The following document is an abbreviated malaria operational plan. The principles guiding development of this document—country-led, inclusive, consultative with a broad audience, and transparent—are consistent with best practices that the U.S. President’s Malaria Initiative (PMI) has instituted since its inception. While an in-depth background of malaria in this country can be found in the detailed FY 2018 malaria operational plan on pmi.gov, this abbreviated document provides a high-level overview of PMI’s program in this country, including key strategic updates, country data and progress updates, and a detailed list of activities to be supported with FY 2019 U.S. Government PMI funding.

This abbreviated malaria operational plan has been approved by the U.S. Global Malaria Coordinator and reflects collaborative discussions with the national malaria control programs and partners in country. The final funding available to support the plan outlined here is pending final FY 2019 appropriation. If any further changes are made to this plan it will be reflected in a revised posting.
PRESIDENT’S MALARIA INITIATIVE

BENIN

Abbreviated Malaria Operational Plan FY 2019
TABLE OF CONTENTS

ABBREVIATIONS AND ACRONYMS ................................................................................................................................. 3

I. INTRODUCTION ............................................................................................................................................................... 4

II. OVERVIEW OF PMI IN BENIN ................................................................................................................................... 4

III. STRATEGY UPDATES .................................................................................................................................................. 7

IV. DATA UPDATES AND EVIDENCE OF PROGRESS .............................................................................................. 8

V. NEW OR EXPANDED ACTIVITIES AND KEY CHANGES ................................................................................ 14
ABBREVIATIONS and ACRONYMS

ACT        Artemisinin-based combination therapy
ANC        Antenatal care
AS/AQ      Artesunate-amodiaquine
CDC        Centers for Disease Control and Prevention
CNLS-TP    President’s Commission on HIV/AIDS, TB, Malaria and Epidemics
CREC       Centre de Recherche Entomologique de Cotonou (Center of Entomological Research of Cotonou)
DHS        Demographic and Health Survey
ENABEL     Belgian Development Agency
EUV        End-use verification survey
FY         Fiscal year
Global Fund Global Fund to Fight AIDS, Tuberculosis and Malaria
HMIS       Health management information system
IPTp       Intermittent preventive treatment for pregnant women
IRS        Indoor residual spraying
ITN        Insecticide-treated mosquito net
MICS       Multiple Indicator Cluster Survey
MIS        Malaria indicator survey
MoH        Ministry of Health
MOP        Malaria Operational Plan
NMCP       National Malaria Control Program
NSP        National Strategic Plan
PMI        U.S. President’s Malaria Initiative
RDT        Rapid diagnostic test
SARA       Service Availability Readiness Assessment
SBCC       Social and behavior change communication
SMC        Seasonal Malaria Chemoprevention
TPR        Test positivity rate
UNICEF     United Nations Children’s Fund
USAID      United States Agency for International Development
WHO        World Health Organization
I. INTRODUCTION

This abbreviated fiscal year (FY) 2019 Malaria Operational Plan (MOP) presents an implementation plan for Benin, based on the strategies of the U.S. President’s Malaria Initiative (PMI) and the National Malaria Control Program (NMCP) and building on investments made by PMI and other partners to improve and expand malaria-related services. It was developed in consultation with the NMCP and with the participation of national and international partners involved in malaria prevention and control in the country. The FY 2018 MOP contains a more detailed and comprehensive description of the malaria situation in Benin, country health system delivery structure, Ministry of Health (MoH) organization, and PMI’s progress through April/May of 2017. This abbreviated MOP describes critical changes/updates to overall NMCP and PMI strategic approaches, as well as newly proposed activities under each technical area to be supported with FY 2019 funds.

II. OVERVIEW OF PMI IN BENIN

Benin began implementation as a PMI focus country in FY 2008. PMI provides nationwide support to Benin’s NMCP strategies. Malaria is endemic to Benin and transmission is stable. In the northernmost region, peak transmission is seasonal, with incidence higher during the July – October rainy season.

