, in situations with significant population movement, it is possible that people will have lost their identification papers or that these were destroyed. Mobile phone ownership and network coverage rates or lack of them should determine whether mobile phone number is a minimum requirement for a household to receive a net.

### COUNTRY CASE STUDY

In the Central African Republic, the current protracted crisis has led to significant population movement, as well as divisions along religious lines. Given the instability the country has experienced since its independence, education levels are low, particularly in the interior of the country. During the planning for the campaign, it was decided to change from a two- to one-phase campaign (combining household registration and ITN distribution to avoid population movement between the phases and lost opportunities to reach people), as well as to simplify the data collection tools to a simple tally sheet that tracked the number of households by size (one column for households with one to two people, one column for three to four people, etc.) and the number of ITNs distributed (the columns had a lower section where the ITNs distributed would be marked). This system minimized the need for writing on the registration forms, allowed for all households to receive nets without being put into a religious category based on names, and also created a simpler verification system: if there were 30 circles filled in for households with three to four people, it meant that there should be 60 circles filled in for ITNs distributed.

16. See: [allianceformalariaprevention.com/amp-tools/amp-toolkit/](http://allianceformalariaprevention.com/amp-tools/amp-toolkit/).

Where literacy is quite low and/or sensitivities to data collection quite high, simplifying data collection tools – for example, using tally sheets instead of collecting names – can be considered. Tally sheets can be used to track number of households reached, number of people or sleeping spaces, ITNs distributed, etc., which allows for ITN tracking but does not compromise the target population through collection of personal information.

Where information is desired so as to follow up on nets and coverage, a description of the location of a household or family can be used instead of individual names. However, given population movement in many COE contexts, follow-up of households may not be possible and thus minimizing data collection requirements is a better option. In general, the decisions around the data to be collected should be based on the norm rather than the exception: if the majority of people are unlikely to have a national identity card or a phone number, then these two pieces of information should not be collected. This will help to minimize data errors with the information that is critical during data collection.

#### 4.3.1.6 Urban and rural strategies

When determining the ITN distribution strategy, attention should be paid to the importance of planning for urban and rural distribution situations. For both contexts, plans should be in place for rumours, misinformation and troubleshooting for bottlenecks, but the urban context has a higher possibility for disruption and/or volatility on a large scale and should be carefully planned, including mitigation strategies for anticipated problems.

#### 4.3.2 Household registration

Household registration in universal coverage campaigns – collecting names and information related to ITN allocation, such as number of people or number of sleeping spaces, and usually issuing some form of beneficiary identification such as a voucher – is a time-consuming and complicated process. Planning for a standard ITN campaign in a non-COE setting is described in the AMP Toolkit, Chapter 3, *Planning for mass distribution campaigns*<sup>17</sup>. This section highlights additional considerations in COE.



17. See: [allianceformalaria prevention.com/amp-tools/amp-toolkit/](http://allianceformalaria prevention.com/amp-tools/amp-toolkit/).

#### **4.3.2.1 Household registration in advance of the ITN distribution**

As per the typical ITN campaign, household registration can be a separate activity in advance of the ITN distribution that allows for a better estimation of ITN needs through reaching each household in the target area and determining actual number of people or sleeping spaces that need to be covered. Often, the household is given a means of identification to be exchanged for ITNs at a fixed distribution point.

Household registration as a separate activity should be critically assessed in areas with conflict and insecurity where there may be limited periods of access for teams to distribute nets and/or there are high risks of population movement. The need for a stand-alone household registration phase should be discussed at the time of planning and, where household registration is maintained as a separate activity, simplified tools and approaches should be explored to ensure that the activity is carried out as well as possible, data can be quickly collected and compiled and there are no significant delays between the household registration and the ITN distribution.

#### **4.3.2.2 Household registration simultaneous with the ITN distribution**

Household registration can be carried out simultaneously with the ITN distribution, either during door-to-door distribution or by opening fixed sites from day two of the household registration to allow beneficiaries to collect their nets as soon as they have been registered, which may be a method to minimize overcrowding at distribution sites.

In this case, the microplanning data need to be used to estimate ITN needs for transport to pre-positioning or fixed distribution sites and a contingency stock of ten per cent should be added to the quantities from the microplanning in order to prevent stock ruptures from inaccurate microplanning figures and/or population movement between microplanning and start

of activities. The contingency stock should be managed at a more central level (e.g. district versus peripheral pre-positioning or distribution site) to ensure that it is deployed if and as needed based on the registration and/or distribution data. A plan should be in place for developing and verifying requests for the use of the contingency stock to avoid transporting additional nets unnecessarily or delaying transport where the need is real. This contingency stock can be used to ensure that displaced families living with host families are covered (in case they are not accounted for when the population is updated during microplanning), as well as to complete needs during implementation where gaps occur.

This option should be considered where there is ongoing insecurity that may affect the ability of teams to reach areas more than once over a multi-month period and where households may lose their vouchers if they are forced to move quickly. By combining the household registration and ITN distribution, the entire campaign implementation can be limited to 7 – 15 days, allowing teams to spend as little time as possible in high risk areas.

#### **4.3.2.3 Mitigating problems with household registration**

Detailed planning is required to achieve maximum coverage of all households and communities and, in turn, maximum population access to ITNs during the distribution. The mapping exercise during the microplanning workshops is critical for detailed planning for the household registration: where maps are detailed and comprehensive, it will be better for planning delineated areas for personnel to work in and ensure that all households are reached. See *Microplanning guidelines*, supplementary material to accompany the AMP Toolkit.

In some cases, it may not be safe for registration teams, even working in pairs, to move door-to-door on their own. To mitigate this type of problem, the strategy could be to have all the



teams under several community supervisors work in a single specified area, covering all households at once, before moving to the next registration area. With good planning and communication, registration teams can “sweep” an entire area at once and not have to return to re-register absent households. This strategy may be particularly effective for urban areas, as well as for rural areas, where cases of aggression against teams or general insecurity may be higher. These areas can be identified for a modified strategy during the microplanning.

#### **4.3.2.4 Selection and deployment of personnel**

The selection of personnel for the household registration is key to its success; establishing criteria for selection and ensuring that they are followed is important.

- In areas where school attendance has been either intermittently or regularly disrupted, levels of literacy may be quite low. It may be difficult to find a sufficient number of people who are able to read and write and undertake simple calculations, skills that are needed to successfully register households. Supervisors need to be given the responsibility to pair registration personnel as needed to balance strengths and weaknesses. It is critical that one of the people in the team can do the basic data collection that is required, while another person can take on the communication aspects, disseminating key messages and explaining the campaign organization, purpose and modalities for receiving ITNs, prevention of malaria and use and care of nets.
- It may be very difficult for registration personnel to move safely between villages. Where this is the case, the registration personnel should be selected from each village and the number of days for their work estimated to allow clear communication on days and payment from the outset of the activity. It is important that the registration or door-to-door distribution personnel are identified from the

communities where they will be working and have the trust and confidence of the local population. This will help with ensuring access to households, as well as reducing suspicions about the activity or the personnel involved. In many situations, it is important to involve local leaders in the selection of personnel to ensure that they are actually from the area and will be accepted by household members.

- Door-to-door personnel should work in pairs or groups for safety and must be clearly identified for their security when they are undertaking activities related to the ITN distribution. Campaign materials such as aprons, t-shirts and caps, with the logo of the campaign clearly visible, are important visual verification of people performing a specific activity. As there may be problems with beneficiaries allowing unknown individuals access to households to ask questions and collect data, having a unifying branding of campaign personnel to show that they are legitimate may be helpful. See also Section 9.3: *Visibility of the ITN distribution*.
- In some areas, it may be important to identify local “guides” or people that are known and respected by the community who can ensure the safety of the campaign personnel. This may be particularly important in urban areas, where campaign personnel may be less well-known and linked to the areas in which they are working.
- Establishing a clear communication chain is critical. All personnel involved in all phases of the campaign must be trained in what to do and whom to notify if problems of any kind are encountered.

#### **4.3.2.5 Data collection and management**

In areas with insecurity, where it may not be possible to access all data collection forms from household registration or ITN distribution teams in a timely manner, an approach should be developed to collect data through various channels (e.g. phone calls, SMS, providing

summary data to supervisors or monitors from upper levels, etc.) and/or to provide additional transport funding for supervisors to move the data collection forms to the district level. Flexibility must be used to ensure all channels for movement of paper-based data forms are used so that excessive delays between registration and distribution are not experienced.

### 4.3.3 Distributing ITNs

#### 4.3.3.1 Fixed site distribution

Fixed sites are typically split into fixed (often at a health facility, where nets are stored and the distribution point is open for the entire period of the campaign), advanced or outreach (for populations more than five kilometres from a distribution site) and mobile (for populations more than 10 kilometres from a distribution point).



In insecure situations where movement between communities and from communities to health facilities is difficult, more distribution points

will be needed, potentially one in each village or community, to ensure that the population has access.



The overall organization and set up of distribution points is described in the AMP toolkit (see Chapter 7, Section 7.6<sup>18</sup>) and can be referred to for distribution points in COE. See also Section 9.10 in this document for a discussion of security issues at distribution points.

#### **4.3.3.2 Mitigation of fixed site distribution problems**

See also Section 9.10 *Fixed site ITN distribution*.

Depending on context – whether the target area has a curfew, whether there are potential problems with bringing people together in groups, whether there is large-scale population movement, whether access is dangerous or difficult because of destroyed infrastructure, etc. – there are measures that can be taken to mitigate against fixed site distribution problems. Distribution strategies can be modified. More sites for fewer days; specific sites on specific days to limit the number of beneficiaries per site; one site for each village; starting the ITN distribution the second day of the household registration to stagger beneficiary arrival at sites; these are all potential modifications that will involve a different type of logistics planning. It is therefore critical that these decisions on modifications are taken early in the macroplanning phase to allow for good microplanning and budgeting. A second and third distribution strategy option should be identified during the macroplanning phase to allow for corresponding draft logistics plans to be developed simultaneously.

Quantification of needs for pre-positioning and distribution points should apply a contingency stock of 10 per cent if the population data available are unreliable because of ongoing population movement or there is a lack of information regarding the number of displaced families living in households. This is particularly applicable for urban areas that are being targeted and that may have significant population movement in and out based on security. It is also important to minimize

problems with unregistered households that arrive at distribution points.

Where coupons, vouchers or bracelets have been provided as beneficiary identification, the registration forms should not be used as a secondary verification of the beneficiary except in cases where fraud or falsification are suspected. The use of the registration forms only on an “as needed” basis will assist with limiting the time beneficiaries spend waiting, as the cross-check of the registration sheets in the majority of fixed site distribution strategies where this approach is adopted is identified as a key bottleneck for efficient distribution. This should, in turn, limit frustration and aggression at the distribution points from the household representatives towards the distribution team.

#### **4.3.3.3 Door-to-door distribution**

Door-to-door distribution may be a better option where bringing people together at fixed sites is problematic or where direct distribution to households may increase the likelihood of nets staying in households (e.g. not being sold at a market or stolen between the distribution site and the home). Door-to-door distribution, while potentially more expensive and logistically onerous, may be cost-effective in situations where a fixed distribution site would be needed in each community to ensure access to distribution points.

Some considerations for door-to-door distribution include:

- It may take place as a one-off activity (with no household registration taking place in advance) or following a household registration to better define ITN needs. Where a household registration will be used to determine the overall needs for nets, it is important to consider a three- to six-week delay between the household registration and the door-to-door distribution to allow for data management, updating of micro transport plans and

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18. See: [allianceformalariaprevention.com/amp-tools/amp-toolkit/](http://allianceformalariaprevention.com/amp-tools/amp-toolkit/).

transport of nets to pre-positioning sites. Where the overall campaign period is limited due to access constraints, a one-off activity should be considered.

- Whether a one-off activity or in two phases, quantification of needs for pre-positioning and distribution points should apply a contingency stock of 10 per cent.
- Pre-positioning of ITNs must be carefully considered, as well as transport between the pre-positioning sites and the door-to-door teams. Where door-to-door teams will be only working in their own or nearby villages due to problems with movement between villages, one pre-positioning site may be serving multiple areas. In this case, the means of transport between the site and teams and where the transporter is selected from may have an effect on access and security of the ITNs.
- Door-to-door distribution teams must be well identified with aprons, caps or t-shirts. They should be provided with durable bags (able to last for the number of days of distribution or, alternatively, supplementary bags should be ordered from the outset for replacement of damaged bags during the distribution) that can carry up to 25 nets.

#### **4.3.3.4 Logistics for ITN distribution**

For fixed sites, ITNs are often pre-positioned at the fixed (or outreach) sites or at storage locations close to the fixed (or outreach) sites, but security of the commodity is an important consideration in the planning for the distribution. For mobile and outreach sites, storage capacity and security may be limited, so these sites are often fed nets on a daily basis for the distribution, with nets remaining at the end of the day being returned to the fixed site storage.

For door-to-door distribution, the planning must ensure that (1) pre-positioning sites are as close to intervention areas as possible while respecting any security problems and limiting the loss of nets due to improper storage and (2) there

is a means for door-to-door teams to replenish nets over the course of a day without them having to walk too far. The importance of the second aspect cannot be overstated: where this mechanism for supplying nets to distribution teams is not put in place, it is likely that coverage will be less than expected and that hard-to-reach houses and communities will not receive nets. It is not advisable to make the supervisors of the distribution teams responsible for the resupply of the teams with ITNs. This will reduce the time that they are dedicated to supervision and affect the quality of both programme and logistics data. A logistics/supply chain role should be put in place for the movement of nets between the pre-positioning sites and the distribution teams to ensure adequate tracking of ITNs.

#### **4.3.4 Integrated mass campaigns and targeted campaigns**

Vaccination, mother-child health campaigns, seasonal malaria chemoprevention, emergency food distributions and other campaign and outreach strategies to deliver basic services and commodities provide opportunities for ITN distribution and should be used to achieve maximum health effect in a limited period of time. However, even in non-COE situations integrated distributions are challenging, so the approach should be considered carefully during the macroplanning phase and strategies put in place to ensure that targets are met for all interventions. Integrating interventions at the last minute without sufficient advanced planning is not advised.

##### **4.3.4.1 Mitigation of challenges with integrated campaigns**

- **Coordination and timing:** As more programmes are involved, with multiple funding streams for each programme, the coordination and timing may become difficult to manage, particularly where delays in one programme will create delays in getting commodities to families in need. These aspects must be carefully considered,

and a joint timeline established with key milestones that will allow for early warning of delays to ensure timely communication with beneficiaries and donors. The health cluster coordination mechanism should play a key role in helping with the alignment of partners, activities and timing, as well as ensuring that donors respect the flexibility required to achieve the best health outcomes for the target population. Where integration is planned, but commodity delivery for one or more interventions is delayed, decisions need to be taken as to whether to continue with the integrated distribution as initially planned or whether to disaggregate interventions to meet the immediate needs of the population.

- **Planning for different target groups:** It is possible that universal coverage ITN distribution will be coupled with a campaign targeting a specific age group, such as children under five. In these cases, detailed planning for the delivery of the interventions to ensure each achieves its target is important. For example, where universal coverage ITN distribution is coupled with measles vaccination, vitamin A administration and deworming, one of the commodities could be delivered door-to-door during the registration and additional commodities delivered at the fixed site when people come to pick up their nets. These decisions must be taken early to facilitate the communication planning and the logistics operation.
- **Communication of who is targeted for what:** Communication must be given a high priority to ensure clear understanding of the interventions being provided and their target groups, i.e. who will receive what, the purpose of the intervention, how ITNs will be allocated, etc. Key messages should explain each of the interventions, why they are important to the targeted group and how they will be received by the beneficiaries.

- **Deciding about fixed site or door-to-door distribution:** The different interventions that are involved in the campaign, as well as the security context and access to the population, must be taken into account when deciding on the method for the ITN distribution. If other interventions are being provided at fixed sites, the ITNs should also be given there, and a plan put in place for the advance registration and identification of households. If all interventions are being provided door-to-door, appropriate logistics should be put in place to mirror the administration of the other interventions. Where some interventions are door-to-door and some are fixed site, the coordination team should determine how best the ITNs can be distributed.
- **Ensuring all interventions are received:** Where fixed site distribution/administration of interventions is planned, if vouchers or other types of beneficiary identification are being used, the identification device should be able to be marked in such a way that each supplementary intervention is provided; it may be important to provide other interventions before the net is given if the net represents a major incentive for participation.
- **Targeting ITNs to specific age groups:** Where ITNs are targeted to children under five or women of reproductive age, it is not necessary to undertake a registration in advance as the target group is relatively easily identified. If the ITN distribution is also integrated with other interventions, there should be a method to ensure that nets are the last intervention provided, particularly if they are a major incentive for attendance.
- **ITN allocation:** When ITNs are targeted to children under five or pregnant women, it may be worth considering providing two nets per beneficiary (for example, per child under five) to maximize coverage where there are limited ITN distribution channels and access to the population is poor and infrequent. Once all of their own sleeping places have

been covered, families can be encouraged to share additional nets with neighbours or to keep new nets in good condition to replace older nets in due course.

#### 4.3.5 Continuous distribution

Each country will need to be treated differently in terms of continuous distribution and the options assessed and evaluated to ensure that they are able to reach the population in need regularly and effectively. Options for continuous distribution will change as the context changes – schools that were closed may open, health facilities that were destroyed may be rebuilt – so it is important to assess the options regularly and maximize the use of as many functional channels as possible to get nets to the population at-risk. See *Continuous Distribution Toolkit*<sup>19</sup>.

