Evaluation

Madagascar IMPACT Activity (Improving Market Partnerships and Access to Commodities Together)

Midterm Evaluation Report

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Madagascar IMPACT Activity

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Evaluation

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Abstract

This midterm evaluation examined the progress of the Improving Market Partnerships and Access to Commodities Together (IMPACT) program to identify promising approaches and ongoing challenges, and to provide recommendations for the remainder of the program implementation period. The evaluation focused on three questions:

1. What is the effect of IMPACT's total market approach (TMA) on improving the availability and accessibility of quality health products to the Malagasy people?
2. Which of the IMPACT implementation approaches and activities appear to be the most promising and should be prioritized in the final two years of promoting the TMA? For those that are not showing promise, what alternatives or complementary options should be considered?
3. To what extent is there national ownership/stewardship of the TMA? How has the IMPACT program contributed to this degree of national ownership?

The evaluation used a mixed methods approach, including primary data collection through an online survey, key informant interviews, and focus group discussions; secondary review of program documents; and secondary analysis of existing data collected from program documents and routine monitoring activities. The data suggested that IMPACT was achieving its intended objectives and intermediate results related to enhanced coordination, strengthened capacity, and expanded engagement. The data also indicated that logistics, logistics management information system, and supply chain management issues continued to plague the program, resulting in continued and harmful stockouts or stock mismanagement issues, thereby inhibiting the potential success of innovative demand creation activities and, ultimately, bringing limited access to essential health products. Key recommendations include prioritizing the transition of stewardship and responsibility, renewing the understanding of a TMA approach with stakeholders, improving engagement of the private sector, transitioning social marketing activities, and increasing demand for health products.

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Cover

A Supervisor of Distribution from IMPACT is visiting a Point d'Approvisionnement (PA) in the Vatomandry, Atsinanana region of Madagascar. Photo: IMPACT project staff, 2019.

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Abbreviations

ADDO	Accredited Drug Dispensing Outlets
CHV	community health volunteer
CNFM	National Council of Malagasy Women
CSB	centre de santé de base [basic health center]
D4I	Data for Impact
DAMM	Direction de l'Agence du Médicament de Madagascar [Malagasy Drug Administration]
DEPSI	Direction des Etudes, de la Planification et du Système d'Information [Information System Studies and Planning Department]
DHS	Demographic and Health Survey
DHIS2	District Health Information Software version 2
DCA	Development Credit Authority
DFC	United States International Development Finance Corporation
DPLMT	Directorate of Pharmacy, Laboratory and Traditional Medicine
DRSP	Direction Régionale de la Santé Publique [Regional Directorate of Public Health]
EQ	evaluation question
FANOME	Fonds d'Approvisionnement Non-Stop aux Médicaments Essentiels [Non-Stop Financing for Medication Supply]
FGD	focus group discussion
FP	family planning
FY	fiscal year
GAS	gestion des approvisionnements et des stocks [Supply and Inventory Management Committee]
GESI	gender equity and social inclusion
GOM	Government of Madagascar
IMPACT	Improving Market Partnerships and Access to Commodities Together
IPM	informed push model
IR	intermediate result
KII	key informant interview
LMIS	logistics management information system
MCH	maternal and child health
MEL	monitoring, evaluation and learning
MGA	Malagasy Ariary
MIS	management information system
MOPH	Ministry of Public Health

P4P	pay for performance
PA	Point d'approvisionnement [community supply point for CHVs]
PARC	Point d'approvisionnement relais communautaire [community commercial wholesalers]
PhaGDis	Pharmacie de Gros de District
PhaGeCom	Pharmacie à Gestion Communautaire
PMI	U.S. President's Malaria Initiative
PMP	Performance Monitoring Plan
PSI	Population Services International
SALAMA	Centrale d'Achat de Médicaments Essentiels et de Matériel Médical de Madagascar [Central Essential Drugs and Medical Consumables Purchasing]
SBCC	social and behavior change communication
TMA	total market approach
TMI	Total Market Initiative
TWG	technical working group
UHC	universal health coverage
UTGL	Unité Technique de Gestion Logistique [Logistics Management Technical Unit]
Y	year

Executive Summary

In recent years, Madagascar has made strides in reducing infectious diseases and improving the well-being of its citizens through the implementation of various initiatives and strategies, such as the National Development Plan 2015–2019 and the Health Sector Development Plan 2020–2024, which outline an economic, social, and health strategy based on inclusive growth and sustainable development. However, the public sector remains weak, with poor national health infrastructure, challenges in effective commodity management, and weak information systems. The country has also grappled with multiple recent humanitarian crises related to climate change and the impact of COVID-19 on the health system.

Improving Market Partnerships and Access to Commodities Together (IMPACT) is a five-year, $30 million activity funded by the United States Agency for International Development that promotes a total market approach (TMA) to strengthen and increase the efficiency of the health sector supply chain in Madagascar. The program uses an innovative approach that includes marrying public supply chain support and social marketing efforts with strengthening the private sector supply chain,[1] and other activities designed to increase demand for health products.[2] The USAID-funded IMPACT program seeks to address the low availability of health commodities due to poor market coordination and inefficiencies, especially for maternal and child health (MCH), family planning (FP), and malaria. The IMPACT program focuses on sustainably improving the health of the Malagasy population through a strengthened health system and efficient health market, contributing to universal health coverage (UHC) and the TMA. TMA is a strategy to increase access to health commodities in a sustainable way, with improved targeting of free, commercially priced, and subsidized products, while prioritizing local ownership, government control, and stewardship.

IMPACT's main outcome objective is to increase total market performance for the use of health products and sustained health system performance. The conceptual framework is built on five intermediate results (IRs):

- **IR1**: Enhanced coordination among the public, nonprofit, and commercial sectors for the reliable supply and distribution of quality health products.
- **IR2**: Strengthened capacity of the Government of Madagascar (GOM) to sustainably provide quality health products to the Malagasy people.
- **IR3**: Expanded engagement of the commercial health sector to serve new health markets according to health needs and consumer demand.

[1] This includes the commercial sector.

[2] For the purposes of the evaluation, social marketing comprises three main approaches: (1) subsidized products distributed through the private/commercial sector (e.g., grossistes [wholesalers], épiceries [grocery stores]); (2) heavily subsidized products distributed through a point d'approvisionnement (PA, community supply point for community health volunteers [CHVs])/point d'approvisionnement relais communautaire (PARC, community commercial wholesalers) designed exclusively for access by CHVs; and (3) communication to support the use of a range of public health products and behaviors.

IR4: Improved sustainability of social marketing to deliver affordable, accessible health products to the Malagasy population.

IR5: Increased demand for and use of health products among the Malagasy people.

Cross-cutting elements include country ownership and sustainability; monitoring, evaluation and learning (MEL); innovation; gender, adolescent, and youth considerations; and environmental considerations.

IMPACT began in fiscal year (FY) 2018 and was scheduled to be completed in FY 2023; however, the program was recently extended until the end of 2024. IMPACT is implemented in 13 of 22 regions of Madagascar by Population Services International (PSI), with partners PATH, Management Sciences for Health, Banyan Global, and the Axian Foundation (previously called the Telma Foundation before April 2020).[3]

The evaluation sought to examine the IMPACT program's progress and performance to date, identify what is working and what is not, and offer solutions or areas of focus for the remaining program years 4 and 5 and the extension period. This midterm evaluation used a non-experimental design and a mixed methods approach to answer three main evaluation questions (EQs):

1. What is the effect of IMPACT's TMA on improving the availability and accessibility of quality health products to the Malagasy people?
2. Which of the IMPACT implementation approaches and activities appear to be the most promising and should be prioritized in the final two years of promoting the TMA? For those that are not showing promise, what alternatives or complementary options should be considered?
3. To what extent is there national ownership/stewardship of the TMA? How has the IMPACT program contributed to this degree of national ownership?

The study team collected primary data through an online survey that had 43 responses, 23 key informant interviews (KIIs), and 10 focus group discussions (FGDs) with 59 participants. The study team also conducted a secondary review of program documents and a literature review of peer-reviewed articles on related topics; and analyzed secondary data collected from program documents and routine monitoring activities. Data analysis used both qualitative analysis of open-ended survey question responses, KII notes, FGD transcripts, and notetaking from the document and literature reviews, and quantitative analysis of close-ended multiple choice survey questions, counts of code application and code co-occurrence[4] in KII notes and FGD

[3] Locations are: Amoron'i Mania, Analanjirofo, Atsimo Andrefana, Atsinanana, Boeny, DIANA, Haute Matsiatra, Melaky, Menabe, SAVA, Sofia, Vakinakaratra, and Vatovavy Fitovinany.

[4] A code co-occurrence matrix presents the "…frequencies for which all code pairings were applied to the same excerpt and, by default, overlapping excerpts. Such a display can expose both expected and unexpected patterns in which two codes were (or were not) used together. These patterns illuminate how concepts related to the research questions and represented by the code system are combined in the natural schema (i.e., cognitive frameworks that help organize and interpret information) activated by study participants as they report on the topic represented by project codes." Excerpt from: Dedoose. (n.d.) User guide. Accessed April 21, 2022. Retrieved from: https://www.dedoose.com/userguide/analysisandfiltering.

transcripts, and stockout and Performance Monitoring Plan (PMP) data from program documents.

Data from the evaluation suggested that IMPACT was achieving its intended objectives and IRs related to enhanced coordination, strengthened capacity, and expanded engagement. All these elements were building a strong foundation for sustainable health systems strengthening. The data also indicated that logistics, logistic management information system (LMIS), and supply chain management issues continued to plague the program, resulting in continued and harmful stockouts or stock mismanagement issues, thereby limiting the potential success of innovative demand creation activities. These issues were also exacerbated by COVID-19 and aggravated by Madagascar's undesirable status as a disaster-prone country that is increasingly facing more hazards due to climate change.

A strength of the IMPACT program was that challenges were recognized head-on and addressed quickly. It was clear that the challenges reflected Madagascar's complex supply chain structure for health products and the many stakeholders involved. Addressing their reoccurrence and the predictors of ineffective supply chain management are important concerns for the remaining program implementation period. At the same time, it is also important to acknowledge that supply chain breakdowns and inefficiencies are not just a problem in Madagascar. They are occurring more often in the COVID-19 pandemic world. As such, the IMPACT program is correct to be open to creative solutions and to learn and adopt from other programs and geographic areas, as exemplified by the Accredited Drug Dispensing Outlets (ADDO) activities and other methods of private sector engagement, and innovative approaches to demand creation activities that ensure equity.

Based on the qualitative and quantitative data analyzed, a coordinated TMA was achieved and contributed to the following IRs (EQ1):

- Enhanced coordination among the public, nonprofit, and for-profit sectors, with key objectives realized by the TMA technical working group (TWG).
- Improved capacity of government stakeholders to manage the public supply chain, specifically through national quantification activities.
- Increased engagement with the for-profit (commercial) sector in the health product supply chain through improvements in regulation, financial instruments, and accreditation.
- Increased accessibility and availability of health products, especially for FP.
- Targeted social marketing to improve access to health products.
- Increased demand through effective communication campaigns.
- Integration of gender equality and social inclusion in program activities.

Based on the qualitative and quantitative data analyzed, the following IMPACT implementation approaches were promising and should be prioritized (EQ2):

- TMA coordination for reliable supply and distribution of quality health products, with renewed emphasis on private sector participation.
- Capacity building, especially at the regional level for subnational actors.
- The ADDO activity, with additional communication and transparency.

However, strengthening is required to improve:

- Logistics and distribution of health products.
- Transition of social marketing to the public sector.

Based on the qualitative and quantitative data analyzed, the IMPACT program is well on the path to ownership/stewardship of the TMA (EQ3), but has opportunities to do more in years 4 and 5, with a specific emphasis on sustainability and handover through:

- Creative methods to combat staff turnover and to ensure consistent training and retraining in the TMA.
- Addressing remaining regulation challenges that impede private sector partnership and participation.

The next two to three years must prioritize the transition of stewardship and responsibility:

- Stockouts, overstocks, redistribution, and spoilage are everyone's responsibility.
- One unified, online, high-performing, inventory management system is needed.
- The system should have capacity to build dashboards, including an online dashboard on stockouts that is accessible to all actors. It should harness data to help understand issues related to "seasonality" and identify products that are experiencing significantly low demand (e.g., the "collier").
- Consider what can be learned about targeted stockout solutions from the U.S. President's Malaria Initiative (PMI).

A TMA is being achieved but renewed definitions and refresher training are needed on the approach, with less focus at the central level:

- Decentralize and expand working groups, with a focus on engagement of the private sector.
- Consider conducting virtual TMA training sessions.
- Leverage TMA champions, especially at regional and district levels, while implementing measures to retain existing champions.
- Consider where TMA representation can be enhanced at regional and district levels.
- Ensure that Unité Technique de Gestion Logistique (UTGL, Logistics Management Technical Unit)/ gestion et achats de stock (GAS, Supply and Inventory Management Committee) are functional and empowered to not just hold meetings, but to thoughtfully plan and make lasting decisions.

Improve motivation and engagement of the private sector:

- Consider what motivates the private (including commercial) sector to engage and remain engaged in a TMA process. For example, the private sector is hungry for market intelligence and can potentially be motivated by access to further market analysis.
- The private sector has the desire to be more involved in working group meetings and to be part of decision making.
- A further deregulation and review of laws may also stimulate motivation (e.g., approval of online sales, selling of FP products).
- Prioritize ADDO rollout while keeping key stakeholders informed at each step of the rollout.

Transition social marketing activities:

- Immediately inform and include government partners in all social and behavior change (SBCC) activities.
- Transition PAs/PARCs, but figure out how to retain their expertise, whether via champions, such as pharmacies à gestion communautaire (PhaGeCom, health center pharmacies), CHV monitors, or other roles.
- Consider allowing the sale of social marketing products within the Fonds d'Approvisionnement Non-Stop aux Medicaments Essentiels (FANOME, Non-Stop Financing for Medication Supply).

Increase demand and promote healthy behaviors through health products:

- Explore the reasons for low levels of FP knowledge among men.
- Consider development of a "positive masculinity" approach as a gender equity and social inclusion (GESI)-focused activity, and involve strategic partners, such as the National Council of Malagasy Women (CNFM), in field research.
- Plan for a post-IMPACT transition and ensure strong GOM/private sector handover with banking partners, leveraging the knowledge of bank "champions" already trained.
- Consider further support or a financial package/measure for women's empowerment.
- Fully vet the implications of the product pricing changes.

Recognizing the seismic shift that has occurred from the beginning of this program the conclusions and recommendations must be carefully considered and applied in the "new normal" imposed by COVID-19 We are hopeful that this evaluation will help elevate and amplify the voices of stakeholders and participants, and that their feedback will chart and galvanize the program's path forward.

Program Background

Introduction

In recent years, Madagascar has made strides in reducing infectious diseases and improving the well-being of its citizens through implementation of various initiatives and strategies, such as the National Development Plan 2015–2019 and the Health Sector Development Plan 2020–2024, which outline an economic, social, and health strategy based on inclusive growth and sustainable development. The country still faces challenges in terms of access to healthcare, persistent maternal mortality (426 per 100,000 live births)—primarily due to septicemia and hemorrhage—and high levels of under-five mortality.[5,6] Modern contraceptive use remains low at 43 percent among women in union, ages 15 to 49, and even lower among adolescent girls and young women ages 15 to 19, at 34 percent.[7] Out-of-pocket expenditures on health are high and are increasing as a percentage of total health expenditure.[8]

Direct donor support to Madagascar was re-established in 2013 following a sociopolitical crisis; however, the public sector remains weak, with poor national health infrastructure, challenges in effective commodity management, and weak information systems. The low availability of health commodities due to poor market coordination and inefficiencies, especially for maternal and child health (MCH), family planning (FP), and malaria, is being addressed through the Improving Market Partnerships and Access to Commodities Together (IMPACT) program, which is funded by the United States Agency for International Development (USAID). IMPACT's goal is to sustainably improve the health of the Malagasy population through a strengthened health system and efficient health market, contributing to universal health coverage (UHC) and the total market approach (TMA). TMA is a strategy to increase access to health commodities in a sustainable way with improved targeting of free, commercially priced, and subsidized products, while prioritizing local ownership, government control, and stewardship. To reach this goal, the program seeks to improve the capacity of the Malagasy health system to ensure that quality pharmaceuticals and health commodities are available and accessible to all Malagasy citizens on a sustainable basis.

This midterm evaluation reviewed IMPACT's implementation processes using a mixed methods approach, including primary data collection through an online survey; key informant interviews (KIIs) and focus group discussions (FGDs); secondary review of existing program documents;

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[5] Institut National de Statistique (INSTAT) and United Nations Children's Emergency Fund (UNICEF). (2019). Enquête par grappes à indicateurs multiples -MICS Madagascar, 2018, Rapport final. Antananarivo, Madagascar: INSTAT et UNICEF. Retrieved from https://www.unicef.org/madagascar/mics2018.

[6] According to the 2021 Madagascar DHS, the risk of infant and child mortality, (i.e., the risk of death before the age of five years is 75 percent compared with 72 percent in the 2008–2009 DHS. Institut National de la Statistique (INSTAT) and ICF. (2021). *Madagascar enquête démographique et de santé 2021: Indicateurs clés*. Antananarivo, Madagascar and Rockville, Maryland, USA: INSTAT and ICF. Retrieved from https://dhsprogram.com/publications/publication-PR131-Preliminary-Reports-Key-Indicators-Reports.cfm.

[7] Ibid.

[8] World Bank. (n.d.). World development indicators. Accessed March 1, 2018. Retrieved from https://datatopics.worldbank.org/world-development-indicators.

and secondary analysis of existing data collected from program documents and routine monitoring activities. It is expected that the results will inform adjustments to the program in years 4 and 5 of implementation, and for the recently approved extension period, until December 31, 2024, with recommendations on how the program can be adjusted or refined to reach targeted outcomes more effectively. The results may also inform the USAID Mission's annual portfolio review and the design of potential follow-on social marketing activities.

Program Description

IMPACT is a five-year, $30 million USAID activity promoting the TMA to strengthen and increase the efficiency of the health sector supply chain in Madagascar. The program uses an innovative approach that includes marrying public supply chain support and social marketing efforts with strengthening the private sector supply chain,[9] and other activities designed to increase the demand for health products.[10]

The IMPACT program focuses on sustainably improving the health of the Malagasy population through a strengthened health system and efficient health market, contributing to UHC. The main outcome objective is to increase total market performance for the use of health products and sustained health system performance. The conceptual framework is built on five intermediate results (IRs):

IR1: Enhanced coordination among the public, nonprofit, and commercial sectors for reliable supply and distribution of quality health products.

IR2: Strengthened capacity of the Government of Madagascar (GOM) to sustainably provide quality health products to the Malagasy people.

IR3: Expanded engagement of the commercial health sector to serve new health markets according to health needs and consumer demand.