The proposed FY 2019 budget for Benin is $16 million. All supported activities are aligned with the national strategic plan and build on investments made by PMI and other partners, including the Global Fund to Fight AIDS, Tuberculosis and Malaria (Global Fund), the World Health Organization (WHO), and other donors to improve and expand malaria-related services. For prevention activities, PMI supports procurement of insecticide-treated mosquito nets (ITNs) for routine distribution for all departments while the Global Fund provides over 3.8 million ITNs and distribution costs for the mass distribution campaign, thus ensuring nationwide coverage for ITNs. Support for ITNs is complemented with annual indoor residual spraying (IRS) in Alibori, Atacora, and Donga Departments in the North. Further, starting in FY 2018, PMI plans to support the introduction of seasonal malaria chemoprevention (SMC) in five communes in Alibori and Atacora Departments. At this stage, the United States Agency for International Development (USAID) is the only donor supporting this intervention and has budgeted support for the first campaigns starting in 2019 in two health zones in the extreme North. However, Benin is working closely with RBM Partnership to End Malaria which is currently providing consultants for the implementation planning of SMC in country. The current Global Fund grant also leaves open the possibility of funding SMC in future grants. PMI supports integrated case management and health systems strengthening activities that are co-funded with other USAID funding sources. This work supports a network of 1,894 community health workers who provide integrated community case management for malaria in ten health zones, complementing Global Fund and UNICEF resources to achieve national coverage of community health workers. To strengthen case management in health facilities, PMI supports nationwide supervision through special account funding for NMCP supervision and training of health workers while UNICEF and the Belgian Development Agency (ENABEL) cover integrated supervision in the remaining departments. USAID/Benin's private sector activity includes support for accreditation, quality malaria services, and malaria commodity access to registered private clinics nationwide. Nationwide training by the NMCP for hospital personnel on the case management of severe malaria is included the NMCP's Fixed Amount Reimbursable Agreement for FY 2018. PMI also offers central support for policy development and implementation, supply chain management, health information system strengthening for decision-making, and institutional strengthening.
Starting in mid-2018, PMI will shift its support for decentralized, integrated delivery of malaria activities to cover health zones in four health departments: Alibori and Atacora in the north, both having high prevalence of malaria, and in Oumé and Plateau Departments, both having large population size (one-fifth Benin’s population resides in Oumé) and highly affected by population mobility along the southern border with Nigeria. This geographic focus was guided by specific selection criteria: 1) need; 2) Government of Benin priorities; 3) strong leadership by local government and willingness to allocate department and commune level resources to the program; and 4) opportunity to leverage other USAID and U.S. Government investments. Furthermore, PMI intervention areas were taken into account by other donors when defining their interventions to ensure nationwide coverage in all areas of case management: diagnosis, treatment for uncomplicated and severe malaria, supervision, training, and supply chain management support.
Figure 1: Geographic Distribution of FY 2019 PMI-Supported Activities

- **Nationwide support:** Procure malaria-related commodities and strengthen case management in private facilities, pharmaceutical management, and routine surveillance. Central-level TA for 2020 ITN campaign and support Peace Corps, FETP, and establishment of a QA system for microscopy.
- **Focused support:** Above-listed activities + strengthen malaria service delivery in public health facilities (including MIP), support communication campaigns, and support data quality evaluation.

- **Strengthen malaria service delivery at the community level and community/facility SBCC activities.**
- **Indoor residual spraying**
- **Seasonal malaria chemoprevention in select eligible zones (TBD)**
- **Departmental boundary (commune-level boundaries are outlined in white)**
III. STRATEGY UPDATES

The NMCP’s new National Strategic Plan (NSP) 2017-2021 was validated in December 2017 with the vision of moving towards a Benin without malaria. The strategic mission is to ensure universal access to prevention and appropriate treatment to reduce malaria-specific morbidity and mortality. The objectives of the plan are to:

- Reduce by 25% the number of annual cases from the 2015 level
- Reduce by 25% the national mortality rate from the 2015 level
- Strengthen the management and coordination of the malaria program

The NSP is divided into three strategic priorities that include 1) malaria prevention, 2) malaria diagnostics and treatment, and 3) reinforcement of program management, each of which is divided into two to four strategies.

