The Alliance for Malaria Prevention

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

Additional material to accompany AMP Toolkit





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Summary of recommendations

A study of data collection strategies and tools used during mass ITN distribution campaigns across a large number of countries found that there was a lack of consistency in what was collected and how the data were used, both for household registration and ITN distribution. In their assessment of the data, the Minimum Data Requirements workstream of the Monitoring, Operations Research and Evaluation (MORE) working group of the Alliance for Malaria Prevention (AMP) came to the conclusion that countries should collect the **minimum data required** for rapid compilation and analysis during each phase of activities. These data must be able to:

- Track progress of each phase of campaign activities against the baseline targets (e.g. number of households registered versus number expected)
- Ensure accountability for the available ITNs

The main recommendation is that **data should not be collected** that:

- Do not serve the core objectives of the ITN campaign
- Create an additional burden in terms of training, collection, timely analysis and reporting
- Will not be used to improve the campaign implementation and accountability for the ITNs

For **household registration**, the focus is on achieving the campaign objectives. For this, the information collected should be:

- Name of head of household
- Number of people in the household or number of sleeping spaces in the household
- Number of ITNs required (based on the allocation strategy)

Where vouchers or coupons are used to exchange for ITNs, the number of vouchers/coupons issued and their serial numbers are usually collected.

During **distribution**, the tracking of the ITNs at every movement is essential information to ensure accountability at the end of the campaign. Data collection tools must be able to verify:

- Number of ITNs received at distribution points or pre-positioning sites
- Number of ITNs distributed
- Number of ITNs remaining

The recommendation is that no other data are necessary unless they will clearly be used to monitor the progress of the campaign and lead to improvements in the future.

This document shows how the Minimum Data Requirements workstream arrived at these recommendations.

1. Introduction

The Monitoring, Operations Research and Evaluation (MORE) working group of the Alliance for Malaria Prevention (AMP) set a priority in its workplan to better understand key indicators and data points collected during mass insecticide-treated net (ITN) distribution campaigns in the household registration phase and the ITN distribution phase. Many programmes and partners raised this issue with AMP given the inconsistent reporting requirements by countries and donors, which can burden field workers and increase operational costs.

To address this priority, the Minimum Data Requirements (MDR) workstream was established to gather and synthesize existing information and provide recommendations on minimum data requirements and standardization of indicators and data collection points.

The objectives of the MDR workstream were to:

- Collect the data collection tools that are currently being used by countries for household registration and ITN distribution.
- 2. Compile information on the different indicators and data points being collected to determine consistency across countries.
- 3. Provide recommendations for minimum data requirements for household registration and ITN distribution and standardization of indicators and data collection points.

Identifying minimum data requirements was classified as a criticial issue based on the complexity of data collection and management during ITN campaigns.



2. Data for allocation and distribution of ITNs

The data collected during mass campaign distribution must ensure that the available insecticide-treated nets (ITNs) are allocated correctly to households and can be accounted for at the end of the distribution period. Data collected should allow the National Malaria Control Programme (NMCP) and implementing partners (IPs) to monitor and evaluate the quality of campaign implementation and the management and accountability of ITNs in a timely manner.

Mass campaign distribution of ITNs typically begins with macroplanning, which includes defining the strategy for the campaign. Major decisions taken at the time of macroplanning include:

- How ITNs will be allocated to households
 (e.g. by number of people, by number of sleeping spaces or other allocation, such as a fixed number of nets per household)
- How ITNs will be distributed to households (e.g. through fixed site or door-to-door distribution)
- How beneficiaries will be *identified* during distribution, if fixed site distribution (e.g. by means of vouchers/coupons, household registration lists or another form of identification)

2.1 Household registration

Household registration involves a series of steps, beginning with identification and listing of household registration personnel (with the quantity and locations defined during the microplanning exercise1), followed by their training. After the training, registration personnel undertake door-to-door visits and registration of each household, as well as communication of key messages about malaria prevention and the mass campaign. Household registration personnel should be organized with an implementation plan by catchment area that allows them to reach every household in their targeted area. The most common reason that a household does not receive an ITN during mass campaigns is because of non-registration (or non-reception of a voucher/coupon, where that is part of the strategy), which emphasizes the importance of high quality planning, good training and efficient implemention of household registration.