IR4: Improved sustainability of social marketing to deliver affordable, accessible health products to the Malagasy population.

IR5: Increased demand for and use of health products among the Malagasy people.

Cross-cutting elements include country ownership and sustainability; monitoring, evaluation and learning (MEL); innovation; gender, adolescent, and youth considerations; and environmental considerations.

Program-supported activities include the following:

- Health needs analysis, including the identification of key market constraints and their root causes to develop a vision for the market per priority health area.

[9] Including the commercial sector.

[10] For the purposes of the evaluation, social marketing comprises three main approaches: (1) subsidized products distributed through the private/commercial sector (e.g., grossistes [wholesalers] and épiceries [grocery stores]); (2) heavily subsidized products distributed through a point d'approvisionnement (PA, community supply point for community health volunteers [CHVs])/point d'approvisionnement relais communautaire (PARC, community commercial wholesalers) designed exclusively for access by CHVs; and (3) communication to support the use of a range of public health products and behaviors.

- Engagement and coordination of market stakeholders to develop a road map and action plan with performance metrics per health area.
- Addressing market failures through supply, demand, and enabling environment interventions.
- Implementation, monitoring, and evaluation of the identified interventions.

IMPACT began in fiscal year (FY) 2018 and was scheduled to be completed in FY 2023; however, the program was recently extended until the end of 2024. IMPACT is implemented in 13 of 22 regions of Madagascar by Population Services International (PSI) with partners PATH, Management Sciences for Health, Banyan Global, and the Axian Foundation (previously called the Telma Foundation before April 2020).[11]

Conceptual Framework

Table 1 presents the IMPACT program's conceptual framework, illustrating the logical linkages among the expected results, outcomes, and expected impacts. The framework is underpinned by the program's principles of country ownership and sustainability; MEL; innovation; gender, adolescent, and youth considerations; and environmental considerations. It guides the program's planning, implementation, monitoring and evaluation, and provides indicators for measuring IMPACT's performance.

Table 1. Logical framework from the Cooperative Agreement[12]

Narrative Summary	Indicators	Data Sources
Goal/Impact: Sustainably improve the health of the Malagasy population through a strengthened health system and efficient health market, contributing to UHC	Use as a % of need per health area (*market equity*)	Demographic and Health Surveys (DHS)/population surveys/program data
Purpose: Improve the capacity of the Malagasy health system to ensure that quality pharmaceuticals and health commodities are available and accessible to all Malagasy people on a sustainable basis	Stage of market development (nascent, developing, mature)	Market assessments
Outcome: Increase total market performance for and use of health products and sustained health system performance	Total market performance (volume, value, breadth) (*market size and sustainability*) Consumer 5As[13] (*market accessibility)*	Population surveys, DHS, routine data monitoring system

[11] Locations include: Amoron'i Mania, Analanjirofo, Atsimo Andrefana, Atsinanana, Boeny, DIANA, Haute Matsiatra, Melaky, Menabe, SAVA, Sofia, Vakinakaratra, and Vatovavy Fitovinany.

[12] This logical framework is from the original Cooperative Agreement. In addition to the five IRs, there are cross-cutting activities that relate to gender equity and social inclusion (GESI) and MEL (not included here).

[13] The 5As = appeal, aware, ask, act, and advocate.

Narrative Summary	Indicators	Data Sources
IMPACT IR 1: Enhanced coordination among the public, nonprofit, and commercial sectors for reliable supply and distribution of quality health products		
1.1. The total market for health products in Madagascar is understood and documented	# of market assessments disseminated per priority health area	Programmatic data
Activities/Inputs: Market assessments & dissemination; stakeholder engagement; multisectoral Total Market Initiative (TMI) workshops; system-wide quantification and forecasting exercises; promotion of corporate social responsibility & public-private partnerships	# of market assessments conducted; # of TMI workshops conducted; # of public-private partnerships developed; # of system-wide quantification exercises	Programmatic data
1.2. GOM leads TMI stakeholders to coordinate health product quantification and forecasting, procurement, and distribution according to market assessments and segmentation	GOM has the capacity—human resources, experience, and tools—to lead TMI stakeholders	Programmatic data (KIIs)
Activities/Inputs: GOM TMI stewardship capacity assessment; capacity building of GOM in TMI through TMA champions	# of stewardship capacity building plans developed; # of TMA champions trained	Programmatic data
Intermediate Result 2: Strengthened capacity of the GOM to sustainably provide quality health products to the Malagasy people		
2.1. Health commodities and pharmaceuticals are continuously available and accessible in the public sector	% of tracer health products in public sector facilities; Pharmacie à gestion communautaire (PhaGeCom, health center pharmacies) Pharmacie du gros du district (PhaGDis, district pharmacy) reporting stockouts	Programmatic data; logistics management information system (LMIS); routine data monitoring system
Activities/Inputs: Free long-lasting insecticidal net mass campaign and continuous distribution; public sector supply chain management strengthening, including forecasting and supply planning; transportation to PhaGDis and PhaGeCom; LMIS and monitoring and evaluation systems; handover plan for procurement and distribution by the GOM	# of facilities and districts reporting data via the LMIS in a timely and complete fashion; # of long-lasting insecticidal nets distributed	Programmatic data

Narrative Summary	Indicators	Data Sources
2.2. The public sector supply chain increases financial sustainability	Profitability of PhaGeCom, PhaGDis, Centrale d'Achat de Médicaments Essentiels et de Matériel Médical de Madagascar (SALAMA, Central Essential Drugs and Medical Consumables Purchasing) increased; % of product that is unusable due to expiry	Routine data Surveillance system
Activities/Inputs: Total cost analysis, monitoring and evaluation and reform of FANOME; pilots of cost recovery models in the public sector	# of total cost analyses conducted; # of cost recovery pilots conducted; # of USAID-funded drugs integrated in SALAMA	Programmatic data
Intermediate Result 3: Expanded engagement of the commercial health sector to serve new health markets according to health needs and consumer demand		
3.1. Commercial actors are incentivized to expand into new health product markets	% of tracer health products available in commercial retail outlets; # of favorable tax laws adopted	Routine data Surveillance system Programmatic data
Activities/Inputs: Private sector engagement; supply-side financing (including DCA[14] support); routine data surveillance system; capacity building of the commercial sector in market research, business skills, advocacy for regulatory reform	# of financial institutions working with the DCA; private sector companies participating in health policy, regulation, and oversight; # of market data monitored: # of small grants to the Ordre National des Médecins (National Order of Physicians)/Ordre National des Pharmaciens (National Order of Pharmacists); # of businesses trained in finance and management[15]	Programmatic data; MOPH data
3.2. GOM facilitates the work of the commercial sector	# of favorable regulations and policies developed	Ministry of Public Health (MOPH) data
Activities/Inputs: *Advocacy and regulatory support to the GOM and support of professional associations to oversee the commercial sector; pilot the Accredited Drug Dispensing Outlets (ADDO) accreditation model*	# of GOM staff trained in regulatory reforms; % of private depots and pharmacies accredited	Programmatic data

[14] USAID's Development Credit Authority (DCA) was merged into the U.S. International Development Finance Corporation (DFC) in 2020. The existing DCA guarantee agreements in Madagascar are still in place but are now managed by the DFC.

[15] Additional indicator: # and value of loans made to commercial health commodities enterprises with IMPACT support.

Narrative Summary	Indicators	Data Sources
Intermediate Result 4: Improved sustainability of social marketing to deliver affordable, accessible health products to the Malagasy population		
4.1. Socially marketed products are continuously available at convenient and accessible locations	% of socially marketed products reporting stockouts among public and commercial retailers	Programmatic data
Activities/Inputs: Supply chain cost efficiencies in social marketing including handover to commercial/pharmaceutical distributor and voucher system; last-mile distribution; review of socially marketed products portfolio including new product development, progressive handover of community-based distribution to PhaGeCom and PhaGDis	# of outlets selling socially marketed products; # of socially marketed products developed and registered	Programmatic data
4.2. Socially marketed products achieve cost recovery at an affordable price for consumers	Market value of socially marketed products; % cost recovery	Programmatic data (cost recovery analysis)
Activities/Inputs: Development of product sustainability and cost recovery plan; modification of the product portfolio to increase cost recovery	Product sustainability plan developed; # of products sold at 100% cost recovery or greater	Programmatic data
Intermediate Result 5: Increased demand for and use of health products among the Malagasy people		
5.1. The market demonstrates sufficient and sustained demand for health products	Use of key health products increased among the target population; audience for USAID health and water, sanitation, and hygiene messages expanded	DHS
Activities/Inputs: Set up a demand creation TMI technical working group (TWG) subcommittee; design and implement category-wide product promotion campaigns including above-the-line advertising, below-the-line advertising, and interpersonal communication and specific product promotion campaigns targeted at youth	# of demand creation activities designed and conducted; # of youth reached through communication campaigns[16]	Routine data Surveillance system

[16] Indicators are also disaggregated by sex and geography (rural/urban).

Evaluation Methods

IMPACT is currently in its fourth year of implementation. There was a need to examine progress and performance to date, identify what was working and what was not, and to make adjustments for the remaining program years 4 and 5 and the extension period. Data for Impact (D4I) facilitated this midterm performance evaluation to provide information to USAID and the IMPACT implementing partners for the purposes of learning and course correction. The evaluation documents the challenges and successes of IMPACT in relation to social marketing, and public sector and for-profit supply chains, both independently and within a TMA. The program's implementation process was assessed and the level of ownership by partners and stakeholders was documented, while also identifying how they could potentially be improved. The evaluation protocol is presented in Appendix 1.

Evaluation Design

This midterm evaluation used a non-experimental design and employed a mixed methods approach to answer three main evaluation questions (EQs).

Evaluation Questions

1. What is the effect of IMPACT's TMA on improving the availability and accessibility of quality health products to the Malagasy people?

1.1: Has coordination among the public, nonprofit, and for-profit sectors to improve the availability and accessibility of quality health products been enhanced in the last three years (IR1)? How has the IMPACT program enhanced coordination to do so?

1.2: Has the capacity of government stakeholders to improve the availability and accessibility of quality health products through the public sector increased in the last three years (IR2)? How has the IMPACT program contributed to increased capacity to do so?

1.3: In the last three years, has the commercial (for-profit) sector begun serving new health markets to meet health needs and consumer demand (IR3)? How has the IMPACT program enabled the commercial sector to do so?

1.4: In the last three years, to what extent has social marketing been effective in delivering affordable, accessible health products (IR4)? How has the IMPACT program increased the effectiveness of social marketing approaches?

1.5: Is there evidence of increased demand for health sector products over the last three years (IR5)? To what extent have the IMPACT program's demand-creation activities led to this change?

1.6: To what extent are IMPACT activities designed to lead to changes in gender equality, female empowerment, and social inclusion, particularly in facilitating equitable participation in commercial activities and ensuring equitable access to health products?

2. Which of the IMPACT implementation approaches and activities appear to be the most promising and should be prioritized in the final two years of promoting the TMA? For those that are not showing promise, what alternatives or complementary options should be considered?

2.1: How effective have coordination approaches (with other donors and among the public, nonprofit, and commercial sectors) been in ensuring a reliable supply and distribution of quality health products? How are subnational actors involved and how effective has their participation been?

2.2: How have capacity building efforts led to better cross-sector engagement?

2.3: How effective is the commodity logistic and distribution approach in the public sector?

2.4: Is the transition of social marketing to the public sector on track to be achieved? How could the process be improved?

2.4.1: To what extent is the public sector prepared to serve as a resupply point for community actors (PARC/PA roles) as part of the transition of social marketing to the public sector?

2.4.2: Has the Ministry of Health allocated sufficient resources to support this effort?

2.5: To what extent has the program changed or enhanced incentives for private sector actors to deliver affordable health products to the Malagasy people?

2.6: Is the program measuring the correct indicators to demonstrate the breadth and depth of progress and if not, what should the program be measuring?

2.7: Does the program have sufficient financial resources to achieve the intended effect and are they appropriately distributed?

3. To what extent is there national ownership/stewardship of the TMA? How has the IMPACT program contributed to this degree of national ownership?

Secondary Data Collection and Review

Program Document Review: The evaluators reviewed key program documents shared by the implementing partners, including the Cooperative Agreement, annual/quarterly reports, the MEL plan, market assessment and end user verification reports, case studies, and other documentation to understand the range of activities that had taken place to date, their geographic areas, and key target populations. For example, information from the annual and quarterly reports was used to contextualize the qualitative data and to provide examples to answer the evaluation sub-questions, especially for EQs #1 and #2, and program monitoring indicators from the program's Performance Monitoring Plan (PMP). Quantitative data on routine logistics and service delivery were also reviewed, as was the 2021 DHS and other data sources.

Literature Review: A review of relevant subject-matter journal articles and available grey literature was conducted on supply chain and TMA topics to understand any recent innovations and best practices that might be incorporated in the second half of program implementation.

Evaluation Model

Based on the existing logical framework (Table 1), the data collection approach articulated in the evaluation protocol, and the review of secondary data, an evaluation model is presented in Table 2 with the EQs mapped against the IRs and the corresponding data collection tools noted.

Table 2. EQs by IRs

(EQ)/ (IR)	IR1	IR2	IR3	IR4	IR5	Other	Data Collection Tool/Approach
EQ 1	EQ 1.1	EQ 1.2	EQ 1.3	EQ 1.4	EQ 1.5	EQ 1.6	Survey, KII, FGD, document review
EQ 2	EQ 2.1	EQ 2.2, EQ 2.3	EQ 2.5	EQ 2.4 (2.4.1, 2.4.2)		EQ 2.6, EQ 2.7	KII, FGD, document review
EQ 3						EQ 3	Survey, KII, document review

Primary Data Collection and Analysis

The evaluation team collected primary qualitative data through an online survey (with both open-ended and close-ended questions), KIIs, and FGDs. The three tools (in English, French, and Malagasy) are presented in the evaluation protocol in Appendix 1.

To ensure that data collection processes were aligned with ethical human subjects research practices, the study protocol and qualitative research tools were reviewed and approved by ICF's Institutional Review Board before data collection began. The Madagascar MOPH and the Ministry of Population, Social Protection and Women also authorized the evaluation and data collection procedures with an official letter of support that was shared with potential participants during recruitment. Last, before beginning the online survey, KIIs, and FGDs, verbal consent to participate and, for the KIIs and FGDs, to be recorded, was obtained. There were no incentives given to KII or online survey participants, but a small travel cost reimbursement and refreshments were provided to FGD participants.

Interviewers were matched to respondents based on language requirements (French, English, or Malagasy) and geographic location. Interviewers recorded the discussions and took notes to document the main findings on an interview summary form, with a focus on capturing each interviewee's perspectives on the successes, challenges, and learning pertaining to the IMPACT program. FGDs were translated from Malagasy into French and transcribed.

Online Survey: An online survey in French and English containing primarily closed-ended questions was sent using SurveyMonkey software to 80 IMPACT staff, partners, and other stakeholders (48 female; 32 male) based on recommendations from IMPACT implementing partners. The stakeholder list was developed during discussions with IMPACT leadership and MEL staff, and was tailored to include representatives of program staff and partners from the commercial, nonprofit, and public sectors, and USAID staff with in-depth knowledge of IMPACT. Those likely to have consistent Internet access were prioritized. The survey was first shared with IMPACT staff as a pre-test and then, one week later, with external stakeholders. No changes were made to the survey tool after the pre-test. After sending reminder emails to those with incomplete or no responses and making follow-up phone calls, the online survey was closed three weeks later.

Table 3. Online survey respondents

Online Survey Respondents (n=80)	
Staff, partners, and stakeholders contacted to complete the online survey	80
Contacted, but no response	15
Total responses	65
Refused consent	1
Incomplete responses	13
Duplicate responses (most complete response used)	8
Surveys analyzed	**43**

Table 3 shows the 65 online survey records collected from 80 individuals; one reflected a refusal and eight were determined to be duplicates. In addition, 13 responses were incomplete, resulting in 43 completed surveys for analysis, and a response rate of 54 percent (43/80).

Figure 1. Respondents, by organization type, (online survey, n=43)

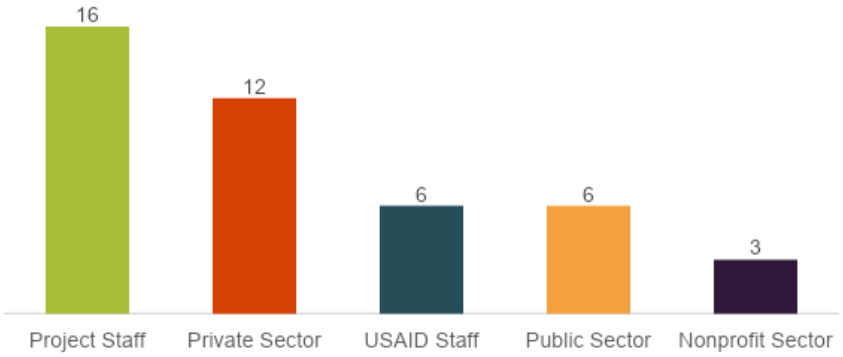


Figure 1 shows that most of the online survey respondents (37%; 16) represented the IMPACT program, whereas 28 percent (12) were private (including commercial) sectors partners.

Key Informant Interviews: Based on stakeholder recommendations by IMPACT program staff and an open-ended question in the online survey asking for suggested respondents, 23 KIIs were conducted using a semi-structured interview guide with questions tailored to each informant (7 males and 16 females). KIIs were conducted in French and Malagasy based on the preference of the key informant, and in some cases, the availability of the interviewer. People were chosen based on their familiarity with IMPACT and the TMA, regardless of whether they answered the online survey. The evaluation team also made efforts to include participants who were more likely to be excluded from the online survey. For example, people who worked at the regional or district level without consistent Internet access were chosen as key informants. Key

informants were also identified through the online survey itself, including people whose responses required further exploration and names drawn from an open-ended question asking for relevant people to interview. The majority of KIIs were conducted face-to-face while respecting COVID-19 protection measures; personnel located in districts outside the capital were interviewed by telephone.

