Data quality in the time of a pandemic

On 30 January 2020, the World Health Organization (WHO) declared an International Public Health Emergency, due to a new disease, SARS-CoV-2, also known as COVID-19. Transmitted person-to-person through droplets, COVID-19 has proved to be highly aggressive as people continued to travel, the virus moved between continents, spreading rapidly, putting public health at risk and affecting individuals of all ages, races and social conditions.

Mozambique entered the COVID-19 map in March 2020 with the discovery of the first case and, following WHO’s declaration of a worldwide emergency in the same month, Mozambique’s Ministry of Health (MISAU), intensified measures recommended by WHO.

How did COVID-19 affect field activities?

A key challenge to continuing Data Quality Assessment (DQA) activities was ensuring compliance with, and implementation of, COVID-19 prevention measures under the status of a State of Emergency declared by the President of the Republic of Mozambique on 30 April, 2020.

To mitigate the risks of COVID-19 and prevent its spread within the scope of DQA activities, Malaria Consortium has adopted the following measures:

1. Reinforcement of hygiene conditions, cleaning and disinfection of materials, staff and providers
The DQA activity requires contact with books and records, both recent and those that were archived (for the purposes of cohort analysis). Materials that were needed were exposed to the sun the day before for 30 minutes and the same after use, in addition, alcohol (in cotton) was passed over materials. The evaluation team and healthcare providers were also required to wash hands with soap and / or use alcohol gel.

2. Social distance (1.5m)
The assessment methodology in DQA usually requires people to be close to each other for better interaction during the process (e.g. the extraction and analysis of data to promptly show the flaws). Due to social distancing requirements of at least 1.5 metres, observations were noted according to the number of the row and column in a separate notepad and afterwards the books were passed to each member to also observe, analyse, criticise and draw conclusions. This measure was feasible despite being quite time consuming.

3. Wearing of masks
All members of the Malaria Consortium evaluation team as well as the providers present on site wore masks. In future evaluations, the institution will offer masks to health providers (they must wear more than one mask).

Activity learning

Despite the current State of Emergency, all efforts continue to be made to strengthen surveillance systems so that 100 per cent of health units and districts report complete, timely and quality data in order for evidence-based decision making at all levels of the system.

Health unit providers need to make DQAs on a routine basis, involving more than one responsible person to encourage the attitude that data management is everyone’s responsibility, as well as ensuring that training replicas are carried out routinely and with a rotation of staff so as to enrich the health unit’s knowledge and skills.
Strengthening malaria surveillance with data-driven decision making in Mozambique using digital system – iMISS

Fragmentation and duplication of malaria-related data captured from health units (HUs) and the community level are major challenges in forming an accurate picture of interventions and outcomes.

An evaluation carried out in 2018 and 2017 highlighted that malaria-related data was being captured across various surveillance systems, requiring a number of paper-based forms and aggregation processes for reporting. The variety of systems including BES, CMAM and SIGLUS, or ad-hoc storage systems such as Microsoft Excel and Access, used to capture In-House spraying (PIDOM) and entomology data proved difficult to access and integrate with case surveillance data.

Responding to the need for unification and systematisation of surveillance data, Malaria Consortium and the National Malaria Control Program (PNCM) are working on a digital system, called iMISS to:

- integrate all malaria-related outcomes with associated panels, which will facilitate evidence-based decision making at all levels;
- capture information on a case-by-case basis in very low transmission strata, while maintaining aggregated Health Unit data in all other transmission strata; and
- aggregate data, verify data quality and produce reports through automated panels that trigger necessary actions within iMISS - key decision trees that facilitate D2A activities at different levels of the system.

Getting the system operational

In order to make iMISS operational, iMISS trainers (ToT) were trained in August and September 2020, which included Malaria Consortium and PNCM technicians. The replication of training began in October in the provinces and districts of implementation.

In addition to the training, Malaria Consortium started the process of delivering materials such as laptops, printers, desktops and lockers. Dr. Baltazar Candriinho, PNCM Director, was present to receive the materials and stressed the importance of this work. He hopes that iMISS will accelerate efforts to reduce the burden of malaria, help to establish and institutionalise a demand in the culture of data use at all levels of service providers and encourage decision making and resource allocation to be directed towards the implementation of appropriate responses based on actionable data.
Supervision and Data Quality Assessment visits motivate health technicians in Manica

The Mundonguara Health Centre, a type II unit in the Manica district, is a mountainous area with a population of around 3,800 inhabitants. There is only one nurse in the health centre, who performs all activities different service areas.

Malaria Consortium, together with the Provincial Directorate of Health (DPS) and the District Service for Health, Women and Social Action (SDSMAS) of Manica has been providing technical support to the health unit through supervision visits and Data Quality Assessment (DQA).

Maria, Maternal and Child Health Nurse (SMI), responsible for the Mundonguara Health Centre spoke to the Malaria Consortium team about her experience.

“I was trained in DQA by the Malaria Consortium team and now I know how to use the instruments for quality assessment, so I understand the results found during the DQAs at my health unit.

“Before the training, we received little or no supervision for technical support and evaluating the quality of data from the health unit. The first DQA we carried out showed that the health unit had discrepancies between monthly consumption and the stock sheet and also between the registration book, monthly summary and the SISMA. After the training, I was able to work to the guidance they had provided and was encouraged by the supervisor. The following DQA showed that the issues we had faced previously had been resolved and the quality of the data was improved.

“I am grateful for the supervision and DQA visits because every visit by the technicians is always a learning experience to improve data quality and work. I am already proud of my work and the quality that I have been presenting and I hope to always have this type of support so that I can grow in my skills.”
Inhambane Province seeing improved data collection thanks to external consultation books

Since 2019, Malaria Consortium, in coordination with the Provincial Health Directorate of Inhambane (DPSI) has been implementing an initiative to support the resolution of problems detected in the malaria surveillance system in Mozambique, in particular:

- Quality of information
- Use of data
- Operational capacity

As part of this work, registration tools such as external consultation books were distributed across 142 health units in Inhambane Province. On a recent visit from Malaria Consortium technical field staff, Gerson, Head of Massalane Health Unit - Panda District described how prior to receiving the consultation books provided by Malaria Consortium, the unit had been having to improvise in how they recorded information, making it difficult to collect, record and analyse data since it was not standardised.

The external consultation books that were provided improved the process of registering cases, with standardised fields for daily summaries, for example on ages and diagnoses, allowing for easier compilation of statistics.