BENIN Work plan

FY 2019

Project Year 8

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ENVISION PROJECT OVERVIEW

The U.S. Agency for International Development (USAID)'s ENVISION project (2011-2019) is designed to support the vision of the World Health Organization (WHO) and its member states by targeting the control and elimination of seven neglected tropical diseases (NTDs) including, lymphatic filariasis (LF), onchocerciasis (OV), schistosomiasis (SCH), three soil-transmitted helminths (STH; roundworm, whipworm, hookworm) and trachoma. ENVISION's goal is to strengthen NTD programming at global and country levels and support Ministries of Health (MOH) to achieve their NTD control and elimination goals.

At global level, ENVISION –in close coordination and collaboration with WHO, USAID and other stakeholders- contributes to several technical areas in support of global NTD control and elimination goals, including:

- Drug and diagnostics procurement, where global donation programs are unavailable,
- Capacity strengthening,
- Management and implementation of ENVISION's Technical Assistance Facility (TAF),
- Disease mapping,
- NTD policy and technical guideline development, and
- NTD monitoring and evaluation (M&E).

At the country level, ENVISION provides support to national NTD programs by providing strategic technical and financial assistance for a comprehensive package of NTD interventions, including:

- Strategic annual and multi-year planning
- Advocacy
- Social mobilization and health education
- Capacity strengthening
- Baseline disease mapping
- Preventive chemotherapy (PC) or mass drug administration (MDA)
- Drug and commodity supply management and procurement
- Program supervision
- M&E, including disease-specific assessments (DSA) and surveillance

In Benin, ENVISION project activities are implemented by RTI International.

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ACRONYMS LIST

AcceleraTE	Accelerate Trachoma Elimination
AE	Adverse Event
AFRO	Regional Office for Africa (WHO)
ALB	Albendazole
APOC	African Program for Onchocerciasis Control
ATP	Annual Transmission Potential
AZT	Azithromycin
BMGF	Bill & Melinda Gates Foundation
CAME	Centrale d'Achat des Médicaments Essentiels
CDD	Community Drug Distributor
CDTI	Community-Directed Treatment with Ivermectin
CES	Coverage Evaluation Survey
Co-RUP	Co-Responsable d'Unité Pédagogique (Pedagogical Unit Deputy Chief)
CP	Conseiller Pédagogique (Pedagogical Advisor)
CRP	Chef de Région Pédagogique (Head of School District)
DDEMP	Direction Départemental de l'Enseignement Maternelle et Primaire (Departmental Directorate of Kindergarten and Primary Education)
DDS	Direction Départementale de la Santé (Departmental Health Directorate)
D-FEAT	District Filariases Elimination Action Tool
DNSP	Direction Nationale de la Santé Publique (National Public Health Directorate) (MOH)
DPS	Direction de la Promotion de la Scolarisation (Schooling Promotion Directorate)
DQA	Data Quality Assessment
DSA	Disease-Specific Assessment
DSME	Direction de la Santé de la Mère et de l'Enfant (Mother and Child Health Directorate) (MOH)
EDC	Electronic Data Capture
EPIRF	Epidemiological Reporting Form (WHO)
EU	Evaluation Unit
FOG	Fixed Obligation Grant
FTS	Filariasis Test Strip
FY	Fiscal Year
GOB	Government of Benin
GTMP	Global Trachoma Mapping Project
HAT	Human African Trypanosomiasis
HKI	Helen Keller International
HQ	Headquarters
HdZ	Hôpital de Zone (Health Zone Referral Hospital)
ICT	Immunochromatographic Test
IDM	Innovative and Intensified Disease Management
IEC	Information, Education, and Communication
IITA	International Institute for Tropical Agriculture
INSAE	Institut National de la statistique et de l'analyse économique (National Institute of Statistics and Economic Analysis)
ITI	International Trachoma Initiative

IVM	Ivermectin
JAP	Joint Application Package (WHO)
JRF	Joint Reporting Form (WHO)
JRSM	Joint Request for Selected PC Medicines (WHO)
LF	Lymphatic Filariasis
M&E	Monitoring and Evaluation
MCZS	Médecin Coordonnateur de Zone Sanitaire (Health Zone Head Doctor)
MDA	Mass Drug Administration
MDP	Mectizan Donation Program
MEMP	Ministère de l'Enseignement Maternelle et Primaire (Ministry of Kindergarten and Primary Education)
Mf	Microfilaraemia
MMDP	Morbidity Management and Disability Prevention
MOH	Ministry of Health
NGO	Nongovernmental Organization
NTD	Neglected Tropical Disease
OCP	Onchocerciasis Control Program
OV	Onchocerciasis
PC	Preventive Chemotherapy
PNLLUB	Programme National de Lutte contre la Lèpre et l'Ulcère de Buruli (National Leprosy and Buruli Ulcer Control Program)
PNLMT	Programme National de Lutte contre les Maladies Transmissibles (National Program for Control of Communicable Diseases)
PNLP	Programme National de Lutte contre le Paludisme (National Malaria Control Program)
PZQ	Praziquantel
RDT	Rapid Diagnostic Test
RPRG	Regional Programme Review Group
RUP	Responsable d'Unité Pédagogique (Pedagogical Unit Chief)
SAC	School-Age Children
SAE	Severe Adverse Event
SAFE	Surgery–Antibiotics–Facial Cleanliness–Environmental Improvement
SCH	Schistosomiasis
SNIGS	Système National d'Information et de Gestion Sanitaire (National Health Information and Management System)
SOP	Standard Operating Procedure
STH	Soil-Transmitted Helminths
STTA	Short-Term Technical Assistance
TAP	Trachoma Action Plan
TAS	Transmission Assessment Survey
TEO	Tetracycline Eye Ointment
TF	Trachomatous Inflammation–Follicular
TIPAC	Tool for Integrated Planning and Costing
TIS	Trachoma Impact Survey
TS	Trachomatous Scarring
TSO	Technicien supérieur en ophtalmologie (Senior Ophthalmological Officer)
TT	Trachomatous Trichiasis
TV	Television
UNICEF	United Nations Children's Fund

USAID	United States Agency for International Development
WASH	Water, Sanitation, and Hygiene
WHO	World Health Organization
ZS	Zone Sanitaire (Health Zone)
ZTH	Zithromax®

Health Facility Terms, Translations, and Acronyms

English	French	Acronym
Hubert Koutoukou Maga National University Hospital	Centre National Hospitalier et Universitaire Hubert Koutoukou Maga	CNHU-HKM
National Hospital of Respiratory Medicine	Centre National Hospitalier de Pneumo-Phtisiologie	
Departmental Hospital Center	Centre Hospitalier Départemental	CHD
Lagune Mother and Children's Hospital	Hôpital de la Mère et de l'Enfant la Lagune	HOMEL
Departmental hospital (regional hospital)	Centre Hospitalier Départemental	CHD
Center for detection and treatment of Buruli ulcer	Centre de dépistage et de traitement de l'ulcère de Buruli	CDTUB
Leprosy treatment center	Centre de traitement anti lèpre	CTAL
Village health unit	Unité villageoise de santé	UVS
Sub-district health center	Centre de santé de l'arrondissement	CSA
District health center	Centre de santé de la commune	CSC
Health zone referral hospital	Hôpital de zone	HdZ
Full health center	Centre de santé complet	
Standalone clinic	Dispensaire isolé	
Standalone maternity ward	Maternité isolée	
Denominational health center	Centre de santé confessionnel	

COUNTRY OVERVIEW

1. General Country Background

a) Administrative Structure

Benin's administrative and financial capital is Cotonou. In 1999, the country's six political and administrative départements (departments) were reorganized into a total of 12 departments (Alibori, Atacora, Atlantique, Borgou, Collines, Couffo, Donga, Littoral, Mono, Ouémé, Plateau, and Zou). These departments (hereafter referred to as regions) are further subdivided into a total of 77 communes (hereafter referred to as districts), which are composed of a total of 546 arrondissements (boroughs, hereafter referred to as sub-districts) and 5,295 villages.[1]

The Ministry of Health (MOH) is responsible for initiation, planning, implementation, coordination, and monitoring and evaluation (M&E) of the country's health programs, with plans laid out in its National Health Development Plan, the current version of which covers the period 2017–2021.