During household registration, information is collected (either on paper or electronically or a combination) from each household to allow exact quantification of the number of ITNs required for the distribution in a specific area. In the case of fixed site distribution, household registration will provide the number of ITNs needed to cover the population in the catchment area of the distribution point, while in the case of door-to-door distribution, household registration will provide the number of ITNs needed to cover the population in the catchment area of a pre-positioning site. Depending on the strategy for beneficiary identification at fixed distribution points, the household registration may include distribution of vouchers/coupons or another form of identification to be used in exchange for nets.

1. See Microplanning guidelines (allianceformalariaprevention.com/amp-tools/tools-resources/)

The household registration data must be collected and collated quickly as this information is required for the timely transport of the ITNs to distribution points or pre-positioning sites. During the household registration phase, thousands of people are registering hundreds of thousands of households in a short period of time. The compilation of the data from the household registration regularly experiences delays due to an underestimation of the time required to compile the data and/or too much data being collected, which increases the time required for data entry.

2.2 ITN distribution

ITN distribution is the phase during which registered households receive ITNs according to the allocation made during the household registration phase. During ITN distribution at fixed sites, households receive ITNs either upon presentation of a valid voucher(s) or other identification or after having their name verified on the household registration list. During doorto-door distribution, households receive ITNs at home from distribution personnel².

During ITN distribution, the data collected should be compared with the household registration data to track progress towards achieving coverage and ensure accountability for the ITNs. The data collected during and after the ITN distribution must allow for an accurate accounting of ITNs received, distributed and remaining at each distribution point/prepositioning site.

In many instances, during the ITN distribution phase, there have been problems reconciling the number of ITNs received, distributed and remaining at the end of the campaign.



 Note that in some contexts, such as complex settings, fixed site or door-to-door distribution may combine the two phases – household registration and ITN distribution – into a single phase to limit team time in insecure areas.

3. Multiple approaches and their resulting challenges

Countries adopt different strategies for ITN allocation, identification of beneficiaries and distribution of ITNs that affect the data they choose to collect and the tools that they use to collect those data. The complexity of country contexts in terms of geography, population, climate, urban and rural areas, conflicts, etc. has led to the adoption of multiple approaches for mass campaign distribution of ITNs. These multiple approaches are aligned with various documents and tools, with the result that:

- Data collected during household registration and ITN distribution differ from country to country
- Data collection is not standardized across countries, including the minimum data required to ensure high-quality campaign implementation and accountability for the ITNs
- Data collection in some countries includes data points that are unrelated to the campaign and are not used for the purposes of enhancing quality and control of the overall operation

Some confusion among country programmes and their partners has been the result of the lack of consistency across countries and implementing partners (IPs) about the data which should be collected during each phase of mass ITN distribution campaigns. In many cases, ITN programme officers, field workers and partner organizations have diverted staff time and funding to collect information that may have little or no practical use to improve campaign operations or outcomes.

4. Sources of the assessment

In the assessment of the different approaches, three key sources of data were used:

- 1. Country data collection forms to document the elements being included for the household registration and the ITN distribution phases. NMCP and implementation partner staff were contacted directly by members of the MDR workstream, as well as AMP technical assistance (TA) providers, to request electronic copies of data collection tools being used in each phase of activity.
- 2. An online survey targeting National Malaria Control Programme staff, implementing partners, AMP TA providers and funding organizations. Specific questionnaires were developed for each cadre of respondent.

3. Interviews with key stakeholders to follow up on information coming from (1) and (2). Key informant interviews were conducted across the same cadres of respondents to collect further information. It was expected that these informants would be able to provide richer, in-depth information to build on the topics of most interest.

In total, data collection tools and guidelines from 23 countries³ were reviewed; the online survey was completed by 18 participants⁴; and targeted key informant interviews were carried out with 16 participants⁵. The findings from these three sources of data were compiled to document current practices and data being collected during household registration and ITN distribution, accounting for different strategies that countries may have adopted for different contexts.



- 3. Afghanistan, Benin, Burkina Faso, Burundi, Cameroon, Central African Republic, Chad, Cote d'Ivoire, Ethiopia, Ghana, Guinea Bissau, Indonesia, Liberia, Mozambique, Nigeria, Pakistan, Papua New Guinea, Sierra Leone, Sudan, Togo, Yemen, Zambia, Zimbabwe.
- 4. Four donor respondents; four country programmes; four AMP TA providers; six implementing partners.
- 5. Three donor respondents; three country programmes; one AMP TA provider; nine implementing partners.

5. Coverage and accountability

During the development of the monitoring and evaluation plan for the ITN campaign, it is important to discuss the different indicators that may be important during each phase of activities⁶ and to then determine how best to collect the information needed to report on those indicators.

