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## Mid-Term Program Evaluation of the MalariaCare Project

**June 2016**

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June 2016

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# ACRONYMS

ACTs	Artemisinin-based combination therapies
ALMA	African Leaders Malaria Alliance
ANC	Antenatal care
AOR	Agreement Officer's Representative
AR	Annual report
ASTMH	American Society for Tropical Medicine and Hygiene
BCC	Behavior change communication
CBA	Community-based agent
CDC	U.S. Centers for Disease Control and Prevention
CHAZ	Churches Health Association of Zambia
CHO	Community Health Officer
CLU	Clinical Laboratory Unit (Ghana)
CNM	Cambodia National Malaria Control Program
DHIS2	District Health Information System 2
DHMT	District Health Management Team
DQI	Data quality improvement
ECAMM	External Competency Assessment of Malaria Microscopy
EDS	Electronic data system
FBO	Faith-based organization
GHS	Ghana Health Service
HF	Health facility
HIO	Health Information Officer
HQ	Headquarters
HW	Health worker
iCCM	Integrated community case management
IMaD	Improving Malaria Diagnostics Project
IMCI	Integrated Management of Childhood Illnesses
INS	National Institutes of Health (Mozambique)
IPTp	Intermittent preventive treatment in pregnancy
IRS	Indoor residual spraying
ITN	Insecticide-treated mosquito net
LLW	Lessons Learned Workshop
M&E	Monitoring and evaluation

MACEPA	Malaria Control and Elimination Partnership in Africa
MCDI	Medical Care Development International
MCSP	Maternal and Child Survival Program
MDRT	Malaria Diagnostic Refresher Training
NAMS	National Archive of Malaria Slides
NMCC	National Malaria Control Centre (Zambia)
NMCP	National Malaria Control Program
OPD	Outpatient department (Ghana)
OTSS	Outreach Training Support Supervision
PAMO	Program for Advancement of Malaria Outcomes
PHA	Provincial Health Authority (Mozambique)
PHD	Provincial Health Directorate (Mozambique)
PMI	President's Malaria Initiative
PMP	Performance Management Plan
POC	Point of care
PPME	Policy Planning Monitoring and Evaluation Division (Ghana)
PPMV	Patent and proprietary medical vendors (Nigeria)
ProMPT	Promoting Malaria Prevention and Treatment
PSI	Population Services International
PSK	Population Services Khmer
PY	Project year
Q2	Quarter 2
QA	Quality assurance
RBM MERG	Roll Back Malaria Monitoring and Evaluation Reference Group
RDT	Rapid Diagnostic Test
RHMT	Regional Health Management Team
SAVE	Save the Children
SOP	Standard operating procedure
TA	Technical assistance
TES	Therapeutic Efficacy Study
TOT	Training of Trainers
TWG	Technical Working Group
USAID	U.S. Agency for International Development
WHO	World Health Organization

# EXECUTIVE SUMMARY

## EVALUATION PURPOSE AND EVALUATION QUESTIONS

The MalariaCare mid-term evaluation was expected to accomplish the following objectives:

- Assess and document progress toward achieving project objectives and whether desired results have occurred.
- Determine the effectiveness and efficiency of project operations and management.
- Capture lessons learned and identify key bottlenecks/gaps that can inform future President's Malaria Initiative (PMI) activities in case management, in the context of the updated PMI 2015–2020 strategy.

The evaluation questions are:

1. What results have been realized at the country level?
2. To what extent has MalariaCare met the management requirements and functions outlined in the agreement?
3. What results have been realized at the global level?
4. Are there lessons learned from MalariaCare's activities at all levels that could inform future programming in malaria case management?

## PROJECT BACKGROUND

The President's Malaria Initiative (PMI) was launched in 2005 as a five-year, \$1.2 billion initiative to rapidly scale up malaria prevention and treatment interventions to reduce malaria-related mortality by 50% in 15 high-burden countries in sub-Saharan Africa through a rapid scale-up of proven and highly effective malaria prevention and treatment measures, focusing on: **insecticide-treated mosquito nets (ITNs)**, **indoor residual spraying (IRS)**, accurate diagnosis and prompt treatment with **artemisinin-based combination therapies (ACTs)**, and **intermittent preventive treatment of pregnant women (IPTp)**. With the passage of the Lantos-Hyde Act in 2008, PMI developed the U.S. Government Malaria Strategy 2009–2014, expanding PMI goals and programming. In 2011, PMI began supporting programming in four new sub-Saharan countries and one regional program in the Greater Mekong sub-region in Southeast Asia. In 2015, PMI supported programming in 19 sub-Saharan countries and the Greater Mekong sub-region. The recently released PMI Strategy 2015–2020 continues to focus on scaling up proven interventions and seeks to reduce malaria mortality by one-third from 2015 levels in PMI-supported countries, achieving a greater than 80% reduction from PMI's original 2000 baseline levels; reduce malaria morbidity in PMI-supported countries by 40% from 2015 levels; and assist at least five PMI-supported countries to meet the World Health Organization (WHO) criteria for national or sub-national pre-elimination. The 2015–2020 Strategy recommits PMI's partnership with the same countries.

The MalariaCare Project is a five-year cooperative agreement led by PATH and funded by the U.S. Agency for International Development (USAID) under PMI. The project is one of four flagship projects—managed centrally by USAID/Global Health Bureau/Office of Health, Infectious Diseases, and Nutrition/Malaria Division—accessible to Missions to support the

malaria case management efforts of PMI. The project aims to scale up high-quality case management services, both diagnosis and treatment, for malaria and other febrile illnesses. MalariaCare began on September 30, 2012, and will end on September 29, 2017. MalariaCare aims to achieve the following objectives:

1. Improve the accuracy of diagnostic testing to greater than 90% in the public sector.
2. Increase the percentage of suspected malaria patients who receive a diagnostic test for malaria.
3. Increase the percentage of patients who receive appropriate treatment for malaria or other febrile illness, consistent with test results.
4. Strengthen health systems at the country level for the diagnosis and treatment of malaria and other infectious diseases, with a focus on laboratory support.

## **DESIGN, METHODS, AND LIMITATIONS**

The mid-term evaluation looked across 15 countries broadly and focused in depth on four countries selected by USAID/PMI. Evaluation design and methods included:

- Review of key project documents, including semi-annual and annual reports and work plans.
- Survey across 15 countries utilizing MalariaCare with MalariaCare Headquarters (HQ) (backstops) and field staff and country Mission PMI staff.
- Interviews with PMI HQ and field staff; MalariaCare HQ and field staff, and National Malaria Control Program (NMCP) and other government staff in four countries (Ghana, Malawi, Mozambique, and Zambia).
- Interviews with global stakeholders, including PMI, MalariaCare partners' HQ staff.
- Analysis of additional project data from the four case study countries, including data from performance management plans (PMPs), annual and semi-annual report narratives, and output indicators maintained by MalariaCare HQ.

It was difficult to ensure that survey and interview findings referred only to the first three project years (PY) and not to activities underway in PY 4. Appropriate data collection and cross-country analysis were made challenging by substantial country-level variation in project objectives, based on the Performance Management Plans (PMPs) attached to country work plans. Changes in PMP indicators over the project's first three years further complicated any trend analysis. The evaluation included limited input from government stakeholders and no input from beneficiaries. Evaluators reviewed the Lantos Hyde U.S. Government Malaria Strategy 2009–2014 and PMI Strategy 2015–2020 for context; however, no information was provided about other malaria projects currently funded by PMI or how they might relate contextually to or interact with the MalariaCare project.

## **FINDINGS**

### **What Results Have Been Realized at the Country Level?**

MalariaCare works within a broader context in each project country, collaborating with other PMI, USAID/U.S. Government, and global partners to achieve country goals. These findings reflect MalariaCare's contribution but do not ascribe attribution/credit solely to MalariaCare.

Country reporting on technical progress has been complicated by overlap across project objectives and changes over time in indicators and measurement, making it impossible to quantitatively assess trends since PY1 with accuracy. Across countries, evidence suggests a strong appreciation of MalariaCare's technical work at country level and belief that much progress has been made in PY1-3. Quality of malaria diagnosis via microscopy and Rapid Diagnostic Tests (RDTs) was a major focus of MalariaCare work in numerous countries, and feedback on progress was positive. Support to microscopists to attend the WHO External Competency Assessment of Malaria Microscopy (ECAMM) training for accreditation was viewed as a major success.

Feedback from countries was that substantial progress had been made, with training and supervision providing the foundation for improvements in clinical case management. Respondents mentioned that management of severe malaria needed further strengthening. In countries where integrated community case management (iCCM) was requested from MalariaCare, progress was viewed as lagging, particularly in Malawi, due to factors outside of MalariaCare's control.

There is strong consensus that the Outreach Training Support Supervision (OTSS) model has been extremely useful in improving quality of case management. PY3 marked a significant shift in data collection and compilation, and the move to an electronic data system (EDS) has been an important and major achievement. Six in 10 survey respondents reported using or reviewing OTSS data within the three months preceding the survey, suggesting that the EDS has made data more readily available and thus increased their use.

Findings indicated a wide range of perceptions regarding government capacity to carry on key activities after project's end. Stock-outs/low stock of malaria supplies were repeatedly identified as a major challenge by more than 25% of survey respondents and by interview respondents as well. While ensuring an adequate supply of malaria commodities falls outside of MalariaCare's control, this fairly widespread problem nonetheless affects the project's effectiveness (e.g., without adequate stocks of RDTs, providers often revert to presumptive treatment).

### **To What Extent Has MalariaCare Met the Management Requirements and Functions Outlined in the Agreement?**

Findings indicated that annual reports were submitted in a timely way; however, there were delays with submission of PY2, PY3 (and PY4) work plans. From PMI HQ and project HQ perspectives, communication has been open, clear, and timely, except for an instance where communication from PATH didn't flow to a Mission and all co-authors for review and input to conference abstracts describing work in specific countries. There were failures in communication from MalariaCare HQ to the PMI AOR team on the restructuring of OTSS data collection. As prime, PATH views the partnership with its sub-partners as having worked well overall, despite budget-related tensions that created start-up delays, and describes relationships as strong at the technical level. Sub-partners also described a good technical relationship with PATH, but expressed concern about transparency in decisions about changes to work plans and budgets after they were submitted, late sub-awards and modifications, and unrealistic deadlines for information from the field. Overall, project HQ technical support was perceived by country staff and governments as helpful and appropriate.

Eight in 10 survey respondents were mostly or entirely satisfied with coordination and communication between project and PMI staff, with similar results for coordination and

communication between project partners in country. There were no significant differences between responses from MalariaCare and PMI staff. Multiple respondents suggested that the decision-making authority for project leadership in country, regardless of which partner staff are employed by, needs to be clear.

Survey and interview findings confirm level of in-country project staffing as a source of concern; over half each of MalariaCare and PMI survey respondents indicated that numbers of in-country staff were, at best, only moderately appropriate and many interview respondents were emphatic that staffing levels were not sufficient. The “lean presence on the ground” model has created strain for field staff and is not seen as ideal.

Eleven survey respondents from six countries indicated that geographic or activity scope changing over time was a challenge. Respondent suggestions for improving program operations efficiency and effectiveness included ensuring appropriate staffing, ensuring that decision-making authority of project field teams is clear to teams and Missions (to avoid situations where in country project staff make agreements with Mission colleagues that are then overridden by MalariaCare HQ staff), developing project activities in coordination with other malaria stakeholders, proper planning including adequate budget and time allocation, using standard tools and reference documents, and taking time to build relationships in country. Additional interview suggestions were: one staff person in the field is never enough; it’s important to have a strong team leader with relevant technical expertise based on country needs, ensure funds are received on time to match, and implement work plan activities; and a small project “liaison” office could be situated within NMCPs for coordination and to house resources and make them readily available.

## **What Results Have Been Realized at the Global Level?**

### ***Project Operations***

Project leadership created technical and advisory groups in accordance with the Cooperative Agreement; both groups met multiple times each year. The evaluation found consensus that the project has performed well in adapting to unexpectedly rapid growth of country buy-in from eight countries in PY1 to 15 countries in PY3, despite a lean HQ staff. A main operations challenge was work implementation delays caused by the time required to process sub-agreements and contracts, including for funding pass-through activities managed by sub-partner Population Services International (PSI) in Southeast Asia.

### ***Monitoring and Evaluation (M&E)***

Efforts to strengthen project data generation and use accelerated over the first three project years. Key activities included a review and update of the OTSS checklist as well as piloting of the EDS system. Key OTSS competency indicators have been reviewed and updated. It is not clear, however, whether the project has formally shared learning around clinical or other indicators with global M&E stakeholders such as the Roll Back Malaria Monitoring and Evaluation Reference Group (RBM MERG). The project appears to have been effective, at least in case study countries, in influencing NMCPs to include project OTSS indicators as part of District Health Information System 2 (DHIS2) reporting.

## **Advocacy and Communications**

MalariaCare developed a webpage<sup>1</sup> in the project's start-up year and posted several technical briefs and project descriptions. Five malaria case management webinars were hosted in PY1–3. Respondents described participation in technical malaria meetings and conferences including the American Society for Tropical Medicine and Hygiene (ASTMH) conference in 2015.

## **Technical Leadership**

A project staff member contributed recommendations to WHO's Malaria Policy Action Committee for the artemisinin resistance situation in Southeast Asia through membership on WHO's Technical Expert Group Meeting on Artemisinin Resistance and Containment, and other HQ staff participated in a RBM case management working group to review current evidence for diagnostics including field lot testing of RDTs. The project has contributed to development of global WHO guidelines and policies, recently for new standard operating procedures for malaria microscopy. WHO's training tools were expanded by the project to include competencies to be assessed under practical conditions. Project leadership reports that resources have been developed as MalariaCare standardized materials. These materials should be archived as a PMI case management Quality Assurance (QA) Framework that can be made available to other malaria partners.

## **Are There Lessons Learned from MalariaCare's Activities at all Levels that Could Inform Future Programming in Malaria Case Management?**

At the beginning of a global project, articulating a set of clear standards and guidelines provides an important foundation for planning technical work and monitoring progress. Project operations and management challenges can impede technical progress; examples are provided in the report. Context matters: scaling up high-quality diagnosis and treatment does not take place within a vacuum; rather, it needs to include the context of PMI objectives and programming for each country as well as government priorities and capacity. There are perceived gaps in MalariaCare's programming, some of which may be addressed before the end of the project and some that may need to be addressed by other PMI-funded partners (i.e., commodity gaps) or in future programming. True sustainability is based not only on knowledge and skills but on strong systems.

## **CONCLUSIONS AND RECOMMENDATIONS**

The project's challenges with multiple PMPs, changing indicators, inconsistent numerators and denominators for indicators, and reporting inconsistencies made it impossible to verify quantitatively the extent of technical progress across PY1–3. However, annual reports, the 2016 mid-term evaluation survey, and in-depth interviews in four case study countries and with HQ stakeholders provided a good qualitative overview of key accomplishments, which include:

- Flexibility in attempting to meet demand from a higher than expected number of countries.
- Working with in-country staff and already trained supervisors from the Improving Malaria Diagnostics Project (IMaD) project for continuity.

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<sup>1</sup> [www.malariacare.org](http://www.malariacare.org).

- Technical assistance (TA) for governments to implement malaria diagnostic and treatment policies that align with WHO 2010 guidelines and to train large numbers of health workers (HWs) on updated guidelines.
- Ongoing development of a QA Framework with a package of guidelines, tools, and templates that can be used by governments and other implementing partners.
- Helping countries to develop National Archived Malaria Slide banks.
- Increasing the numbers of accredited microscopists at national and provincial levels.
- Training medical institution tutors on updated guidelines to ensure that graduating clinicians have current knowledge and skills.
- A cascaded approach to capacity building for training and supportive supervision that leaves skilled supervisors in place at central, provincial, district and sub-district levels.
- Advancing clinical care indicators for malaria case management.
- Converting paper-based OTSS data to the EDS to improve data accuracy and timely reporting and use for decision-making.
- Use of OTSS visits to target low-performing health facilities (HF) and HWs with on-site mentoring.
- Lessons Learned Workshop (LLW) after OTSS rounds that immediately identify problems for follow up action.
- HF case management committees that enable laboratory, clinical, and pharmacy staff to regularly discuss case management and microscopy, RDT, and medication supplies, a promising practice.
- Peer-to-peer mentoring model, a promising practice.

## **RECOMMENDATIONS**

### **For MalariaCare in PY 4–5:**

- Project leadership should offer transparency to sub-partners during annual planning for decisions regarding partners' scopes of work and budgets.
- Consider occasional strategic participation by sub-partners at bi-weekly meetings with PMI AOR team when reporting on work that sub-partners are leading.
- In collaboration with PMI, coordinate representation on relevant global working groups, especially groups on M&E and quality of care, among partners, and ensure that the best-qualified representatives—who represent the MalariaCare project as well as their employer organizations—attend.
- By end of project finalize a standardized QA Framework package that can be shared with PMI HQ and country Missions as a tool from which to develop future scopes of work, with country governments to help identify priority technical support needs, and with global stakeholders through the PMI Resources web page. A downloaded publication describing

the QA Framework and including its components would be helpful, as would a distilled “minimum” package that could be utilized by bilateral partners.

- As part of the QA Framework, develop a competency framework that references microscopy, clinical, and community case management competency standards.
- Continue to address data issues, starting with a broad review of data collection instruments, together with indicators and how to report them. In collaboration with PMI staff, reach out to the RBM MERG to harmonize efforts with a broader group of stakeholders. By end of project, propose a set of standardized PMP indicators that can be used across countries in future project monitoring. Indicators must be accompanied by metadata detailing numerator and denominator and different measurement components, together with relevant data collection tools.
- Ensure that for semi-annual and annual reports, country PMPs include all technical objectives and report against them, even if only to note that the activity did not take place or that there are no data available. Provide consistent graphs and charts (with source documented to make them sharable with external audiences) across country reports to give an overview that is comparable and better showcases the project’s accomplishments. If data points are not strictly comparable, it is helpful to say that outright in reports and explain why.
- Publications that showcase the key accomplishments of PMI investments through the project, including contributions by all four partners, would help to institutionalize the project’s contributions and lessons learned.
- Include webinars developed by the project in orientations for newly hired MalariaCare staff.



# I. INTRODUCTION

## EVALUATION PURPOSE

The mid-term evaluation of the five-year USAID/HIDN/PMI project MalariaCare was conducted to assess the project's first three years, from FY2012–2013 to FY2014–2015, and to inform future USAID programming in malaria case management. The evaluation was expected to accomplish the following objectives:

- Assess and document progress toward achieving project objectives and whether desired results have occurred.
- Determine the effectiveness and efficiency of project operations and management.
- Capture lessons learned and identify key bottlenecks/gaps that can inform future PMI activities in case management, in the context of the updated PMI 2015–2020 strategy.

## EVALUATION QUESTIONS

1. What results have been realized at the country level?
2. To what extent has MalariaCare met the management requirements and functions outlined in the agreement?
3. What results have been realized at the global level?
4. Are there lessons learned from MalariaCare's activities at all levels that could inform future programming in malaria case management?

## II. PROJECT BACKGROUND

The President's Malaria Initiative (PMI) was launched in 2005 as a five-year, \$1.2 billion initiative to rapidly scale up malaria prevention and treatment interventions to reduce malaria-related mortality by 50% in 15 high-burden countries in sub-Saharan Africa. With the passage of the Lantos-Hyde Act in 2008, PMI developed the U.S. Government Malaria Strategy 2009–2014 expanding PMI goals and programming. In 2011, PMI began supporting programming in four new sub-Saharan countries and one regional program in the Greater Mekong sub-region in Southeast Asia. In 2015, PMI supported programming in 19 sub-Saharan countries and the Greater Mekong sub-region. The recently released PMI Strategy 2015–2020 seeks to reduce malaria mortality by one-third from 2015 levels in PMI-supported countries, achieving a greater than 80% reduction from PMI's original 2000 baseline levels; reduce malaria morbidity in PMI-supported countries by 40% from 2015 levels; and assist at least five PMI-supported countries to meet the World Health Organization (WHO) criteria for national or sub-national pre-elimination. The 2015–2020 Strategy recommits PMI's partnership with the same countries.

The MalariaCare Project is a five-year cooperative agreement funded by USAID under the President's Malaria Initiative (PMI). The project is one of four flagship projects—managed centrally by USAID/Global Health Bureau/Office of Health, Infectious Diseases, and Nutrition/Malaria Division—accessible to Missions to support the malaria case management efforts of PMI. The project aims to scale up high-quality case management services, both diagnosis and treatment, for malaria and other febrile illnesses in PMI focus or non-focus countries. MalariaCare began September 30, 2012, and will end September 29, 2017.

MalariaCare is led by PATH and supported by three other partners: Medical Care Development International (MCDI), Population Services International (PSI), and Save the Children (SAVE). Partners' expertise includes laboratory strengthening, malaria diagnosis and treatment, program evaluation and research, electronic data systems (EDS), and integrated community-based management (iCCM) of disease in both public and private sectors. Within a Results Framework with a main goal to contribute to 50% reduction in the burden of malaria in 70% of the at-risk population in sub-Saharan Africa, MalariaCare aims to achieve the following four technical objectives in most countries, with unique, customized objectives in some countries as well:<sup>2</sup>

1. Improve the accuracy of diagnostic testing to greater than 90% in the public sector.
2. Increase the percentage of suspected malaria patients who receive a diagnostic test for malaria.
3. Increase the percentage of patients who receive appropriate treatment for malaria or other febrile illness, consistent with test results.
4. Strengthen health systems at the country level for the diagnosis and treatment of malaria and other infectious diseases, with a focus on laboratory support.

MalariaCare supports PMI country programming, priorities, and activities as specified in annual malaria operational plans (that are created in collaboration between MOHs/NMCPs and PMI,

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<sup>2</sup> Objectives are tailored differently for Ghana and three countries with a private sector focus—Burma, Cambodia, and Nigeria (see Annex III).

with input from relevant malaria stakeholders in each country) and is expected to work with relevant stakeholders at every health systems level in both public and private sectors. At the country level, MalariaCare has focused on technical assistance (TA), capacity building, implementation support, and monitoring and evaluation. At the global level, MalariaCare has focused on advocacy and technical leadership for standards and policy development.

# III. EVALUATION METHODS AND LIMITATIONS

## DESIGN AND METHODS

The mid-term evaluation assessed overall project results and management across 15 countries (Burma, Cambodia, Democratic Republic of Congo, Ethiopia, Ghana, Guinea, Kenya, Liberia, Madagascar, Malawi, Mali, Mozambique, Nigeria, Tanzania, and Zambia) through a global survey and review of reports. The evaluation included a particular focus on four “case study” countries (Ghana, Malawi, Mozambique, and Zambia) and also assessed Project Operations, Monitoring and Evaluation, Advocacy and Communications, and Technical Leadership at global level.

Evaluation design and methods included:

- Review of key project documents, including project and country performance monitoring plans (PMP), annual work plans, and semi-annual and annual reports.
- A 2016 mid-term evaluation survey across 15 MalariaCare countries with USAID Headquarters (HQ) and in-country Mission PMI staff and MalariaCare HQ backstop and field staff, resulting in 78 completed questionnaires.
- Interviews with U.S. Agency for International Development (USAID) and U.S. Centers for Disease Control and Prevention (CDC) PMI HQ and field staff; MalariaCare HQ and field staff across MalariaCare partners, and NMCP and other relevant government staff in four countries (Ghana, Malawi, Mozambique, and Zambia) for a total of 42 completed interviews.
- Analysis of PMP data in the four case study countries to assess improvements in case management of malaria.

## LIMITATIONS

It was difficult to ensure that survey and interview findings referred only to the first three years and not to activities in PY4. Appropriate data collection and cross-country analysis was made challenging by substantial country-level variation in project objectives and PMP, as detailed in Annex II. (Readers are urged to give careful attention to Annex II.) By design, the evaluation included no field visits, limited input from government stakeholders, and no input from beneficiaries, whether defined as training recipients or as clients receiving malaria care at a health facility (HF). No information was provided to evaluators about other PMI-funded projects being implemented in MalariaCare project countries; therefore, evaluators were unable to contextualize MalariaCare findings within a broader spectrum.

Data generation and use through Outreach Training Support Supervision (OTSS) checklists are hallmarks of MalariaCare's support to countries. The best way to confirm that tools are appropriate for high-quality data production is through observation of data collection, which was not a component of this evaluation. Quantitative trend analysis was impossible to conduct as countries had sparse data in PY1 and inconsistent project data across all three years (see Annex II for a detailed description of data challenges and suggestions for resolving them).

## IV. FINDINGS

### WHAT RESULTS HAVE BEEN REALIZED AT THE COUNTRY LEVEL?

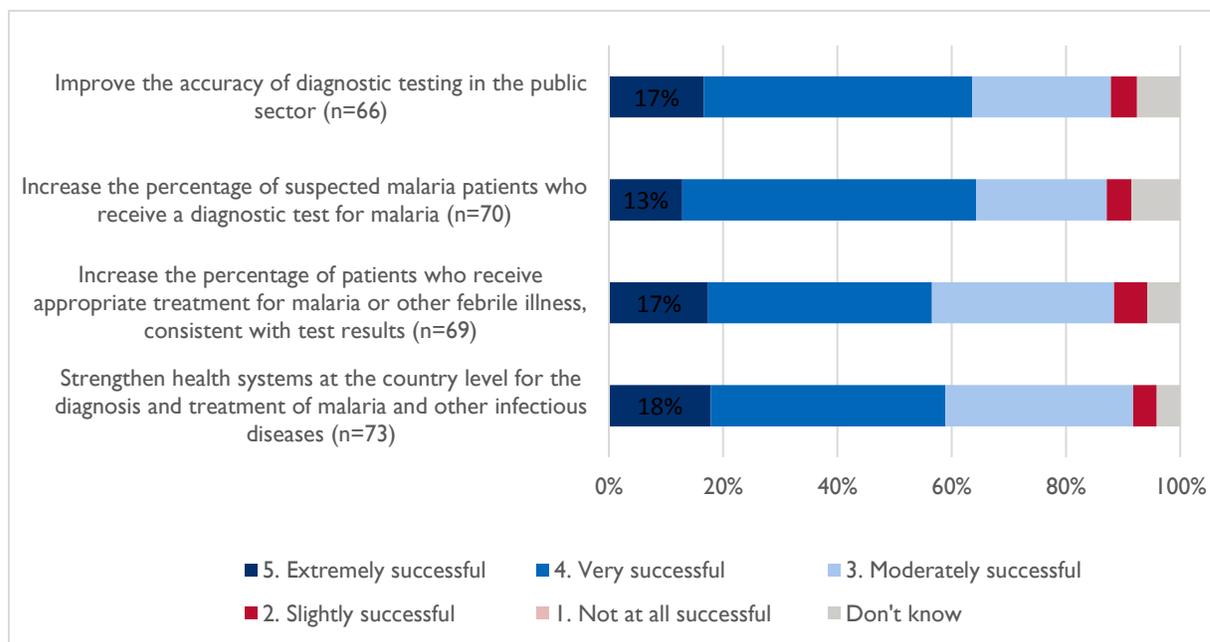
MalariaCare works within a broader context in each project country, collaborating with other PMI, USAID/U.S. Government, and global partners to achieve country goals. These findings reflect MalariaCare's contribution but do not ascribe attribution/credit solely to MalariaCare. To assess results across countries whose technical objectives are not consistent, findings for this question and the follow-on case studies have been presented within three case management Quality Assurance (QA) axes described in the PY3 Annual Report: improving the quality of malaria diagnosis using microscopy and rapid diagnostic tests (RDT); building competency in quality clinical case management; and strengthening quality of data collection and use for decision-making.

Country reporting on technical progress has been complicated by overlap across project objectives and changes over time in indicators and measurement, making it impossible to assess trends quantitatively since PY1 with accuracy. A global partner observed that “*the big frustration is that we didn't have data to back up what we believed was happening in the field.*” A detailed summary of data barriers for the evaluation is included in Annex II. Although available data do not allow a systematic trend analysis across countries or even within one country, the four case studies (Section IV.1) do highlight country-specific evidence of progress.

### The Extent to which MalariaCare has Achieved Technical and Programmatic Objectives Described in Annual Work Plans and the PMP

Across countries, evidence suggests a strong appreciation of MalariaCare's technical work at country level and the belief that much progress has been made in the project's first three years. Data from the 2016 mid-term evaluation survey reflected overall positive perceptions regarding success in achieving project objectives (Figure 1), with MalariaCare and PMI staff responding similarly. More than half of respondents rated project work as *very successful* or *extremely successful* in each of the four technical domains, with additional respondents rating project work as *moderately successful*. Only a small number rated project work as just *slightly successful* (3–4 respondents in each domain); no respondent indicated that work was *not at all successful*.

**Figure 1. Main Technical Successes in Country (to September 2015) (N=78)**



Source: 2016 Mid-term Evaluation Survey

### Improving the Quality of Malaria Diagnosis

Quality of malaria diagnosis via microscopy and RDTs was a major focus of MalariaCare work in numerous countries, and feedback on progress was resoundingly positive. A Tanzania respondent observed that RDT QA trainings had “*remarkably improved malaria diagnosis at health facility level*” by reducing test errors. A respondent from Mali said: “*MDRT [malaria diagnostics refresher training] from MalariaCare is the best method of trained malaria microscopy.*” Another respondent from Malawi added: “*OTSS improved the quality of RDT.*” And a DRC respondent observed: “*Good training and regular supervision improve diagnostics.*”

Support to microscopists to attend the WHO External Competency Assessment of Malaria Microscopy (ECAMM) training for accreditation was viewed as a major success. Malawi respondents noted that at the start of the project the country had no accredited microscopists, and saw progress in this area as one of the benefits the project would leave behind. An Ethiopia respondent highlighted the support for both national and regional reference level microscopists as having important “downstream” benefits, even though the numbers who received training were small. Furthermore, positive assessment of MalariaCare’s contributions to National Archive of Malaria Slides (NAMS) was echoed by global and country respondents in several countries.

### Building Competency in Quality Clinical Case Management

From the MalariaCare HQ perspective, promoting clinical care as part of the project’s package of technical support was a challenge in the beginning due to country Missions’ primary interest in support for diagnostics from MalariaCare, as with the predecessor project IMaD. Much effort was put into promoting clinical care, and a number of country PMPs show activities with a clinical focus beginning in PY2. Feedback from countries was that substantial progress had been made, with training and supervision providing the foundation for improvements in clinical case management.

Respondents from Cambodia, DRC, Ghana, Malawi, Mozambique, Tanzania, and Zambia commented on clinical improvements under the project. Tanzania comments detailed increased adherence to negative test results, with both providers and the patients *“now aware that not all fever is malaria.”* One Malawi respondent said: *“There have been notable improvements in adherence to test results,”* and a Ghana respondent affirmed: *“The standard of care of Malaria case management has also improved considerably.”*

Despite clinical case management progress, gaps were also highlighted. Management of severe malaria was mentioned by a number of respondents as needing further strengthening. While MalariaCare was not asked by most project countries to support iCCM, it was noted by survey respondents as lagging, particularly in Malawi (see case study in Section IV.I), where delays were caused by government revisions to a national policy that addresses which health cadres may conduct malaria RDTs.

### **Outreach Training and Supportive Supervision (OTSS)—A Cornerstone of MalariaCare**

MalariaCare adopted the OTSS approach from its predecessor project IMaD, expanding the supportive supervision strategy and taking steps to ensure that collected data were more accurate and were better analyzed and used. *“We took a fragmented approach and formed it into a whole.”* (MalariaCare HQ).

Respondents across countries spoke to the central role of OTSS in improving malaria diagnosis and treatment. A DRC respondent noted that joint supervision of both clinicians and lab technicians improves adherence to lab results, and a Cambodia respondent stated that *“providing clear feedback on missing points of performance is helping private providers to improve their performance on quality of care.”*

There is strong consensus that the OTSS model has been extremely useful in improving the quality of case management, especially for rational use of ACTs; identifying and resolving problems at the HF level; optimizing resource allocation; promoting effective teamwork and two-way communication; and developing follow-on plans during visits and Lessons Learned Workshops (LLW).