Figure 2. KII participants, by type of stakeholder (n=23)

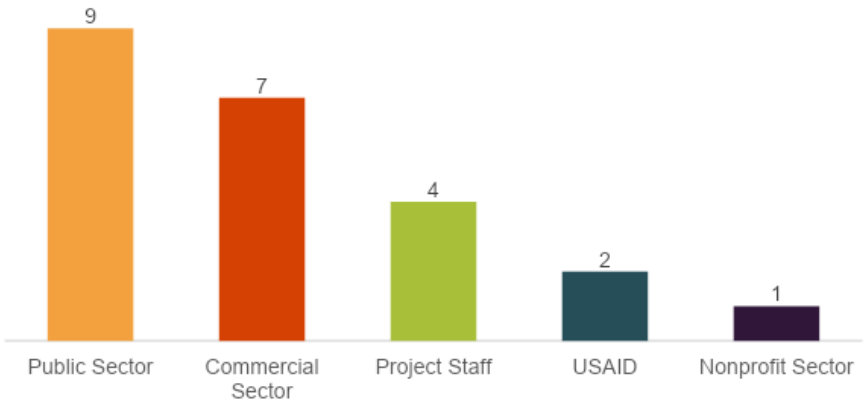
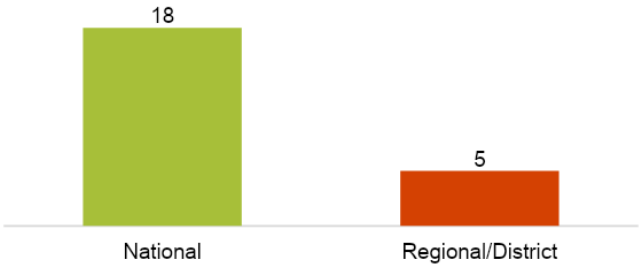


Figure 3. KII participants, by program level (n=23)

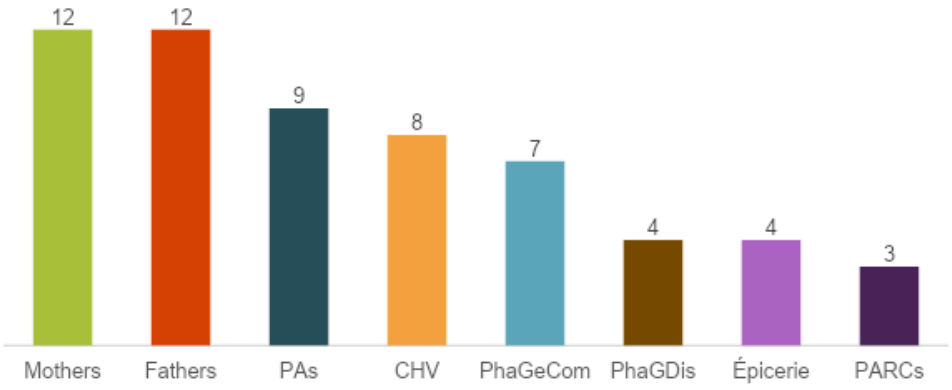


Figures 2 and 3 show that most key informants represented the public sector (40%) and worked at the national level (78%).

Focus Group Discussions: The evaluation team conducted 10 FGDs using a semi-structured and tailored questionnaire at the subnational level, split between two regions—Atsinanana and DIANA—one high performing and one low performing. These two regions were identified in partnership with IMPACT implementing partners based on stock out rates. Participants included end users of health products (with separate FGDs conducted for men and women, those using the health products) and supply chain actors to gain a better view of the situation at regional, district, and commune levels. Participants were recruited with assistance from CHVs and fokatany or village/commune representatives. The IMPACT team in the regions facilitated courtesy visits by the evaluation team to regional health officials and assisted in organizing the

FGDs. Separate FGDs were held with mothers/pregnant women and fathers of young children (four in total) and FGDs with PARCs (community commercial wholesalers) and points d'approvisionnement (PAs, community supply points for CHVs) (2); CHVs and owners of "épiceries" or small grocery stores[17] (two); and PhaGDis and PhaGeCom (two).[18] People from both urban and rural locations participated, with 18 of the 59 FGD participants (31%)—all supply chain actors—representing rural locations. As shown in Figure 4, mothers/pregnant women and fathers were split evenly across four focus groups, whereas supply chain actors made up the remaining FGD participants and were mostly female (89%).

Figure 4. FGDs, by participant type (n=59)



Data Analysis: Analysis of qualitative data from the online survey was completed in the SurveyMonkey platform and Excel; KIIs and FGDs were analyzed using Dedoose software. Primary qualitative data were synthesized using an analysis matrix for each theme with a series of codes/sub-codes, with the transcripts of FGDs and notes from KIIs coded with relevant codes/sub-codes derived through a combined deductive and inductive approach. The Dedoose code list is provided in Appendix 2. Team members responsible for coding "shadowed" each other to validate each other's coding. Codes were then reviewed to see if clustering was appropriate and unused or rarely used codes were combined, as relevant. Code patterns were further explored by disaggregating responses by participant stakeholder type, supply chain sector, gender, and region. The data were then sorted and ranked by salience and relevance, and the results were used to inform discussion among evaluation team members, including analyzing code counts and code co-occurrence[19] (for example, the code "availability" and its co-

[17] CHVs and owners of "épiceries" were interviewed together because they represented the "end" or the final point of contact at the end of the health product distribution channel.

[18] A PhaGDis is a warehouse that receives health products from SALAMA, which is the central medicine and supply purchasing office, whereas a PhaGeCom is essentially a community-managed pharmacy.

[19] A code co-occurrence matrix presents the "…frequencies for which all code pairings were applied to the same excerpt and, by default, overlapping excerpts. Such a display can expose both expected and unexpected patterns in which two codes were (or were not) used together. These patterns illuminate how concepts related to the research questions and represented by the code system are combined in the natural schema (i.e., cognitive frameworks that help organize and interpret information) activated by study

occurrence with the code "challenge"), and to identify illustrative quotes that answered each EQ.[20] Analysis from the online survey and KIIs and FGDs were complemented by document review of existing program quarterly and annual reports and other relevant documents, the targeted external literature review, and secondary program data. Each evaluation tool and the analysis approach are described in Table 4.

The evaluation team prepared two presentations with preliminary and in-depth findings for USAID and then conducted a validation session and discussion with the IMPACT implementing partners. Feedback from stakeholders was considered and reflected (as appropriate) in the writing of the evaluation report.

Table 4. Evaluation tools by analysis approach

Tools	Qualitative Analysis Approach	Quantitative Analysis Approach
Online Survey - English - French	- Open-ended questions coded thematically and, in some cases, disaggregated by respondent type. - Open-ended question requesting suggestions for additional key informants to contact directly.	- Close-ended multiple-choice questions, including ranking and "Likert style" questions. Responses disaggregated by respondent type.
Key Informant Interviews - English - French	Interview notes coded thematically and disaggregated by respondent type and program level. Direct quotes recorded.	Code count and code co-occurrence counts, in some cases disaggregated by respondent type and program level.
Focus Group Discussion - French - Malagasy	Transcripts coded thematically and disaggregated by respondent type and program level.	Code count and code co-occurrence counts, in some cases disaggregated by respondent type and program level.
Document Review	Notetaking, with examples organized by EQ.	
Targeted External Literature Review	Review of recent peer-reviewed articles on TMA and other supply chain topics to identify alternatives or complementary options for consideration.	
Secondary Data		Stockout and PMP data analyzed for trends and changes between year 1 (Y1) and Y3

participants as they report on the topic represented by project codes." Excerpt from: Dedoose. (n.d.) User guide. Accessed April 21, 2022. Retrieved from: https://www.dedoose.com/userguide/analysisandfiltering.

[20] Miles, M. B., Huberman, A. M., Saldaña, J. (2014). *Qualitative data analysis: A methods sourcebook*. Los Angeles, CA: Sage Publications.

Challenges and Limitations

The main limitation of this evaluation design was the relatively limited analysis of data given time and resource constraints and the COVID-19 context. Moreover, the evaluation used a non-experimental design and relied on inputs from stakeholders who may have been unintentionally biased in their perspectives. Another limitation was respondent fatigue because other studies and data collection activities were regularly conducted with similar groups of stakeholders for other evaluation efforts, market assessments, and regular program monitoring. For example, it was noted that despite repeated follow-up efforts, several key stakeholders (23), especially those at the national level, did not respond to the online survey; therefore, the majority of online survey responses were from IMPACT staff. To manage this, the evaluators made a point of including people who did not respond to the online survey in the KIIs. Last, due to budget constraints, timing, and logistics, data collection was limited to certain geographic areas/regions. Although the majority of KIIs were conducted during the data collection period at the end of November and beginning of December 2021, an additional two interviews were completed with key stakeholders in February 2022 and were added to the analysis because their importance was noted and recognized during the validation session.

Findings

Evaluation Question 1: What is the effect of IMPACT's TMA on improving the availability and accessibility of quality health products to the Malagasy people?

Key Results

Based on the qualitative and quantitative data analyzed, a coordinated TMA was achieved and contributed to the following IRs:

- Enhanced coordination among the public, nonprofit, and for-profit (commercial) sectors, with key objectives realized by the TMA TWG.
- Improved capacity of government stakeholders to manage the public supply chain, specifically through national quantification activities.
- Increased engagement with the private/for-profit (commercial) sector in the health product supply chain through improvements in regulations, financial instruments, and accreditation.
- Increased accessibility and availability of health products, especially for FP.
- Targeted social marketing to improve access to health products.
- Increased demand through effective communication campaigns.
- Integration of gender equality and social inclusion in program activities.

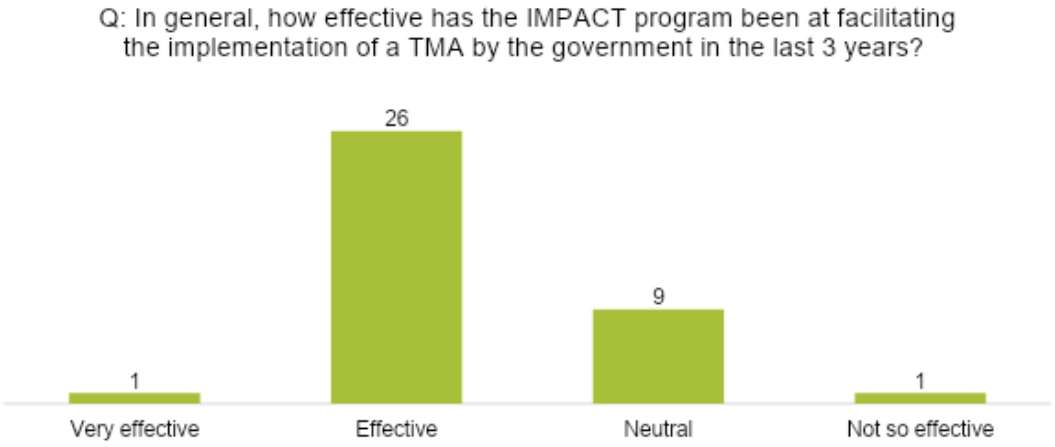
Each result is further described in the subsections below.

Enhanced Coordination Among Sectors

EQ 1.1: Has coordination among the public, nonprofit, and for-profit sectors to improve the availability and accessibility of quality health products been enhanced in the last three years (IR1)? How has the IMPACT program enhanced coordination to do so?

Over the past three and a half years, the IMPACT program has successfully guided coordinated TMA initiatives, especially at the national level, by training and convening stakeholders from the public and private sectors (including the commercial sector) to discuss TMA implementation. Online survey respondents had broad agreement on the effectiveness of the government-led TMA implementation, as shown in Figure 5.

Figure 5. Effectiveness of the IMPACT program at facilitating the implementation of a TMA (online survey; n=37)



The TMA TWG was established under the leadership and facilitation of three champions from the MOPH: the Directorate of Pharmacy, Laboratory and Traditional Medicine (DPLMT), Malagasy Drug Administration (DAMM, Direction de l'Agence du Médicament de Madagascar) and the MOPH's Information System Studies and Planning Department (DEPSI, Direction des Etudes, de la Planification et du Système d'Information). Sixty-one members signed a letter of voluntary participation at the time of the TWG's formation. The TWG had broad representation from public, private/commercial, and nongovernmental actors, and representation along cross-cutting themes, such as gender. Government ministries led the subcommittees, which were composed of members from various sectors, including the following subcommittees mentioned during the KIIs:

- Laws and regulations led by DAMM
- Demand creation led by the Health Promotion Directorate (Direction de la Promotion de la Santé)
- LMIS subcommittee led by DEPSI
- Pharmaceutical policy led by the DPLMT

Key IMPACT-supported TMA achievements mentioned during the KIIs were:

- Drafting and finalization of the TMA road maps and communications plan.
- Conducting audits of decrees and laws concerning the pharmaceutical sector.
- Providing oversight of the public supply chain through quantification activities.
- Finalizing and disseminating the malaria market assessment; now finalized and released in Y4.

IMPACT's PMP results data are shown in Table 5. More than 300 people were trained in TMA initiatives in Y3 alone, including commercial actors and champions at the commune level, and more than 50 percent female representation on the national level TWG.

Table 5. TMA indicators – Y3

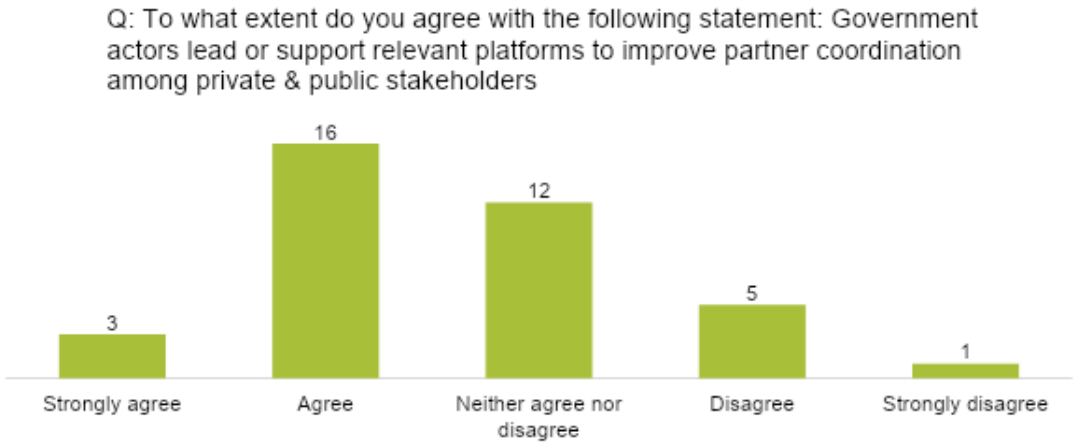
TMA Indicators – Y3 PMP	Y1	Y2	Y3
Number of people trained in TMA initiatives 101 during workshops (not unique trainees)	116	106	158 (target: 120)
Number of companies/commercial actors and private sector associations trained and implementing the TMA initiatives	10	10	7 (cumulative target Y1–Y3:18)
Number of TMI champions/people trained in TMA initiatives and stewardship skills (not unique trainees)	3	10	2 (target: 8)
Percentage of female participants in GOM-led TMI TWG	51%	45%	54% (target: 50%)

The TMA TWG was formalized by a ministerial decree. It can boast critical achievements supporting TMA initiatives, most importantly, bringing together and coordinating sectors that previously worked in silos. As two KII respondents stated:

> *…there are a lot of meetings that take place now between the public and private sectors, something that did not happen in the past when each sector was working on its own. This change was attributed to IMPACT, that these meetings are taking place.* (KII, IMPACT Staff)

> *The existence of this* [TWG] *platform makes it possible to bring together all the stakeholders from the different sectors. This vision of meeting together allows for communication between sectors and putting aside competition. It can be said that this platform is beneficial in that it is a source of sharing and communication between members regarding their activities. Such is the case of sharing* [the accessibility and availability of] *health products of each sector to improve availability and avoid stockouts.* (KII, Public Sector)

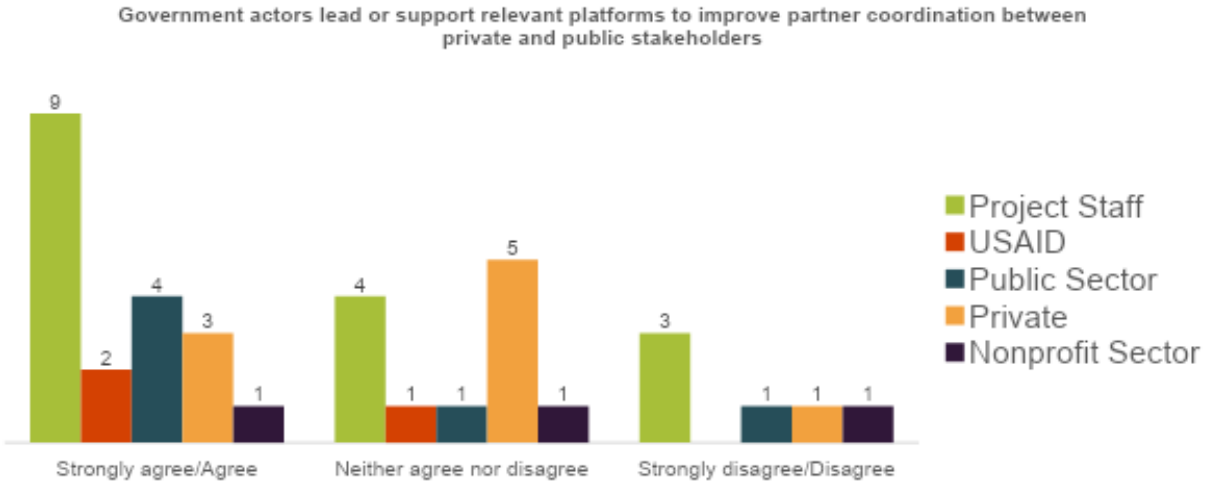
Figure 6. Partner coordination among private and public stakeholders (n=37)



Overall, 19 online survey respondents either strongly agreed or agreed that through IMPACT, government actors led or supported relevant platforms to improve partner coordination between private and public stakeholders, as shown in Figure 6.

However, the online survey data disaggregated by stakeholder type, shown in Figure 7, indicated a somewhat more neutral opinion (among 12 respondents) on the role of the government in the TMA initiatives to improve coordination, especially among stakeholders representing the private sector.

Figure 7. Partner coordination between private and public stakeholders (disaggregated) (n=37)



The KIIs also indicated that TMA coordination, while successful and seamless at the national level, had growing pains at regional and district levels, with efficacy affected by GOM staff turnover and inconsistent participation by the private/commercial sector. This is illustrated in the following quote about TMA champions:

> *The people who were named "champions" were done so because of their position in the department. As things change here, people who were champions because of their position, no longer have that position. That element has an impact. How does an approach work in this context of instability?* (KII, USAID)

KII participants also noted dissonance in terms of collaboration with the private sector. Although private (including commercial) sector partners were eager to participate at the start of the program in 2018, their continued role in TMA initiatives was not always clear, especially during time-consuming meetings focused on the public sector supply chain. Private/commercial sector interviewees acknowledged the importance and benefit of participating in the quantifications, especially at the regional level[21]; however, they also noted different motivations between the public and private/commercial spheres, with those in the private/commercial

[21] Activities at the regional level were not necessarily full "quantifications" like at the national level; instead there were meetings to determine quarterly orders.

sector more directly focused on and motivated by profit and "the bottom line," as illustrated in the following quote:

> *For example, the importance of the number of paracetamol that enters…it's not the same for the commercial sector vs. the public sector, therefore, the objectives* [for the commercial sector] *are not achieved.* (KII, Public Sector)

Table 6 illustrates these differing viewpoints by sector, where interview and discussion participants (all supply chain actors) were asked: "In your experience, what incentives exist for private sector actors to participate in the market and deliver affordable health products?" The table shows the number of times that the topic of "incentives" was mentioned by each type of stakeholder sector, ranked in order. IMPACT staff and USAID frequently discussed private sector participation (blue and orange) as a key incentive, whereas private sector and nonprofit actors more frequently mentioned improving access to finance (yellow and black). Improving margin structures was also mentioned as an important incentive by public sector and nonprofit actors (gray and black). This indicates that for respondents from the public, private, and nonprofit sectors, incentives for private sector engagement in the TMA were not solely about participation, but also about catalysts for participation, such as access to financial opportunities. This is an important consideration for the last two years of the program.

