



# Mali Work Plan

**FY 2019**

**Project Year 8**

**October 2018–September 2019**



ENVISION is a global project led by RTI International in partnership with CBM International, The Carter Center, Fred Hollows Foundation, Helen Keller International, IMA World Health, Light for the World, Sightsavers, and World Vision. ENVISION is funded by the US Agency for International Development under cooperative agreement No. AID-OAA-A-11-00048. The period of performance for ENVISION is September 30, 2011, through September 30, 2019.

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## ENVISION PROJECT OVERVIEW

The United States Agency for International Development (USAID) 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), trachoma, and three soil-transmitted helminths (STH; roundworm, whipworm, and hookworm). ENVISION’s goal is to strengthen NTD programming at the global and country levels and support ministries of health to achieve their NTD control and elimination goals.

At the 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 the following:

- Technical assistance
- Monitoring and evaluation (M&E)
- Global policy leadership
- Grants and financial management
- Capacity strengthening at global and country levels
- Dissemination

At the country level, ENVISION provides support to national NTD programs in 19 countries in Africa, Asia, and Latin America by providing strategic technical, operational, and financial assistance for a comprehensive package of NTD interventions, including the following:

- NTD program capacity strengthening
- Strategic planning
- Advocacy for building a sustainable national NTD program
- Social mobilization to enable NTD program activities
- Mapping
- Drug and commodity supply management
- Supervision
- M&E

In Mali, ENVISION project activities are implemented by Helen Keller International.

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## ACRONYMS LIST

AE	Adverse Event
ALB	Albendazole
CAP	Centre d'attitude professionnelle (Center of professional attitude)
CD	Country Director
CDD	Community Drug Distributor
CHW	Community Health Worker
CNHF	Conrad N. Hilton Foundation
CNIECS	<i>Centre National d'Information, d'Education et Communication pour la Santé</i> (National Center for Health Information, Education, and Communication)
CSCOM	<i>Centre de Santé Communautaire</i> (Community Health Center)
CSREF	<i>Centre de Santé de Référence</i> (Referral Health Center)
CY	Calendar Year
MCD	Médecin Chef de District (Medical Chief of District)
DNS	<i>Direction Nationale de la Santé</i> (National Health Directorate)
DPLM	<i>Division de la Prévention et de la Lutte Contre la Maladie</i> (Division of Disease Prevention and Control)
DQA	Data Quality Assessment
DRS	<i>Direction Régionale de la Santé</i> (Regional Health Directorate)
DSA	Disease-Specific Assessment
DTC	<i>Directeur Technique du Centre</i> (Technical Director of the Health Center)
ELISA	Enzyme-Linked Immunosorbent Assay
END Fund	End Neglected Tropical Diseases Fund
ESPEN	Expanded Special Project for the Elimination of NTDs
EU	Evaluation Unit
FELASCOM	<i>Fédération Locale de l'Association de Santé Communautaire</i> (Local Federation of Community Health Associations)
FMOS	<i>Faculte de Medecine et d'OdontoStomatologie</i> (Faculty of Medicine and Dentistry)
FOG	Fixed Obligation Grant
FTS	Filariasis Test Strip
FY	Fiscal Year
HD	Health District
HKI	Helen Keller International
HQ	Headquarters
ICT	Immuno-chromatographic Test
IEC	Information, Education, and Communication
INRSP	<i>Institut National de Recherche en Santé Publique</i> (National Institute of Research and Public Health)
IVM	Ivermectin
JAP	Joint Application Package

JRSM	Joint Request for Selected Medicines
LF	Lymphatic Filariasis
M&E	Monitoring and Evaluation
MCD	<i>Médecin-Chef de District</i> (Health District Chief Medical Officer)
MDA	Mass Drug Administration
MMDP	Morbidity Management and Disability Prevention
MOH	Ministry of Health
MRTC	Malaria Research and Training Center
MSHP	<i>Ministère de la Santé et de l'Hygiène Publique</i> (Ministry of Health and Public Hygiene)
NGO	Nongovernmental Organization
NTD	Neglected Tropical Disease
OEC	Onchocerciasis Elimination Committee
OMVS	<i>Organisation pour la Mise en Valeur du Fleuve Sénégal</i> (Organization for the Development of the Senegal River)
ORTM	<i>l'Office de Radiodiffusion Télévision du Mali</i> (Office of Radio and Television of Mali)
OV	Onchocerciasis
PC	Preventive Chemotherapy
PCR	Polymerase Chain Reaction
PGIRE	<i>Le Programme de Gestion Intégrée des Ressources en Eau et de Développement des Usages Multiples</i> (Integrated Water Resource Management Project)
PNEFL	<i>Le Programme National d'Élimination de la Filariose Lymphatique ou Éléphantiasis</i> (National Lymphatic Filariasis Elimination Program)
PNLO	<i>Programme National de Lutte Contre l'Onchocercose</i> (National Onchocerciasis Control Program)
PNSO	<i>Programme National de Soins Oculaire</i> (National Program for Eye Health)
PSI	Population Services International
PZQ	Praziquantel
Q	Quarter
RD	Regional Director
SAC	School-Age Children
SAFE	Surgery–Antibiotics–Facial cleanliness–Environmental improvements
SCH	Schistosomiasis
SCI	Schistosomiasis Control Initiative
STH	Soil-Transmitted Helminths
TA	Technical Assistance
TAS	Transmission Assessment Survey
TF	Trachomatous Inflammation—Follicular (Active Trachoma)
TFGH	Task Force for Global Health
TIPAC	Tool for Integrated Planning and Costing
TIS	Trachoma Impact Survey
TSS	Trachoma Surveillance Survey