There were suggestions that OTSS can be better integrated into larger health systems: *“We need to engage provincial leadership to better explain OTSS to facility staff so they understand the purpose, which is quality improvement, and not performance assessment.”* *“OTSS needs to be integrated more into a national system. We need to make it simpler and more reliable, and continue funding until it’s mature enough for governments to manage alone.”* (PMI and project HQ respondents).

### **Strengthening Quality of Data Collection and Use for Decision-making**

The OTSS checklist data have been the centerpiece of MalariaCare’s efforts to promote data use for planning. The original checklist was adopted from the IMaD project and substantial revisions were made in PY3, streamlining focus to the most critical steps in diagnosis and treatment. Changes were accompanied by an overhaul of key outcome indicators. The many data challenges across PY1–3 are described in Annex II as a critical part of evaluation findings.

The general sense was that revisions improved measurement overall, but the fact that the OTSS checklist kept changing over time was noted as a challenge by respondents in six African countries, and is a concern shared by the evaluation team. Changes to data collection instruments and indicators hampered comparability and efforts to monitor progress across project years. PMI expressed surprise that MalariaCare did not share the extent of data

problems sooner, and hoped for clarity as to which project indicators are truly comparable across countries. It appears that further changes may need to be made, e.g., sharpening data on stock-outs (see details on OTSS checklist data in Annex II).

Evaluators looked at whether the project had addressed gender in reporting. Although the sample reporting template provided in the original global PMP showed all data disaggregated by sex, sex-disaggregated data were often either not collected or not presented in country PMPs, including in the PY3 Annual Report (AR) or output monitoring data maintained by MalariaCare HQ, and in some cases (e.g., Mozambique), sex-disaggregated reporting diminished over time. Evaluators noted that for Malawi and Zambia, when sex-disaggregated Health Worker (HW) training data were available, more men than women were trained; however, this was also not consistently tracked over time and may simply reflect health workforce composition in these countries. The standard OTSS checklist is designed to include data on gender—for example, in the record review—but it is not clear if or how these data are analyzed and used.

In addition to working on OTSS checklist content, PY3 marked a significant shift in data collection and compilation. Previously data were collected on paper forms that were then collated and entered into databases, resulting in long delays in accessing the data. Each country had its own database, which complicated efforts to track data across countries. Findings suggest that the move to an electronic data system—a modification of a PSI franchising system adapted for MalariaCare—has been an important and major achievement. By the end of PY3, EDS was in various stages of implementation in four countries, with a plan to have it rolled out in four more during PY4. MalariaCare and PMI staff noted the importance of EDS for quicker access to data and improvements in data quality. A Malawi respondent asserted that an operational shift was underway thanks to EDS, with data available quickly and being reviewed to help with planning. NMCP staff were more tempered in their reactions. Findings suggest there may be a disconnect between MalariaCare and government perceptions of level of access to and use of the OTSS data. It was noted that forthcoming trainings of NMCP staff on OTSS data use had been scheduled and that at least one had occurred during the evaluation period.

Concerns have been raised about the work that remains to ensure that the EDS system will be completely operational by project end and ready to be taken up by countries.<sup>3</sup> Data quality was flagged by a number of countries as a continuing concern, although there was acknowledgement of active efforts by HQ technical support to help countries address this. The fact that District Health Information System 2 (DHIS2) is still being rolled out in many countries was noted as an important readiness issue, and OTSS costs were acknowledged by many as a constraint to governments' ability to carry it on.

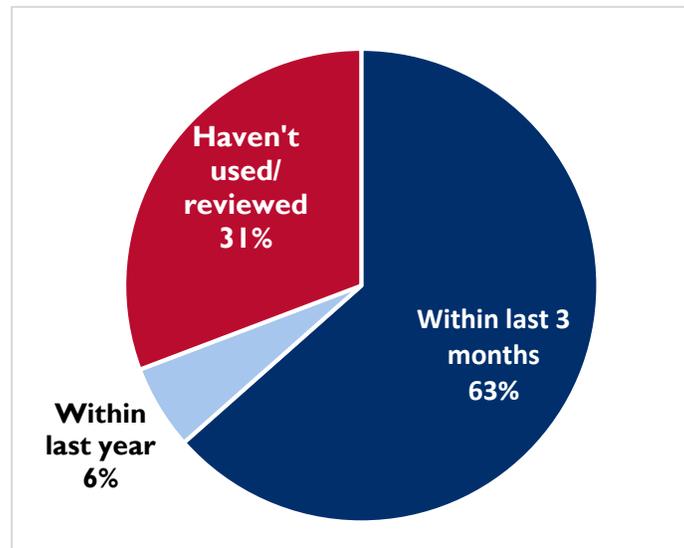
More than six in ten MalariaCare country survey respondents reported using or reviewing OTSS data within the three months preceding the survey (Figure 2), suggesting that EDS has made these data more readily available and thus increased their use. The most common uses among MalariaCare staff were assessing progress toward project objectives and using the data to adjust training or programming based on OTSS scores (Figure 3), whereas PMI staff, who were less likely than MalariaCare staff to report recent use (less than half reporting use in the previous three months), primarily cited discussion of results with the NMCP as well as assessing

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<sup>3</sup> A global respondent suggested that USAID/PMI conduct an evaluation of various EDS programs being introduced with different software in different countries, all intended to support a global move to DHIS2, to determine the best approach toward standardized global reporting.

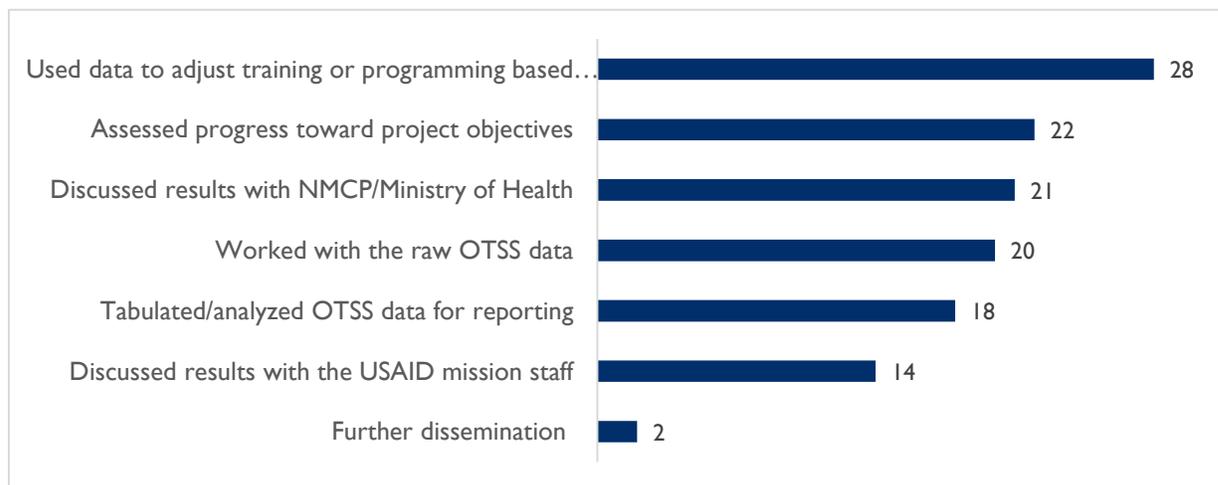
results toward project objectives. It should be noted that these survey results are a reflection of use in PY4.

**Figure 2. Most Recent Use of OTSS Data among MalariaCare Country Staff (N=52)**



Source: 2016 Mid-term Evaluation Survey

**Figure 3. How MalariaCare Country Staff use OTSS Data (N=52)**



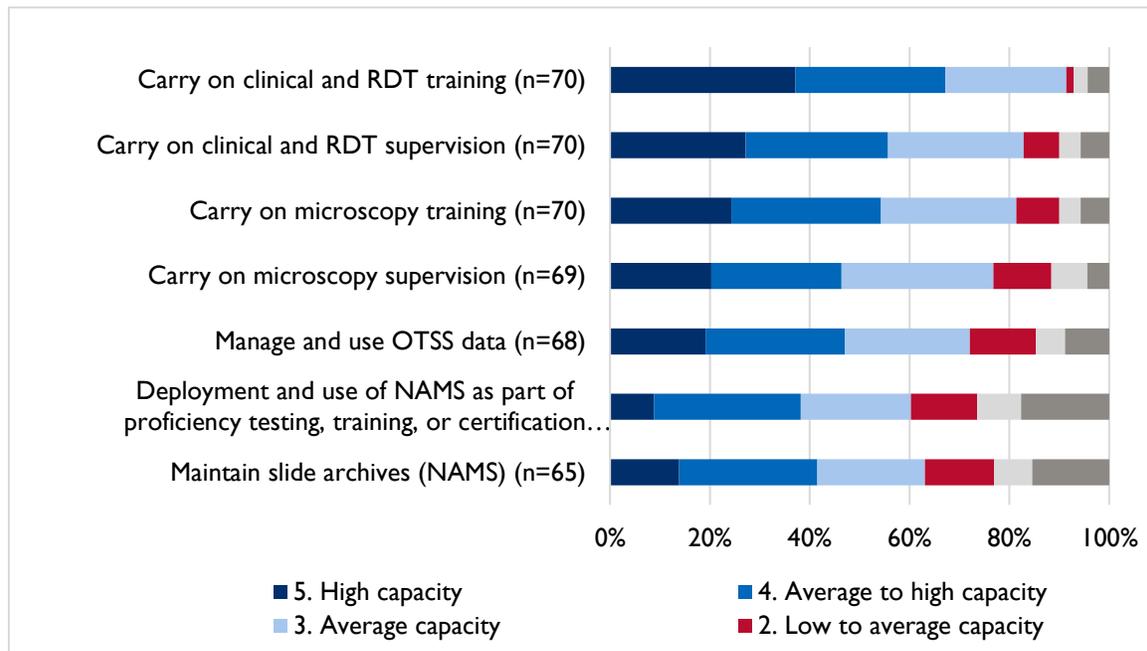
Source: 2016 Mid-term Evaluation Survey. Note that results are a direct count of numbers of respondents who indicated a particular type of data use. Multiple responses were allowed.

### **Evidence of In-country Capacity Being Built in Malaria Diagnosis and Case Management**

Findings, which did not vary significantly between MalariaCare and PMI staff, indicated a wide range of perceptions regarding government capacity to carry on key diagnostics and case management activities (Figure 4). These results reflect a pattern seen at country level, where respondents in the same country often had widely differing assessments of NMCP capacity (data not shown). This variation may reflect different interpretations of the survey question (current

capacity versus capacity anticipated by the end of the project; capacity to carry on given various assumptions about outside support, etc.). Nonetheless, respondents overall indicated the most confidence in NMCP capacity to carry on clinical and RDT training, followed by clinical and RDT supervision and microscopy training. The data suggest the least confidence in NMCP capacity to deploy and use NAMS as well as maintain slide archives.

**Figure 4. Capacity of NMCP to Carry on Activities with Minimal Outside Support (N=78)**



Source: 2016 Mid-term Evaluation Survey

Other government challenges included funding—mentioned most often by survey and interview respondents—and staff turnover/attrition, but respondents expressed confidence in government capabilities. As one global respondent said: *“The issue of funding is there, but knowledge and capacity are also there.”* A DRC respondent observed that *“the National Institute of Biomedical Research is well-trained in microscopy and could carry out training and supervision with its own staff. Management teams have been trained in RDT QA and are capable of carrying out RDT training.”*

### Key Barriers at Country Level to Project Implementation

Stock-outs/low stock of key malaria supplies were repeatedly identified as a major challenge by a total of 22 survey respondents—more than 25% of the entire sample—and by interview respondents as well, although respondents recognized that ensuring adequate commodities was not within MalariaCare’s scope. *“Not having the full range of interventions in the clinical setting significantly detracts from efficiency and effectiveness.”* Other country-level barriers to project implementation identified by respondents were problems with basic infrastructure, national policies not being up to date or fully implemented, and having insufficient data for decision-making. Multiple respondents emphasized that sufficient numbers and appropriate skill sets of MalariaCare staff in country are needed. (For more on staffing, see Section IV.2). Delays experienced by countries were at times beyond MalariaCare’s control, e.g., flooding-related

inaccessibility of HFs for visits and, in PY2, a diversion of Liberia's health resources to address the Ebola virus outbreak.

## Reaching Targets

Semi-annual and annual reports indicate wide variance across countries and activities both for exceeding and falling well below targets. In some instances, reasons for underperformance have been explained in reports, and at times are due to factors outside the project's control. In instances where targets have not been reached without clear explanation, project HQ may wish to assist in-country staff to set targets that may be more within reach.

## CASE STUDIES

### Introduction

Case studies for Ghana, Malawi, Mozambique, and Zambia provide an in-depth look at how the MalariaCare project has worked with national malaria programs to put in place a QA Framework for case management that results in trained laboratory and clinical supervisors working together; health workers (HW) with improved competence staffing higher-performing health facilities (HF); improved electronic data collection, reporting, and more rapid use for decision-making; and tools and resources to enable countries to continue trainings, OTSS, and more proficient data use within updated national guidelines. An overview of MalariaCare's private-sector work in Burma, Cambodia, and Nigeria has also been included in Annex III.

Conflicting and missing quantitative data in PY1–3 PMPs and reports made it impossible for evaluators to verify the full extent of activities and progress. Reports generally do not specify whether project support was financial, technical, staffing support, or some combination thereof. Case studies nonetheless provide an overall picture of accomplishments and progress.

### Ghana Case Study

Malaria is endemic, and transmission occurs year-round in all parts of Ghana. While the entire population is at risk, transmission is less intense in large urban centers compared to rural areas. Significant reductions in malaria mortality have occurred, and the case fatality rate among children under 5 has declined from 14% in 2000 to below 1% in 2012.<sup>4</sup>

### Overview of MalariaCare in Ghana

PMI Ghana engaged MalariaCare in PY1 as a follow-on implementation mechanism to the former IMaD and ProMPT (Promoting Malaria Prevention and Treatment) projects. Technical objectives in Ghana are somewhat distinct from those in other countries: 1) Improve access to and availability of high-quality malaria diagnostic services, with a focus on the lower health facility level; 2) Scale up and improve access to and availability of high-quality malaria treatment, with a focus on the lower health facility level; 3) Improve the accuracy, reliability, and availability of health information management systems; and 4) Strengthen technical management ability at the regional level for implementing programs and activities. These objectives take into account the country context, activities of other partners, and needs as determined by PMI and NMCP.

The project had to juggle shifting needs in terms of scope and geographic focus over PY1–3. Activities were initially directed to seven regions in PY1; midway through PY2 the project was

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<sup>4</sup> <http://www.pmi.gov/where-we-work/ghana>.

asked to pick up another three regions as a stopgap measure until the Systems for Health<sup>5</sup> project began. In PY3 Quarter 2 (Q2), activities related to clinical case management in five regions transitioned to Systems for Health. MalariaCare continued to implement diagnostic capacity-strengthening activities in all 10 regions and work in the five regions not covered by Systems for Health to improve quality of malaria case management and M&E and to provide technical support to the Ghana Health Service (GHS).

**Table 1. Selected PY1–3 Activities in Ghana from MalariaCare Reports**

PY1	PY2	PY3
<p>Assisted GHS Clinical Laboratory Unit (CLU) to:</p> <ul style="list-style-type: none"> <li>develop a budget for OTSS activities and coordinate OTSS planning across 10 regions.</li> <li>conduct the first round of laboratory OTSS in 274 HF.</li> <li>develop a microscopy proficiency testing program to prepare laboratory supervisors for proficiency testing during OTSS Round 2.</li> </ul> <p>Discussions with GHS to discuss development of national supervision policy and guidelines</p> <ul style="list-style-type: none"> <li>25 district health information officers (HIO) in Upper West Region trained on supportive supervision.</li> <li>five-day planning workshop for 30 RHMT and DHMT in Upper West Region.</li> </ul>	<p>MDRT for 20 regional supervisors and 245 laboratory staff from district hospitals.</p> <p>One round of laboratory OTSS in collaboration with GHS CLU.</p> <p>National and regional trainings on updated malaria treatment guidelines.</p> <p>Supported GHS to conduct 3,786 visits in two rounds of clinical OTSS in seven regions.</p> <p>Technical support for update of national (iCCM) guidelines.</p> <p>Refresher training for 17 national officers and 67 regional officers on revised iCCM guidelines.</p> <p>Trained officers provided cascade training to 652 district-level supervisors nationwide.</p> <p>District officers trained 331 CHOs and 1,084 community-based agents (CBAs) from 16 districts.</p> <p>Supported NMCP to pilot nationwide community OTSS, with mentoring and supervision to 10,393 CBAs.</p>	<p>Diagnostic capacity-strengthening activities in all 10 regions and worked in five regions to improve quality of malaria clinical care and M&amp;E.</p> <p>Peer mentoring strategy linking staff from high-performing facilities with staff from low-performing facilities.</p> <p>Completed one round of community OTSS.</p>

## **Achievement of Technical Objectives to Date**

### *Improving the Quality of Malaria Diagnosis*

#### **Microscopy**

Continuation of the malaria diagnostics refresher training (MDRTs) was perceived as especially helpful by GHS. Trainings were done in northern and southern regions, and government perceived the trainings as having resulted in a “good crop of senior supervisors.” However, in PY1, delays resulted from the Mission’s efforts directly to fund the GHS CLU to conduct laboratory OTSS. After the lengthy negotiations delayed OTSS activities from 2013 to 2015,

<sup>5</sup> A five-year Cooperative Agreement to strengthen management of Regional and District Health Management Teams to improve access to and quality of family planning; maternal, newborn, and child health; nutrition; and malaria prevention and treatment services.

MalariaCare received reprogrammed funds to implement two OTSS rounds in PY4. Despite these delays, the project's support of the CLU to institutionalize lab OTSS through training national and regional supervisors has evidenced a higher skill level among supervisors.

In PY1–3, the project supported four microscopists to attend the WHO External Competency Assessment of Malaria Microscopy (ECAMM) training in Kenya. Proficiency testing is occurring in HF labs through lab OTSS (in PY4 MalariaCare is working to help build a national competency assessment program that will standardize this testing). Project support for the distribution of 160 USAID-branded microscopes and 70 microscopy kits was noted with appreciation. However, GHS identified the fact that the project doesn't directly procure malaria microscopy supplies or RDTs as a challenge and expressed strong interest in receiving teaching microscopes for CLU and regional teams.

### Rapid Diagnostic Tests

There is concurrence across data sources that MalariaCare has done a very good job in responding to NMCP and Mission objectives to increase RDT testing. Per PMI, Ghana is seen as a front runner in ensuring that diagnostic protocols are followed for case management, with a significant shift from presumptive to confirmed diagnosis, primarily through RDTs. When MalariaCare began, the country had already begun to implement a test and treat protocol, and the project has helped to raise awareness of the need for testing. In-country respondents indicated that the OTSS data evidence an increasing rate of people being treated correctly, although this cannot necessarily be substantiated with PMP data (PY2 2.ad= 96% versus PY3 15=95%<sup>6</sup>). The Mission expressed appreciation for the combined influence of good trainings coupled with the strategy to ensure that every HF receives two yearly visits, with 80% of the coverage funded by PMI and 20% funded by the districts, toward sustainability.

Constraints in adherence to test results persist, due in part to issues with delivery and availability of supplies. Problems with RDT buffer solution running out were reported, and last year a warehouse fire burned up much of the RDT supply. GHS respondents emphasized the difficulty of meeting the standard of testing every febrile patient without the necessary supplies to do so. *“When you train people and they run of stock, they go back to their old habits.”* In Ghana's national insurance scheme, clinical providers do not receive additional reimbursement if they test for malaria before treating. Reportedly there are efforts underway to reform the policy. *“If you get paid to test, testing will happen.”* Further, concerns about the quality of the RDTs prompted Ghana to switch in 2015 to a new RDT that laboratorians then had to be trained to administer.

### NAMS

Government respondents expressed excitement about the NAMS that has been developed with project support and validated in PY4 by WHO. Various data sources provided different details in terms of how the NAMS work progressed across the three years.

### *Building Competency in Quality Clinical Case Management*

Ghana's adoption of WHO 2010 case management guidelines provided an inroad for MalariaCare. Supporting NMCP to train the national health workforce on these guidelines was especially helpful to GHS, which had no budget for this activity.

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<sup>6</sup> Note that these PMP indicators are worded slightly differently and may not be strictly comparable.

Ghana was an early adopter under IMaD of the supportive supervision model, further expanded under MalariaCare through guidelines revision trainings, rounds of supportive supervision, and provision of job aids. The OTSS mentoring component, targeted toward low-performing HWs and HFs, was identified as particularly helpful. Overall, clinical and M&E joint OTSS is viewed by the project, government, and PMI as having been very successful, with the NMCP, GHS Policy Planning Monitoring and Evaluation Division (PPME), and MalariaCare working closely to decentralize OTSS to the regions. An interview respondent noted OTSS data showing rates for testing and adherence to negative results as having climbed from below 50% to above 80% or higher in some HFs as a result of project support, a point supported by PMP data (PY2 2.af = 43% versus PY3 16=77%<sup>7</sup>). MalariaCare staff view Ghana as well-positioned for a successful transition of project-led activities to government.

MalariaCare supported GHS to review its pre-service curriculum for five medical schools in PY3, with a plan to train medical students on updated national case management guidelines in PY4, and in PY5 to support schools formally to update the curriculum.

In PY3, the project piloted a peer-to-peer mentoring program for Community Health Officers (CHOs) in five regions, bringing them from their lower-level HFs to the nearest hospital for a five-day internship to shadow clinical providers. The aim was to strengthen skills and referral decision-making through low-cost mentoring that could be implemented by districts. (In PY4, the project is conducting an assessment of the mentoring model to help GHS decide whether to plan for its scale-up.) The project planned to roll out the model in Mozambique and perhaps additional countries in PY4. Interview respondents named the model as a big project success.

Respondents identified key challenges to further improve clinical case management competency:

1. Stock-outs of rectal artesunate. This drug allows lower-level HFs to stabilize patients with severe malaria while they are transported to a higher-level HF for care.
2. Malaria in Pregnancy work fell outside of MalariaCare's scope of work; therefore, we were not tasked with working in ANC clinics during OTSS supervision visits to HFs. This project structure required two separate partners to conduct malaria-related visits to the same HF, creating coordination challenges for the NMCP. While some pregnant women may be treated for symptomatic malaria in Out-Patient Departments (OPDs) that do fall under the MalariaCare SOW—and in these instances should be asked about possible pregnancy (as included in the standard MalariaCare OTSS checklist) before being prescribed malaria treatment—malaria prevention services including IPTp are not included in the MalariaCare SOW.

Integrated community case management OTSS activities planned for PY3 were delayed, apparently due to a national roll-out plan that created scheduling complications; however, one round of community OTSS was completed. Other iCCM activities were delayed while Ghana's national guidelines for community-based case management were being updated. A challenge noted during the one round of community OTSS was insufficient iCCM supplies.

#### *Strengthening Quality of Data Collection and Use for Decision-making*

MalariaCare has helped the GHS PPME conduct data audits, update their national M&E plan, and roll out supervision for data quality trainings to HIOs at local, district, and regional levels, complementing trainings with revised tools and new job aids. MalariaCare helped the CLU to

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<sup>7</sup> Note that these PMP indicators are also worded slightly differently and may not be strictly comparable.

train government data entry officers in anticipation of having government directly manage laboratory OTSS rounds. (Government respondents reported that in PY4 OTSS data are being entered and analyzed by the trained GHS data officers.) OTSS data are sent to project HQ with a backup data copy retained in country. Laboratory OTSS data, previously managed by a project staffperson embedded with the CLU, now are sent to MCDI to manage.

Mentoring on data accuracy during clinical/M&E OTSS visits has been instrumental in improving data quality. OTSS data are reviewed by field and HQ projects, PMI Mission staff, and GHS. PMI reports looking at particular lab proficiency levels and clinical adherence to negative test results, and observing significant improvement in supervisory skills. The PY3 PMP confirms that 80% of prescribers are adhering to negative test results. MalariaCare has also focused on improving malaria data quality in OPD health registers, a primary data source for government planning.

In PY3 MalariaCare introduced the EDS. Respondents confirmed that electronic data entry and transfer has reduced errors and delay. Project staff expressed hope that NMCP will be able to maintain an EDS that is fully integrated with Ghana's DHIS2. Government hopes that MalariaCare will extend the system to capture laboratory OTSS as well as clinical/M&E data. Numerous Ghana survey respondents described reviewing, analyzing, and discussing data within the three months preceding the survey for assessing progress toward programmatic objectives and to adjust training or programming.

### ***Capacity and Sustainability***

The project implemented a cascade approach in Ghana, i.e., trainings on new case management guidelines were cascaded from national to regional and district levels. The MDRTs were viewed as having helped to increase capacity of laboratory technicians and regional supervisors, especially for microscopy, although the PY3 PMP indicated that the percentage of national-level microscopy trainers and laboratory supervisors demonstrating competence in advanced MDRT courses was only 22%.<sup>8</sup> For both laboratory and clinical/M&E OTSS, regional supervisors, once trained, then help to train and monitor district supervisors who conduct the OTSS visits. The regional OTSS supervisor teams have a specified composition and are seen as master trainers for the districts. Training addresses national guidelines, using OTSS data for decision-making, and managing USAID PMP funding and reporting requirements, toward the anticipated government-to-government funding mechanism. A key challenge is that regional supervisor team members are limited in number (four per region) and have competing activities which demand their attention. Additional supervisors have been trained in the Greater Accra and Ashanti regions where the main teaching hospitals are located (five for Greater Accra and six for Ashanti), as well as four or five at national level, for a total of around 52 OTSS supervisors trained by MalariaCare.

The work at the regional level has perhaps been more intense in Ghana than other project countries. From the beginning, project staff have worked closely with RHMTs jointly to develop annual plans and coordinate activities. The project found that scaling up activities in three extra regions over a short time period was challenging. In Greater Accra, the work plan included a round of OTSS in these regions to bring them into the existing OTSS schedule; however, there were delays in preparing regional teams and coordinating schedules. No major challenges were experienced when scaling down.

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<sup>8</sup> Indicator #3.

MalariaCare is viewed by GHS, PMI, and staff respondents as having strongly built supervisory capacity to conduct rounds of OTSS, as long as a functional funding mechanism remains in place and a PMI-funded partner remains in country to continue to provide some level of ongoing mentoring and trouble-shooting support. The project has worked hard to put tools in place for the country's ongoing use, including M&E work plan templates, supervisor checklists, job aids, and flow charts for diagnosis and treatment, guidelines for integrated management of childhood illnesses (IMCI), and a malaria app that can be downloaded onto any Android phone or tablet to access guidelines and job aids. It was unclear if this app is unique to Ghana or if the project plans to introduce it elsewhere. Respondents recognized the need for ongoing discussions as to whether government is best served by conducting malaria-specific or broader integrated OTSS visits, at the risk of losing the in-depth mentoring for performance improvement.

### ***Project Management***

MalariaCare essentially functioned as a bilateral project and built a full implementation team at project startup. A key management challenge was having to scale up quickly to meet demand and then having to scale down abruptly with staff, vehicles, and other resources. The Ghana project team works with more independence than other countries; therefore, HQ oversight appears lighter than for other countries. Also, the NMCP appears more directly involved in project activities than in other countries. The in-country M&E team is viewed as managing data well and have had strong input in customizing Ghana's OTSS checklist. Having a project data specialist seated with government in the past was seen as useful for building capacity.

### ***Communication and Coordination***

Government respondents gave MalariaCare high marks for collaboration with CLU, through M&E and case management technical working groups (TWGs) at national, regional, and district levels, and reportedly lauded them as "our best partner" to PMI Ghana, which emphasized its satisfaction with the project for close collaboration at regional and district levels in particular.

Field staff reported collaboration in 2014 with (Bill and Melinda Gates Foundation-funded) Project Fives Alive to roll out a nationwide training for health information officers (HIOs) on data quality improvement (DQI) and management. Over the past two years, the Mission has awarded multiple integrated systems-strengthening projects, all of which have a malaria component but without the same intensity of focus as MalariaCare. Ensuring that all partners are working with the same tools and adopting the same strategies takes quite a bit of coordination and effort.

The field team expressed high satisfaction with the diagnostics, clinical, and M&E technical support they receive from HQ, while HQ colleagues would prefer stronger communication with the field team, to better understand challenges the team is facing and what's going well.

### ***Staffing***

The first field team in PY1 included a Chief of Party, Deputy Chief of Party, project administrator, two-person M&E team, data manager seated with the CLU, and diagnostics, clinical, and iCCM technical advisors, two regional coordinators, and a finance and administrative associate. When the project was asked to scale up further, three regional coordinators were hired. With PY4 budget reductions, staffing was scaled back by about 60%.

Reflection from project staff is that this level of scale-up is neither practical nor cost-effective for a work scope of less than two years given the effort required to secure staff, office space, and

vehicles, and then offload resources and provide severance pay to staff. Some field staff feel that they have been overworked since staff reductions in beginning of PY4 and need a more robust team, while others see advantage in the Accra office now having a stronger connection with regional teams, a positive step in regions' transition to autonomy. It is difficult for the team to spread itself across all activities; the last OTSS round required the entire team to be involved. The HQ team views the smaller team as continuing to complete activities well and offers positive feedback on their accomplishments. But field staff regret the loss of technical advisors with local expertise and emphasize that external expertise cannot match the same level of understanding of what works in the country. Field staff expressed a wish for more decision-making authority in country, even though from HQ perspective they enjoy more autonomy than project staff in other countries. Staff at all levels expressed pride in what they have accomplished and in being a part of MalariaCare in Ghana.

### **Summary**

The MalariaCare project is perceived as having been instrumental in raising the quality of testing and treatment through training and mentorship coupled with capacity for RDT Point of Care (POC) testing. "MalariaCare has been able to bring up the whole nation to accept and largely practice testing before treating. Just getting that culture of care is one big achievement" (PMI Mission). "Support from PMI and MC has gone a long way to help the country" (GHS).

Suggested future areas of focus from GHS, PMI Mission, and MalariaCare staff include ongoing capacity-building for data analysis and use, including regional and district managers; greater emphasis on private-sector QA for case management and data management; more emphasis on severe malaria to reduce mortality, with focus on children under 5; and more collaboration across donors to ensure that microscopy supplies, RDTs, and medicines are in place to enable HFs to adhere to guidelines. It may be useful to identify milestones that allow PMI budget support to be gradually reduced as milestones are reached. Learning from this approach in Ghana may usefully inform similar strategies for other countries.

### **Malawi Case Study**

Malaria continues to be a major cause of morbidity and mortality across all age groups in Malawi, accounting for 40% of hospitalizations in children under 5 and 30% of all outpatient visits. Transmission is perennial in most areas and peaks during the rainy season from November to April. The mortality rate for children under 5 fell by 36% between 2004 and 2014 to an estimated 85 deaths per 1,000 live births.<sup>9</sup>

### **Overview of MalariaCare in Malawi**

Malawi engaged with MalariaCare in 2012. The PY1 scope of work included strengthening malaria diagnostics quality through refresher trainings and continuation of the OTSS program, policy- and systems-strengthening through the development of an NAMS, and development and distribution of laboratory guidelines. The first in-country staff, hired from the predecessor IMaD project, was seated at the NMCP as a diagnostics technical advisor with an established working relationship. The registration process for PATH formally to open a project office in Lilongwe was lengthy, starting in PY1 and finishing in early PY4. In PY4 staff were hired through a third-party organization and include a finance and administration officer and a logistics coordinator.

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<sup>9</sup> <http://www.pmi.gov/where-we-work/malawi>.

During PY1–3 (in 2013 and 2015) Malawi experienced severe flooding episodes, leading to malaria outbreaks and making quality case management services all the more critical.