##### 4.3.5.1 Routine distribution in health facilities

Where health facilities are open, functional and accessible, routine distribution should be prioritized to encourage pregnant women and children under five to come to clinics where their health status can be assessed. Promoting attendance at health facilities when access allows safe travel between home and the health facility or site should be a priority.

Where mass campaigns are not possible, the ITN allocation strategy for routine distribution can be extended beyond antenatal care (ANC) and vaccination (EPI) in order to maximize the number of people reached. Considerations for health facility ITN delivery could include:

- Every person/pregnant woman/child under five admitted or diagnosed, where admission is not possible or feasible, with severe malaria

- Every pregnant woman or child under five admitted in inpatient or ambulatory therapeutic feeding programmes
- Every child under five or pregnant woman testing positive for malaria in areas with very poor access to health services

There are many other options for increasing ITN access through health facility delivery channels to different target groups and these should be listed and examined for feasibility as part of the decision-making process around facility-based routine distribution.

##### 4.3.5.2 Routine distribution through outreach or community strategies

Where populations are not accessing health facilities, often the Ministry of Health or humanitarian partners will organize outreach or community clinics to reach people closer to their homes. These types of clinics may also be organized in IDP and refugee camps. Some options for ITN distribution may include supplying them with packages of food or non-food items and/or integration of ITNs into integrated community case management or other community health activities. Where routine services such as ANC and EPI are provided through outreach or mobile teams, the channels, targets and allocation strategy considerations should be the same as for health facility delivery.

In some cases, there will be a community network of health workers who have been trained to deliver primary health care services. Where these networks are in place and functioning, they provide an opportunity to regularly assess the ITN status in households in their catchment area and to serve as a channel for distribution of ITNs to families in need.

19. [www.k4health.org/toolkits/continuous-distribution-malaria/continuous-itn-distributions-guide-concepts-and-planning](http://www.k4health.org/toolkits/continuous-distribution-malaria/continuous-itn-distributions-guide-concepts-and-planning).

### COUNTRY CASE STUDY

In the north-west of the Central African Republic, MENTOR<sup>20</sup> has built an innovative network of community healthcare workers which ensures the provision of essential healthcare directly to even the most isolated communities, essential in this remote region which lacks the most basic infrastructure. Through daily consultation with communities, MENTOR is able to assess risks and adjust how and where to deliver support. Community healthcare workers are recruited directly from displaced and host communities, ensuring that they are trusted, respected and welcomed into communities in a way that outsiders would not be. In cases of population displacement, the community health workers move with their communities, allowing healthcare provision to continue.

Community healthcare workers are trained to provide a package of health services: health education, diagnosis and treatment of the most common diseases including malaria and diarrhoea, screening for malnutrition, iron supplement and malaria prophylaxis for pregnant women. Their ability to identify patients with other diseases (such as respiratory infections) and/or severe symptoms of malaria and diarrhoea enables those patients to be transferred (using local motorbike taxis) to health facilities which are better equipped to address more serious cases. In parallel with the community-based approach, extensive health education has been carried out to promote prevention of the most common diseases and to encourage early treatment-seeking. Different approaches are applied through sensitization activities carried out directly by the community health workers in their village, coupled with targeted training of influential people in the communities (including women's groups and youth clubs) as well as large scale health promotion campaigns (with film projections, football matches, quizzes etc.).

#### 4.3.5.3 *School-based distribution*

If children are attending school, school-based distribution is an option which can rapidly increase coverage with ITNs in households with school-age children. The level of school attendance may not be high enough to achieve universal coverage, but this is still a channel for getting a large quantity of nets into households and should be considered. School-based

distribution may have fewer problems in terms of security because nets are delivered to the school and distributed directly to the schoolchildren. Consequently, this channel should be considered if it is feasible. Much greater detail can be found in *School-Based Distribution of Long-Lasting Insecticidal Nets: A Short Guide Based on Recent Country Experience*<sup>21</sup>.

20. See: [thementorinitiative.org/programmes/africa/central-african-republic](http://thementorinitiative.org/programmes/africa/central-african-republic).

21. See: [www.k4health.org/sites/default/files/5-school-based\\_distribution\\_of\\_long-lasting\\_insecticidal\\_nets\\_eng\\_0.pdf](http://www.k4health.org/sites/default/files/5-school-based_distribution_of_long-lasting_insecticidal_nets_eng_0.pdf).



## 5. Quantification

### 5.1 Quantification of nets

#### 5.1.1 Defining the target

In defining needs for procurement, most COE countries will be procuring ITNs for mass distribution to achieve universal coverage (in the targeted areas requiring net replacement), as well as for routine distribution and for potential IDP and refugee populations. Where universal coverage is planned at the outset for targeted areas requiring replacement, quantification will have been based on the WHO guidelines of population divided by 1.8. Typically, a 10 per cent contingency stock would also be procured to cover the time since the previous census. If, between procurement and the implementation period, a universal coverage campaign becomes impossible and nets will be provided (for example) to families with children under five during a vaccination campaign, the ITNs procured will be sufficient to meet the needs, including (often) to provide two nets to each child where this is adopted as the allocation method.

Target groups and distribution objectives must be clearly defined and the highest possible coverage aimed for with the resources available. If limited ITNs are available at the outset, the initial distribution should target high-priority vulnerable groups for distribution, for example pregnant women and children under five through antenatal clinics, routine immunization programmes, feeding centres/programmes or vaccination or stand-alone campaigns.

#### 5.1.2 Population data

In many countries, population estimates are difficult to obtain for the baseline quantification of ITN needs. In situations of protracted insecurity and conflict, a national census may not have been carried out for more than ten years. In

addition, population movement in countries due to insecurity, unrest or natural disaster may mean that while the total number of people estimated nationally is close to correct, the location of those people within the country is less well known.

When quantifying ITN needs, it is important to use a variety of sources of population data and ensure that the number of nets requested is sufficient based on the most accurate data available at the time. Sources of data may include the Ministry of Health (such as from vaccination programmes), United Nations Office for the Coordination of Humanitarian Affairs (OCHA), United Nations High Commission for Refugees (UNHCR), Internal Displacement Monitoring Centre (IDMC), United Nations Children's Fund (UNICEF), WHO, international and national NGOs, etc. Where decentralized delivery of ITNs in a country is planned, sourcing as much local population data as possible (e.g. for districts or regions) should be a priority to avoid significant lateral movement of nets later. (See also Section 6.3.)

#### 5.1.3 Timing for replacement

Although universal coverage campaigns are recommended every three years on the basis of a global average for net decay and timing for replacement, where populations live for extended periods (years) in camps for internally displaced people or refugees, plans should include replacing nets every two years because of problems with physical degradation in difficult environments. Given the difficult living conditions of the population in many COE, particularly those in IDP and refugee camps, it is likely that the lifespan of nets is shorter than three years<sup>22</sup> due to greater wear and tear, but limited data are available to guide timing for replacement.

During planning and quantification, it must be taken into account that beneficiaries may require nets multiple times during an annual

22. Allan R, O'Reilly L, Gilbos V, Kilian A. 2012. An observational study of material durability of three World Health Organization-recommended long-lasting Insecticidal nets in eastern Chad. *Am J Trop Med Hyg*, 87: 407-411. See: [www.ncbi.nlm.nih.gov/pmc/articles/PMC3435340/](http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3435340/).

or multiyear funding period, particularly when there are changes in the security context that lead to regular population movement (for example, into and out of IDP and refugee camps) and loss of existing vector control tools.

It is important to monitor net coverage and condition to trigger replacement as needed, particularly in high endemicity areas. This may be done through information shared during health cluster meetings by partners working in different areas.

#### 5.1.4 Quantification of ITNs for IDP and refugee camps

It is difficult to quantify the needs for IDP and refugee camps. These camps are often temporary – they may exist during planning, disappear then reappear in other locations at the same time as new camps are being set up. As funding is often planned for a one to multiple year period, forecasting needs for IDPs and refugees is likely to be highly inaccurate if done by projections.

If projections are used, reliable sources of data should be sought, preferably covering a three to five year period. The number of people in IDP/refugee camps for the year that the funding is being applied for should be noted, and any projected increases or decreases outlined, as well as the reasons why. When quantifying, planners should take into account that families will often arrive in IDP camps in times of high insecurity but will return home as the situation stabilizes. For this reason, quantification of needs for families in IDP and refugee camps should take into account the number of nets required on arrival (whether fixed by family or based on number of people or type of structure), as well as the number of nets that would be required for these families to return home with new nets.

The number of IDP and refugee camps and the populations of those camps will change as the

context changes, so it is important to regularly assess the needs and ensure sufficient nets are available to cover the population at risk.

The quantification should be based on:

- The estimated population that is in IDP or refugee camps in the targeted area with an additional margin of error based on projected population movement. The margin of error can be applied as an average during macro quantification, but nets should be allocated to camps according to actual need to ensure that the maximum population is covered and stock ruptures are not experienced
- After determining the estimated population, the average number of people per household or structure should be decided using whatever data are available and likely to be most accurate
- For the purposes of macro quantification, the number of nets needed should be based on the estimated population divided by 1.8 or the estimated number of families or structures multiplied by the number of nets each will receive
- In all quantification methods, a 10 per cent contingency stock should be added to the number of nets required

#### 5.1.5 Quantification of ITNs for mass campaigns

Quantification for mass ITN campaigns will vary based on the type of campaign that is being organized, i.e. targeted or universal coverage, in an area where families are displaced, in an area where people are settled, or a mix, etc. In addition, quantification will attempt to forecast needs, particularly where budgets are being “set” for a longer period of time.

- For *universal coverage campaigns*, quantification is based on the WHO recommendation<sup>23</sup> of population divided by 1.8, allowing for rounding up the number of

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23. WHO (2017). Achieving and maintaining universal coverage with long-lasting insecticidal nets for malaria control. See: [apps.who.int/iris/bitstream/handle/10665/259478/WHO-HTM-GMP-2017.20-eng.pdf;jsessionid=CBD9AD34F305D9B4CF3FDA8BBF-3105B9?sequence=1](https://apps.who.int/iris/bitstream/handle/10665/259478/WHO-HTM-GMP-2017.20-eng.pdf;jsessionid=CBD9AD34F305D9B4CF3FDA8BBF-3105B9?sequence=1).

nets during household registration in the case of an uneven number of household members. Given multiple country experiences showing that population estimates tend not to align with data collected during the microplanning or the household registration, a contingency stock of 10 per cent should be added to the overall need in countries with a census more than five years old.

- In the case of ***integrated universal coverage campaigns***, it is critical that quantification takes place with partners providing other interventions for the campaign to reach a consensus on the target population. As each intervention in an integrated campaign can affect the coverage of the other interventions, it is vital to have sufficient ITNs available to meet the population need, plus a contingency stock if the target is surpassed. The contingency stock should be aligned with planning for the other interventions.
- Where ***ITN distribution campaigns are targeted to children under five or other population groups***, the quantification will be based on the number of targeted beneficiaries plus a contingency stock of 10 per cent to account for inaccuracies in population estimates. The added incentive of the ITN as part of the package may lead more families to participate than anticipated, which should also be taken into consideration when quantifying needs. When previous campaign data available show that significantly more children under five were vaccinated than the microplanning estimations, these data can be used to argue for a higher percentage contingency stock of ITNs to avoid stock ruptures and problems for the uptake of the other interventions.

Where integration of ITNs is occurring with drug administration, vaccination or other maternal child health interventions, it is important for the quantification to be aligned across programmes and interventions.

As children's growth may be slowed or stunted, it is possible that children over five will also come for services during campaigns targeting children under five. If these children would normally receive the other interventions, they should receive an ITN, so quantification should be adjusted appropriately.

#### 5.1.6 Partner mapping

To avoid wasting limited resources, when quantifying needs for ITNs for all channels of distribution, it is important to map out what different partners are providing. The RBM Partnership to End Malaria Country and Regional Support Partner Committee (CRSPC) programmatic gap analysis template includes a section for accounting for the contributions of donors and partners. In practice, for some COE countries this information can be difficult to obtain, as partners may receive commodities based on the type of crisis and changes occurring over the course of a year or may not know what they will be receiving sufficiently in advance. Despite the challenges, the Ministry of Health should try to coordinate partners and where this is not possible, coordination of commodities needed and in the pipeline should be carried out with support of the cluster system (particularly health and shelter).

#### 5.1.7 Planning for problems with mass distribution

Despite all efforts, quantification may still be problematic leading to too few or too many nets being available. It is important to plan for both of these potential situations and have strategies for what to do when nets are insufficient (change allocation strategies, shift targeting to high burden/low access areas or populations, determine prioritization criteria) or there is a surplus (safe storage, identification of additional distribution channels, particularly where coverage has not been reached or people have moved without vector control). Contingency planning at the outset will avoid panicked decision-making when problems arise during implementation. A clear

communication strategy should be linked to the contingency plan, including communication with government or other local leaders about the use of the nets and what will happen with nets remaining at the end of the distribution (e.g. they will stay in the local facilities or they will be moved to cover people at risk elsewhere).

### 5.1.8 Quantification of ITNs for continuous distribution

Quantification for continuous distribution needs should be based on decisions taken about target groups (children under one, children under five, pregnant women, women of reproductive age), timing (ITN provided upon completion of

vaccination series, ITN provided on first ANC visit and/or during facility birth, ITN provided for admission with severe malaria, etc.), allocation strategies (one or two or more ITNs provided to appropriate group at appropriate time) and channels (facility-based, community-based, outreach, etc.). Where school-based distribution is being considered, quantification should follow guidance in *School-Based Distribution of Long-Lasting Insecticidal Nets: A Short Guide Based on Recent Country Experience*<sup>24</sup>.

General guidance for quantification by channel is provided in the table below:

Channel	Target	Quantification
Mass ITN distribution targeted to specific populations (for example, internally displaced persons, refugees, etc.)	Individuals or families moving into or out of camps or settlements	No. of families x no. of nets (2 or 3)  OR estimated population / 1.8  x 2 (counting for receiving when arriving in camp or settlement and receiving when leaving camp or settlement) + 10% contingency stock
Mass ITN distribution at national or sub-national level to achieve universal coverage of the population	Total population in targeted geographical area	Total population / 1.8 + 10% contingency stock
Mass distribution to achieve universal coverage integrated with other health interventions	Total population in targeted geographical area	Total population / 1.8, but contingency stock aligned with planning for other interventions (10% planned, but likely to be more)
Mass distribution targeted to specific population groups with other health interventions	Targeted population (e.g. children under five, pregnant women) in targeted geographical area	Total population x % target group + contingency stock aligned with planning for other interventions (10% planned, but likely to be more)
Continuous distribution targeted to specific populations through routine service or other channels	Targeted (e.g. pregnant women during antenatal care and/or at birth of child) population	Depends on channel <sup>25</sup>

24. See: [www.k4health.org/sites/default/files/5-school-based\\_distribution\\_of\\_long-lasting\\_insecticidal\\_nets\\_eng\\_0.pdf](http://www.k4health.org/sites/default/files/5-school-based_distribution_of_long-lasting_insecticidal_nets_eng_0.pdf).

25. See: [www.continuousdistribution.org/background/introduction-to-continuous-lin-distribution/](http://www.continuousdistribution.org/background/introduction-to-continuous-lin-distribution/).



## 5.2 Quantification of personnel for household registration and door-to-door ITN distribution

The initial quantification of the number of people needed for reaching all households during household registration and door-to-door ITN distribution is done during the macroplanning phase based on general hypotheses so as to develop a macro budget. As population estimates are typically inaccurate, in an effort to avoid prolonged registration or extensive mop-up, it is advised to add 10 per cent to the number of households in order to calculate the number of registration personnel/teams required. These extra personnel will account for both poor population estimates, as well as low capacity with data collection and slower implementation than planned (due to access issues, suspended activities for security reasons, etc.).

For household registration or door-to-door distribution, campaign personnel should work in pairs or groups for security purposes. The number of households to be reached per day should not exceed 20 per team in rural contexts and 30 per team in urban contexts (densely populated areas) during the macro quantification. These numbers are based on six to eight working hours per day and may be high depending on the situation – for example, security considerations may reduce the number of working hours per day, which would in turn reduce the number of households that can be reached. These factors should be accounted for at time of planning and budgeting to avoid delays and shortfalls during implementation. Limiting the number of households per day to a lower number during the macroplanning will ensure that there is flexibility during the microplanning to calculate the number of people needed to actually reach all targeted areas. It will also ensure that during the household visits, campaign personnel will have time to clearly communicate about the campaign and how ITNs are being allocated/distributed and can answer questions and dispel rumours or misinformation at the same time.

The actual number of people required for the household registration/door-to-door phase(s) of activities will be determined during the microplanning, ensuring that all hard-to-reach areas are accounted for with sufficient personnel and budget to reach all households. The number of people needed for the household registration following the microplanning may be significantly higher than in the macroplan, since during the macroplanning, the number of people needed for the household registration is based, for example, on a team of two persons reaching a fixed number of households over a fixed number of days of activity. During the microplanning, due to security and access issues, the household registration may need to be done by teams residing in each separate community, which will require more teams. However, depending on the size of each village or community, it is possible that the teams will be needed for fewer days.

## 5.3 Quantification of supervisors at all levels

The number of supervisors required at each level must be carefully considered based on the context in the implementation areas. In a typical campaign, a supervisor may be responsible for registration and distribution personnel working in different communities, but this approach must be considered in terms of security of personnel and access. Where levels of illiteracy are relatively high, supervisors may need to work intensively with the registration or distribution teams under their responsibility to ensure that the data collection is done well and communication messages are clear and consistent. This is also true of the higher-level supervisors (such as district, regional or central) who may need to provide intensive support to weak capacity community supervisors. In each of these cases, the ratio of teams to supervisors must be considered so as not to overburden supervisors and/or have a situation where not all teams receive supervision visits. A community supervisor may supervise three to four household registration teams and one to two distribution points for supervision to be effective

and security risks mitigated; however, this may still be too much, so should be adjusted to the context during microplanning.