The malaria prevention strategic priority includes:

- Strategy 1 – Vector control through mass distribution of ITNs every three years; targeted routine distribution of ITNs through antenatal care (ANC), child immunization clinics, and primary schools; IRS in targeted communes; larviciding; environmental management; and vector resistance management
- Strategy 2 – Seasonal malaria chemoprevention

The malaria diagnostics and treatment strategic priority includes:

- Strategy 3 – Promotion of timely and accurate diagnostics using rapid diagnostic tests (RDTs) and/or blood smears at the health facility level in public and private facilities and with RDTs at the community level; and quality assurance of malaria laboratory diagnostics
- Strategy 4 – Appropriate treatment of uncomplicated and severe malaria; treatment of uncomplicated malaria among children at the community level; pharmacovigilance; and surveillance of the efficacy of anti-malarial treatments

The program management strengthening strategic priority includes:

- Strategy 5 – Strengthening of institutional and management capabilities of the program; support human resources; mapping of partners, technical assistance, resource mobilization and cross-border actions
- Strategy 6 – Social and behavior change communication (SBCC) and advocacy
- Strategy 7 – Commodities procurement and stock management
- Strategy 8 – Monitoring and evaluation including accurate datasets, data management, and monitoring implementation of interventions

While the new strategy largely mirrors interventions in the previous NSP, the 2017–2021 plan includes the introduction of SMC in the extreme North, strengthening environmental control measures, initiation of community outreach for intermittent preventive treatment for pregnant women (IPTp), introduction of ITN distribution in targeted primary schools, strengthening national laboratory capacity including establishment of International Standards Organization certified trainers, and the utilization of information technology and social media. The strategy incorporates the new Qualified Health Agents/Agents de santé qualifiés cadre to improve health service delivery for remote populations and more effective SBCC. Further, the strategy emphasizes strong partnerships among malaria actors, local government, private sector and research and academic institutions. The national malaria
communications plan has been updated, addressing behavioral determinants and best practices identified through recent operations research and implementation experience in Benin, covering the 2017-2021 period of the strategy.

Benin has adopted the latest WHO ANC guidelines calling for an increase from four to eight focused ANC visits, lowering iron/folate doses, and providing the opportunity for up to five doses of sulfadoxine-pyrimethamine. The MoH is working to update national guidelines and procure lower iron/folate doses; this process will likely be completed in early 2020. However, Benin's NSP 2017-2021 was developed before the WHO ANC guidelines were released and does not reflect the new ANC directives. The NMCP has planned a mid-term review of the NSP in 2019 to make adjustments/modifications, including updating the IPTp guidelines to reflect the new ANC directives as well as including other new initiatives like community-based ANC, school-based ITN distribution, and SMC.

Benin is affected by seasonal outbreaks of Lassa fever with large numbers of imported cases that come across the Nigerian border. In 2016, the outbreak led to a temporary suspension of community case management services in affected regions. PMI supports training under the Field Epidemiology Training Program to strengthen early detection and contact tracing.

**IV. DATA UPDATES AND EVIDENCE OF PROGRESS**

The 2017/18 DHS data collection is complete but preliminary results are not expected until mid-2018.