**Table 2. Selected PY1–3 Activities in Malawi from MalariaCare Reports**

PY1	PY2	PY3
<p>One round of OTSS visits with NMCP.</p> <p>MDRT refresher training.</p> <p>With NMCP developed a NAMS protocol and training materials.</p> <p>Microscope assessment in 240 HFs.</p> <p>Rapid assessment of RDT training and supervision needs.</p> <p>LLWs for district-level laboratory and clinical supervisors.</p>	<p>Microscopy training.</p> <p>Laboratory supervisors training.</p> <p>Support for NMCP case management trainings.</p> <p>Distribution of new laboratory registers.</p> <p>Support for revision and distribution of national diagnostic guidelines.</p> <p>National diagnostic supervision tool developed.</p> <p>Integrated OTSS lab checklist developed.</p> <p>Two OTSS rounds completed.</p> <p>New electronic supervision checklist piloted.</p> <p>Collaboration with NMCP to develop a NAMS protocol and submit for IRB approval.</p> <p>Support for two MOH microscopists to participate in WHO ECAMM.</p> <p>Support for WHO TWG meeting on diagnostics.</p>	<p>Participation in nation-wide effort to train HWs on newly introduced MOH treatment guidelines.</p> <p>Directly supported training of more than 3,000 HWs across 14 of 29 districts,<sup>10</sup> an effort that, according to NMCP, reached approximately 37% of HWs in the country.</p> <p>Support for advanced diagnostic refresher trainings for laboratory supervisors and MDRT for pre-service trainers.</p> <p>Supported three microscopists to attend an ECAMM course, all of whom achieved WHO Level Two accreditation.</p> <p>EDS launched, together with a new checklist for use in tablet-based OTSS. Developed with NMCP and SSDI.</p> <p>Fifty-eight OTSS supervisors oriented to the EDS.</p> <p>Pilot of new checklist and electronic data capture.</p> <p>One Round (Round 12) OTSS completed using EDS, with 24-hour turnaround of data after visits.</p> <p>Revision of NAMS protocol.</p>

### ***Achievement of Technical Objectives to Date***

#### *Improving the Quality of Malaria Diagnosis*

##### **Microscopy**

MalariaCare focused on strengthening diagnostic capacity for the first 2–2.5 project years by supporting NMCP to provide diagnostic MDRT refresher trainings and concentrating post-training support on low performers. The project sent two MOH microscopists in PY2 and three in PY3 to the WHO External Competency Assessment of Malaria Microscopy (ECAMM) accreditation course.

MalariaCare worked with NMCP to determine how diagnostic guidelines (microscopy vs. RDT use) should be assessed at different HF levels and to target OTSS accordingly. A decision was made that in referral centers and hospitals where microscopy is the first-line diagnostic test, skills such as parasite detection, species identification, and counting would be tracked, as well as commodities and supplies. In HFs that rely on RDT diagnosis, MalariaCare would support

<sup>10</sup> MalariaCare supports OTSS in all 29 districts, but case management training support occurs in only 14 districts, with Support for Service Delivery, a USAID-funded bilateral project, serving the remaining 15 districts.

continued OTSS and LLW to provide on-site training and to monitor all HW cadres administering RDTs.

### Rapid Diagnostic Tests

Government respondents reported that when RDTs were first rolled out in Malawi, HWs experienced challenges in following the Standard Operating Procedures (SOPs). MalariaCare has enabled government to teach HWs to perform RDTs correctly, resulting in performance improvement over time. A key PY1 challenge was delay in finalizing diagnostic policy guidelines needed to introduce RDTs at the community level and plan for their introduction into the private sector. Key challenges in PY2 included delay in RDT trainings while the Medical Board revised this policy to include a greater number of HW cadres, including community HWs. MalariaCare proposed training of non-clinical staff in RDTs, since they were reportedly performing the tests, but training activities were postponed pending results of a pilot to help inform the Medical Board's policy. Despite delays, by the end of PY2 98% of 500 targeted HFs had one or more providers trained in RDTs. The PY3 PMP reports that 94% of facilities had at least one provider (re)-trained in RDTs within the preceding two years, and there was active mentoring on documented RDT diagnostic errors during OTSS visits (PMP 13).

### NAMS

MalariaCare has assisted the NMCP to develop a NAMS protocol, training materials, and slide bank. Activities were delayed for various reasons, including delays with shipments of supplies and reagents (which arrived in PY4).

### *Building Competency in Quality Clinical Case Management*

The PY3 PMP indicated that only about a third of providers demonstrated competence in the clinical evaluation of febrile cases.<sup>11</sup> Interview respondents concurred with this finding and explained that during the rainy season over half of patients at hospitals have malaria, making it difficult to test every patient with fever, although HWs do reportedly prioritize testing for severe febrile illness. Other suggested reasons for low performance included a relatively recent national shift in focus from microscopy to RDTs, and reports that at some lower HF levels, non-clinical, untrained staff have been performing RDTs. The PMP pointed to good results adherence overall, with OTSS data indicating that 90% of providers adhered to test results (PMP 17).

MalariaCare began to support NMCP to build clinical case management and RDT capacity in PY3. The project especially supported NMCP's large-scale case management training effort, with a focus on severe malaria, that reportedly reached 3,000 HWs. The project provided assistance through temporary duty assignments, finalization of a supplemental facilitator guide, revision of the training evaluation form to better capture competency changes, LLWs to plan for follow-up supervision after trainings, and collection of data on competencies gained during training to present in a poster in PY4 at the ASTMH conference.

The project assisted Malawi to train national health training institution lecturers on updated national treatment guidelines, resulting in the graduation of new HWs skilled in current treatment protocols.

iCCM trainings did not begin during PY1-3, as MOH was revising its policy on which HW cadres may conduct RDTs. Reportedly community trainings are planned for second half of PY4 after a

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<sup>11</sup> Indicator #9.

Global Fund supported Training of Trainers (TOT) is completed. Government respondents indicated that iCCM partners will “soon” collaborate with NMCP for iCCM trainings.

### ***Strengthening Quality of Data Collection and Use for Decision-making***

The data are contradictory, but it appears that four rounds of OTSS were supported and completed by MalariaCare in PY1–3 (and one in PY4). From the government perspective, the project has worked well to align with national indicators in the collection of OTSS data. The transition from a paper-based to an electronic system took place in PY4. The former paper system allowed MalariaCare HQ staff to access data on a quarterly basis at best. Now data are reportedly available more quickly and can especially be used to plan targeted follow-up support. *“Malawi is now one of the most advanced project countries in terms of electronic data collection and use.”*

Despite improvements, there are still delays in MalariaCare HQ receiving reports after OTSS supervision rounds. During the evaluation period, NMCP was not yet able to access data; however, MalariaCare has since carried out an EDS data user training for government staff.

### ***Capacity and Sustainability***

Malawi respondents applauded the strategy of improving capacity for laboratory technicians, clinicians, and laboratory and clinical supervisors, stating that most laboratory staff are now able correctly to identify mosquito species. The project has strategically engaged as trainers high performers who can cascade their skills to others as a sustainability strategy for microscopy, clinical, and EDS trainings. One respondent estimated that perhaps 40% of lab staff are performing at a high level now, but emphasized that each training accommodates only 15 participants, and that with approximately 400 lab technicians in country, not all have been reached. Furthermore, staff turnover creates ongoing needs. The LLWs after OTSS rounds were seen as important for flagging key issues needing attention and for planning follow-up activities accordingly.

The overall perception was that by the end of PY3, NMCP and districts were demonstrating high levels of capacity in most aspects of malaria diagnosis and treatment. However, training at lower HF levels was still needed on updated treatment guidelines, especially for treatment of severe malaria cases, and in some cases for microscopy skills. (Reportedly, PY4 includes a stronger focus on supervisor capacity-building at the zonal as well as the district level, using available EDS data.)

The EDS progress is also seen as key evidence of increased capacity for data collection and use for decision-making that can be sustained by the country once EDS is fully operational. Respondents reported that supervisors are already skilled in data entry and use. NMCP respondents were eager to take the EDS forward. MalariaCare staff voiced the expectation that future PMP performance-reporting will be clearer given the improved EDS data quality.

Clinical tutors in all national training institutions have been trained by MalariaCare and are teaching the updated treatment guidelines to ensure that newcomers to the health workforce will be familiar with guidelines. The introduction of a NAMS for Malawi was seen as a key contribution toward increased capacity that can be sustained.

## **Project Management**

### *Communication and Coordination*

Government respondents perceive that coordination has been strong. MalariaCare field staff concur but point out that at times it has been challenging to keep NMCP expectations realistic. Delays were reported with field allowances for OTSS since approval must come from HQ. Reportedly, communication with government for implementing iCCM activities has created delays for the project to be able to include these activities in the work plan. Government respondents suggested that it is helpful to collaborate with MalariaCare on work plans well in advance, so that government can see how MalariaCare activities align with the entire national work plan. The field team and government indicate that the project coordinates with non-government partners through the NMCP TWG and case management TWG.

### *Staffing*

Having a pivotal staffperson transition from IMaD to MalariaCare appears to have helped ensure a smooth transition. There was consensus that having more staff has helped manage the workload in country. HQ technical support has been appreciated, especially for trainings and introducing the EDS, where the field team has no prior experience. Having both technical and M&E support from HQ was viewed as helpful. Government perceives field staff as having necessary competencies and working well, but perceives Save the Children as working in isolation and PATH and MCDI as working closely. Since iCCM activities have been delayed and MCDI is the main diagnostics partner, this is not surprising.

### **Summary**

Interview data indicate that despite delays related to establishing an operating presence, and delays with iCCM activities overall, the project performed well in reaching training targets, especially with MDRTs and the nationwide case management trainings. OTSS HW and HF targets were seen as nearly reached.

## **Mozambique Case Study**

Malaria is the most important public health problem in Mozambique and accounts for nearly one third of all deaths and 42% of deaths in children less than 5 years old. Malaria prevalence decreased in all provinces from 2007 to 2011.

### **Overview of MalariaCare in Mozambique**

Mozambique engaged with MalariaCare in PY2. The project's strategy was first to focus on central-level capacity-building for the NMCP and National Institutes of Health (INS) to support high-quality malaria diagnosis and treatment, then focus on developing capacity of provincial- and district-level health teams. Offices were established in central Maputo and Nampula Province.

Technical support in Zambezia and Nampula Provinces is intended to help strengthen QA systems and laboratory and clinical malaria case management capacity in all public HFs. Provincial laboratory staff were trained in malaria diagnostics for microscopy and RDTs. Clinical staff were trained in clinical case management and performing RDTs. These supervisor trainees cascaded RDT refresher training and clinical mentoring to HF staff. MalariaCare implemented supportive supervision activities in both provinces, including three rounds of supervision followed by post-supervision LLWs at both provincial and district levels. Low-performing HFs participated in a peer-to-peer mentoring pilot with high-performing facilities, similar to that in Ghana.

In PY3, MalariaCare began to roll out the EDS, piloting the electronic checklist in Zambezia. The project began to plan for implementation of activities in Cabo Delgado and Tete Provinces and carried out an assessment of private-sector case management. Flooding in December 2014 (Q1) in Nampula and Zambezia and a subsequent cholera outbreak in Zambezia caused delays between January and March 2015.

**Table 3. Selected PY1–3 Activities in Mozambique from MalariaCare Reports**

PY2	PY3
<p>Project start up activities: Introductory visit to draft scope of work with Mission. Participation in development of a national QA framework for diagnosis of febrile disease. Staff recruitment and development of work plan. Central-level support for a national data manager. Planning to develop an EDS and link program data with DHIS2 platform.</p>	<p>Two five-day MDRTs for 44 central and provincial laboratory staff in Nampula and Zambezia Provinces with laboratory supervisors selected from highest scores. Nineteen provincial laboratory staff trained during combined clinical and laboratory TOTs in Nampula Province. Twenty-eight provincial OTSS laboratory supervisors trained in Zambezia and Nampula Provinces on RDT QA. Refresher RDT QA training by supervisors for 1,149 HWs in 37 districts across Zambezia and Nampula Provinces. On-site RDT refresher training for 96 HWs during OTSS Round 2. Adaptation of joint clinical and laboratory OTSS checklist. Three rounds of joint laboratory and clinical OTSS in Nampula and Zambezia Provinces, reaching 37 HFs in 19 districts. One provincial LLW. Three-day peer mentoring pilot in five districts each in Nampula and Zambezia Provinces. Establishment of malaria case management committees in four district hospitals (idea emerged from LLW). Private-sector HF assessment. Rapid HFA in Delgado and Tete Provinces. Supported NMCP to develop OTSS database, then introduced EDS through end-user training in Zambezia Province and use of tablets in OTSS Round 3 in Zambezia Province. Collection with National Reference Laboratory of 3,500 specimens for 15 permanent slide sets. QC system to review discordant slides during OTSS visits.</p>

### ***Achievement of Technical Objectives to Date***

#### *Improving the Quality of Malaria Diagnosis*

##### **Microscopy**

Project, PMI Mission, and government respondents view project accomplishments for improved microscopy as especially notable, with microscopist scores showing improved performance and clinicians trained for the first time in how to test for malaria. The project has helped the country to implement guidelines for parasite density testing and to introduce a number of proficiency panels in several provincial and district HF labs. Most supported laboratories now report parasite density and quantify parasite load for complex cases, and improved skills are observed during OTSS rounds. Reportedly, this has been a low-performing area in country, and even after MDRT training and supportive supervision, scores are not as high as desired. According to the PY3 PMP (Indicator #1), less than half (47%) of targeted service providers demonstrated competence in malaria microscopy at the most recent supervisory visit.

The project's recruitment of a laboratorian to provide support at the central level was seen as helpful; government stakeholders identified a shortage of well-trained laboratory technicians as a challenge, as well as a shortage of supplies such as blood lancets and slides. The project has intended to support accreditation of national microscopists through the WHO ECAMM course in Kenya. In PY3–4 a strategy was developed to support laboratorians at the National Reference Laboratory to apply for a grant to train for Level 1 accreditation, and to send two or three microscopists from provinces and one from a regional reference lab to be certified at Level 2. Based on budget resources, instead project staff from Kenya visited Mozambique to provide proficiency-testing capacity-building at the national level.

### Rapid Diagnostic Tests

Training for both laboratory technicians and clinicians on how to perform RDTs has been seen as a successful strategy. OTSS visits reveal improved testing and adherence to test results, largely as a result of intensified project focus on RDT QA during OTSS visits. According to PY3 PMP Indicator #6, 80% of targeted service providers demonstrated competence in RDTs at the time of the most recent supervisory visit. Government stakeholders emphasized that this improvement cannot be attributed only to MalariaCare; rather, it is a national trend resulting from revised recommendations for which patients should receive an RDT and how test results should be handled. In reality, improvements in RDT performance would largely have been affected by the training and supervision provided by MalariaCare as the only partner implementing such activities in their target areas.

The key challenge for RDT use continues to be frequent stock-outs. In PY3 the project began to help form malaria committees at four HFs (growing to six in PY4), and to train committees how to calculate the number of patients tested each month and how to ensure that sufficient RDTs are ordered.

### NAMS

MalariaCare has provided technical support for development of a NAMS by collecting slides and guiding provincial laboratory mentors as they support HFs to use them. Slides have been used for a therapeutic efficiency study (TES).<sup>12</sup> Initially the slides' high parasite density made it easy to identify parasites, which was not ideal for training. A MalariaCare expert microscopist visited the country and helped to dilute the slides.

### *Building Competency in Quality Clinical Case Management*

The increase in project-supported districts of malaria cases confirmed through testing, and both positive and negative adherence to test results, is acknowledged by several respondents, with project trainings largely credited for this change. Reportedly, over PY3 an increase was seen in clinical staff ordering parasite density for severe cases of malaria, especially in Nampula Province, as a result of the joint training module on this topic.

### *Strengthening Quality of Data Collection and Use For Decision-Making*

During three rounds of OTSS in PY3, reportedly not all observations were completed for each HF and not all data checked for quality, so the data were incomplete, and some checklists were lost. The project helped the government to develop an OTSS database in anticipation of the EDS and prepared provincial-level staff to enter and clean data, and to analyze and use the data

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<sup>12</sup> MalariaCare did not directly support this TES, but has provided support for such studies in Senegal, Tanzania, and Zambia.

for decision-making within a short turnaround time. Trainings were provided for national and provincial staff on how to integrate OTSS data into the DHIS2, and tablet dashboards were prepared. When the tablets were first used, some data were still missing, and Internet connectivity problems created some delays at the district level.

Government applauded the electronic format but expressed frustration at not being able to access the data midway into PY4. Their perception is that the data are at Malaria HQ, yet even project field staff cannot easily access them and don't know why; hence the data cannot be used to plan for the next OTSS rounds. *“Doesn't make sense to have a tool that is supposed to make your life easier but not doing that. The database needs to be in the country.”* (National government respondent)

The apparent lack of access to data reported by government staff was at odds with the active use reported in the survey by MalariaCare staff, several of whom reported reviewing data in the three months preceding the survey and using the results to inform programming.

### **Capacity and Sustainability**

Supervisor capacity-building has largely focused on the provincial and district levels (with a goal of having at least two trained supervisors per province) to strengthen skills in training, mentoring, and data review. Evidence of increased capacity includes having laboratory and clinical staff working together as a team for the first time, and the malaria committees that include pharmacy, lab, and medical staff having monthly communication about case management and supplies. In PY4, six HFs were using the committee model, and hope was expressed by MalariaCare staff that it would continue to roll out. The Mission expressed a hope that mentoring guidelines for microscopy and RDT testing will be formalized in a document for future government reference. Government expressed confidence that the OTSS data do indeed show evidence of improved malaria case management capacity as well as special appreciation of project support for a national level data review for severe malaria cases.

Challenges to sustained capacity include staff turnover, lack of microscopy resources in some HFs, and the reality that government lacks the financial capacity to keep OTSS visits going, however useful the process has been. *“It will be important to help the provincial director incorporate those activities in their budget, otherwise we can create this capacity, provide the tool, but when project ends everything will stop.”* PMI respondents indicated that there is no expectation that supported countries will be autonomous by the end of the MalariaCare project.

### **Project Management**

MalariaCare was viewed by government and the PMI Mission as slow to start in PY2, with some training and OTSS activities in Zambezia delayed by flooding in PY3, and extension into the two additional provinces slower than hoped in PY3–4.

Views as to whether technical support from MalariaCare HQ is sufficient were mixed. Some field staff suggested that these visits provide the only opportunity for staff working across the provinces to get together, Mission staff felt satisfied with the value of visits and their coordination with PMI, and government staff felt a need for more in-country technical support for microscopy trainings. HQ support for M&E activities was especially appreciated.

### **Communication and Coordination**

In PY2–3, MalariaCare was reportedly the only PMI-supported project working on case management in Mozambique; therefore, government expectations were high for the project.

Government viewed the two project staff—a lab specialist and a data manager—seconded to NMCP as creating a strong link between government and the project. Concern was expressed by government and PMI respondents that the project needs to communicate more closely with the NMCP to ensure that the manager is kept informed about field travel and HQ visits. The MalariaCare team held monthly meetings with PMI to share progress and review work plans.

The collaboration between MalariaCare and Provincial Health Authorities (PHAs) was perceived as “great,” with PHAs communicating to the central level that they work closely with the project, are fully aware of project activities, and often actively participate. With prompting from the Mission, MalariaCare has facilitated TWGs in Nampula and Zambezia PHAs where provincial partners coordinate activities. The Mission still perceives room for coordination improvement. Field staff identified collaborations with the Malaria Consortium and JSI in Nampula Province. In PY4 the Maternal and Child Survival Project (MCSP) began to implement case management in Zambezia Province, and the project team reports a close collaboration.

### *Staffing*

MalariaCare hired an in-country coordinator in PY2 Q1. Initially the staffing plan included regional coordinators, but due to geographical distances they were replaced by provincial coordinators who work directly with provincial health teams. (In PY4 the field team includes an in-country coordinator, M&E specialist, laboratory specialist, data manager, finance officer, program assistant, and four provincial coordinators.) The perception among government and field staff is that staffing is not yet sufficient for the geographic scope. Government expressed agreement with the provincial coordinator strategy, but emphasized that these coordinators should be clinicians to have credibility with clinical care providers.

Other respondents expressed the view that a clinical specialist is needed at the national level. Government expressed a preference that an advisor be available to work with the NMCP case management focal point. However, project staff indicated that the MalariaCare M&E advisor does in fact work closely with the NMCP co-chair. Concern was expressed by the Mission that the national-level relationship suffers because the In-Country Coordinator spends so much time traveling to the provinces. There was also a wish that the project work across all districts in target provinces so that provinces could build capacity consistently through every district. It is not clear if all government stakeholders are aware that at the district level the project works with referral HFs that have a laboratory, or if they are fully aware of the scope and budget that have been determined for Mozambique by the PMI Mission.

### *Summary*

MalariaCare in Mozambique is perceived as having helped the country organize its policies and tools at the national level and strengthen their use at the provincial level. Project success in Nampula Province is viewed as being aided by strong leadership in the Provincial Health Directorate (PHD). The project is described as having been slow to start, requiring more negotiation time than other projects. Weather-related inaccessibility issues affected PY3 targets, and that year’s rainy season reportedly created a higher than usual malaria burden in country.

Virtually every project technical area was identified as an important future area, including laboratory QA, microscopy capacity-building if government decides to continue to use both microscopy and RDTs, supportive supervision, ongoing support for the EDS and its integration into the DHIS2, and support at the district level including provision of revised case management guidelines and other job aids.

## Zambia Case Study

Malaria continues to be a major cause of morbidity and mortality in Zambia, and the entire population is at risk. In 2010, the country adopted WHO guidance calling for universal diagnostic testing for malaria.

### Overview of MalariaCare in Zambia

Zambia engaged with MalariaCare in PY1 to strengthen malaria diagnostic QA, with emphasis initially on microscopy. As part of a smooth handover from the predecessor IMaD project, MalariaCare hired that project's In-Country Coordinator, an accredited microscopist and regional trainer who was seated at the NMCC with an established close working relationship with government. In PY3, temporary data technicians, a Program Assistant, and a TES study coordinator were added.

MalariaCare worked across all 10 provinces until midway through PY3 when the Mission funded the Program for Advancement of Malaria Outcomes (PAMO), led by PATH, to support malaria case management-strengthening in four provinces, with other partners supporting remaining provinces. Thereafter, MalariaCare worked more intensively at multiple levels within its remaining four provinces, selected in collaboration with PMI/NMCC.

**Table 4. Selected PY1–3 Activities in Zambia from MalariaCare Reports**

PY1	PY2	PY3
<p>Central-level training of trainers.</p> <p>On-site OTSS supervisory visits.</p> <p>District laboratory supervisor refresher.</p> <p>MDRT training with a mean score of 96% among participants.</p> <p>OTSS database refresher training for five NMCC data managers.</p> <p>OTSS Round 9 and part of Round 10 at 162, 216, or 209 HFs (depending on the data source), and follow-up LLWs.</p> <p>Preliminary talks with the National Chest Disease Centre for integrating the national TB laboratory supportive supervision program with the NMCC OTSS program.</p> <p>NAMS discussions with National Tropical Diseases Research Center and University of</p>	<p>Development of national malaria case management QA framework with MOH/NMCC, Ministry of Community Development and Mother and Child Health (MCDMCH), and PMI.</p> <p>Restructured OTSS to support decentralized, cascading case management supervision with better integration of diagnostic and clinical components.</p> <p>Trained clinical supervisors.</p> <p>Continued to develop course outline for a national microscopist accreditation program for basic and advanced microscopist skills.</p> <p>Three of four rounds of combined clinical and laboratory OTSS (Rounds 11, 12, and 13) were completed with more than 400 HWs mentored.</p> <p>Four laboratory technicians and two clinicians trained as OTSS supervisors for project's expansion of Round 12 OTSS activities to newly established Muchinga Province.</p> <p>Malaria laboratory registers were standardized across OTSS-supported HFs.</p>	<p>Printing and distribution of 200 updated national malaria laboratory training manuals to approximately 22 HFs per province.</p> <p>Work across all 10 provinces, expanded focus on sub-district as well as provincial and district levels.</p> <p>OTSS Round 13 visits completed in 93 HFs; OTSS Round 14 in 114 HFs, with poor-performing HFs targeted; PMP refers to a third round.</p> <p>Eighty DHMT diagnostic and clinical supervisors trained in four provinces to provide RDT QA mentoring for sub-district level HFs.</p> <p>Supervisors supported to conduct OTSS visits to 138 of 160 district-level HFs.</p> <p>Laboratory and clinical OTSS checklists revised to provide more time for on-site mentoring.</p> <p>Tablet-based data collection platform field-tested.</p> <p>Supervisors in Central Province (Kabwe) trained on the EDS.</p>

PY1	PY2	PY3
Zambia Teaching Hospital.	<p>Tablet-based laboratory OTSS checklist was reformatted to automatically update data and action points from prior visits to the current visit checklist.</p> <p>Clinical checklist reviewed for transfer to electronic format in PY3.</p> <p>Coordinated RDT QA activities in 27 Zambia Integrated Systems Strengthening Program<sup>13</sup>-supported districts and in HFs receiving routine OTSS support.</p> <p>Supported a LLW for 27 provincial OTSS supervisors and clinical HWs.</p> <p>Submitted a NAMS protocol to the NMCC; by end of PY2 was under review by a Zambia ethics committee.</p> <p>Revised malaria case management clinical pre-service training curriculum.</p>	<p>Therapeutic Efficacy Study (TES) protocol received IRB approval.</p> <p>Printing and distribution of 200 copies of algorithm charts for severe and uncomplicated malaria and non-malaria febrile illnesses in collaboration with NMCC/MOH.</p> <p>Microscopy trainers trained in preparation for WHO accreditation.</p> <p>National microscope inventory.</p>

### ***Achievement of Technical Objectives to Date***

The sheer number of activities completed by MalariaCare given such limited field staff is impressive. Interview respondents gave much credit for high accomplishments to the In-Country Coordinator, described as working tirelessly with NMCC and fostering a relationship built on confidence and trust.<sup>14</sup> While survey responses were limited for Zambia, respondents viewed the project as having been extremely successful across the four technical objectives in PY1–3 and expressed confidence in the government’s ability to carry on activities now led by the project.

### ***Improving the Quality of Malaria Diagnosis***

#### **Microscopy**

In PY3, MalariaCare conducted a microscope inventory survey during OTSS Rounds 13 and 14 and found that of 193 microscopes at 61 HFs, only 142 were functional and regular maintenance was performed in only 61% of HFs. Findings were shared with NMCC.

According to the PY2 Annual Report, OTSS data analysis indicated significant underperformance in microscopy slide staining, with 54% of HWs trained during OTSS meeting the QA threshold (>90% compliance with checklist) for competent microscopy preparation and reading, and 55% meeting the QA threshold (>90% compliance with checklist) for RDT preparation and reading. The PY3 Annual Report noted that 21 HFs with data for all microscopy indicators still had mediocre scores on minimum and overall standards for overall microscopy, but reported significantly higher scores for RDT. A government respondent suggested that some of the larger

<sup>13</sup> An integrated health systems-strengthening project funded by USAID Zambia.

<sup>14</sup> Evaluators regret not having been able to capture this highly regarded project coordinator’s direct experience with MalariaCare before his untimely death during the evaluation period.

HFs can distort the data in terms of percentages of improvement, and emphasized that, overall, bigger improvements are seen at district and sub-district levels.

Across PY1–3, the project sent three government microscopists to Nairobi for WHO accreditation. An interview respondent described a MalariaCare publication being prepared for submission that looks at the success of PMP-supported participants in the WHO ECAMM course. In PY3, the project developed specific criteria for candidate selection, with candidates having to score the equivalent of Level 2 accreditation in the MDRT course. This may be a useful strategy for other project countries. Reportedly, Zambia has WHO Level 2-accredited microscopists in NMCC and the University Teaching Hospital.

### Rapid Diagnostic Tests

PY2 and PY3 included a stronger focus on RDT QA and training district-level supervisors to do more QA at local levels, based on government and PMI priorities. In PY2, project-supported HFs showed steady improvement in RDT use, reaching the target of 90% compliance after approximately 6.5 supervisory visits. However, PY3 data<sup>15</sup> showed 58% of lab technicians demonstrating competence in RDTs, and continued underperformance in adherence to negative test results. The project continues to focus on RDT adherence at the sub-district level, where HFs rely more heavily on RDTs. Some concern was noted among lab technicians about loss of microscopy skills from having to give more attention to RDTs.

### NAMS

MalariaCare has led the development of a NAMS, beginning discussions during PY1 and developing a protocol with government during PY2. Delays in finalizing the protocol were due to a lengthy Internal Review Board (IRB) process and supply shipment delays. By the end of PY3, the project was ready to begin sample collection and slide production during peak malaria season in PY4. Once the reference slide set is validated by WHO, the NMCC will be able to conduct proficiency testing panels, especially at hospital reference levels. Government stakeholders are excited about having this resource for the country.

### *Building Competency in Quality Clinical Case Management*

Across PY1–3, 155, 156, or 162 HFs were enrolled in OTSS, depending on the data source. Zambia started in PY1 from a reported 76% level of compliance to malaria test results (high among MalariaCare countries), and has demonstrated steady improvement during OTSS rounds. Project experience indicates that it takes six to seven OTSS visits to improve HFs' capacity to prepare and read microscopy slides and RDT results and comply with test results according to QA standards. Successes are perceived as having largely resulted from the OTSS mentoring strategy and its focus on low-performing providers and HFs. Per the PY3 Annual Report, 104 sub-district HFs performed higher on correctly prescribing per diagnosis and correctly ordering a malaria test than on accurately assessing disease severity and routinely asking or checking for at least one sign of severe malaria. PY3 PMP data showed compliance to positive test results as 98%, compliance to negative test results as 81%, and adherence to test results based on record review as 81%—notably high achievements. Heavy patient workloads are seen as an adherence challenge, but respondents see a notable increase in diagnostic testing to inform treatment.

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<sup>15</sup> Indicator #1.

Key challenges included having to direct more OTSS funds to increased government per diems, thus reducing the number of HFs that could be visited, and extended periods of diagnostic commodity shortages (especially RDTs) that impeded HF test and treat compliance.

#### *Strengthening Quality of Data Collection and Use for Decision-making*

Main data-related challenges were associated with the previous paper-based OTSS data system. Some data collected in PY1 were not available until almost a year later, due to lag time in manual data entry and the time required for analysis. These delays made accurate reporting and evidence-based planning difficult for the project in PY1–2. With many issues resolved, both provincial and sub-district OTSS data are now reviewed by the HQ technical team and in country before each OTSS round to check if the same HFs are being visited again for comparison purposes, and to make sure low performers are targeted.

PY2 data challenges included delays in OTSS data analysis due to the time required to manually enter data, delay in development of the national QA framework and integration of disease-specific QA programs (tuberculosis, malaria, HIV) pending collection of background information, and delay in case management OTSS to lower-level HFs, particularly at the sub-district level, due to increased government per diems.

Both project and government colleagues are excited about the potential of the EDS to make data more user-friendly and immediately useful for planning at multiple levels. Government respondents were pleased with the EDS platform and expressed hope that it will allow more decision-making to remain in the hands of key decisionmakers. The improved data provide evidence of improved quality of laboratory diagnosis and clinical treatment. There is an effort now within the project to include lab interpretation modules in the clinical refresher training to continue to integrate knowledge and skills.

#### *Capacity and Sustainability*

MalariaCare’s phased technical support for Zambia in PY1–3 was designed to strengthen microscopy at the central and provincial levels; address clinical case management; build laboratory and clinical supervisory capacity for a pool of trained and competency-assessed supervisors from the provincial and district levels; upgrade supervision tools and strategies; improve OTSS data collection through a revised checklist and on-site mentoring that targets low-performing providers and HFs; create an EDS to improve data collection and make it accessible in real time to decisionmakers; and help through OTSS to identify where there are diagnosis and treatment commodity stock-outs. The project also revised the pre-service curriculum to ensure that new HW graduates have proper skills, and assisted NMCC to conduct a TES.