Table 6. Ranking of frequency of excerpts about private sector types of incentives, by stakeholder

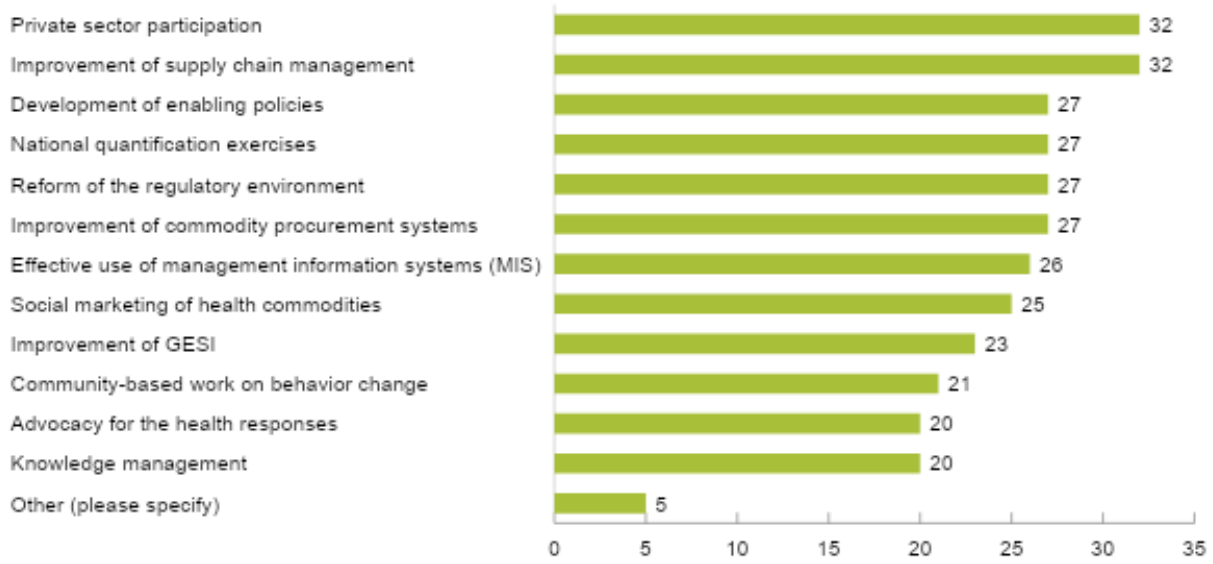
Stakeholder	Improving participation in TMA activities	Improving access to finance	Improving margin structures	Regulations	Accreditation
IMPACT Staff	★★★★★	★★★★	★	★★★	★★
USAID	★★★★★	★★★★		★★★	
Public Sector	★★★	★★	★★★★	★★★★★	★
Private Sector	★★★★	★★★★★	★	★★★	★★
Nonprofit Sector	★	★★★★★	★★★★	★★	★★★

Increased Capacity of Government Stakeholders

EQ 1.2: Has the capacity of government stakeholders to improve the availability and accessibility of quality health products through the public sector increased in the last three years (IR2)? How has the IMPACT program contributed to increased capacity to do so?

IMPACT provides technical, financial, material, and logistical support for TMA initiatives in partnership and coordination with the GOM, especially through training, supervision activities, provision of supply chain management resources, and integration of gender and social inclusion activities. Survey participants identified from a list of TMA components those that IMPACT had supported thus far. IMPACT provided technical support on supply chain management, commodity procurement, LMIS enhancement, and other areas, as indicated in Figure 8.

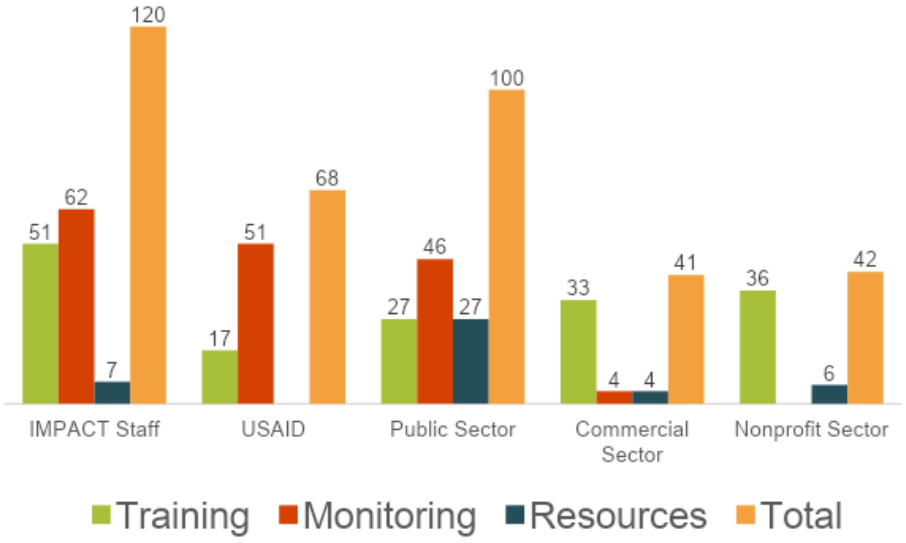
Figure 8. TMA components supported by IMPACT (online survey, n=43)



Capacity building was also highlighted by interview respondents representing the MOPH/public sector, (e.g., DPLMT, DAMM, DEPSI, Direction Régionale de la Santé Publique [DRSP, Regional Directorate of Public Health], district health authorities, PhaGDis, and PhaGeCom), in terms of supply chain management activities. In addition, with the institution of the Unité Technique de Gestion Logistique (UTGL, Logistics Management Technical Unit) as part of the DRSP, capacity building supported more coordinated quantification activities led by the UTGL itself, and the validation and sending of orders from the regional to the central level for fulfillment. The effectiveness of the UTGLs is described in the following quote by a stakeholder from the public sector:

> *UTGLs are effective for several reasons:*
> *-The different health programs are brought together in one structure to coordinate drug quantification and management.*
> *-The FP, MCH, and malaria health programs have been strengthened in terms of capacity through the UTGL; models have been identified to support each program.*
> *-Within the UTGL, quantification exercises are conducted to assess the number of each program's drugs to be ordered.*
> (KII, Public Sector)

Figure 9. Capacity building efforts code count (total number of excerpts=371)



KII and FGD participants discussed various capacity building activities, including training, monitoring, and provision of technical resources. Figure 9 depicts the number of excerpts about capacity building activities, disaggregated by stakeholder type. After IMPACT staff, the majority of mentions came from public sector interviewees, with an emphasis on capacity building for monitoring activities. Although capacity building in relation to the provision of resources was less frequently mentioned, respondents in the public sector mentioned it more frequently than did other stakeholder groups.

From the beginning of implementation, IMPACT supported capacity building with PhaGDis and, to some extent, with PhaGeCom, in terms of stock management at the subnational level, especially through supervision exercises, redeployment of health products, logistical and financial support, and in Y3, audits of the PhaGDis using the Supervision, Performance Assessment and Recognition Strategy tool. Support from IMPACT also helped establish a trained pool of trainers in drug management. The success of these efforts was mentioned in the following interview quotes from key informant representing the public sector and focus group participants working as PhaGDis, but should also be interpreted carefully in light of the later findings on continuing stockouts and the lack of consistent visits and capacity building efforts:

> *The tangible result is the good management of PhaGDis providers on health inputs. So everything that was planned is being done.* (KII, Public Sector)
>
> *They come to our place to see the stock cards. They check to see how many medications we have and they sometimes take them. (*FGD, PhaGDis)
>
> *Concerning the quantity in stock, in case of shortage, he* [the IMPACT staff member] *looks in his grid because there are people who have stock and he reports what he has transmitted to people…everyone knows the redeployment in the* [X] *region, because for* [X]*, there are 5 districts that manage to work together; it is good. That's why we are*

grateful to IMPACT. He [the IMPACT staff member] *comes once a month for supervision.* (FGD, PhaGDis)

Differing perceptions about capacity building activities among the sectors were also reflected in the online survey responses. Table 7 presents the top three TMA components mentioned, by stakeholder type. For example, survey respondents from the public, commercial, and nonprofit sectors frequently mentioned private sector participation in markets as a key TMA component supported by IMPACT (in grey), whereas respondents representing the commercial sector, USAID, and IMPACT staff mentioned supply chain management and improvement of commodity procurement systems more frequently (orange). Last, effective use of the LMIS, although ranking high for IMPACT staff, was not among the top three supported TMA components for public, private (including commercial), and nonprofit respondents.

Table 7. Top three TMA components (online survey, n=43)

Ranking of TMA Components	IMPACT Staff (n=16)	USAID (n=6)	Public Sector (n=6)	Commercial/ Private Sector (n=12)	Nonprofit Sector (n=3)
Most selected component	Improvement of supply chain management (n=15)	Improvement of supply chain management (n=6)	Private sector participation in markets (n=5)	Private sector participation in markets (n=6)	Private sector participation in markets (n=3)
	Effective use of MIS (n=15)	National quantification exercises (n=6)		Improvement of supply chain management (n=6)	National quantification exercises (n=3)
				Improvement of commodity procurement systems (n=6)	
2nd most selected component	Reform of the regulatory environment (n=14)	Improvement of commodity procurement systems (n=5)	Improvement of commodity procurement systems (n=4)	Reform of the regulatory environment (n=4)	Improvement of supply chain management (n=2)
	Improvement of GESI (n=14)	Social marketing of health commodities (n=5)	Social marketing of health commodities (n=4)	Development of enabling policies regarding health commodities (n=4)	Reform of the regulatory environment (n=2)
3rd most selected component		Private sector participation in markets (n=5)	Development of enabling policies regarding health commodities (n=4)		Effective use of MIS (n=2)
		Development of enabling policies regarding health commodities (n=5)	Effective use of MIS (n=4)		

Online survey respondents and key informants alike indicated that challenges remained, especially in terms of supply chain management and the management of data to support supply chain functioning. Data continued to be collected using the CHANNEL platform,[22] which received widespread criticism from stakeholders. This topic and the issue of stockouts are further explored under the second EQ.

Expanded Engagement of Commercial Actors to Service New Health Markets

EQ 1.3: In the last three years, has the commercial (for-profit) sector begun serving new health markets to meet health needs and consumer demand (IR3)? How has the IMPACT program enabled the commercial sector to do so?

From the beginning of the program, integration of the private sector, including for-profit commercial actors, was a main focus of the TMA activities. Early efforts included engagement of private businesses in the distribution of health commodities through the Private Sector Humanitarian Platform, which was established as a formal partnership with the MOPH. Table 8 presents the partnerships developed in Y2 and Y3, with a broad range of activities, from transport of products to communications.

Table 8. IMPACT partnerships

IMPACT Partnerships Developed in Y2 & Y3		
Private Sector Organization	**Area of Activity**	**Type of Partnership**
SOMAPHAR	Pharmaceutical wholesaler	Transport of health commodities
Blue Ventures	Marine conservation	
AQUALMA	Aquaculture	
Electricité de Madagascar	Renewable energy supply	
BNI and SGM	Banks	Both: Broadcast FP TV spots to customers in target audiences Telma: preferential rate for SMS
TELMA	Telecommunication	
Inter Aide	Development programs with poor communities	Memorandum of understanding to share stock status of health commodities and contribute to quantification activities

[22]According to the 2020 IMPACT report, "Evaluation de la performance du SIGL à Madagascar," CHANNEL is a free stock management software originally used by UNFPA for the provision of FP commodities. The system now includes all types of health commodities and can report on stock levels, receipts and distributions, due dates, and other information. These reports can be exported and sent by email; however, CHANNEL is not web-based. Data from CHANNEL can be imported into the District Health Information Software (DHIS2).

IMPACT also supported the development of loan products for small and micro-enterprise health and water, sanitation, and hygiene businesses (e.g., wholesalers, pharmacies, drug stores-"depots") with USAID/Madagascar's DFC as a loan guarantor for Accès Banque and Baobab Banque. Interviewees noted that IMPACT supported capacity building of the banks themselves to work with the health sector through the creation and training of champions, as described in the following quote:

> *IMPACT supports us a lot in training. They have set up a system called "champion." They identify people in the bank and train them on medical credit, on visibilities, on why it exists…how to follow up and process the applications, etc. So they set up support replacements. And they have set up representatives in the bank, who are employees themselves, who are relay points for everything related to fees and medical credit in the bank. They are people, points of contact, so to speak.* (KII, Commercial Sector)

In addition, the next quote describes how the banks were able to increase their medical credit portfolio through engagement with health sector actors:

> *When we were not yet working with IMPACT, the bank's medical credit portfolio was at 0 percent, and today, we are at 1 percent of the bank's portfolio. This is already very good because it is a sector that was not exploited at all before the collaboration with IMPACT.* (KII, Commercial Sector)

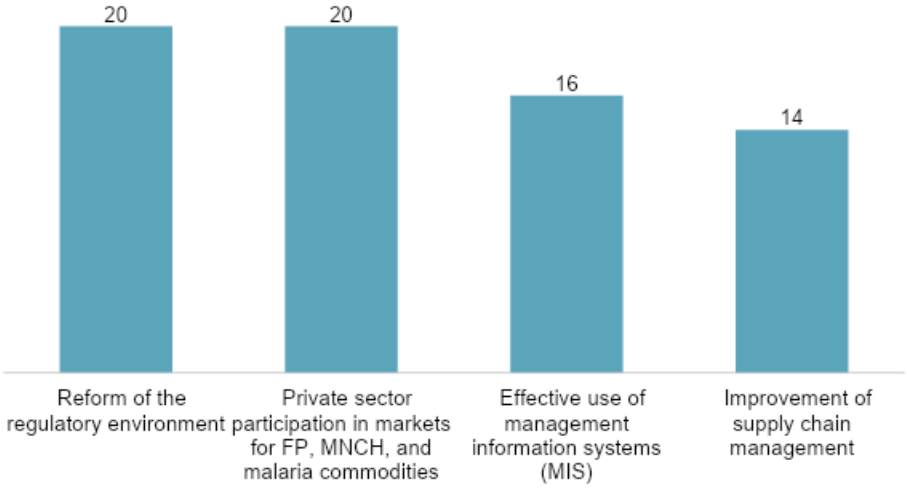
According to the Y4 Q1 report, IMPACT facilitated six DFC-guaranteed loans to health commodity enterprises, working with Accès Banque and Baobab.

Last, efforts were made to engage new commercial partners by updating the list of commercial health actors, while also mapping pharmacies and drug "depots." KII participants noted that this increased engagement allowed the private sector to expand its market reach, especially for social marketing products, through a distribution network where "épiceries" or small grocery stores purchased and resold products from "grossistes" or wholesale distributers, including products such as Yes…with You (condom), Sur'eau Pilina, and Sur'eau rano (drops and tablets, both for water treatment). During Y3, private sector actors agreed to start selling newer malaria treatment products, as described in the quote below:

> *The* [private] *sector now sells malaria products. Because of the meetings with the private sector, there are people in the private sector who have registered the injectable artesunate, and they have imported enough of them. That is something that is good.* (KII, USAID)

Nearly half the online survey respondents (20 respondents)—as show in Figure 10— ranked increased commercial sector participation and reform of the regulatory environment (an issue also affecting commercial partners) in the top three TMA components requiring support.

Figure 10. Top three TMA components needing support (online survey, n=43)



Increased interest in private sector participation are further illustrated in the quote below, where a grocery store vendor (épicerie) stated a desire to broaden its product offerings:

> *For us in grocery stores, we want to market paracetamol, Efferalgan. But we don't have training. And you risk getting penalties if you sell them, whereas there are plenty of people asking for them from us.* (FGD, Épicerie)

In Madagascar, commercial vendors are the main source of health products for the Malagasy population. The ADDO model, an MOPH-led accreditation system for drug stores or "depots," was added to IMPACT in 2021 to enhance commercial sector participation of small drugstores operating at the commune level, usually in rural areas. The ADDO model is described in the following quote by an IMPACT staff member:

> *We have chosen to focus on depots because there are many who have never received training… There are 1600–1700 drug depots in Madagascar compared with 300 pharmacists. It is the drug depots that can* [help] *provide for the needs of the population.* (KII, IMPACT Staff)

However, a small number of KII participants voiced hesitation about the rollout of the ADDO model and whether all drug depots included in the initiative were operating legally. This topic is further explored under EQ 2.

Effective Social Marketing Approach

EQ 1.4: In the last three years, to what extent has social marketing been effective in delivering affordable, accessible health products (IR4)? How has the IMPACT program increased the effectiveness of social marketing approaches?