Based on key informant interviews, the rationale for the selection of the data collected across the different strategies was primarily focused on measuring progress towards achieving universal coverage⁷, which is most commonly measured as the proportion of households with one ITN for every two people. Coverage and accountability were the most critical factors to consider in selection of data points for ITN mass campaigns. According to one survey respondent, accountability "is particularly important in justifying future funding, as loss of nets can affect the ability to mobilize for future campaigns".

In some countries, ITN allocation is based on people per net (e.g. one net for two people), while in others ITN allocation is based on sleeping spaces (e.g. one net for each sleeping space regardless of the number of people that sleep there). In countries that are transitioning between allocation methods, it is important to remember that only one piece of information – number of people or number of sleeping spaces – should be collected as the two pieces of information cannot be compared or used to validate each other.

When determining how ITNs will be allocated to households – number of people or number of sleeping spaces – it is important to understand the pros and cons of each method. Sleeping spaces may be more problematic as they can:

- Be more subjective in terms of how a sleeping space is defined and thus create confusion on the part of the registration personnel and lead to inaccurate household registration results (over- or underallocation)
- Differ from one season to another depending on work patterns and climate (e.g. people working away from home, people sleeping outside). In these cases, if sleeping spaces are selected for allocation, a process for accounting for these seasonal shifts should be included and explained during training
- Lead to problems with allocation, such as over-allocation of nets to wealthier households in urban areas (where everyone may have their own sleeping space) and under-allocate nets to less wealthy households with many people but few defined sleeping spaces

Data points must be consistent with the objectives of the campaign:

- Coverage (achieving one net for two people, one net per sleeping space for each household, fixed number of nets per household)
- Identification (ensuring that households can be identified such that "whoever comes to the distribution point is from a particular registered household"⁸)
- Accountability (from the perspective of all stakeholders)

- 6. See AMP Toolkit, Chapter 8 (version 2018) for a complete list of indicators. (allianceformalariaprevention.com/amp-tools/amp-toolkit)
- 7. WHO: Universal coverage is defined as universal access to, and use of, interventions by populations at risk of malaria.
- 8. Quote from survey respondent.



6. Results of the assessment

Review of the data collection tools used across countries showed that while many data points are similar, the data being collected are not standardized. In-depth interviews with key informants provided a clearer understanding of why data were being collected and if/how they were being used for the purposes of the ITN mass campaign. The results of the document review and follow-up key informant interviews revealed that two categories of data were collected – "need to know" and "nice to know".

"Need to know" data are critical to achieving the campaign and ITN accountability objectives. For example, the use of household registration data has two main objectives – (1) to determine the allocation of ITNs to each household based on a pre-defined allocation strategy, most commonly according to number of people or number of sleeping spaces and (2) based on the ITNs allocated to households, to determine the quantity of ITNs required at each distribution point/pre-positioning site to ensure that campaign objectives for population coverage can be met during the ITN distribution phase.

"Nice to know" data were defined as data that were potentially interesting or useful if utilized, but were not necessary to achieving the campaign and ITN accountability objectives.

Based on the data collection tools and responses from key informants, "need to know" data for household registration that are relatively consistent across countries include:

- Name of the head of household⁹
- Number of people in the household or number of sleeping spaces in the household
- Number of ITNs required (based on the allocation strategy)

 Where vouchers/coupons are distributed during the household registration, the number of vouchers/coupons issued and/or the serial numbers of the vouchers/coupons are usually collected

The "nice to know" data points for household registration include number of pregnant women in the household and number of children under five years of age in the household, as well as more detailed information about household members such as age and gender. This is categorized as "nice to know" data, since if the allocation of ITNs is based on number of people or sleeping spaces, the breakdown into age, gender and reproductive status does not have any added value for the purposes of the mass campaign.

For the ITN distribution, "need to know" data include:

- Number of ITNs received at the distribution point
- Number of ITNs distributed
- Number of ITNs remaining at the end of the distribution period

Additionally, some countries may collect the number of households served where one voucher is equal to one household or the household register is being used for the ITN distribution.

In general, fewer "nice to know" data are collected during ITN distribution, though some countries include the number of pregnant women or children receiving ITNs.

In some cases, "nice to know" data may be collected because there is an opportunity to do so rather than a need for it for campaign-related purposes. In some countries, the perceived advantages of the door-to-door registration may lead to requests from other programmes, such as maternal and child health or immunization, to collect data about pregnant women or children under five.