Increasing WHO-accredited microscopists was seen as improving national capacity toward international standards. The integration of diagnostic and clinical services within a QA framework that has been adopted by NMCC, and building provincial- and district-level capacity for OTSS, were viewed as especially helpful by government respondents who described turnover among provincial-level supervisors as a sustainability challenge. Respondents affirmed increased capacity among laboratory and clinical supervisors to implement OTSS and improved data quality across targeted HFs. *“Thanks to MalariaCare for their trainings; more are needed at district hospitals.”* (Central-level government respondent)

Government respondents viewed the above as improvements they are able to take forward in collaboration with future partners, and emphasized the need to continue to strengthen microscopy diagnosis, including trainings and provision of QA tools for laboratory supervisors. A key sustainability challenge is NMCC's ability to manage OTSS costs. Previous attempts to integrate supervision with other health programs for cost effectiveness have grappled with insufficient microscopes for multiple tasks, scheduling challenges, and supervisor task overload.

There are sustainability concerns about the new EDS, and hopes that future programming will include support for its intended use at national, provincial, and district levels. Project HQ hope that Zambia will eventually be able to develop district data profiles as has been done in Malawi.

### **Project Management**

A key challenge for project management was described by respondents for Zambia as limited funding levels for an expanding scope of activities. The budget for MalariaCare activities in Zambia was described by HQ staff as smaller compared with other countries with broad OTSS activities.

### **Communication and Coordination**

The strong collaboration between the In-Country Coordinator and NMCC was seen as key to project successes. Planning and traveling together for monitoring visits were seen as important for a strong collaboration. The project has coordinated activities to some degree with the Malaria Control and Elimination Partnership in Africa (MACEPA) in Southern Province. PAMO's start-up occurred in PY4, outside of the evaluation scope; however, reportedly MalariaCare is engaged in transition and lessons learned activities with the new partner that include introduction to the EDS. The project had limited collaboration with the Churches Health Association of Zambia (CHAZ), but those activities were not specified.

### **Staffing**

MalariaCare HQ technical support for Zambia is perceived as strong; however, having one staff member carry the roles of both project lead and technical microscopy expert was seen as too much work, especially given the increased focus on clinical capacity-building and introducing an EDS. The "lean and mean" presence in the field was seen as much too lean, with emphasis that adequate staffing is necessary for effective project management. Government respondents were happy with the relationship they enjoyed with the ICC, but not with another staff member. Their recommendation is that MalariaCare hire staff who understand the diplomacy required to collaborate with government partners. It was not clear if this feedback had ever been given to MalariaCare HQ staff in order to allow them to address any concerns.

### **Summary**

MalariaCare has used performance data to support supervisors to prioritize targeted interventions toward poorly performing HFs. Overall, HFs enrolled in OTSS have reached or approached program targets, including for malaria microscopy slide-reading, RDT performance, and compliance to negative test results. Project staff hope that by end of PY5 there will be a publication capturing experiences and programmatic lessons learned for Zambia with a good analysis of reliable data.

### **Case Studies Summary**

The four case studies emphasize each project country's uniqueness in terms of government structures and systems, areas of need and emphasis for malaria case management technical

support (e.g., Ghana is the only MalariaCare country where a previous project focused on the quality of clinical case management), start-up/scale-up/scale-down challenges, and sustainability issues.

## **TO WHAT EXTENT HAS MALARIACARE MET THE MANAGEMENT REQUIREMENTS AND FUNCTIONS OUTLINED IN THE AGREEMENT?**

### **Timeliness of Deliverables**

Interview respondents indicated that annual reports were submitted in a timely way; however, there were delays with submission of PY2, PY3 (and PY4) work plans. From PMI's perspective, delays were likely due to coordination among the partners, and from two sub-partners' perspectives, they likely had to do with lags at the project or PMI HQ level since the sub-partners had submitted their own plans on time. The project experienced some delay at start-up in staffing the Technical Director position to meet PMI approval, and finance staffing changes in PY3 created internal challenges. M&E staffing changes have been perceived as *"improving the project tremendously,"* with the PY3 Annual Report showing evidence of monitoring and reporting improvements.

### **Communication between PMI and MalariaCare HQ**

From both perspectives, communication has been open, clear, and timely, except for an instance when communication from project to PMI HQ also needed to flow to country Missions and did not (regarding submission of abstracts for presentations on country-specific work). There were failures in communication from MalariaCare HQ to the PMI Agreement Officer's Representative (AOR) team on the restructuring of OTSS data collection (changes to PMP and indicators). Biweekly meetings at HQ level are mutually perceived as useful. PMI HQ acknowledges delays from OAA office at times. Staff changes within the AOR team have caused no problems for the relationship. The three sub-partners emphasize that they communicate with PATH and must rely on PATH to represent them well with PMI. The PMI AOR team does participate in one day of the annual retreat and may have brief informal conversations with partners then, and also communicates with whichever partner staff is the primary point of contact in each country. *"We could not have wished for a better (PMI) team to work for, where you feel like you are on the same team."* (MalariaCare HQ)

### **Coordination and Communication among Partners at National Level**

PATH as the prime partner views the partnership as having worked well overall, despite budget-related tensions that created start-up delays, describing the relationships as strong at the technical level. MCDI views its role as having diminished as the project has added new areas of focus, but expresses confidence that it has always been a responsive partner. PSI and Save the Children (SAVE) perceive that they are not entirely fulfilling their expected roles within MalariaCare; PSI had hoped for a more influential role in engaging the private sector and SAVE in strengthening iCCM. All partners acknowledge that SAVE's role as community case management partner was less than expected; however, partners also acknowledge that these decisions are not within the project's control. Reliance on mechanisms is determined during careful deliberation as part of annual malaria operational planning, and includes factors such as reliance on bilateral versus central projects, local capacity, malaria-specific versus integrated projects, etc. In many cases, Missions rely on integrated bilateral projects to support iCCM efforts.

Two sub-partners described a good relationship with PATH on a technical level, but reported management challenges. All agreed that annual joint work planning sessions are useful. Concern was expressed by sub-partners regarding transparency in decisions about changes to work plans and budgets, late sub-awards and modifications, and unrealistic deadlines for information from the field. Partners would prefer to have more involvement in the country MOP planning process, to allow a broader conversation about possible technical contributions. *“The planning process has been participatory, but the challenge has been transparency in how budget allocations are made. Good transparency would go a long way.”* (two MalariaCare partners)

### **HQ Technical Support**

PSI support for the EDS was based in Kenya; other support came from multiple U.S. locations as the HQ technical team was spread across Washington, DC, New York City, and Seattle, Washington. Overall, HQ technical support was perceived by project and government country staff as helpful and appropriate, with oversight being lightest for Ghana given the strong team field presence and stronger NMCP involvement in activities. *“There is a little bit of hesitancy on the part of Ghana team to get the HQ technical team too involved because it slows things down”* (project field staff). Malawi government expressed appreciation for EDS technical support from Kenya. Project staff in Mozambique felt well-supported by HQ, but wished for more country visits that create an opportunity for provincial staff to meet together at the central level. In Zambia intensive “almost daily” diagnostic and M&E HQ support was provided in PY3 and seen as highly useful by government.

### **Coordination and Communication at Country Level**

Eight in 10 survey respondents were mostly or entirely satisfied with coordination and communication between project and PMI staff, with similar results for coordination and communication between project partners in country. There were no discernable differences between MalariaCare and PMI staff. Respondents provided examples of frequent communication with project HQ, and only 7% of survey respondents mentioned communication with HQ as a barrier to project implementation. Survey and interview respondents identified a “disconnect” between decisions made by non-PATH field staff and Missions and approval of those decisions by PATH HQ. Multiple respondents suggested that the decision-making authority for project leadership in country, regardless of which partner staff are employed by, needs to be clear. Respondents suggested that a prime partner should ideally have an in-country presence in every project country to facilitate decision-making, activity implementation, and money flow. PSI credits much of the project’s success to the fact that it has an established presence in nearly all project countries.

Coordination with government was flagged by 18 respondents from nine different countries as a challenge/barrier to project implementation, but not equally emphasized in interviews. In Ghana coordination is seen as strong by PMI and government, and the field team describes having developed a “road map” for how to work proactively with NMCP and GHS. Communication with government in Malawi is viewed as strong from the project’s start, but competing priorities in Malawi were described as a coordination challenge: *“...there are many stakeholders on the ground and government has its own planned activities. In some cases, government has gone ahead and conducted activities with other donors because of MalariaCare funding delays.”* Mozambique field staff perceive that relationships with government are good despite high expectations, as MalariaCare is the only partner working exclusively on case management. The Mozambique Mission perceives the collaboration as “great” at the provincial level but needing to be strengthened at

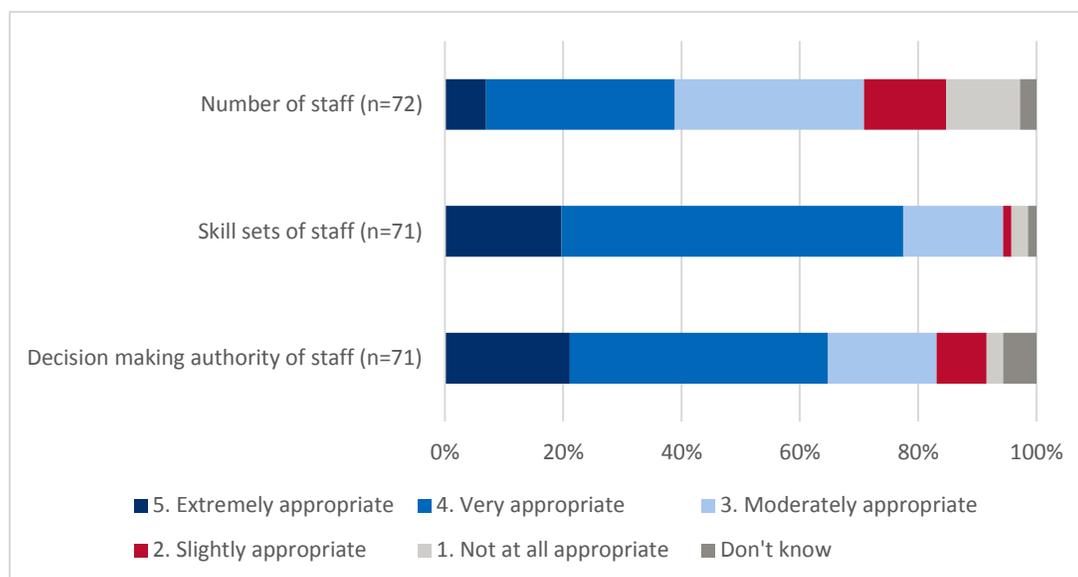
the national level. In Zambia government respondents praised the relationship with the former technical advisor who was seated at NMCC and traveled with national colleagues, but expressed reservations about a newer staff person. TES support is perceived as very good in Zambia.

Collaboration with other partners through national TWGs was often mentioned. In Ghana challenges were highlighted in coordinating activities between a project that focuses entirely on malaria and integrated systems-strengthening projects with a broader focus and less time and budget for malaria case management. The concern is that these partners may not be able to take up intensive OTSS activities implemented by MalariaCare as their malaria focus is more diluted. In Malawi MalariaCare has been tasked to fund and lead a TWG to coordinate with other partners. The Mozambique Mission asked the project to implement monthly TWGs in Nampula and Zambezia Provinces for all NGO partners. In Zambezia Province the project has begun to coordinate activities with the USAID Maternal and Child Survival Program (MCSP) with MalariaCare's focus remaining at the regional HF level and the new project at the community level (PY4). In Zambia there has been collaboration with MACEPA, CHAZ, and member faith-based organizations (FBOs), and a transition activity in PY4 with a new partner program for advancement of malaria outcomes (PAMO).

### **Whether In-country Staffing is Sufficient**

MalariaCare HQ's perception was that PMI intended for MalariaCare to serve solely as a TA mechanism with a lean presence on the ground; however, PMI HQ emphasized that the project scope always included implementation support. The lean presence approach makes sense if a project is intended as a resource for governments with strong technical capacity and sufficient financial resources. The reality in most project countries, however, has been that high levels of need for support at both central and provincial/district levels have required a field presence. The project appears to have made a valiant effort across PY1–3 to find the right staffing balance for scopes of work that varied across countries, and at times within countries. In larger country teams, the project has attempted to include representation of diagnostic, clinical, and sometimes M&E/data management expertise. The PMI HQ perspective is that the lean country presence had as much to do with PMI Missions not providing sufficient funding as with the project not sufficiently advocating for increased staffing. It is possible that PMI Missions were working from the IMaD model and allocated budgets primarily for diagnostic technical support. Survey results confirm that levels of in-country staffing are a source of concern, with MalariaCare and PMI respondents providing similar feedback. Over half of respondents indicated that numbers of staff were, at best, only moderately appropriate.

**Figure 5. Appropriateness of Project Staffing in Country (N=78)**



Source: 2016 Mid-term Evaluation Survey

Survey respondents expressed more concern about insufficient numbers of staff than whether staff skill sets were appropriate, although around one in five said “moderately appropriate” for skill set. Around 25% indicated that decision-making authority of staff was slightly or not appropriate. Insufficient staffing was also emphasized during country- and global-level interviews. While Malawi has had perhaps the biggest challenges in building staff, survey respondents from this country noted that current (PY4) staffing seems very appropriate in terms of numbers, skills, and decision-making authority.

### **Extent to which Country has kept up with Changing Country Programmatic Needs**

Eleven survey respondents from six countries indicated that the project activity and/or geographic scope changing over time was a challenge, and this was also reflected in country-level interviews from case study countries, e.g., Ghana and Malawi.

### **Ways to Improve Program Operations and Efficiency**

Survey respondent suggestions for improving program operations efficiency and effectiveness included ensuring appropriate staffing; developing project activities based on information about efforts of other malaria stakeholders and coordination with them; and proper planning, including adequate budget and time allocation, using standard tools and reference documents, and taking time to build relationships in country. Additional interview suggestions seem applicable across countries: one staff person in the field is never enough; it is important to have a strong team leader to manage activities who also has relevant technical expertise based on country needs and geographic scope; funds must be received on time to match and implement work plan activities; and a small project “liaison” office could be situated within NMCPs for coordination and planning and to house resources (tools, job aids) and make them readily available.

### **WHAT RESULTS HAVE BEEN REALIZED AT THE GLOBAL LEVEL?**

MalariaCare global activity areas were defined as Project Operations, Monitoring and Evaluation (M&E), Advocacy and Communications, and Technical Leadership. M&E global activity is

intended to support the design and implementation of strategies that champion PMI objectives, ensure that project performance indicators align with PMI and the Roll Back Malaria (RBM) Partnership indicators, and enable project management continually to review performance and contribute to global efforts to scale up case management of malaria and other febrile illnesses. Advocacy and communications activities aim to increase access to technical and programmatic information and support USAID communication with Missions and governments. Technical leadership activities aim to improve care of the febrile patient.

### **Project Operations**

Project leadership created technical and advisory groups in accordance with the Cooperative Agreement. Both groups met multiple times each year. Reports describe introductory planning trips as new countries engaged with MalariaCare and recruitment of additional staff over time. A main operations challenge was work implementation delays caused by the time required to process sub-agreements and contracts, including for funding pass-through activities managed by sub-partner PSI in Southeast Asia.

The evaluation found strong consensus that the project has performed well in adapting to unexpectedly rapid growth of country buy-in from eight countries in PY1 to 15 countries in PY3, despite a lean HQ staff challenged to manage and provide technical support across an expanding portfolio. While project HQ staff has grown modestly across PY1–3, with the addition of a field operations team and more M&E staff and finance staff, it is not evident that staffing numbers are sufficient to handle ongoing buy-in from more countries. Sub-partner PSI has found it easy to respond to new country requests and still feel able to take on a larger role. Sub-partner SAVE is happy to have more engagement in DRC in PY3 and Burundi (in PY4).

### **Monitoring and Evaluation**

Over the first three years of the project, there seems to have been an increasing effort to strengthen project data generation and use, and a sharpened focus on data appears to continue in PY4. The PY3 Annual Report describes revisions to the OTSS data collection system, including implementation of the checklist piloted in PY2, development of a scoring system and summary indicators for each OTSS focus area (microscopy, RDT, adherence, and clinical case management), and piloting data collection through the newly developed electronic data system (EDS). The EDS utilizes the DHIS2 application platform, which allows for the development of third-party applications, coupled with a custom-built Android application to enter and analyze OTSS data. The project appears to have been effective, at least in case study countries, in influencing NMCPs to include project OTSS indicators as part of DHIS2 reporting. The key M&E activity reported in PY2 was the piloting of the EDS system, with findings from the pilot used to modify the OTSS checklist and supervision guidance.

Weaker aspects of M&E include lack of data comparability over time and potentially insufficient coordination with a broader set of stakeholders, such as the African Leaders Malaria Alliance (ALMA), a key stakeholder in sub-Saharan Africa. Although the PY2 Annual Report acknowledges the project's M&E mandate to ensure that project performance indicators project align with PMI and the Roll Back Malaria (RBM) Partnership indicators, it is not clear whether or how this process occurs.

### **What Project Data are Reviewed Internally**

In PY1–3, PATH HQ staff reviewed the raw OTSS data including microscopy, RDT, and clinical performance, and in PY3 made changes that improved how data are collected and reported.

MCDI at HQ level reviewed technical reports, provided some support for training and OTSS data analysis when there was no in-country staff capacity to do so, and helped countries (e.g., Malawi) to develop competence indicators for MDRTs. PSI leads on EDS data collection, but it is unclear whether they directly review the data collected during EDS or if PATH does this. SAVE reviews the CCM data they manage. All partners share data on project activities during the annual planning process each July. The PMI AOR team reviews data from annual and semi-annual reports and Health Facility Assessments, and presentations from project HQ during biweekly meetings.

### **Advocacy and Communications**

Evaluators did not locate a defined advocacy and communication strategy, which might have been useful. MalariaCare developed a webpage<sup>16</sup> in its start-up year. Resource outputs shared through the web page during PY1–3 included:

- A three-page electronic MalariaCare fact sheet produced in English and French in 2014.
- Country fact sheets for 11 countries.<sup>17</sup>
- Notes from the field short papers for Ethiopia, Ghana, Guinea, Mozambique, and Tanzania.
- One webinar in 2013: “Getting to Universal Diagnosis and Treatment of Malaria.”
- Two webinars in 2014: “Engaging Private Health Care Providers in Malaria Case Management” and “Community Case Management of Malaria.”
- Two webinars in 2015: “Quality of Malaria Rapid Diagnostic Testing in the Field” and “Communication and Training to Improve the Quality of Malaria Case Management.”
- Several program briefs and technical papers including PMI and WHO reports and strategies and diagnosis and treatment guidelines.

The majority of MalariaCare staff who completed evaluation surveys have never listened to or participated in a MalariaCare webinar—surprising, given the high number of staff who have been employed with the project for less than a year. It seems a good idea for new hires to view the webinars.

MalariaCare leadership sees the project’s advocacy role as distinct from the functions of WHO, which provides global technical standards, and Roll Back Malaria,<sup>18</sup> which promotes a partnership among malaria stakeholders, as these organizations do not provide daily, ongoing technical support at the country level. Respondents described contributions in PY1–3 as participation in technical malaria meetings and conferences, including the American Society for Tropical Medicine and Hygiene (ASTMH) conference in 2015 through both posters and presentations.

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<sup>16</sup> [www.malariacare.org](http://www.malariacare.org).

Annual reports describe leadership in the Malaria Interventions Task Force of the RBM CCoP in PY2, encouraging the group to focus on expansion of the “test and treat” model and in PY3, acceptance of three posters showcasing work in DRC, Malawi, and Nigeria for the American Society of Tropical Medicine and Hygiene’s (ASTMH) annual conference in 2015. In PY3, the Ghana team worked with GHS to develop a new malaria bulletin.

<sup>17</sup> DRC, Ghana, Guinea, Kenya, Liberia, Malawi, Mali, Mozambique, Nigeria, Tanzania, and Zambia.

<sup>18</sup> The RBM Partnership was launched in 1998 by WHO, UNICEF, UNDP, and the World Bank, in an effort to provide a coordinated global response to the disease.

## Technical Leadership

As with advocacy and communications, a clear technical leadership strategy does not appear to have been defined, which might have resulted in stronger, coordinated contributions by project partners. There are varying perceptions as to whether partners who participate in various global working groups do so representing MalariaCare or their individual organizations. Other PMI-funded projects were noted as having more recognized leadership on advisory and policy groups.

Project staff contributed recommendations to WHO's Malaria Policy Action Committee for the artemisinin resistance situation in Southeast Asia through membership on WHO's Technical Expert Group Meeting on Artemisinin Resistance and Containment (but not representing MalariaCare), and participated in the RBM case management working group meeting in Geneva to review current evidence for diagnostics, including field lot testing of RDTs, and served on an ongoing committee on managing fever. *"MalariaCare has brought global awareness of the importance of blending diagnostic and clinical expertise for case management. One of the best things we have done globally is to bring this rapprochement so both sides can talk together and have a common understanding."* (project HQ). Evaluators believe that more effort could be made to disseminate innovations or advocate their use at the global level, including for joint OTSS strategies and performance indicators.

MalariaCare has contributed to the development of global WHO guidelines and policies, recently for new standard operating procedures for malaria microscopy. WHO's training tools were expanded by the project to include competencies to be assessed under practical conditions. The project has also developed new curricula, e.g., a curriculum for a national-level microscopist accreditation program in Zambia and a supervisors' training manual that includes a formal observation checklist and feedback form for evaluating supervisors and mentoring modules for use during OTSS visits. The project has revised and strengthened pre-service and in-service training curricula for medical schools in Ghana and Malawi.

Project leadership reports that certain resources have been developed as MalariaCare standardized materials. Evaluators have seen only the OTSS checklists, but assume that standardized materials within the MalariaCare QA Framework in countries adapting EDS would include a conceptual framework; a PMP template with some standard indicators that are not adaptable (clearly stipulated) and others that can be customized to country needs; a competency framework; guidelines for NAMS development; any revisions or additions to global basic and advanced MDRT training materials or pre and post-test content; EDS training materials; supervision guidelines and training materials for HF and community levels; and OTSS tools including checklists, feedback forms, mentoring guidance, SOPs, and job aids. This entire package should be presented to PMI at the end of the project to ensure that these materials are highlighted as project accomplishments and are made available to PMI Missions and other partners through PMI's resource library. In Burma, Cambodia, and Nigeria, the project has helped to develop new materials for the private sector to expand correct use of RDTs and medications and management of RDT-negative cases. These materials include training curricula and supervision tools and should also be included in the archive of MalariaCare resource contributions.

Data challenges in PY1–3 made it impossible for MalariaCare to "mine" their data for sharing with external audiences in these years. However, the project began to develop peer-reviewed materials in PY4, starting with a paper on malaria case management lessons learned in Malawi.

Project leadership perceives that some of their global presentations on integrated trainings and supervision for laboratory and clinical staff may have indirectly influenced broader thinking about integrating diagnosis and clinical care within malaria case management. During annual planning for PY5, partners may wish to discuss whether to publish separate papers under their respective organizations or a joint paper that reflects key contributions of all partners.

### **What Global Improvements Partners Hope MalariaCare will Leave Behind**

Several key hopes were expressed across stakeholder groups about notable case management improvements and resources the project will leave behind at end of PY5, including:

- Strengthened diagnostic and clinical case management—“if we could also do a good job in strengthening community case management, that would really complete the picture” (sub-partner HQ).
- Leaving a QA system in place through transfer of knowledge to governments, systems for good practice, and tools and templates. *“MalariaCare has laid a technical foundation.”* (PMI HQ).
- Updated national guidelines and clinical providers trained in them.
- Supportive supervision system and complete toolkit, whether for paper or EDS OTSS.
- The EDS system in place and working.
- The work in Cambodia with private providers will lead to progress in malaria elimination.
- Published documentation of successes and lessons learned available for new projects.

### **ARE THERE LESSONS LEARNED FROM MALARIACARE’S ACTIVITIES AT ALL LEVELS THAT COULD INFORM FUTURE PROGRAMMING IN MALARIA CASE MANAGEMENT?**

**At the beginning of a global project, articulating a set of clear standards and guidelines provides an important foundation for planning technical work and monitoring progress.**

- The MalariaCare Project did not have a well-defined competency framework as was promised in the Cooperative Agreement, with defined or referenced standardized microscopy, clinical, or iCCM competencies for HW cadres. A project competency framework would provide a common basis for in-service training and continuing education. It would also inform monitoring needs across countries at the beginning of the project.
- Recognizing that there was overlap in the technical objectives adopted from the USAID RFP, it was nonetheless possible to develop for each objective, under an overarching PMP, core standard technical indicators with well-defined common numerators and denominators that all countries had to use. This would have made for clearer and comparable reporting. Allowing countries to customize the PMP and indicators made it next to impossible for MalariaCare to provide any trend analysis across or within countries. Data should be consistently collected for common indicators, and semi-annual and annual reports should be written with all countries using the same graph templates so that reliable comparisons can be made. Furthermore, for monitoring indicators, time trends should be provided.

Additional non-core indicators could still be added to country PMPs to recognize variance among country activities without sacrificing or revising the core indicators.

- It is common practice to establish baseline data at the beginning of a project for tracking progress and change. The MalariaCare PMP (February 4, 2013, version) does not explicitly address the issue of baseline data. Training pre-test scores appear to have served as baseline data for performance improvement among HW cadres, and the project has collected HF needs assessment data as baseline data in a few countries such as Madagascar.

#### **Project Operations and Management Challenges Can Impede Technical Progress.**

- In-country staffing was largely seen as insufficient by multiple stakeholders at all levels. Mission budgets in the next program cycle should take into account the lessons learned from this cycle in terms of level of field staffing required for rapid expansions and contractions in scope, the support required to cascade trainings through multiple levels, etc.
- Across 15 countries, MalariaCare staff emphasized the importance of careful planning, coordination with the NMCP and other stakeholders, realistic budgets and time lines, and clear identification of roles and responsibilities.
- Sub-partners emphasized transparency in decisions made regarding their proposed scopes of work and budgets.
- Clear lines of communication at all levels were considered key.

#### **Context matters. Scaling up high-quality diagnosis and treatment does not take place within a vacuum, but rather needs to include the context of PMI objectives and programming for each country as well as government priorities and capacity.**

- Stock-outs of RDT kits and other supplies were reported as a huge impediment to the ability of HFs and facility and community-based HWs to adhere to diagnostic and treatment guidelines. The project will benefit from strengthened coordination with supply chain partners in countries where stock-outs are a problem. The OTSS checklist can perhaps be better used to alert decisionmakers to HFs experiencing stock-out challenges, and these data can be shared with PMI in country and with partners working on supply chain-strengthening.
- HF case management committees in Mozambique appeared both to improve communication and coordination between laboratory and clinical workers and to give more attention to prevention of stock-outs. This seems a promising practice to share with other countries.

#### **There are perceived gaps in MalariaCare's programming, some of which may be addressed before the end of the project or by other PMI-funded partners, and some that may need to be addressed in future programming.**

- Community is the frontline of the fight against malaria. Considerable thought needs to be given as to how to reach communities with high-quality malaria diagnosis and treatment. This includes not only iCCM, but also behavior change communication (BCC) so that suspected malaria patients will seek testing and understand that a negative test means they do not require antimalarials. MalariaCare may wish to consider how best to link with other partners that are implementing BCC for malaria testing and treatment or iCCM in project countries.

- OTSS data suggest that assessment/triage of severe malaria cases remains a gap. Greater emphasis on iCCM and immediate referrals of severe cases identified at the community level to the nearest HF would help to address this gap.
- The exclusion of ANC clinics from OTSS visits places pregnant women at risk of not receiving state-of-the-art malaria care and creates cost and scheduling challenges for governments. PMI may wish to consider a more inclusive approach for future programming. OTSS checklists could usefully record, when pregnant patients are identified, whether they have been referred to ANC to receive intermittent preventive treatment in pregnancy (IPTp).

**True Sustainability Is Based Not Only On Knowledge and Skills But Strong Systems.**

- MalariaCare staff in multiple countries expressed concern that integrated health systems projects may be unable to give the same level of attention to malaria case management or make full use of project tools and strategies, placing countries at risk for inconsistent activities across regions or districts.
- Recognizing that strengthening systems takes time, future programming will need to include funding support for ongoing development of core groups of microscopists trained and accredited under MalariaCare, with a strategy to choose the right people for these groups.
- Key sustainability concerns include: the work to be completed before the EDS is fully operational by project's end in countries where it has been introduced; EDS costs (e.g., to revise electronic dashboards), OTSS costs, and governments' capacity to absorb both; and the ongoing need for supervisor and HW trainings given high turnover in the health work force. Government and project staff are hopeful that future PMI funding cycles will support the ongoing steps toward sustainability.

# V. CONCLUSIONS AND RECOMMENDATIONS

## CONCLUSIONS

The project's challenges with multiple PMPs, changing indicators, inconsistent numerators and denominators for indicators, and reporting inconsistencies made it impossible to verify quantitatively the extent of technical progress across PY1–3. However, annual reports, the 2016 mid-term evaluation survey, and in-depth interviews in four case study countries and with HQ stakeholders provided a good qualitative overview of key accomplishments, which include:

- Flexibility in attempting to meet demand from a higher-than-expected number of countries.
- Working with in-country staff and already-trained supervisors from the IMaD project for continuity.
- TA for governments to implement malaria diagnostic and treatment policies that align with WHO 2010 guidelines and training large numbers of HWs on updated guidelines.
- Ongoing development of a QA Framework with a package of guidelines, tools, and templates that can be used by governments and other implementing partners.
- Helping countries to develop National Archive of Malaria Slide banks.
- Increasing the numbers of accredited microscopists at national and provincial levels.
- Training medical institution tutors on updated guidelines to ensure that graduating clinicians have current knowledge and skills.
- A cascaded approach to capacity-building for training and supportive supervision that leaves skilled supervisors in place at the central, provincial, district, and sub-district levels.
- Advancing clinical care indicators for malaria case management.
- Converting paper-based OTSS data to the EDS to improve data accuracy and timely reporting and use for decision-making.
- Use of OTSS visits to target low-performing HFs and HWs with on-site mentoring.
- LLWs after OTSS rounds that immediately identify problems for follow-up action.
- HF case management committees that enable laboratory, clinical, and pharmacy staff to regularly discuss case management and microscopy, RDT, and medication supplies, which is a promising practice.
- Peer-to-peer mentoring model, which is another promising practice.

MalariaCare's efforts to strengthen health systems, improve country capacity to collect and use OTSS information through an EDS, and help to scale up accurate diagnosis and test-based treatment with ACTs all align with PMI 2015–2010 strategies.

## RECOMMENDATIONS

### For MalariaCare in PY 4–5:

- Project leadership should offer transparency to sub-partners during annual planning for decisions regarding partners' scopes of work and budgets.
- Consider occasional strategic participation by sub-partners at biweekly meetings with PMI AOR team when reporting on work that sub-partners are leading.
- In collaboration with PMI, coordinate representation on relevant global working groups, especially groups on M&E and quality of care, among partners, and ensure that the best-qualified representatives attend who represent the MalariaCare project as well as their employer organizations.
- By end of project, finalize a standardized QA Framework package that can be shared with PMI HQ and country Missions as a tool from which to develop future scopes of work, with country governments helping to identify priority technical support needs, and with global stakeholders through the PMI Resources web page. A downloaded publication describing the QA Framework and including its components would be helpful, as would a distilled “minimum” package that could be utilized by bilateral partners.
- As part of the QA Framework, develop a competency framework that references microscopy, clinical, and community case management competency standards.
- Continue to address data issues, starting with a broad review of data collection instruments, together with indicators and how to report them. In collaboration with PMI staff, reach out to the RBM MERG to harmonize efforts with a broader group of stakeholders. By end of project, propose a set of standardized PMP indicators that can be used across countries in future project monitoring. Indicators must be accompanied by metadata detailing numerator and denominator and different measurement components, together with relevant data collection tools.
- Ensure that for semi-annual and annual reports, country PMPs include all technical objectives and report against them, even if only to note that the activity did not take place or that there are no data available. Provide consistent graphs and charts (with source documented to make them sharable with external audiences) across country reports to give an overview that is comparable and better showcases the project's accomplishments. If data points are not strictly comparable, it is helpful to say that outright in reports, and explain why.
- Publications that showcase the key accomplishments of PMI investments in case management, including contributions of all four partners, would help to institutionalize the project's contributions and lessons learned.
- Include webinars developed by the project in orientations for newly hired MalariaCare staff.

