

# Strengthening malnutrition data systems in Madagascar

## Background

Malnutrition remains a critical issue in Madagascar. As the database manager of Madagascar's national office of nutrition, Office National de Nutrition (ONN), Andry Rabemanantsoa is responsible for ensuring data is effectively collected, analyzed and used to improve nutrition. The prevalence of chronic malnutrition among children under 5 years old stood at 39.8% in 2021, well above the 30% threshold established by the WHO and UNICEF in 2019. Despite a decreasing national trend in the prevalence of acute malnutrition—from 8.2% in 2013 to 7.7% in 2021—it still exceeds 5%, which is considered “average performance” according to the WHO and UNICEF’s 2019 classification system.

In response, Madagascar updated its national nutrition policy in 2022, launching a multi-sectoral National Action Plan for Nutrition (PNAM) to achieve the nutrition Sustainable Development Goal by 2030.

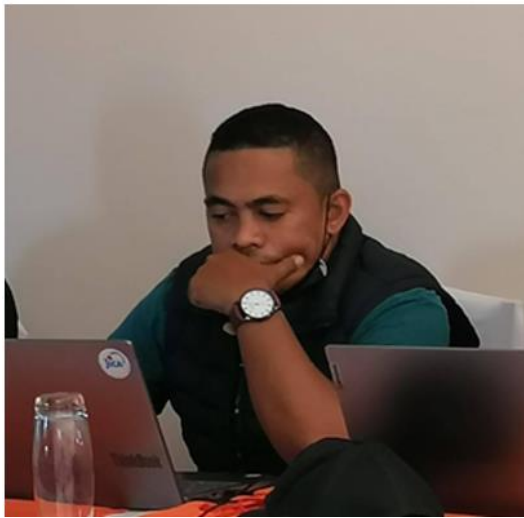
"The fragmented nature of data collection and the challenges in grasping key indicators are significant obstacles in Madagascar's nutrition sector," Andry said "These gaps weaken stakeholders' capacity to make well-informed decisions and effectively coordinate our efforts."



CHISU hosted a workshop on tools for monitoring evaluation for nutrition in Madagascar. Photo Credit: Andriamihaja Raharijaona-ONN

## Steps Taken

To address this need, the Country Health Information Systems and Data Use (CHISU) program, USAID's flagship health information system and data use program, partnered with ONN to bring together key personnel from across government ministries to discuss and chart a path to resolve the challenges in collecting and analyzing nutrition-related data. An initial meeting identified key data collection requirements followed by visits with the ministries responsible for multi-sectoral nutrition, including Ministries of Health, Water, Sanitation, and Hygiene, National Education, Population, Protection, and Promotion of Women and Agriculture. Each ministry provided perspective to define indicators, identify data sources, and establish data collection frequencies.



Rabemantsoa Andry, Database Manager of ONN,  
Photo Credit: JSI

CHISU then organized a consolidation workshop with these stakeholders to update the nutrition indicators needed to support the action plan. The updated indicators formed the foundation of a nutrition data management system using DHIS2 to centralize nutrition data. The new digital system facilitates the collection, collation, monitoring, and analysis of nutrition indicators at various levels of the health system, ensuring enhanced data reliability, availability, and accessibility for decision-making.

“The digitization of data presents a vital opportunity to enhance the monitoring and evaluation framework by improving the centralization and accessibility of information,”

Andry said. “This advancement will not only foster better multi-sectoral coordination but it also facilitates more responsive and informed decision-making across all levels.”

CHISU trained four ONN administrators and staff in addition to various ministry staff to install, configure, and manage DHIS2 to ensure they could enter data and produce reports to inform their daily work. Leveraging existing global goods for digital health, Madagascar adopted OPENHIM as an interoperability mediator to facilitate the exchange of data across systems. This enhanced system efficiency, mitigated risks, and expedited the implementation process.

“This adoption will not only strengthen collaboration between the various players in the sector, but also ensure a smooth and secure flow of essential information for decision-making,” Andry said. With this digitization initiative, Madagascar is taking a significant step forward in advancing its broader digital health strategy. OpenHIM acts as a crucial bridge, connecting the DHIS2 data repository with other essential information systems across different sectors that impact nutrition, from education and social protection to agriculture and livestock. In the future, this interoperability will streamline the connection between DHIS2 and systems managed by these different ministries. By

doing so, Madagascar will be able to implement and monitor the effectiveness of the diverse interventions that are required to move the needle on malnutrition.

## Results + Next Steps

Following the DHIS2 implementation and training, the nutrition team's data entry is more efficient, allowing for timely reporting of multi-sectoral nutrition data for the first time and enabling more cohesive, informed decisions.

“The collaboration with CHISU has significantly enhanced my personal capabilities in data analysis, as well as those of the nutrition sector teams, particularly in using DHIS2 for monitoring indicators as part of the nutrition program's monitoring and evaluation in Madagascar,” Andry said. “The teams are motivated to collect and analyze data—not only to encourage them to appreciate the data but also to actively integrate it into our decision-making processes in order to strengthen multi sectoral coordination of nutrition interventions.”

CHISU will continue to provide hands-on training to the ONN team that will be managing the system in the future.



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