

# **Consideration for scaling-up the DHIS2 system for reporting of mass administration of medicines (MAM) in Nigeria.**

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## Output from research

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**This document is an output of the research study “Integrating neglected tropical disease (NTD) programme monitoring into routine health systems data: evaluating a DHIS2 platform for real-time mass administration of medicines (MAM) reporting”.**

The considerations which follow are based off discussions and review meetings with programme implementers at the three levels of government (FMoH, SMoH and LGA).

### Start with stakeholder engagement

If the Federal Ministry of Health (FMoH) is planning a national scale-up of this MAM reporting system, it is important to engage the various stakeholders, including INGOs (technical partner), to facilitate discussions around the ideas and to roll out the tool in different settings in Nigeria.

The first step to this engagement could be a two-day meeting, led by the FMoH, including a demo of the system, experiences, challenges so far, and, importantly, the collection of feedback from INGOs on the system and the process, so that they feel they are partners in the scale-up.

The scale-up plan and budgetary implications of use of the system (command centre, increased communication costs) need to be outlined in detail. DHIS2 integration with MAM implementation would require collaborative effort, particularly with the enthusiasm of the FMoH to lead future engagements.

### Early compilation of community list

Engagement with target local government areas (LGAs) for the compilation of communities is crucial, and should be started early, ideally three months prior to MAM. While the State Ministry of Health (SMoH) has control over the DHIS2 system, a mechanism for LGAs to request community additions or removals should be developed and agreed upon early in the planning phase so that the LGA teams have some course of action and feel comfortable with the lists that will then be uploaded to the system and reported against.

This process of validating and revalidating the community listing should be done iteratively and collaboratively with all stakeholders from the FMoH, SMoH and LGA teams to ensure comprehensive community lists are reviewed before each campaign and are available for the DHIS2 during MAM implementation.

### Clearer guidance on roles and process

As this system is standardised, terms of reference (ToR) for each level need to be thoroughly documented and well communicated during each training, as well as during other MAM meetings - e.g. planning or data review.

## LGA workload

There is an expectation that, over time, the spreadsheets used for MAM reporting at LGA level will be phased out. The FMoH would benefit from creating a clear validation process – an understanding on when and why LGAs are able to make this transition from spreadsheet to fully DHIS2 platform. Until then, it needs to be made clear to those doing data entry at the LGA level that longer term their work will not be doubled and that there is a clear plan to move completely to the DHIS2 system for reporting.

The FMoH could also consider, especially during the first rollout, additional compensation for, or recognition of, the additional but important work being done by LGA staff.

As state and FMoH levels now have access to MAM data, the campaign an ongoing one, they could use the opportunity to contact LGAs with positive feedback and motivational messages, not only with concerns in MAM implementation or data entries.

## Connectivity

Pro-active hardware and infrastructure assessments are needed at LGA and state level prior to roll out of the system, with minimum requirements in place that should be met. This challenge cannot be fixed by the NTD team within the FMoH alone, but must be worked around, with options such as dongles and the addition of communication allowances in the LGA and state budgets to facilitate network access.

No assumptions should be made in each area, which is why a standard assessment is important, and budgets must be put in place once the assessments are done. If there are no funds available for this, the FMoH may consider restructuring their rollout plan, moving ahead in areas with good connectivity first.

## Communication and support to LGAs

It should be made clear that the system is not only here for identifying errors in data entry but, more importantly, for identifying areas of low coverage or challenges in implementation to improve the programme and the performance of LGAs.

LGAs should be encouraged to look for these issues themselves and address them, rather than be concerned about the state level reaction to the numbers to such an extent that there might be temptation to try and hide issues. LGAs can also be trained and supported to better monitor duplicates, or flag wild figures at the point of entry, to reduce errors. This way, state and FMoH can instead focus on supporting with implementation challenges.

## Extension of the duration for data entries during MAM implementation

The number of days experimented in this study was ten, we recommend extending this duration beyond ten days to enable the LGA teams enough time to capture all MAM treatment data, improve treatment coverage on the DHIS 2 platform, and to reduce errors. The number of days would, however, need to be agreed by all parties, and would need to be reviewed based on the expert level and availability of resources for each state.

## Consider retaining data review meetings

The data review meetings were extremely popular, and multiple requests that they be retained were recorded in the meeting notes. Although these meetings are part of the programme more generally, and not specific to DHIS2 scale-up, the immediate availability of the data makes such meetings both more feasible and carry higher utility.

With enough proximity to actual MAM activities, identified issues can still be addressed through, for example, extended mop up. Furthermore, such meetings would serve to reinforce the utility of and access to DHIS2 data, as well as an avenue for reflection across all levels on MAM.

## Capacity building

Training is key to the success of the system. The FMoH can use this report: “Scaling-up the DHIS2 system for reporting of MAM” to improve the training agenda, noting where participants struggled to use the system to its full capacity and where communication on the new process and new roles were unclear.

The FMoH and state levels will need an increased focus on data use (isolating MAM issues as well as data entry issues), while the LGA level will need an increased amount of system interaction training, especially on data visualisation and use. There is also an opportunity, as per the recommendation above, to incorporate a community review process into each training, where LGAs bring their community lists and reconcile them to the system in the actual training.

Efforts should be taken to train in smaller groups so that the possibility of participants falling behind is minimised and more complex functionality can be mastered. State teams need to be trained as trainers to minimise the burden of the FMoH team having to travel and train before each MAM, and to increase state ownership of the tool.

## Tackling high attrition from the NTD programme

High rate of staff attrition from the NTD programme to other programmes within the MoH should be discouraged to reduce the constant retraining of new programme staff posted to NTD units, both at the federal and state NTD programmes. If unavoidable, a system for peer-to-peer training or support should be created (i.e. an officer trains a new officer before leaving the position).

## Consider retaining hotline, though keeping it one directional

Though the hotline was put in place for the purpose of this study only, the enthusiasm for it highlights the need for improved communication, without the worry of teams having to use their personal funds, throughout the MAM process. However, we would not suggest making the hotline bi-directional, as a helpline of that nature would be onerous and resource-consuming for the FMOH to manage at scale. Instead, call can remain toll free from the LGA-level staff to the command centre, while the adequate communication budgets can be provided to the State and federal level staff for WhatsApp and phone calls to facilitate feedback communications.

## Separate drug tracking system

A separate drug supply chain dashboard is needed on the system, with additional data sources included, so that a full picture of drug use and availability at each level can be viewed by the logistics teams at federal, state and LGA level.

As the system is configured now, data is collected and can be viewed in the form of a table showing the balance brought forward, drugs received, drugs used, drugs wasted, drugs returned, and any gap that remains. This can be seen at community, ward or LGA level. We suggest integrating an application programming interface (API) connection with the **NTDeliver** (<https://www.ntdeliver.com/>) the online platform that centralizes and coordinates information from a variety of sources to better monitor and evaluate the NTD drug supply chain so that batches can be tracked to LGA level before they are broken up and distributed to lower levels.

## Enhancements to system

Additional functionality, with the aim of improving the quality of data entered, can be set up in DHIS2. One example of this would be introducing minimum and maximum ranges for certain indicators – if a piece of data is entered that falls outside the range, users will be alerted and/or the data cannot be saved. Another is the data validation tool, making sure certain logical criteria are met within the data (e.g. the total number of people treated cannot be more than those counted in the census). Although this may not be necessary for all fields, which could be burdensome, it should be considered for certain priority fields. Such added complexity to the system can be very useful, but thresholds and validation rules must be very carefully decided upon before they are set up. Finally, a simple, yet extremely enhancing improvement would be to prevent missing data by requiring zero entries.

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