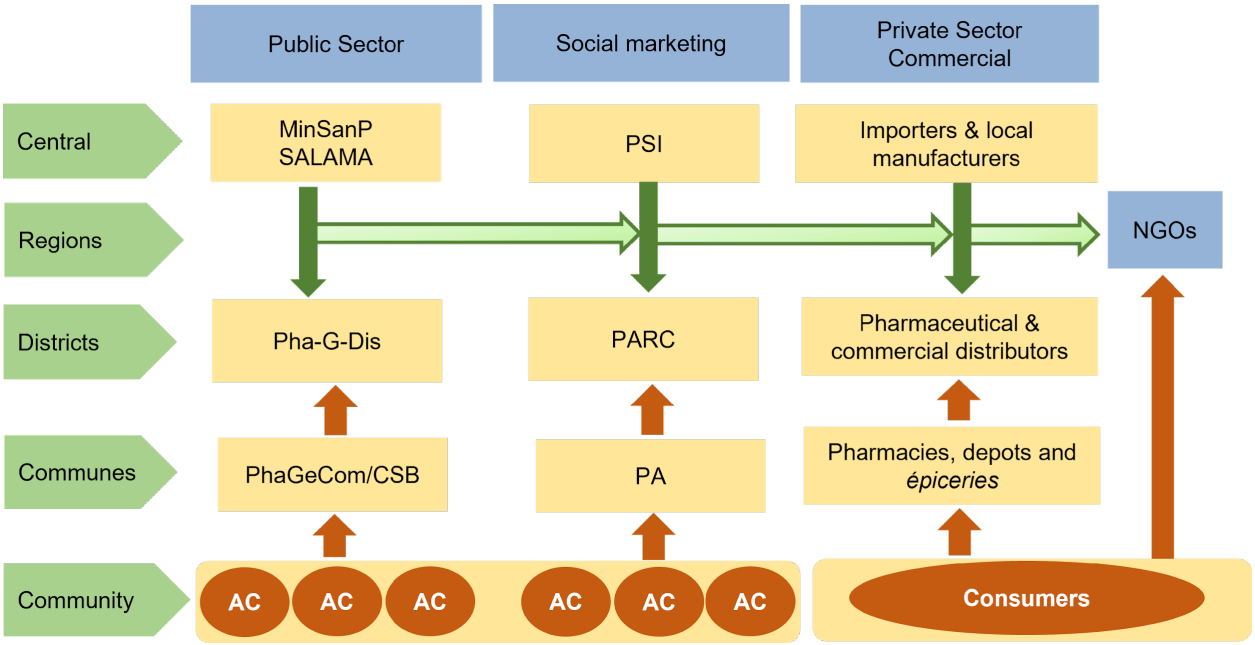
At the beginning of IMPACT's implementation, a plan was developed for the provision of social marketing products and even a drone delivery system. Social and behavioral change communication (SBCC) tools were updated, especially for malaria products, and communication campaigns for promotions, for example, for Sur/Eau Pilina (water treatment) and Protector Plus condoms, were implemented through radio spots, posters, and community sensitization. Key informants noted that the broad distribution of social marketing products contributed to an increase in contraceptive prevalence. Although prevalence was still low, the DHS data reflected an increase in contraceptive prevalence, with 40 percent of women reporting use of contraceptives in the 2008 DHS and nearly 50 percent using either a modern or traditional method in 2021. During Y2, increased segmentation and targeting of social marketing products took place through IMPACT, with targeted distribution of products in specific geographic areas and a review of their financial sustainability. A tax exemption for FP commodities, coupled with a law ensuring the rights of clients to access FP products, regardless of age, were noted as having a positive effect:

> *At the beginning, the family planning products were taxed, but now they are exempted* [the price is reduced]. *For the free products, there is an increase in the quantity and the coverage also increased. It is UNFPA that gives these free family planning products to the public sector. This tax exemption has a direct impact on the use of family planning products by the most disadvantaged people.* (KII, Nonprofit Sector).

According to PMP data, the number of social marketing products distributed nearly doubled, from 6.481 million products in Y1 to 11.025 million products in Y3. In its current form, the health commodity supply chain had a distribution channel for social marketing products that was facilitated through PARCs and PAs.

The social marketing supply chain channel is shown at the center in Figure 11, a graphic provided by IMPACT staff:

Figure 11. Madagascar health commodity supply chain



At each level of the social marketing channel, there was a small profit margin. Figure 12 shows the pricing and profit margins using the example of Protector Plus condoms, where a PARC, through sales to a PA, gained 20 Malagasy Ariary (MGA) (.0050 USD) in profit; from a PA to a CHV, 50 MGA (.0125 USD) in profit; and last, from a CHV to the end user, 50 MGA in profit (.0125 USD).

Figure 12. Protector Plus, pricing & profit margin (per condom) (1 MGA = 0.00025 USD)

Individual PARCs increased from 66 in Y1 to 74 in Y3, and PAs increased from 859 in Y1 to 1,110 in Y3. According to the KIIs, many of the PARCs/PAs were trained in business and inventory management, and had consistently low levels of stockouts. They participated in a performance review in Y2, and in routine data quality assessments. Many of the PARCs/PAs also participated in GESI training and some were recipients of IMPACT-developed financial products with partner banks. The strength of this social marketing channel was noted during an interview:

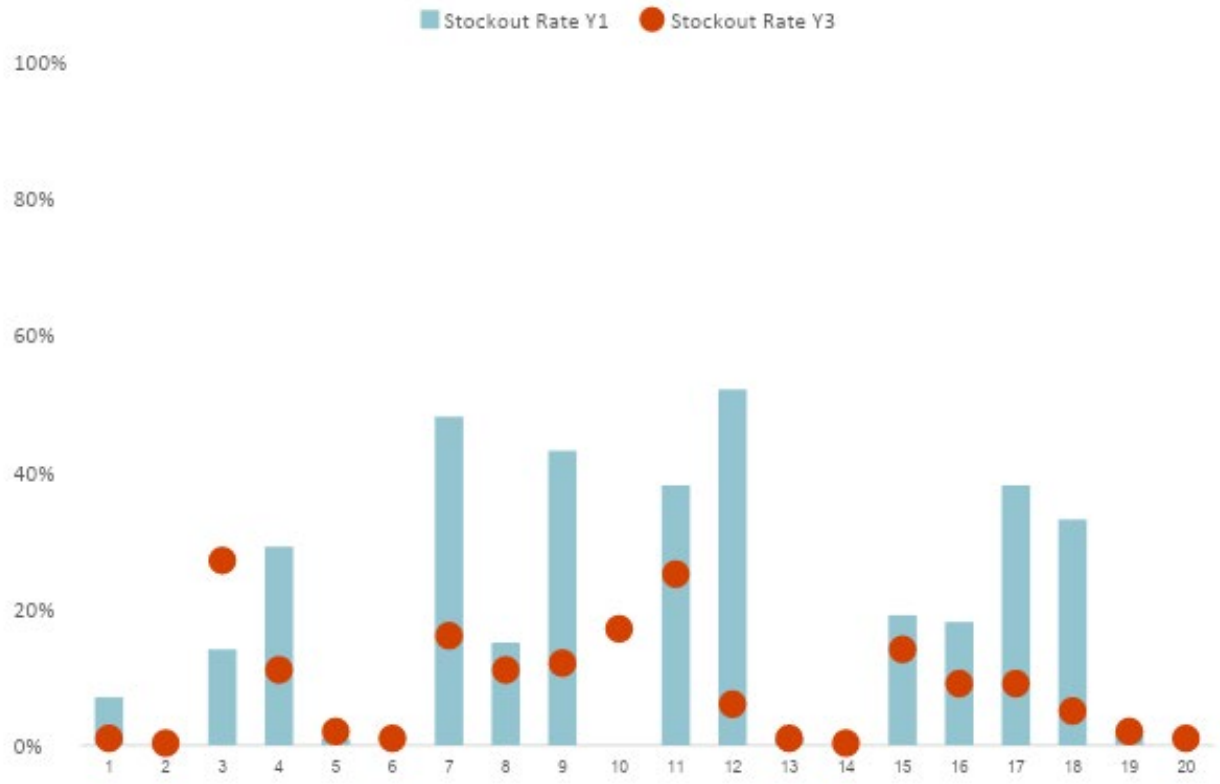
> *Concerning social marketing, I noted a great impact regarding TMA. Based on the distribution networks, we note a great increase in availability of quality health products.* (KII, Public Sector)

In the FGDs with PARCs and PAs themselves, their pride in their work and sense of community contributions were evident. This was also echoed in the GESI analysis conducted by the IMPACT program in 2019, as described in the following quote:

> *Both men and women hold these roles* [PARC & PA]*…both males and females consistently expressed their intrinsic motivation to improve the health of their community through this volunteer opportunity.* (FGD, PARCs and PAs)

PARCs/PAs also performed better than the PhaGeCom and PhaGDis in terms of stockouts. Figure 13 shows stockout rates of sexual and reproductive health (FP) products in Y1 versus Y3 by supply chain actor, with PAs and PARCs achieving and maintaining lower stockout rates from Y1 to Y3.

Figure 13. Stockout rates, FP products, baseline vs Y3



During the FGDs, PARCs/PAs confirmed their commitment to their work; however, continuing transport voucher system challenges were noted:

> *We always pay for the transportation, and there is a voucher to cover the costs. We don't pay but we get a voucher for the medication.* (FGD, PA)
>
> *For us from* [location X]*, the coupon is not equivalent to the round-trip fee, but often it is just a part of the round trip. (*FGD, PA)

In Y3, the IMPACT program started to transition away from this supply chain channel and to re-integrate the social marketing channel in the public sector and thus eliminate the PARC/PA role. It was expected that some would become PhaGeCom or, perhaps, develop a "depot" business. As noted during an interview:

> [PA may become] *PhaGeCom maybe some of them, not all, not many…some of these PAs, are "dispensateurs" at the "PhaGeCom"….the PARC, they are mainly business persons that have their own work. And they only add that to help the community…because it's not paid. What they get from it depends on the volume and the quantity of the commodities that they have….but what they mostly said, that [the role] is an honor for them and it's good for them to do this work….* (KII, USAID)

Further discussion on the PARC and PA transition is covered in the second half of the evaluation report.

Increased Demand for Health Products Among Malagasy People

EQ 1.5: Is there evidence of increased demand for health sector products over the last three years (IR5)? To what extent have the IMPACT program's demand-creation activities led to this change?

Under IR5, the IMPACT program aims to increase demand for health products. There was a specific demand creation TWG subcommittee and a communication plan on the promotion of health inputs for malaria. The plan focused on improving the understanding of malaria, in general, and the adoption of control behaviors; improved community actions for better message penetration; improved capacity of those who send/communicate malaria messages; and optimizing partnership and multisectoral collaboration.

During the interviews and FGDs, the following SBCC approaches for demand creation were mentioned by multiple respondents:

- Traditional mass communication
- Messaging through Field Communications Teams
- SMS messages for health providers who work with CHVs
- Activities with youth to promote FP products

The following interview quote describes SBCC activities with youth at the commune level:

> *We insist a lot on specific actions for young people. In this regard, we have carried out actions with partners, such as the Ministry of Public Health and the Ministry of Youth and Sport. We trained young people in the villages of X and Y* [with ACCESS] *to be leaders* [exemplary approach] *within their communities. These young people then sensitize those around them to also have this exemplary behavior in terms of using health inputs. We also organized events with these young people.* (KII, IMPACT Staff)

Demand creation activities through communication campaigns reached more than an estimated 10 million people in Y2 through USAID-supported mass media, including social media. In Y3, IMPACT also took an active role in the COVID-19 response, with more than 16,000 radio spots disseminated with COVID-19 prevention messages and more than 500 TV spots.

Participants in interviews and FGDs noted the increased demand for products, especially for FP, and that the program went to great lengths to ensure equity so that health products could reach more remote locations, for example, in the Melaky region. This segmented approach to SBCC is reflected in the following quote:

> *The same approach is used for almost all health products, except for malaria. For malaria, the actions carried out at the rural level have been accentuated. For example, the mass awareness campaigns. There are therefore some differences between urban and rural areas. Because rural areas are not accessible to the Internet, communication through social networks is not valid there, so other approaches are applied.* (KII, IMPACT Staff)

Quantitative data confirming an increased demand for health products were mixed, with demand often influenced by supply, stockouts, and pricing issues. For example, according to the Y3 Annual Report, the distribution of Protector Plus condoms was negatively influenced by the COVID-19 pandemic and a price increase, and by the reintroduction of the product in the private/commercial sector. Similarly, in Y3, although Sur'Eau Pilina exceeded demand targets due to high seasonal demand during the rainy season, the increased demand was also the result of prior stockouts. Key informants and FGD participants also indicated that increased demand for specific health products caused quick stockouts and that demand creation activities, especially brand enhancement, should be accompanied by reinforced supply chain management to maintain product availability. These continuing difficulties are described in the following quotes:

> *For our part, people prefer YES* [condom] *but it runs out quickly, so people use the PROTECTOR*. (FGD, CHV)

> *For us in the épiceries, it's like that too. PROTECTOR, SUR'EAU, and mosquito nets, there is no more, while people need them because of the season which is hot and* [all] *the mosquitoes*. (FGD, Épicerie)

Discussions during interviews and FGDs also noted that demand differed depending on the product. For example, some malaria or MCH medications had seasonal fluctuations, whereas FP products were more consistently in demand. A PA discussed these fluctuations:

> *Yes,* [Pneumox] *is sold but it depends on the rainy seasons, when there is a rapid increase in certain diseases. The sale of some medicines depends on the season*. (FGD, PA)

IMPACT staff also explained the buying patterns for social marketing products:

> *CHVs buy more FP products because they have fixed and more or less stable customers, in this case, regular users. They are sure of the flow. On the other hand, CHVs buy fewer MCH products because they are not sure of the flow, particularly in trying to manage their range of products*. (KII, IMPACT Staff)

CHVs played a big role in demand creation activities at the community level and this was linked to their ability to sell products. In the FGDs, CHVs discussed connecting health sensitization activities to the products that they sold to create demand. Conversely, as shown in the quote below, a PA indicated that community members did not buy products that they did not know how to use:

> *The collier* [necklace of colored beads that represents each day of a women's cycle intended to help a woman know when she can get pregnant from unprotected sex] *does not sell well. People don't know how to use it*. [Why? Not enough awareness?] *Yes*. (FGD, PA)

Because CHVs encouraged healthy behaviors and provided basic care and referrals for community members, they were able to sell their products to community members. Two PAs noted this strategy in the following quotes and the importance of aligning themselves with

health facility (centre de santé de base, CSB—basic health center) activities to encourage CHVs to buy their products:

> *For my part, it depends on the sensitization that we do in the fokontany, that's how people bring them to us and that we should also observe. I say what they have at home. For example, if their child has a stomachache, I tell them to come by... =. If they are looking for SUR'EAU, there is some in my house. ...we have to sensitize people and it is from these sensitizations that people know which products are available at our place. You do sensitizations, not just once or twice, but several times. That's how people know what's available, and you have to explain it to them when they're focused. Then they can come to you.* (FGD, CHV)

> *In our case, the association of the CHVs is attached to a CSB. The PAs work with the doctor in a commune. When there is a CHV meeting, I, the PA, attend. And I participate in the awareness and information sessions organized by the CSB. I take the opportunity to raise awareness about the sale of medicines. That's what's allowed. But it is not allowed to say, "Come to my house." We are forced to do awareness activities through the doctors, because we are not in direct contact with the users. For example, we take advantage of informing the CHVs present during the vaccination sessions.* (FGD, PA)

The following quote also illustrates the demand creation perspective from the CHV side:

> *I'll explain how it works, we do an awareness first and when they understand what we explain, they come to us. When they are satisfied, they bring friends, and it spreads! That's how it works.* (FGD, CHV)

In the FGDs, mothers and pregnant women indicated that they received information about health products from the CHVs, through health providers at the CSB level, and through SMS messaging. Discussions with fathers indicated less knowledge about health products by specific name, but certainly a level of knowledge in relation to price and points of healthcare access (and in turn, locations that commonly had product stockouts). This perspective from fathers is illustrated in the following two quotes:

> *There are drugs that are unavailable. But there are many on the market. When the prices are high, first of all, we try to find money. But the problem is that we need all the drugs. Secondly, we are forced to choose according to priority. It is difficult for us to buy everything*. (Fathers, FGD)

> *Father (P6): It is available* [medicines] *but the price is high.*
> *Father (P4): There are medicines that you can't find. You go to all the pharmacies in X, you can't find any. Other people even try to call Antananarivo to find them.*
> *Father (P3): Prices are different from one pharmacy to another. The pharmacy "X" has its own price. At the pharmacy "Y", it is another price. The prices are different.*
> *Father (P6): Even if the prices are high, the medicines are available...* (Fathers, FGD)

In the FGDs, CHVs reported that to maintain demand, they often assisted consumers by providing a short-term loan so that FP products and other products could be secured. Increased poverty and inability to buy health products due to COVID-19 were also noted by a PA in the following quote:

> *I want to come back to purchasing power. Even though we are not the ones who are with the parents, we see the decrease in purchasing power of some rural populations*

> *after the confinement. The CHVs come to complain to us saying: "Most people buy on credit the medicines that we buy from you." Why, because people don't have money to treat their children. The communities come to complain to the CHV. What can we do, we have to help them, they are our community members?* (FGD, PA)

In addition, FGD participants—mothers/pregnant women, especially in rural areas—indicated that they preferred to go to a CHV even if they had to pay a higher cost for the product (most often a FP product) instead of going to the CSBs free of charge. The additional expense was justified by the time saved and the expense of paying for transport to the CSB. The preference for CHVs is described in the following two quotes:

> *From my observation, it makes sense in X because people only know the hospital, the free doctors, the pharmacies. In the rural areas, if we talk about Y, I can tell you that people know the CHVs well. I am not afraid to say that the CHVs have become "little doctors," that's what they are called here.* (FGD, PA)

> *I prefer to go to CHVs. A lot of people talk about CHVs. They say that CHVs are welcoming; they don't discriminate; they do health awareness. That's why I prefer to go to CHVs.* (FGD, Mother)

Interview and FGD participants mentioned increases in prices for health products, some of which was caused by the COVID-19 pandemic. For FP products, a price increase was brought about by IMPACT after the completion of market assessments. Although the program document review discussed a careful process to understand increased demand and willingness to pay, data from discussions with PAs, PARCs, and CHVs indicated that despite a sustained demand for FP products, the increase in prices had reduced consumption and was affecting the commune-level suppliers' ability to maintain stocks, as illustrated in the following quotes:

> *It is in the FP products where there has been an increase* [in price] *yet it is the most requested. (*FGD, PA)

> *There are some, but the problem is the price, we can't always buy them, because people don't have money.* (FGD, CHV)

> *Our problem is the PROTECTOR because its price has increased a lot, because our customers buy it at 100 Ariary. Young people buy them with their snacks, but sometimes we don't have PROTECTOR available. Also, people don't really like them, and when the price has gone up, we have a breakage. There are some at the PA but at our place, it's a breakage* [lack of stock]. (FGD, CHV)

Despite this perception of increased pricing acting as a barrier for FP products, FGDs, participants—mothers/pregnant women and fathers—didn't show any indication of agreement. FGD participants were specifically asked about FP product pricing and whether cost was prohibitive. There was no indication that current cost was a barrier to FP product use amongst product consumers participating in FGDs and no mention of barriers created by recently increased prices.

Integration of Gender Equality and Social Inclusion

EQ 1.6: To what extent are IMPACT activities designed to lead to changes in gender equality, female empowerment, and social inclusion, particularly in facilitating equitable participation in commercial activities and ensuring equitable access to health products?

Since its inception, the IMPACT program has prioritized GESI issues and activities with gender integration and economic empowerment. Gender and social inclusion training and refresher training were conducted with IMPACT staff and partners alike, training 1,126 people in Y3 through cascade training. A gender analysis was completed in Y1 and the National Council of Malagasy Women (CNFM) was integrated as a key strategic partner of the IMPACT program. Since 2020, CNFM has been a member of the TMA TWG and involved in each subcommittee. It is regularly consulted to ensure the integration of gender in all program activities.