TOT	Training of Trainers
TT	Trachomatous Trichiasis
USAID	U.S. Agency for International Development
WB	World Bank
WHO	World Health Organization

## COUNTRY OVERVIEW

### 1. General Country Background

Mali's neglected tropical disease (NTD) program began in 2007 as one of the original fast-track countries funded by the US Agency for International Development (USAID). In 2009, the country reached full geographic scale (61 health districts [HDs]) for all of the preventive chemotherapy (PC) NTDs. The country has since undergone redistricting from 61 to now 75 HDs. Significant gains have been made in stopping HD-level mass drug administration (MDA) for trachoma in all 69 of the originally endemic HDs and 49 of 75 districts endemic for lymphatic filariasis (LF). The remaining 26 LF-endemic HDs will conduct transmission assessment surveys (TASs) before the end of the calendar year 2018 (CY18). Two of 22 HDs endemic for onchocerciasis (OV) have also stopped MDA.

The data from schistosomiasis (SCH) surveys in 46 HDs from calendar years 2014 to 2017 revealed that 12 HDs achieved the criteria for disease control (less than 5% heavy-intensity infections in sentinel populations) and that 16 HDs achieved the criteria for disease elimination as a public health problem (less than 1% heavy-intensity infections in sentinel populations). For soil-transmitted helminths (STH), 43 out of 46 HDs evaluated from 2014 to 2017 have reached elimination criteria (prevalence of heavy-intensity infections <1%), and 3 have reached control criteria (prevalence of heavy-intensity infections < 5%) among the school-age children (SAC) examined. These 46 HDs along with the other HDs will be re-evaluated for LF during integrated STH TAS by the end of CY18.

OV is endemic in 34 HDs in the regions of Kayes, Koulikoro, Sikasso, of these 34 HDs, 20 are receiving ivermectin (IVM) treatment currently, and the other 14 are under epidemiological surveillance. In FY18, 20 HDs were treated. Epidemiological and entomological surveys conducted in 2015 demonstrated progress towards OV elimination in 5 HDs. However, confirmation with additional studies—OV16 enzyme-linked immunosorbent assay (ELISA) and O-150 polymerase chain reaction (PCR) (in flies)—is needed to determine if MDA can be stopped. With the OV elimination strategic plan (in process) and OV expert committee (OEC) recommendations, strategies will be made for each endemic district in order to reach the elimination goal by 2025.

In fiscal year 2019 (FY19), the MDA will target SCH and OV, and five partners (USAID, Sightsavers, World Bank, Organization for the Development of the Senegal River (*Organisation pour la Mise en Valeur du Fleuve Sénégal* [OMVS]), and End Neglected Tropical Diseases [END] Fund) will support these activities (surveys in 34 HDs). USAID funding will support MDA in 14 HDs (for SCH) and 29 SCH sentinel and spot check site surveys.

#### a) Administrative Structure

Mali is a large West African country located in the Sudano-Sahelian zone, covering 1,246,040 square kilometers. It is bordered to the north by Algeria, to the east by Niger and Burkina Faso, to the west by Senegal and Mauritania, and to the south by Guinea, Côte d'Ivoire, and Burkina Faso. The climate in Mali is characterized by two seasons: a dry season (nine months) and a rainy season (three months from July to September). It is also crossed by two major rivers, the Niger and the Senegal. Dams were built on both rivers, and fishing and rice cultivation areas create ecological areas where certain NTDs thrive. Mali is endemic for the PC NTDs LF, OV, SCH, STH, and trachoma. The population in Mali is estimated to reach 20,458,057 in 2019, with most of the population concentrated in the south and the center of the country.

Mali's administrative and political structure is divided into 10 regions and the District of Bamako, 59 prefectures, and 703 rural and urban communes.