To ensure strategic use of resources for malaria control in Benin, PMI, at the request of the President of Benin’s Commission on HIV/AIDS, TB, Malaria and Epidemics (CNLS-TP) and NMCP, is supporting a national analysis using the malaria impact simulation model developed by the Swiss Tropical and Public Health Institute to identify optimal malaria control options, stratify targeted areas and population at risk, and estimate the impact of interventions. This analysis will include creating a malaria epidemiological profile (including intrinsic malaria transmission level, seasonality, and different vector species) and assessing the existing level of uptake of interventions and the availability of health services. Swiss Tropical and Public Health Institute will provide technical assistance with data compilation and modeling using its OpenMalaria modelling platform designed to support decision-making by malaria control and elimination programs. This will allow comparing different interventions (e.g., IRS vs. ITNs vs. IRS + ITNs) and assessing impact and cost-effectiveness of new interventions (e.g. vaccination, SMC, etc.). Results will suggest expected outcomes as well as potential opportunities to maximize impact to inform the upcoming national integrated disease strategy and revision to the NSP, as appropriate.
Figure 2: Parasite Prevalence by Region, 2015

Malaria Parasite Prevalence by Microscopy in Children 6-59 Months Old (Source: 2015 MIS)

- <20%
- 20-40%
- 40-50%
- >50%
### Table 1: Evolution of Key Survey-Based Malaria Indicators in Benin from 2006 to 2015

<table>
<thead>
<tr>
<th>Indicator</th>
<th>2006 DHS</th>
<th>2011-2012 DHS</th>
<th>2014 MICS</th>
<th>2015 MIS</th>
</tr>
</thead>
<tbody>
<tr>
<td>% Households with at least one ITN</td>
<td>25%</td>
<td>80%</td>
<td>81%</td>
<td>88%</td>
</tr>
<tr>
<td>% Population with access to an ITN</td>
<td>n/a</td>
<td>n/a</td>
<td>36%</td>
<td>n/a</td>
</tr>
<tr>
<td>% Children under five who slept under an ITN the previous night</td>
<td>20%</td>
<td>70%</td>
<td>73%</td>
<td>81%</td>
</tr>
<tr>
<td>% Pregnant women who slept under an ITN the previous night</td>
<td>20%</td>
<td>75%</td>
<td>47%</td>
<td>80%</td>
</tr>
<tr>
<td>% Population that slept under an ITN the previous night</td>
<td>56%</td>
<td>75%</td>
<td>60%</td>
<td>68%</td>
</tr>
<tr>
<td>% Children under five years old with fever in the last two weeks for whom advice or treatment was sought</td>
<td>37%</td>
<td>39%</td>
<td>44%</td>
<td>N/A</td>
</tr>
<tr>
<td>% Children under five with fever in the last two weeks who had a finger or heel stick</td>
<td>n/a</td>
<td>17%</td>
<td>19%</td>
<td>26%</td>
</tr>
<tr>
<td>% Children receiving an ACT among children under five years old with fever in the last two weeks who received any antimalarial drugs</td>
<td>&lt;1</td>
<td>7%</td>
<td>13%</td>
<td>24%</td>
</tr>
<tr>
<td>% Women who received two or more doses of IPTp during their last pregnancy in the last two years</td>
<td>3%</td>
<td>23%</td>
<td>38%</td>
<td>48%</td>
</tr>
<tr>
<td>% Women who received three or more doses of IPTp during their last pregnancy in the last two years</td>
<td>n/a</td>
<td>n/a</td>
<td>12%</td>
<td>19%</td>
</tr>
<tr>
<td>Under-five mortality rate per 1,000 live births</td>
<td>125</td>
<td>70</td>
<td>115</td>
<td>n/a</td>
</tr>
<tr>
<td>% children under five with parasitemia (by microscopy, if done)</td>
<td>n/a</td>
<td>28%</td>
<td>n/a</td>
<td>n/a</td>
</tr>
<tr>
<td>% children under five with parasitemia (by RDT, if done)</td>
<td>n/a</td>
<td>25%</td>
<td>n/a</td>
<td>37%</td>
</tr>
</tbody>
</table>
Table 2: Evolution of Key Malaria Indicators Reported through Routine Surveillance Systems in Benin from 2012 to 2017