A key element to the IMPACT program was equitable participation in the market by supporting female supplier participation. Activities included CNFM training of women to participate in the distribution of health products and the provision of credit opportunities to women suppliers, such as PAs and PARCs.[23] The role of the CNFM is described in the following quote:

> *The CNFM has been a strategic partner of the IMPACT program since 2020. Therefore, the CNFM was consulted to integrate the gender aspect in all activities carried out by the program. Thus, facilitating the distribution of health inputs is one of the objectives to be achieved by encouraging women to participate in this activity. These strategies are valid for all three types of products* [FP, MCH, and malaria] *and in all program intervention sites.* (KII, Nonprofit Sector)

Successful activities to support female suppliers were also mentioned in the following quote from a key informant:

> *The women were able to determine the opportunities behind this collaboration, such as the possibility of getting credit from the Baobab Bank to set up their own business in terms of distribution, as a community drug depository.* (KII, Nonprofit Sector)

Interview participants were somewhat unsure of the effect of these activities on gender equity because data had not yet been collected or analyzed. (Some GESI indicators were added to the PMP in Y3.) The lack of data is described in the following quote:

> *During these years of collaboration, gender issues were not identified because the results of the activities are not yet tangible. For example, it is difficult to know the number of women who participated in the distribution of health inputs because some have just applied for the distribution.* (KII, Nonprofit Sector)

IMPACT was also working with credit institutions to train them on GESI. Bank respondents described their involvement in gender awareness activities in the following quotes:

> *Because you talked about equity, equity also means gender equality. So, they have encouraged us a lot because we have been working together to always do actions on*

[23] According to the Y4 Q1 report, as of the end of Y3, 103 loans were disbursed to health commodity enterprises, including 49 to women-led businesses.

> *World Women's Day. For example, this year, IMPACT encouraged us to come and do a national tour on the road with them. Last year, they asked us to make a presentation to a community of women. So, I think that their perspective on all of this is to highlight equity…*(KII, Commercial Sector)

> *I tell you that IMPACT is actively promoting GESI. Because in the next ten days and in early March, we have the official International Women's Day, where IMPACT invites us. That is to say that there will be a caravan…It is precisely to raise awareness, to be present to help women who want to do activities, who want to develop, to help them. We were there to interact with IMPACT in this sense in relation to gender and social inclusion. So where the caravan will pass, we will make available teams to sensitize women who want help in terms of social and financial support. That's why we intervene. Indeed, I have already participated in a training session conducted by the IMPACT team…to understand the value of women in social equality.* (KII, Commercial Sector)

Through the GESI assessment and market assessments, IMPACT sought to understand the gender factors that affected access to health products. Understanding how gender norms determined access to FP was essential to developing demand creation strategies to increase their use. However, cultural barriers to FP continued, as illustrated in the following quotes:

> *Women don't like to talk about FP when there are men around.* (FGD, CHV)

> *It can be said that the cultural barriers play a role…. As a result, they have very limited access to FP products and this can lead to early pregnancy, especially among young girls.* (KII, Nonprofit Sector)

GESI considerations were also integrated in demand creation activities. This included launching campaigns to target men and women specifically, and also to engage men in FP sensitizations, traditionally considered a female-only health area.

Informants also mentioned the actions of youth in FP promotion and the purchase of FP products in the following quotes:

> *There are young people walking around and we persuade them to do FP. If they don't accept, we give them PROTECTOR* [condom]. *We tell them that it is to prevent accidents. We distribute them and the young people bring their friends, we explain to them that there is this and that.* (CHV, FGD)

> *P3: In my case, my clients are the people of my fokontany: young people and teenagers come to buy medicines from me. There are also groups of people in need. Those who do not want to queue at the hospital; they prefer to come to us to buy them because we are close by. Therefore, they don't need to travel, spend travel expenses* [rickshaw fees] *and waste time.*
> *P1: For me, it's the same thing. My clients are the people of the same social class as me: young people, even* [for] *condoms. Often, they should go to the X hospital, but for example, they say: "we spend on rickshaws, so we prefer to buy them from you".* (FGD, Épiceries)

Evaluation Question 2: Which of the IMPACT implementation approaches appear to be the most promising and should be prioritized in promoting the TMA? For those that are not showing promise, what alternatives or complementary options[24] should be considered?

Key Results

Based on the qualitative and quantitative data analyzed, the following IMPACT implementation approaches were promising and should be prioritized:

- TMA coordination for reliable supply and distribution of quality health products, with renewed emphasis on private sector participation.
- Capacity building, especially at the regional level for subnational actors.
- The ADDO activity, with additional communication and transparency.
- Strengthening was required to improve:
    - Logistics and distribution of health products.
    - Transition of social marketing to the public sector.

TMA Coordination Approaches

Coordination among the public, nonprofit, and for-profit sectors is a critical ingredient in the TMA, where the strengths of each sector are leveraged to maximize quality and market reach. Although there were examples of strong coordination bodies and activities, especially at the national level, as described under EQ1, feedback from stakeholders indicated that the consistency of these efforts could be improved in terms of engagement with the private/commercial sector.

Although the TMA TWG included private/commercial sector representation, key informants noted that participation in coordination activities, especially the quantification exercises, was still low, as illustrated in the following quotes:

> *The private sector is gradually withdrawing from the TMA TWG because it does not feel that it belongs, if there were 50 participants at the beginning (1st year), there are only 10 in the 3rd year. They wonder what the TMA approach expects from them.* (KII, Private Sector)

> *The TMA approach is vague and abstract for the partners; this makes implementation difficult. Before IMPACT, each sector worked separately—public sector, social marketing, commercial—with their own interests. This "silo-ing" continued after the introduction of the TMA approach, despite the establishment of the cross-sectoral coordination committee. Some partners, notably the commercial sector, have not been fully integrated in the approach. They do not care about statistical data, namely, the entry or exit of drugs.* (KII, Public Sector)

[24] As noted in the methods section, a targeted (but limited) external literature review was conducted to identify alternatives or best practices from other countries/contexts to improve and inform approaches requiring improvement. The resulting points and references are woven into the text in this section.

Key informants noted that the reasons for reduced engagement could be related to the lack of a harmonized LMIS, or because the private/commercial sector was often unwilling to share relevant and necessary stock data for proprietary reasons:

> *The public sector and the private sector each have their own LMIS, their own way of working, their own timing with their funding partners. The private sector is a closed sector, even among themselves. They work individually. For example, each one manages its own data. Their needs are based on previous needs but not on the national need* [which was observed during the national quantification]. *The private sector needs time to learn what the public sector is doing so that it can accompany/support it in its approach.* (KII, Private Sector)

> *The private sector is reluctant to share data/information if the uses are not clear, because of commercial confidentiality.* (KII, Private Sector)

Key informants also noted that private sector stakeholders may have financial barriers to full engagement in coordination bodies, which the public sector does not experience in the same way. As one key informant noted:

> *The private sector and the public sector do not have the same amount of time available. For example, during a three-to-four-day workshop, the public sector does not have a problem with availability. A private sector staff member cannot stay more than one day at a workshop, especially if that person is a company executive, and if the quantification takes place in a region or district far from his or her workplace,* [they cannot stay more than one day] *because of time constraints* [absence=money] *and travel costs.* (KII, Commercial Sector)

A final reason for the lack of private/commercial sector participation could also relate to the slow implementation of activities, with one key informant noting:

> *The coordinating structure works, but it doesn't make the decisions—IMPACT makes them* [the decisions] (KII, USAID)

As a result, in the words of another key informant, there was misunderstanding and a hesitancy to move forward:

> *At the moment, it is really difficult for the public sector to change its mind to take away "why I have to help"...because in its mind, the private sector has money and it has to be easy, whereas it is the one who controls...On the private sector side, the private sector says it doesn't want change or modifications, because if you don't have clear instruction from the public side, there is this expectation. The private sector wants to move forward, but the private sector is afraid that there will be retaliation from the public sector, if they do something. (*KII, Commercial Sector)

When asked how private sector participation could be refreshed and strengthened, key informants noted that private sector actors had a specific interest in the results of market assessments. According to the Y3 Annual Report, the malaria market assessment (conducted in Y2) was validated and an action plan was developed. Market assessments for FP and MCH products were overdue, with plans for completion and dissemination in Y4. The Y4 Q1 report noted that completion of these assessments would allow for expansion of the private sector into

new health markets, for example, plans for the transfer of the Sur'Eau 150 ml license to the private sector.

Key informants also suggested that the private sector would feel more invested if it could better understand the needs of the population:

> *Inform the private sector about the needs of the population and the gap* [real or estimated needs] *so that the private sector can position itself and participate in the creation of new markets. The technical and financial partners have* [only] *subsidized the creation of the new markets by the public sector.* (KII, Commercial Sector)

Last, the importance of reviewing laws and, where appropriate, deregulation, were noted as key for stimulating private sector participation. For example, IMPACT-led and supported expansion of health products allowed for distribution through grocery stores; these stores receive materials from pharmaceutical and commercial wholesalers (e.g., Préservatif , Sur'eau Pilina, and Sur'eau rano). Grocery store (épicerie) owners proposed to expand their product offerings according to the needs of consumers into other essential medicines, such as paracetamol.

Document review of the Y3 Annual Report and Y4 Q1 reports showed recent and strong examples of private sector engagement activities. Key informants representing USAID also noted that additional indicators relating to private sector participation could be added and tracked. However, given the theme that emerged from the qualitative data analysis, a review of private sector engagement and incentive strategies would be helpful. This is discussed further in the section on recommendations.

Coordination for Subnational Actors

At the subnational level, coordination structures were in place but, according to the interviews, optimal cross-sector engagement, and especially, improved supply chain management were not achieved. Gestion et achats de stock (GAS, Supply and Inventory Management Committee) were implemented at the district level to assist with quantification exercises and the validation of data to send complete and accurate orders to regional and central levels. Although the GAS subcommittees were formalized and established through a government directive in 2021, key informants felt that they could do more to incorporate the private sector and to play an active role in analyzing and validating consumption data for the "last mile" of the supply chain (i.e., at the CSB, CHV, and hospital levels), to reduce stockouts.

Figure 14. Proportion that "coordination" is mentioned, by program level (total number of excerpts=182)

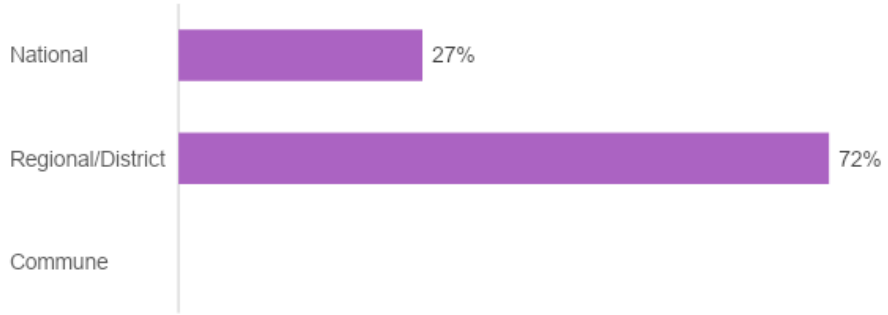


Figure 14 shows how frequently the code for "coordination" was applied to interview notes and FGD transcripts, disaggregated by the respondent's level. Most mentions relating to coordination emerged from data collected from informants working at regional/district levels. This could indicate that coordination was a higher priority at regional/district levels but could also be a work in progress, as illustrated in the following quotes:

> *The thing is that they are just called the GAS Committee, but it doesn't work. They neglect the work of the PhaGDis. So what I know as the GAS Committee according to them, when there is a drug reception, they have to be there. When they are needed for medicines, they should be there in the PhaGDis to do the inventory. Being a GAS Committee just becomes a title.* (FGD, Public Sector)

> *This platform* [the committee] *was put in place, but it needs to be consolidated and we need to know how, in a context of limited resources, the district or the region can take the leadership. (*KII, USAID)

Capacity Strengthening for Subnational Actors

According to supply chain actors at national, regional, and district levels, capacity building activities were welcomed and appreciated. In Y3, a district-level audit of PhaGDis took place as did activities using the Supervision, Performance Assessment and Recognition Strategy tool. They were noted as beneficial capacity building efforts in the following quotes:

> *The fact that there are audits by the DPLMT is something. With the support of IMPACT, a system of supervision and performance evaluation has been set up to bring them to a certain level of performance. Some providers had audits but did not renew their contracts* [due to administrative problems]. (KII, USAID)

> *IMPACT supported the DRSP in the process of turning around the PhaGDis. The nine PhaGDis in X were audited. Deficits were noted and funds were returned according to the MOPH procedure. The operation of the PhaGDis has improved, so the availability and accessibility of inputs are more or less permanently assured. Non-performing PhaGDis providers have been changed.* (KII, Public Sector)

However, the following quote illustrates that the situation of the PhaGeCom's could be somewhat different:

> *In terms of the gap to be filled:* [we need] *management at the level of the PhaGeCom. The problem is that the PhaGeCom are not paid by the commune and this often results in a change of providers and also incites them to divert funds. Therefore, refresher training is needed for PhaGeCom providers.* (KII, Public Sector)

A common theme also emerged around supervision activities and the mostly positive experiences of informants with supervision provided at the district level by IMPACT staff. This is illustrated in the following quote:

> *I would like them to come by often for capacity building and to supervise the stock because they help a lot when they are passing by. For example, the stock, the place of medicines is not good because I came back from maternity leave, there were two or three medicines lost. It had come during the time I was away. The wholesale medication has a stock sheet, and with the details we use RUMER and he does an inventory of what's in there. Sometimes he doesn't see it visually and it's counted as lost when it's in there. That's what I'm hoping for.* (PhaGeCom, FGD)

However, additional resources to facilitate capacity building were needed, especially at the subnational level. For example, commune-level public suppliers indicated in the following quotes that they did not have essential resources, such as simple paper stock cards, to effectively manage their stocks:

> *P3: We haven't had one* [paper stock card] *since we started working.*
>
> *P4…for us, the stock sheet is never enough. The purchase order at the CSB has tracing paper but now there is none…*
>
> *P6: When the stock sheet is out of stock, we take a loose paper and redraw the stock sheet…we use a lot of money to do that.*
>
> *P3: They gave us an electronic version of the stock sheet. Maybe it's to say "deal with it" because we have to work. So, we pay out of our own pocket, because we in* [location X]*, for example, have economic and financial problems. We receive little money, but there is 1 percent of the revenue for the operation, but our money is very little. This does not even cover the payment of SALAMA. We can't use it.* (FGD, PhaGDis & PhaGeCom)
>
> *I want to talk about stock sheets. Before the free stock cards were done in bulk, later they said we don't go there, but it's our program chairman who makes the entries in the stock card every month end. So he does the inventory of all the drugs that are out there. Often, it is IMPACT that does the supervision. As far as motivation and gifts are concerned, I have never received any. The CHVs and animators have received IMPACT inscribed binders and various small things. The small dispensaries have never received any, nor have they received tablets…although the dispensaries work hard.* (FGD, PhaGDis)

Project ADDO: Preparing the public sector to serve as a resupply point for community actors (Accredited Drug Dispensing Outlets)

As noted under Evaluation Question 1, the ADDO project was mentioned multiple times as a strong effort to strengthen the commercial supply chain, down to the commune level, through training and accreditation. However, the rollout of the intervention raised concerns from a handful of key informants, that illegal depots operating outside current regulations would be

enrolled and that there was a need for improved communication and transparency around the project.

An ADDO case study in Tanzania affirmed this point, that stakeholder engagement was necessary as a key to success and was ensured through: a participatory approach involving such stakeholders as owners, dispensers, consumers, and political leaders; a fair and transparent process for permit application and approvals; a dispenser training component; and respecting and valuing community-level inputs. The case study noted that scalability could also be achieved through a decentralized model and that in Tanzania's experience, the shift of implementation to districts allowed for a quicker and simultaneous scale-up.[25] Some of these approaches were already adopted by IMPACT. Examples included the official registration of a drug shop association—Association des Dépôts de Médicaments de la Région—in March 2021, and IMPACT's support of a national census of drug shops.

Logistics and Distribution Approaches for the Public Sector

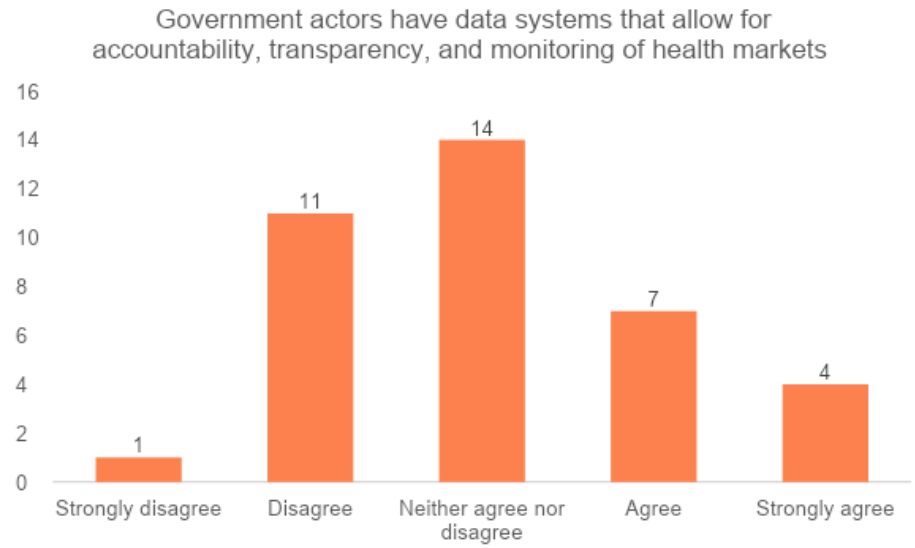
On the less promising side, key informants overwhelmingly noted a need to improve and/or replace several logistics and data management platforms. One key informant described the data challenges in the public sector:

> *Currently, we, the public sector, are facing data problems. Information on the availability of health products is not available at the central level. Previously, data were collected through CHANNEL. Currently, this software is not working well. Fortunately, IMPACT is supporting structures at all levels to collect reliable data.* (KII, Public Sector)

Data-related challenges were echoed in the online survey and can be seen in Figure 15, where fewer than one in three agreed or strongly agreed that data systems were adequate.

[25] Rutta, E., Liana, J., Embrey, M., Johnson, K., Kimatta, S., Valimba, R., … Sillo, H. (2015). Accrediting retail drug shops to strengthen Tanzania's public health system: An ADDO case study. *Journal of Pharmaceutical Policy and Practice,* 8, 23. Retrieved from https://joppp.biomedcentral.com/articles/10.1186/s40545-015-0044-4.

