



Increasing Access to Comprehensive Health Information with the Integration of Private Sector Data in the DHIS2 National Health Information System

WHO ARE WE?

The PMI Measure Malaria (PMM) project is funded by the U.S. Agency for International Development's (USAID) President's Malaria Initiative (PMI). Its main objective is to support the strengthening of the routine health information system (RHIS) and malaria surveillance, monitoring and evaluation (SME) in the 12 USAID-supported regions of Madagascar. Since 2021, the Ministry of Public Health (MSANP), conscious of the contributions of the private health sector in the provision of services, developed strategies for the integration of its data in the national health information system (NHIS) which runs on the District Health Information Software, version 2 (DHIS2) platform.

Building on the lessons learned from and successes of USAID's MEASURE Evaluation project in scaling up web-based models and approaches to health information, PMM improves access to comprehensive health information through the integration of hospital, community, and private health data. The project's aim is to ensure that health service managers and healthcare providers can make appropriate decisions according to the health situation in the country.

Private Sector Health Data Integration Approach

Motivation for and approach to the integration of private sector health data in NHIS

Analysis of the results of the private sector health assessment conducted by the SHOPS Plus project in 2017 showed a 25 percent reporting rate of private health data in the NHIS. Private health facilities (PHFs) have limited collaboration with public health centers (CSB), did not have the standard tools for collecting and reporting data (e.g., Monthly Activity Report [RMA], registers), and were not trained and supervised for the use of data tools and reports or data review.

To address these issues, USAID, through PMM, is supporting MSANP to integrate private sector health data into the NHIS. With only 25 percent of PHFs officially authorized by the MSANP to offer health services, the first phase of the intervention was rolled out in the four districts of the Analamanga region (Antananarivo Renivohitra, Antananarivo Avaradrano, Antananarivo Atsimondrano, and Ambohidratrimo). PMM adopted an inclusive and participatory approach with the mobilization of all private and public stakeholders, including the Directorate of Evaluation, Planning and Health Information (DEPSI); the Directorate of Basic Health Care (DSSB); the Directorate of Regional and District Hospitals (DHRD); private sector representatives of Private Health Sector Group (GSPS); the Association of Madagascar Private Hospitals (AHPM); and the MSANP technical and

financial partners involved in the NHIS. These stakeholders worked to develop an action plan that defines the objectives, approaches, and activities for the integration of private sector data into the NHIS.

In order to improve data reporting rates, various existing databases, including the national census of PHFs, the list of PHFs officially recognized by the MSANP, and the list of private hospitals (PHs) were analyzed to identify PHFs and PHs to be integrated into DHIS2.

Inclusive participation of central and regional level stakeholders

In order to ensure the alignment of interventions, the capitalization of assets, and the mobilization of resources, PMM provided technical support to the DEPSI and the General Secretariat in the coordination of training and supervision activities implemented at the regional level. This includes the improvement of PHF compliance with NHIS data management standards and procedures.

The inclusive participation of the private sector is coordinated with the two formal private sector networks: the GSPS and the AHPM. They work closely with the PMI Measure Malaria project on the implementation of private sector health data integration activities in the NHIS.

Training of PHF Data Managers on the Use of Standardized Data Collection, Management, and Reporting Tools



From left: Update of PHF Organization Units on DHIS2; From right: Training on the use of DHIS2 with private health facilities in the Ambohidratrimo district. Photos courtesy of PMI Measure Malaria.

In support of DEPSI, PMM trained 401 PHF service providers in the four districts (Antananarivo Renivohitra, Antananarivo Avaradrano, Antananarivo Atsimondrano, and Ambohidratrimo) on the use of the following data collection, management, and reporting tools:

- CSB Monthly Activity Report (CSB RMA);
- Monthly Hospital Activity Report (Hospital RMA);
- External Consultation Register (RCE);
- Prenatal Consultation Register;

- Childbirth and Post Natal Consultation Register (RACPoN); and
- Child Nutrition Monitoring Register (NSNR)

As part of the implementation of this training activity, the PMM project and DEPSI trained 10 data managers as trainers for the regional and district level on the use of the data collection, management, and reporting tools. These trainers conducted PHF trainings in their coverage areas to improve the quality and completeness of RMA, stock sheets, and to conduct data quality verification prior to the submission of reports.