The number of levels of supervision required above the community supervisors should be determined based on roles and responsibilities, particularly those related to ensuring quality of data collection and recuperation of paper-based data collection tools where they are being used. In some countries, between the district and community supervisors there may be another level of supervision (such as sub-district, department or locality), with this level largely focused on supporting the district supervisors in their tasks, including retrieval of data collection forms. Increasing the number of supervisors in the district by adding a level or by increasing the number of supervisors from the district or sub-district level will help to minimize the distances that supervisors need to travel and reduce risks related to travel outside approved hours or missed actors during supervision. In addition, where the number of training cascades will be minimized, the number of central, regional and district/sub-district supervisors may be increased to allow for training of community supervisors, registration and distribution teams in a timely manner.

#### **5.4 Fixed site ITN distribution: number of distribution points required**

For macro quantification, the number of fixed sites required is typically based on the number of people to be served per day or the number of ITNs to be distributed per day.

If the number of sites is based on the number of people to be served per day, the quantification will vary based on the campaign strategy:

- For a targeted campaign where each beneficiary is receiving a net (as, for example, during integration with vaccination campaigns targeting children under five), the number of nets per day will be equal to the number of people in the target population expected to attend the site each day. Where a campaign is integrated, the number of people to be targeted per day should be equal across the different interventions.
- For a universal coverage campaign, nets are allocated to households rather than individuals; however, it is typically an individual representing a household that will attend the distribution point. The number of people that can be served with nets in a day while maintaining accountability and minimizing problems related to crowd control should be discussed and decided during the macroplanning phase to establish parameters for budgeting and then refined during microplanning.

For a universal coverage campaign, if the number of sites is based on the number of people to be served, a site should not plan on receiving more than 150 people per day (urban or rural) for the purposes of crowd control and accountability (while knowing that a lot of people will arrive on days one and two). Therefore, the quantification for the number of distribution points (DP) is number of households targeted (there should be one beneficiary per household) divided by 150 (or whatever number agreed) multiplied by number of days of distribution<sup>26</sup>.

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26. Note that to estimate the number of DP by nets, the maximum number of ITNs to be distributed per day should be calculated and then multiplied by the number of days of distribution. The number of nets per day corresponds to the number of people to serve. If the plan is 500 nets per day and the ITN strategy has a maximum of three nets per household, then, in principle, a distribution point would be serving a minimum of 167 people per day.

Mitigation of problems during distribution includes planning for a smaller number of people per day. However, the low number of people per DP needs to be balanced against storage of nets at a higher number of DPs or use of pre-positioning sites to store nets in a single location for multiple DPs.

Using a low number of people per DP will generate a high number of DPs with a corresponding effect on the budget. The actual number of DPs will only be known during microplanning but quantifying for more DPs at the macro stage will provide the flexibility within the budget for context-specific changes to be made in each implementation area. Regardless of the number of people to be served per day planned, mitigation of risks related to crowd control on the initial days of the distribution should be detailed in both the training, the communication and the planning for supervision.

### 5.5 Quantification for pre-positioning sites for door-to-door distribution

For the purposes of macro quantification of pre-positioning sites for door-to-door distribution, this should be done by estimating the number of households to be reached from a particular site. This number will vary in each targeted area depending on how dense or disperse the population is. For example, in an area with 20,000 people, with villages averaging 1,000 people and with five villages being served from one pre-positioning site, then the estimate is population divided by 5,000, making four pre-positioning sites. The average village size and the security situation and access to villages should be considered when setting the macro planning parameters. As with fixed site distribution planning, the number of pre-positioning sites will be modified during microplanning based on the actual context and is likely to increase or decrease based on movement and access issues.

## 6. Procurement

Procurement decisions must be taken with the inputs of the programme and logistics teams. There are a number of important decisions that must be taken at the time of procurement, including net specifications and packaging, as well as ITN delivery modalities.

### 6.1 Net specifications and net preferences<sup>27</sup>

In COE, and particularly to meet urgent humanitarian needs, the specifications already available in stock are preferable to facilitate rapid deployment. Thought should be given, when planning for the stock that will be procured and used as needed to respond to humanitarian crises, to different circumstances in COE that could affect acceptance and use. Colour and shape may be important considerations, but recent evidence has demonstrated that while people in sub-Saharan Africa may have strong preferences for certain shapes and colours, these preferences do not typically affect use of a non-preferred product. However, some colours may be refused or misused by beneficiaries because of their cultural significance (e.g. a connection might exist between white colour and death). Living conditions in areas where net distribution is targeted may need to be taken into consideration when nets are being procured. White ITNs show dirt and may get washed more often than coloured nets, which will decrease insecticide and increase net wear and tear. When procuring nets, colour should be considered to limit the frequency of washing. Where nets in stock are being distributed and they are white, behaviour change communication should focus on how too much washing can weaken their effectiveness. For outside sleepers, impregnated hammock nets might be more appropriate (e.g. Cambodia). Treated opaque cotton sheeting (e.g. Dumuria) is preferred in some settings, such as South Sudan

and northern Kenya, because it provides more privacy, but it does not retain insecticides for as long as other net fibres.

### 6.2 ITN packaging

In general, it is recommended that ITNs for distribution in COE settings should be procured with individual packages rather than bulk packaging to protect the nets should there be delays in distribution. Where countries have experience with ITN distribution in COE and are certain of limited delays, procurement of bulk-packaged nets can be considered. Suppliers should be consulted about advantages and potential risks for procurement of biodegradable or oxo-biodegradable packaging options, particularly if it is estimated that nets will have a prolonged storage period.

For ITNs procured with individual packaging, the waste management plan should focus heavily on messages to families during the ITN distribution on how to dispose of packaging, rather than on any type of collective waste management at distribution points or pre-positioning sites. In most places, trying to retrieve the individual bags will not be feasible and the costs may be high if access is difficult and transport companies are charging high rates for moving goods.

In cases where there are long-standing refugee camps that are targeted for ITNs, it is possible to procure nets without individual plastic bags as the situation is more stable, the number of families is known, and the distribution timeline should not experience significant delays.

### 6.3 Delivery levels

See AMP toolkit, Chapter 5 and Brief 4: *Net delivery systems*<sup>28</sup>.

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27. Koenker H, Yukich JO. Effect of user preferences on ITN use: a review of literature and data. *Malaria Journal*. 2017;16:233. Doi:10.1186/s12936-017-1870-8.

28. [allianceformalariaprevention.com/amp-tools/amp-toolkit/](http://allianceformalariaprevention.com/amp-tools/amp-toolkit/).



In COE, the delivery location for the ITNs on arrival in the country should be carefully thought through. There are advantages and disadvantages to centralized and decentralized delivery, as well as to mixed model delivery (part decentralized and part held back at a higher level in the supply chain) and these should be considered in the risk assessment and mitigation framework to determine what is most feasible, assumes least risk and provides greatest flexibility in case of planning changes. While decentralized delivery to regional or district level may be an option, it must be considered in the context of the confidence in population data used and projected need being close to real need, as well as the security and volatility of the target area in terms of ITN storage. Population estimates at decentralized levels are likely to be flawed due to population movement, which may create the difficult situation of having to move nets laterally from one decentralized location to another. Gathering district and regional population data should be a priority where decentralized delivery is planned.

Regardless of whether a centralized, decentralized or mixed model delivery system is selected, it is important to continually monitor the security situation in the identified storage location(s) and to have pre-determined contingency plans in the case that a delivery location needs to be changed or a delivery delayed in order to avoid excessive risk to the safety of the logistics personnel and the ITNs.

Security is an important consideration at whichever levels are selected for ITN delivery and storage (see Section 9).

#### 6.4 Purchase of containers

Where there is limited secure storage availability nationally or sub-nationally, the country could consider purchasing the shipping containers used to transport the nets to store them on delivery. The price for containers varies depending on

condition. An “end of life” container may not be in sufficiently good condition for storage over a long period of time, so the container condition should be specified and budgeted for during the procurement phase.

Where decentralized delivery is planned, it is critical to assess the capacity of transporters to move containers and offload them at lower levels of the supply chain. Where there is no capacity for offloading containers at lower levels, containerized delivery should not be considered.

See also Section 14.11 *Containerized delivery*, for further information on using containers for delivery and storage.

#### 6.5 Supplementary supports

When procurement is taking place, it is possible to include additional materials with the nets: strings or hooks for hanging; visual materials showing how to hang the nets correctly and care for and repair them; visual materials showing how to change a rectangular net to a conical net, etc. Given often limited printing and production capacity at country level, as well as the high costs related to these activities, having materials produced/packaged at the supplier level should be considered to ensure that they arrive on time and are of sufficiently high quality.

Decisions about inclusion of additional materials or supports for the nets need to be taken early in the planning process given the procurement timeline.

#### 6.6 Insurance

It is important that insurance covers the ITNs at all points in the supply chain – during transport and storage – to avoid financial repercussions for lost, stolen or damaged nets. The call for tenders for transport of ITNs should include insurance as a key factor in selection of vendors. This should also be done for warehousing if

warehouses are rented from private individuals or companies. Insurance is likely to be difficult, if not impossible, to obtain and making insurance a core part of a tendering process may limit the number of providers that submit bids. Where available, insurance coverage is likely to be expensive. It is, however, a critical aspect to be planned for and costed at the outset of the planning process.

In countries where it is not possible to have insurance for all transport and storage throughout the supply chain, it is important for the donor(s), country and partners to agree on what is the most rational approach to the question of insurance and responsibility for risk.

## 6.7 Pipeline monitoring

Pipeline monitoring and regular communication of ITN arrival dates to all involved partners is critical. The context may change at any time, so it is necessary to be able to communicate to suppliers and in-country transport agents to stop shipment, delay delivery, change delivery locations, etc. if the risks in terms of the planned deliveries become too great or if areas become inaccessible. It is important to monitor the situation at each delivery point in terms of security and access, as well as the timed net arrival, to make informed decisions on any changes necessary if the situation alters on the ground. These flexibilities must be built into the contractual arrangements with donors and suppliers and should be discussed with different authorities and partners to mitigate any misunderstandings if planning and implementation are required to be modified.



## 7. Coordination

### 7.1 Health activity coordination

In some contexts, government structures may not be able to ensure good coordination of partners in periods of emergency or protracted crisis. In these situations, much of the coordination of actors may be done through the cluster system or specific task forces that have been established as a crisis or emergency has occurred and continued, often led by the Ministry of Health. The health, shelter and logistics clusters or crisis-specific task force(s), such as Ebola task forces in Guinea, Liberia and Sierra Leone, provide an opportunity to ensure linkages with the work of humanitarian actors and other organizations supporting displaced populations, emergency situations and humanitarian needs. There are often “sub-clusters” in strategic locations outside the capital to coordinate activities of partners and these should be informed of any activities planned for their sectors and partners engaged to provide ITNs through their ongoing activities.

### 7.2 Partner mapping and coordination of resources

Specific to ITNs, there may be a problem of coordinating partner contributions, particularly when some ITNs are provided together with NFIs while other partners are providing them as a stand-alone commodity. In addition, in some countries, there is an oversupply to beneficiaries in more accessible areas while less accessible areas, where vulnerabilities are higher and needs are greater, are underserved. Strengthening coordination among actors will assist with ensuring a more rational distribution of available commodities and help with reaching the populations that are most marginalized.

Once the area targeted for the ITN distribution is agreed, it is critical to undertake a mapping of partners and the geographic areas and activities that they are supporting. This mapping should

include Ministry of Health structures, UN organizations, international and national non-governmental organizations, civil society organizations and faith-based organizations, private sector, as well as any others that are operational in the areas targeted. Often, smaller, local organizations, which are present perennially and regardless of the context, will have better access through established, community-level networks of influencers and actors. This mapping allows identification of partners that are already present and could potentially add ITNs to the interventions that they are already providing.

### 7.3 National coordination for mass campaign distribution

For ITN distribution campaigns, whether universal coverage or targeted to specific populations, it is important to establish a coordination structure at the central level that partners are invited to attend to ensure that they are informed of the timelines for planning and implementation. Where there are separate timelines for distribution to the general population and to IDP and refugee populations, this should be known to all partners to ensure clear communication and consistent messaging in an effort to avoid rumours about differential treatment. Updates from the meetings organized to discuss the campaign should be provided in the various cluster meetings to ensure that all partners are aware of when and where the distribution will take place. Updates can also be provided via email or text messages to those people unable to attend a meeting.

Given multiple demands on the Ministry of Health and partners, a streamlined structure is often adopted to reduce the burden of too many meetings in the face of competing priorities. A coordination group can be established with experts in strategy, logistics, communication, security, funding and monitoring and evaluation to allow decisions to be taken on key issues in a single meeting. During the macroplanning



phase, the coordination group can be broken out into smaller working groups to focus on specific technical areas. This strategy should ensure that all documents, tools and supports for the campaign are prepared in a timely manner, validated and sent for reproduction.

#### 7.4 Coordination at the implementation level

Coordination will be important with government and humanitarian actors at the central level but is even more critical at the implementation level. Strong and effective coordination must be ensured with gatekeepers and influencers controlling access to specific geographic areas (see Section 12: *Advocacy, communication and social mobilization*). Local coordination is critical to bring together actors, engage existing MOH and other government and non-government (e.g. faith-based) structures, negotiate access, exert leverage on current resources and plans, inform security forces of activities, etc.

Within the targeted area for the ITN distribution, there may be different contexts to manage – areas with greater or lesser stability, areas with IDP and/or refugee camps. In these situations, coordination is extremely important to ensure that all humanitarian and security actors in the area are aware of the ITN distribution and

its modalities (i.e. who will receive what) to harmonize communication and responses to questions from members of the community or other stakeholders. This is also important for when there are separate timelines established for serving the general population and the IDP and refugee populations. Depending on the nature of the crisis or emergency and how it is managed, it will be necessary to coordinate with the lead actor(s) in areas, such as in IDP or refugee camps, to ensure that previously established systems are not disrupted during the ITN distribution and that equity and stability are maintained during the distribution.

#### 7.5 Resolving serious incidents

At each level of implementation, it is important that a “high-level” committee is established (consisting of influential government and non-government leaders) that can be called upon to assist in the case of major problems and that can support decision-making on critical points such as suspending a campaign until a more secure environment is established. This committee, often led by the Minister of Health or a representative at the decentralized level, should meet daily during the campaign itself in order to take real-time decisions and then ensure that these decisions are communicated to the implementation level.





## 8. Implementation arrangements for mass ITN distribution

Ensuring high geographical and household coverage during ITN distribution activities is the objective to be considered when planning the implementation arrangements. In COE, no single partner is likely to have access to all targeted areas, with partners having operational presence in certain areas and focused activities targeting specific populations depending on the type of crisis (e.g. natural disaster, conflict, etc.).

### 8.1 Requirement for flexibility

Based on the mapping described in the previous section (7.2), initial discussions should take place with partners to determine their ability and interest in adding ITN distribution to their ongoing activities. In some cases, partners will be able to easily include nets and in others, it may be impossible for a partner to take on another activity as their teams are already working at maximum capacity. They may still, however, be able to offer some support to the implementing partner selected.

The implementation arrangements must be simple and flexible. They must be simple in the sense of defining the type of ITN distribution (campaign, continuous distribution), what can be provided (nets, campaign materials, funding, etc.) and how it will take place (whether ITN distribution will be integrated with ongoing routine or outreach activities, or as a stand-alone mass distribution). The most important consideration is to reach the maximum population among groups targeted for the ITNs, and partners who have an operational presence in the geographical areas targeted will have the best sense of how this can be done.

Implementation arrangements need to be flexible in a number of ways:

1. Partners initially identified for distribution may find they are unable to distribute due to changes in the context. For this reason, during the initial mapping, it is important to list primary and alternative partners that can be engaged.
2. Flexibility will be needed in evaluating partner capacities, for example by reducing rigidity of selection criteria to allow smaller organizations to participate and extend the reach of the distribution to less accessible areas. Mitigation measures for working with these partners can be identified during the risk assessment exercise (see 8.5 *Mitigation strategies* below). Mitigation may include providing funding for finance and administration staff, outsourcing payments to third parties, providing supplementary human resources and technical support, etc.
3. In discussion with potential implementing partners, it is critical to understand their existing reporting for their current activities and how reporting on the ITNs can be incorporated into their system. Rather than creating a parallel system to respond to donor requirements, flexibilities in reporting should be discussed with donors to ensure streamlined reporting. When additional reporting requirements are added, these may constitute a barrier to a partner accepting the ITNs, which may create an additional challenge for reaching the targeted populations.
4. Between the time of defining a distribution strategy and implementation and/or during implementation, the context in targeted areas may change, forcing a partner to modify the initial distribution strategy. While these changes should be communicated to the managing partner and/or coordination structure, planning and/or distribution should not stop to renegotiate agreements or modify the

arrangements. The agreements should be flexible enough to allow for on-the-ground changes to realign the strategy to the context without interrupting the delivery of the ITNs to beneficiaries, which will create additional challenges. The experience of the partner in their area of work should be the basis upon which changes are made, rather than waiting for a top-down decision from a more centralized and non-operational level. It is helpful to discuss the potential need for these flexibilities up front during the risk assessment and mitigation planning.

Contracts and/or project agreements will likely be required depending on an organization's or funder's exigencies and procedures. These agreements should be flexible, allow for changes to be made easily based on changing context and should leave sufficient time in the period of the agreement to account for potential delays in implementation of and reporting on activities. Agreements and contracts can include clear clauses related to changes in strategy.