Within Mali's health system, there are four levels of health facilities:

1. Community health centers (*Centres de Santé Communautaire* [CSCOMs]), which offer basic preventive and therapeutic services at the local level
2. HD level, the referral health centers (*Centres de Santé de Référence* [CSREFs])
3. Regional level
4. National level

The NTD program and disease-specific programs operate under the purview of the Division of Disease Prevention and Control (*Division de la Prévention et de la Lutte Contre la Maladie* [DPLM]). Each region, including the District of Bamako, has a Regional Health Directorate (*Direction Régionale de la Santé* [DRS]) that is responsible for adapting National Health Directorate (*Direction Nationale de la Santé* [DNS]) policies to meet local needs; therefore, each DRS provides technical and institutional support to HDs at an intermediary level. Within each DRS, there is a regional-level NTD focal point who is responsible for matters under the supervision of the Regional Director of Health. At the HD level, there is also an NTD focal point who oversees and coordinates NTD activities under the supervision of the Chief District Medical Officer. The Regional NTD Focal Points are the direct line of communication with the national disease program coordinators under the leadership of the Chief of the DPLM, who reports to the National Director of Health. At the health area level, the technical directors of health centers (*Directeurs Techniques des Centres* [DTCs]) oversee the implementation of activities at the health center and village levels.

#### b) Other NTD Partners

##### *History of USAID support*

Mali began integrated NTD control in 2007 as a fast-track country of the USAID-funded, RTI-managed NTD Control Program, uniting already-existing vertical, disease-specific programs into integrated NTD treatment strategies. In 2008, Helen Keller International (HKI) became the sub-grantee providing technical assistance (TA) to the Ministry of Health and Public Hygiene (*Ministère de la Santé et de l'Hygiène Publique* [MSHP]) in Mali in support of the integrated national NTD program. From 2007 to 2011, Mali scaled up treatments across the country for the five target NTDs: LF, OV, SCH, STH, and trachoma. Significant progress was made, with 100% geographic coverage reached for all five NTDs, adequate program and epidemiological coverage sustained over time, and disease-specific assessments (DSAs) providing evidence to stop MDA and begin post-endemic surveillance for LF and trachoma in certain areas. A military coup d'état beginning on March 22, 2012, led to the temporary suspension of USAID funding.

##### *Donor Financial Support*

- The Government of Mali provides support to the national NTD program by paying staff salaries and providing office space and meeting rooms. In addition to funding from USAID through the ENVISION project, the following donors are currently supporting NTD activities in Mali. In FY19, USAID funding will support MDA in 14 HDs (for SCH) and SCH sentinel and spot check site surveys. **Conrad N. Hilton Foundation** (CNHF) funds trachoma elimination through HKI, The

Carter Center, and Sightsavers, supporting mainly the S, F and E components of the Surgery–Antibiotics–Facial cleanliness–Environmental improvements (SAFE) strategy, trachoma impact surveys (TISs), trachoma surveillance surveys (TSSs), and trachoma elimination dossier submission.

- **Sightsavers** provides MDA treatments for OV in partnership with HKI (END Fund) in 11 HDs (in Koulikoro and Sikasso) and MDA, if recommended by the OEC, in partnership with World Bank (WB) in two HDs of Sikasso Region (Sikasso and Kolondièba) for a total of 13 HDs. Sightsavers will fund all the integrated activities at the regional level and will also support DNS participation in these activities for Koulikoro Region.
- **The Carter Center** provides technical and financial assistance to MSHP for morbidity management and disability prevention for trachoma (S, F, and E components of the SAFE strategy), TISs, and TSS. This is accomplished with funding from CNHF and The Carter Center’s internal funding.
- **END Fund** supports the management of LF morbidity, notably hydrocele surgery in the regions of Bamako, Kayes, Koulikoro, Mopti, Segou, Sikasso, and Tombouctou, through HKI. In addition, END Fund will replace USAID support in OV elimination activities (MDA in six HDs and surveys) in Mali starting in FY19. This support is planned through HKI.
- **Project SAHEL (WB)** is supporting NTD activities from 2016 to 2019 in the 12 HDs that border Burkina Faso and Niger (Ansongo, Bankass, Douentza, Gourma-Rharous, Kadiolo, Koro, Koutiala, Ménaka, Sikasso, Tin-Essako, Tominian, and Yorosso) with funding provided directly to the government. They plan to support MDA for all NTDs and LF morbidity management. Research projects and NTD activities (to be decided between the DNS and WB) are planned in four other non-border HDs (Bougouni, Kita, Kolondièba, and Yanfolila). The WB will support these activities by providing malaria treatment for children in all of these HDs. MDA activities will be co-financed with Sightsavers in two HDs (Kolondièba and Sikasso). WB will fund all the integrated activities at the regional level and support DNS participation in these activities for Mopti and Sikasso regions.
- **OMVS** – Phase II of OMVS’s Integrated Water Resource Management Project (*Le Programme de Gestion Intégrée des Ressources en Eau et de Développement des Usages Multiples* [PGIRE]), which is funded by WB, was launched in July 2016 for a total of three years. PGIRE will support MDA for SCH and the distribution of long-lasting insecticide-treated nets in the HDs situated in the Senegal River basin, including those in Mali, and provide TA to the Ministry of Health (MOH) and staff at the district and community level. OMVS financed SCH MDA activities in 7 HDs in Kayes Region and 4 HDs in Koulikoro Region in FY19. The nongovernmental organization (NGO) Population Services International (PSI) is the implementing partner in Mali. OMVS (with, as of June 22, 2016, PSI) supported the national program by providing praziquantel (PZQ) for the treatment of SAC and adults at risk. In FY19, OMVS/PGIRE will support SCH MDA in 11 HDs. The treatment for OV (pending the OEC recommendations) will be conducted by Sightsavers and HKI in Koulikoro. OMVS/PGIREII will fund all the integrated activities at the regional level and support DNS participation in these activities for Kayes.