District	Number of Data Managers	Male	Female
Antananarivo Renivohitra	109	19	90
Antananarivo Atsimondrano	113	29	84
Antananarivo Avaradrano	114	42	72
Ambohidratrimo	65	20	45
TOTAL	401	110	291

With the support of PMM:

657 PHFs were integrated into DHIS2, including:

- **559** basic private health facilities
- **98** private hospitals

401 PHF managers trained on the use of data management and reporting tools

34% of targeted PHFs received at least one supervisory visit

65% of PHFs in the four supported districts now report their data in DHIS2

Integrated Supervision of Public and Private Health Facilities for the Data Quality Review

MSANP participants in the four District Data Review and Analysis workshops considered the supervision of PHFs to be good practice in improving data reporting and strengthening the partnership between the public and private sectors. In recent years, it has been observed that there is a lack of supervision of PHF by health districts. In order to address this, integrated supervisory visits were conducted in PMM-supported districts.

During these visits, supervisors conducted data quality checks while emphasizing the timely transmission of data reports and the verification of the package of services provided by the PHFs. The supervisory visits made it possible to identify the PHFs with shortages of collection and management tools in order to equip them immediately with tools to comply with the NHIS standards.

District	Number of PHF visited
Antananarivo Atsimondrano	66
Antananarivo Renivohitra	20
Antananarivo Avaradrano	21
Ambohidratrimo	30
TOTAL	137

Map of intervention areas



Quarterly Meetings with the Private Health Sector HIS Commission to Jointly Review Progress in Implementing Planned Activities

PMM initiated monitoring meetings on private health sector data with the participation of various public and private sector stakeholders in the Analamanga region. During these meetings, the participants conducted an assessment of activity implementation progress, data quality reviews, and health service provision problem identification.

Representatives of the GSPS, the AHPM, the DEPSI, the Medico Sanitary Service, the HMIS of the Regional Directorate of Public Health (DRSP) Analamanga, the Medical Inspectors, the HMIS officials of the four districts, and trainers were present at these meetings.

PMM also held regular meetings with technical partners involved in the private sector to discuss and monitor the progress of the integration of PHF data into the national Health Information System (HIS). PMM and Population Services International (PSI) committed to strengthening coordination and information sharing among stakeholders to ensure the complementarity of the interventions and the value for money in the implementation of PHF data quality integration and improvement activities.

Quarterly Private Sector Health Data Review and Monitoring Meetings

PMM mentored PHF staff in the four supported districts to conduct six quarterly data reviews. In addition to monitoring the PHF data quality on completeness, timeliness, and accuracy, these meetings allowed for:

- Reinvigoration of public-private collaboration;
- Improved timeliness of reporting;
- Sharing of information between the two sectors to improve service provision;
- Building capacity around specific thematic areas (HIS, surveillance, disease control, etc.);
- PHF awareness of data quality assurance;
- Feedback to the PHF on the quality of recorded management tools; and
- Creation of data collection and management tools.



From top: Meeting with private health stakeholders on the integration of the health information (Photo Courtesy of PMI Measure Malaria); at middle: Supervision on the use of data collection tools with a PHF in the Antananarivo Atsimondrano district; from bottom: Supervision on the use of data collection tools with a PHF in the Antananarivo Atsimondrano district. Photos courtesy of PMI Measure Malaria.