Implementation arrangements may vary by partner. For example:

- A partner may only want ITNs but not require any additional support (funding, human resources) for distribution
- A partner may have transport capacity and collect ITNs as trucks move with other goods, which may or may not require additional funding for the ITN distribution
- A partner may require ITNs, full funding, materials and operational costs for distribution

Each of these types of arrangements will require a different type of reporting (e.g. on commodity alone rather than commodity plus funds), but where possible, the reporting should be aligned with existing partner systems, such as the combined donor reporting. Where an implementing partner is not using combined donor reporting, reporting should meet the

minimum requirements for the managing partner to respond to donor concerns.

## 8.2 Human resources requirements

To ensure success for both the implementing partner and the Ministry of Health or managing partner, it is important not to underestimate the overall personnel needs. Sufficient personnel are required for coordinating, planning, negotiating and contracting partners, implementation, supervision and monitoring and reporting for ITN distribution through multiple channels and partners.

In many cases, it will be important and necessary to work with smaller, national organizations that have a permanent presence in their areas of work. These organizations often have the willingness to participate and the access to the population that is needed, but they rarely have the financial and logistics systems in place to meet the requirements of large donors. Where agreements will be signed with smaller partners to implement activities, the Ministry of Health or managing partner will need to determine how they will reinforce the partners' capacities to ensure success with the distribution of the ITNs and the management of resources (financial and material). This may include increasing the number of staff in the partner organization for specific functions (such as finance or project management) but will also necessitate sufficient staff for oversight and support from the Ministry of Health or managing partner.

Where direct support will be provided to the implementing partner from the Ministry of Health or managing partner for extended periods of time in the field, the needs at the central level to ensure continuity of activities should not be forgotten. Human resources should be sufficient to allow for multi-disciplinary teams (e.g. M&E, logistics) in the field and for work to continue with new partners to continue moving forward with ITN distribution in other targeted areas of the

country. With unforeseen delays and suspension of activities possible in these contexts, time for field teams may be extended, leaving longer gap periods at the central level unless human resources have been appropriately planned.

### 8.3 Management of funds

In all cases, due diligence is required to ensure the partner has the appropriate capacity to perform the activities and manage the administrative and reporting requirements agreed. Standard budgeting, payment and reporting schedules may be appropriate, but flexibilities in all three areas may need to be considered. Partner organizations will be evaluated as to programmatic, logistics and financial management capacity and potential risks prior to signing a contract.

Many organizations will have had previous evaluations for work that they have done with UN, NGO or other partners, and these can be used as a basis for inquiry as to performance and capacity. However, there are many organizations (often smaller, local NGOs) that will not have capacity to manage the logistics and funding reporting requirements for the distribution, particularly in the case of mass ITN distribution, given the scale of the activities and number of personnel required.

Decisions will need to be taken as to whether a partner is capable of managing funds or not. In the case where a partner is capable, negotiations will need to take place regarding funding transfers and justifications required prior to additional funds being released. Where funding will flow by activities, it is important to build pauses in the campaign timeline to allow for justification of funds received and reception of additional funds to continue activities.

In some cases, a partner may be able to manage funds for certain activities, while larger payments (transport, training, implementation personnel) are contracted out to a payment agent or an

organization that has expertise in the transport of cash and making payments.

### 8.4 Management and accountability for commodities

Where possible and feasible, the logistics operation can be contracted out to third party logistics operators or to UN organizations such as the World Food Programme (WFP) to manage. Where a restricted tender is preferable to move quickly on the procurement process, the logistics cluster and humanitarian organizations can be good sources of information regarding reliable transporters able to access the geographical areas being targeted. The call for tenders for transporters should include insurance as a requirement unless this will prevent all possible options in a country or targeted area from bidding. The cost for the transport contracts will go up with the inclusion of the insurance, but as the risk of loss and damage during transport is high, insurance must be considered when making decisions on contracting for ITN movement.

Where the logistics operation is contracted out to third party logistics operators or UN organizations to manage, the managing partner can contract the logistics operator(s) directly and ensure timely payment. While there are risks with this strategy if the managing partner delays making payments, these risks are lower than transferring funds to the implementing partner and having payments that are deemed ineligible (by a donor, for example) at the end of the distribution because procedures were not followed in terms of tendering, contracting and payment.

### 8.5 Mitigation strategies

Where partners have weaknesses in financial and logistics management that may affect the distribution, the ITN accountability and the justification for funds received, alternatives should be sought including:

- Looking for organizations that can support on payments (e.g. businesses and religious organizations are sometimes able to move funds and make payments where banks and payment agents are limited)
- Contracting out logistics to a different partner (e.g. there may be private sector operators or UN organizations that have the capacity to manage the entire transport operation, thus leaving the responsibility for the contracting and payment with the managing partner versus the implementing organization)
- Reducing the funding that the implementing partner needs to manage by retaining responsibility for certain activities with the managing partner (purchase of materials, training, insurance)
- Establishing teams from the managing partner and NMCP that can serve as a reinforcement for the implementing organization and ensure that procedures are followed in terms of contracts and payments

See also Section 10: *Management of payments*.

## 8.6 Reporting requirements

Given the complexities of organizing the distribution of ITNs in COE, as well as the likely need to work through a variety of partners, it is important to establish the reporting requirements early in discussions with funders and partners. The most important focus should be on ensuring that ITNs reach beneficiaries in the most efficient way possible and that acceptable documentation is returned to justify the nets received for distribution.

The minimum standards for ITN distribution in terms of accountability may vary depending on the type of distribution. For example, where ITNs are targeted to IDPs, the number of households or families reached may be included, or where ITNs are targeted to children and pregnant women, the number of each reached may be included. There is no circumstance in COE where the minimum standard includes having beneficiaries listed by name. In some countries, beneficiaries are asked to sign or fingerprint when they receive a net, but where there may be sensitivities to data collection, frustrations with lengthy procedures or high illiteracy, this may create a barrier to distributing the nets in the first place. In addition, with an inability to track people by names or fingerprints because of population movement (among other reasons), the record of signature of the beneficiary does not have added value.

In order to facilitate the identification and contracting of partners for short-term ITN distribution activities, minimum data requirements for reporting should be established. The minimum standards to be met must be simple, to facilitate involvement of partners including the ITNs as part of their regular activities, yet robust enough to allow donors to have sufficient accountability in terms of the commodity provided. They should not create an additional burden on the partner and, where possible, combined donor reporting should be accepted for the ITNs received.

See Section 15 for more on minimum data requirements.



## 9. Security

Security is paramount in ITN distribution in all contexts. Protection of the targeted population, ITN distribution personnel and commodities is necessary and must be planned for early. Where possible, insurance should be considered for ITN distribution personnel to ensure that there is some level of coverage in case of accident, injury or death. If insurance is not possible, negotiations should take place with the donor for a “contingency” line in the budget to allow the managing partner to effectively manage the situations that may arise during the implementation of activities.

### 9.1 Partner selection

Local level partners and organizations, as well as security organizations working in the targeted area are likely to have the best information about the security situation and what is and is not possible in terms of the ITN distribution. They are most likely to be trusted by the communities where they work and will have access to insecure areas through various means. These partners and organizations should form part of the initial strategy development group and the information sources that dictate when and how ITNs can be moved or, alternatively, when they cannot.

Selection of partners should follow procurement procedures but should emphasize the access and operational factors above other factors. The procurement should be restricted to partners identified as operational in the area based on OCHA, health/logistics/cluster or UNHCR mapping of operational presence.

One of the best mitigation methods for managing risks related to insecurity is working through local partners with an established and trusted presence in the implementation areas.

### 9.2 Advocacy and social mobilization

Advocacy meetings should focus on how key influencers can provide support towards ensuring that security is established and maintained throughout the period of the ITN distribution. It may be necessary to organize more than one advocacy meeting. In areas with IDP or refugee camps, particularly informal camps, separate advocacy sessions should be organized with the camp spokespersons or representatives, as often they will not participate in the broader advocacy meetings that may include representatives of factions from whom they have fled during instability and conflict. The organization of separate meetings may also be needed where multiple political or leading parties, who will not participate in an advocacy session together,



are involved in the management of a single area. Negotiations with factions with control or management of areas targeted for the campaign should take place early and then again closer to the time of implementation to ensure that information on when activities will start is clearly communicated. All “special populations”, such as national forces, military factions, armed groups, etc., particularly those that may create insecurity during the distribution, should receive their ITNs in advance of the distribution to the broader population and should be encouraged to support the activity.

Social mobilization and behaviour change communication are extremely important in the case of distributions in COE, particularly where activities have to be modified or suspended after starting implementation. In these cases, it is important that correct information is communicated as quickly as possible regarding the reasons for the change or stoppage, what is being done and how people will be told what is going to happen next (e.g. when activities will resume). A void of information may lead to rumours or stories about the situation, which may lead to insecurity. See also Section 12.2: *Crisis communication*. All channels should be used to ensure timely, accurate information before and during the ITN distribution. Post-distribution communication should be planned for, particularly for management of people that did not receive nets.

### 9.3 Visibility of the ITN distribution

All people involved in the campaign at the implementation level – household registration and ITN distribution personnel, supervisors and monitors, local logistics actors – must be identified as part of the ITN distribution. This may be done through aprons, t-shirts, caps or badges that verify that the person is part of a health activity. When requesting access to households for registration or door-to-door distribution, the visibility of the teams should reassure the household members

that the visit is for the ITN distribution.

Visibility of the campaign is important. During advocacy meetings, influencers and leaders should be provided with advocacy kits that include similar identification materials (t-shirts and caps) and should be encouraged to wear these in advance of the activities, so beginning to familiarize the population with the campaign branding. They should also be provided with posters to be hung in public locations, as well as at their home and workplace.

When planning for visibility materials, consideration must be given to ensuring that the colours and images are neutral and not aligned with political parties or other factions.

A decision should be taken at the outset of the campaign as to what will happen to the various materials – such as visibility items and megaphones – that have been purchased for the campaign. In some cases, these materials are collected in order to be used for other activities, as well as to avoid their misuse. Where materials will be collected, a plan should be put in place to define who collects the materials and to what level they are transported, inventoried and stored. A report on materials available at the end of the campaign should be prepared for proper tracking.

### 9.4 Logistics

ITNs are a desirable commodity with a significant resale value. Selecting appropriate storage sites in areas with the least insecurity is a first mitigation measure for risk related to loss, leakage and theft during storage. In addition, reinforcing the storage structures selected (bars, lights, locks), increasing the security (number of guards) around storage sites, and increasing the frequency of physical inventories (to verify count of stock) and spot checks (to ensure that tracking tools are being correctly and consistently filled out) are important. Where storage sites are located in more insecure areas due to programmatic or access reasons, extra security should be planned

and budgeted for the storage location for the days of the physical inventory to minimize the possibility of theft.

Transport is equally high risk in terms of loss and theft, particularly where road blocks have been set up by various groups and trucks are searched or pillaged for supplies on their way to further destinations or where informal tolls have been set up where payment (in cash or goods) is required. Regular communication between the transporter and the managing and implementation partners is important for timely information about security context changes, truck movement, net loss and potential delays in arrival timelines. See Section 14.8 *Use of military convoy* for information on the potential use of military or other convoys.

### 9.5 Selection of personnel

The selection of personnel, across all areas of the campaign, is important in terms of security of campaign actors, and campaign organizers should take early decisions based on an open and transparent discussion. They should consider whether, for example, to identify guards for ITN storage sites locally, i.e. from the communities that are being targeted for the distribution, or whether it would be better to hire a specialist company or organization that provides security services. The criteria for selection for campaign actors – such as logisticians, warehouse managers and assistants, security guards, household registration personnel, ITN distribution team members, supervisors, drivers, etc. – should be clearly defined and agreed upon by all partners, with the most important aspect being that they are recruited locally so that the population will have confidence in them to do the task.

The selection of the distribution point crowd control personnel will vary by country but is an important consideration. Points to consider are to ensure that uptake of nets is not diminished (e.g. the context in the area is such that people will not attend where government security has

been mobilized), that the crowd controllers themselves are not at risk (e.g. while having community members fill this function promotes more engagement, in areas where more problems are expected, a more experienced organization may be needed), etc. Whether there should be armed security is another consideration and decisions should be based on context.

### 9.6 Involvement of national and international security forces

Prior to beginning any implementation of activities related to the ITN distribution, campaign organizers should communicate to local and international security forces in the area and brief them on the activities and what to expect, even if they are not being asked to provide direct support for the distribution of the ITNs. For example, where fixed site distribution is the chosen strategy, it is important that the local and international forces are aware that there will be large groups of people, at times loud and potentially agitated if there are delays or problems with the distribution of the ITNs for which they are waiting. A map with the distribution points located on it should be provided. Where local and international forces are not directly involved in the ITN distribution, the implementing partner(s) and the representatives of the forces should determine how forces would be contacted and by whom if their support were to be required.

### 9.7 Risk assessment and mitigation

Risk is the likelihood and impact of an unexpected or extreme event that may affect positively or negatively the achievement of an objective. Risk mitigation is the process of planning steps to reduce any adverse effects. In COE, because of the potential for rapid change in the situation, risk assessment and mitigation planning should be carried out early, during the macroplanning phase, but then updated regularly: when any significant changes in the context occur, during microplanning, prior to

beginning implementation of activities, prior to transporting nets to lower levels in the supply chain, etc. In situations where population movement is possible during the planning and implementation of the campaign, continuous risk assessment is vital to ensure contingency plans are prepared. Often risk assessment and mitigation planning focus on logistics and the overall supply chain but planning for mitigation of risks should cover more than just logistics. It is a critical aspect for all campaign areas, and calculation of potential risks and plans for how to take steps to reduce adverse effects should be a priority task for the coordination committees established at the central and implementation levels. Special attention should be paid, and planning must be done, to mitigate risks related to fraud and corruption, particularly where central oversight during activity implementation is limited. Mitigation planning may have financial implications, so it is important that these elements are identified early, during the macroplanning phase.

Risk assessment and mitigation planning should take place during the microplanning workshops to ensure that the implementation level risks are taken into account, planned and budgeted for. These may include, for example, lack of or higher costs for fuel in the areas of operation, higher rental costs for vehicles due to lower vehicle availability, higher costs and limited storage options. All stakeholders need to contribute to the identification of the potential risks and their mitigation measures, so that the potential challenges have been collectively identified and implementers have plans and budgets to deal with them. Stakeholders should be directly involved in the development of the risk assessment and mitigation planning for their area of operation and should be responsible for continuing to ensure that it is relevant and up-to-date during the planning and implementation phases of the distribution.

In the week prior to the campaign implementation and in an effort to ensure clear and effective communication, the logistics and programme/M&E teams should sit together to update the list of potential risks and reinforce the communication channels for “normal” and “extraordinary” events affecting the campaign implementation.

During implementation of activities, risk assessment and mitigation planning becomes “real time”, where the campaign managers need to be able to use information available to take immediate decisions and respond to situations arising in the field each day.

See also AMP Toolkit Chapter 5, Brief 3: *Risk mitigation planning*.

## **9.8 Suspending activities and incident reporting**

Once activities begin, most of the updating on security may be done by phone (regular or satellite), radio or other means between people who are in the implementation areas. Any security incidents (cases of aggression against campaign personnel, lost or stolen nets, damage to campaign vehicles, accidents, etc.) must be reported as quickly as possible (verbally) to the managers, with official reporting (documentation and written reports and statements) to follow. It is important to note the specifics of the insurance policy acquired (if any) to understand the reporting delays in case of loss or theft and avoid non-reimbursement.

The situation in the targeted area needs to be assessed on a continuous basis in terms of access and security to ensure safe passage for campaign personnel. Where this cannot be assured, the activities should be suspended until it is possible to proceed without risk to personnel and commodities. Where there is a strong possibility (via reliable information) of increased insecurity, work of the teams should be discontinued.



Where activities must be suspended, it is important to clearly communicate to the population the reasons that the distribution has been suspended (e.g. it is not related to insufficient nets but rather to insecurity) and to reassure people that the distribution will continue when the situation is more stable. It is important to reassess the situation before providing a restart date to avoid any misunderstandings about when nets will be distributed.

Telecommunication is often difficult, with poor phone network for standard mobile phone calls and limited internet connectivity outside central cities and larger towns. In these situations, it will be necessary to purchase additional radio equipment or satellite phones to ensure contact can be maintained with field teams for regular updates and in case of emergency. Decisions about security equipment should be aligned with country context and organizational policies and procedures and should be taken early to ensure that everything is in place prior to teams moving to the field. Personnel should be trained in the use of this equipment, as well as what to do and whom to contact in circumstances where they feel threatened or see/experience a potentially dangerous or insecure situation. Where it is not possible to have sufficient equipment for all campaign personnel, supervisors should be provided with additional transport funding to be able to travel to areas with phone network or to meet other supervisors as needed.

### 9.9 Household registration

Household registration personnel or door-to-door distributors should always move in, at minimum, a pair and in some cases, a group. Campaign planners and organizers should, prior to the implementation period, update the microplanning maps and determine the movement plan for the door-to-door personnel. In areas that are particularly prone to insecurity or cases of violence and aggression, a plan should be devised for the volunteers to work in a large group,

complete the area, and then separate into smaller groups or teams in more secure areas. A “sweep” method to quickly cover and finish distribution in insecure areas should limit exposure of teams and allow for targeted supervision since all registrars or distributors are working in one place. In these situations, local police or international forces should be informed of the approach and may have heightened patrols in the area during the period the teams are present.