# ANNEX I. SCOPE OF WORK

Assignment #: 169 [assigned by GH Pro]

## Global Health Program Cycle Improvement Project—GH Pro Contract No. AID-OAA-C-14-00067

### EVALUATION OR ANALYTIC ACTIVITY STATEMENT OF WORK (SOW)

Date of Submission: October 1, 2015

Last update: 1/21/2016

**I. TITLE: Mid-term Program Evaluation of the MalariaCare Project**

**II. Requester/Client**

USAID/Washington

Office/Division: GH/HIDN/PMI

**III. Funding Account Source(s): (Click on box(es) to indicate source of payment for this assignment)**

3.1.1 HIV

3.1.6 MCH

3.1.2 TB

3.1.7 FP/RH

3.1.3 Malaria

3.1.8 WSSH

3.1.4 PIOET

3.1.9 Nutrition

3.1.5 Other public health threats

3.2.0 Other (specify):

**IV. Cost Estimate: \$150,000-\$200,000 (Note: GH Pro will provide a final budget based on this SOW)**

**V. Performance Period**

Expected Start Date (on or about): February 2016

Anticipated End Date (on or about): June 2016

**VI. Location(s) of Assignment: (Indicate where work will be performed)**

Washington, DC; Arlington, VA

**VII. Type of Analytic Activity (Check the box to indicate the type of analytic activity)**

**EVALUATION:**

**Performance Evaluation** (Check timing of data collection)

Midterm  Endline  Other (specify):

*Performance evaluations focus on descriptive and normative questions: what a particular project or program has achieved (either at an intermediate point in execution or at the conclusion of an implementation period); how it is being implemented; how it is perceived and valued; whether expected results are occurring; and other questions that are pertinent to program design, management and operational decision-making. Performance evaluations often incorporate before-after comparisons, but generally lack a rigorously defined counterfactual.*

**Impact Evaluation** (Check timing(s) of data collection)

Baseline  Midterm  Endline  Other (specify):

*Impact evaluations* measure the change in a development outcome that is attributable to a defined intervention; impact evaluations are based on models of cause and effect and require a credible and rigorously defined counterfactual to control for factors other than the intervention that might account for the observed change. Impact evaluations in which comparisons are made between beneficiaries that are randomly assigned to either a treatment or a control group provide the strongest evidence of a relationship between the intervention under study and the outcome measured.

#### OTHER ANALYTIC ACTIVITIES

**Assessment**

*Assessments* are designed to examine country and/or sector context to inform project design, or as an informal review of projects.

**Costing and/or Economic Analysis**

*Costing and Economic Analysis* can identify, measure, value and cost an intervention or program. It can be an assessment or evaluation, with or without a comparative intervention/program.

**Other Analytic Activity** (Specify)

#### **PEPFAR EVALUATIONS** (PEPFAR Evaluation Standards of Practice 2014)

**Note:** If PEPFAR funded, check the box for type of evaluation

**Process Evaluation** (Check timing of data collection)

Midterm  Endline  Other (specify):

*Process Evaluation* focuses on program or intervention implementation, including, but not limited to access to services, whether services reach the intended population, how services are delivered, client satisfaction and perceptions about needs and services, management practices. In addition, a process evaluation might provide an understanding of cultural, socio-political, legal, and economic context that affect implementation of the program or intervention. For example: Are activities delivered as intended, and are the right participants being reached? (PEPFAR Evaluation Standards of Practice 2014)

**Outcome Evaluation**

*Outcome Evaluation* determines if and by how much, intervention activities or services achieved their intended outcomes. It focuses on outputs and outcomes (including unintended effects) to judge program effectiveness, but may also assess program process to understand how outcomes are produced. It is possible to use statistical techniques in some instances when control or comparison groups are not available (e.g., for the evaluation of a national program). Example of question asked: To what extent are desired changes occurring due to the program, and who is benefiting? (PEPFAR Evaluation Standards of Practice 2014)

**Impact Evaluation** (Check timing(s) of data collection)

Baseline  Midterm  Endline  Other (specify):

*Impact evaluations* measure the change in an outcome that is attributable to a defined intervention by comparing actual impact to what would have happened in the absence of the intervention (the counterfactual scenario). IEs are based on models of cause and effect and require a rigorously defined counterfactual to control for factors other than the intervention that might account for the observed change. There are a range of accepted approaches to applying a counterfactual analysis, though IEs

*in which comparisons are made between beneficiaries that are randomly assigned to either an intervention or a control group provide the strongest evidence of a relationship between the intervention under study and the outcome measured to demonstrate impact.*

**Economic Evaluation (PEPFAR)**

*Economic Evaluations identifies, measures, values and compares the costs and outcomes of alternative interventions. Economic evaluation is a systematic and transparent framework for assessing efficiency focusing on the economic costs and outcomes of alternative programs or interventions. This framework is based on a comparative analysis of both the costs (resources consumed) and outcomes (health, clinical, economic) of programs or interventions. Main types of economic evaluation are cost-minimization analysis (CMA), cost-effectiveness analysis (CEA), cost-benefit analysis (CBA) and cost-utility analysis (CUA). Example of question asked: What is the cost-effectiveness of this intervention in improving patient outcomes as compared to other treatment models?*

**VIII. BACKGROUND**

Project being evaluated:

Project Title:	MalariaCare Project
Award/Contract Number:	Cooperative Agreement No. AID-OAA-A-12-00057
Award Dates:	September 30, 2012 – September 29, 2017
Project Funding:	ceiling of approximately \$49 million
Implementing Organization(s):	PATH
Project AOR:	Elissa Jensen

Background of project/program/intervention:

Malaria prevention and control is a major foreign assistance objective of USAID, contributing to two key Agency goals by reducing the burden of infectious diseases and ending preventable maternal and child deaths. The President’s Malaria Initiative (PMI) was launched in 2005 as a 5 year, \$1.2 billion initiative to rapidly scale up malaria prevention and treatment interventions to reduce malaria-related mortality by 50% in 15 high-burden countries in sub-Saharan Africa. With the passage of the Lantos-Hyde Act in 2008, PMI developed the U.S. Government Malaria Strategy 2009–2014 expanding PMI goals and programming. In 2011, PMI began supporting programming in four new sub-Saharan countries and one regional program in the Greater Mekong Sub region in Southeast Asia. In 2015, PMI supports programming in 19 sub-Saharan countries and the Greater Mekong Sub region. The recently released President’s Malaria Initiative Strategy 2015–2020 seeks to reduce malaria mortality by one-third from 2015 levels in PMI-supported countries, achieving a greater than 80% reduction from PMI’s original 2000 baseline levels; reduce malaria morbidity in PMI-supported countries by 40% from 2015 levels; and assist at least five PMI-supported countries to meet the World Health Organization (WHO) criteria for national or sub-national pre-elimination. The 2015–2020 Strategy recommits PMI’s continued partnership with the same countries.

In addition to strengthening the overall capacity of health systems, PMI supports four highly effective malaria preventive and treatment interventions to reduce malaria mortality and morbidity. These interventions are insecticide-treated nets (ITNs), intermittent preventive treatment of pregnant women (IPTp), indoor residual spraying (IRS), and effective case management and treatment with artemisinin-based combination therapies (ACT).

USAID/PMI’s support for malaria diagnosis and case management is aligned with the technical guidelines and policies of the World Health Organization (WHO). In 2010, WHO revised its

guidance on malaria case management calling on countries to adopt policies that would require all persons with suspected malaria to undergo diagnostic testing, with either malaria microscopy or a Rapid Diagnostic Test (RDT), and that treatment only be provided to those with a positive diagnostic test. WHO recommends that those patients with malaria receive a full-course of a quality-assured artemisinin-based combination therapy (ACT). WHO also has published a multi-agency manual, which was developed with technical and financial support from USAID/PMI that outlines the essential components of a malaria diagnostics program. Almost all PMI countries have aligned their policies with WHO's new guidance, but implementation of these policies in all but a few countries has lagged. In addition, even in those countries where progress has been made on scaling-up diagnostic testing for malaria, the quality of diagnostic testing performance and the use of test results by clinicians have been less than optimal.

The MalariaCare Project is a five-year cooperative agreement led by PATH and funded by the United States Agency for International Development (USAID) under the United States President's Malaria Initiative (PMI), with a ceiling of approximately \$49 million. It aims to scale up high-quality case management services, both diagnosis and treatment, for malaria and other febrile illnesses. The partnership works in PMI focus countries and other countries in Africa to reduce the burden of serious disease and promote healthy communities and families. MalariaCare started on September 30, 2012, and will end on September 29, 2017.

MalariaCare is led by PATH and supported by three other organizations: Medical Care Development International, Population Services International (PSI), and Save the Children. Each partner has extensive experience in designing and implementing malaria control programs in high-burden countries. The MalariaCare team's expertise includes laboratory strengthening, malaria diagnosis and treatment, program evaluation and research, and community-based management of disease in both the public and private sectors.

The goal of MalariaCare is to support PMI focus or non-focus countries to scale up high-quality malaria diagnosis and case management services. Through the provision of timely technical assistance (TA), training, capacity-building, and management support MalariaCare aims to achieve the following objectives:

- Improve the accuracy of diagnostic testing to greater than 90% in the public sector.
- Increase the percentage of suspected malaria patients who receive a diagnostic test for malaria.
- Increase the percentage of patients who receive appropriate treatment for malaria or other febrile illness, consistent with test results.
- Strengthen health systems at the country level for the diagnosis and treatment of malaria and other infectious diseases, with a focus on laboratory support.

In 2012, at the time MalariaCare was launched, many PMI countries were still in the process of finalizing revisions to their country's case management policies and guidelines to align with the revised WHO guidelines or in the very early stages of implementing those new policies. This required a significant amount of technical assistance to revise training materials and tools, train and supervise health care workers and laboratory staff, and pilot and scale-up community health workers in the administration of RDTs and case management algorithms.

Demand for services from MalariaCare increased dramatically from FY 2012 (7 countries) to planned FY 2015 levels (12 countries). The expansion is due, in part, to a higher-than-expected number of countries buying in through field support. Three countries (Kenya,

Tanzania, and Mozambique) unexpectedly switched from use of bilateral mechanisms to use of MalariaCare for scaling up case management activities to national scale. The expansion is also due to a higher-than-expected scale at which countries are accessing MalariaCare (\$5.33 million in field support in FY 2012 to \$9.73 million in FY 2015).

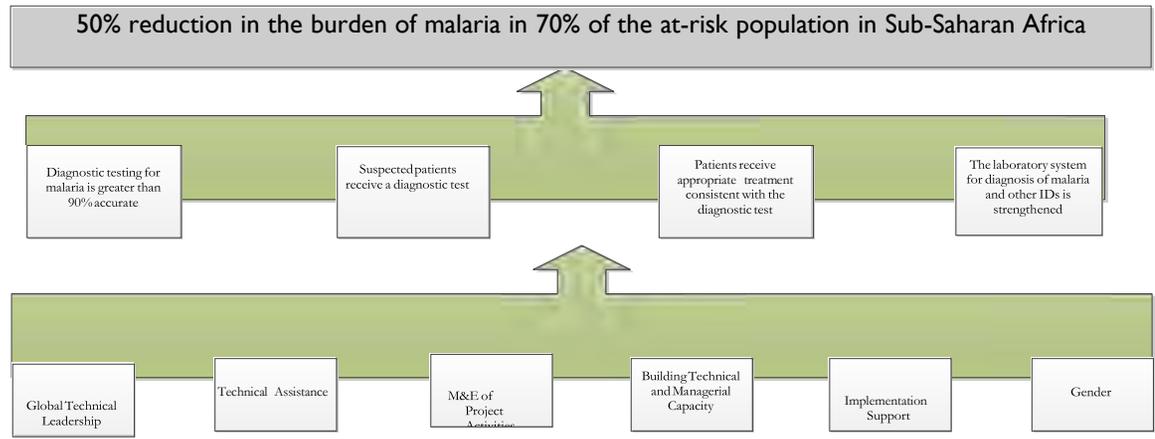
At the country level, MalariaCare focuses on technical assistance, capacity building, implementation support, and monitoring and evaluation. At the global level, MalariaCare focuses on advocacy and global policy development alongside other international partners. The MalariaCare strategy aims to improve and expand case management of suspected malaria cases in a sustainable manner. MalariaCare uses a health systems approach to identify and treat suspected malaria cases in national populations, explore innovative approaches to promote public-private partnerships, strengthen capacity to manage suspected malaria cases at all levels, and promote the use of national data for decision-making and program improvements . It aims to coordinate its activities both at global and country level and to collaborate closely with other partners to ensure an optimal and sustainable impact on health service delivery systems supporting case management for malaria and other febrile illnesses.

Global advocacy and targeted communications activities increase visibility, share lessons learned, and promote improved case management. MalariaCare leads a multi-partner collaboration to help promote the test and treat paradigm at global and national levels. The technical team works to expand efforts to provide both global malaria case management leadership, as well as assistance to focus countries to apply these global standards to improve in-country facility and community-based case management.

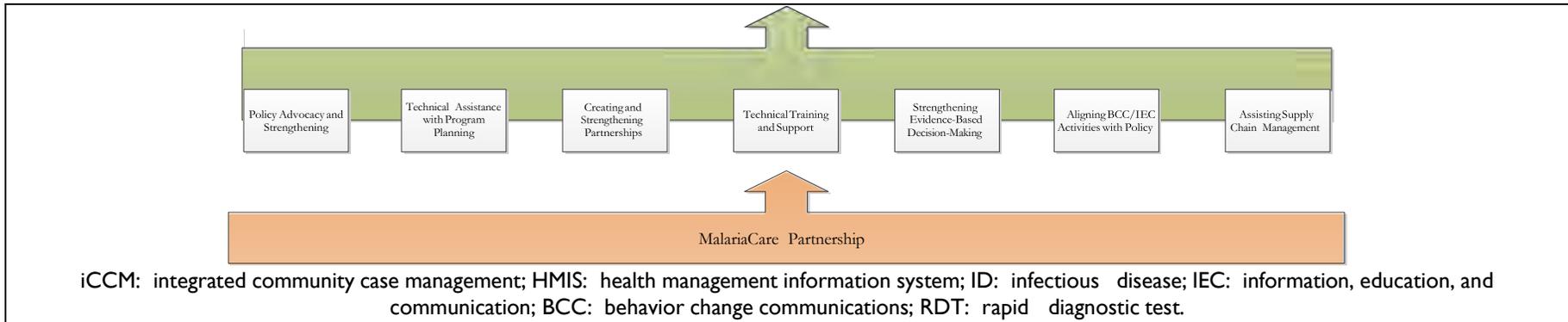
Describe the theory of change of the project/program/intervention.

N/A

Strategic or Results Framework for the project/program/intervention (*paste framework below*)



- HR policy Development
  - Treatment and diagnostic policy
  - Curricula
  - Job aids
  - Supervisory structure
  - Assessments
  - QA/QC protocols
  - Reporting policy
  - Procurement policy
- Supervision Scheduling
  - Distribution and procurement systems
  - Communication planning
  - Needs assessments
- Public-private Policy
  - Distribution and procurement systems
  - Supervision scheduling
  - Needs assessments
- Leadership and Management
  - Supervision
  - Microscopy
  - RDT
  - Case management
  - HMIS and reporting
- HMIS systems
  - Training
  - Assessments
  - Linkages with private providers
  - iCCM reporting
  - Supervision and OTSS
  - Pharmacy and laboratory reporting
- Policy advocacy
  - Community assessment
  - Provider assessments
  - Behavior change activities
  - Communication partnerships
  - Integrating communication into curricula
- Assessments
  - Reporting systems
  - Supervision
  - Best practice assessments
  - Diagnostic and drug supply calculations



What is the geographic coverage and/or the target groups for the project or program that is the subject of analysis?

Key Stakeholders in PMI countries using MalariaCare services (up to 16 countries), PMI headquarters

**IX. SCOPE OF WORK**

1. **Purpose:** Why is this evaluation or analysis being conducted (purpose of analytic activity)? Provide the specific reason for this activity, linking it to future decisions to be made by USAID leadership, partner governments, and/or other key stakeholders.

The mid-term evaluation of the five-year USAID/HIDN/PMI project (2012–2017) MalariaCare is being conducted to inform future USAID investments in malaria case management.

The evaluation is expected to accomplish the following objectives:

1. Assess and document progress toward achieving project objectives and whether desired results have occurred;
2. Determine the effectiveness and efficiency of project operations and management;
3. Capture lessons learned and identify key bottlenecks/gaps that can inform future PMI activities in case management, in the context of the updated PMI 2015–2020 strategy.

2. **Audience:** Who is the intended audience for this analysis? Who will use the results? If listing multiple audiences, indicate which are most important.

USAID Global Health Bureau/HIDN/PMI headquarters and Mission staff, MalariaCare project staff

3. **Applications and use:** How will the findings be used? What future decisions will be made based on these findings?

Results of the evaluation will specifically inform the structure and content of future PMI support in malaria case management.

4. **Evaluation questions:** Evaluation questions should be: a) aligned with the evaluation purpose and the expected use of findings; b) clearly defined to produce needed evidence and results; and c) answerable given the time and budget constraints. Include any disaggregation (e.g., sex, geographic locale, age, etc.), they must be incorporated into the evaluation questions. **USAID policy suggests 3 to 5 evaluation questions.**

	Evaluation Question
1.	<p>What results have been realized at the country level?</p> <p>To answer this question, consider:</p> <ol style="list-style-type: none"> <li>a. The extent to which MalariaCare has achieved the technical and programmatic objectives described in annual country work plans and MalariaCare performance monitoring plan (PMP).</li> <li>b. Evidence of in-country capacity being built in malaria diagnosis and case management.</li> <li>c. Do checklist and other tools capture useful data on the status and quality of case management? Are they appropriate and informative?</li> <li>d. Have results of supervision and monitoring tools shown improvement in health worker, knowledge, and practices?</li> <li>e. Are results from checklists/other tools used by MalariaCare to feed back in to training and supervision to improve quality?</li> </ol>

Evaluation Question	
2.	<p>To what extent has MalariaCare met the management requirements and functions outlined in the agreement, including planning, allocation of funds, coordination among the MalariaCare partnership (PATH, MCDI, Save the Children, PSI), staffing requirements, and in-country support? Interviews with PMI staff and MC staff</p> <p>To answer this question, consider:</p> <ol style="list-style-type: none"> <li>MalariaCare headquarters and PMI AOR team oversight and management that aided or hindered MalariaCare in accomplishing work plan objectives, both at central and country level.</li> <li>Coordination between MalariaCare and partners in country (PMI RAs, NMCPs, other implementing partners) that aided or hindered MalariaCare in accomplishing country work plan objectives.</li> <li>Is in-country presence of MalariaCare staff sufficient and appropriate?</li> <li>MalariaCare's ability to adapt to the rapid growth of country buy-in, from the original 7 countries in FY 2012 to 12 countries in FY 2015.</li> </ol>
3.	<p>What results have been realized at the global level?</p> <p>To answer this question, consider the extent to which MalariaCare has achieved global level results laid out under each objective in the detailed program description of the cooperative agreement, including publications, documentation, and dissemination of best practices/lessons learned.</p>
4.	<p>Are there lessons learned from MalariaCare's activities at all levels that could inform future programming in malaria case management? Key bottlenecks or gaps identified that should be addressed in future activities?</p>

Other Questions [OPTIONAL]

(Note: Use this space only if necessary. Too many questions leads to an ineffective evaluation.)

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5. **Methods:** Check and describe the recommended methods for this analytic activity. Selection of methods should be aligned with the evaluation questions and fit within the time and resources allotted for this analytic activity. Also, include the sample or sampling frame in the description of each method selected.

<p><b>PMI's vision for the structure of the evaluation will include four components.</b></p> <ol style="list-style-type: none"> <li>Review of key project documents outlined below to understand project goals and assess progress in achieving major milestones—will inform evaluation questions 1 and 3</li> <li>Survey across all 16 MalariaCare countries aimed at all Mission and headquarters PMI staff—will inform evaluation questions 2 and 4</li> <li>Interviews with MalariaCare and PMI staff about the management and working relationship with MalariaCare in 4 countries (likely Ghana, Zambia, Mozambique, Malawi)—will inform evaluation questions 1, 2, and 4; Interviews with global stakeholders about contributions and successes at global level—will inform evaluation question 3</li> <li>Analysis of supervision and monitoring data including checklist tools in 4 countries (likely Ghana, Zambia, Mozambique, Malawi) to assess improvements in case management of malaria—will inform evaluation question 1</li> </ol>
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■ **Document Review** (*list of documents recommended for review*)

This desk review will be used to provide background information on MalariaCare Project, and will also provide data for analysis for this evaluation. The evaluation team will compare MalariaCare’s achievements and targets reached to project goals and milestones using the following documents:

- RFA and agreement application
- Project and Performance monitoring plans
- Annual work plans
- Annual and semiannual project reports
- MalariaCare publications and any other written products/documents/technical reports
- Any other relevant project documents
- PMI Strategy 2015–2020

**Secondary analysis of existing data** (*list the data source and recommended analyses*)

Data Source ( <i>existing dataset</i> )	Description of data	Recommended analysis

**Key Informant Interviews** (*list categories of key informants, and purpose of inquiry*)

Interviews with stakeholders and partners of MalariaCare, both at country and global level. The evaluation team will develop a semi-structured interview guide that will be used to conduct the interviews. Interviews will be conducted through face-to-face contact or by telephone as necessary. Respondents will be identified by PMI and MalariaCare. A list of potential respondents will be developed prior to the start of the evaluation process.

Key informants for 4 countries:

- MalariaCare staff at headquarters and in country (PATH, MCDI, Save the Children, PSI)
- PMI staff at headquarters and in country
- USAID Health Office leadership and other Mission health team staff as appropriate
- NMCP staff at headquarters and regional/district level
- Other PMI implementing partners or other key malaria stakeholders in country, as appropriate
- Purpose of inquiry for 4 countries:
- Were results achieved according to country work plan?
- Successes of program that should be replicated/continued; major contributors to these successes
- Major challenges or barriers to project implementation/scale-up of malaria case management
- Strengths and weaknesses of management of project
- Capacity built in malaria case management at the regional, district, and health-facility levels
- Areas of focus in the future

Key informants for global level:

- Stakeholders at WHO, RBM, and other international organizations or partnerships
- Purpose of inquiry for global level:

- What are MalariaCare’s contributions to advocacy and technical advancement at the global level? How effective have they been?
- Successes at global level that should be replicated/continued
- Suggested areas of focus in the future

**Focus Group Discussions** (*list categories of groups, and purpose of inquiry*)

**Group Interviews** (*list categories of groups, and purpose of inquiry*)

*Optional:* Some of the key informant interviews can be clustered, as long as there are no power differentials, and all respondents feel comfortable in voicing their opinions within the group. (See list and description above under KII.)

**Client/Participant Satisfaction or Exit Interviews** (*list who is to be interviewed, and purpose of inquiry*)

**Facility or Service Assessment/Survey** (*list type of facility or service of interest, and purpose of inquiry*)

**Verbal Autopsy** (*list the type of mortality being investigated (i.e., maternal deaths), any cause of death and the target population*)

**Survey** (*describe content of the survey and target responders, and purpose of inquiry*)

A brief structured survey that will take approximately 15 minutes to complete, using Survey Monkey, will be sent to all MalariaCare countries and key informants inquiring about MalariaCare implementation, management, results, strengths, and shortcomings. Stakeholders from all countries engaged with MalariaCare will be invited to participate. The evaluation team will develop a survey to gauge stakeholders view of the project including:

- If results were achieved according to country workplan
- Successes of program that should be replicated/continued; major contributors to these successes
- Major challenges or barriers to project implementation
- Proposed future areas of focus
- Strengths and weaknesses of management of project
- Capacity built in country
- How well staffing and programming were tailored to meet country needs

**Observations** (*list types of sites or activities to be observed, and purpose of inquiry*)

**Data Abstraction** (*list and describe files or documents that contain information of interest, and purpose of inquiry*)

Data abstraction will be conducted for 4 countries to analyze changes in knowledge, practice, and skills of health workers participating in MalariaCare training and supervision interventions. These include proficiency in diagnostic testing and adherence to test results.

Documents of interest:

- Country work plans and annual and semiannual reports

- MalariaCare documents capturing program activities: supervisor documents, outreach training and supportive supervision (OTSS) reports, OTSS checklists, data collected from other monitoring tools
- Training data
- PMP data

**Case Study** (describe the case, and issue of interest to be explored)

**Rapid Appraisal Methods** (ethnographic/participatory) (list and describe methods, target participants, and purpose of inquiry)

**Other** (list and describe other methods recommended for this evaluation, and purpose of inquiry)

If **impact evaluation** –

Is technical assistance needed to develop full protocol and/or IRB submission?

Yes  No

List or describe case and counterfactual

Case	Counterfactual

**X. HUMAN SUBJECT PROTECTION**

The Analytic Team must develop protocols to insure privacy and confidentiality prior to any data collection. Primary data collection must include a consent process that contains the purpose of the analytic work evaluation, the risk and benefits to the respondents and community, the right to refuse to answer any question, and the right to refuse participation in the evaluation at any time without consequences. Only adults can consent as part of this analytic activity evaluation. Minors cannot be respondents to any interview or survey, and cannot participate in a focus group discussion without going through an IRB. The only time minors can be observed as part of this analytic activity evaluation is as part of a large community-wide public event, when they are part of family and community attendance. During the process of this analytic activity evaluation, if data are abstracted from existing documents that include unique identifiers, data can only be abstracted without this identifying information.

**XI. ANALYTIC PLAN**

Describe how the quantitative and qualitative data will be analyzed. Include method or type of analyses, statistical tests, and what data it to be triangulated (if appropriate). For example, a thematic analysis of qualitative interview data, or a descriptive analysis of quantitative survey data.

The evaluation team will be responsible for coordinating the data analysis and will use both qualitative and quantitative data in order to answer the evaluation questions stated above.

1. Document review—qualitative assessment of global contributions and overall progress toward project goals across countries.
2. Survey—quantitative analysis of trends in perceived successes and challenges across countries as well as qualitative analysis to identify themes in open-ended questions

3. Interviews—qualitative analysis to identify patterns, trends, and potential causes for perceived successes and shortcomings of the project in 4 countries and at global level. This analysis should be undertaken for each country individually as well as across countries to identify recurring themes.
4. Data abstraction—descriptive analysis of changes in health worker performance in each of 4 countries based on quantitative checklist and monitoring data. A pooled analysis to identify shared successes and challenges across countries should also be conducted.

## XII. ACTIVITIES

List the expected activities, such as Team Planning Meeting (TPM), briefings, verification workshop with IPs and stakeholders, etc. Activities and Deliverables may overlap. Give as much detail as possible.

**Background reading**—Several documents are available for review for this evaluation. These include the MalariaCare proposal, agreement with modifications, annual work plans (core and country plans), M&E plans with performance monitoring plan (PMP), progress reports, routine reports of project performance indicator data, evaluation reports, and other project generated reports and materials. This document review will provide background information for the Evaluation Team, and will also be used as data input and evidence for the evaluation.

**Team Planning Session**—A planning session will be held at the initiation of this assignment and before the data collection begins. Activities will include:

- Review and clarify any questions on the evaluation SOW.
- Clarify team members' roles and responsibilities.
- Establish a communication plan with the MalariaCare AOR team and agree on procedures for sharing information and updates.
- Review and finalize evaluation questions.
- Review and finalize the survey questions.
- Review and finalize the assignment time line.
- Develop data collection methods, instruments, tools and guidelines.
- Review and clarify any logistical and administrative procedures for the assignment.
- Develop a data collection plan.
- Draft the evaluation work plan for USAID's approval.
- Develop a preliminary draft outline of the team's report.
- Assign drafting/writing responsibilities for the final report.

**Briefing and Debriefing Meetings**—Throughout the evaluation the Team Lead will provide briefings to USAID. The in-brief and debrief are likely to include the all Evaluation Team experts, but will be determined in consultation with USAID/GH/HIDN/PMI planning committee (referred to as PMI). These briefings are:

- **Evaluation launch**, a call/meeting among the PMI, GH Pro and the Team Lead to initiate the evaluation activity and review expectations. USAID will review the purpose, expectations, and agenda of the assignment. GH Pro will introduce the Team Lead, and review the initial schedule and review other management issues.
- **In-brief with PMI**. This briefing will be broken into two meetings: a) at the beginning of the planning session, so the Evaluation Team and PMI can discuss expectations and intended plans; and b) at the end of the session when the Evaluation Team will present an outline and explanation of the design and tools of the evaluation. Also discussed at the in-brief will be the format and

content of the Evaluation report. The time and place for this in-brief will be determined between the Team Lead and PMI team prior to the TPM.

- **In-brief with MalariaCare.** The Evaluation Team will meet with MalariaCare to discuss the evaluation and expectations of involvement and cooperation of MalariaCare staff and partners. This meeting will also provide MalariaCare an opportunity to present the Evaluation Team an overview of the project.
- The Team Lead (TL) will brief the PMI core team **bi-weekly** to discuss progress on the evaluation. As preliminary findings arise, the TL will share these during the routine briefing, and in an email.
- A **final debrief** between the Evaluation Team and PMI will be held at the end of the evaluation to present preliminary findings to PMI/AOR team. During this meeting a summary of the data will be presented, along with high level findings and draft recommendations. For the debrief, the Evaluation Team will prepare a **PowerPoint Presentation** of the key findings, issues, and recommendations. The evaluation team shall incorporate comments received from PMI during the debrief in the evaluation report. (**Note:** *preliminary findings are not final and as more data sources are developed and analyzed these finding may change.*)
- **MalariaCare final debrief/workshop** will be held following the final debrief with the AOR team. The Evaluation Team will discuss with USAID who should participate.
- **PMI brownbag:** to share results of evaluation with whole PMI team and other USAID staff.

**Fieldwork, Site Visits and Data Collection**—The evaluation team may conduct site visits to case study countries to meet with the PMI and MalariaCare teams in country, the NMCP and staff at the regional, district, and health facility level. The Evaluation Team will outline and schedule key meetings and site visits prior to departing to the field.

**Evaluation/Analytic Report**—The Evaluation/Analytic Team under the leadership of the Team Lead will develop a report with findings and recommendations (see Analytic Report below). Report writing and submission will include the following steps:

1. Team Lead will submit draft evaluation report to GH Pro for review and formatting.
2. GH Pro will submit the draft report to USAID.
3. USAID will review the draft report in a timely manner, and send their comments and edits back to GH Pro.
4. GH Pro will share USAID’s comments and edits with the Team Lead, who will then do final edits, as needed, and resubmit to GH Pro.
5. GH Pro will review and reformat the final Evaluation/Analytic Report, as needed, and resubmit to USAID for approval.
6. Once Evaluation Report is approved, GH Pro will re-format it for 508 compliance and post it to the DEC.

The Evaluation Report **excludes** any **procurement-sensitive** and other sensitive but unclassified (**SBU**) information. This information will be submitted in a memo to USIAD separate from the Evaluation Report.

### **XIII. DELIVERABLES AND PRODUCTS**

Select all deliverables and products required on this analytic activity. For those not listed, add rows as needed or enter them under “Other” in the table below. Provide time lines and deliverable deadlines for each.