Private Health Sector Data Reporting in DHIS2

PMM supported DEPSI and the health districts of the Analamanga region in improving the reporting of private sector health data in DHIS2. The following activities were conducted:

- Printing and dissemination of data collection and reporting tools to PHFs by health districts with the support of the Health and Demographic Statistics Service (SSDS) of DEPSI and the Regional Directorate of Public Health.
- Supervisory visits to collect monthly reports, review PHF data at the district level, and assess compliance with reporting requirements.
- Technical support to data managers and district PHF leads in tracking PHF reporting to districts, data entry into DHIS2, and provision of feedback during review meetings.
- Compliance with the official specifications validated by the MSANP indicating the PHF's obligation to report health data.
- Raising the awareness of district and regional management teams to strengthen partnerships with the private sector through participation in district activities such as vaccination, family planning, and disease control. Districts must motivate the administrative regularization of PHFs, collaboration, and mutual understanding of the roles of each party.
- The deployment of an electronic version of the RMA, which can be used on tablets or smartphones as an alternative to paper-based tools to improve PHF reporting timeliness and data consistency.
- Reminding PHFs to report data on time by phone call.



Evolution of the PHF Data Completeness and Timeliness Rates in the Four Districts of the Analamanga Region Supported by PMM from 2021 to 2022

HF of the 4 districts supported by PMM	Completeness*		Timeliness*	
	2021	2022	2021	2022
Private health facility	81%	91%	46%	66%
Private hospital	51%	59%	26%	42%



Updating the List of PHFs in DHIS2

PMM and DEPSI proceeded with district confirmation to update the list of functional PHFs in the DHIS2 system in order to better assess the services provided and to quantify targets and needs for comprehensive health system planning. Functional PHFs are those legally authorized by the DSSB and DHRD to provide health services and to report their data in the NHIS in accordance with the use of national standards and procedures. Nonfunctional PHFs have been deactivated from DHIS2 to avoid biases in the estimation of completeness and timeliness rates.



Training on the use of DHIS2 with a PHF in the Ambohidratrimo district. Photo courtesy of PMI Measure Malaria.

Opportunities and Challenges in Strengthening the Private Health Information System

The integration of PHF information into the NHIS will allow the MSANP to have comprehensive data on the health situation of the country. This activity determined the list of functional and legal PHFs and the level of services they offer in order to integrate them into the supervision of the districts of their intervention zones and to motivate them to comply with the standards and procedures for service provision and data reporting. The use of DHIS2 by PHFs was very limited, since their reports were previously entered by the Statistics and Planning Service (SDSP). Thus, training private health service providers on the use of DHIS2 should increase the reporting rate and reduce the volume of work of the SDSP in the future.

Next Steps Toward the Integration of Private Sector Health Data into the National Health Information System

The integration of PHF data from the four pilot health districts of the Analamanga region has made it possible to have comprehensive data and to use standard data collection and reporting tools. MSANP encourages partners to support the continued implementation of the action plan for the integration of private health sector data into the HIS and progressively scaling up in other potential regions such as Vakinankaratra, High Matsiatra, Atsimo Andrefana, Boeny, and Atsinanana.

Lessons Learned from the Integration of Private Sector Health Data

With PHFs using their own resources and having services aligned to the needs of their patients, the communication approach to be adopted must be different from that of the public sector.

Thus, the classification of these PHFs as CSB or hospital must follow the standards for the defined package of services they provide in order to decide which of the data collection, management, and reporting tools should be used at their level. The involvement of PHFs in health district activities is a priority to ensure the use of these tools according to national health system standards and procedures.



Training on the use of data collection tools with a PHF in the Antananarivo Atsimondrano district. Photos courtesy of PMI Measure Malaria.

PMI Measure Malaria

University of North Carolina at Chapel Hill • 123 West Franklin Street, Suite 330

Chapel Hill, NC 27516 USA

Phone: 919-445-9350 • Fax: 919-445-9353

measuremalaria@unc.edu • www.measuremalaria.org

This information was made possible by the generous support of the American people through the United States Agency for International Development (USAID) and the U.S. President's Malaria Initiative (PMI) under the terms of the PMI Measure Malaria Associate Award No. 7200AA19LA00001. PMI Measure Malaria is implemented by the University of North Carolina at Chapel Hill, in partnership with ICF Macro, Inc.; Tulane University; John Snow, Inc.; and Palladium International, LLC. The contents do not necessarily reflect the views of USAID/PMI or the United States Government. FS-23-627b-PMI. Cover photo: Supervising the use of data collection tools with private health facilities in the Antananarivo Renivohitra district. Photo courtesy of PMI Measure Malaria.