### 9.10 Fixed site ITN distribution

Where there are potential problems with bringing people together in groups, or where there are divisions among the population in a small geographical area, limiting the number of people to be served from each site or establishing one site in each community can help mitigate the security concerns. The number and flow of beneficiaries into the distribution points can be controlled in other ways also:

- Opening distribution points on day two of the household registration and serving only people with vouchers/coupons in hand (which can risk stock ruptures if a contingency stock is not available, as data regarding total ITN needs for the distribution point are not gathered in advance)
- Establishing a waiting area away from the distribution point through which to filter beneficiaries and avoid crowding in the site
- Moving a distribution point from community to community to limit distances between people and the nets
- Breaking single sites into multiple distribution points to serve people more efficiently and with less risk

It is important that people who have received nets and health education do not linger in the sites: exits should be clearly marked. Hours of operation for the sites should reflect the security context. Where people move early in the day rather than in the late afternoon, the hours for sites should be adjusted accordingly.

For urban and densely populated areas with fixed site distribution, the selection of appropriate distribution points is important. Distribution points that are too small, have only a single entry/exit (such as a room in a hospital or school being used as a distribution point), and that have insufficient waiting space are likely to become problematic, particularly if the distribution process itself is inefficient, leading to long waiting times. Distribution points that are larger, where multiple distribution areas can be set up in a single location and where people have space to wait, are likely to be easier to organize. Sticks/poles and rope can be used to define corridors for the people waiting so that they line up in a more organized manner. Where a distribution site is divided into separate distribution areas, beneficiaries should receive clear communication concerning the area they will be served from in order to prevent frustration due to waiting in the wrong area.

All fixed distribution points should plan for sufficient crowd control personnel. In some contexts, local leaders are important for ensuring an orderly distribution. Where this is the case, these people should be included from the outset of the planning and budgeting, including during the identification of distribution points during microplanning.

Increased waiting time in uncomfortable surroundings (lack of shade, no area to sit, no area for personal hygiene, etc.) will increase frustration, thus creating risks for the safety of the distribution team and the ITNs. When planning for the data collection tools required, an emphasis should be put on keeping things simple while also providing accountability. A long verification process for each individual voucher/coupon should be avoided, with verification only being done in the cases where a voucher/coupon appears to be falsified. Tally sheets should be used for vouchers/coupons collected and ITNs distributed, allowing triangulation of distribution data with distribution point stock at the end of each day.

In the case of security incidents at the distribution points, the distribution point supervisor will have the responsibility, in collaboration with the community supervisor, to determine whether to discontinue the distribution and to submit a formal report about the incident to the district, regional or central supervisors.

See also Section 5.4 for quantification of distribution points.



## 10. Management of payments

Increasingly, ITN distribution campaigns are experiencing problems related to payments in most countries. One of the largest challenges in COE can be determining methods for ensuring that campaign contractors (such as transporters, owners of storage locations, etc.) and actors (household registration personnel, town announcers, members of ITN distribution teams, warehouse guards, etc.) are paid on time, while minimizing risk in terms of financial exposure and security of personnel. For ITN campaigns in COE, a financial plan and microplan should be developed with an associated risk matrix that provides alternatives to facilitate decision-making.

### 10.1 Payment options

In many campaigns, the following payment options may be used:

1. Bank payments by cheque, direct transfer into account or payment in cash from branch office
2. Mobile money payments
3. Payment agent payments (cash) from their kiosks or offices
4. MOH or partner organization payments (cash) from their offices
5. Bank payments (cash) in the field
6. Payment agent payments (cash) in the field
7. MOH or partner organization payments (cash) in the field

The first three options are considered the most secure, but there may be challenges with these in COE:

Option 1: Bank payments

- Limited bank coverage and functionality outside the capital city and larger towns
- Lack of national identity card or other valid identification (photo, name and date) available among payees for cashing cheques

- Many people do not have accounts so cannot cash cheques or receive money through direct transfer, and they will need to pay their transport to the appropriate location when they are being paid at a bank branch

Option 2: Mobile money payments

- If a single provider is contracted, everyone must have a SIM card from one company or will need to sign contracts with multiple providers
- Poor mobile phone network
- Low mobile phone ownership
- Liquidity at point of exchange for cash (number of people and amounts)
- Lack of familiarity with the system

Option 3: Payment agent payments from kiosks or offices

- Liquidity at point of exchange for cash (number of people and amounts)
- Need for receivers to pay for transport to payment location
- Lack of valid identification

Detailed planning in terms of number of people and number of payment agents must be done to avoid problems related to non-payment at the end of the activities.

The fourth option is limited in terms of feasibility given numbers of people to pay and security for staff and goods in office space, as well as distance between office and payee.

All other options involve cash payment and are considered high risk, but they may still be necessary. Where it is possible, banks or payment agents can be contracted to go to the field and make payments as per the instructions provided by the campaign organizers. In sparsely populated areas with low numbers of personnel to be paid, these payments may be relatively low risk, but getting the funds to the areas may be high risk if the roads to transport funds have a number of checkpoints.

In densely populated and urban areas, the number of people to be paid requires a different arrangement, which may include rental of venues that are safe and secure in order to make payments. The number of payment locations and payment personnel (cashiers) should be determined on the basis of the number of people to be paid, keeping in mind that quicker payments will reduce frustrations. Where cash payments need to be made by the implementing partner or a third party (bank, payment agent), it will be important to ensure sufficient human resources at the decentralized levels and detailed security planning on movement and location of teams for payment and communication of response to problems arising.

In the case where a bank or payment agent is contracted for making payments to campaign actors, the risk is transferred from the organization(s) responsible for the planning and implementation of the campaign to the bank or payment agent. However, this is only the case on paper and the organizers should be aware of the risks associated with late or non-payment of campaign actors to their staff, offices and materials.

Where people will be paid more than once during the course of the activity, planners must consider whether different payment locations should be used each time given higher risks with the same venues during the second and subsequent payment rounds.

## **10.2 Payment basis and justification**

For campaign actors who are receiving per diem and transport funding for their activities, reporting requirements and justifications for payment should be established early in the process and communicated clearly during the training sessions, as well as during a finance briefing. Partners should be advised that as much as possible and other than payments for materials to implement activities (e.g. for motorcycles, fuel and communication

costs for supervisors), payments should be made on reception of the data collection sheets, tracking tools or supervision and monitoring reports since it will be difficult to go back and collect these later. All payments made must be on the basis of a signed sheet showing daily presence for the campaign work that has been validated by the supervisor from the next level up (e.g. district supervisors verify that community supervisors (who oversee household registration and ITN distribution teams) were present each day during the campaign).

## **10.3 Payment days**

Where people will be paid a few days after start-up of the activity and again at the end, it is important to consider whether a “payment day” is needed, when other activities are suspended to allow payments to take place in an organized and systematic manner. If everyone is paid on the same day and on time, it will avoid people not completing their day’s work because of leaving to be paid, or payments being made in late afternoon when security risks with cash are higher. This technique should also minimize disruption of the campaign activities. The payment day can also be used to assess progress and reset supervision and monitoring activities for the remaining days.

Where it is decided to have a payment day, planning must be very well done to avoid any delays and to ensure completion of payments on the day decided. This allows for clear communication to households targeted for registration or distribution of ITNs that activities will be suspended for one or two days but will continue following the suspension. Where payments will be made more than once during the campaign period, any challenges with the first round of payments should lead to recommendations and modifications for improvement during subsequent rounds.



### 10.4 Payment database

Each of the payment options involves the need to put together lists of all campaign personnel to form a database for payment. Sufficient time needs to be allocated to the finalization of the lists of personnel and ensuring that names are correctly spelled to avoid problems at the time of payment. Where people do not have identification cards to receive payments from a bank or payment agent, campaign planners will need to decide how payments to individuals will be validated. This may involve providing a piece of identification that can be used for the person to be verified against the participant list and receive their payment (such as a badge) or a validation from a supervisor at a higher level to vouch for the person's presence each day of activities.

### 10.5 Communication about payments

Finance management and timely payments are a worry on a number of levels. An additional level of concern comes with a lack of information about how and when campaign actors will be paid. In the case where people do not have the right information at hand, they will often create information to fill the void. Misinformation and rumours are exceptionally dangerous with regards to money and payments and should be avoided from the outset by communicating clearly to all personnel when and how they will be paid and for how many days. Each campaign actor should know the amount that they are to

receive per day, so providing the number of days for which they will receive payment is sufficient for them to calculate what they should receive during the payment process.

Payments should be coordinated between partners in a geographic area, so that in a situation with multiple partners distributing nets, payment schedules are aligned to avoid issues where one partner's personnel may feel angry that others are being paid earlier.

Where there are delays or errors during the payment process, the campaign planners need to quickly determine the source of these and communicate to the campaign personnel the measures that will be taken to rectify the situation, as well as when they should receive additional information. Where a campaign has not been suspended for payments and problems occur during the payments (non-payment, incomplete payment or incorrect payment of some or all personnel) risks on the campaign roll out may increase (e.g. higher risk of theft of nets because people are angry they have not been paid). In these cases, it is worthwhile considering a non-planned day of suspension of activities to regulate payments before continuing with the campaign itself.

Where a campaign is suspended due to insecurity, clear communication must be passed regarding payment for days worked, days the activity is suspended and days once activities restart.

## 11. Microplanning

Microplanning is described in the AMP Toolkit, Chapter 7, *Implementation* and microplanning for logistics in Chapter 5<sup>29</sup>. Greater detail can be found in the *Microplanning guidelines* (supplementary material accompanying the AMP Toolkit).

The microplans form the basis of the operational plan and budget, so ensuring that they are as correct as possible is important. There are additional considerations for microplanning in COE settings.

### 11.1 Time for collection of information at decentralized levels

As it may take more time to collect the needed information at the decentralized levels, the request for information should be sent early and followed up regularly. Insufficient time for collection of the village/community and population data will have a negative effect on the ITNs available for the distribution and may create campaign delays and bottlenecks. For example, if an entire village is forgotten and only identified during the implementation of activities, additional nets will need to be transported to the pre-positioning or distribution sites, which may not even be possible (see 11.6 and 11.7 below on adjusting population or applying a contingency stock).

### 11.2 Timing for microplanning

Early microplanning will allow for an understanding of the context of the areas that are being targeted in terms of population, infrastructure, hard-to-reach and insecure areas, “special populations”, road conditions, availability of communication channels, etc. However, prior to beginning implementation (maximum of one month before), the maps and the microplanning template should be updated

with the most recent information available as it is possible that the situation will have changed. During the microplanning update, previously identified pre-positioning or distribution sites should be confirmed. Any changes based on security and infrastructure, as well as population updates, should be made. The updating of the microplans can be done as a stand-alone activity or an additional one to two days can be added to logistics and/or implementation training.

### 11.3 Location and duration of microplanning

The level at which the microplanning workshops are organized needs to be determined based on security for travel of all participants. The logistics of getting the central and decentralized teams together in areas where movement is difficult due to insecurity or infrastructure must be taken into account. Early planning is often required, including budget modifications for participants that need to stay extra days because of travel arrangements, such as availability or frequency of UN or other internal flights. The full team must be together for the entire period of the microplanning workshops. It is essential that the personnel who work on microplans are those who have the best knowledge of the field and will be implementing the plans. With the difficult logistics of bringing central and decentralized teams together, consideration should be given to extending the number of days for the microplanning workshops to capitalize on the implementation team being together. While not ideal, workshops may be held at a regional or even national level if that is the easiest way to organize travel and ensure a conducive working environment for the period of the microplanning workshops. Where this is the case, careful identification of the participants from the implementation level is necessary.

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29. See: [allianceformalariaiprevention.com/amp-tools/amp-toolkit/](http://allianceformalariaiprevention.com/amp-tools/amp-toolkit/).

#### 11.4 Using multiple, local sources of information

Ensuring the quality of information from the lowest implementation levels to ensure that no-one has been missed is extremely important. In areas with population movement, entire villages may be displaced into remote areas and only people with local knowledge of each area will be able to provide more accurate information for the microplanning. Where health facilities are functional and where NGO and other partners are operating, information should be available for the populations they serve. It is critical to approach all organizations and partners implementing health or other activities to try to get the most accurate population data available, as well as information about infrastructure and security conditions.

#### 11.5 Questionable population figures

In spite of all the measures described above, there will be cases when it is suspected that data used for microplanning are incorrect. This could be due to inaccurate or incomplete data collected, non-functional health facilities that lead to missed information on villages in their catchment areas, inability to access all areas for data collection or villages overlooked as they have relocated due to natural disaster or insecurity. Also, if the population from the microplans is equal to the population projection from an old census, the numbers are likely to be incorrect. Large differences between projected population and population from microplanning should be expected in areas that have seen population movement, particularly if that has been occurring over a number of years and no census has recently been carried out. Where there are concerns about the population figures, all sources of population information should be used to compare with the information from the microplanning and decide upon the figures to be used for implementation.

#### 11.6 Adjusting the population

Whenever campaign planners have good reason to believe that microplanning populations are questionable and do not reflect the reality of the targeted area, they should consider whether or not to adjust the population figures. If so, they must decide where to make the adjustments (e.g. planners may know about areas people have left due to conflict or natural disaster, as well as have a good idea of where they have gone). Population adjustments will vary depending on the situation. In some cases, where a census is very old, insecurity is affecting much of the targeted area and there has been population movement over a long term, adjustments of 25 per cent or more may be justified. In other cases, movement of population from, for example, a rural area affected by natural disaster to an urban centre will have occurred, so the population should be adjusted down in the affected rural area and up in the urban area which is housing displaced families.

#### 11.7 Applying a contingency stock

Where ITNs will be transported long distances in poor security environments with high risks of loss of commodities, as well as risks to the physical well-being of drivers, it is likely that a single delivery of nets will take place. This is also the case if nets are being transported by air. Where resupply of nets will be difficult, adding a contingency stock of 10 per cent (or more, if this can be justified – for example, it could be stated that leftover nets will be used for the routine distribution system) should be considered in an attempt to avoid stock outs.

Normally, IDP and refugee populations, as well as other “special populations” (such as orphanages, religious compounds, barracks, etc.) would be included in the microplanning population when it is updated by the decentralized levels. However, in cases where there is significant movement of people into and out of camps, it may be necessary



to apply a contingency stock to the estimated number of nets for these camps to ensure that everyone can be served. Where a single transport of nets will be organized to a highly insecure area, consideration should be given to increasing the nets for IDP and refugee populations to allow for a stock to remain after the initial distribution for new arrivals or for people leaving the camp to return home or relocate elsewhere.

### 11.8 Planning for security

In many cases, the macroplanning parameters used will not align to the contextual reality of the implementation area. For example, where movement between areas is difficult, it may be necessary to have household registration teams or ITN distribution points in each village with personnel identified from those villages. In this case, the microplanning needs to account for the areas where this is required in order to ensure that the budget is sufficient



for the strategy adopted. Manual adjustment of the microplanning template will be required, perhaps extensively. Also, where such a situation occurs, the number of days required for the activities should be aligned to what is needed to reach all households: typically, this will be fewer days of activity as there are more teams. None of these types of situations are accounted for by the macroplanning parameters or the microplanning template, but security concerns will dictate the changes required for mitigating against security risks. This may increase the budget in some implementation areas.

### 11.9 Managing insufficient nets after microplanning

When identified ITN needs are greater after the microplanning exercise than the number of ITNs available, decisions will need to be taken on how the campaign should be rolled out. Given potentially difficult logistics and access aspects, it is best, if the planning is for a universal coverage campaign, to consider the advantages and disadvantages of different options such as:

- Stratifying distribution strategies (mass, continuous, targeted, universal coverage) in different areas based on criteria such as timing since last distribution, availability of routine nets, access to health facilities, etc.
- Setting or lowering the maximum number of nets per household or fixing the number of nets per household. This may involve, for example, capping the nets per household at one net to one to three people, two nets to

four to six people and three nets to households with seven or more people.

Alternatively, calculations may show that all households can be reached with two nets (or whatever number), allowing an equitable distribution of ITNs available in the targeted area, which may create fewer problems and reduce the need for full registration in advance of the distribution.

- Targeting specific age groups such as children under five. In this case, the number of nets available should be compared against the estimated population of the targeted group(s) and the ITN allocation (e.g. one or two nets per beneficiary) should be decided.

These decisions should be taken by the NMCP and partners in a coordination meeting to allow different opinions and inputs to be gathered and discussed. If, following the microplanning and the decision-making, changes are needed to the initial ITN allocation strategy, these must be detailed for the communication personnel so that they can modify messages as needed.

If the microplanning results show that there are more nets available than required based on the microplanning, the only decision required would be what to do with surplus nets if these are being or have been directly delivered to the decentralized levels. However, it is advisable to wait to take action until the distribution is complete and everyone has been reached with ITNs before taking decisions on leftover nets.







## 12. Advocacy, communication and social mobilization

Communication planning and implementation are described in the AMP Toolkit, Chapter 6<sup>30</sup>.

See also Briefs accompanying the chapter.

Brief 1: *Key communication recommendations*

Brief 2: *Planning and budgeting communication activities*

Brief 3: *Using research and data to plan effective social and behaviour change communication*

Brief 4: *Private sector engagement*

Brief 5: *Branding and promoting social norms*

Brief 6: *Media engagement*

Brief 7: *Development of advocacy events and materials*

Brief 8: *Special requirements of social mobilization in urban areas*

Brief 9: *Planning and implementing social mobilization and social and behaviour change communication*

Brief 10: *Hang-up*

### 12.1 Communication

In complex settings, communication is a key activity for ensuring access to communities and households. Some additional considerations for communication in COE include:

- **Malaria prevalence and behaviour change communication:** In a situation where people are moving from non-malarious to malarious areas, communication messages should focus not only on preventing malaria, but also on the necessity of making sure that people with fever, particularly children under five and pregnant women, are taken to a health care provider as early as possible after the onset of symptoms. Where the primary vector control has been through IRS previously, or where families have moved to IDP or refugee camps, effective behaviour change communication is necessary. It is important to explain how to hang nets in structures that are different from their houses, why a net should be in

use every night and how the net should be maintained.