<table>
<thead>
<tr>
<th></th>
<th>2012</th>
<th>2013</th>
<th>2014</th>
<th>2015</th>
<th>2016</th>
<th>2017</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total # Cases (Confirmed and Presumed)</td>
<td>860,229</td>
<td>1,449,818</td>
<td>1,413,879</td>
<td>1,527,346</td>
<td>1,536,600</td>
<td>1,765,182</td>
</tr>
<tr>
<td># Confirmed Cases</td>
<td>570,017</td>
<td>1,020,541</td>
<td>1,113,839</td>
<td>1,274,560</td>
<td>1,368,575</td>
<td>1,575,389</td>
</tr>
<tr>
<td># Presumed Cases</td>
<td>290,212</td>
<td>429,277</td>
<td>300,040</td>
<td>252,786</td>
<td>168,025</td>
<td>189,793</td>
</tr>
<tr>
<td>Total # &lt;5 Cases</td>
<td>473,830</td>
<td>629,267</td>
<td>615,412</td>
<td>635,785</td>
<td>632,264</td>
<td>713,665</td>
</tr>
<tr>
<td>Total # Malaria Deaths</td>
<td>1,716</td>
<td>2,117</td>
<td>9,645</td>
<td>1,975</td>
<td>2,076</td>
<td>2,182</td>
</tr>
<tr>
<td>Data Completeness (%)</td>
<td>85.9%</td>
<td>92.1%</td>
<td>95.0%</td>
<td>94%</td>
<td>93%</td>
<td>97.9%</td>
</tr>
<tr>
<td>Test Positivity Rate (TPR)</td>
<td>N/A</td>
<td>N/A</td>
<td>71.1%</td>
<td>70.4%</td>
<td>74.9%</td>
<td>81.3%</td>
</tr>
</tbody>
</table>

1. Total # cases: Total number of reported malaria cases. All ages, outpatient, inpatient, confirmed and unconfirmed cases.
2. # confirmed cases: Total diagnostically confirmed cases. All ages, outpatient, inpatient.
3. # presumed cases: Total clinical/presumed/unconfirmed cases. All ages, outpatient, inpatient.
4. Total #<5 cases: Total number of <5 cases. Outpatient, inpatient, confirmed, and unconfirmed.
5. Total # Malaria Deaths Reported: All ages, outpatient, inpatient, confirmed, and unconfirmed.
6. Data completeness: Number of monthly reports received from health facilities/Number of health facility reports expected (i.e., number of facilities expected to report multiplied by the number of months considered). There has been a notable increase in malaria data completeness due to PMI support.
7. Test Positivity Rate (TPR): Number of confirmed cases (#2 above)/Number patients receiving a diagnostic test for malaria (RDT or microscopy).
Figures 3 and 4: Trends in Key Malaria Indicators Reported in Routine Surveillance Systems

Reported Malaria Cases (all ages, inpatient + outpatient), Data Completeness

Year and Proportion of Cases Confirmed

Percent of malaria cases <5 years of age
Figure 5. Malaria incidence (per 1000 population) in Benin for 2016 by Health Zone
V. NEW OR EXPANDED ACTIVITIES AND KEY CHANGES

1. Vector control

   a. Entomologic monitoring and insecticide resistance management
   No new activities or significant changes are proposed.

   b. Insecticide-treated nets
   No decision has yet been made on the brand of ITNs that will be distributed in the 2020 campaign. If the same type of nets will be procured (ones that have already undergone durability assessment), then durability monitoring (and hence FY 2019 funds to support durability monitoring) will not be necessary. However, if a new type of ITN is introduced, then PMI will reprogram FY 2019 funds to support the Centre de Recherche Entomologique de Cotonou (CREC) to perform ITN durability monitoring to assess the survival, physical integrity, and bio-efficacy of distributed ITNs.