Facilities at the central level include Hubert Koutoukou Maga National University Hospital, National Hospital of Respiratory Medicine, National Psychiatric Center, Gerontology Center, Lagune Mother and Children's Hospital, and the National Medical Laboratory, all located in Cotonou.

At the intermediate level, the country's reorganization into 12 regions became effective in February 2017 with the nomination of a Director of Health for each region. Across the regions, there are five departmental (regional) hospitals, four centers for detection and treatment of Buruli ulcer, eight leprosy treatment centers, and a center for respiratory medicine. The Hospital Saint Jean de Dieu, in Tanguiéta, serves as a sentinel site for monitoring Human African Trypanosomiasis (HAT).

Each region is subdivided into health zones – between two and four per region, with a total of 34 in the country. Each health zone (zone sanitaire [ZS]) is made up of one or more districts, and typically has a population ranging from 100,000 to 200,000. Each health zone is supervised by a health zone head doctor (médecin coordonnateur de zone sanitaire [MCZS]) and is intended to consist of a network of first-line health facilities (village health units, stand-alone maternity wards and clinics, sub-district health centers), and private health facilities, all of which are supported by a health zone referral hospital (Hôpital de Zone [HdZ]). Across the country, there are 27 public or private HdZs—one per functioning health zone—with an additional 7 HdZs still to be established. As of mid-July 2018, each of the 34 health zones has a NTD focal point, based in one of districts that make up their health zone. The districts are the implementation units for public health activities. Across the country there is a total of 571 full health centers, 118 standalone clinics, 113 stand-alone maternity wards, and 59 denominational health centers.

Many private health facilities share their data with the National Health Information and Management System (Système National d'Information et de Gestion Sanitaire [SNIGS]).

The health care sector also includes humanitarian organizations and associations, including nongovernmental organizations (NGOs) and religious corporations, and the pharmaceutical and medical products industry. Laboratory technicians working in the private sector and involved in health-related activities are being trained and supervised with the financial support of World Health Organization (WHO) and the Government of Benin (GOB); this training includes diagnosis and care of epidemic-prone

[1] Law No 2013-05 (May 27, 2013).

diseases (meningitis, measles, yellow fever, etc.) and case management of the innovative and intensified disease management (IDM) neglected tropical diseases (NTDs) such as HAT. The frequency of these trainings depends on need, and the timing of the trainings is seasonal for certain diseases (e.g., lab technicians are trained on meningitis before the start of the dry season).

The MOH's National Public Health Directorate (Direction Nationale de la Santé Publique [DNSP]) oversees the National Communicable Disease Control Program (Programme National de Lutte contre les Maladies Transmissibles [PNLMT]) and the National Leprosy and Buruli Ulcer Control Program (Programme National de Lutte contre la Lèpre et l'Ulcère de Buruli [PNLLUB]). The PNLMT is responsible for lymphatic filariasis (LF), onchocerciasis (OV), schistosomiasis (SCH), soil-transmitted helminths (STH), and trachoma, as well as hepatitis, HAT, Guinea worm (dracunculiasis), and loiasis. The PNLLUB is responsible for Buruli ulcer, leprosy, and yaws.

The structure of the Ministry of Kindergarten and Primary Education (Ministère de l'Enseignement Maternelle et Primaire [MEMP]) is similar to that of the MOH, including a technical department called the Schooling Promotion Directorate (DPS). A Departmental Directorate of Kindergarten and Primary Education (Direction Départemental de l'Enseignement Maternelle et Primaire [DDEMP]) has been in place in each of the country's 12 regions since 2017. The DDEMPs oversee a total of 85 school districts, which are further subdivided into teaching units, jointly managed by the Pedagogical Unit Chiefs (Responsable d'Unité Pédagogique [RUP]) and Pedagogical Unit Deputy Chiefs (Co-Responsable d'Unité Pédagogique [Co-RUP]). The MEMP is responsible for all 10,015 private and public schools in the country. The MEMP's DPS collaborates closely with the PNLMT in the context of school-based mass drug administration (MDA) for PC NTDs.

b) Other PC NTD Partners

The GOB contributes to PC NTD activities by providing logistics (office space; vehicles for MDA supervision; rooms and halls for meetings; fuel for PNLMT supervision performed by regional, district, and sub-district-level personnel; supervision in the community during MDA and selected PC NTD activities) and funding for vehicles and fuel to transport drugs from the regions to the districts and sub-districts. In addition, the GOB equips MOH offices at the central, regional, and district levels with computers.

RTI, through the ENVISION project, has supported the PNLMT in its efforts to control and eliminate PC NTDs since fiscal year 2013 (FY13). This has included technical and financial support for disease mapping and surveys, MDA for all the PC NTDs, social mobilization, technical training, advocacy, and M&E. ENVISION also procures necessary drugs (including tetracycline eye ointment [TEO]) that are not provided by the drug donation programs, and diagnostic tools (filariasis test strips [FTS] and Kato-Katz kits) for surveys. ENVISION's support includes technical assistance, via project staff and expert local and/or international consultants, to enable quality completion of PC NTD-related PNLMT activities and to build the PNLMT's capacity to lead these activities on its own.

Sightsavers supports the PNLMT in conducting OV epidemiological and entomological assessments in selected endemic districts under treatment for OV. The support includes providing fuel for transportation and daily allowances for technical staff, and per diem for fly collectors. The epidemiological assessments are conducted in villages located close to black fly breeding sites, on a rotating basis, typically on a three-or-more-year cycle. In 2017, Sightsavers supported these in Dassa-Zoumè, Savè, Kalalé, Pèrèrè, Kandi, and Ségbana Districts, using Ov-16 rapid diagnostic tests (RDTs). In FY17 and FY18, Sightsavers partially funded the transportation of ivermectin (IVM) and albendazole (ALB) from Cotonou to the regions for OV-LF MDA, covering per diem for the truck drivers and PNLMT

staff while the PNLMT itself provided the trucks and the fuel. In FY18 Sightsavers also plans to fund the re-mapping of black fly breeding sites.

Sightsavers was awarded the Accelerate Trachoma Elimination (AcceleraTE) project by The Audacious Project: Collaborative Philanthropy for Bold Ideas, hosted by TED (and replacing the former TED Prize), in April 2018. Benin is among the countries which is targeted for support for TT surgeries, and possibly for facial cleansing and environmental improvement, under the AcceleraTE project.

The Bill and Melinda Gates Foundation (BMGF)-funded DeWorm3 project, hosted at Natural History Museum London and involving University of Washington, Seattle, is initiating support for STH MDA and related interventions in Comé District (Mono Region), in the context of a multi-country study aimed at demonstrating the feasibility of interrupting STH transmission.

Helen Keller International (HKI), through the USAID-funded Morbidity Management and Disability Prevention (MMDP) project, organized a planning meeting for trichiasis-focused activities with the PNLMT in December 2017. This was followed by a training to increase the trachomatous trichiasis (TT) surgery skills of Benin's two national TT surgery trainers.