- **Limited mass media channels:** There may be limited functioning and/or reach of mass media channels, so particular emphasis in that case should be put on ensuring strong interpersonal communication and local level social mobilization through town announcers, community leaders and local volunteers equipped with megaphones where possible.
- **Ensuring access to targeted areas:** Access is often a major challenge – both of populations to health facilities and of campaign staff to target populations – that may require negotiations with different factions. In these cases, meeting with the various actors that are controlling areas targeted for ITN distribution to explain the purpose of the activities and request support is a critical activity. Organizations working in these areas are likely to have undertaken these types of negotiations for access to provide health and other services, reinforcing the importance of using local partners and actors familiar with the area for the implementation of the ITN distribution. Providing the representatives of controlling groups with advocacy kits and visual materials to include them as part of the campaign process is recommended, as is ensuring that group members or their families have access to ITNs as part of the ITN distribution objectives.
- **Consistent messaging:** The consistency and clarity of messages is important. Messages being communicated through mass media and interpersonal communication channels must reinforce each other. Different messaging or inconsistency risks confusion and the starting of rumours and misinformation that can lead to security concerns. A media package should be provided during the media briefing to ensure that messages

30. See: [allianceformalariaprevention.com/amp-tools/amp-toolkit/](http://allianceformalariaprevention.com/amp-tools/amp-toolkit/).

developed are used consistently. Training and provision of job aids, such as interpersonal communication graphic guides that help community leaders and workers/volunteers to stay on message, are important, especially where these individuals will be the main source of information about the campaign.

- **Misuse of ITNs:** In targeted areas that have lakes, rivers or coastal areas where fishing is a subsistence or commercial activity, the risk of nets being used for fishing should be considered high. Where food insecurity is combined with insufficient resources for purchasing of needed fishing nets for replacement or repairing of mesh, food security will take precedence. Where ITNs are being used as part of an emergency response, targeted communication efforts will be required to try to reduce the use of nets for fishing<sup>31</sup>.

## 12.2 Crisis communication

This type of communication is described in the AMP Toolkit, Chapter 6, Section 6.5<sup>32</sup>, but the importance of planning for it in advance in COE cannot be overstated. Negative rumours or misinformation have the possibility of affecting the security situation in an area and must be quickly managed.

All personnel involved in the campaign should report to campaign supervisors any security incidents affecting campaign personnel or commodities, or incidents of false rumours and other forms of misinformation. A communication plan should already be in place to manage these situations and counter such misinformation. It is particularly important in a potentially volatile situation to keep the information flowing to address misinformation that might cause panic or anger. The plan should involve deploying the mass media, where

available, public health officials and local leaders in countering the misinformation, as well as instructing campaign workers and volunteers on how they might defuse specific rumours during their interpersonal communication. If there is a local publicly recognized popular figure, such as a community leader, who is willing to assist with addressing security problems or rumours among the population, this can also help to ensure messages are widely heard and believed by the local population. The right messages to manage the situation need to be communicated from the right people at the right time.

Where possible, radio spots that address the key rumours should be developed and broadcast. Where radio is not feasible for disseminating the information, either because it is not present or there is limited reach, town announcers and other community communication channels should be engaged to get pre-developed messages out quickly that address the misinformation.

It is not uncommon that there is a political agenda behind insecurity and false rumours during campaigns, for example, insufficient nets have been provided to certain areas because they are not aligned to the ruling political party. This is one reason why local advocacy should try to be as inclusive as possible in terms of the orientation of locally influential figures, so that all community figures have a stake in the campaign's success and do not resort to discrediting the campaign if they feel that they are left out. Where no radio is available, the inclusion of all key local community leaders and influencers is even more important.

It is also good practice to have in place a plan to communicate to the public unforeseen developments, such as stock outs of nets and delays in the campaign roll out, particularly the distribution of nets. In many cases, a stock rupture may not be anticipated. The campaign should

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31. See: [www.vector-works.org/wp-content/uploads/PC.4.9-ITN-Misuse-for-Fishing-Toolkit\\_FINAL.pdf](http://www.vector-works.org/wp-content/uploads/PC.4.9-ITN-Misuse-for-Fishing-Toolkit_FINAL.pdf).

32. See: [allianceformalariaiprevention.com/amp-tools/amp-toolkit/](http://allianceformalariaiprevention.com/amp-tools/amp-toolkit/).



have a communication plan in place to explain the situation and what likely remedial actions will occur. A sound communication plan for explaining stock outs is critical to ensuring crowd control and security of campaign personnel, household members and commodities.

### 12.3 Communication around serious incidents

If there are problems during the household registration and ITN distribution, including corruption or fraud (charging households to be registered, stealing or selling ITNs, for example), cases of aggression against campaign personnel or vehicles, and misinformation, it will be important to conduct urgent briefings of key community leaders and people of influence, such as traditional chiefs, religious leaders, local government and opposition leaders, leaders of

women's groups, traditional communicators, NGO staff, the police, national and international security forces and others present in the affected area. As described, advocacy meetings should have happened at the start of the campaign to allow community leaders to oversee the implementation of the campaign and be alert for problems. If engagement of community leaders was insufficient to prevent or address negative rumours, working with them to address serious incidents will be vital. Inform them of the rumours and problems and educate them on the truth. Solicit their questions and ensure they know who to contact if there are new rumours or problems that cannot be addressed at the community level. Where a campaign needs to be suspended suddenly, ensure that they are informed as to the cause and the mitigation plans are in place to allow consistent communication to households that have not yet been reached.



## 13. Training

Training is described in the AMP Toolkit, Chapter 7<sup>33</sup>.

For all ITN distributions, training is important at all levels, with the main objectives of:

- Ensuring that households are reached during registration, registered correctly and provided with a voucher/coupon for nets (where this is the strategy)
- Ensuring that households receive ITNs during the distribution and that nets are correctly accounted for during the distribution
- Ensuring that the correct communication messages are passed consistently during each phase of activities
- Ensuring that the nets can be accounted for from the point of arrival through the supply chain to the households, as well as during reverse logistics at the end of the distribution. See also AMP Toolkit, Chapter 5, Brief 7, *Logistics training*<sup>34</sup>.

Training must be hands-on and practical rather than a series of presentations and discussions.

### 13.1 Training in COE

Some considerations for training in COE include:

- **Planning for training:** When planning for training, there may be areas that are very remote where ITNs will be distributed but where facilities are not present for training. In these situations, it is worth considering paying participants transport and accommodation to stay in a larger centre and join other participants for the training before returning to their communities for

implementation. It is important that training dates and venues are announced early to allow people time to organize travel, if necessary, to reach the venue. The security situation in an area must be taken into account during the planning. Where people move outside the home only during daylight hours, the hours for the training need to be adjusted for a later start and earlier finish. This may mean that additional days of training are needed to cover the agenda.

- **Training materials:** In many venues where training can be organized (for example, classrooms that can hold 30 people), there often will not be power or a generator with fuel. Training guidelines and manuals must have a greater focus on paper-based supports such as data collection examples, flipchart paper and markers, as well as on interactive training principles. In many places, literacy will be low, so handing out long manuals of text will not be effective.
- **Days for training:** Often, the literacy levels of people involved at the implementation level may be low. The number of days for training could be increased to three days for household registration/door-to-door distribution personnel and two days for fixed site ITN distribution teams<sup>35</sup>.
- **Training for supervisors:** As with any ITN distribution, all supervisors at every level must be trained to ensure consistency in their oversight of the team or teams under their responsibility. Training is particularly important to provide information about the communication chain, roles and responsibilities and to discuss and work through issues that may arise during implementation and for which the supervisor must know how to take appropriate action

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33. See: [allianceformalariaprevention.com/amp-tools/amp-toolkit/](http://allianceformalariaprevention.com/amp-tools/amp-toolkit/). There is also a new brief on *Training for implementation* in preparation. It should be available for download from the AMP website during 2019.

34. Ibid.

35. Note that in non-COE settings, household registration personnel should be trained for two days, with their direct supervisors receiving one additional day focused on data collection and management, as well as supervision and communication skills. For ITN distribution, distribution teams would normally be trained for one day, with the DP supervisor and the community supervisors receiving an additional day to focus on data and logistics management.

and communicate effectively. During training, supervisors must learn to take action on their own given that there may be no phone network to be able to place calls and have decisions taken from upper levels. There may also be no time for this. In situations where there is immediate action required, supervisors must be trained to think through the options and choose what is best for the security of the people for whom they are responsible. The training should also focus on the type of reporting expected in the case of any security incidents.

- **Logistics training:** As there may be little experience with ITN-specific logistics and limited technical capacity for logistics and supply chain management more generally, the number of days for the logistics training should not be underestimated. A minimum of three days is recommended with a focus only on logistics for ITNs. As described in the AMP brief on *Logistics training*<sup>36</sup>, the focus of this training must be hands-on practice with the logistics tracking tools and simulated exercises to ensure that all participants are able to correctly fill in the tools and account for all nets delivered to storage locations for distribution to targeted individuals and families.
- **Training cascade:** The number of cascades in the training for different campaign personnel should be limited to ensure that all sessions are facilitated by experienced and well-trained personnel. Where possible, facilitators for training should be from the district and above, avoiding decentralizing responsibility for training to community supervisors, who may have been selected based on presence in the community and ability to read and write. They may have no experience with training or with an activity similar to the ITN distribution. Quantification for the number of supervisors needed from the district, regional and central levels can be

based on the number of training sessions for the household registration or ITN distribution to ensure that each session is facilitated by at least one upper level (district or above) supervisor.

- **Build on experience and local knowledge:** The training should capitalize on participants' experiences, given that they are living in the same context regularly. Role play exercises used to simulate the potential problems that campaign actors may experience during the implementation can be developed with district health staff, who will have examples from implementation of similar activities. Depending on the context, this may include theft of nets by armed groups, refusal to accept nets for a variety of reasons, problems with stock ruptures, aggression from targeted populations against campaign personnel, finding areas inaccessible due to broken-down infrastructure, distribution delays, etc. The role play exercises developed should reflect the context and risks where the distribution is planned to take place, as well as the communication channels that have been put in place for management of specific issues.

The training is also the appropriate time to go through the concerns of the participants related to various scenarios that they have experienced in the past or that they anticipate could occur during the distribution. The concerns should be addressed, where possible, by the facilitators, but issues that cannot be addressed (because they may not have been addressed during planning or a facilitator does not have an answer) should be noted and deferred to a management level for decision.

### 13.2 Training for data management

Once the data chain has been defined and data collection tools have been produced, it is important to ensure that the data managers are trained and understand their roles and

36. [allianceformalariaprevention.com/amp-tools/amp-toolkit/](http://allianceformalariaprevention.com/amp-tools/amp-toolkit/).



responsibilities regarding the data collection, verification, inputting (or summarizing), analysis and feedback to implementation teams. Training should be a minimum of two days and should focus on providing an overview of the campaign, the microplanning process that established the baseline data, the data collection forms, cleaning and verifying the data and using the database for simple analysis and daily summaries. The analysis may be quite simple, such as flagging areas that are over- or under- performing in terms of coverage based on targets from the microplanning or household registration (depending on phase of activity) or areas where the allocation of ITNs seems to be incorrect (either high or low). The daily data analysis should involve comparing programmatic and logistics data, particularly during the ITN distribution phase, to ensure that there are no large discrepancies and, where there are problems, ensuring that these are flagged for follow-up by supervisors. This may include looking at nets available for distribution at a DP, distributed and remaining to ensure that the total corresponds with what should be there and informing logistics personnel where there are discrepancies (e.g. significantly fewer nets are reported remaining than should be present based on the received and distributed quantities).

### **13.3 Practical work on data collection**

Given the importance of data collection during the household registration and/or ITN distribution, a large focus of all training sessions for campaign personnel at all levels and in all functions should be on filling in the data collection tools. The first step is to ensure that the data collection tools are simple to use and then going step-by-step through each piece of information needed on the form to explain why it is there. For community supervisors that are responsible for the first-level verification and summarizing of the volunteer data (either household registration or ITN distribution), campaign organizers should provide examples of correctly and incorrectly filled in household registration/ITN distribution data collection tools to ensure that the

process for the verification of the data is understood. This should be repeated for supervisors at all levels and can also be used for improving understanding of logistics tracking tools and how to verify and reconcile the data on stock sheets.

### **13.4 Understanding household definition**

In areas where there has been or is population movement, there may be families that have been displaced and are now living with host families, often relatives. The definition of a household is an important part of ensuring high intra-household coverage, so it must be well understood by the door-to-door personnel. For household registration or door-to-door distribution, simulation households can be created with different combinations of family present, as well as sub-households (e.g. a household that is residing with a different household because they are displaced, but they still constitute a separate household). These can be used in plenary and individual work to ensure the definition of a household is well understood, particularly for displaced families, and any issues that may arise have been discussed in advance (e.g. a displaced family present but does not wish to be identified by name or other identifier).

### **13.5 Interpersonal communication**

It is possible that interpersonal communication will be one of the only channels for communication, especially where mass media has limited presence or reach. Emphasis during the training must be on ensuring that the participants understand the messages that they are communicating, are familiar with their job aids and, where provided, frequently asked questions guidelines, and understand that they should not attempt to respond to questions to which they do not know the answers. The training is the moment to ensure that the lines of communication to the community supervisor are clear and to identify specific situations or instances where information or questions from a household should be passed up the communication chain.



## 14. Logistics

See also AMP Toolkit, Chapter 5 and briefs.

Brief 1: *Key logistics recommendations*

Brief 2: *Logistics plan of action*

Brief 3: *Risk mitigation planning*

Brief 4: *Net delivery systems*

Brief 5: *Warehouse assessment*

Brief 6: *Management of the supply chain*

Brief 7: *Logistics training*

Brief 8: *Reverse logistics*<sup>37</sup>

The logistics for any ITN operation is crucial – if there are no nets available in the targeted areas for the distribution, the distribution will not occur.

Planning for logistics is critical and is likely to be very challenging between infrastructure, access, resources available and security concerns. As well as UN and other organizations, the logistics cluster is an important source of information, and regular participation in its meetings will assist with identification of risks and opportunities, such as changes in road infrastructure (broken bridges, flooded roads) and security in the targeted areas.

### 14.1 ITN accountability

See AMP toolkit Chapter 5 and Brief 6: *Management of the supply chain*.

Accountability remains paramount in every operation and the availability and correct use of tracking tools must be ensured. There are specific considerations to be taken into account for COE. The risk of fraud and corruption is high. The logistics training and the consistent use of the tracking tools are critical for ensuring ITN accountability, but increased supervision at warehouses, as well as frequent physical inventories with appropriate oversight, will assist with limiting loss of nets through theft during the time in storage. In the case of nets for routine distribution, where storage of smaller quantities of nets will take place for longer periods of time,

a regular inventory and reporting system, as well as stock spot checks, should be put in place.

One of the largest risks for lack of accountability in the supply chain is having people responsible who do not meet the minimum criteria for selection. Given that technical expertise for logistics and supply chain management is often difficult to find at the decentralized levels, criteria for selection must be decided and communicated early to allow the needed time to recruit appropriate people. Logistics personnel can be selected from Ministry of Health or other organization staff that have experience with pharmacy or drug management; staff that have participated as logisticians in vaccination campaigns, food distributions or other large-scale commodity delivery; and staff that have experience with financial management, including for community or religious institutions. The criteria for selection should be clearly defined and candidates should be put forward for consideration. Where there are concerns about capacity, a selection test can be done in advance of the training to ensure that the minimum criteria have been respected. As much as possible, logistics personnel should be identified from the localities where they will be working.

Another key accountability risk point during mass ITN distribution is the movement from pre-positioning sites to distribution teams during door-to-door distribution/to distribution points or from fixed to outreach distribution points. Often, there is limited tracking during this last mile transport, where small quantities of nets are moving regularly out of, and into, in the case of leftover nets, the net storage location. It is important to ensure that an appropriate tracking system is put in place for the last mile delivery of ITNs and their daily return to stores to minimize ITN loss during the logistics and distribution activities.

There is also a high risk of theft of the nets during transport, storage and distribution itself. In the case of door-to-door and fixed site

37. [allianceformalariaprevention.com/amp-tools/amp-toolkit/](http://allianceformalariaprevention.com/amp-tools/amp-toolkit/).

distribution in urban areas, this risk is especially high. Where theft occurs, it should be verbally reported immediately to the Ministry of Health or managing partner, but it is important that appropriate documentation is collected. This might be a police report or report from a responsible authority in the community; waybills showing differences between nets loaded and received; reports from the reception committee, guards and warehouse manager, etc.

Logistics documents must be properly filed/archived and kept in a safe location for as long as campaign financial documentation is required to be kept. Decisions on where documents will be stored at the end of the ITN distribution should be taken at the macroplanning phase of activities. The training of logistics personnel must put specific emphasis on this point, as should the contract with the implementing partner, including that payment should be based on final reports of nets received, distributed and remaining.

## 14.2 Transport and storage

See AMP toolkit [Chapter 5](#)<sup>38</sup>.

Once the partner mapping has taken place, it is important to start to discuss needs for transport and storage with partners, particularly UN organizations and non-governmental actors, to leverage on available resources where possible.