## 2. National NTD Program Overview

Mali has been implementing an integrated NTD control program since 2007, integrating the efforts of strong vertical, disease-specific programs with well-established elimination strategies for LF, OV, and trachoma and control strategies for SCH and STH. These vertical programs include the National Lymphatic Filariasis Elimination Program (*Le Programme National d'Élimination de la Filariose Lymphatique ou Éléphantiasis* [PNEFL]), National Onchocerciasis Control Program (*Programme National de Lutte Contre l'Onchocercose* [PNLO]), National Program for SCH/STH, and National Program for Eye Health (*Programme National de Soins Oculaire* [PNSO]).

### MDA Objectives in FY19

In FY19, a total of 39 HDs will undergo MDA (for either OV, SCH, or both). This is broken down as follows:

- **LF:** TAS 1 in Tombouctou scheduled in FY18 is postponed in FY19. This EU will be supported by ENVISION in Q1 FY19. The remaining 26 HDs will undergo TAS by the end of FY18.
- **OV:** 20 HDs will be treated (some HDs may undergo stop-MDA assessments), supported by END Fund through HKI and with support from Sightsavers.
- **SCH:** 30 HDs will be treated, with 14 HDs supported by USAID's Act to End Neglected Tropical Diseases (NTDs) | West.
- **STH:** No HDs will undergo STH treatment in FY19.
- **Trachoma:** No HDs are planned for trachoma treatment in FY19 as all HDs have met the trachomatous inflammation—follicular (TF) elimination criteria (TF in 1–9yrs < 5%).

#### a) Lymphatic Filariasis (combined with STH if appropriate)

### *Historical data and MDA*

LF is caused by *Wuchereria bancrofti* and transmitted by *Anopheles* mosquitoes in Mali. The national strategy is to eliminate LF as a public health problem by the year 2020 through yearly treatment with IVM and albendazole (ALB) according to World Health Organization (WHO) guidelines. Mali aims to halt the transmission of LF by the end of CY18 (when the last HDs will undergo TAS1). LF was endemic throughout Mali according to the 2004 mapping done by PNEFL using immunochromatographic tests (ICTs). MDA with IVM and ALB began in 2005 in Sikasso Region to treat LF and OV. Over time, the scale-up of treatment continued, first in the OV co-endemic HDs and then in other HDs. In 2009, 100% geographic coverage was reached.

In the 26 HDs planned for TAS1, 13 received ALB/IVM treatment in FY18 (not ENVISION funded): 4 HDs in Kidal, 2 in Mopti, 4 in Ménaka, 2 in Gao, and 1 in Tombouctou.

No HDs are scheduled for LF treatment in FY19 assuming all those HDs undergoing TAS1 will have attained the criteria to stop MDA.

### *Survey results*

In FY18, integrated TAS-STH surveys were planned in all 75 HDs. Twenty-two evaluation units (EUs) were planned as follows:

- TAS1-STH: 4 EUs
- TAS2-STH: 17 EUs
- TAS3-STH: 1 EUs

As of July 2018, TAS2-STH have been completed in 12 EUs (34 HDs). All passed TAS2, and Mali is on track to stop MDA in all HDs by the end of CY18. The LF program plans to complete all the remaining surveys by December 31, 2018. ENVISION-supported TAS-STH are prioritized to be completed before the end of FY18 and WB-supported TAS-STH by the end of Quarter (Q)1 of FY19 (4 EUs in Sikasso Region). Due to ongoing security problems in the 26 HDs targeted for TAS1, local staff will be used for these surveys.

TAS3 are planned in two HDs in FY19 with WB financial support, and the program will begin to complete the LF elimination dossier in FY19.

## b) Trachoma

### *Historical data and MDA*

Mali was historically a country with a heavy disease burden of trachoma. The national strategy is to eliminate trachoma as a public health problem by 2018, and the country is on track to meet this ambitious target. Mali is currently implementing the SAFE strategy for the elimination of trachoma as a public health problem, according to WHO guidelines and recommendations. Nationwide baseline mapping in the late 1990s found active trachoma prevalence values ranging from 23.1% to 46.7% and an overall trachomatous trichiasis (TT) prevalence of 2.5%. Evidence of widespread endemicity led to the launch of a trachoma control program through the National Program for Blindness Prevention (now PNSO) in 1998, with the first round of Zithromax® distributed in 2002.