Anesvad, a NGO based in Spain, has committed to support an assessment of LF morbidity, and case management support for those living with lymphedema and hydrocele. This will consist of a one-year pilot project starting in 2018, consisting of a situation analysis in Atlantique, Couffo, and Mono Regions followed by lymphedema and hydrocele care, hydrocele surgery, and community sensitization on the disease in designated facilities; this is to be followed by two years of case management services nationwide.

WHO provides donated praziquantel (PZQ) from Merck Serono (KGaA) for SCH MDA (starting in FY18; in prior years, this was procured by ENVISION); donated IVM from Merck and Co. via the Mectizan Donation Program (MDP) for OV MDA and LF MDA; and donated ALB from GlaxoSmithKline for LF and STH MDA. The donations of PZQ for SCH MDA and ALB for STH MDA are intended for school-age children (SAC) specifically.

The International Trachoma Initiative (ITI) provides donated Zithromax® (ZTH) tablets and pediatric oral suspension (POS) for trachoma MDA. As of mid-July 2018, it is anticipated that no trachoma MDA will be required in FY19.

2. National NTD Program Overview

The MOH strategy for NTD control and elimination is laid out in its National Master Plan for NTD Control 2016–2020, which was approved by MOH leadership in February 2017 and launched in September 2017. This document succeeds the prior Master Plan, which covered the period 2012–2016. The current document addresses LF, OV, SCH, STH, and trachoma, along with Buruli ulcer, Guinea worm, HAT, leprosy, and loiasis; it also mentions yaws, while specifying that loiasis and yaws have not been shown to be endemic and that both are under surveillance. The plan proposes intensified scaling up of interventions and consideration of cross-cutting determinants of health (health education, access to potable water, hygiene, and sanitation). The plan aims for elimination of LF, OV, and trachoma, as well as HAT and leprosy, by 2020; control of SCH, STH (both by 2020), and Buruli ulcer; and maintenance of the certification of eradication of Guinea worm (certified since 2010).

Control and elimination of PC NTDs is the responsibility of the PNLMT, as noted above. Baseline mapping is complete for all five PC NTDs. The PNLMT uses two strategies to reach targeted populations with PC: 1) MDA or community-directed treatment, involving community drug distributors (CDDs); and 2) school-based MDA for SAC (5–14 years), involving teachers as distributors assisted by CDDs. Typically, the first approach is used for OV and LF (which includes STH, as appropriate), as well as for trachoma; and the second approach is used for SCH and STH. In 2017, the PNLMT piloted use of community-based MDA for SCH and/or STH in selected districts; beginning in 2018, the PNLMT is using this approach in selected districts. In general, in districts where two or more NTDs are co-endemic, and based on disease prevalence and the treatment cycle, the PNLMT has conducted integrated MDA in the following combinations: OV+LF, OV+LF+STH, LF+STH, and STH+SCH. In line with the standard practice in most countries of the region, trachoma MDA is conducted separately from MDA for the other diseases.

The PNLMT has 16 staff in all. It is led by two medical doctors—one specialized in project management and the other in public health—with additional staff including a biologist-entomologist, a data manager, a nurse-epidemiologist, a financial controller, an environmental biologist, a senior social work specialist (community action technician), a social work specialist, a senior public health specialist, four nurses, a storekeeper, and a logistician. The PNLMT includes six units: 1) M&E, managed by the data manager; 2) MDA, led by the nurse-epidemiologist; 3) Biological and Entomological Activities, managed by the biologist-entomologist; 4) Prevention and Social Mobilization, managed by the senior social work specialist; 5) Financial Management, under the responsibility of the financial controller; and (6) Equipment and Logistics, under the responsibility of the logistician.

In addition to technical support from partners (see above), the PNLMT has drawn on the expertise of institutions such as the National Institute of Statistics and Economic Analysis (*Institut National de la Statistique et de l'Analyse Économique*, INSAE), the International Institute for Tropical Agriculture (IITA), and the University of Abomey-Calavi to conduct its PC NTD-related activities.

a) Lymphatic Filariasis

The PNLMT's goal, as stated in its Master Plan for 2016–2020, is to eliminate LF in the country by 2020. Specific objectives are to reduce LF prevalence to <1% in endemic districts, to identify cases of LF-related morbidity in endemic districts, and to provide case management of LF-related morbidity. Strategies are MDA, vector control (through the MOH's National Malaria Control Program [PNLP]), surgery, personal hygiene and home self-care, and epidemiological surveillance.

LF baseline mapping was conducted in 2000, following the standard WHO protocol and using immunochromatographic tests (ICTs), and taking the district as the implementation unit. This mapping

showed 50 districts (including Cotonou and Porto-Novo, the country's largest cities) to be endemic for the disease (≥1%).

The PNLMT re-mapped Cotonou and Porto-Novo districts in 2016. Together, the epidemiological and entomological components suggest that transmission of LF was interrupted in both districts.

Based on the findings of baseline mapping and remapping of Cotonou and Porto-Novo, a total of 48 districts are endemic. Thirty-six districts progressively initiated LF MDA (IVM+ALB) over the period 2002–2011. Twelve other districts launched MDA in 2013.

The PNLMT conducted pre-transmission assessment surveys (pre-TAS) in four districts in 2007, and in a further five districts in 2009, with neither showing any positive cases. In 2012, the PNLMT implemented a first transmission assessment survey (TAS1) in 23 districts (grouped into six evaluation units [EUs]), showing that MDA could be stopped. The PNLMT conducted TAS2 in the same 23 districts in 2014, using ICT cards, confirming that MDA still was not required.

The PNLMT conducted TAS3 in 21 districts —grouped into five EUs—in 2017, using FTS. Final results showed that MDA still was not required. In 14 of these districts, the TAS3 survey was paired with an STH assessment (see Soil-Transmitted Helminths section below). In FY18, the PNLMT conducted TAS3 in the two remaining districts; the survey showed that MDA still was not required.

In the TAS1 conducted in FY18, which also used FTS, 13 districts were grouped into six EUs. In five of the EUs, representing nine districts, the survey showed that MDA could be stopped. In the sixth EU, the number of positive cases exceeded the critical cut-off. The PNLMT conducted a TAS failure investigation in the three districts in May 2018.

As of mid-July 2018, factoring in the findings of the TAS1 conducted in FY18, 32 districts have passed a TAS1 and have met the criteria to stop MDA (see below). A total of 16 districts still require MDA for LF; this includes 12 districts that conducted pre-TAS in FY18 for which analysis is ongoing, and four districts that conducted (and failed) TAS1 in the same period. For the 12 districts that conducted pre-TAS in FY18, the MDA scheduled for FY18 Q3-Q4 could potentially be the final round of MDA. For the four districts that failed TAS1, it is expected that two additional rounds of enhanced MDA, with a focus on ensuring directly-observed treatment of all eligible persons living in the affected districts, will be needed.

The MOH established a Technical Committee of Experts for Elimination of OV and LF, which is tasked with developing a national guide and roadmap for elimination of both diseases; this committee met for the first time in late FY17.

LF MDA treatment registers designed in FY16 are helping to estimate the number of people living with LF-related disability. ENVISION support for LF started in FY13, assisting the PNLMT in expanding MDA from 13 to 25 districts. ENVISION has supported all MDA, pre-TAS, and TAS surveys from FY13 onward, and has been involved in the PNLMT's remapping surveys.

b) Trachoma

The PNLMT's goal is to eliminate trachoma as a public health problem by 2020. Specific objectives are to reduce prevalence of trachomatous inflammation-follicular (TF) to <5%, to reduce TT to <0.1% in the total population, and to provide case management for trachoma-related complications. The PNLMT subscribes to the SAFE strategy.