Deliverable/Product	Time lines & Deadlines (estimated)
<input checked="" type="checkbox"/> Launch briefing	January 2016
<input checked="" type="checkbox"/> Workplan with time line	January 2016
<input checked="" type="checkbox"/> Final Evaluation protocol, with methods, sampling, and data collection tools	February 2016
<input checked="" type="checkbox"/> In-brief with PMI Evaluation Team	February 2016
<input checked="" type="checkbox"/> In-brief with MalariaCare	February 2016
<input checked="" type="checkbox"/> Draft Evaluation Report Outline	February 2016
<input checked="" type="checkbox"/> Routine briefings during data collection	Bi-weekly
<input checked="" type="checkbox"/> Out-brief with PMI Evaluation Team	March 28, 2016
<input checked="" type="checkbox"/> Findings review workshop with MalariaCare with Power Point presentation	March 29, 2016
<input checked="" type="checkbox"/> Draft report	April 8, 2016, to GH Pro April 12, 2016, to USAID
<input checked="" type="checkbox"/> Final report	May 6, 2016
<input checked="" type="checkbox"/> Raw data	May 6, 2016
<input checked="" type="checkbox"/> Post-Evaluation Report to the DEC	June 3, 2016
<input type="checkbox"/> Other (specify):	

#### Estimated USAID review time

Average number of business days USAID will need to review deliverables requiring USAID review and/or approval? 15 Business days

#### XIV. TEAM COMPOSITION, SKILLS AND LEVEL OF EFFORT (LOE)

**Evaluation team:** When planning this analytic activity, consider:

- Key staff should have methodological and/or technical expertise, regional or country experience, language skills, team lead experience and management skills, etc.
- Team leaders for evaluations must be external experts with appropriate skills and experience.
- Additional team members can include research assistants, enumerators, translators, logisticians, etc.
- Teams should include a collective mix of appropriate methodological and subject-matter expertise.
- Evaluations require an Evaluation Specialist, who should have evaluation methodological expertise needed for this activity. Similarly, other analytic activities should have a specialist with methodological expertise related to the
- Note that all team members will be required to provide a signed statement attesting that they have no conflict of interest, or describing the conflict of interest if applicable.

**Team Qualifications:** Please list technical areas of expertise required for these activities.

The team will be composed of three consultants, one of which will be the team leader. The team should have the following skills mix:

1. Public health expertise in child health, malaria, and/or delivery of health-facility based care in Africa.
2. Organizational development and capacity-building.
3. Understanding and knowledge of USAID/GH/HIDN and USAID regional Missions and programs.
4. Knowledge and experience in design and implementation of international health programs in Africa.
5. Expertise in data analysis and monitoring and evaluation of health programs.

**Team Lead:**

**Roles & Responsibilities:** The team leader will be responsible for (1) managing the team's activities, (2) ensuring that all deliverables are met in a timely manner, (3) serving as a liaison between the USAID and the evaluation team, and (4) leading briefings and presentations. In addition to being the team leader, this person will fill the role of one of the key staff listed below.

**Qualifications:**

- Minimum of 7 years of experience in public health;
- Excellent skills in planning, facilitation, and consensus-building;
- Demonstrated experience leading a team, preferably in monitoring and/or evaluation;
- Excellent interpersonal skills;
- Excellent skills in project management;
- Excellent organizational skills and ability to keep to a time line;
- Good writing skills;
- Familiarity with USAID policies and practices;
- Number of consultants with this expertise needed: 1.

**Key Staff 1 Title: Evaluation Specialist**

**Roles & Responsibilities:** Serve as a member of the evaluation team, providing quality assurance on evaluation issues, including methods, development of data collection instruments, protocols for data collection, data management and data analysis. S/He will insure highest level of reliability and validity of data being collected. S/He is responsible for all data analysis, assuring all quantitative and qualitative data analyses are done to meet the needs for this evaluation. S/He will participate in all aspects of the evaluation, from planning, data collection, data analysis to report writing.

**Qualifications:**

- At least 5 years of experience in M&E, including conducting monitoring and/or evaluations;
- Strong knowledge, skills, and experience in designing and using qualitative and quantitative analysis tools;
- Experience in design and implementation of monitoring programs/evaluations;
- Experience in data abstraction and pooled data analysis;
- An advanced degree in public health or related field;
- Preferred experience working on or with USAID health projects in Africa;
- Understanding of USAID programming of centrally funded and bilateral projects preferred;
- Experience in conducting USAID evaluations of health programs/activities preferred.

**Key Staff 2 Title: Subject Matter Expert in Child Health and/or Malaria Public Health Programs**

**Roles & Responsibilities:** Serve as a member of the evaluation team, providing expertise in health systems development, public health management, institution-building, capacity development, and health policy. S/He will assist with data collection, data analysis, and report writing.

**Qualifications:**

- At least 5 years of experience in USAID health program management, oversight, planning, and/or implementation;

- Expertise working in implementation and/or quality assurance of child health/malaria services in Africa;
- Experience in stakeholder engagement;
- An advanced degree in public health or related field;
- Experience working on or with USAID health projects in Africa;
- Understanding of USAID programming of centrally funded and bilateral projects preferred.

Other Staff Titles with Roles & Responsibilities (include number of individuals needed):

**Logistics /Program Assistant** will support the Evaluation Team with all logistics and administration to allow them to carry out this evaluation. The Logistics/Program Assistant will liaise with USAID/HIDN points of contact when setting appointments within USAID. S/He will assist the Evaluation Team with scheduling interviews, arranging meeting and workspace as needed, and insure business center support, e.g., copying, Internet, and printing. S/he will work under the guidance of the Team Leader, liaising with GH Pro to insure the process moves forward smoothly. Ability to speak French is helpful but not necessary.

Will USAID participate as an active team member or designate other key stakeholders to as an active team member? This will require full time commitment during the evaluation or analytic activity.

- Yes—If yes, specify who:  
 No

**Staffing Level of Effort (LOE) Matrix (Optional):**

This optional LOE Matrix will help you estimate the LOE needed to implement this analytic activity. If you are unsure, GH Pro can assist you to complete this table.

- For each column, replace the label "Position Title" with the actual position title of staff needed for this analytic activity.
- Immediately below each staff title, enter the anticipated number of people for each titled position.
- Enter Row labels for each activity, task and deliverable needed to implement this analytic activity.
- Then enter the LOE (estimated number of days) for each activity/task/deliverable corresponding to each titled position.
- At the bottom of the table total the LOE days for each consultant title in the "Sub-Total" cell, then multiply the subtotals in each column by the number of individuals that will hold this title.

Level of Effort in **days** for each Evaluation/Analytic Team member

Activity/Deliverable		Evaluation/Analytic Team		
		Team Lead/Key Staff 1	Key Staff 2	Program Assistant
1	Launch Briefing	0.5	0.5	
2	Document & Data Review	4	4	
	Travel to DC	1	1	
3	Team Planning Meeting	3	3	3
4	In-brief with USAID/HIDN	1	1	1
5	In-brief with MalariaCare, including prep	1	1	

Activity/Deliverable		Evaluation/Analytic Team		
		Team Lead/Key Staff I	Key Staff 2	Program Assistant
6	Finalize data collection forms & procedures for all data collectors (circulate with USAID and GH Pro for QA)	1	1	1
7	Evaluation Report Outline	0.5	0.5	
8	Data Collection DQA Workshop (protocol orientation for all involved in data collection)	1	1	
9	Prep/Logistics for data collection	.5	.5	3
10	Data collection	12	12	2
11	Data analysis & synthesis	5	5	
12	Debrief with USAID w/presentation, including prep	1	1	1
13	Debrief with MalariaCare, including prep	1	1	
14	Travel from DC	1	1	
15	Draft Evaluation report	6	5	1
16	GH Pro Report QA Review & Formatting			
17	Submission of draft report(s) to USAID			
18	USAID Report Review			
19	Revise report per USAID comments	3	2	
20	Finalization, formatting and submission of final report			
21	508 Compliance review & editing			
22	Upload Eval Report to the DEC			
<b>Total LOE</b>		<b>42.5</b>	<b>40.5</b>	<b>12</b>

If overseas, is a 6-day workweek permitted  Yes  No **No overseas travel is anticipated**

**Travel anticipated:** List international and local travel anticipated by what team members.

Washington, DC

## XV. LOGISTICS

**Note:** Most Evaluation/Analytic Teams arrange their own work space, often in their hotels. However, if Facility Access is preferred GH Pro can request it. GH Pro does not provide Security Clearances. Our consultants can obtain **Facility Access** only.

Check all that the consultant will need to perform this assignment, including USAID Facility Access, GH Pro workspace and travel (other than to and from post).

- USAID Facility Access  
Specify who will require Facility Access:
- Electronic County Clearance (ECC) (International travelers only)
- GH Pro workspace  
Specify who will require workspace at GH Pro:
- Travel other than posting (specify):
- Other (specify):

## **XVI. GH PRO ROLES AND RESPONSIBILITIES**

GH Pro will coordinate and manage the evaluation team and provide quality assurance oversight, including:

- Review SOW and recommend revisions as needed.
- Provide technical assistance on methodology, as needed.
- Develop budget for analytic activity.
- Recruit and hire the evaluation team, with USAID POC approval.
- Arrange international travel and lodging for international consultants.
- Request for country clearance and/or facility access (if needed).
- Review methods, workplan, analytic instruments, reports, and other deliverables as part of the quality assurance oversight.
- Report production—If the report is public, then coordination of draft and finalization steps, editing/formatting, 508ing required in addition to and submission to the DEC and posting on GH Pro website. If the report is internal, then copy editing/formatting for internal distribution.

## **XVII. USAID ROLES AND RESPONSIBILITIES**

Below is the standard list of USAID’s roles and responsibilities. Add other roles and responsibilities as appropriate.

**USAID Roles and Responsibilities**

**USAID** will provide overall technical leadership and direction for the analytic team throughout the assignment and will provide assistance with the following tasks:

**Before Field Work**

- SOW.
  - Develop SOW.
  - Peer Review SOW
  - Respond to queries about the SOW and/or the assignment at large.
- Consultant Conflict of Interest (COI). To avoid conflicts of interest or the appearance of a COI, review previous employers listed on the CV’s for proposed consultants and provide additional information regarding potential COI with the project contractors evaluated/assessed and information regarding their affiliates.
- Documents. Identify and prioritize background materials for the consultants and provide them to GH Pro, preferably in electronic form, at least one week prior to the inception of the assignment.
- Local Consultants. Assist with identification of potential local consultants, including contact information.
- Site Visit Preparations. Provide a list of site visit locations, key contacts, and suggested length of visit for use in planning in-country travel and accurate estimation of country travel line items costs.

- Lodgings and Travel. Provide guidance on recommended secure hotels and methods of in-country travel (i.e., car rental companies and other means of transportation).

#### **During Field Work**

- Mission Point of Contact. Throughout the in-country work, ensure constant availability of the Point of Contact person and provide technical leadership and direction for the team's work.
- Meeting Space. Provide guidance on the team's selection of a meeting space for interviews and/or focus group discussions (i.e., USAID space if available, or other known office/hotel meeting space).
- Meeting Arrangements. Assist the team in arranging and coordinating meetings with stakeholders.
- Facilitate Contact with Implementing Partners. Introduce the analytic team to implementing partners and other stakeholders, and where applicable and appropriate prepare and send out an introduction letter for team's arrival and/or anticipated meetings.

#### **After Field Work**

- Timely Reviews. Provide timely review of draft/final reports and approval of deliverables.

### **XVIII. ANALYTIC REPORT**

Provide any desired guidance or specifications for Final Report. (See [How-To Note: Preparing Evaluation Reports](#))

The **Evaluation Final Report** must follow USAID's Criteria to Ensure the Quality of the Evaluation Report (found in Appendix I of the [USAID Evaluation Policy](#)).

- The main body of the report must not exceed 40 pages (excluding executive summary, table of contents, acronym list and annexes).
- The structure of the report should follow the Evaluation Report template, including branding found [here](#) or [here](#).
- Draft reports must be provided electronically, in English, to GH Pro who will then submit it to USAID.
- For additional Guidance, please see the Evaluation Reports to the How-To Note on preparing Evaluation Draft Reports found [here](#).

**Reporting Guidelines:** The draft report should be a comprehensive analytical evidence-based evaluation report. It should detail and describe results, effects, constraints, and lessons learned, and provide recommendations and identify key questions for future consideration. The report shall follow USAID branding procedures. ***The report will be edited/formatted and made 508-compliant as required by USAID for public reports and will be posted to the USAID/DEC.***

The preliminary findings from the evaluation will be presented in a draft report at a full briefing with USAID/GH/HIDN/PMI and at a follow-up meeting with key stakeholders. The report should USAID report format or use the following format:

- Executive Summary: concisely state the most salient findings, conclusions, and recommendations (not more than 2 pages)
- Table of Contents (1 page)
- Acronyms
- Evaluation Purpose and Evaluation Questions (1–2 pages)

- Project [or Program] Background (1–3 pages)
- Evaluation Methods and Limitations (1-3 pages)
- Findings
- Conclusions
- Recommendations
- Annexes
  - Annex I: Evaluation Statement of Work
  - Annex II: Evaluation Methods and Limitations
  - Annex III: Data Collection Instruments
  - Annex IV: Sources of Information
    - o List of Persons Interviews
    - o Bibliography of Documents Reviewed
    - o Databases
    - o [etc.]
  - Annex V: Disclosure of Any Conflicts of Interest
  - Annex VI: Statement of Differences [if applicable]

**The evaluation methodology and report will be compliant with the [USAID Evaluation Policy](#) and [Checklist for Assessing USAID Evaluation Reports](#)**

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 The Evaluation Report should **exclude** any **potentially procurement-sensitive information**. As needed, any procurement sensitive information or other sensitive but unclassified (SBU) information will be submitted in a memo to USAID separate from the Evaluation Report.

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 All data instruments, data sets (if appropriate), presentations, meeting notes and report for this evaluation/analysis will be provided to GH Pro and presented to USAID electronically to the Program Manager. All data will be in an unlocked, editable format.

**XIX. USAID CONTACTS**

	<b>Primary Contact</b>	<b>Alternate Contact 1</b>	<b>Alternate Contact 2</b>
Name:	Meera Venkatesan	Kim Connolly	Elissa Jensen
Title:			
USAID Office/Mission			
Email:	<a href="mailto:mvenkatesan@usaid.gov">mvenkatesan@usaid.gov</a>	<a href="mailto:kconnolly@usaid.gov">kconnolly@usaid.gov</a>	<a href="mailto:eljensen@usaid.gov">eljensen@usaid.gov</a>
Telephone:	571-551-7422	202-808-3928	571-551-7422
Cell Phone			

List other contacts who will be supporting the Requesting Team with technical support, such as reviewing SOW and Report (such as USAID/Washington GH Pro management team staff)

	<b>Technical Support Contact 1</b>	<b>Technical Support Contact 2</b>
Name:		
Title:		
USAID Office/Mission		
Email:		
Telephone:		
Cell Phone (optional)		

## XX. REFERENCE MATERIALS

Documents and materials needed and/or useful for consultant assignment, that are not listed above

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## XXI. Evaluation Design Matrix

This design matrix may be helpful for connecting your evaluation methods to questions. Often more than one method can be employed in an analytic activity to obtain evidence to address more than one question. A method should be listed by question when it will include specific inquiries and/or result in evidence needed to address this specific question.

### Draft Evaluation Matrix

Evaluation Questions	Data Source/Collection Methods	Sampling/Selection Criteria	Data Analysis Method
Ia. The extent to which MalariaCare has achieved the technical and programmatic objectives described in annual work plans and MalariaCare performance monitoring plan (PMP).	Document review		Descriptive analysis by Objective in Project Program description
Ib. Evidence of in-country capacity being built in malaria diagnosis and case management.	Survey, interviews	Survey—all 16 MalariaCare countries Interviews—4 countries	Qualitative and quantitative analysis of trends across countries
Ic. Do checklist and other tools capture useful data on the status and quality of case management? Are they appropriate and informative?	Document review and data abstraction	4 countries	
Id. Have results of supervision and monitoring tools shown improvement in health worker, knowledge, and practices?	Data abstraction	4 countries	Descriptive analysis by country and pooled analysis to identify common areas of improvement and challenges across countries

Evaluation Questions	Data Source/Collection Methods	Sampling/Selection Criteria	Data Analysis Method
1e. Are results from checklists/other tools used by MalariaCare to feed back in to training and supervision to improve quality?	Data abstraction, interviews	4 countries	Descriptive analysis of process based on evidence in checklist tools and stakeholder interviews
2a. MalariaCare headquarters and PMI AOR team oversight and management that aided or hindered MalariaCare in accomplishing work plan objectives, both at central and country level.	Survey, interviews	Survey—HQ and all 16 MalariaCare countries Interviews—HQ and 4 countries	Qualitative analysis across countries to identify patterns and themes
2b. Coordination between MalariaCare and partners in country (PMI RAs, NMCPs, other implementing partners) that aided or hindered MalariaCare in accomplishing country work plan objectives.	Survey, interviews	Survey—HQ and all 16 MalariaCare countries Interviews—HQ and 4 countries	Qualitative analysis across countries to identify patterns and themes
2c. Is in-country presence of MalariaCare staff sufficient and appropriate?	Survey, interviews	Survey—HQ and all 16 MalariaCare countries Interviews—HQ and 4 countries	Qualitative analysis across countries to identify patterns and themes
2d. MalariaCare's ability to adapt to the rapid growth of country buy-in, from the original 7 countries in FY 2012 to 12 countries in FY 2015.	Survey, interviews	Survey—HQ and all 16 MalariaCare countries Interviews—HQ and 4 countries	Assessment based on answers to questions 2b and 2c

<b>Evaluation Questions</b>	<b>Data Source/Collection Methods</b>	<b>Sampling/Selection Criteria</b>	<b>Data Analysis Method</b>
<p>3. What results have been achieved at global level? To answer this question, consider the extent to which MalariaCare has achieved global level results laid out under each objective in the detailed program description of the cooperative agreement, including publications, documentation, and dissemination of best practices/lessons learned.</p>	<p>Document review and Interviews</p>	<p>Review of MalariaCare publications and products; Interviews with global stakeholders</p>	<p>Qualitative analysis of global contributions</p>
<p>4. Are there lessons learned from MalariaCare’s activities at all levels that could inform future programming in malaria case management? Key bottlenecks or gaps identified that should be addressed in future activities?</p>	<p>Survey, interviews</p>	<p>Survey—HQ and all 16 MalariaCare countries Interviews—HQ and 4 countries</p>	<p>Qualitative analysis across countries to identify patterns and themes</p>

# ANNEX II. EVALUATION METHODS AND LIMITATIONS AND OVERVIEW OF PROJECT DATA

## I. Overview of key evaluation methods

### I.1 2016 Mid-term Evaluation Survey

Questionnaire development: A survey was designed to measure perceptions across the 15 countries on a broad range of topics, from project successes to management and operations. The instrument was designed in English, with input from the PMI AOR, and underwent a basic test for flow and comprehension by GH Pro staff familiar with USAID-funded projects in the field. The questionnaire was translated into French, checked for accuracy of translation, and similarly tested for flow and comprehension. Particular attention was paid to the technical terms used in the questionnaire in an attempt to ensure comprehension across respondents from different backgrounds and countries. Additionally, standard Likert scale response categories were used.

Sample and response rates: The 2016 Mid-term Evaluation Survey was conducted via Survey Monkey. There were 115 potential respondents working across the 15 MalariaCare countries. The lists of individuals invited to participate were provided by PMI and MalariaCare HQ and included MalariaCare field staff as well as HQ country backstops and country Mission PMI staff.

English-language survey invitations were sent out on March 23, 2016, and 15 invitations for the French version of the questionnaire were sent on March 30, 2016. Those who did not respond received an additional reminder on April 5, 2016. Additionally, nonresponding PMI staff received a reminder from the PMI AOR team. As a follow-up to Survey Monkey's flagging that some questionnaires were incomplete, an email was sent to those respondents on April 5 asking if they intended to complete the questionnaire. It should be noted that, with the exception of the respondent background information at the beginning of the survey, respondents were not required to answer any question and thus were allowed to skip any questions they chose.

The survey was officially closed on May 2, 2016. Out of the 115 potential survey respondents, questionnaires were received from 81. Three of these questionnaires were only filled out with respondent information at the beginning and did not have answers to any questions. The rest of the questionnaires included answers to at least some questions. So survey data analysis is based on 78 questionnaires (representing a response rate of approximately two-thirds), although the denominator varies by question depending on how many respondents actually provided an answer.

Over half of the 35 non-responders were from USAID or CDC. Although there are no specific data, the AOR reported hearing from a number of Mission non-responders who did not feel knowledgeable enough about the project to fill out a survey questionnaire.

Data analysis: Data were exported into Statwing, a statistical analysis software package, for review and analysis. All "other" responses were reviewed and recoded, if needed. All open-ended responses were also reviewed, common themes distilled, and key quotes selected for the report.

Data analysis was based on the actual responses received for each question. This is because survey respondents were given explicit instructions that any question(s) could be skipped. So the number of cases for analysis varied greatly across questions.

One step of the data review process was to compare responses across different background characteristics, including country. Due to small case numbers, these results are not shown with the exception of specific quotes. Responses were also broken down by organization: MalariaCare staff versus PMI staff. Given both the small numbers (less than 20 PMI staff answering any survey

question) and the non-probabilistic sampling, these results are not presented. However, whenever Survey Monkey data are presented in the report, a general comparison of responses between MalariaCare versus PMI staff is noted, referencing statistical significance or lack thereof as determined by the P values calculated in Statwing.

## **1.2 Interview methods overview**

Two interview instruments were designed. A country-level interview guide was designed for government and PMI Mission stakeholders, in-country MalariaCare staff, and project HQ technical backstop staff in the four case study countries. A global-level interview guide was designed for USAID PMI AOR team members, representatives of all four MalariaCare partners at HQ level, and two global malaria stakeholders to provide perspective from outside the project (however, these two stakeholders were non-responders).

USAID PMI and MalariaCare HQ selected interview respondents and provided contact details. A few names of PMI Mission respondents were added late. An invitation letter was sent by email inviting respondents to identify at least two convenient days and times in their time zones for the interview. At least two follow-up attempts were made thereafter to reach each respondent. Interviews were scheduled across three different time zones in Africa and with global-level respondents on both the west and east coasts. Interviews were conducted by phone and Skype, and in some cases challenges with communication lines made it difficult to hear respondents clearly. Portuguese interpreter support was made available to respondents in Mozambique.

At times, respondents were not available at the agreed-upon times. Evaluators made multiple attempts to reschedule interviews that were missed for any reason. Government respondents were the most difficult to reach, often due to difficulties with in-country phone lines. The interviews were officially closed on May 6, 2016. Refer to Annex IV. for a list of respondents and interviews that were and were not able to be completed by country and at global level.

## **1.3 Project data**

The main project data sources for the evaluation were the country PMPs. Evaluators intended to base quantitative assessment of progress toward objectives during PY1–3 in the four case study countries primarily on country PMP data. When asked for any additional project data, MalariaCare HQ shared additional output data that they centrally maintain. Data were made available for PY1–3 for 14 countries (excluding Nigeria). Using PMP and HQ output data, and double-checking against the reporting contained in project achievement summaries in the annual reports, evaluators developed detailed time trend data tables for Malawi and Zambia for country case studies and intended to produce similar tables for Ghana and Mozambique. However, the extent of data source or time inconsistencies negated any value the tables could have added. Although project M&E staff were responsive to requests for clarification, it was still not possible to ensure consistency in the measures over time, so tables were not used as part of the case studies.

## **2. MalariaCare’s Quantitative Evidence Base**

Data have been considered a cornerstone of the MalariaCare project. USAID PMI ensured the key positioning of data in the original project scope, and MalariaCare has emphasized data production, quality improvement, and use for decision-making. While the project has generated abundant quantitative data, available data for PY1–3 are not comparable across countries or over time, and are thus not usable for robust trend analysis of the project overall.

A number of factors contributed to the difficulties of assessing available data:

- There is wide variation across countries in technical objectives and reporting indicators. Countries such as Burma, Cambodia, Ghana, and Nigeria provide examples of this variation. This makes cross-country analysis challenging, both in terms of synthesizing data

available in the PMPs and in trying to design a standard survey instrument, as was done for this evaluation.

- An overlap of technical scope has resulted in similar activities being reported on under different objectives. This is true not only across countries, but even within the same country over multiple project years. Over Zambia’s three project years, for example, NAMS has been reported under both Objective 1 and Objective 4. (See example below.)
- Different indicators have been used by different countries for reporting on the same types of activities, and sometimes even in the same country different measures have been used over time. Even when the same indicator is used, there is no standardization in indicator numbering for easy cross-reference (example below).
- There are discrepancies between different data sources. The data in PMP tables sometimes differ from what are presented in annual report (AR) text narratives. Furthermore, the set of output data that have been centrally maintained at MalariaCare HQ and shared with the evaluation team include other data that sometimes vary in the indicators (or indicator names) used and sometimes in the estimates (example below).
- Whatever specific technical objectives and indicators have been decided on at country level may not have been consistently reported on over PY1–3. The PY3 Annual Report, for example, does not include a PMP for five of the 15 MalariaCare countries, and the PMPs of an additional six countries are missing objectives.

Some of the data inconsistencies listed above derive from MalariaCare’s effort to be responsive to country needs. This is a good principle, but in future programming a decision needs to be made regarding the balance between country adaptation and standardization, both to adhere to global norms and standards and to support the monitoring needs of a global project.

Due to the numerous difficulties of working with available MalariaCare project data, and because initial efforts to synthesize and analyze these data raised concerns about drawing erroneous conclusion, the findings presented in this report draw heavily from qualitative data (drawn from the 2016 Mid-term Evaluation Survey, in-depth interviews at the global level and for the four case study countries, and narrative documentation).

### **2.1 Malawi indicator example: OTSS visits**

Extracted from Malawi annual PMPs from PY1, PY2, and PY3; supplemented with data from the annual report “country achievement” narrative and output data maintained by MalariaCare HQ.

PY1		PY2		PY3	
Number of OTSS visits conducted PMPI.b	380  Target of 320 exceeded	Number of OTSS visits conducted  PMP 1.d	273 visits conducted in Round 1  Target of 500 not met	Percentage of scheduled laboratory-only supervisory visits to target facilities that occurred within the reporting period  PMP 6	107% (107/100)  Target of 90% exceeded
The number above, which is noted to include OTSS Round 9 projected numbers, is discrepant with both the annual report and the output data sheet maintained at MalariaCare HQ.		According to PMP, target for one round was exceeded: 273/250 for Round 1.  Annual report simply states that OTSS reached 273 of 500 targeted HFs (across		Although the indicator name and definition (which is not shown) differ between from PY1 and PY2, this indicator seems to be comparable.  However, although the PMP indicates that target was exceeded, the output monitoring sheet indicates that just	

PY1	PY2	PY3
<p>According to the annual report, 640 health workers were visited at 196 health facilities.</p> <p>According to the output monitoring data maintained at MalariaCare HQ, one round of OTSS was conducted with 196 health workers at 196 health facilities received an OTSS visit (Indicator numbers 3–4).</p>	<p>29 districts) supporting 967 providers.</p> <p>MalariaCare HQ output monitoring data are consistent.</p>	<p>one of two targeted rounds of OTSS was conducted.</p> <p>Furthermore, the PMP notes that all supervisory visits were combined joint lab and clinical, so it is not clear why the data above are discrepant with PMP19: Percentage of scheduled clinical supervisory visits to targeted facilities that occurred within the reporting period = 243/473 or 51% (which was noted as joint with lab).</p> <p>The PMP data points do not correspond with the annual report narrative, which notes that a total of 254 workers across 242 HFs were visited by clinical and laboratory supervisors (in Round 11, which began in PY2 but was completed early in PY3).</p> <p>The PMP data points also differ from similar indicators in the MalariaCare output monitoring sheet:  Number of facilities with labs receiving OTSS support = 244  Number of health workers in facilities with labs receiving OTSS support = 426</p>

## 2.2 Zambia activity report example: NAMS

Extracted from Zambia annual PMPs from PY1, PY2, and PY3; supplemented with output data maintained by MalariaCare HQ

PY1		PY2		PY3	
PMP	HQ output monitoring	PMP	HQ output monitoring	PMP	HQ output monitoring
<p>One <b>Objective 4</b> indicator:</p> <p>In-country NAMS is developed for malaria microscopy QA (PMP4.a)</p>	<p>One <b>Objective 4</b> indicator:</p> <p>NAMS protocol developed and submitted to IRB (#4.1)</p>	<p>One <b>Objective 1</b> indicator:</p> <p>NAMS protocol finalized (PMP1.d)</p>	<p>One <b>Objective 1</b> indicator:</p> <p>NAMS protocol developed and submitted to IRB (#1.4)</p>	<p>No indicators included under any objective</p>	<p>Three different indicators listed under <b>Objective 1</b>. (Indicators # 1, 2, and 3)</p>

PY1		PY2		PY3	
PMP	HQ output monitoring	PMP	HQ output monitoring	PMP	HQ output monitoring
The PMP noted activity was “in progress” while the output monitoring sheet only noted that target not achieved.		The PMP noted that the activity was “in progress,” while the output monitoring sheet listed as achieved.		The output monitoring sheet (which included indicators on training, sample collection and slide development) noted that NAMS activities have not started.	

### **2.3 Adherence to negative test result as an illustrative example of competency indicator challenges:**

Good case management rests on adhering to a malaria diagnostic test—treating according to the test result. The PY3 annual report, which highlights efforts during the project year to improve measurement, including the scoring of performance, describes three adherence indicators. The detailed definitions are helpful in understanding the proposed measurement approach of these important indicators. Beyond what is described in the annual report, however, there is still a need for greater clarity about these indicators, how they are measured, and guidance for interpretation across time and countries.

The indicator “*adherence-negative test results*” provides an example of the challenges of fully understanding how this sort of indicator is measured. There are issues to note in terms of the global-level recommendations but also in terms of what is being done at the country level. This is a particularly important indicator because it is one for which, in theory, there are data available since the IMaD project.

The PY3 annual report defines the indicator *adherence-negative test results* as follows: The percentage of patients with negative malaria diagnostic tests who do not receive an artemisinin combination therapy (ACT). To be considered as meeting the standard for this competency area, the HF must be 90% compliant with adherence to negative test results. These data are obtained through records review by: identifying ten patients with negative diagnostic test results and then reviewing records to identify whether they were treated with an ACT.

As defined above, this indicator differs from the original standard detailed in the project’s global Performance Monitoring Plan (February 4, 2013, revision, page 15) in a couple of important respects:

- The unit of analysis is the HF and not the provider.
- A 90% threshold is identified.
- The data are based on patient records and not on direct observation.
- The new indicator specifies ACT prescription, while the original version refers to “adherence to negative test results according to global standards.”

These data are collected in Section N, Part 2 of the global standard OTSS annual checklist (and Section G, Step 2 in the quarterly checklist). There is a specific checkbox to tick whether or not an ACT was prescribed, but no other information on prescriptions or medicines, including other antimalarials, is included.