For storage, limited options, particularly at the decentralized levels, may mean that more than one structure will be required to ensure proper storage of the nets and organization of bales that allows for regular inventory and rapid spot checks by supervisors, monitors and managers. Early identification of storage spaces allows sufficient time for any repairs required based on the evaluation of the condition of the storage structure. If minor repairs are required, these should be discussed with the owner of the warehouse and follow-up on repairs should be

monitored in the period prior to the arrival of the ITNs to ensure that minimum standards have been met. Where owners of storage space that will be used for nets do not have funds for payment of repairs in advance of ITN arrival, the contract or agreement for the storage space can specify that repairs will be undertaken by the partner organizing the campaign, detailing what repairs and to what amount of money, and that these costs will be deducted from the overall rental amount to be paid.

For transport, in order to facilitate access to the most hard-to-reach areas the transport operation will likely require sourcing vehicles locally. In this case, it will be important to determine how tenders can be published at the decentralized level (or whether they are needed/an alternative can be found, such as a restricted call for tenders or just accepting a number of written offers for identified transporters and undertaking a cost-based analysis), how bids can be received and how best to ensure timely communication on decisions and for moving contracts forward, as well as for planning for payments.

## 14.3 Budgeting

When budgeting during the macroplanning phase, costs for warehouse repairs and security measures, such as chains and locks, should be included to ensure that warehouses or storage spaces selected meet criteria established. Security must be budgeted while nets are in storage at all levels, regardless of quantities. Leakage is more likely at the lower levels of the supply chain, where small quantities of ITNs can easily go missing.

For the last mile transport to peripheral distribution points or between pre-positioning sites and distribution personnel, there are unlikely to be many options other than small capacity trucks, motorcycles, carts, boats and porters to move nets. Following the microplanning, the micro transport plan should describe and budget for

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38. [allianceformalariaprevention.com/amp-tools/amp-toolkit/](http://allianceformalariaprevention.com/amp-tools/amp-toolkit/).

this movement of ITNs to ensure high population access. Where air travel is to be used, the real costs should be included, and a margin added in case of changes in costs during implementation. It is necessary to gather the unit/bulk costs and include them as an annex to ensure that funding partners are aware of costs in the event of an “only option” or “worst-case” scenario.

#### **14.4 Net reception**

In order to avoid problems related to lack of communication and coordination, it is important to plan and budget for a reception committee for the nets. This committee should be involved in the oversight of the offloading and counting of the nets and should sign a report detailing how the offloading went and outlining any discrepancies. The committee should include representatives of the implementing partner, as well as the government or ruling group. Photos should be taken to document the reception where possible.

#### **14.5 Sole sourcing**

While calling for tenders is part of the procurement procedures for all organizations, sole sourcing will at times be needed to ensure quick movement of commodities through trusted transporters and storage in appropriate locations. Any request for sole sourcing (or for flexibility in standing procurement rules) should be submitted early to the relevant body for approval, since it contradicts good procurement practice, and should detail the reasons why the standard procurement procedures cannot be met. It is critical that the companies or transport owners contracted for ITN transport actually have experience in, and access to, the areas targeted in order to minimize loss during the movement of the nets. However, in many cases, these companies and people will not meet the criteria of having insurance that is requested as a risk mitigation measure. When this is the case, discussions with donors should occur as early as

possible to ensure other possible risk mitigation measures are put in place or an agreement is reached to accept the risk.

#### **14.6 Contracting to a third party**

Where possible and feasible, the logistics operation can be contracted out to third party logistics operators to manage. In most COE, there is an extensive central and decentralized presence of UN partners (such as the World Food Programme, UNHCR, UNICEF and others) that may have capacity to support some or all of the ITN transport and warehousing for the distribution. These partners should be contacted early in the planning process, both to know what their supportive capacity might be and to gather information about security, infrastructure, challenges and opportunities in the areas targeted for ITNs based on their experience with their ongoing operations.

#### **14.7 Leveraging partner resources**

Where commodities are being supplied to a partner that is regularly organizing transport to the targeted areas, it is worthwhile, after verifying that the partner has complied with minimum procurement procedures, to consider doing transport reimbursement for the partner rather than trying to undertake a full call for tenders and contracting that may delay the transport and distribution. It is important to leverage on partner presence and their efforts to establish corridors for delivery of humanitarian assistance rather than establishing a separate process/methodology for moving things through the supply chain. In many cases, partners will agree to transport small quantities of nets free of charge when they have space available, including by air.

#### **14.8 Use of military convoy**

In some situations, military or other convoys may be available for civilian transport of goods to areas that are difficult to access due to

insecurity. Convoys typically run on a schedule for various areas of the country and vehicles must be registered in advance. Many humanitarian organizations are unable to use armed convoys, while private sector contractors often use them regularly. Where a humanitarian organization is planning to contract transport out, it is advisable to have unmarked commodities given the risk that these private vehicles may join armed convoys for their own security. Some transporters will accept to have conveyors or guards (armed or unarmed) in their trucks during movement: this must be negotiated by the managing or implementing partner, according to their procedures and policies, as well as the contracted transporter. Local known transporters with access to targeted areas should be prioritized, even if it means requests for modification of procurement procedures.

#### **14.9 Timeline contingency planning**

In some situations, there may be very limited transport options available. If this is the case, the overall logistics timeline must be adjusted to show an increased period for transport with fewer numbers of vehicles or with vehicles with small load capacity. At all times, the logistics timeline should include some contingency time for delays related to extenuating circumstances, for example, breakdowns, shortages of fuel or vehicles unable to proceed because of lack of road repairs or a change in the security context.

#### **14.10 Coordination and communication**

Given the possibility for loss and leakage during movement between levels of the supply chain, a tight control system is needed. In addition, continuous planning to identify risks and address them with mitigation measures is important. During the logistics operation, there must be standard operating procedures in place covering communication during transport and reporting on incidents and losses, as well as quantities delivered from one level of the supply chain to another. These should be developed in each country in line

with the overall policies and procedures that exist and have been approved regarding management of goods and assets, as well as on the basis of the possibilities for communication between the central and peripheral areas.

Given difficulties in all aspects of the distribution of nets, including delays related to the programme aspects that affect the logistics, the transporters or third-party logistics companies that are contracted for the overall logistics movement should be considered as partners and invited to attend logistics coordination and campaign planning meetings.

At each level of the supply chain, security and safety must be considered before loading and transporting nets to another level. Regular communication between the sender and the receiver is important to identify the best period for the ITN movement between levels with maximum security. A means of communication should be established and budgeted early based on what is feasible and will work in the targeted area. This will prevent unnecessary ITN losses.

#### **14.11 Containerized delivery**

Appropriate planning must be undertaken from the outset where containerized delivery is being considered. This includes:

- Verification of the infrastructure available for container delivery (e.g. trucks with cranes that can lift containers off and place them in the identified storage location; roads that are able to support large trucks carrying containers, etc.)
- Assessment of the space required for the containers and for the manoeuvring of the trucks during the container placement
- Planning and budgeting for work to flatten the ground where containers are to be placed and to build shade structures where required to protect the container from direct sunlight (e.g. where there is no shade from trees)



- Offloading of bales from containers at time of delivery and quantities verified and signed off, then return of ITNs to the container once quantities have been verified
- Identification of supplementary storage space for bales that cannot be repacked into the containers after offloading and counting bales on delivery

#### 14.12 Reverse logistics

See AMP toolkit, [Chapter 5](#) and [Brief 8: Reverse logistics](#)<sup>39</sup>.

In some COE, even getting nets delivered to the targeted locations for distribution will be difficult and reverse logistics may not be possible at the end. However, decisions about leftover nets at the end of the distribution are important and must be taken early to avoid all problems related to “ownership” of the nets. In general, given the difficulties of getting the nets out to the targeted areas and the high needs for nets among the population, particularly where there is regular population movement, it is advised to leave leftover nets at the district level (or the DP or pre-positioning site if it is a health facility or a partner storage location for an IDP

or refugee camp). Leftover nets can be used for routine distribution, to cover health facility or hospital beds, for prison populations or other special groups that were not targeted during the mass campaign or for IDPs in case of population movement. Where nets will be recuperated at the end of the distribution and moved from the district to another area, the Ministry of Health, the managing and implementing partners and the local authorities need to be informed of this plan early to elicit their support.

The logistician responsible for each area (e.g. district) has the task of gathering the information from all storage, pre-positioning and/or distribution sites under their responsibility and providing final numbers of nets delivered, distributed and remaining, as well as plans for handover or reverse logistics, at the end of the distribution. Where nets will be handed over from the managing partner to the Ministry of Health, it is important that appropriate documentation is used to document the number of nets remaining from the campaign and received by the Ministry of Health. Representatives of the managing partner and the Ministry of Health should sign the documentation, each keeping a copy for their records in case of later audit.



39. [allianceformalariaprevention.com/amp-tools/amp-toolkit/](http://allianceformalariaprevention.com/amp-tools/amp-toolkit/).

## 15. Supervision, monitoring and evaluation (M&E)

### 15.1 Definitions

**Supervision** is the act or function of overseeing something or somebody. It takes place from various levels (community, sub-district, district, region, central) and involves observing the supervisees' actions and behaviours in order to ensure activities are taking place, make corrections and improve implementation quality.

**Monitoring** is the collection and analysis of information about a project or programme, undertaken while the project/programme is ongoing. It is used to provide information that can be used to effect programmatic changes and may be internal (e.g. campaign organizers) or external (independent monitors not linked to the ITN distribution planning and implementation) or both.

**Evaluation** is the periodic, retrospective assessment of an organization, project or programme that might be conducted internally or by external independent evaluators<sup>40</sup>.

Supervision, monitoring and evaluation, which are critical in ensuring that health interventions benefit the population and that activities yield the expected outcomes and impact, can be challenging in areas that are insecure, difficult to access and have poor infrastructure and communication networks. Supervision, monitoring and evaluation should provide the evidence to allow strategic programmatic changes to be made to improve the reach and effectiveness of interventions. In addition, given high risks of investment in COE contexts, donors and stakeholders are often seeking data, both to justify their investments and to advocate for further funding.

### 15.2 Challenges to supervision, monitoring and evaluation in COE

Supervision, monitoring and evaluation in COE present multiple challenges, including:

- Travel may be difficult, making paper reporting (e.g. moving data collection forms up the data chain), supervision and monitoring difficult. Electronic reporting may be difficult due to access to mobile or internet networks in the implementation areas.
- Costs of data collection can be considerably increased because of additional security (for example, having to move teams in convoys of vehicles), days where activities must be suspended due to insecurity or access problems, increased costs for vehicles and fuel, etc. Where access is limited for supervisors not from the area, it may be necessary to organize supervision meetings and debriefings at a more central location (such as the district centre), increasing costs for transport.
- Population movement causes more difficulty with denominators.
- Availability of personnel that meet minimum criteria for selection may be low, especially at the lowest level of the health system, where school attendance may have been regularly interrupted and quality of education may be poor.
- Supervisors and monitors that come from outside the implementation area may be at greater risk in terms of security and may have reduced movement and access in certain areas, thus affecting the coverage and quality of their work.
- Limited access may mean that community supervisors need to be more versatile and be trained across a number of areas, such as communication, logistics and M&E, to ensure that all areas are covered by supervisors that do have access. Training

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40. Definitions adapted from: [www.geog.ox.ac.uk/research/technologies/projects/mesc/guide-to-monitoring-and-evaluation-v1-march2014.pdf](http://www.geog.ox.ac.uk/research/technologies/projects/mesc/guide-to-monitoring-and-evaluation-v1-march2014.pdf).

may need to be modified (increased days) and standard operating procedures and job aids made more detailed where community supervisors need to be trained and ensure oversight across all campaign areas.

### 15.3 Supervision in COE

Supervision in COE puts a heavy burden on the supervisor, who is responsible for mitigating risks, ensuring security of teams under their responsibility and managing any incidents. While a chain of communication may be put in place to ensure that any problems or incidents arising are shared with the management levels for decision-making, mobile phone communication may be difficult and often the supervisors will need to take decisions immediately in response to challenges faced. They should be given the authority to do so to protect the safety of campaign personnel. The community supervisor, who is in charge of household registration or ITN distribution teams, is likely to be the person with the greatest oversight of the actual implementation.

Ideally, individuals identified as community supervisors must be capable of managing and reporting on difficult situations and responding to challenges, as well as taking rapid decisions in the face of problems (such as suspending activities where risks cannot be mitigated, or situations have deteriorated in terms of team security), particularly where receiving timely feedback from a district or other higher-level supervisor is not possible. In reality, these locally-recruited community supervisors (if health facility staff are not available in sufficient quantity or used) are unlikely to have the skills and knowledge to effectively manage serious or critical security incidents. Training of supervisors must include a review of standard operating procedures for management and reporting on security incidents, but should also include simulation exercises that allow trainees to manage, address, defuse and report on security problems (see Section 13.1: *Training in COE*).

In terms of supervision from the district, regional or central level, community supervisors may be relatively isolated, depending on the context. It is important that they organize a meeting or meetings with the local leaders in the area where they will be working to discuss the campaign itself and the team movement (or distribution point) planning, as well as the expectations they have for support during the activity. More than one meeting may be necessary depending on geography, access or relationships between leaders. Where there is limited phone network and erratic contact with upper level supervisors, serious problems that arise will need to be solved with and through local leaders and their role (whether supervision or monitoring or coordination) should be included in the budget to ensure their participation. Where local leaders are not part of the campaign human resources structure, supervisors should still keep them informed of the progress of activities, including any issues arising, even minor, so that the overall context for the ITN distribution activities can be monitored. Local leaders can also be included in the evening debriefing sessions where this is possible. All security incidents during any phase of the campaign must be reported to the level of the campaign organizers as quickly as possible.

Although the supervision planning may be by levels (community, district, region, etc.), with specific tasks for each cadre, the reality of the low capacity in the field during implementation and the number of problems arising may mean that all supervisors are just working to support the registration and distribution teams and fill gaps when these arise (e.g. additional vehicles are required for ITN transport due to rupture in stock). District, regional and central supervisors will have an important role, where possible, to move data collection forms up the data chain, give support with logistics and administration issues and resolve problems. The supervisors from the district, regional and central levels must be flexible and able to recognize where additional support is required, even if it is not clearly stated in their list of tasks.

All supervisors, including community supervisors, should be provided with a means of transport (such as a motorcycle or a 4x4), that is appropriate to the area in which they are working and ensures their security during travel. Supervisors and monitors must be able to move quickly when notified of problems or in the case of insecurity if they are far from their base, visit all campaign actors and participate in evening coordination meetings to discuss successes and challenges and plan for mitigation of problems that may be encountered the following day.

Where the mobile phone network coverage is limited, supervisors should have a sufficient contingency stock of fuel per day to be able to move to another supervisor's area or the district level in case of a serious incident that needs additional support and/or to be reported immediately. There should also be sufficient contingency fuel to allow the supervisors to reach an area with a phone network in case of need to make a report where the district centre is too far.

Where there is mobile phone network coverage, it is important to ensure that people have phones with SIM cards for all networks that are working in the area, car or solar chargers and supplementary phone credit. If possible, a coordination group can be set up on WhatsApp or another platform where questions can be posted, feedback on data can be received and challenges identified for supervisors and monitors to look for in other areas. Even where people are working in areas without network coverage all day, they will pick up messages when they return to network coverage, allowing them to view messages and note anything that has arisen that they should be looking for in their own work.

#### 15.4 Monitoring in COE

Monitoring may be internal (e.g. campaign organizers) or external (independent monitors not linked to the ITN distribution planning and implementation) or both.

Where monitoring is not external and will be done by regional and central Ministry of Health and partner staff who have been trained for this activity, it is possible that the activity will not take place as planned, or at all. Often, due to the number of different issues and problems that come up during implementation, monitors are forced to support the actual operations or logistics to help resolve bottlenecks. This may include use of their vehicles for moving nets between sites, monitors assisting with crowd control at distribution points, etc. Where monitoring is externally contracted, it is more likely to take place because the contractor must deliver on the terms of reference to receive payment, so monitors cannot be pulled into other activities.

External monitoring is done by an independent body that is not directly involved in the planning and implementation of the campaign. Monitoring will take place during the implementation of activities and involve observation and discussions with campaign actors, interviews with household respondents and verification of data collection quality (programme, communication and logistics). Additional tasks can be added to the monitors' roles and responsibilities.

Some monitoring activities may not be appropriate in some contexts. For example, household interviews in IDP or refugee camps may not be welcomed by people who have been forced to leave their homes and are seeking security. It may also be inappropriate to ask to enter people's homes to observe sleeping spaces or nets. Decisions on the monitoring activities to be included should be taken with the local authorities to ensure that they are sensitive to the population and context in each specific area.

Monitors normally do not undertake corrective action with campaign actors. For example, based on interviews with household respondents, if the monitor observes that the household registration or door-to-door distribution teams are incorrectly allocating nets, this information



should be presented during the evening or morning coordination meetings and decisions taken with the supervisors about how problems should be addressed and corrected. However, given the difficulties with movement in COE and the possibility that community supervisors will not reach the teams in question the next day to take corrective action, the monitors may advise the household registration or distribution teams on some considerations for improvement prior to departing the area being monitored.

Monitoring may be limited in terms of geographical scope depending on the context of the implementation area. Where movement to peripheral areas is not possible by people that are not from the area, monitoring may be limited to the district centre and surrounding areas. This situation will not generate the best monitoring

data and the value-added of the activity should be balanced with the complexity of organizing the monitoring among all the other things going on.

### 15.5 Indicators and data needs by distribution strategy

See also *Mass insecticide-treated nets distribution campaigns: Recommendations for minimum data requirements for household registration and ITN distribution*.