To determine where to map for the disease, in 2013 the PNLMT conducted a desk review, identifying 26 northern districts as suspected trachoma-endemic and requiring mapping.

The PNLMT conducted baseline mapping in 2014–2015, following Global Trachoma Mapping Project (GTMP) protocol. The surveys were carried out in the 26 districts that were suspected to be endemic; these were grouped into 11 EUs each consisting of between one and four districts. A total of four EUs, comprising eight districts, were found to be endemic, defined as having TF prevalence of ≥5%. Among these, four districts had TF prevalence of 10-29.9%, requiring three rounds of MDA; and four districts had TF prevalence of 5-9.9%, for which a single round of MDA is indicated. Overall, nine EUs, comprising 19 districts, registered trichiasis prevalence in adults of ≥0.2%, constituting a public health problem in those districts. Following these findings, the PNLMT held a workshop in 2015 to develop a trachoma action plan (TAP).

The PNLMT initiated MDA for trachoma in 2016. As of mid-July 2018, two rounds (FY16 and FY17) have been completed in the four districts with TF prevalence of 10-29.9%, and one round (FY17) in the four districts with TF prevalence of 5-9.9%. The PNLMT is slated to conduct its third (and final) round of MDA in 2018, in the four districts with baseline TF prevalence of 10-29.9%. MDA is community-based, with door-to-door distribution by CDDs of Zithromax® (ZTH) and TEO.

ENVISION supported independent monitoring of the 2017 MDA campaign in two of the districts receiving MDA for the first time. The findings provided nurses with information on where to deploy CDDs most effectively and identified areas where people were absent during the CDDs' first visit, so that a follow-up visit could be scheduled.

The four districts that conducted their first round of MDA in FY17 conducted trachoma impact surveys (TIS) in FY18. If treatment coverage is sufficient in the four other districts which are scheduled to conduct their third round of MDA in FY18, those districts will conduct TIS in FY19.

According to the PNLMT's TAP, 75% of the country's trichiasis cases must be operated on by 2020 to reach the elimination threshold.

The PNLMT's Trachoma Focal Point and another ophthalmologist specialized in eye surgery participated in a multi-country TT surgery training-of-trainers in September 2017. In December 2017 in Benin, the same two people, designated as Benin's two national trainers in TT surgery, participated in a training to increase their surgical skills.

The "F" and "E" elements of the SAFE strategy (Surgery–Antibiotics–Facial cleanliness–Environmental improvement) are being addressed at small scale in selected areas.

ENVISION support for trachoma started in FY13 with assistance for the PNLMT to conduct a desk review to identify mapping needs; then baseline mapping and development of its TAP; followed by MDA and advocacy for funding for the F and E components of the SAFE strategy. ENVISION will support trachoma impact surveys (TISs) in FY18 (four districts) and in FY19 (four districts).

c) Onchocerciasis

The PNLMT's goal is to eliminate OV in the country by 2025. The specific objective is to reduce prevalence of OV to <0.1% (as measured by Ov16 serology) in endemic districts. Presently, the strategy to reach this goal is MDA for people aged ≥5 years, with monitoring via entomological and epidemiological assessments (with skin snip microscopy replaced by Ov16 rapid diagnostic tests starting in FY17).

Baseline assessments conducted in the 1970s showed 51 districts to be hyper- or meso-endemic for OV.

OCP conducted larviciding of black fly breeding sites, using a rotation of insecticides, in some of the aforementioned 51 districts from 1977-2002. Larviciding continued in special intervention zones in upper Ouémé from 2003 to 2007.

Treatment with IVM started in 1988, distributed by mobile teams from OCP headquarters (HQ) in Burkina Faso. In 1997, this was replaced by community-directed treatment with IVM (CDTI), led by the MOH. Until 2002, the 51 districts conducted twice-yearly CDTI alongside the vector-control activities. In the special intervention zones of upper Ouémé, twice-yearly CDTI continued until 2007, while the other endemic districts continued to conduct a single round of treatment per year. Since 2008, all districts have conducted MDA once per year. Since 2013, the PNLMT has conducted annual community-based MDA, integrated with LF and/or STH as appropriate by district.

The PNLMT has periodically conducted epidemiological and entomological surveys across the 51 districts with support from partners. Sentinel villages have been assessed on a rotation schedule since 2013.

Black fly breeding sites were mapped in the 1970s with the support of OCP; these were monitored in FY16. In 2018 the PNLMT remapped a selection of breeding sites, per the recommendation of the first meeting of the country's Technical Committee of Experts for Elimination of OV and LF.

The Technical Committee, which is tasked with developing a national guide and roadmap for elimination of both diseases, met for the first time in August 2017.

The MOH's annual cross-border OV meeting with Togo was held in Benin in August 2018. The Togo team brought a detailed map which helped in identifying corresponding border districts and villages. Recommendations were as follows: i) ensure collaboration between neighboring border sub-districts by organizing preparatory meetings between sub-district personnel right before the MDA, ii) fill any gaps in the list of border villages and their neighboring villages across the border, and add village-level MDA treatment coverage to that list, iii) advocate for increased partner funding to be able to conduct a field visit during the annual OV cross-border meeting, and iv) disseminate the two countries' OV-LF MDA supervision guides to the border sub-districts' field-level staff, to ensure they are familiar with the other country's guide.

ENVISION has supported all OV MDA in the country from FY13 forward, along with an epidemiological survey in FY13 and meetings of the MOH Technical Committee of Experts for Elimination of OV and LF beginning in FY17.

d) Schistosomiasis

The PNLMT's goal is to control SCH in the country by 2020. The specific objective is to reduce prevalence of SCH to <10% among 75% of SAC by 2020. Strategies are MDA in schools and in the community, and behavior change communication. MDA is led by the PNLMT; when cases are diagnosed outside of the MDA period, PZQ treatment is offered free of charge in health centers.

SCH was first mapped in 2003 using questionnaires, showing national prevalence rates of 26% for *S. mansoni* and 12% for *S. haematobium*. The mapping report stated that all regions were endemic but did not provide the specific information required for clear programmatic decisions. Following this mapping, MDA was conducted once (in 2009) in parts of two regions.

From 2013–2015, the PNLMT remapped all districts for both SCH and STH, using Kato-Katz and urine filtration as the diagnostic tools. Those results are considered the baseline. Eight districts were remapped in 2013; 30 districts in 2014; and the remaining 39 districts in 2015. 31 districts were classified as low-risk (>0 and <10%); 37 as moderate-risk (≥10% and <50%); and 8 as high-risk (≥50%).

The PNLMT's control strategy for SCH is MDA with PZQ for all in- and out-of-school SAC (ages 5–14 years). In districts with baseline prevalence of ≥10%, the PNLMT follows WHO guidance for treatment based on prevalence: once every two years in moderate-risk communities (10% to <50% by parasitological methods), and once a year in high-risk communities (≥50% by parasitological methods).

The PNLMT has conducted SCH MDA with PZQ, with support from ENVISION, beginning in 2013, and since 2016 reaching all endemic districts requiring MDA (in 2018, all districts with baseline prevalence of ≥10% are on a treatment cycle).