Figure 15. Data systems of government actors (n=37)



Other examples of inadequate information systems/platform or supply chain management data incompatibility were shared by FGD participants, as described in the following quotes:

> *For me, it's RUMER, it's the names of the medications that are complicated. We write orders and medications in RUMER that don't match the medications list. It's hard to copy into the notebooks.* (FGD, PhaGeCom)

> *It is the Ministry that gives us the list* [of available health products]*, while our main supplier is SALAMA. What is in the list is not in the catalogue of SALAMA. So we have a shortage because we do not achieve 100 percent availability of the tracer drugs. It's not from us. The list doesn't exist in the supplier's catalogue, so there's nothing to do.* (FGD, PhaGDis)

According to the Y3 Annual Report, the DPMLT and the LMIS committees (all TMA subcommittees) were selecting a new software to replace CHANNEL—the PhaGDis inventory management software. Platforms were being demonstrated and a terms of reference had been developed for the tender. According to the Y4 Q1 IMPACT report, the LMIS under consideration were OpenERP or Odoo, which was an open-source non-proprietary software, and OpenLMIS, all of which had been used as health data platforms in other countries.[26,27]

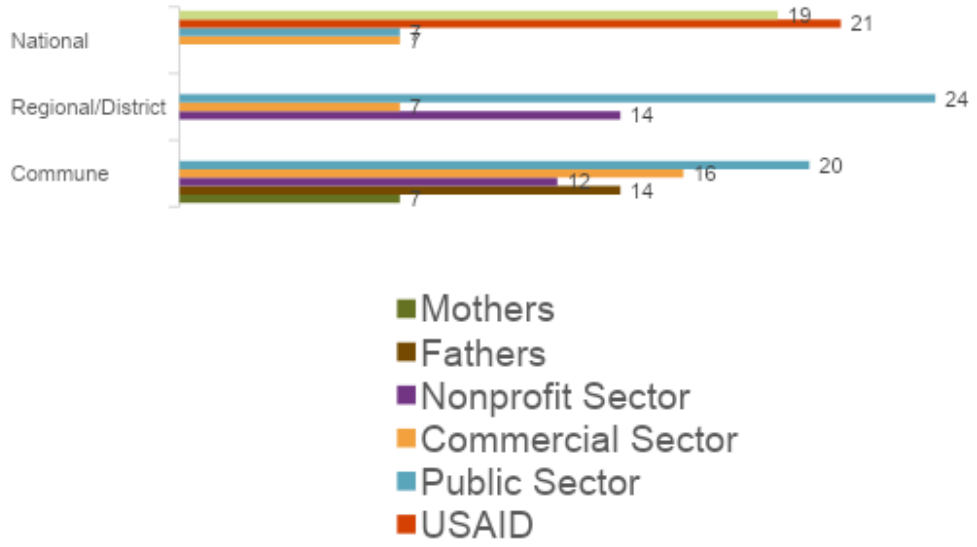
Similarly, although supply chain management had improved since the start of the IMPACT program, almost all supply chain actors mentioned stockouts as a significant challenge for each of the three supply chains, especially at the subnational level. Interview and FGD participants attributed stockouts to ineffective quantification exercise coordination between the national and

[26] Mertadewi, P.D.A., Puspitasari, W., Saputr, M. (2021). *Optimization of event management activity in public health services using OpenERP with Quickstart approach*. Paper presented at 2021 IEEE 11th Annual Computing and Communication Workshop and Conference (virtual), January 27–30, 2021. Retrieved from https://ieeexplore.ieee.org/document/9375913.

[27] Khan, M.A. H., Azad, A.K., de Oliveira Cruz, V. (2019). Bangladesh's digital health journey: Reflections on a decade of quiet revolution. *WHO South-East Asia Journal of Public Health*, 8 (2), 71–76. Retrieved from https://apps.who.int/iris/handle/10665/329331.

subnational levels and to difficulties with procurement and transportation, especially at the commune level. Figure 16 shows the code "stockout" applied 172 times, with most of the mentions coming from people working in the public sector and at regional/district levels. However, although IMPACT's mandate stops at the PhaGDis level, stockouts cascaded to the PhaGeCom and CSB levels, where the supply chain actors were responsible for their own transport of medicines and supplies from the PhaGDis. This could also perpetuate the frequency and duration of stockouts.

Figure 16. Stockout excerpts, by level and stakeholder type (total number of excerpts=168)



Each sector described logistical challenges as contributing to stockouts. In fact, the terms "logistics" and "challenge" co-occurred 31 times across the key informant and FGD data. Respondents indicated that this related to inadequate data collection and reporting, occurring most frequently in the public sector. There was also mention of a lack of capacity at the commune level to collect and send accurate data, and challenges completing timely quantification exercises at the district level.

Quotes from FGDs add additional nuance to stockout-related frustrations:

> *Recently, there was a distribution of family planning products, they had sent TRICLOFEM and DEPO-PROVERA injectables. The stock was full, we did not know what to do. Meanwhile there were other places that did not receive them, they did not give them any. This is one of the difficulties, because the stock status determines that the medicine should not be delivered; meanwhile we have no place to put them.* (FGD, PhaGDis)
>
> *Sometimes they send their order form to the person in charge of the Malaria Program, for example, if we order 20 Primaquine. He reduces the order and says there aren't many malaria cases in our area. They often do this.* (FGD, PhaGeCom)
>
> *We don't know if it comes from above. For example, we send the orders and we don't receive what we ordered. When we watch the video conferences with the person in*

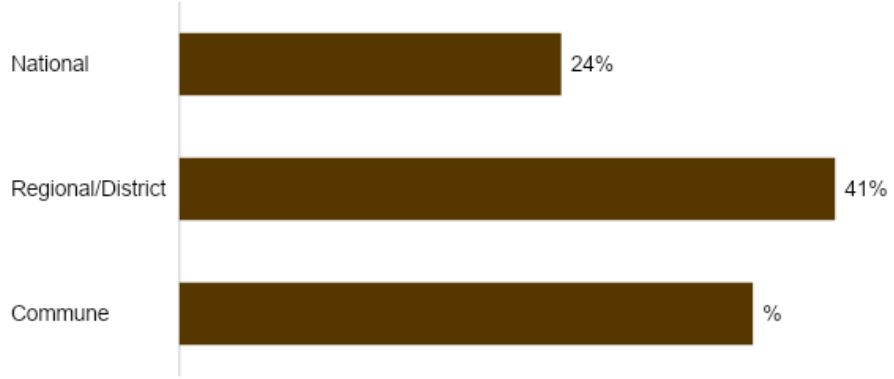
charge of malaria, we see that some regions receive a lot, which are not even used up, but here we do not get enough. So maybe it's due to the distribution from above. (FGD, PhaGDis)

PAs also mentioned supply chain-related transport challenges due to financial limitations. As noted in one FGD:

I want to explain something to you. We travel from our home to X to get supplies from the PARCs. We pay our travel expenses. When we go back home, we pay our own travel expenses and the cost of transporting our medicines. So, the value of the coupon that was given to us is minimal. (FGD, PA)

Overstocks were also identified as a supply chain management problem. As shown in Figure 17, of the 10 "overstock" codes that were applied to the interviews and FGDs, overstocks were most frequently mentioned at the subnational level (regional/district/commune) (77%).

Figure 17. "Overstock" excerpts (%), by public sector respondents (total number of excerpts=10)



Interviewees attributed the overstocks to a lack of coordination among sectors, especially in terms of MCH products. Although monthly quantification exercises were being conducted (led by UNFPA) to improve the availability of products, interviewees indicated that the problem resided with technical and financial partners,not always coordinating and participating in the quantifications. Instead, they were directly placing products with SALAMA. A 2019/2020 overstock of oxytocin was mentioned by multiple informants as an example and was linked to a lack of coordination:

The coordination among the sectors—public, commercial, and nonprofit— is not yet effective. The program is still at the beginning stage. (KII, Public Sector)

There was a time when they sent oxytocin destined for the PhaGDis, although we know that oxytocin requires a refrigerator. They sent this medicine, but unfortunately it was lost…They sent medicines with an expiration date of four months. The quantity they sent was huge. There was no way to use up the drugs, and when the drugs were expired, there was a disagreement between the donor and the manager. These are our problems. (FGD, CHV)

…And for "oxytocin", if you heard about the overstock, it's mainly in the World Bank areas… the problem…is that they didn't consult the MOPH. But during the study, they said that the region, for example X region, needed X number of oxytocin, and then they

procure it for their regions without consulting the results of the national quantification…It was in 2019 and 2020, three types of oxytocin [arrived]*: first, one oxytocin from USAID; second, one oxytocin from FANOME; then third, one oxytocin from the World Bank. And they asked me, sir, what shall we do? We have these three kinds, the two from the World Bank and* [one] *from USAID. They are free, but with FANOME, you have to pay. And that's it. I didn't know what to do, but my recommendation was that you use first to expire, the first out.* (KII, USAID)

In addition to improved coordination, communication, and systems to facilitate quantifications and an end to stockouts, a brief review of external literature highlighted two alternative, but also complimentary approaches:

1. **Informed Push Model (IPM)** supply system, which uses monthly usage data to forecast health commodity needs. A 2020 review of the IPM in Senegal showed that when implemented in combination with other health systems strengthening strategies, contraceptive options were available more consistently, with fewer stockouts. Although the model did not address the length of time between restocks, it was helpful in predicting the stockout duration before replenishment.[28] The approach also helped improve stock availability and ensured updated stock data. The system used Open LMIS to capture logistics data.[29] An important key to success was the government's commitment to IPM.[30] However, it should be noted that the IPM approach took place at the community health facility (or CSB) level, which is currently beyond the scope of the IMPACT program.
2. **A *Pay for Performance* (P4P)** scheme also helped reduce stockouts in Tanzania and incentivized stakeholders from the national to the community levels to work together, significantly increasing the availability of medicines and medical supplies, along with reductions in stockouts. The P4P model, however, was also noted as requiring intensive supervision at the subnational level, where stockouts were more prone to occur.[31]

Transitioning Social Marketing to the Public Sector

The "transition" code—in reference to the transition of the social marketing portion of the supply chain to the public sector—was applied most frequently, as shown in Figure 18, to program staff interview notes (n=81) and USAID interviews (n=119). Moreover, nonprofit

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[28] Krug, C., Cavallaro, F. L., Wong, K. L.M., Gasparrini, A., Faye, A., Lynch, C. A. (2020). Evaluation of Senegal supply chain intervention on contraceptive stockouts using routine stock data. *PLoS ONE*, 15(8), e0236659. Retrieved from https://journals.plos.org/plosone/article?id=10.1371/journal.pone.0236659.

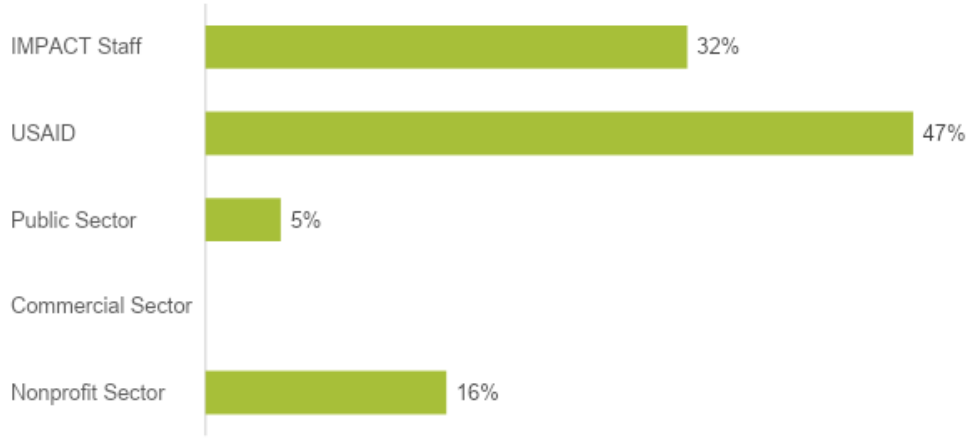
[29] IntraHealth International (n.d.). Informed push model. mHealth Compendium vol 5. Accessed March 18, 2022. Retrieved from https://lib.digitalsquare.io/bitstream/handle/123456789/77574/informed_push_model.pdf?sequence=1.

[30] Hasselback, L., Dicko, M., Viadro, C., Ndour, S., Ndao, O., Wesson, J. (2017). Understanding and addressing contraceptive stockouts to increase family planning access and uptake in Senegal. *BMC Health Services Research*, 17, 373. Retrieved from https://bmchealthservres.biomedcentral.com/articles/10.1186/s12913-017-2316-y.

[31] Binyaruka, P., Borghi, J. (2016). Improving quality of care through payment for performance: Examining effects on the availability and stock-out of essential medical commodities in Tanzania. *Tropical Medicine and International Health*, 22(1), 92–102. Retrieved from https://onlinelibrary.wiley.com/doi/10.1111/tmi.12809.

suppliers (PARCs/PAs) also discussed the transition in the FGDs, but only after being informed about it. A lack of communication and transparency were noted about the transition, especially for those in the public sector, and the affected PAs/PARCs themselves (~50% female). There were likewise concerns about the capacity and resources of the public sector to maintain the supply chain in the event of political instability.

Figure 18. Social marketing transition excerpts (%), by stakeholder (total number of excerpts=254)



Concerns about the PARC/PA transition are illustrated in the following quotes:

> *In my opinion, the PAs will suffer, because a part of the drugs goes to the state, and the CHVs complain, why are these drugs are not with us. We are forced to make orders, and we get the drugs only after a month, etc....it is difficult for the CHVs and we too, we are sorry because we have worked together for five, six, seven years, it is true we do not take much, but just a little for our life. But since this is the decision, there is nothing we can do about it.* (FGD, PA)

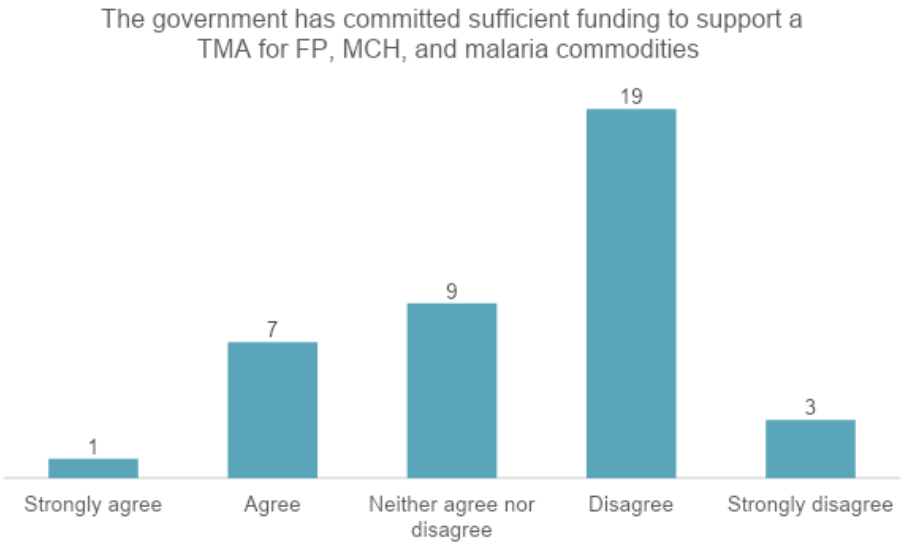
> *First, in the case of transferring health products to PhaGDis, it is necessary to value the costs of the products. It is highly likely that the MOPH will not have the means to purchase these products. In this sense, IMPACT should consider accompanying measures related to the financial means to buy back the health products sold through IMPACT's social marketing. (*KII, Public Sector).

Sufficiency of Financial Resources

Program staff shared a concern that the GOM was too dependent on donors and was not prepared or adequately interested in managing the TMA on its own.

As shown in Figure 19, online survey respondents mostly disagreed that the GOM had the financial capacity to manage the TMA, especially given the upcoming transfer of social marketing products to the public sector.

Figure 19. Funding to support a TMA for FP, MCH, and malaria commodities (n=37)



Key informants also shared that the MOPH budget was too small to manage the TMA after the IMPACT program ended, as illustrated in the following quotes:

> *Without the IMPACT program, at the moment, the DRSP does not have enough resources to ensure the availability of drugs.* (KII, Public Sector)

> *Logistical costs are the most expensive for the government. For example, the government must provide paper to the 113 health districts, 2,500 CSBs, and 17,000 community agents, otherwise the system does not work.* (KII, Public Sector)

> *The health budget has not changed to support the TMA…It is not for primary health, for the poor, the people who are in the village.* (KII, USAID)

In addition, there was recognition that time and resources for the IMPACT program were delayed or diverted by COVID-19:

> *Today, as you know, given the scoop of the program… there is a crisis, there is a pandemic, COVID had a major role in the fight for the [program] inputs and also in everything that is vaccination. Today, we play a role in themobilization of vaccinations and redeployment [of medicines and supplies]. We have a major role in the plague and measles epidemics and we have a much broader mandate now because at the beginning, we did not expect to have so many training sessions in the regions.* (KII, IMPACT Staff)

According to the Y4 Q1 report, IMPACT will be able to use results from a 2022 total cost analysis of the public supply chain (SALAMA) to inform the development of the MOPH's next five-year plan, allowing for the possibility of further planning and resource allocation.

Evaluation Question 3: To what extent is there national ownership/stewardship of the TMA? How has the IMPACT program contributed to this degree of national ownership?

Key Results

Based on the qualitative and quantitative data analyzed, the IMPACT program was well on the path toward ownership/stewardship of the TMA, but had opportunities to do more in years 4 and 5, with a specific emphasis on sustainability and handover through:

- Creative methods to combat staff turnover and to ensure consistent training and retraining on the TMA.
- Addressing remaining regulation challenges that impeded private (including commercial) sector partnership and participation.