9. In one country in a conflict setting, the name of the household head was not collected dur to sensitivities in the context.

However, even if these data are collected, there often is no plan for the data to be compiled, analysed and used by the other programmes.

Any additional data points, beyond what is needed for the ITN campaign, may create bottlenecks in the campaign implementation if more time is required than planned for summarizing and compiling the data collected. This presents a particularly large risk when dates for the ITN distribution are communicated during the household registration or printed on campaign materials.

Some seemingly "nice to know" data are, in fact, being used for the purposes of the ITN campaign in some countries. In one country with a high risk of fraud and corruption that is felt to extend to the community level, data regarding specific family members, including sex and age, are collected and used as a form of verification to avoid over supply of ITNs to households. It is felt that if more detailed information is collected, it is more difficult for the household respondents to invent the required information. With this system in place over the course of a number of ITN campaigns, household respondents now know that there will be a verification of the number of people claimed to be living in the household, so are less inclined to be dishonest.

"Nice to know" data being collected - such as number or coverage of pregnant women and children under five - may be available through other programmes (such as integrated management) community case information may be collected independently of the household registration. For example, the percentage of pregnant women and children under five with access to a net can be measured through a survey, such as a post-campaign survey, a Malaria Indicator Survey (MIS) or a Demographic and Health Survey (DHS), which will provide results that are representative of the overall target population.

A limited number of countries are currently organizing integrated campaigns, combining different interventions and target age groups. In cases where integration is planned, it is important to streamline the tools to avoid too much confusion for health workers playing various roles during a household visit. In addition, in countries where integration is adopted, the training time should be adjusted to allow for sufficient days to ensure high quality data collection for all interventions.

7. Recommendations

Countries and partners planning and implementing a mass campaign distribution of ITNs should collect the minimum data required at high quality rather than collect extraneous "nice to know" data and risk poorer quality data collection. Limiting data collected to "need to know" will also facilitate more rapid compilation and analysis of the data collected.

Household registration data should focus on what is needed for the achievement of the campaign objectives, including:

- Name of the head of household (or proxy, if there are sensitivities to collection of names)
- Number of people in the household or number of sleeping spaces in the household
- Number of ITNs required (based on the allocation strategy)

Where vouchers are used, the number issued and serial numbers should be collected. This should facilitate verification if there are questions regarding voucher validity or potential falsification of vouchers when they are presented at the distribution points.

At distribution point level, there are three key pieces of information that must be collected:

- 1. Number of ITNs received at the distribution point for distribution (from the stock sheet at the storage site and on the distribution tool¹⁰ for the daily tracking of nets received)
- 2. Number of ITNs distributed (from the stock sheet and the distribution tool used for tracking nets distributed)
- 3. Number of ITNs remaining at the end of the distribution period (from the stock sheet, verified by the distribution tool)

With these three pieces of information, countries can track their progress in terms of nets distributed versus nets allocated during the household registration period and also ensure accountability for the nets received for distribution. Based on various reports from process evaluations and spot checks, many countries are not performing well on accountability for nets during and at the end of the distribution and it is thus advised that adequate training should be provided at the level of the distribution point.

The decision to add "nice to know" data should be taken after careful reflection and clear consensus among country and partner staff. If a country opts to collect such data, it should allocate sufficient days, staff and funding for training to ensure that data collection is done well. Countries should also include a plan for how the supplementary data will be compiled and used, and report on the results in post-campaign reports and evaluations.

In complex operating environments, data collection requirements should be adjusted to the local context to avoid exclusion of key populations due to refusal to register. Each complex setting will be different, but campaign planners should take into account the local specificities when deciding on data collection needs and the tools that will be used. In these settings, collecting data without names may be needed and, where education has been interrupted for extensive periods, very simple distribution tools may be needed to ensure that accountability is achieved¹¹.

^{10.} A tally sheet in the majority of country tools reviewed.

^{11.} See Operational guidance for insecticide-treated net distribution in complex operating environments. (allianceformalariaprevention.com)

The main recommendation from the MDR workstream is that data should not be collected that:

- Do not serve the core objectives of the ITN campaign
- Create an additional burden in terms of training, collection, timely analysis and reporting
- Will not be used to improve the campaign implementation and accountability for the ITNs

Priority should be focused on ensuring that essential aspects of the campaign, as defined in the national plan of action or implementation guideline, are closely monitored and the quality of the overall campaign and the data collected related to both process and outcome indicators are high.