ENVISION supported remapping all districts for SCH from FY13 to FY15, all SCH MDA from FY13 onward, and the assessment of *S. mansoni* via an STH assessment in 14 districts (in conjunction with the TAS3) in FY17.

e) Soil-Transmitted Helminths

The PNLMT's goal is to control STH in the country by 2020. The specific objective is to reduce the prevalence of STH to <20% among 75% of SAC by 2020. Preschool-age children (pre-SAC) are treated by the MOH's Mother and Child Health Directorate (*Direction de la Santé de la Mère et de l'Enfant* [DSME]). Strategies are MDA in schools and in the community, and promotion of hygiene and environmental sanitation.

STH was first mapped in 2009. The mapping report indicated that prevalence was greater in the southern areas than in the center, and much lower in the northern areas, but it did not provide detailed data.From 2013 to 2015, the PNLMT remapped all districts for both STH and SCH (as noted above), all using Kato-Katz as the diagnostic for STH. This was considered the baseline mapping. A total of 8 districts were remapped in 2013, 30 districts in 2014, and the remaining 39 districts in 2015. Overall, two districts were shown to be high-risk (≥50%); 43 districts moderate-risk (≥20 and <50%); and 32 districts low-risk (<20%) for STH.

The PNLMT's control strategy for STH is MDA with ALB for all in- and out-of-school SAC (ages 5–14 years); the entire district is treated. The PNLMT typically conducts STH MDA once per year in both moderate-risk districts (baseline prevalence of ≥20% and <50%) and high-risk districts (baseline prevalence ≥50%).

The PNLMT has conducted STH MDA with ALB, with support from ENVISION, beginning in 2013 and reached full national scale for annual MDA with ALB in all moderate- and high-risk districts (i.e., all districts with prevalence rates of ≥20%) in 2016.

A total of 20 districts that require STH MDA (prevalence ≥20% from mapping or a prevalence evaluation survey) and were receiving it via LF MDA, have passed TAS1 and stopped MDA for LF – this includes 14 districts in 2012 and a further six districts in 2018. Four more such districts are slated to conduct TAS1 in 2019 and could discontinue their LF MDA at that time. When the remaining LF-endemic districts pass TAS1 and stop MDA, the PNLMT intends to conduct STH MDA via the school-based platform wherever feasible and community-based platform in districts with recurrent low-coverage issues. In districts that also require SCH MDA, the two will be integrated.

As noted above (see Lymphatic Filariasis section), the PNLMT conducted an STH assessment, using Kato-Katz kits and with support from ENVISION, in 14 districts in 2017 as part of the TAS3.

The DSME's United Nations Children's Fund (UNICEF)/WHO-supported Expanded Program of Immunization annual activities have, in recent years, included deworming treatment for children under

5 years of age (pre-SAC). Starting in approximately 1997, trained CDDs have offered ALB to pre-SAC during national polio vaccination days.

As noted above, ENVISION has supported the remapping of all the country's districts for STH from FY13 to FY15, all STH MDA from FY13 onward, and STH assessment in 14 districts (in conjunction with the TAS3) in FY17. Starting in FY18, one district (Comé) is conducting STH MDA with support from another partner.

PLANNED ACTIVITIES

1. PC-NTD Program Capacity Strengthening

a) Strategic Capacity Strengthening Approach

Capacity goals

1. Assured financial and material support for the PNLMT to conduct planned PC NTD-related activities: The PNLMT requires assured financial and material support to sustain and/or expand its PC NTD-related activities.
2. Increased capacity of PNLMT personnel to conduct multi-year budget planning, forecast MDA drug needs, and analyze resource gaps: Having a clearer, multi-year picture of anticipated PC NTD-related activities – including MDA and related assessments, morbidity case management, and complementary interventions such as WASH, all projected by district – will be helpful both for its own sake and also for identifying any resource gaps that exist. Knowing the gaps is an essential step in being able to effectively advocate for support.

Capacity strengthening strategy

1. Training/refresher training by ENVISION to enable central-level PNLMT personnel to effectively use WHO's NTD Tool for Integrated Planning and Costing (TIPAC) to conduct PC NTD-focused multi-year budget planning, MDA drug forecasting, and gap analysis.

b) Capacity Strengthening Objectives and Interventions

Objective 1: Inform the PNLMT's PC NTD resource mobilization strategy with information on resource gaps

See Objective 2 for the planned intervention.

Objective 2: Strengthen the capacity of PNLMT staff to conduct multi-year budget planning, forecast MDA drug needs, and analyze resource gaps

Intervention 1: TIPAC training/refresher training for PNLMT personnel

ENVISION supported a training on the TIPAC for PNLMT staff in FY14. Absences at the time of that training, and changes in personnel over the ensuing years, mean that few current PNLMT or RTI Benin personnel benefited from the initial training. The PNLMT anticipates resuming use of the TIPAC to generate data for the MOH's Joint Request for Selected PC Medicines (JRSM), as well as to conduct multi-year activity planning and budgeting, disaggregated down to district level as needed; to forecast MDA drug needs; and to analyze resource gaps, generating related visuals – information which can then be used for advocacy purposes. Please see Training section for more details on the proposed training.

2. Project Assistance

a) Strategic Planning

Activity 1: Annual review meeting of FY18 PC NTD activities and planning of FY19 PC NTD activities, in three groups of regions: Every year toward the end of the calendar-year, the PNLMT organizes a meeting to review the previous (USAID fiscal) year's PC NTD activities and to develop a detailed plan and timeline for PC NTD activities in the coming (USAID fiscal) year. Over the course of the meeting, the PNLMT and its partners review the previous year's MDA, surveys, and M&E implementation and outcomes; develop strategies to improve MDA coverage as needed; develop plans for health district-level activities; and plan activities for the coming year (including those planned as part of the ENVISION work plan for that same period). This meeting will be held successively in three parts of the country, with three different groups of regions, allowing for focused discussion and decision-making between geographic groupings that face common situations and challenges. As in previous years, ENVISION will fund and provide logistical support for this activity, and assist the PNLMT in preparing data for the meetings.

Representatives of the four northern regions (Alibori, Atacora, Borgou, and Donga) will meet in Borgou Region; representatives of the four central regions (Collines, Couffo, Mono, and Zou) will meet in Mono or Collines Region; and representatives of three southern regions (Atlantique, Ouémé, Plateau) will meet in Atlantique Region.

Activity 2: PC NTD Steering Committee meetings: ENVISION will fund two of the quarterly meetings of the MOH's PC NTD Steering Committee in Cotonou, out of the three that are typically held over the course of the year. The Steering Committee is responsible for coordinating integration of PC NTD activities, assessing progress, and addressing challenges for PC NTD control in Benin; it oversees implementation of the PNLMT's PC NTD program. RTI personnel prepare data and PowerPoint presentations for the meetings, contribute to the technical conversations, and work with the PNLMT to ensure that recommendations are followed up after the meetings.

b) NTD Secretariat

Activity 1: Support for PNLMT operational costs (office equipment, communication costs, and supplies): ENVISION will provide minor financial support for operational costs and supplies related to PNLMT PC NTD activities (including paper, copies, office maintenance, air time for mobile phones, internet subscription, and communications).

Activity 2: Vehicle maintenance and related supplies: In FY19, ENVISION will continue financial support for vehicle maintenance and purchase of routine vehicle-related supplies for the PNLMT's PC NTD-related activities.

c) Building Advocacy for a Sustainable National PC NTD Program

It is anticipated that supporting training/refresher training on the TIPAC will enable the PNLMT to generate cost-analysis outputs that it can then use in its advocacy and resource mobilization efforts.