   c. Indoor residual spraying
   Although the FY 2019 MOP currently includes planned IRS activities as in previous years, several years of data has revealed that IRS has resulted in a strong entomological impact (highly reduced vector densities) without a corresponding and expected epidemiological impact. Concerned with these results, the PMI team has provided leadership and supported activities to investigate the results. In October 2015, PMI supported a MoH-led national consultation on the future of IRS in Benin. During the consultation, Benin developed a roadmap that outlined key IRS action points including: establishing an enhanced surveillance system for malaria epidemiological data in IRS zones to be triangulated with entomological and socio-behavioral data, and transitioning IRS activities from Atacora to Donga and Alibori Departments given their shorter, more defined transmission seasons. More recently, PMI Benin assisted with the development of a socio-behavioral study by CREC to assess whether outdoor nighttime human behaviors negatively impact the benefit of IRS; spearheaded an evaluation of IRS activities overseen by NMCP during the 2018 IRS campaign to assess whether operations were impacting IRS coverage; developed questions about IRS to be included in PMI's follow-up community Paquet d’Interventions à Haut Impact (High Impact Intervention Package) household survey to establish an independent measure of IRS household coverage; worked closely with the CNLS-TP and MoH to develop a malaria epidemiological profile to model the best and most cost-effective stratification of malaria interventions (including IRS; see Section IV above); and initiated collaboration with PATH to develop a more in-depth evaluation of IRS' epidemiological impact during the 2015-2018 campaigns. PMI is also planning on developing a detailed monitoring and evaluation protocol that will allow Benin to assess whether the introduction of next generation IRS products in 2019 has more impact than current IRS insecticides. In early 2019, there should be significant amounts of additional data on IRS in Benin and NMCP will likely convene a second national consultation to decide the future of IRS in Benin.

   The future of IRS as a PMI-funded intervention in Benin (and thus as an activity funded in the FY 2019 MOP) will be decided based on the results of the above analyses and the national consultation with input from PMI leadership.

2. Malaria in pregnancy
   No new activities or significant changes are proposed.
3. Drug-based prevention

a. Seasonal malaria chemoprevention
PMI is supporting the NMCP to develop guidelines for the implementation of SMC to start in 2019. In early June 2018, the NMCP convened a workshop to design and validate the implementation protocol and determine areas of performance and strategies to use. Benin’s SMC strategy will target all children aged 3 to 59 months of age in five communes in the Northern Departments of Alibori (Karimama and Malanville Communes) and Atacora (Toucountouna, Cobly, and Materi Communes), for a total of approximately 121,000 children targeted during the 2019 campaign. None of the communes benefitting from SMC will also benefit from IRS. Benin will use sulfadoxine-pyrimethamine/amodiaquine that is to be distributed door-to-door, monthly, between June and September during peak transmission season. Note that although artesunate-amodiaquine is listed as a first (and second) line treatment for malaria in Benin in the FY 2018 MOP, in practice it is no longer being procured or distributed in Benin. Rather, artemether-lumefantrine is the only front-line treatment for malaria in Benin.

Table 3: SMC implementation data

<table>
<thead>
<tr>
<th>Year</th>
<th>No. of children</th>
<th>Commodity cost</th>
<th>Total commodities cost</th>
<th>Source for commodities funding</th>
<th>Unit implementation cost</th>
<th>Total implementation cost</th>
<th>Source for implementation funding</th>
</tr>
</thead>
<tbody>
<tr>
<td>2019</td>
<td>121,271</td>
<td>$1.40/child</td>
<td>$167,500</td>
<td>FY2015 reprogramming</td>
<td>~$4.50/child</td>
<td>~$540,000</td>
<td>FY 2018 MOP</td>
</tr>
<tr>
<td>2020</td>
<td>125,212</td>
<td>$1.50/child</td>
<td>$190,000</td>
<td>Pipeline (not reprogrammed yet)</td>
<td>~$3.50/child</td>
<td>~$450,000</td>
<td>FY 2019 MOP</td>
</tr>
<tr>
<td>2021</td>
<td>125,212</td>
<td>$1.50/child</td>
<td>~$190,000</td>
<td>FY2019 MOP</td>
<td>~$3.50/child</td>
<td>~$450,000</td>
<td>no funding yet</td>
</tr>
</tbody>
</table>

At this point, PMI is the only donor positioned to provide substantial support for SMC implementation in Benin for both planning and implementation phases. WHO is providing a consultant to support the country during the one year planning phase and the first year of implementation.