### *Surveys*

After more than 10 years in the fight against trachoma, all 65 endemic HDs (TF) have reached the criteria to stop MDA. The PNSO has received training in the WHO-approved Tropical Data system for surveys in 2016 and July 2017 and will use Tropical Data after June 2018 following grader and recorder certification in May 2018. The PNSO plans 24 TSSs and 15 TT-only surveys in FY19, all with CNHF support. There are plans to establish a national trachoma elimination committee to guide Mali towards elimination and dossier preparation, supported by CNHF. Data collation for the dossier has begun.

### *TT surgery*

The current TT surgery backlog is fewer than 5,000 cases as the result of an intense TT surgery outreach with implementation and technical support from The Carter Center, HKI (non-ENVISION funding), and Sightsavers.

## c) Onchocerciasis

### *Historical data and MDA*

The current national objective is the elimination of OV by 2025 through annual regular IVM treatment with a minimum requirement of 80% programmatic coverage. OV is endemic in 34 HDs in the regions of Kayes, Koulikoro, Mopti, Segou and Sikasso; of these 34 HDs, 20 are receiving IVM treatment currently, and the other 14 are under epidemiological surveillance. Twelve of the fourteen HDs were endemic for OV according to mapping data. These HDs were treated earlier with insecticide under the vector control

program. At the beginning of TIDC they were not eligible for MDA at that time because they had benefitted from vector control. They were treated with IVM/ALB for LF for at least five years. The two other stop MDA in 2012 after surveys epidemiological and entomological surveys. In FY18, 20 HDs were treated. All the HDs reached therapeutic coverage of at least 65%. Six HDs were treated with ENVISION support, 11 with joint funding by ENVISION and Sightsavers, 2 with support from Sightsavers/WB, and 1 with support from WB alone, for a total of 20 HDs.

### *Surveys*

After more than 30 years of efforts against OV, the PNLO has achieved the WHO control objectives (the original control objectives) in 20 HDs, as confirmed by epidemiological and entomological surveys. In FY15, with ENVISION support, the prevalence of OV by skin snip was zero in the HDs of Kati and Kolokani, Yanfolila and Bougouni. Entomological surveys conducted in FY15 revealed no infection in blackflies in the HDs of Bougouni, Kalabancoro, Sélingué, and Yanfolila. No OV surveys were performed in FY17.

To accelerate achieving the national elimination of OV, the MOH created the OEC. ENVISION and Sightsavers supported in June 2018 a workshop to review OV data (during the committee meeting) to develop a sound OV elimination strategy and identify appropriate plans and strategies to achieve the 2025 national elimination goal.

The OEC has developed a draft strategic plan during the June 20–21, 2018, meeting. The plan outlines the steps necessary for Mali to achieve certification of OV elimination. In FY19, END Fund will provide financial and technical support for all OV activities in Mali. Surveys are planned to be carried out in all endemic HDs (34); some HDs are planned for impact surveys, others for stop-MDA assessments. HDs neighboring endemic HDs will undergo OV elimination mapping to confirm absence of the disease. Vector breeding site mapping will take place as will entomological surveys, in both endemic HDs and their neighboring HDs, which will enable the program to determine priority villages.

#### d) Schistosomiasis

### *Historical data and MDA*

The current strategy for SCH in Mali, according to the National Schistosomiasis Strategic Plan, is control of morbidity by 2020, which is in line with existing WHO guidelines. The national program for SCH/STH was established in 1982, and two national surveys were subsequently conducted (1984–1989 and 2004–2006) that confirmed urogenital and intestinal SCH endemicity in Mali. Treatment targeting SAC and high-risk adults in all endemic regions was established in 2005 with support from the Schistosomiasis Control Initiative (SCI). This treatment strategy continued as part of the integrated effort since 2007 with funding from USAID, OMVS, and Sightsavers. In FY18, 51 HDs were targeted for MDA with support from ENVISION, OMVS, and Sightsavers, and 32 HDs will have been treated by July 31, 2018. All treated HDs reached the therapeutic coverage for SAC (75%) in FY18.

The SCH/STH program has not yet developed a solid transition plan and ENVISION will provide technical assistance to help the program draw concrete conclusions with clear next steps in FY19. ENVISION will support the setting up of a national SCH/STH committee, which will be tasked with planning SCH/STH treatment in the future and ensuring the sustainability of this program.

In FY19, 30 HDs will be targeted for MDA: 14 HDs with Act to End NTDs | West support, 11 HDs with OMVS/PSI support, and 5 with WB support.

**Table 1: SCH treatment frequency in Mali until FY19**

SCH endemicity (using WHO criteria)	PZQ and STH treatment schedule (number of HDs per year)					
	FY17*		FY18		FY19	
	SCH	STH	SCH	STH	SCH	STH**
High prevalence $\geq 50\%$	19	0	19	0	19	0
Moderate prevalence ( $\geq 10\%$ to $< 50\%$ for SCH and 20%-50% for STH)	9	10	29	3	11	
Low ( $< 10\%$ for SCH and 0.1% to 20% for STH)	9	39	3	20	0	
0% (for STH)	--	15	--	14	--	
<b>TOTAL</b>	37	64	51	37	30	

\*FY17 PZQ MDA was not implemented, as all SCH-endemic HDs have been assigned a treatment schedule according to WHO guidelines. This has resulted in a changed schedule for some HDs. The data were updated in FY17. STH prevalence results are those collected at baseline.