Activity 1: MDA advocacy meetings in the four districts targeted for enhanced LF MDA: ENVISION will support the PNLMT, and the four districts targeted for enhanced LF MDA, in conducting meetings aimed at improving uptake of MDA in FY19.

d) MDA Coverage

Table 1: USAID-supported districts for MDA in FY19

NTD	Age groups targeted	Number of rounds of distribution annually	Distribution platform(s)	Number of districts to be treated in FY19
LF	Entire population ≥5 years	1	Community-based MDA	4[+]
OV	Entire population ≥5 years	1	Community-based MDA	51
SCH	SAC ages 5-14 years	1	Community-based MDA	4 SCH + 1 SCH-STH
	SAC ages 5-14 years	1	School-based MDA	10 SCH + 5 SCH-STH
STH	Entire population ≥5 years	1	Community-based MDA*	3 (LF)
	SAC ages 5-14 years	1	Community-based MDA	5 STH + 1 SCH-STH
	SAC ages 5-14 years	1	School-based MDA	20 STH + 5 SCH-STH
Trachoma	N/A	N/A	N/A	N/A

[+]MDA targets depend on RPRG approval of TAS1 in 12 districts; if RPRG does not approve, ENVISION will request USAID support for MDA in those districts.
* Treatment of STH through LF MDA; only capturing STH treatment in districts where prevalence ≥20%.

Activity 1: Produce MDA supplies: registers, dose poles, and reporting forms: ENVISION will financially support:

- Printing registers for registration and treatment data collection during community-based SCH and/or STH MDA.
- Printing registers for registration and treatment data collection during community-based OV and/or LF MDA.
- Manufacturing PZQ dose poles for districts that will conduct community-based SCH MDA.
- Printing reporting forms for school-based SCH-and/or STH MDA.

Activity 2: Enhanced MDA for LF in four districts (including OV MDA in three districts): ENVISION will support the PNLMT's enhanced LF MDA in the four districts which constitute the EU that failed TAS1 in FY18. In three of these districts, OV MDA is also needed. CDDs will distribute the drugs under supervision of sub-district nurses and district head doctors.

Activity 3: Community-based MDA for OV in 48 districts: ENVISION will support the PNLMT's community-based MDA for OV in 48 districts that do not require MDA for LF. CDDs will simultaneously register the population and distribute the drugs, both under the supervision of sub-district nurses and district head doctors.

Activity 4: Community-based MDA for SCH and/or STH in 10 districts: ENVISION will support the PNLMT in community-based MDA for SCH and/or STH: integrated SCH-STH MDA in one district, SCH-only

MDA in four districts, and STH-only MDA in five districts. CDDs will distribute the drugs under supervision of sub-district nurses and district head doctors.

Activity 5: School-based MDA for SCH and/or STH in 35 districts: ENVISION will technically and financially support the PNLMT in conducting school-based MDA in five districts for integrated SCH-STH, 10 districts for SCH alone, and 20 districts for STH alone.

The teachers serve as drug distributors for school children. A CDD will be assigned to each school, to administer the drugs to out-of-school SAC who visit the school to receive treatment.

e) Social Mobilization to Enable PC NTD Program Activities

Activity 1: Printing of posters and banners for OV, LF, SCH, and STH MDA: ENVISION will support the printing and distribution of posters and banners for all ENVISION-supported MDA.

Four types of posters will be printed and supplied to districts depending on the diseases targeted in each district: i) MDA for LF, ii) MDA for OV, iii) MDA for SCH and STH, iv) risk factors and prevention of SCH and STH, highlighting the importance of using toilets.

Activity 2: Airing of MDA-related TV and radio commercials and announcements: ENVISION will procure communication agencies to arrange for radio and TV stations to air commercials and announcements in all districts supported by ENVISION. The pre-recorded announcements provided to the radio and TV stations include i) standard health education messages regarding the targeted diseases (developed in prior years, with ENVISION support), and ii) an MOH announcement of the specific date(s) of MDA in CY19. These will be aired at the peak listening- or viewing-time blocks on major TV channels and community radio stations in targeted districts.

Activity 3: Message announcements via mobile sound system: ENVISION will financially support the announcement via mobile sound system (loudspeaker-equipped rental cars or motorbikes) of messages to mobilize the public for MDA, in central urban areas where town criers cannot reach all residents. This will be for all ENVISION-supported MDA.

The loudspeaker announcements will emphasize the exact dates of the MDA, seeking to generate excitement about the campaign; and will particularly encourage parents with non-school-going SAC to bring their children to the nearest school to receive treatment (in those districts where SCH and/or STH MDA is conducted via the schools).

Activity 4: Village-to-village awareness-raising by town criers: ENVISION will financially support using town criers to inform communities in urban areas and villages about MDA and encourage them to participate. This is especially critical in remote areas which are not reached by radio, TV, or mobile sound system.

Activity 5: Social mobilization for school-based MDA: The RTI Benin team will assist the PNLMT in determining the most effective way of reaching the teachers and the parents; sometimes this can include assisting in preparing communiqués.

f) Training

Activity 1: MDA training of departmental trainers: ENVISION will financially and technically support the MOH's team of national trainers in leading trainings on PC NTDs and preparation, implementation, and supervision of social mobilization and MDA for other personnel (DDS directors, heads of departmental public health services, heads of the Division of Epidemiology and Health Surveillance, MCZSs, district

head doctors, and health zone NTD focal points) in workshops held in six grouped regions (Atacora-Donga, Couffo-Mono, Alibori-Borgou, Ouémé/Plateau, Atlantique/Littoral, and Collines-Zou). The trainees will include personnel from the recently-established regions, who upon conclusion of the training will join the pool of national trainers.

The workshop participants will also estimate the human resources, materials, and financial needs for MDA in each targeted district and village; they will then share these with the PNLMT, which will use them to refine its planning.

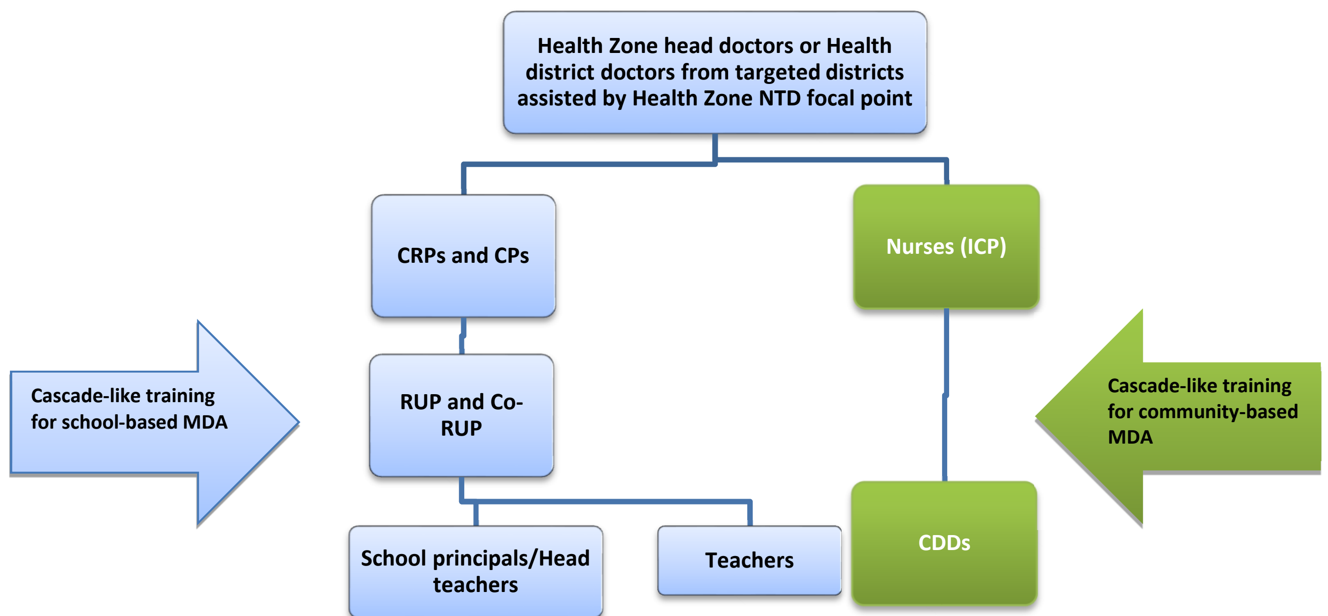
Activity 2: MDA training of nurses and CDDs for OV and/or LF MDA in 52 districts: ENVISION will support the PNLMT in providing refresher training to nurses for OV and LF MDA. The nurses will travel and meet at their respective district health centers to receive training from the district head doctor. On their return, these nurses will conduct refresher training sessions for CDDs involved in OV and LF MDA.