#### **The case of Zambia**

Zambia provides a practical example of how this indicator has been reported on in PY1–3:

PY1	PY2	PY3
<p>Although Obj 3 is listed in the PMP, there is no reporting against it (and no indicators listed).</p>	<p>PMP 3.i</p> <p>Percentage of providers demonstrating adherence to negative test results according to global standards</p> <p>Definition: Number of providers demonstrating adherence to negative test results according to global standards measured through direct observation during team supervision visits/total number of providers who received team supervision in the reporting period</p>	<p>PMP 11</p> <p>Percentage of targeted service providers demonstrating compliance to treatment for cases with negative malaria test results at the time of the most recent supervisory visit within the reporting period</p> <p>Definition: Number of targeted service providers demonstrating compliance to treatment for cases with negative malaria test results at the time of the most recent supervisory visit within the reporting period/Total number of targeted service providers evaluated on the compliance to treatment for cases with negative malaria test results at the time of the visit</p>
<p>Although not included in the PMP, Table 4 in the annual report section on Zambia shows OTSS results for this indicator based on patient records in 40 facilities in OTSS rounds 9–10: a mean score of 98.8%, a median of 100.0%.</p>	<p>According to the PMP:</p> <p>86.7% met the 80% target or above, with an average score of 83.7%.</p> <p>Target achieved; during the most recent round of OTSS, 1,346 clinical records were reviewed, out of which 1,168 adhered to negative malaria test results (i.e., no malaria treatment was given).</p>	<p>According to PMP:</p> <p>Target = 75%</p> <p>Target exceeded: 81% (395/487)</p>

This example highlights general issues the evaluation team observed in looking through project data:

- Cases of missing reporting in PMP. In PY1, data were clearly available but not reported on.
- Indicator numbers, names, and definitions changing over time.
- A disconnect between the name and/or definition and the data that are being reported

- on. In PY2, the definition refers to provider observation whereas the note refers to patient records. While it is good that PY2 notes this, we are left wondering about the actual data used in PY3.
- Lack of clarity in definitions—In the case of the data presented for PY2, the PMP explicitly notes that “demonstrating adherence to negative test results” meant that no malaria treatment was given, which seems to imply no antimalarials at all. In PY3, the indicator definition has changed to refer to “demonstrating compliance to treatment for cases with negative malaria test results,” but it is unclear what this means—any antimalarials? Or ACTs, as in the definition laid out in the PY3 annual report?
  - Target changing—why was the target shifted downward from 80% in PY2 to 75% in PY3?

This Zambia example also highlights issues regarding the measurement approach proposed in the PY3 annual report.

- How comparable are data over time?
  - First, are data presented for a country across project years comparable and usable for trend analysis? In the case of Zambia, the MalariaCare HQ team reported that the PMP data for PY1 and PY2 “are the same variable collected the same way year by year.” However, they noted that the target populations data were collected from might have varied—different health facilities in different years.<sup>19</sup>)
  - Second, does MalariaCare plan to present recalculated time trends (whether recalculated for the definition or for the denominator) over project years as they move forward with this and other compliance indicators presented in the PY3 annual report? If so, is this something they would do as an additional analysis exercise or would there be, each year, an attempt to reconstruct a time trend for monitoring purposes?
- The PY3 annual report presented recalculated data for Zambia, as well as two other countries. The analysis is based on the new indicator definition. Although the shift to an HF-based indicator seems to be a better way to measure this outcome, it is not clear whether the addition of the 90% threshold is helping interpretation of these data.
- How should negative compliance be defined? Is the best approach to simply identify those who did not receive an artemisinin combination therapy (ACT)? What about another antimalarials?
  - The PY3 annual report clearly notes, “In some countries, clinicians still use antimalarial drugs other than artemisinin-based combination therapy (ACT) in spite of clear national guidelines.” (P. 10). Furthermore, the Zambia narrative of the PY1 annual report flagged an interesting issue in terms of type of antimalarial versus test result: During a Zambia OTSS lessons learned workshop the following was identified as a “key problem”: “Clinicians often treat febrile patients with negative malaria tests with the less potent anti-malarial medication Fansidar (sulfadoxine/pyrimethamine).”
  - Because the records review portion of the checklist only tracks whether an ACT was given, this other aspect of provider behavior is not tracked.

#### **2.4 Specific observations on the OTSS checklist and data**

The OTSS checklists have been a key supervision and monitoring tool. Insight obtained from the case study interviews strongly suggests that shifting to an electronic platform for both

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<sup>19</sup> This is an important point that pertains to all OTSS data and any attempts to compare them over time. A number of PMPs noted that low competency scores might be due to the fact that poor-performing facilities were being targeted.

data collection and use has greatly increased use of the OTSS data, at least among MalariaCare project staff on the ground.

This indication of recent active data use, together with the clear enthusiasm for the role of the OTSS data in both supervision and monitoring, underscore the importance of the OTSS data and their utility. However, there still may need to be refinement in the checklist, as the following examples from the annual checklist highlight:

- One global respondent noted that OTSS data are derived from a comprehensive questionnaire with far too many questions. Indeed, the questionnaire is lengthy and complex, made of up numerous modules. Adding to the complexity is the fact that the version reviewed by the evaluation team (provided by MalariaCare HQ on February 12, 2016) did not have consistent formatting, which is needed to guide the individual completing the checklist. The electronic format, which was not reviewed by the evaluation team, may have more consistent formatting, but the following examples illustrate inconsistencies:
  - Sometimes responses were stacked vertically and sometimes placed in a row horizontally.
  - There was no standard format for the questions in which actual observations of provider performance are noted versus the supervisor's own opinion.
- Some terminology seems unclear.
  - What does it mean for staff to be “never present”? (Section B) Does this mean that staff may be officially employed but on leave? And over what time period?
  - What does it mean to have “readily available transport”? (Section E)
  - What does it mean to do “a routine cleaning/maintenance of microscopes”?
- It is not clear what instructions are given to supervisors regarding the observations and how many different workers they should ideally observe. How does observing the same worker multiple times potentially bias the results?
- In some cases, it is not clear how the supervisor can assess the providers' actions. In a physical exam, how do you know that the HW has “checked” for evidence of anemia or fast breathing? How does she check for “altered consciousness”? If the HW is able to take in something at a glance, the actual “check” may not be obvious to an observer. So this is a case where it may be difficult to reconcile clinical standards with what we can measure well.
- If a patient is pregnant, should not the provider ask some follow-up questions or handle the patient differently? The flow of questions seems to be exactly the same for both pregnant and non-pregnant clients.
- The issue of commodities, as flagged in the main report, is a critical one and merits special consideration in terms of data collection.
  - Stock-outs: In Sections I, J, and L, it is not clear why such a long period is set for supplies that need to be available on demand. If a shorter period was specified (even a day?) these data could presumably better reflect the situation on the ground confronted by providers and could also be used to track stock-outs quantitatively. These data could be of potential use to a much broader set of stakeholders, for example, not only PMI projects but other influential groups using data for advocacy at the highest levels such as the African Leaders Malaria Alliance.

- It is not possible to link provider behavior in either the register review or the clinical health worker observation to supplies, and this limits programmatic insight. Although it might be difficult to link register review data with stock-out data, it should be fairly straightforward to add information into the health care worker observations sections that would contextualize the data on observed provider behavior.
  - The register review only asks about ACTs and not other antimalarials. This could bias measurement of certain key indicators such as negative adherence, as detailed earlier in this annex.
- In a number of cases, there are questions in the checklist but no clarity on how these data are either used or tabulated. For example, the checklist asks for sex-disaggregated data on the staff mentored. But this does not seem very meaningful if we cannot compare to sex-disaggregated data on employees overall. Similarly, while it is good to have action plans (which are to be recorded at the end of the checklist), it is not clear what concretely is suggested as follow-up for systemic, underlying issues like staff turnover and stock-outs.

Note that the above comments are based only on a review of the OTSS checklist. A standard analysis/tabulation template was not shared with the evaluation team, and it is not clear whether one exists. Any revision of the OTSS checklist must be accompanied by clear documentation of how the data will be tabulated and used, distinguishing between those data that yield indicators used in performance monitoring plans versus those that might be presented in tables for day-to-day project work versus those data that are only used for on-site mentoring and may not be further compiled or tabulated.

## **2.5 Recommendations for improving project data**

**Annual reports:** Recommendations for improving quantitative and qualitative monitoring and reporting of activities in annual reports:

- Ensure that all required reporting is included in every report. This includes all country PMPs with all objectives. (Even if no activities occurred, this can be noted in the PMP.)
- Improve AR figures for clarity and formatting consistency (decimals, % on axis, data label).
- AR and PMP data need to be consistent, reporting on the same indicator referring to the same time period, based on the same data source. If for some specific reason they are not, the reason for the difference needs to be clearly noted.
- There needs to be consistency in terminology, at least to the extent possible. At present, in reporting for a particular country there are differences between the PMP indicator, the output indicator maintained at MC HQ, and the AR narrative.
- Given both the inconsistency in objectives across countries but also the potential overlap across the four objectives, consider an alternative organizational structure. (For example, the PY3 “axis” structure used in this evaluation or the QA structure that has been put forward in PY4.)
- Trend reporting to date seems to focus on the short term, for example, recent successive rounds of OTSS. The annual report is an opportunity to showcase progress being built up over the years, both in terms of the narrative summary and also data/charts.

**Overall trend analysis:** For the MalariaCare project there needs to be a final determination as to what analysis can be done, across which countries, and for which time periods. At this point, there are two ways forward:

- Try to piece together country-specific narratives on a couple of key domains, utilizing all available data and evidence, to better quantify to what extent certain objectives have been achieved. This sort of exercise might mean either rerunning/recalculating to ensure more comparable time series and/or might deliberately compare data that may not be strictly consistent but can be used together to get a ballpark sense of trends. If there is an attempt to conduct some additional country-specific analysis, there also needs to be a decision made as to whether it is possible to track any indicators back to an IMAD “baseline.” If, for example, provider adherence to negative test results can be tracked from PYI, then it may also be available from the predecessor project. At least in a few countries, then, a true assessment of progress from a pre-project baseline could be made.
- Another alternative would be a decision to move forward, focusing efforts on a new monitoring strategy that ensures consistent measurement over time. If the data to support robust trend analysis are truly not in place, then it is best to be clear about that.

**Standardizing indicators:** A number of other stakeholders have been interested in and trying to address gaps in health systems information and facility-level data for routine program monitoring, including the RBM MERG, WHO, UNICEF, and ALMA. MalariaCare is in a position to help fill gaps on malaria diagnostic and treatment monitoring, and thus contribute to a set of global standards. Before the end of the project, it would be ideal for MalariaCare systematically to share their learning, whether in a specially planned meeting or publication, on what has and has not worked at the country level.

**Recommendations for future projects:** Evaluators recommend that a number of steps be taken from the outset to ensure high-quality data monitoring. Note that if the MalariaCare project works carefully over the next year and a half, as they seem to have been doing over the past year, many of the issues flagged below will likely already have been addressed.

- To the extent possible, indicators need to derive from a global/gold standard.
- There needs to be a balance between “core” indicators that are intended to be tracked across time and countries in a standardized way, versus country-specific indicators. (This assumes that any global-level project would have a need for some consistent reporting across countries that is used at a higher level.)
- In terms of country-specific indicators, there needs to be clear attention given to the work of other stakeholders in country and up-front efforts made to coordinate and streamline.
- There should also be a clear reporting framework, with logical groupings of activities. There will be different ways to organize the reporting, but it is important from the outset to have clear categories, mutually exclusive categories so that activities and indicators do not shift places over time. (Under the current global structure, there has been a challenge in reporting on activities that seem to cut across objectives, such as joint lab/clinical OTSS visits or providers trained in case management errors.)
- Indicator numbers, names, and definitions need to remain constant over time. From the outset there needs to be a detailed indicator document that includes not only numerator and denominator but also measurement limitations, definitions of indicator elements, etc.
- It is essential to think through data collection. The tools being used need to be as clear as possible to facilitate training and to ensure standardized measurement over time. Even if indicators and data collection tools do not change, the target population must also remain constant over time if results are to be fairly compared. (If OTSS starts to target poor-performing facilities, then the project should consider indicator denominators and recalculate if necessary for trend analysis.)
- If a central, standardized data repository system can be set up, it will be easier for project HQ to track what is going on in a modest set of indicators. It will also be a foundation for work at the country level, and new employees—whether HQ or country—can be trained

in the system when entering the project.

- Baseline data must be identified from the start, and incoming project data must consistently be reported showing trends over time.

## ANNEX III. HIGHLIGHTS FOR COUNTRIES WITH PRIVATE SECTOR FOCUS

Burma—PY3	Cambodia—PY2–3	Nigeria—PY1–3
<p>MalariaCare served as funding pass-through mechanism for partner PSI to expand support for Sun Primary Health, a network of rural HW, and Sun Quality Health, a network of private physicians. Franchises included over 4,000 community health workers, private doctors, diagnostic professionals, and counselors/social workers. Added malaria case management to Network integrated services. Trained 187 licensed private practitioners across 16 high-burden, malaria-endemic townships on diagnosis and treatment of uncomplicated malaria. Supported monthly supervision visits. Supported 26 providers and supervisors to conduct active case detection in areas with limited access to health services, performing RDT for anyone with fever in prior week. 280 cases identified from 16,820 suspected cases. Data analyzed through the management information system (MIS) and presented at network “health club” meetings for group review and action planning.</p>	<p>MalariaCare served as funding pass-through mechanism for PSI partner Population Services Khmer (PSK) to improve QA and IS for malaria case management in the private sector. Supported network of private providers and mobile malaria workers (MMW) across eight high-burden provinces under two objectives: Improved targeting of support to private-sector health providers treating febrile illness through established QA protocols and strengthened malaria surveillance data collection. Developed digitized QA tools to assess providers’ case management performance: SOPs for QA officers; a QA dashboard that is part of the broader DHIS2 dashboard; and dashboards tailored to individual QA officers. Conducted supportive supervision visits with Cambodia National Malaria Control Program (CNM). Data from visits flow into national information system through reports submitted at operational district level and from project data to central level. In PY3, 445 providers (376 public-private mix (PPM) providers, 69 MMWs) were assessed. Prioritized under-performing providers for support from the project’s medical detailing teams (MDTs). Updated patient registers to capture critical data points such as suspected origin of infection, and developed an electronic caseload phone application, allowing for simple case reporting through pushing five buttons on a smart phone. Transitioned 271 PPM providers in Tier 1 areas (detected artemisinin resistance, with potential roll-out of Artesunate Mefloquine as first-line treatment) to CNM oversight.</p>	<p>Partnered with NMCP, Expanded Social Marketing Project in Nigeria (ESMPIN) led by Society for Family Health—an affiliate of PSI—and state health authorities to plan pilot study to assess the ability of trained private-sector patent and proprietary medical vendors (PPMVs) to manage cases of malaria and other febrile illnesses according to national standards. (PPMVs sell pharmaceuticals and are the first point of health care for approximately 60% of Nigerians.) MalariaCare leads M&amp;E for the pilot. The 9-month pilot planned for PY4 is to determine whether, in two local government areas in Ebonyi State, trained and supervised PPMVs providing correct case management at shops will increase household uptake of life-saving child illness interventions. Pilot preparation activities in PY3: National Research Ethics Committee approval, introductory visits with state health authorities, baseline household survey of care-seeking behavior for sick children under 5, and baseline provider outlet survey in 400 PPMV shops. MalariaCare provides pilot cost information to FMOH.</p>

### **Findings from BURMA and CAMBODIA surveys**

- Overall, positive impressions of project from both Burma and Cambodia. *“Excellent at addressing malaria treatment and prevention to country needs (some countries focus on elimination, others on treatment/prevention). Takes country specifics into consideration and operates programs accordingly.”*
- However, the following challenges were mentioned by at least one respondent in each country: Sufficient and timely funds for project activities and national policies not up to date or fully implemented. From Burma: *“The prime on this project has made management and implementation of the project activities difficult. Their financial department is incapable to keep up with the demands of the field and has not timely addressed financial matters essential to implementation needs of partners. IE: sub-awards have been late, modifications late and therefore, unnecessary stress on implementing partners. Additionally, deadlines for field information are unrealistic.”*
- Suggestions from Cambodia for improving project operations: *“Clear budget plan, clear report format, providing documents to HQ on time.”*
- Suggestions from Burma for improving project operations: *“Ensure funds are received on time to match work plan activities and to ensure success of project deliverables in country.”*
- Concerns about sustainability from Cambodia: *“National Malaria Program is not ready to play leadership roles after their national policy changed and no committed staff to ensure they can do well same as MalariaCare/PSI. To address this, the QA officer team will continue to monitor data issues and work closely with the coordinator and MIS team to troubleshoot, which will be reported up the chain to the main DHIS2 focal point. There is significant investment in DHIS2 globally which will lead to capacity building at the platform level.”*

### **Findings from NIGERIA surveys**

- While respondents from Nigeria indicated a perception of technical success, strong concerns were raised about operations and management.
- There were criticisms of delays in the iCCM pilot activity: *“Supposed to start in 2014 and end in 2015 but has taken longer than expected,”* and limited communication between MalariaCare HQ staff and PMI/Nigeria: *“Even when consultants come to the country, they do not meet with PMI/Nigeria. This affects coordination and communication with the one in-country project staff person. Communication needs to improve.”* It was suggested that MalariaCare and ESMPIN should communicate more frequently *“to obtain vital information to make informed decisions.”*
- Additional advice for the project in Nigeria: *“Advocacy visits are extremely important. Stakeholders in the health industry like to be carried along from the onset of program planning.”* *“It is important to ensure that all partners/stakeholder roles are specifically spelled out prior to implementation and reviewed once the project has begun to see if any roles need to be adjusted to better meet objectives.”* *“The MIS that will be used to monitor the progress of the implementation needs to be fully developed before implementation activities begin.”*

# ANNEX IV. PERSONS INTERVIEWED— INTERVIEW AND SURVEY CONTACTS

## SURVEY CONTACTS

### Country: Burma

Name	Title	Organization	Survey Completed (Y/N)
Ashley Schmidt	Current MalariaCare HQ Backstop; Senior Associate Program Manager	PSI	Y
Tiffany Clark	Current MalariaCare HQ Backstop	PATH	Incomplete
Feliciano Monti	PMI RA/Burma	USAID	Y
Mya Sapal Ngon	FSN Burma	USAID	Y

### Country: Cambodia

Name	Title	Organization	Survey Completed (Y/N)
Ashley Schmidt	Current MalariaCare HQ Backstops	PSI	N
Holly Greb	Current MalariaCare HQ Backstops	PATH	Y
Abigail Pratt	Malaria Technical Advisor	PSI	Y
Phally Keo	MCS Coordinator,; QA	PSI	Y
Rida Slot	FSN Malaria Advisor Cambodia	USAID	Y

### Country: DRC

Name	Title	Organization	Survey Completed (Y/N)
Julie Heinsen	Current MalariaCare HQ Backstops	PATH	Y
Jean Yves Mukamba	Program Coordinator/TA Clinical Care	PATH	Y
Guy Leta	PADM	PATH	Y
Seraphine Kutumbakana	TA Diagnostics	MCDI	Y
Andre Bope Bope	Regional Coordinator/TA iCCM	Save the Children	Y
Edmund Mabiela	Program Assistant	MCDI	Y
Guyguy Kayomo	Program Assistant, Lubumbashi	PATH	Y
Debbie Gueye	Health Development Officer	USAID	N

Name	Title	Organization	Survey Completed (Y/N)
Filiberto Hernandez	(Country Mission Contact, PMI CDC Resident Advisor)	CDC	Y

### Country: Ethiopia

Name	Title	Organization	Survey Completed (Y/N)
Alexandria Alberto	Current MalariaCare HQ Backstops	PATH	Y
Nicole Whitehurst	Technical Manager	MCDI	Y
Gune Dissanayake	PMI Advisor	USAID	N
Hiwot Teka	FSN	USAID	Y
Tsion Demissie	FSN	USAID	Incomplete
Sheleme Chibsa	FSN	USAID	N
Matthew Murphy		CDC	N

### Country: Ghana

Name	Title	Organization	Survey Completed (Y/N)
Julie Heinsen	Current MalariaCare HQ Backstop	PATH	Y
Raphael Ntumy	Chief of Party	PATH	Y
Patrick Yawson	Project Administrator	PATH	Y
Felicia Amoo-Sakyi	TA Clinical Care	PATH	Y
Andrew Quao	M&E Manager	PATH	Y
Solomon Atinbire	Database Specialist	PATH	Y
Peter Segbor	Malaria Program Coordinator	PATH	Y
Akua Kwateng-Addo	Health Officer	USAID	N
Kwame Ankobea	FSN	USAID	Y
Philip Ricks		CDC	N

### Country: Guinea

Name	Title	Organization	Survey Completed (Y/N)
Alexandria Alberto	Current MalariaCare HQ Backstop	PATH	N
Matt Worges	Technical Manager	MCDI	N
Patrick Condo	PMI RA	USAID	N
Lamine Bangoura	FSN	USAID	Y
Abdoulaye Sarr		CDC	On invitation list, but had not yet started post

### Country: Kenya

Name	Title	Organization	Survey Completed (Y/N)
Tiffany Clark	Current MalariaCare HQ Backstops	PATH	Y
Dr. Samwel Onditi	Program Coordinator	PATH	Y

<b>Name</b>	<b>Title</b>	<b>Organization</b>	<b>Survey Completed (Y/N)</b>
Carol Jalang'o	Project Finance and Administrative Officer	PATH	Y
Beatrice Onyando	Technical Advisor/Clinical Care	PATH	N
Esther Odhiambo	Program Assistant	PATH	Y
Rodgers Mwinga	Technical Advisor/Diagnostics	MCDI	Y
Elizabeth Moraa	Regional Coordinator, Migori	PATH	Y
Tony Chahale	Regional Coordinator, Kakamega and Vihiga	PATH	Y
Jack Ogony	Regional Coordinator, Homa Bay	PATH	N
Mildred Shieshia	PMI Advisor	USAID	Incomplete
Daniel Wacira	FSN	USAD	Y
Ann Buff		CDC	N

### Country: Liberia

<b>Name</b>	<b>Title</b>	<b>Organization</b>	<b>Survey Completed (Y/N)</b>
Julie Heinsen	Current MalariaCare HQ Backstops	PATH	Y
Ramlat Jose	PMI Advisor	USAID	N
Kaa Williams	FSN	USAID	Y
Christie Reed		CDC	N

### Country: Madagascar

<b>Name</b>	<b>Title</b>	<b>Organization</b>	<b>Survey Completed (Y/N)</b>
Alexandria Alberto	Current MalariaCare HQ Backstops	PATH	Y
Dr. Marie Ange Rason	Technical Advisor, Diagnostics	MCDI	Y
Prf. Josea Ratsirarson	Chief of Country Operations	MCDI	N
Sixte Zigirumugbe	PMI Advisor	USAID	N
Jocelyn Razafindrakoto	Infectious Disease Specialist	USAID	Y
Judith Hedje		CDC	N

### Country: Malawi

<b>Name</b>	<b>Title</b>	<b>Organization</b>	<b>Survey Completed (Y/N)</b>
Holly Greb	Current MalariaCare HQ Backstops	PATH	Y
Dr. McPherson Gondwe	MalariaCare Technical Advisor/Clinical	PATH	Y
Petros Chirambo*	MalariaCare Technical Advisor/Diagnostics	MCDI	N
Jones Stamalevi	MalariaCare Finance and Administration Officer	PATH	3. Y

<b>Name</b>	<b>Title</b>	<b>Organization</b>	<b>Survey Completed (Y/N)</b>
Augustine Chikoko	MalariaCare Program Coordinator	PATH	Y
David Melody	Director of Health	Save the Children	Y
Tiyese Chimuna		Save the Children	N
Jennifer Bergeson-Lockwood	PMI Team Lead	USAID	Y
Edson Dembo	FSN	USAID	Y
Peter Troell		CDC	N

### Country: Mali

<b>Name</b>	<b>Title</b>	<b>Organization</b>	<b>Survey Completed (Y/N)</b>
Alexandria Alberto	Current MalariaCare HQ Backstops	PATH	Y
Renion Saye	Lead Technical Advisor, Diagnostics	MCDI	Y
Boubacar Guindo	Program Coordinator; Lead Technical Advisor, Clinical Care	PSI	Y
Mamadou Ouane	Technical Officer, Clinical Care	PATH	Y
Abdoulaye Ouologuem	Technical Officer, Diagnostics	MCDI	Y
Aboubacar Sadou	PMI advisor	USAID	Y
Aliou Diallo	FSN	USAID	N
Jules Mihigo		CDC	Y

### Country: Mozambique

<b>Name</b>	<b>Title</b>	<b>Organization</b>	<b>Survey Completed (Y/N)</b>
Tiffany Clark	Current MalariaCare HQ Backstops	PATH	Y
Arune Estavela	Program Coordinator	PATH	Y
Nelson Uate	Provincial Coordinator, Zambezia	PATH	Y
Pelagio Marrune	Provincial Coordinator, Nampula	MCDI	N
Karmen Mario Assura	Provincial Coordinator, Cabo Delgado	PATH	N
Francisco Matsinhe	Lab Advisor	PATH (Seconded to NMCP)	N
Guidion Mathe	M&E Advisor	PATH (Seconded to NMCP)	Y
Isabel Filipe	Finance Officer	PATH	Y
Geraldina Buana	Program Assistant	PATH	N
Abuchahama Saifodine	PMI Advisor	USAID	N
Marinela Chachine	FSN	USAID	Y
Flavio Wate	FSN	USAID	Y
Rose Zulliger		CDC	Y

**Country: Nigeria**

<b>Name</b>	<b>Title</b>	<b>Organization</b>	<b>Survey Completed (Y/N)</b>
Tiffany Clark	Current MalariaCare HQ Backstops	PATH	Y
Onyekachi (Kachi) Amajor	Program Coordinator	PATH (consultant thru SafeGuard)	Y
Jessica Kafuko	RA	USAID	Y
Uwem Inyang	FSN	USAID	N
Abidemi Okechukwu	FSN	USAID	Y
Rick Niska	RA	CDC	N

**Country: Tanzania**

<b>Name</b>	<b>Title</b>	<b>Organization</b>	<b>Survey Completed (Y/N)</b>
Julie Heinsen	Current MalariaCare HQ Backstops	PATH	Y
Dr. Zahra Mkomwa	MalariaCare Project Director	PATH	Y
Amos Mugisha	Country Program Administrator	PATH	N
Dr. Goodluck Tesha	Program Officer	PATH	Y
Gerald Mng'ong'o	Diagnostic Specialist–NMCP	MCDI	Y
Alfred Frans Mwenda	Diagnostic Specialist–Nat'l Health Lab	MCDI	Y
Jackson Mugyabuso	Lake Zone Coordinator	PATH	Y
Benjamin Gembe	Finance Associate	PATH	Y
George Greer	USAID RA	USAID	N
Naomi Kaspar	FSN	USAID	N
Chonge Kitojo	FSN	USAID	Y
Lynn Paxton	CDC/RA	CDC	Y

**Country: Zambia**

<b>Name</b>	<b>Title</b>	<b>Organization</b>	<b>Survey Completed (Y/N)</b>
Holly Greb	Current MalariaCare HQ Backstops	PATH	Y
Timothy Nzangwa	MalariaCare Technical Advisor/Diagnostics	MCDI	Invited to participate, but died during evaluation period
Kelesia Lungu	MalariaCare Sr. Program Assistant	PATH	Y
Hazel Chabala	MalariaCare Therapeutic Efficacy Study Coordinator, (half-time)	PATH	Y
Chomba Sinyangwe	USAID RA	USAID	N
Carrie Nielsen		CDC	N

## INTERVIEW CONTACTS

### Country: Malawi

Name	Title	Organization	Completed (Y/N)
Lilia Gerberg	Malaria Technical Advisor, USAID Backstop	USAID	Y
Laura Norris	AAAS Science and Technology Fellow, USAID Backstop	PMI	Y
Suzanne Powell	CDC/PMI Backstop	CDC	Y
Doreen Ali	NMCP Director	NMCP	N
Dubulao Moyo	Malaria/M&E Officer	NMCP	Y
Holly Greb	Sr. Communications and Program Officer, MalariaCare HQ Backstop	PATH	Y
Petros Chirambo	MalariaCare Technical Advisor/Diagnostics	MCDI	Y
Augustine Chikoko	MalariaCare Program Coordinator	PATH	Y
McPherson Gondwe	MalariaCare Technical Advisor for Clinical Care	PATH	Y
Dr. Ben Chilima	Deputy Director Preventive Health	MOH	N
Edson Dembo	Malaria Program Specialist	PMI	Y
Peter Troell	Resident Advisor	PMI	Y
Collins Kwizombe	M&E Specialist	PMI	Y

### Country: Zambia

Name	Title	Organization	Complete (Y/N)
Linda Gutierrez	Malaria Technical Advisor, USAID Backstop	PMI	N
Eric Halsey	Malaria Branch CDC Backstop, Regional Coordinator for PMI	CDC/PMI	Y
Dr. Busiku	Principle Operations Research Office	NMCC	N
Moonga B. Hawela	NMCC Chief Parasitologist (PI for TES)	NMCC	Y
Holly Greb	MalariaCare HQ Backstop	PATH	Y
Nicole Whitehurst	MalariaCare Technical Manager	MCDI	Y
Hazel Chabala	MalariaCare Therapeutic Efficacy Study Coordinator	PATH	Y
Chomba Sinyangwe	RA	USAID	N

### Country: Mozambique

Name	Title	Organization	Complete (Y/N)
Mark Maire	CDC liaison for PMI	USAID	N
Abuchahama Saifodine	PMI Advisor	USAID	Y
Eric Halsey	Malaria Branch CDC Backstop, Regional Coordinator for PMI	CDC/PMI	Y
Rosalia Mutemba	Case Management Manager	MOH–NMCP	N
Baltazar Candrihno	NMCP Director	MOH–NMCP	Y
Tiffany Clark	MalariaCare HQ Backstop	PATH	Y
Arune Estavela	MalariaCare Program Coordinator	PATH	Y
Pelagio Marrune	Provincial Coordinator Nampula	MCDI	Y
Guidion Mathe	M&E Advisor	PATH	Y
Aldenina Morreira	Lab Supervisor	Nampula Central Hospital	N
Otilia Mazivila	Clinical Supervisor	Tete Provincial Hospital	N

### Country: Ghana

Name	Title	Organization	Complete (Y/N)
Megan Fotheringham	Public Health Advisor, USAID Backstop	PMI	Y
Andrew Tompsett	Malaria Technical Advisor, USAID Backstop	PMI	N
Suzanne Powell	CDC Backstop	CDC	Y
Akua Kwateng-Addo	Health Officer	USAID	N
Dr. Kezier Malm	Program Manager, NMCP Ghana Health Service (GHS)	NMCP	N
Kwame Ankobea	MalariaCare Activity Manager	USAID	Y
William Mills-Pappoe	Chief Biomedical Scientist, Clinical Lab Unit GHS	Ghana Health Service Ministries	Y
Julie Parks	MalariaCare HQ Backstop	PATH	Y
Raphael Ntumy	PATH Chief of Party	PATH	Y
Andrew Quao	PATH M&E Manager	PATH	Y

### Global

Name	Title	Organization	Complete (Y/N)
Larry Barat	Formerly AOR Team	USAID/PMI	N
Kim Connolly	AOR Team	USAID/PMI	Y
Elissa Jensen	AOR Team	USAID/PMI	Y
Michelle Selim	AOR Team	USAID/PMI	Y
Meera Venkatesan	AOR Team	USAID/PMI	Y

<b>Name</b>	<b>Title</b>	<b>Organization</b>	<b>Complete (Y/N)</b>
Paul Hamilton	MalariaCare Director	PATH	Y
Rick Steketee	Project Advisor MACEPA	PATH	Y
Fozo Alombah	PATH Seattle	PATH	Y
Luis Benavente	Sr. Technical Officer	MCDI	Y
Ricki Orford	Director, Malaria and Child Survival	PSI	Y
Victor Lara	Technical Advisor, Malaria and Child Survival (EDS)	PSI	Y
Eric Swedberg	Senior Director, Child Health	Save the Children	Y
Andrea Bosman	Coordinator, Prevention, Diagnostics, and Treatment	WHO	N
Tedbabe Degefie	Child Health Advisor	Save the Children	Y

# ANNEX V. SOURCES OF INFORMATION - DOCUMENTS REVIEWED FOR EVALUATION

Activity report: Tanzania “RDT QA TOT and supervisor training.”

Approved Ghana PY3 Work Plan.

Approved Malawi PY3 Work Plan.

Approved Mozambique PY3 Work Plan.

Approved Zambia PY3 Work Plan.