\*\* All HDs in Mali will undergo TAS-STH surveys in FY18, so FY19 treatment will depend on these results. Preliminary results show zero or very low prevalence.

### Surveys

Almost 10 years of integrated NTD control have impacted SCH morbidity. Survey results obtained with the Kato-Katz method from 2014 to 2017 from sentinel sites in 46 HDs was performed to measure the impacts of the interventions. These data showed that 16 HDs have achieved the criteria for elimination (less than 1% of heavy-intensity infections in sentinel populations) and that another 12 have achieved the criteria for disease control (less than 5% of heavy-intensity infections in sentinel populations).

No SCH evaluations were conducted in FY18. In FY19, the SCH program will carry out sentinel site surveys in 29 HDs where there are no recent data.

### e) Soil-Transmitted Helminths

#### Historical data and MDA

The current strategy for STH in Mali is control of morbidity by 2020 by reaching 75% coverage of SAC and pre-SAC according to WHO guidance. During the 2004–2006 surveys for SCH (noted above), data on STH prevalence (using Kato-Katz) were also collected and showed that STH was endemic across Mali. From 2004–2007, the national NTD program began treatment with ALB, coupled with the SCH MDA. Since the start of the integrated program in 2012, STH treatment has been integrated with the MDA for LF, and all 75 HDs have received at least five rounds of MDA. In FY17, 64/65 STH-endemic HDs were treated; 1 district was not treated because the drugs were not available.

In FY18, the MDA for SCH/STH treatment was completed as follows in 37 HDs:

- STH/OV in 6 HDs
- STH/SCH in 24 HDs
- STH alone in 7 HDs

In FY19, no HDs will be treated for STH. The national program has decided to stop MDA (using the WHO STH decision tree) for STH due to the low prevalence at both baseline and after evaluations (<2%). The available results from the 34 HDs (12 EUs) confirmed this trend of low or zero prevalence.

### *Surveys*

SCH-STH surveys conducted in 2014 and 2017 show that 43 out of 46 HDs evaluated have reached the goal of elimination (prevalence among SAC < 1%).

In CY18, all HDs in Mali will conduct integrated TAS-STH surveys. Preliminary results from 12 EUs indicate that STH prevalence is low or zero. ENVISION-supported surveys will be completed by the end of FY18 and the remaining WB-supported surveys by the end of CY18.

### 3. Snapshot of NTD Status in Country

**Table 2: Snapshot of the expected status of the NTD program in Mali as of Sept. 30, 2018**

		Columns <b>C+D+E=B</b> for each disease*			Columns <b>F+G+H=C</b> for each disease*				
		MAPPING GAP DETERMINATION			MDA GAP DETERMINATION		MDA ACHIEVEMENT	DSA NEEDS	
A	B	C	D	E	F		G	H	I
Disease	Total No. of Districts in COUNTRY	No. of districts classified as endemic**	No. of districts classified as non-endemic**	No. of districts in need of initial mapping	No. of districts receiving MDA as of 09/30/18		No. of districts expected to be in need of MDA at any level: MDA not yet started, or has prematurely stopped as of 09/30/18	Expected No. of districts where criteria for stopping district-level MDA have been met as of 09/30/18	No. of districts requiring DSA as of 09/30/18
					USAID-funded	Others			
Lymphatic filariasis	75	75	0	0	0	11	0	49 <sup>1</sup>	TAS2: 11 TAS3:2 TAS1: 15
Onchocerciasis		34	41	0	17 <sup>2</sup>	3	12 <sup>4</sup>	2	0
Schistosomiasis		75	0	0	31	20	0	0	0
Soil-transmitted helminths		75	0	0	23 <sup>3</sup>	14	38	0	0
Trachoma***		65	0	0	0	0	0	0	69

\*If Columns C+D+E do not equal B for mapping of each disease, or if Columns F+G+H do not equal C for treatment of each disease, please reconfirm figures and then add detailed footnotes explaining the discrepancies.

\*\*If mapping results are not available at the time of work planning, add a footnote explaining how many districts were mapped and for which endemicity data are not yet available. Do not count them as districts in need of initial mapping (Column E).

\*\*\*For trachoma, include districts with 5-9.9% TF at baseline in column C since they are considered endemic, but footnote the number of districts that fall into this category.

<sup>1</sup> 15 HDs were treated in FY18 despite having passed pre-TAS.

<sup>2</sup>OV MDA, 6 HDs will be supported by ENVISION and 11 by ENVISION and Sightsavers.

<sup>3</sup> 3 STH treatment is cyclical and these are the HDs treated in FY18.

<sup>4</sup> Twelve HDs were endemic for OV according to mapping data. These HDs were treated earlier with insecticide under the vector control program. At the beginning of TIDC they were not eligible for MDA at that time because they had benefitted from vector control. They were treated with IVR/ALB for LF for at least five years.