4. Case management
The 2020 therapeutic efficacy study (TES) monitoring artemether-lumefantrine will be implemented in two sites and expanded to include K13 monitoring. Note that the therapeutic efficacy study is managed under direct funding to the NMCP. The sites are to be determined with selection to be made by NMCP based on a rotative approach to come back to previously enrolled sites. Data collection is expected to be conducted during the peak transmission season. The K13 testing will be conducted at the Centers for Disease Control and Prevention (CDC) in Atlanta based on dried blood spots that will be shipped to Atlanta.

5. Cross-cutting and other health systems strengthening

a. Pharmaceutical management
No new activities or significant changes are proposed

b. Social and behavior change communication
SBCC for SMC: National SMC guidelines development is currently in process. The SBCC component will build on the Medicines for Malaria Venture SMC Toolkit on communications and the WHO SMC operations guidelines to help raise awareness, facilitate sensitization, and mobilize resources for SMC
campaigns. The SBCC plan will include SMC benefits, ensuring awareness of age group of beneficiaries and dates of chemoprevention distribution, drug administration adherence for all three doses, and reporting of adverse effects. Primary and secondary audience and channels for SBCC will be based on experience from the IRS and ITN mass campaigns and the new national integrated malaria communication plan, 2017-2021. Note that funding for this activity is included in the SMC section of Table 2.

c. **Surveillance, monitoring, and evaluation**

With FY 2017 and 2018 funding, PMI supported enhanced epidemiological surveillance to routinely monitor the effects of IRS. While this activity was originally planned for two years only, in 2017 PMI and the NMCP agreed that more data was needed to allow relevant decision-making. Therefore, the number of enrolled health facilities was expanded from 24 to 40 in late 2017 to capture data from neighboring and non-sprayed communes, and surveillance will continue in 2019 and 2020 to capture data related to the transition of insecticide from actellic to newly-developed insecticides for IRS (e.g., shumishield and Fludora).

<table>
<thead>
<tr>
<th>Table 4. Surveillance, Monitoring, and Evaluation Data Sources</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Data Source</strong></td>
</tr>
<tr>
<td>Household surveys</td>
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<tr>
<td></td>
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<td></td>
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<tr>
<td></td>
</tr>
<tr>
<td>Health Facility surveys</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>Malaria Surveillance and Routine System Support</td>
</tr>
<tr>
<td>Other Surveys</td>
</tr>
</tbody>
</table>

d. **Operational research**

No new activities or significant changes are proposed

e. **Other health systems strengthening**

The new Citizen Oversight activity is part of USAID/Benin’s approved strategic framework for a healthier population and more inclusive development and is still in design phase. A pillar of the strategy is to reinforce governance within the health sector. This activity will be co-funded with malaria (maximum 1/3 total budget), maternal and child health and other non-health funding. Anticipated malaria-specific activities would include:

- Information collection on presence and flows of malaria commodities in hotspots in the informal sector (markets, ports, and borders). This information will be used to help position
sites for PMI-supported artemisinin-based combination therapy (ACT) quality testing and malaria commodities’ regulatory strengthening.

- Auditing of malaria services provided under the national health insurance scheme as Benin transitions from a free treatment reimbursement financing mechanism to universal health care insurance scheme, including free membership for the extreme poor. These audits will provide information on costs of malaria treatment and malaria in pregnancy services, measure cost gap for uninsured populations, as well as assess quality of case management and malaria in pregnancy services provided.

- Training of journalists on reporting on the illegal sale of and/or trafficking of counterfeit anti-malarial drugs.

6. **Staffing and administration**

PMI Benin supports staffing and administration that follow PMI policy, as articulated in the FY 2018 MOP.