IMPACT's Contribution to Ownership/Stewardship

IMPACT's contribution to capacity building had enabled the successful implementation of the TMA, as illustrated by effective national-level coordination structures and mechanisms. A key aspect to this was IMPACT's identification and training of government stakeholders to become TMA champions. After receiving training on TMA implementation, the TMA champions managed the TMA TWG subcommittees and the training of future champions. This achievement is illustrated in the following quotes:

> *The importance of the champions is that they know IMPACT and the TMA approach well, and they can moderate discussions.* (KII, USAID)

> *The government actors are the ones who are responsible for the coordination mechanism, they are the ones who lead the coordination.* (KII, IMPACT Staff)

The installation of TMA champions facilitated the government's participation and ownership of the TMA TWG (as discussed above in EQ1). However, despite the success of TMA champions, respondents stated that sustainability was challenged by the constant turnover of government posts and change due to political instability. As a result, the TMA champions left their positions and new government stakeholders required training. Not only had this been a challenge for the duration of the program, but it required serious thought to ensure the longevity of the TMA. This concern is illustrated in the following quotes:

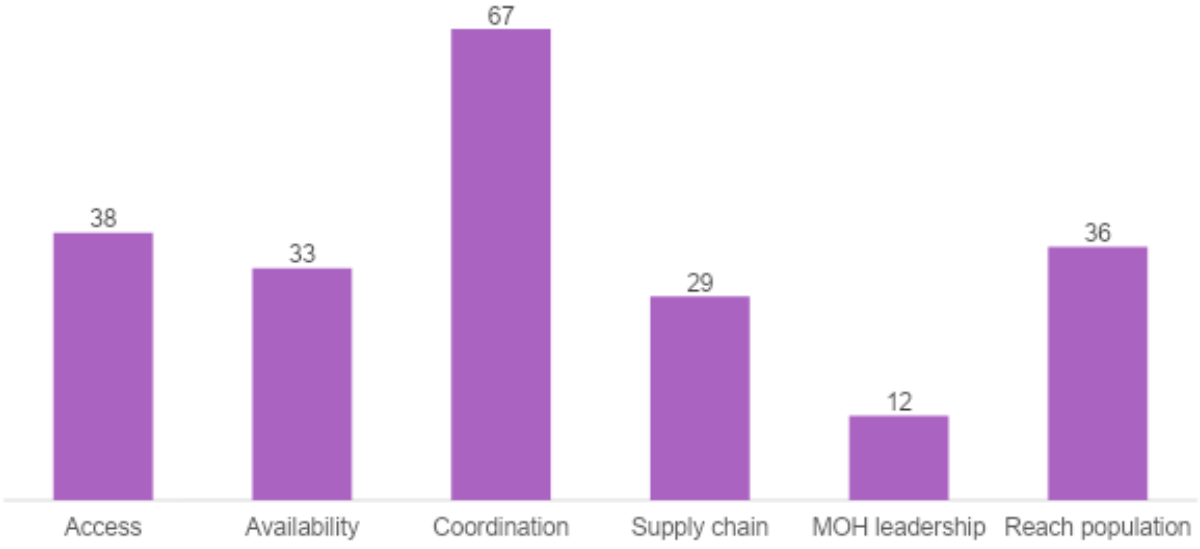
> *What causes the problem is the change in the position of the person already identified as a champion.* (KII, IMPACT Staff)

> *The people who were named "champions" were identified because of their position in the department. As things change here, people who were champions because of their position, no longer have that position, that element has an impact. How does an approach work in this context of instability*? (KII, USAID)

Similarly, key informants noted a lack of understanding around the TMA definition. As defined in the online survey, TMA is an approach in which public and private/commercial actors work

together to grow the market for priority health products to increase their availability, access, and use in an efficient, equitable, and sustainable manner, including using social marketing techniques. Online survey respondents were asked to describe in their own words what a TMA was and how it was implemented in Madagascar. Responses were then coded. Figure 20 presents the results of the elements discussed in their definitions indicating that respondents immediately recognize "coordination" as a key element with less emphasis or knowledge of MOH leadership as an essential component of the approach.

Figure 20. TMA definition, key words (online survey, n=42)



The government's ownership of the TMA was further challenged in 2020 and 2021 by the COVID-19 pandemic. Respondents commented that MOHP stakeholders turned their attention to pandemic management or were reassigned to pandemic response, which significantly delayed program progress.

IMPACT's attention was also redirected to supporting the GOM's response to the COVID-19 pandemic, especially for supply chain management and vaccination. This included GOM coordination with the private sector to provide health products for COVID-19 at consistent pricing. Both these points are illustrated in the following quotes:

> *In general, support has been concentrated in COVID-related activities. IMPACT ensured the availability of related health inputs. In this case, everything worked well. The tangible result is the good management of PhaGDis providers on health inputs. Everything that was planned is being done.* (KII, Public Sector)
>
> *When COVID arrived, there was a strong reaction. Immediately, the government contacted the private sector to import products and not to increase prices.* (KII, IMPACT Staff)

The TMA TWG subcommittees have also worked to address the remaining regulation and accreditation challenges affecting participation by the commercial/private and nonprofit sectors

in the TMA, notably that of commune-level suppliers. This included reviewing regulatory texts and communicating the medication lists and launching the pilot ADDO to promote accreditation. However, respondents expressed concern about the government's ability to meaningfully integrate private sector actors, especially those who required accreditation or an update to regulations:

> *DPLMT insisted that only approved depots can attend [ADDO] meetings, which excludes half of the depots that did not have the proper paperwork to participate. In my opinion, they are the ones who should be trained.* (KII, IMPACT Staff)

Conclusions

This midterm evaluation sought to examine the IMPACT program's progress and performance to date, identify what is working and what is not, and suggest solutions or areas of focus for the remaining program years 4 and 5 and the extension period. The study team conducted an online survey with 43 responses, 23 KIIs, and 10 FGDs with 59 participants, extensive document review, and a targeted review of external literature.

Data from the evaluation suggest that IMPACT is achieving its intended objectives and intermediate results related to enhanced coordination, strengthened capacity, and expanded engagement. All are building a strong foundation for sustainable health systems strengthening. The data also indicate that logistics, LMIS, and supply chain management issues continue to plague the program, resulting in continued and harmful stockouts or stock mismanagement issues, thereby inhibiting the potential success of innovative demand creation activities and limiting access. These issues were also exacerbated by COVID-19 and affected by Madagascar's undesirable status as a disaster-prone country, increasingly facing more hazards due to climate change. It is a strength of the IMPACT program that challenges are recognized head-on and addressed quickly, and it is clear that they reflect Madagascar's complex supply chain structure for health products and the many stakeholders involved. Addressing the reoccurrence and the predictors of ineffective supply chain management are a chief concern for the remaining program implementation period.

At the same time, it is also important to acknowledge that supply chain breakdowns and inefficiencies are not just a Madagascar problem. They are occurring more often in a protracted COVID-19 pandemic world.[32] As such, the IMPACT program is correct to be open to creative solutions and to learn and adopt from other programs and geographic areas, as exemplified by

[32] Miller, F.A., Young, S.B., Dobrow, M., Shojania, K.G. (2021). Vulnerability of the medical product supply chain: The wake-up call of COVID-19. *BMJ Quality and Safety,* 30(4), 331–335. Retrieved from https://pubmed.ncbi.nlm.nih.gov/33139342/.

the ADDO activities and other methods of private sector engagement, and innovative approaches to demand creation activities that ensure equity.

The following table presents the key findings, organized by EQ.

Summary of Key Findings, Organized by Evaluation Question

Evaluation Question 1: What is the effect of IMPACT's TMA on improving the availability and accessibility of quality health products to the Malagasy people?
• Coordination: The TMA has contributed to enhanced coordination, especially at the national level, among public, private for-profit, and nonprofit actors, and donors, with subcommittees established and key objectives achieved. • Capacity: Improvement of capacity was noticeable in terms of public sector supply chain management through quantifications led by public sector actors. • Serving new health markets: The TMA has successfully engaged the private sector and developed partnerships, contributing to increases in the availability and accessibility of health products, especially for FP. However, this increased demand was not always sustained due to stockouts and supply chain management issues. There is an opportunity to increase and enrich the partnerships and interest in increasing product offerings. Future market assessments would help identify gaps that could be filled by the private sector. • Social marketing: Broad distribution of social marketing products likely contributed to increases in contraceptive use and contraceptive prevalence. PARCs and PAs were committed and adept at managing their supply chains. However, supply chain actors shared concerns that price increases for FP products were burdensome. • Increased demand: Increased demand has been achieved, and targeted communication campaigns and sensitizations with key populations, such as youth, supported this result. These achievements were jeopardized by continuing stockouts. • Gender equality, female empowerment, and social inclusion: GESI was a key component of the IMPACT program. In Years 4 and 5, GESI considerations should remain and appropriate attention given to sustainability and transitions.
Evaluation Question 2: Which of the IMPACT implementation approaches and activities appear to be the most promising and should be prioritized in the final two years of promoting the TMA? For those that are not showing promise, what alternatives or complementary options should be considered?
• Coordination approaches for reliable supply and distribution: There is a need for improvement of coordination structures at regional and district levels and efforts to incentivize private sector participation. • Capacity building for cross-sector engagement: Capacity building was essential to the TMA's success and was appreciated by actors from all sectors. Actors at the regional and district levels indicated a need for more resources, especially for better organized logistics in terms of the LMIS, stock sheets, and other materials to improve supply chain management and reduce stockouts. • Commodity logistics and distribution: This needs continued and renewed improvement to have a unified LMIS to harmonize and leverage data for decision making, and to end stockouts. The

new LMIS to replace CHANNEL must be one that is interoperable with the DHIS2. Lessons from the PMI stockout reduction activities could be applied across the supply chain, especially to address stockouts.[33]

- The transition of the social marketing channel to the public sector (resupply and resources) was a work in progress. Although it was led by the GOM, efforts to communicate the process should be strengthened. The rollout of ADDO would increase the community-level network for health products.
- Incentive for private sector actors: Financial products were important and appreciated, and partner banks were eager to grow these approaches. There were some bureaucratic limitations in their application (e.g., geography, undelivered motorbikes).
- Measurement: Monitoring and supervision to ensure quality data were helpful. There could be opportunities to add indicators to better monitor private sector participation.
- Sufficient financial resources: Although participation of public sector actors was clear, there was concern that the GOM has not allocated enough financial resources to full TMA adoption.

Evaluation Question 3: To what extent is there national ownership/stewardship of the TMA? How has the IMPACT program contributed to this degree of national ownership?

- COVID-19 has significantly impacted resources and progress, especially at the national level, where there was an increased burden on human resources and program funding, due to the implementation of COVID-19 mitigation efforts.
- To meet the needs of the Malagasy population, a full TMA requires additional points of access for health products and a robust and consistent supply chain. This could be partially facilitated through the ADDO model rollout, but will also require commitment from GOM partners to review laws and regulations (and where appropriate, to consider deregulation).

Actionable Recommendations

The next two to three years the IMPACT program has the opportunity to prioritize the transition of stewardship and responsibility:

- Stockouts, overstocks, redistribution, and spoilage are everyone's responsibility.
- One unified, online, high-performing, inventory management system is needed.
- The LMIS should have the capacity to build dashboards, including an online dashboard on stockouts, that is accessible to all actors, and should harness data to help understand issues related to "seasonality" and identifying products that are experiencing significantly low demand (e.g., the "collier").
- Consider what can be learned from PMI about targeted stockout solutions.[34]

A TMA is being achieved but stakeholders must be reminded of the full TMA definition and refresher training are needed on the approach, with less focus at the central level:

[33] According to PMI's National Malaria Strategic Plan 2018–2022 for Madagascar, the objective is for 95 percent of facilities to report no stockouts of malaria commodities by 2022.

[34] U.S. President's Malaria Initiative. (n.d.) PMI technical guidance FY2022. Retrieved from https://d1u4sg1s9ptc4z.cloudfront.net/uploads/2021/03/pmi-technical-guidance-fy2022-1.pdf, p. 247.

- Decentralize and expand working groups, with a focus on engagement of the private/commercial sector.
- Consider virtual TMA training.[35]
- Leverage TMA champions, especially at regional and district levels, while implementing measures to retain existing champions.
- Consider where TMA representation can be enhanced at regional and district levels.
- Ensure that UTGL/GAS are functional and empowered to not just hold meetings, but to thoughtfully plan and make lasting decisions.

Improve motivation and engagement of the private sector:

- Consider what motivates the private (including commercial) sector to engage and remain engaged in a TMA process. For example, the private (including commercial) sector is hungry for market intelligence and can potentially be motivated through access to further market analysis.
- The private sector has the desire to feel more involved in working group meetings and to be a part of decision making.
- Further deregulation and review of laws may also stimulate motivation (e.g., approval of online sales, selling of FP products).
- Prioritize the ADDO rollout while keeping key stakeholders informed at each step of the rollout.

Transition social marketing activities:

- Immediately inform and include government partners in all SBCC activities.
- Transition PAs/PARCs, but figure out how to retain their expertise, whether via champions, as PhaGeCom, CHV monitors, or other roles.
- Consider allowing the sale of social marketing products in FANOME.

Increase demand and promote healthy behaviors through health products:

- Explore the reasons for low levels of FP knowledge among men.
- Consider the development of a "positive masculinity" approach as a GESI-focused activity and involve strategic partners, such as the CNFM, in field research.
- Plan for a post-IMPACT transition and ensure strong GOM/private sector handover with banking partners, leveraging the knowledge of bank "champions" already trained.
- Consider further support or a financial package/measure for women's empowerment activities.
- Fully vet the implications of the product pricing changes.

[35] Idea: Translate the Global Health eLearning Center's TMA course into French.

This evaluation started in the midst of the COVID-19 pandemic in 2021, and as such, the methods we used were tailored to this context. The stark reality is that the majority of evaluation team members and many stakeholders and evaluation participants alike were all affected by COVID-19 at some point, either sick themselves or tending to family members, which may have limited data collection efforts and participation. At the same time, the IMPACT program was evolving and adapting to a "new normal" in a pandemic age—one that certainly had not been imagined when the program started. As such, recognizing the seismic shift that has occurred, the conclusions and recommendations must be carefully considered and applied in this new context. We are hopeful that this evaluation will help elevate and amplify the voices of stakeholders and participants, and that their feedback will chart and galvanize the program's path forward.

Appendix 1. Dedoose Code List

- **Availability**
  - Family planning
  - Malaria
  - MCH
  - Change in availability
    - Overstocks
    - Continuously available
    - Stockouts
- **Accessibility**
  - Increased accessibility
  - Location
  - External Factors
    - COVID
    - Political instability
  - Affordability
    - Ability to pay
    - Willingness to pay
  - Equitable access
    - Poor
    - Gender
    - Unmet need
- **Quality**
- **Coordination**
  - Cross-sector engagement
    - Technical working group
  - Regional/district level
- **Capacity**
  - Government stakeholders
  - Public sector suppliers
  - Community actors
  - Commercial actors
  - Monitoring
  - Training
  - Resources
  - Supply chain management
  - Financial/business management
- **Total market approach**
  - Serving new markets
  - Integrating all market actors
  - Addressing consumer needs
  - Market segmentation
- **Social marketing**
  - Addressing affordability
    - Distributed for free
    - Remove taxes
    - Subsidy
  - Transition
    - Preparedness
    - Government resources
- **Demand**
  - Increased demand
- **Advocacy**
  - Supply chain
    - Public
    - Commercial
    - Not for profit/Social marketing sector
    - National
    - Regional
    - District
    - Community
- **Logistic**
  - Data
    - Data quality
    - Data collection
  - Improved supply chain
  - Procurement
  - Improved stock management
    - Avoid expiration of products
    - Quantification exercises
- **Distribution**
  - Transportation
- **Incentives**
  - Improving access to finance
  - Improving margin structures
  - Improving private sector participation
    - Accreditation
    - Regulations
  - Equitable participation in commercial activities
    - Female participation
- **Monitoring and evaluation**
  - Indicators
  - DHIS2
- **GESI integration**
- **Government stewardship**
  - Leadership
    - TMA champions
  - Sustainability
  - Funding/resources
    - Insufficient resources
- **IMPACT's role**
- **Challenges**
- **Proposed solutions**
- **Quotations**

Appendix 2. Staff Biographies

Susan Bergson, Team Lead
Susan has more than 20 years of experience in public health and development with degrees in social work, women's studies, and a master's in public health from Tulane University. Susan started her career in Cote d'Ivoire and continued with postings in Malawi and Thailand. She is currently based in the Netherlands. Susan led evaluation design, data collection, analysis, and report writing efforts.

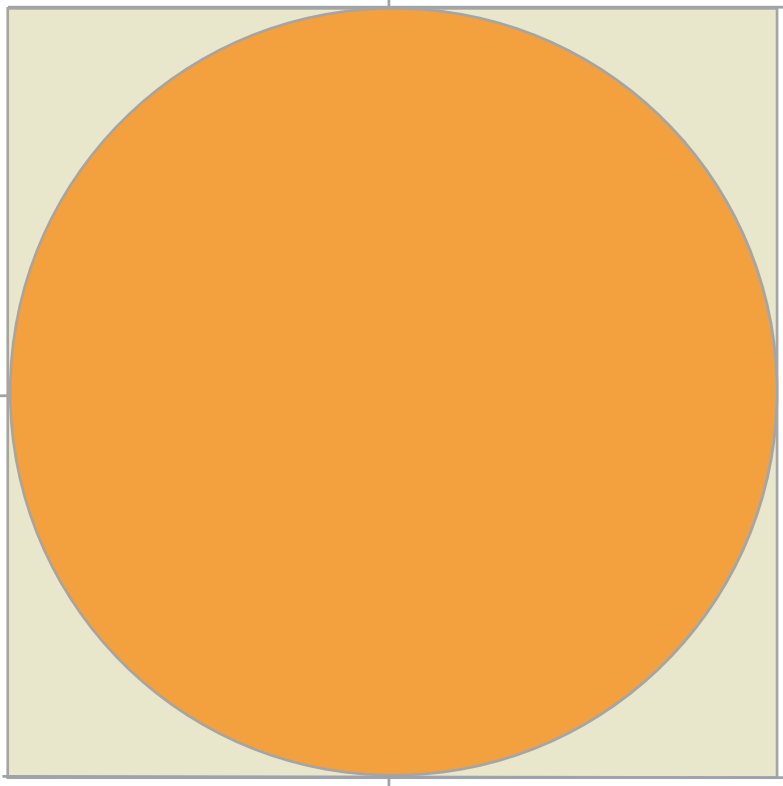
Olga Clarisse Indriamihaja, Lead Field Researcher
Olga is an independent consultant based in Antananarivo with more than six years of experience in program management for public health and nutrition programs and expertise in qualitative data collection. She holds a Doctorate in Medicine from the University of Antananarivo and a Master of Public Health from the University of Mahajanga. She led the in-country data collection efforts.

Lwendo Moonzwe, D4I Activity Lead
Lwendo is a research and evaluation specialist with a PhD in sociology and a master's in public health. Her technical background includes experiences in the areas of behavioral communication change, culturally based intervention design, education, food security, HIV/AIDS, human rights, maternal and child health, nutrition, sexual and reproductive health, and women's empowerment. She served as the D4I activity lead, providing oversight and backstopping support to the team.

Rebekah Koch, Research Assistant
Rebekah is a recent graduate of Emory University's Development Practice master's degree program with an interest in gender and applied research and evaluation. Rebekah previously served as a Peace Corps volunteer in Cameroon and has supported CARE's work in humanitarian relief. Rebekah is fluent in French and assisted in the literature review, data collection, and analysis.

Nathalie Safia Mohamed, Field Researcher
Nathalie is a consultant who has been working for years in the field of human rights and in particular the rights of minorities such as stateless persons and the promotion of gender equality. She has a master's degree in Internal and International Public Law from the University of Antananarivo. Nathalie supported the in-country data collection efforts.

Anna Tarrant, D4I Activity Lead
Anna has close to 10 years of experience in public health and international development. Her content area expertise includes sexual and reproductive health, infectious disease, and economic evaluation, and she has worked in more than 20 low- and middle-income countries. Anna provided project management and supported the evaluation design prior to her departure from ICF in November 2021.



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