## PLANNED ACTIVITIES

### 1. NTD Program Capacity Strengthening

#### a) Strategic Capacity Strengthening Approach

The NTD program in Mali plans to reach the goals below before the end of the ENVISION project in 2019:

- Increase MOH staff to fill the integrated NTD database (data management) and TIPAC gap
- Increase domestic funding to sustain STH/SCH treatments
- Train additional lab technicians on FTS and OV16 ELISA to perform DSAs properly, particularly in insecure areas
- Complete LF and trachoma dossier development

#### *Capacity strengthening strategy*

To fill the gap in dedicated staff for the integrated NTD database and TIPAC, ENVISION will continue in FY19 to advocate at high levels of the MOH, stressing the importance of having an MOH staff to manage the database and TIPAC. In FY19, ENVISION will support the training of additional lab technicians at regional and district levels to continue the DSA activities. ENVISION planned to support LF pre-dossier development in FY18; however, the country prioritized integrated STH-TAS nationwide and postponed this activity for FY19. In FY19, The Mali NTD program plans to hire a consultant for LF dossier development and will request technical assistance from Act to End NTDs | West. Trachoma dossier development will be supported by the CNHF.

#### b) Capacity Strengthening Objectives and Interventions

##### **Objective 1: Strengthen data management and use**

###### Intervention 1: Advocating with high level of MOH

There has been strong interest at the national level in the integrated NTD database and TIPAC. In FY17, ENVISION already trained MOH staff on these tools. Most historical data have been entered and confirmed by the disease-specific coordinators. In FY19, ENVISION is planning to meet with the General Secretary of the MOH or the Minister of Health to advocate hiring dedicated staff for data management and TIPAC.

###### Intervention 2: Training for dedicated MOH staff

Once the dedicated staff members at the MOH are hired for data management and TIPAC, ENVISION will ensure their training and will provide them coaching on analyzing data and applying results to improve program implementation and to identify gaps.

##### **Objective 2: Strengthen lab technician capacity**

###### Intervention: Increase lab technician capacity at regional and district levels

In FY17, ENVISION HQ trained 25 lab technicians at the central level and MOH staff on using FTS. To further strengthen the capacity of the MOH to conduct DSAs throughout Mali, an additional 75 lab technicians will be trained at regional and district levels on FTS and Kato-Katz in FY19. These additional

trained technicians will allow the country to conduct DSAs concomitantly in several regions and in insecure areas. ENVISION will support this training. The country also planned to train lab technicians at the central level on OV16 ELISA and PCR for OV evaluation as requested by the OEC in June 2018. The training for OV evaluation will be supported by the END Fund in FY19.

## 2. Project Assistance

### a) Strategic Planning

In FY19, Mali's NTD program plans to help consolidate the country's achievements in terms of NTD control and elimination. The validation of the OV elimination strategic plan will accelerate the process of OV elimination. Strategies will be implemented to achieve 100% geographic coverage, even in areas of insecurity. In FY19, the NTD activities will be implemented in a multi-partner context as in FY18, and a new donor (END Fund) will support OV activities in Mali. Coordination meetings with the other NTDs implementing partners (Sightsavers, OMVS/PGIREII/PSI, *Unité de Gestion du projet Palu/MTN au Sahel*, and HKI) were held throughout FY18 and will continue to meet on an *ad hoc* and quarterly basis (at a minimum).

#### **Activity 1: NTD Technical Coordination Committee meetings and NTD Steering Committee meetings**

The NTD Technical Coordination Committee is a technical body responsible for implementing NTD-related activities. Members include the DPLM; NTD program coordinators; representatives of the National Health Information, Education, and Communications Center (*Centre National d'Information, d'Education et Communication pour la Santé [CNIECS]*); the National Institute for Public Health Research (*Institut National de Recherche en Santé Publique [INRSP]*); the Faculty of Medicine and Dentistry (*Faculté de Médecine et d'OdontoStomatologie [FMOS]*)/Malaria Research and Training Center (MRTC); HKI; and other partners.

ENVISION provides technical and financial support for these meetings.

### b) NTD Secretariat

Act to End NTDs | West will support this activity.

### c) Building Advocacy for a Sustainable National NTD Program

Act to End NTDs | West will support this activity.

### d) Mapping

Mapping is complete in Mali.

### e) MDA Coverage

Act to End NTDs | West will support this activity.

**Table 3: USAID supported coverage results for FY18\*\***

NTD	# Rounds of annual distribution	Treatment target (FY18) # DISTRICTS	# Districts not meeting <u>epi</u> coverage target in FY18*	# Districts not meeting <u>program</u> coverage target in FY18*	Treatment targets (FY18) # PERSONS	# persons treated (FY18)	Percentage of treatment target met (FY18) PERSONS
LF	0	0	0	0	0	0	0
OV	1	17	0	0	3, 595, 957	3, 511, 411	97.6%
SCH	1	28	0	0	2,176,899	2, 300, 712	105.7%
STH	1	16	1*	1	449, 875	427, 554	95%

\*Abeibara is in Kidal region.