Activity 3: Training of CRP, CPs, RUPs, Co-RUPs (trainers, supervisors of teachers), head teachers, and teachers for school-based SCH and/or STH MDA in 35 districts:

ENVISION will fund the following:

- Training by district head doctors and health zone NTD focal points of RUPs, Co-RUPs, CRP, and CPs). The CRPs and CPs are the hierarchical superiors of the RUPs (who themselves oversee multiple schools).
- Training by RUPs and Co-RUPs, with supervision by the CRPs and CPs, of school principals, teachers, and head teachers, in each pedagogic unit.

Figure 1: Organization of the cascade training for the various MDA campaigns



Activity 4: Training of nurses and CDDs for community-based SCH and/or STH MDA in 10 districts: ENVISION will support district head doctors, assisted by health zone NTD focal points, in providing refresher training for nurses on SCH and/or STH MDA preparation, implementation, and supervision.

ENVISION will then support the nurses in providing training for CDDs, enabling them to properly perform registration and treat targeted persons.

Activity 5: TIPAC training/refresher training for the PNLMT: ENVISION will fund a joint training/refresher training. As noted in Capacity Strengthening, above, this training will strengthen the PNLMT's capacity to conduct multi-year budget planning, forecast MDA drug needs, and analyze resource gaps; the latter can, in turn, inform the PNLMT's PC NTD resource mobilization strategy.

Activity 6: **Printing of training modules and guides for CDDs and training modules for nurses for community-based OV-LF and SCH-STH MDA**: The training modules are used during MDA trainings, and the guides are summaries of the main points CDDs need to observe while conducting MDA. ENVISION will financially support printing of training modules for nurses involved in both SCH and/or STH and OV and/or LF MDA, training modules for CDDs involved in OV and/or LF MDA, guides for the CDDs involved in community-based SCH and/or STH MDA, and guides for the CDDs involved in OV and/or LF MDA.

Activity 7: Training for independent monitoring of LF MDA in four districts (including OV MDA in three districts): ENVISION will technically and financially support training for an independent monitoring survey to be conducted during the planned ENVISION-supported enhanced LF MDA in four districts (including OV MDA in three districts). Please see the M&E section for details of the activity.

Activity 8: Training on Coverage Evaluation Surveys: ENVISION will technically and financially support training of surveyors and supervisors on WHO's updated method for CES. Please see the M&E section for details of the activity.

Activity 9: Training for TAS1: ENVISION will technically and financially support training for supervisors and surveyors) before the start of the survey.

Activity 10: Training for TIS: ENVISION will financially support training of prospective graders and recorders.

g) Drug and Commodity Supply Management and Procurement

Activity 1: MDA drug quantification: RTI Benin staff will assist PNLMT staff in developing the MOH's JRSM form for submission to WHO for drugs (IVM, PZQ, ALB) for MDA in CY2020. The PNLMT plans to resume use of the TIPAC for that purpose in preparing the MOH's request for CY2020. ENVISION's planned support for a TIPAC training/refresher training (see Training section for details) will assist in using the tool effectively for that purpose.

Also see "Assist the PNLMT to ensure the JAP is submitted with high quality" under M&E.

Activity 2: Transport SCH and STH MDA drugs within country:

ENVISION will financially support the PNLMT in transporting drugs for ENVISION-supported school-based and community-based SCH and/or STH MDA (PZQ, as well as the ALB that is not paired with IVM for LF MDA).

Activity 3: Procurement of FTS for LF TAS1: RTI will procure FTS, as part of ENVISION's global procurement, for use during the TAS1 survey in 12 districts.

h) Supervision for MDA

Activity 1: Supervision of MDA cascade training: ENVISION will technically and financially support the MOH and MEMP (the latter in districts targeted with school-based MDA) in conducting supervision of MDA cascade training.

Activity 2: Supervision of OV MDA in 48 districts: ENVISION will financially support supervision of community-based OV MDA in 48 districts, to involve personnel from the PNLMT, the regions, the health zones, the districts, and the subdistricts.

Activity 3: Supervision of enhanced LF MDA in four districts (including OV in three districts): ENVISION will financially support supervision of enhanced LF MDA in four districts, to involve personnel from the PNLMT, the regions, the health zones, the districts, the sub-districts, and RTI staff.

Activity 4: Supervision of school-based SCH and/or STH MDA in 35 districts: ENVISION will financially support supervision of school-based SCH and/or STH MDA in 35 districts, to involve personnel from the PNLMT, the regions, the health zones, the districts, as well as the MEMP, CRPs and their assistants, CPs, and RTI.

Activity 5: Supervision of community-based SCH and/or STH MDA in 10 districts: ENVISION will financially support supervision of community-based SCH and/or STH MDA in 10 districts, to involve personnel from the PNLMT, the health zones, the districts, the sub-districts, and RTI staff.

i) M&E

Activity 1: LF TAS1 in 12 districts: ENVISION will technically and financially support the PNLMT in conducting TAS1 using electronic data capture (EDC) in 12 districts that passed pre-TAS in 2018. The survey will be school-based as all districts have primary-school enrollment of ≥75%. FTS will be used as the diagnostic test. The 12 districts will be grouped into six EUs.

Activity 2: TIS in four districts: ENVISION will support the PNLMT in conducting TIS in four districts that have completed their required three rounds of MDA with sufficient program coverage. Each district will be considered as an EU. The WHO/Tropical Data protocol will be followed and EDC will be used.

Activity 3: Independent monitoring of LF MDA in four districts (including OV MDA in three districts): ENVISION will technically and financially support an independent monitoring survey of the planned ENVISION-supported enhanced LF MDA in four districts (including OV MDA in three districts). This activity was among the recommendations from the FY18 TAS failure investigation. This survey will start two days after the beginning of the MDA and will consist of assessing MDA coverage in a sample of houses selected according to the survey protocol.

Activity 4: Coverage evaluation survey of OV and/or LF MDA in two districts: ENVISION will support the PNLMT in conducting CES in two districts, following ENVISION-supported OV and LF MDA. EDC will be used. The immediate purpose will be to validate reported coverage in those districts, which are among the four districts that failed TAS1 in FY18 (the other two districts that failed the TAS1, conducted CES in FY18).

Activity 5: Data quality control of LF MDA at sub-district level in four districts (including OV MDA in three districts): ENVISION will technically and financially support the PNLMT in conducting compilation and quality-control of LF (and OV) MDA data at sub-district level (posts and villages/arrondissements) in the four districts that failed TAS1 in FY18, per the recommendations of the TAS failure investigation.

Activity 6: Update the Integrated NTD Database: RTI staff will assist the PNLMT staff in updating the MOH's Integrated NTD Database. Using the refresher training that is planned for late FY18, RTI staff will assist the PNLMT in making the necessary updates and in continuing with ongoing data entry.