Core indicators that allow the implementing or managing partner and the Ministry of Health to report back on the distribution should be established. The tables below show some of the core indicators that should be considered by ITN distribution strategy.

#### **Distribution strategy: Universal coverage with household registration (HHR) and fixed site distribution**

##### **Data needed during and at end of HHR**

From each team/level of aggregation:

- Number of households registered
- Number of people or sleeping spaces registered (if the strategy is not a fixed number per household)
- Number of vouchers/coupons distributed (if this is the strategy)
- Number of ITNs required for each household
- Number of ITNs required for each distribution point (aggregated data at end of registration)

##### **Data needed during ITN distribution**

- Number of ITNs received at beginning of distribution/start of day and additional ITNs received during the day/during the distribution
- Number of vouchers/coupons or other identification received (if this is the strategy)
- Number of ITNs distributed each day
- Number of ITNs remaining at the end of the day and returned to the DP storage

##### **Data needed at end of ITN distribution for each distribution point**

- Number of ITNs received for distribution
- Number of vouchers/coupons or other ID received (if this is the strategy)
- Number of ITNs distributed during the distribution period
- Number of ITNs remaining at end of the distribution and returned to the DP storage for reverse logistics or handover

### **Distribution strategy: Universal coverage with HHR and door-to-door distribution**

#### **Data needed during and at end of HHR**

From each team/level of aggregation:

- Number of households registered
- Number of people or sleeping spaces registered
- Number of ITNs required for each household<sup>41</sup>
- Number of ITNs required for each pre-positioning site (aggregated data from all households at end of registration)

#### **Data needed during ITN distribution from each distribution team**

- Number of ITNs received at start of day and additional ITNs received during the day
- Number of households reached
- Number of ITNs distributed
- Number of ITNs remaining at the end of the day and returned to the pre-positioning site

#### **Data needed at end of ITN distribution for each pre-positioning site**

- Number of ITNs received for distribution
- Number of households reached with ITNs
- Number of ITNs distributed
- Number of ITNs remaining at end of the distribution for reverse logistics or handover

### **Distribution strategy: Door-to-door distribution with no household registration**

#### **Data needed during ITN distribution**

- Number of ITNs received at start of day and additional ITNs received during the day
- Number of households registered
- Number of people or sleeping places registered (if the strategy is not a fixed number of nets per household)
- Number of ITNs distributed
- Number of ITNs remaining at the end of the day and returned to the pre-positioning site

#### **Data needed at end of ITN distribution for each pre-positioning site**

- Number of ITNs received for distribution
- Number of households reached with ITNs
- Number of people or sleeping places registered
- Number of ITNs distributed
- Number of ITNs remaining at end of the distribution for reverse logistics or handover

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41. If coupons/vouchers are being used, the information on these should be collected as with the fixed site strategy.

**Distribution strategy: Distribution at IDP and refugee camps****Data needed during and at end of ITN distribution**

- Number of nets received for distribution (if a short-term distribution) or ITNs available at the beginning of the month or quarter (stock balance as reported in previous month)
- ITNs distributed during the month (or each month of the quarter)
- Number of individuals or families reached with the number of nets agreed (e.g. with two nets per family or two nets per structure)
- ITNs remaining at the end of the month (both theoretical stock based on stock sheet or bin card and physical inventory based on count)

**Storage sites (including pre-positioning sites and DPs)****Data needed during and at end of ITN distribution**

- Number of ITNs received for storage/distribution (i.e. received in the storage site, pre-positioning site or DP storage prior to and during the campaign)
- Number of ITNs sent to distribution or pre-positioning sites/distributed during the campaign
- Number of ITNs remaining (both theoretical stock based on stock sheet or bin card and physical inventory based on count) at pre-positioning or distribution sites
- Number of ITNs returned to storage sites identified for reverse logistics or handover

**15.5.1 Mass campaign data needs**

In COE, the data collected for mass campaigns should be sufficient to meet minimum reporting requirements rather than data that are interesting and useful but not necessarily critical (e.g. collecting information about the number of pregnant women in a household when the strategy is to allocate nets at one for two people regardless of age, gender or biological status). Given that capacity for reading, writing, and performing calculations may be low among community representatives selected for household registration and ITN distribution, simple data collection forms that target the essential information are required. Additionally, the delays in moving data forms up for aggregation and getting finalized data from each phase of activity are often significant, so including additional data unrelated to the campaign objectives will not help either quality or timeliness of the data collection and management.

Where there are sensitivities to detailed data collection, e.g. names, identity card numbers or household locations, data collection forms should be modified to ensure that no one refuses to be registered and everyone receives a net. During distribution, it is not necessary to ensure that the names of beneficiaries are included in the reporting, nor that each beneficiary signs or provides a fingerprint in order to receive a net, as there is little opportunity to follow up individuals or households in these contexts. Where a post-distribution survey is planned, this will assess, through random sampling, whether the campaign has achieved its objectives. Random sampling is a more appropriate way to assess the ownership and use of ITNs following the distribution as unregistered households will be included in the sampling framework; using the registration sheets as the basis for assessing the campaign outcomes will miss areas that were not reached for whatever reason.

### 15.5.2 Data from IDPs or refugees

Individuals and families living in IDP or refugee camps have fled their original places of residence for any number of reasons, all of which emphasize the need for confidentiality and discretion in terms of data collection. During health cluster meetings, partners supporting ITN distribution through any channels to IDP and refugee populations should report the number of families that have been reached with ITNs (based on the allocation strategy – one, two, three or one net to two people, etc.), as well as any outstanding gap in coverage due to insufficient nets being available.

Often, formal IDP and refugee camps are managed by humanitarian organizations in terms of provision of basic services and supplies, including housing, food and non-food items. Where ITNs are provided to humanitarian organizations to be distributed as part of their ongoing support to displaced families or returnees, the ITNs should be reported on in the combined donor reporting that these organizations are already producing. Where nets are provided as a one-off, for a short-term distribution to quickly increase coverage, organizations may use a tally sheet or other tool to count nets distributed to families and then compile that information in the combined donor reporting.

### 15.5.3 Data from focused distribution to targeted groups

Distribution may be through such channels as therapeutic feeding centres or outreach services, using the stock of nets held at a health facility for routine delivery, or may comprise stand-alone distributions, where nets are delivered and stored at peripheral sites, in communities or with humanitarian organizations.

For focused distributions to specific target groups, even where the stock of nets is from the routine stock at a health facility, it may not be possible to use the standard routine reporting

forms (for example, routine reporting indicators for ITNs are related to children under five and antenatal care, while the distribution is targeting a different group, such as children and adolescents enrolled for therapeutic feeding). In addition, it may be important to separate one-off distributions or distributions to specific target groups from the traditional routine distribution of ITNs if monthly trends are being tracked on routine service delivery to pregnant women and/or children under one (or five). These decisions should be taken with the Ministry of Health during the planning and strategy development.

Where possible, the combined donor reporting format used for all commodities should be used to report on the ITNs distributed.

## 15.6 Data collection and management

Simple, standardized tools that will allow collection of the minimum amount of data for appropriate commodity and coverage tracking with limited burden should be used across all partners distributing nets.

Where household registration will collect names and other information from the household head or representative, it is important that the data collection tool is simple and understandable, collecting only the necessary data for the ITN distribution – number of households, number or people or sleeping spaces, number of ITNs required – to avoid bottlenecks related to data management and consolidation. For household registration, the data collection tool may be a single piece of paper to be used per day or it may be a book containing multiple pages and covering the full period of the registration activity. Auto-copying books/registers may be used, so that one copy can be removed for submission to the data manager for inputting or archiving, while the other copy remains with the registration team or community supervisor. The design of registration books should be



adapted for easy use in the field (for example, a limited number of pages per book to reduce weight and a standard size versus a large register that is difficult to carry and use).

In general, the tool used for tracking the number of nets distributed during the ITN distribution phase is a tally sheet, which is simple to use and understand and allows for accountability for nets received and distributed. On the tally sheet, one filled circle represents one net distributed and nets distributed over the course of the day are calculated by adding up the filled in circles. For fixed site distribution where vouchers or other household identification are collected, data on ITNs distributed can be verified by counting household identification collected. A voucher tally sheet can also be used as a tracking and control tool. Where the strategy adopted is that one voucher represents one household, it will be important to create a tool to list the vouchers received and the number of nets written on each voucher in order to do the daily reconciliation between the vouchers received/nets allocated to households and the nets distributed. Where one voucher represents one net, the reconciliation at the end of the day of distribution involves counting the circles on the voucher tally sheet or counting the vouchers retrieved or both.

The tally sheet can be modified to be used for household registration without names or other identifying factors: a circle can be filled in the appropriate column – e.g. number of people in the household or number of nets allocated – and then totals calculated at the end of the day (number of households reached, number of ITNs required).

Often, the data collected from an ITN distribution will be managed by the implementing partner, but where it will be managed through the Ministry of Health data managers at the district, regional and central levels, an assessment of how the routine system is functioning in the targeted areas

may be important to address any weaknesses in advance, using the budget allocated for the ITN distribution. If weaknesses in the reporting system are related to human resources or to means of work that are simple to fix (e.g. fuel for generators, credit for telephones and Internet access), a budget should be included to reinforce these areas. Training should be organized to ensure that the district data managers understand their tasks and the daily requirements for data management, reporting and feedback during each phase of ITN distribution activities.

## 15.7 Data collection method

### 15.7.1 Paper-based data collection

Paper-based data collection is currently the most common data collection method for ITN campaigns, though this is changing. In COE contexts, advantages of paper-based data collection may include familiarity with the methodology, no need for connectivity and reduced requirements for technology troubleshooting. Disadvantages of paper-based data collection include difficulties with collecting/submitting a full set of forms from multiple teams each day, difficulties with deciphering the writing on the forms and delays in inputting data into the database. The level at which the paper-based data are transferred into an electronic format must be considered (where there are computers available), as well as which data will be entered (e.g. individual household or summary data).

### 15.7.2 Electronic data collection

While the majority of countries are still doing paper-based data collection, there is a move towards electronic data collection, using phones, tablets or other devices, to facilitate the data management during campaigns. Regardless of the system put in place, it is important to ascertain what has and has not worked in the past or for routine data management to avoid putting in place a system that will not produce

the desired results of measuring progress with the distribution and ensuring accountability for the ITNs.

The advantages of mobile technology and electronic data collection for reporting include:

- Mobile technology data collection reduces or eliminates the need for (often difficult) travel to transport paper forms from the periphery
- Data collection forms are pre-entered in the devices and information is manually entered by teams, reducing the need to decipher poor handwriting
- Mobile phone data can be entered off-line (outside the mobile network). Therefore, data can be collected at the community or health facility level (where there is often no cellular service) and transmitted once the collector reaches a main road or district town that has a mobile phone network
- Mobile phone data (supervision, etc.) can be used for financial accountability records, where performance in terms of complete and correct timely data is linked to payment for supervision visits performed. Note that it is also possible to do this with paper-based data, though the electronic system will make the linkage between the report and the payment more quickly
- Timely data on consumption are available and will allow for more rapid triggering of transport of nets to storage facilities, pre-positioning or distribution points to minimize stock ruptures

Mobile phone or electronic data collection systems can be considered for campaigns, but planning must be done early in the process. Electronic data systems need to be adapted to context and tested early for their functionality and to identify and solve any issues.

Where possible, mobile or electronic data systems should require limited technical support, as this may be difficult to provide where infrastructure and security are poor. Where there is less

familiarity with technology, the needs will increase for technical support and for supervision. In some contexts, mobile phone penetration will be very low and in these cases, it may not be advisable to move to electronic data collection if people are unfamiliar with regular mobile phone use. Risks to data availability and quality should be considered as part of the decision-making around the data collection system to be put in place. Where electronic data systems using mobile phones for data collection will be used, the criteria for selection of personnel should be modified to include basic knowledge of use of a cell phone. As the costs of procurement of devices for the data collection may be prohibitive, registration and distribution team criteria for selection can include ownership of a phone; however, this may limit the number of people that can be included for selection and may lead to there not being sufficient who meet the criteria.

A mixed paper-device system should be considered in the initial roll out of electronic data collection systems to ensure that data are not lost due to technology problems.

## 15.8 Feedback to teams

Regardless of the data collection tools and the data management system put in place, using timely data to understand what is working and not working and to make programmatic changes to improve quality and performance can be extremely important in limiting the frustrations felt by people who have not received what they have been promised.

As much as possible, it is important to get summary programmatic and logistics data quickly analysed and to communicate potential problems to supervisors. If the data are organized by community supervisors, the summary data at this level can be used to flag problems with supervisors/teams that are over- or under-allocating nets, not reaching sufficient numbers of households, reaching too many households, etc.

The data manager should provide daily updates through phone calls, SMS, discussions during evening or morning coordination meetings or with district supervisors, or any other possible means. The data manager should be able to provide information on a daily basis regarding number of reports received as against those expected at each level to improve reporting frequency through supervisory visits or collection of missing data forms. Where community supervisors have not reported data for more than one day, sub-district or district supervisors should make a supervision visit to the community supervisor to ensure that everything is being implemented as planned and collect the outstanding data collection and summary forms for submission to the data manager.

During the logistics operation and ITN distribution, the data manager should be receiving information regarding stock at each storage location, distribution point or pre-positioning site and should be able to see where there is potential loss of nets between the programmatic and the logistics data. These problems need to be flagged immediately for follow-up and where the problem is related to poor management or security of the storage location, changes in location or personnel may need to be made or additional on-the-job training and spot checks may be required. These types of changes can be very sensitive and so should involve local authorities in addition to campaign organizers.

The data manager should also be able to see if a stock rupture of nets is likely in a pre-positioning site or distribution point and, where this is the case, communicate it to the teams so that transport of additional nets can be organized (where possible) and communication planning can be activated.

### 15.9 Use of surveys

Health surveys for malaria are likely to be even more important in COE than in stable

environments because of the added cost of net distribution and questions about output and outcome that are always asked by donors and stakeholders. While population surveys such as the Demographic and Health Survey (DHS), Multiple Indicator Cluster Surveys (MICS) or Malaria Indicator Surveys (MIS) are a good means of gathering punctual data to look at overall health indicators, they are often planned but then delayed, often for several years, before being implemented, so may not provide timely information as to what the net distribution has achieved.

See *AMP Toolkit (revised Chapter 8)*<sup>42</sup>.

Malaria surveys can be conducted safely with some adjustments:

- Lot quality assurance sampling (LQAS) approaches, which are rapid and require teams to be present for only a limited time in a particular area, can be considered. The EPI cluster survey approach can also be used with appropriate modifications such that the household is the denominator rather than children of the targeted age group.
- The sample size can be reduced. A sample size of 300 households will yield household, population and child indicators that have a confidence interval of plus or minus 10 per cent or lower, which is sufficient for ITN distribution<sup>43</sup>.
- Two adjustments are likely needed to the sampling frame to ensure the safety of the survey field workers: first the sampling frame should be adjusted to exclude areas that are known to be inaccessible or dangerous. Second, the survey field teams need to be given the authority to exclude clusters if they are not accessible once they have discussed the situation with local partners and officials and the survey leader.

42. Available to download from the AMP website ([allianceformalariaprevention.com](http://allianceformalariaprevention.com)) during 2019.

43. See: IFRC (2012) *Designing a RAMP survey*, Section 4.11.



Information on indicators can be found in [AMP Toolkit, Chapter 8](#) (revised version<sup>44</sup>) and Appendix 8A.

Where a survey is being organized to see if an ITN distribution has achieved the coverage desired and whether people are using their nets, the methodology should include random selection of households. This is more likely to illustrate whether coverage objectives have been achieved rather than following up on the basis of households registered, since the latter will obviously exclude houses that were not initially reached. The results of a post-distribution survey can be used to target distribution of remaining nets, particularly where entire areas (clusters) have been missed. They can also be used to reinforce post-distribution communication where problems with ITN use are identified.

If the objective of a survey is to provide information about households reached and

coverage (ownership) achieved, then the survey should be implemented immediately following the distribution, when coverage will be highest. In this case, to avoid a second contracting process, where an organization has been contracted for the external monitoring they could also be asked to include a post-distribution survey as part of their proposal and budget. Where there is no external monitoring group contracted but post-distribution data are needed, a call for tenders should be launched on the basis of a protocol designed to measure what the campaign organizers are looking for.

If the objective of the survey is to look at ITN access and use in the high transmission period, then it may be necessary to wait for a number of months until the next rainy season, at which time a contracted organization can measure the outputs and outcomes of the ITN distribution and provide data regarding any gaps in access or use for programme action.

44. Available for download during 2019



## 16. Reporting: improving programme quality and advocating for resources

Increasing resources are being put into COE countries and it is important that reports are made available to allow for assessment of progress against targets, as well as for identification of challenges that need to be addressed in future. Many countries are showing success with ITN distribution in COE, but information in the public domain is lacking, including operational information and innovative approaches that countries could try in their own COE contexts.

Reporting is important for two main reasons:

1. To document different approaches and options, including their successes and challenges, to allow for continued learning and innovation within and between countries and partners
2. To facilitate advocacy for filling gaps in funding for malaria programmes in COE through documenting success stories and testimonials of how access to life-saving prevention and case management commodities affects targeted populations

Countries and partners should ensure that they are documenting their successes and challenges and using these both to adapt their internal planning for greater success and to communicate externally with partners and donors as to the effectiveness of their resources for saving lives in difficult operational contexts.

AMP will be pleased to collect together reports and documentation detailing experiences, tools, recommendations, case studies and lessons learned so that countries working in challenging or complex operational contexts, whatever the reason, have a reliable and comprehensive resource from which to adapt their own planning and strategy.

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