Ashraf, Sania, et al. “Developing Standards for Malaria Microscopy: External Competency Assessment for Malaria Microscopists in the Asia-Pacific.” *Malaria Journal*, 11:2012.

Lantos Hyde Act (2008), U.S. Government Malaria Strategy 2009–2014.

MalariaCare Approved PMP, revised February 4, 2013.

MalariaCare EDS data spreadsheet provided by MalariaCare HQ M&E team.

MalariaCare fact sheets, case studies and notes from the field, MalariaCare website.

MalariaCare Madagascar Health Facility Assessment.

MalariaCare Organogram.

MalariaCare outputs PY1–PY3 (spreadsheet of country output data maintained by project HQ).

MalariaCare program brief: Strengthening and expanding integrated community case management of malaria, MalariaCare website.

MalariaCare PY1, PY2, and PY3 Annual Reports.

MalariaCare quarterly and annual OTSS Checklists.

MalariaCare Standard Operating Procedures (SOPs) for OTSS.

MalariaCare Zambia OTSS Analysis, January–February 2016, Round 1.

PATH Sub-Agreements with MCDI, PSI, SAVE, July 2013.

PMI Strategy 2015–2020.

PowerPoint from PMI M&E team meeting, February 17, 2016.

PSI and SAVE Teaming Agreements, May 2012.

: : : “Rectal Artesunate Testing and Delivery,” [http://www.who.int/tdr/research/malaria/rectal\\_artesunate/en/](http://www.who.int/tdr/research/malaria/rectal_artesunate/en/).

Semi-Annual Reports for Ghana, Malawi, Mozambique, and Zambia.

USAID PMI and MalariaCare Cooperative Agreement.

WHO AFRO/Amref Health Africa External Competency Assessment of Malaria Microscopists (training.amref.org).

“XCore Competency Framework for Quality Improvement, USAID Assist Project: Applying Science to Strengthen and Improve Systems.” *Resource*, Dec. 14, 2015, <https://www.usaidassist.org/resources/core-competency-framework-quality-improvement>.

**INTERVIEW GUIDE—MALARIACARE RESULTS AND PROGRESS AT COUNTRY LEVEL—  
Case-study countries except Ghana**

**Introduction:**

- My name is \_\_\_\_\_. I am an independent consultant working with GH Pro.
- USAID has contracted with GH pro to conduct a mid-term performance evaluation of the MalariaCare project's first three years—2012–2015.
- The interview will likely take about 60 minutes.
- If we are unable to finish today, I will be happy to call you again to complete the questions.
- You have the right to stop your participation at any time.
- The responses you provide will be kept confidential and not ascribed to you. The results from these interviews will be pooled for analysis, and we will ensure that responses cannot be traced back to any individual. But we will list all respondents' names, titles, and affiliations as an annex in the final report.
- Do I have your consent to participate?
- May I have your name and title, please? (Interview begins here.)

Date of Interview: Interviewer Name: Interview Method (phone, Skype):

Respondent Name: Respondent Title: Respondent Country:

Respondent consented [yes] [no] Translation?

Year country began to participate in MalariaCare:

1. To get us started, please tell me briefly about when you became engaged with MalariaCare, your role in the MalariaCare project in country and, and whether you also play a role with other MalariaCare countries.

I am going to ask you some questions about MalariaCare's work in-country in terms of specific technical objectives described in annual work plans and its performance monitoring plan (PMP) since the project began in 2012 or since it began in your country.

I will ask you about each objective separately.

2. What have been the successes and challenges related to **“improving accuracy of diagnostic testing”**?

*Probe for successes if not mentioned.*

*Probe: What contributed to these successes and challenges?*

*Probe: What would you recommend to improve the accuracy of diagnostic testing?*

3. What have been the successes and challenges related to **“increasing the percentage of suspected malaria patients receiving a diagnostic test”**?

*Probe for successes if not mentioned, toward best practices.*

*Probe: What contributed to these successes and challenges?*

*Probe: What would you recommend to increase the percentage of suspected malaria patients receiving a diagnostic test?*

4. What have been the successes and challenges related to **“increasing the percentage of patients who receive appropriate treatment”** for malaria or other febrile illness (meaning consistent with test results)?

*Probe for successes if not mentioned, toward best practices.*

*Probe:* What contributed to these successes and challenges?

*Probe:* What would you recommend to increase the percentage of patients who receive appropriate treatment?

5. What have been the successes and challenges related to **“strengthening health systems at the country (national/provincial) level”** for the diagnosis and treatment of malaria and other infectious diseases?

*Probe for successes if not mentioned, toward best practices.*

*Probe:* What contributed to these successes and challenges?

*Probe:* Is there anything additional you can tell me specifically about laboratory support?

*Probe:* Are you developing a NAMS protocol? If so, how far along are you in the process?

What would you recommend to strengthen health systems at the country level?

6. In the first three program years, how successful has MalariaCare been in reaching all targeted health workers and facilities?

My next few questions concern capacity-building toward high-quality diagnosis and treatment, which is an important longer-term goal of the MalariaCare project.

7. In the first three project years, how successful has MalariaCare been in supervisory capacity-building? It would be useful to hear your observations, if any, regarding different levels of supervision.

*Probe:* NMCP

*Probe:* MOH

*Probe:* District level

*Probe:* What led you to come to that conclusion? (How do you know?)

8. Similarly, in the first three years, in the countries where MalariaCare is working on microscopy, how successful has MalariaCare been in preparing laboratory technicians for any level of proficiency testing or accreditation (any type of EQA, not just certification)?

*Probe:* Which levels?

9. The generation of project-monitoring data through OTSS checklists has been a key component of MalariaCare’s work in your country.
  - a. Have you yourself looked at/used these data?
  - b. How recently was that, and for what purpose?
  - c. What does the OTSS data tell you about overall how well the country is progressing toward meeting its MalariaCare goals? (case management in particular)

Additional harmonizing questions for NMCP:

- a. Are there different data tools and indicators being used by different partners? If so, how well is that working?
- b. Has MalariaCare made efforts to work with the government and in-country stakeholders to coordinate and streamline supervision data collected through field visits or key reporting indicators?
- c. How does EDS fit into your day-to-day work and plans for information management?
- d. Where in terms of the collaboration between MalariaCare and NMCP do you see increased capacity of NMCP to take activities forward (training, OTSS, NAMS) with minimal outside support?

This brings me to a few more questions about MalariaCare’s coordination with other stakeholders and broader project management.

10. How well has MalariaCare coordinated its activities with Ministry of Health, NMCP, and other relevant government stakeholders?

*Probe:* What have been the major successes, and what factors contributed to these successes?

*Probe:* What are the gaps and shortcomings, and what factors contributed to these?

11. How well has MalariaCare coordinated its activities with non-government stakeholders in country?

*Probe:* Can you give me an example of how this happens?

*Probe:* What have been the major successes, and what factors contributed to these successes?

*Probe:* What are the gaps and shortcomings, and what factors contributed to these?

12. Is the in-country presence of MalariaCare staff appropriate for the country’s programmatic needs? Why or why not?

*Probe for:*

- Numbers of staff sufficient

*Probe:* MalariaCare was designed to have a “lean and mean” presence in the field. Do you think this is working?

- Skills set appropriate
- Roles appropriately defined (in terms of decision-making, coordination)
- Do you feel that staffing (in terms of numbers and skills) has been able to keep pace with expansion (or contraction) in programming?

13. Can you tell me about a time when there was a significant delay in a planned activity? What was the activity? Why did the delay occur, and could things have been done differently to avoid the delay?

*Probe:* Recently? In past year? Earlier?

*Probe:* Were there times when the project was unable to meet a specific request from NMCP?

Beyond the staffing in country, I would like to ask about the role that MalariaCare Headquarters has played in country programs.

14. Overall, do you feel that technical support from HQ has been sufficient and appropriate?

*Probe:* Field support team? Technical guides?

15. Please provide examples of ways that MalariaCare could improve program operations and management effectiveness and efficiency.

16. Do you have suggestions for future areas of focus in malaria case management programming?

*Probe:* If yes, please give your reasons.

*Probe:* How to best keep the momentum going for what you have put in place so far?

17. What materials and benefits do you hope MalariaCare will leave behind in terms of improvements to malaria diagnosis and treatment in-country?

Are there any additional insights you would like to share? For example, more thoughts on lessons learned or recommendations on ways to improve MalariaCare’s progress in your country?

**THANK YOU.**

## INTERVIEW GUIDE—MALARIACARE RESULTS AND PROGRESS AT COUNTRY LEVEL— Ghana

### Introduction:

- My name is \_\_\_\_\_. I am an independent consultant working with GH Pro.
- USAID has contracted with GH pro to conduct a mid-term performance evaluation of the MalariaCare project's first three years—2012–2015.
- The interview will likely take about 60 minutes.
- If we are unable to finish today, I will be happy to call you again to complete the questions.
- You have the right to stop your participation at any time.
- The responses you provide will be kept confidential and not ascribed to you. The results from these interviews will be pooled for analysis, and we will ensure that responses cannot be traced back to any individual. But we will list all respondents' names, titles, and affiliations as an annex in the final report.
- Do I have your consent to participate?
- May I have your name and title, please? (Interview begins here.)

Date of Interview: Interviewer Name: Interview Method (phone, Skype):

Respondent Name: Respondent Title: Respondent Country:

Respondent consented [yes] [no]

Year country began to participate in MalariaCare:

1. To get us started, please tell me briefly about when you became engaged with MalariaCare, your role in the MalariaCare project in Ghana and, and whether you also play a role with other MalariaCare countries (for technical backstops)

I am going to ask you some questions about MalariaCare's work in-country in terms of specific technical objectives described in annual work plans and its performance monitoring plan (PMP) since the project began in 2012 or since it began in your country. I will ask you about each objective separately.

2. What have been the successes and challenges related to "Scale up and improve access to and availability of high-quality malaria diagnostic services, with a focus on the lower health facility level"?  
*Probe for successes if not mentioned.*  
*Probe: What contributed to these successes and challenges?*  
*Probe: What would you recommend to improve the accuracy of diagnostic testing?*
3. What have been the successes and challenges related to "Scale up and improve access to and availability of high-quality malaria treatment, with a focus on the lower health facility level"?  
*Probe for successes if not mentioned, toward best practices.*  
*Probe: What contributed to these successes and challenges?*  
*Probe: What would you recommend to increase the percentage of suspected malaria patients receiving a diagnostic test?*
4. What have been the successes and challenges related to "Improve the accuracy, reliability, and availability of health information management systems"?

*Probe for successes if not mentioned, toward best practices.*

*Probe: What contributed to these successes and challenges?*

*Probe: What would you recommend to increase the percentage of patients who receive appropriate treatment?*

5. What have been the successes and challenges related to “Strengthen technical management ability at the regional level for implementing programs and activities”?

*Probe for successes if not mentioned, toward best practices.*

*Probe: What contributed to these successes and challenges?*

*Probe: Is there anything additional you can tell me specifically about laboratory support?*

*Probe: Are you developing a NAMS protocol? If so, how far along are you in the process?*

*What would you recommend to strengthen health systems at the country level?*

6. In the first three program years, how successful has MalariaCare been in reaching all targeted health workers and facilities?

My next few questions concern capacity-building toward high-quality diagnosis and treatment, which is an important longer-term goal of the MalariaCare project.

7. In the first three project years, how successful has MalariaCare been in supervisory capacity-building? It would be useful to hear your observations, if any, regarding different levels of supervision.

*Probe: NMCP*

*Probe: MOH*

*Probe: District level*

*Probe: What led you to come to that conclusion? (How do you know?)*

8. Similarly, in the first three years, in the countries where MalariaCare is working on microscopy, how successful has MalariaCare been in preparing laboratory technicians for any level of proficiency testing or accreditation (any type of EQA, not just certification)?

*Probe: Which levels?*

9. The generation of project-monitoring data through OTSS checklists has been a key component of MalariaCare’s work in your country.
  - a. Have you yourself looked at/used these data?
  - b. How recently was that, and for what purpose?
  - c. What does the OTSS data tell you about overall how well Country is progressing toward meeting its MalariaCare goals? (case management in particular)

Additional harmonizing questions for NMCP:

- e. Are there different data tools and indicators being used by different partners? If so, how well is that working?
- f. Has MalariaCare made efforts to work with the government and in country stakeholders to coordinate and streamline supervision data collected through field visits or key reporting indicators?
- g. How does EDS fit into your day-to-day work and plans for information management?
- h. Where in terms of the collaboration between MalariaCare and NMCP do you see increased capacity of NMCP to take activities forward (training, OTSS, NAMS) with minimal outside support?

This brings me to a few more questions about MalariaCare’s coordination with other stakeholders and broader project management.

10. How well has MalariaCare coordinated its activities with Ministry of Health, NMCP, and other relevant government stakeholders?

*Probe:* What have been the major successes, and what factors contributed to these successes?

*Probe:* What are the gaps and shortcomings, and what factors contributed to these?

11. How well has MalariaCare coordinated its activities with non-government stakeholders in country?

*Probe:* Can you give me an example of how this happens?

*Probe:* What have been the major successes, and what factors contributed to these successes?

*Probe:* What are the gaps and shortcomings, and what factors contributed to these?

12. Is the in-country presence of MalariaCare staff appropriate for the country’s programmatic needs? Why or why not?

*Probe for:*

- Numbers of staff sufficient

*Probe:* MalariaCare was designed to have a “lean and mean” presence in the field. Do you think this is working?

- Skills set appropriate
- Roles appropriately defined (in terms of decision-making, coordination)
- Do you feel that staffing (in terms of numbers and skills) has been able to keep pace with expansion (or contraction) in programming?

13. Can you tell me about a time when there was a significant delay in a planned activity? What was the activity? Why did the delay occur, and could things have been done differently to avoid the delay?

*Probe:* Recently? In the past year? Earlier?

*Probe:* Were there times when the project was unable to meet a specific request from NMCP?

Beyond the staffing in country, I would like to ask about the role that MalariaCare Headquarters has played in country programs.

14. Overall, do you feel that technical support from HQ has been sufficient and appropriate?

*Probe:* Field support team? Technical guides?

15. Please provide examples of ways that MalariaCare could improve program operations and management effectiveness and efficiency.

16. Do you have suggestions for future areas of focus in malaria case management programming?

*Probe:* If yes, please give your reasons.

*Probe:* How to best keep the momentum going for what you have put in place so far?

17. What materials and benefits do you hope MalariaCare will leave behind in terms of improvements to malaria diagnosis and treatment in-country?

Are there any additional insights you would like to share? For example, more thoughts on lessons learned or recommendations on ways to improve MalariaCare’s progress in your country?

**THANK YOU.**

**GLOBAL LEVEL INTERVIEW GUIDE**

**Respondents: WHO, USAID PMI, MalariaCare partners Headquarters level (PATH, MCDI, SAVE, PSI)**

**Introduction:**

- My name is \_\_\_\_\_. I am an independent consultant working with GH Pro, a development consulting firm based in Washington, DC.
- USAID has contracted with GH Pro to conduct a mid-term performance evaluation of the MalariaCare project that covers September 2012 to September 2015.
- The interview will likely take up to 60 minutes. Questions were designed hand in hand with PMI and of course are different from those asked during the country level interviews, which have to do more with progress within the four technical objectives and coordination with government and other malaria partners.
- The responses you provide will be kept confidential and not ascribed to you. The results from these interviews will be pooled for analysis, and we will ensure that responses cannot be traced back to any individual. But we will list all respondents’ names, titles, and affiliations as an annex in the final report.
- Do I have your consent to participate?
- May I have your name and title, please? (Interview begins here.)

Date of Interview: Interviewer Name: Interview Method (phone, Skype): Phone conference line

Respondent Name: Respondent Title: Respondent Organization:

Opening Question <b>What is your role with MalariaCare, and for how long have you been engaged with the project?</b>	Partners who should be asked each question		
	USAID/PMI HQ	MalariaCare Partners HQ	External Respondent (WHO)
<p>I. In your view, what have been the biggest challenges and biggest successes over the project’s first three years?</p> <p><i>Probe at global level:</i> project operations, technical leadership, M&amp;E, advocacy and communications</p> <p><i>Probe at country level:</i> lab strengthening (training, supervision, equipment, policies/standards/manuals), clinical strengthening (training, supervision, policies/standards/manuals), OTSS and EDS, other systems strengthening at multiple levels (e.g., NAMS)</p> <p><i>Probe:</i> In which technical areas do you see strongest evidence of sustained capacity that allows governments to carry on with less project support?</p> <p><i>Probe:</i> What else, if anything, needs to be done to best prepare countries to carry forward the new procedures/policies introduced by MalariaCare?</p>	√	√	

Opening Question What is your role with MalariaCare, and for how long have you been engaged with the project?	Partners who should be asked each question		
	USAID/PMI HQ	MalariaCare Partners HQ	External Respondent (WHO)
<i>Probe:</i> What project data do you review and how regularly? How would you describe the “ease of use” of the data you review?			
2. Across the project’s first three years, were deliverables largely on time? <i>Probe:</i> If no, what have been some of the reasons for delays? <i>Probe:</i> What, if anything, could be done to improve timeliness of deliverables?	√	√	
3. In your view, has USAID/PMI been clear and timely in their communication with MalariaCare partners at HQ level in terms of expectations for deliverables and other project management issues? Please explain your answer.	√	√	
4. In your view, have MalariaCare partners been clear and timely in their communication with USAID/PMI about deliverables and other project management issues? Please explain your answer.	√	√	
5. I am interested in your perceptions of how well the partnership between PATH, MCDI, PSI, and Save the Children has functioned. <i>Probe:</i> For example, is your organization fulfilling the role within the MalariaCare partnership that was agreed on? <i>Probe:</i> On a scale of 1–5, with five being the highest score, how well does the communication between the four partners ensure that all partners have current information and understand how their work aligns with and complements other partners’ activities? <i>Probe:</i> On a scale of 1–5, with five being the highest score, how well are decision-making processes within the partnership supporting the work that your organization is tasked to do? <i>Probe:</i> How, if at all, could the partnership be strengthened?			

Opening Question What is your role with MalariaCare, and for how long have you been engaged with the project?	Partners who should be asked each question		
	USAID/PMI HQ	MalariaCare Partners HQ	External Respondent (WHO)
<p>6. Did staff changes on either or both sides (MalariaCare or USAID/PMP) in the project's first three years create any delays or confusion? If yes, please describe.</p> <p>Probe: Looking back across the first three years, do you think that the MalariaCare aim to have a "lean and mean" presence in the field was a good strategy? Why or why not?</p> <p>Probe: What has the experience from the first three years shown in terms of the best staffing set up in country: e.g., having staff embedded in government offices with government counterparts, having staff from the various project partners based in the same office, having partners maintain separate offices?</p>	√	√	
<p>7. From your experience, how well has the project adapted to the rapid growth of country buy-in from the eight original countries in 2012 to 15 countries in 2015? Please explain your answer.</p>	√	√	
<p>8. On a scale of 1–5, with five being the best possible performance, in your view how well has the project performed in coordinating its activities with external global MalariaCare partners (e.g., WHO, Roll Back Malaria)? Please explain your answer.</p> <p>Probe for MalariaCare: Ask about coordination with the bilaterals in Malawi and Zambia.</p>	√	√	√
<p>9. In your view, what if anything has MalariaCare contributed to the global body of literature for malaria case management?</p> <p>Probe: guidelines, manuals, M&amp;E standards, peer reviewed literature?</p> <p>Probe: Is MalariaCare using any STANDARDIZED training curricula across all project countries? Has any curriculum been shared with other PMI projects or globally?</p> <p>Probe: Was literature directly relevant to your work? Useful enough to forward to others?</p>	√	√	√
<p>10. Please describe, based on your knowledge, any public events such as conferences where MalariaCare has had a visible presence.</p>	√	√	√
<p>11. I am interested in learning about MalariaCare's participation in global technical working groups.</p>	√	√	√

Opening Question What is your role with MalariaCare, and for how long have you been engaged with the project?	Partners who should be asked each question		
	USAID/PMI HQ	MalariaCare Partners HQ	External Respondent (WHO)
<i>Probe: Which TWGs? What was MalariaCare's involvement?</i> <i>Probe: What is your perception of value added by MalariaCare's participation?</i>			
<p>12. What legacy do you hope MalariaCare will leave behind in terms of global improvements to malaria diagnosis and treatment?</p> <p><i>Probe: materials and benefits</i></p> <p><i>Probe: What do you think will be needed to keep the momentum going after the project ends?</i></p>	√	√	√
<p>13. Is there anything else about MalariaCare's progress and results at the global level that you would like the evaluation team to know?</p>	√	√	√

**THANK YOU.**

**Welcome to the online survey being conducted as part of the MalariaCare mid-term performance evaluation for the first three years of the project (September 2012 to September 2015).**

**This survey provides an opportunity for MalariaCare countries to contribute to the mid-term evaluation. We ask you to answer the survey questions specifically for MalariaCare in the country where you work.**

**Your participation in the survey is entirely voluntary. None of these questions are compulsory, and you have the option to use the “I don’t know” code when you do not feel you are in a good position to answer. You have the right to stop your participation at any time.**

**If you have questions or experience any technical difficulties with the survey, please contact Avanthi Chatrathi at [ghpromalariacare@gmail.com](mailto:ghpromalariacare@gmail.com).**

**Please click the button below to continue with the survey.**

## Respondent Data Page

The responses you provide will be kept confidential and not ascribed to you. Specific identifying information will be deleted from the data set before any data are shared. The results from this survey will be pooled for analysis, and we will ensure that responses cannot be traced back to any individual. However, we will list your name, title, and affiliation in the survey summary information that will be included in an appendix to the final submitted report.

By providing the information below, you give your consent to participate in the survey.

1. Date:

Date

	DD		MM		YYYY
		/		/	
	<input type="text"/>		<input type="text"/>		<input type="text"/>

\* 2. Name

\* 3. Title

\* 4. Organization

\* 5. MalariaCare country where you work (or have oversight)

\* 6. Length of time working with MalariaCare in this country

The number of months you worked with MalariaCare in this country if less than 1 year (0–12 months)

## Technical Objectives

7. On a scale of 1 to 5, under the four global MalariaCare project objectives, how would you rate the main technical successes in your country up to September 2015?

Please rate only those that apply to activities in your country.

	<b>1. Not at all successful</b>	<b>2. Slightly successful</b>	<b>3. Moderately successful</b>	<b>4. Very successful</b>	<b>5. Extremely successful</b>	Not applicable to country	I don't know
a. Improve the accuracy of diagnostic testing in the public sector.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
b. Increase the percentage of suspected malaria patients who receive a diagnostic test for malaria.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
c. Increase the percentage of patients who receive appropriate treatment for malaria or other febrile illness, consistent with test results.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
d. Strengthen health systems at the country level for the diagnosis and treatment of malaria and other infectious diseases.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
e. Other (please specify in the box below)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

If you used the "other" row, please identify what you were rating here.

## Capacity Building

8. On a scale from 1 to 5, how would you rate the capacity of National Malaria Control Program/government staff to carry on the following activities with **minimal outside support**:

1. Low capacity	2. Low to Average capacity	3. Average capacity	4. Average to High capacity	5. High capacity	Not applicable to country	I don't know
-----------------	----------------------------	---------------------	-----------------------------	------------------	---------------------------	--------------

a. Carry on **clinical and RDT training**

b. Carry on **microscopy training**

c. Carry on **clinical and RDT supervision**

d. Carry on **microscopy supervision**

e. Manage and use Outreach Training Support Supervision **(OTSS) data**

f. **Deployment and use** of NAMS (national archive of malaria slides) as part of proficiency testing, training, or certification program

g. **Maintain slide archives** (NAMS)

h. Other (please specify in the box below)

If you used the "other" row, please identify what you were rating here.

## OTSS Data

9. Have you reviewed/used program monitoring data collected during OTSS supervisor field visits?

- Yes
- No
- Not applicable to country

## OTSS Data

10. Approximately how recently did you last review/use the OTSS data?

- Within the past quarter (3 months)
- Within the past 6 months
- Within the past year
- 1 or more years ago

11. What did you do with the OTSS data at that time?

- Worked with the raw OTSS data (reviewed for quality control, ran tabulations/analysis)
- Tabulated/analyzed OTSS data specifically for annual/quarterly reporting
- Discussed results with USAID Mission staff
- Discussed results with NMCP/Ministry of Health counterparts
- Assessed progress toward programmatic objectives
- Used data to adjust training or programming based on OTSS scores
- Other (please specify)

## MalariaCare Webinar

12. Have you ever participated in (or listened to) a MalariaCare webinar?

Yes

No

## MalariaCare Webinars

13. Was the information provided in the MalariaCare webinar(s) directly applicable to your work?

Yes

No

14. *If you answered no to the above question, please skip this question.*

On a scale of 1 to 5, how useful was the webinar information to your work?

1.  
Not at all useful

2.  
Slightly useful

3.  
Moderately useful

4.  
Very useful

5.  
Extremely Useful

## Operations

15. On a scale of 1–5, especially over the past twelve months, has MalariaCare staffing in country been appropriate in terms of:

	1. Not at all appropriate	2. Slightly appropriate	3. Moderately appropriate	4. Very appropriate	5. Extremely appropriate	I don't know
Number of staff	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Skill sets of staff	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Decision-making authority of staff	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

16. On a scale of 1–5, please rate your overall experience of how well coordination and communication at the following levels have supported activities on the ground.

	1. Not at all satisfied	2. Slightly satisfied	3. Moderately satisfied	4. Mostly satisfied	5. Entirely satisfied	Not applicable to country	I don't know
Among MalariaCare partners in country	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Between MalariaCare field staff in country and PMI in country	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Between MalariaCare field staff in country and MalariaCare Headquarters	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

We would like to better understand your answers to question 16. If possible, please provide more information in the box before moving on to the next question.

## Looking Forward

To improve future programming, it is very important to understand key challenges in project implementation. Although your previous answers may have already identified some challenges, this question is an opportunity to provide a more complete picture of the barriers MalariaCare might have faced in your country.

17. In your view, what been the major challenges or barriers to MalariaCare project implementation where you work?

- |  |  |
|--|--|
| <input type="checkbox"/> Communication with MalariaCare headquarters                                   | <input type="checkbox"/> Problems with basic infrastructure (water, electricity, etc.)                             |
| <input type="checkbox"/> Coordination between MalariaCare partners in country                          | <input type="checkbox"/> Coordination with government  |
| <input type="checkbox"/> Sufficient numbers and appropriate skill sets of MalariaCare staff in country | <input type="checkbox"/> Coordination with other malaria stakeholders (NGOs, UNICEF, Global Fund, etc.) in country |
| <input type="checkbox"/> Sufficient and timely funds for project activities                            | <input type="checkbox"/> National policies not up to date or fully implemented                                     |
| <input type="checkbox"/> Stock-outs/low stock of key malaria supplies such as RDTs, ACTs               | <input type="checkbox"/> Insufficient data for decision-making   |
| <input type="checkbox"/> Stock-outs/low stock of other essential supplies such as gloves, gauze        | <input type="checkbox"/> Insufficient technical guidance/support from MalariaCare Headquarters                     |
| <input type="checkbox"/> Staff time/motivation   | <input type="checkbox"/> Tools such as OTSS checklists changing over time  |
| <input type="checkbox"/> Staff turnover/absenteeism  | <input type="checkbox"/> Programmatic scope changing over time (whether expansion or contraction)                  |
| <input type="checkbox"/> Other (please specify)  |  |

18. How could MalariaCare help you to address these challenges?



## Looking Forward

19. In order to improve future programming, can you please share up to three useful lessons learned during program years 1–3?

*Please feel free to elaborate. Each comment box will support up to 250 words.*

Lesson 1:

Lesson 2:

Lesson 3:

20. Please suggest any additional areas of focus that you believe need to be added to future malaria case management programming.

*Please feel free to elaborate. Each comment box will support up to 250 words.*

First area of focus:

Second area of focus:

Third area of focus:

21. Please feel free to add any additional comments you may have.

# ANNEX VI. DISCLOSURE OF ANY CONFLICTS OF INTEREST

## GLOBAL HEALTH PROGRAM CYCLE IMPROVEMENT PROJECT

### USAID NON-DISCLOSURE AND CONFLICTS AGREEMENT

#### **USAID Non-Disclosure and Conflicts Agreement- Global Health Program Cycle Improvement Project**

As used in this Agreement, Sensitive Data is marked or unmarked, oral, written or in any other form, "sensitive but unclassified information," procurement sensitive and source selection information, and information such as medical, personnel, financial, investigatory, visa, law enforcement, or other information which, if released, could result in harm or unfair treatment to an individual or group, or could have a negative impact upon foreign policy or relations, or USAID's mission.

Intending to be legally bound, I hereby accept the obligations contained in this Agreement in consideration of my being granted access to Sensitive Data, and specifically I understand and acknowledge that:

1. I have been given access to USAID Sensitive Data to facilitate the performance of duties assigned to me for compensation, monetary or otherwise. By being granted access to such Sensitive Data, special confidence and trust has been placed in me by the United States Government, and as such it is my responsibility to safeguard Sensitive Data disclosed to me, and to refrain from disclosing Sensitive Data to persons not requiring access for performance of official USAID duties.
2. Before disclosing Sensitive Data, I must determine the recipient's "need to know" or "need to access" Sensitive Data for USAID purposes.
3. I agree to abide in all respects by 41, U.S.C. 2101 - 2107, The Procurement Integrity Act, and specifically agree not to disclose source selection information or contractor bid proposal information to any person or entity not authorized by agency regulations to receive such information.
4. I have reviewed my employment (past, present and under consideration) and financial interests, as well as those of my household family members, and certify that, to the best of my knowledge and belief, I have no actual or potential conflict of interest that could diminish my capacity to perform my assigned duties in an impartial and objective manner.
5. Any breach of this Agreement may result in the termination of my access to Sensitive Data, which, if such termination effectively negates my ability to perform my assigned duties, may lead to the termination of my employment or other relationships with the Departments or Agencies that granted my access.
6. I will not use Sensitive Data, while working at USAID or thereafter, for personal gain or detrimentally to USAID, or disclose or make available all or any part of the Sensitive Data to any person, firm, corporation, association, or any other entity for any reason or purpose whatsoever, directly or indirectly, except as may be required for the benefit USAID.
7. Misuse of government Sensitive Data could constitute a violation, or violations, of United States criminal law, and Federally-affiliated workers (including some contract employees) who violate privacy safeguards may be subject to disciplinary actions, a fine of up to \$5,000, or both. In particular, U.S. criminal law (18 USC § 1905) protects confidential information from unauthorized disclosure by government employees. There is also an exemption from the Freedom of Information Act (FOIA) protecting such information from disclosure to the public. Finally, the ethical standards that bind each government employee also prohibit unauthorized disclosure (5 CFR 2635.703).
8. All Sensitive Data to which I have access or may obtain access by signing this Agreement is now and will remain the property of, or under the control of, the United States Government. I agree that I must return all Sensitive Data which has or may come into my possession (a) upon demand by an authorized representative of the United States Government; (b) upon the conclusion of my employment or other relationship with the Department or Agency that last granted me access to

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Sensitive Data; or (c) upon the conclusion of my employment or other relationship that requires access to Sensitive Data.

9. Notwithstanding the foregoing, I shall not be restricted from disclosing or using Sensitive Data that: (i) is or becomes generally available to the public other than as a result of an unauthorized disclosure by me; (ii) becomes available to me in a manner that is not in contravention of applicable law; or (iii) is required to be disclosed by law, court order, or other legal process.

**ACCEPTANCE**

The undersigned ~~accepts~~ the terms and conditions of this Agreement.

	01/19/2016
Signature	Date
Deborah McSmith	Technical Advisor/Consultant
Name	Title

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PROJECT

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**ACCEPTANCE**

The undersigned accepts the terms and conditions of this Agreement.

Signature



Date

2 Dec 2015

Name

Holly A Newby

Title

For more information, please visit  
[ghpro.dexisonline.com](http://ghpro.dexisonline.com)

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