Activity 7: Assist the PNLMT to ensure the JAP is submitted with high quality: RTI will assist the MOH during the preparation of the Joint Application Package (JAP) forms.

Table 2: Planned Disease-specific Assessments for FY19 by Disease

Disease	No. of endemic districts (as of July 2018)	No. of districts planned for DSA	No. of EUs planned for DSA (if known)	Type of assessment	Diagnostic method
LF	16	12	6	TAS1	FTS
Trachoma	8	4*	4	TIS	Clinical grading

* Four districts will be surveyed in FY18 and the remaining 4 in FY19

j) Supervision for M&E and DSAs

Activity 1: Supervision of LF TAS1 in 12 districts: ENVISION will financially support i) supervision at the beginning of the activity, by joint PNLMT-RTI teams, and ii) supervision, covering the entire period of fieldwork, by qualified field supervisors who will closely monitor and support the work of the teams conducting the survey.

Activity 2: Supervision of TIS in four districts: ENVISION will financially support supervision by supervisors (MOH-affiliated staff). They will ensure that the teams follow the SOPs recommended by WHO for this activity and solve any issues that can hinder the success of the activity. In addition, the PNLMT and RTI staff will supervise survey implementation.

Activity 3: Supervision of Independent monitoring of LF MDA in four districts (including OV MDA in 3 districts): ENVISION will financially support supervision by supervisors who will oversee implementation of the survey and ensure surveyors are adhering to the protocol.

Activity 4: Supervision of Coverage evaluation survey in two districts: ENVISION will financially support i) supervision at the beginning of the activity, by joint PNLMT-RTI teams, and ii) supervision, covering the entire period of fieldwork, by qualified field supervisors who will closely monitor and support the work of the teams conducting the CES.

APPENDIX 1: Work Plan Activities

FY19 Activities
Project Assistance
Strategic Planning
Meeting for review of FY18 PC NTD activities and planning of FY19 PC NTD activities, in three groups of regions
PC NTD Steering Committee meetings
NTD Secretariat
Support for PNLMT operational costs (office equipment, communication costs, and supplies)
Vehicle maintenance and related supplies
Advocacy
MDA advocacy meetings in the four districts targeted for enhanced LF MDA
MDA Coverage
Produce MDA supplies: registers, dose poles, and reporting forms
Enhanced LF MDA in four districts (including OV MDA in three districts)
Community-based MDA for OV in 48 districts
Community-based MDA for SCH and/or STH in 10 districts
School-based MDA for SCH and/or STH in 35 districts
Social Mobilization to Enable PC NTD Program Activities
Printing of posters and banners for OV, LF, SCH, and STH MDA
Airing of MDA-related TV and radio commercials and announcements
Message announcements via mobile sound system
Village-to-village awareness-raising by town criers
Social mobilization for school-based MDA
Training
MDA training of departmental trainers

FY19 Activities
MDA training of nurses and CDDs for OV and/or LF MDA in 52 districts
Training of CRP, CPs, RUPs, Co-RUPs, trainers, supervisors of teachers, and training of teachers for school-based SCH and/or STH MDA in 35 districts
Training of nurses and CDDs for community-based SCH and/or STH MDA in 10 districts
TIPAC training/refresher training for PNLMT personnel
Printing of training modules and guides for CDDs and training modules for nurses for community-based SCH and/or STH and OV and/or LF MDA
Training for independent monitoring of LF MDA in four districts (including OV MDA in three districts)
Training on Coverage Evaluation Surveys
Training for TAS1
Training for TIS
Drug and Commodity Supply Management and Procurement
MDA drug quantification
Transport SCH and STH drugs within country
Supervision for MDA
Supervision of MDA cascade training
Supervision of OV MDA in 48 districts
Supervision of LF MDA in four districts (including OV MDA in three districts)
Supervision of school-based SCH and/or STH MDA in 35 districts
Supervision of community-based SCH and/or STH MDA in 10 districts
Monitoring and Evaluation
LF TAS1 in 12 districts
TIS in four districts

FY19 Activities
Independent monitoring of LF MDA in four districts (including OV MDA in three districts)
Coverage evaluation survey in two districts
Data quality control of LF MDA at sub-district level in four districts (including OV MDA in three districts)
Update the Integrated NTD Database
Assist the PNLMT to ensure the JAP is submitted with high quality
Supervision for Monitoring and Evaluation
Supervision of LF TAS1 in 12 districts
Supervision of TIS in four districts
Supervision of LF independent monitoring in four districts
Supervision of Coverage evaluation survey in two districts

APPENDIX 2. Table of USAID-supported Regions and Districts in FY19

	Region	District	MDA				DSA	
			LF	OV	SCH	STH	LF	TRA
1	Alibori	Banikoara		X	X			TIS
2		Gogounou		X		X		
3		Kandi		X	X	X		
4		Karimama		X				
5		Malanville		X	X			
6		Ségbana		X		X		
7	Atacora	Boukoumbé		X				TIS
8		Cobly		X		X		
9		Kérou		X				
10		Kouandé		X		X		
11		Matéri		X				
12		Natitingou		X				TIS
13		Péhunco			X			
14		Tanguiéta		X				
15		Toukountouna		X				TIS
16	Atlantique	Abomey-Calavi						
17		Allada				X		
18		Kpomassè						
19		Ouidah						
20		So-Ava			X			
21		Toffo		X		X		
22		Torri-Bossito				X		
23		Zè		X		X		
24	Borgou	Bembèrèkè		X	X			
25		Kalalé		X		X		
26		N'Dali		X	X	X		
27		Nikki		X				
28		Parakou		X		X		
29		Pèrèrè		X		X		
30		Sinendé		x		X		

	Region	District	MDA				DSA	
			LF	OV	SCH	STH	LF	TRA
31		Tchaourou		X	X			
32	Collines	Bantè		X	X			
33		Dassa-Zoumè		X		X		
34		Glazoué		X				
35		Ouèssè		X		X		
36		Savalou		X	X			
37		Savè		X		X		
38	Couffo	Aplahoué		X	X			
39		Djakotomè		X	X	X		
40		Dogbo		X				
41		Klouékamè		X	X	X		
42		Lalo		X	X			
43		Toviklin				X		
44	Donga	Bassila		X		X		
45		Copargo		X	X	X		
46		Djougou		X				
47		Ouaké		X	X	X		
48	Littoral	Cotonou						
49	Mono	Athiémé		X				
50		Bopa						
51		Grand-Popo				X		
52		Houéyogbé						
53		Lokossa		X	X			
54	Oueme	Adjarra			X		TAS1	
55		Adjohoun					TAS1	
56		Aguégués					TAS1	
57		Akpro-Missérété			X		TAS1	
58		Avrankou				X	TAS1	
59		Bonou		X				
60		Dangbo					TAS1	
61		Porto-Novo			X			

	Region	District	MDA				DSA	
			LF	OV	SCH	STH	LF	TRA
62		Sèmè-Kpodji					TAS1	
63	Plateau	Adja-Ouèrè		X				
64		Ifangni				X	TAS1	
65		Kétou		X		X		
66		Pobè				X	TAS1	
67		Sakété				X	TAS1	
68	Zou	Abomey		X		X	TAS1	
69		Agbangnizoun		X				
70		Bohicon				X	TAS1	
71		Covè	X					
72		Djidja		X		X		
73		Ouinhi	X	X				
74		Zagnanado	X	X		X		
75		Za-Kpota	X	X				
76		Zogbodomey		X		X		