\*\*This table reflects preliminary results for FY18. Numbers may shift once the fiscal year ends.

### *Planned FY19 MDA Activities*

In FY19, Act to End NTDs | West will support SCH MDA in Mali. The following strategies have been adopted by the Mali NTD program and supported by partners:

- a- MDA is scheduled to be conducted in March–April 2019.
- b- CDDs will be trained for one full day with more practice to ensure they understand what the target is during the treatment.

In FY19, the following NTD MDA objectives are to be achieved:

**LF:** No HDs are planned for LF treatment in FY19.

**OV:** No HDs are planned for OV treatment in FY19 with ENVISION support; treatment will be supported by END Fund through HKI, WB, and with Sightsavers funding.

**SCH:** 30 HDS will be treated, and 14 will be treated with Act to End NTDs | West support.

**STH:** No HDs are planned for STH treatment in FY19.

**Trachoma:** No HDs are planned for Trachoma treatment in FY19 as all formerly endemic HDs have stopped MDA.

#### f) Social Mobilization to Enable NTD Program Activities

Act to End NTDs | West will support this activity.

#### g) Training

##### **Activity 1: Training of HD lab technicians on FTS and Kato Katz use**

To conduct surveillance for LF and STH, it is important to have lab technicians well trained in diagnostic test use. For LF, it will be use of FTS and the microfilaria diagnosis of *Wuchereria bancrofti* by microscopy. For STH/SCH, refresher training will be provided on the Kato-Katz technique (in Mali, the lab

technicians do not routinely use these tools for diagnosis). ENVISION will support the training for six regions in FY19: Gao, Kidal, Ménaka, Mopti, Taoudénit, and Tombouctou.

h) Drug and Commodity Supply Management and Procurement

Act to End NTDs | West will support this activity.

i) Supervision for MDA

Act to End NTDs | West will support this activity.

j) M&E

The EU of Tombouctou is scheduled in Q1 FY19 with ENVISION support. Four EUs supported by the WB are also scheduled for Q1 FY19. The WB EUs (9 HDs) are in Sikasso Region; three are TAS2 and one EU is a TAS3.

In FY19, the program plans to complete sentinel site surveys for SCH in 29 HDs without recent survey data.

**DSAs**

The TAS-STH evaluations planned in FY18 were not completed. Five EUs are scheduled to be completed in Q1 FY19 including the EU of Tombouctou which will be supported by ENVISION. The other EUs will be supported by the WB.

**Activity 1: Sentinel/control evaluations for SCH/STH and re-evaluation surveys**

To date, SCH sentinel site evaluations have been conducted in 46 HDs from 2014 to 2017. There are 29 HDs without recent survey data, including all 23 in Gao, Kidal, Ménaka, Taoudénit, and Tombouctou regions; 3 HDs in Mopti Region (Douentza, Teninkou, and Youwarou); one HD in Ségou (Bla); one HD (Kita) in Kayes; and one HD (Kolokani) in Koulikoro. Training for the surveys is included in the M&E tab in the budget.

In FY19, the program plans to conduct SCH sentinel site assessments in these 29 HDs without recent data. ENVISION will cover the SCH sentinel sites. In the 26 HDs located in insecure areas in the north, the program will use its experience in implementing TAS-STH assessments, using local laboratory technicians with support from an experienced team from the central level. The other 3 HDs will undergo a standard SCH methodology. HDs will be grouped according to their epidemiological profiles.

**Activity 2: OV epidemiological and entomological surveys**

The OV elimination strategic plan provides for conducting assessments in all endemic HDs (22) to demonstrate the interruption of OV transmission and conducting surveys to confirm the interruption of transmission. Existing data in the integrated NTD database will be used to develop maps of OV disease distribution as well as those from future assessments. These surveys will be used to update OV mapping for 34 districts in the following HDs:

- 2 HDs that have stopped MDA and need assessment to confirm elimination of transmission, as this decision was made before the introduction of new stop OV MDA guidelines.

- 12 HDs under surveillance that will be mapped with new WHO rapid diagnostic tools to confirm their current status. Twelve HDs were endemic for OV according to mapping data. These HDs were treated earlier with insecticide under the vector control program. At the beginning of TIDC they were not eligible for MDA at that time because they had benefitted from vector control. They were treated with IVR/ALB for LF for at least five years.
- 20 HDs currently under treatment for which:
  - 14 HDs with more recent survey results will be proposed for stop MDA surveys.
  - 6 HDs with no recent evaluation results (younger than 10 years) will be mapped to determine their current status.

The diagnostic tools recommended by WHO, namely OV-16 for epidemiological evaluations and PCR for entomological evaluations, will be used. The ENVISION team will provide technical support for the planning of these evaluations.

**Table 4: Planned DSAs for FY19 by disease, All Funding**

Disease	No. of endemic districts	No. of districts planned for DSA	No. of EUs planned for DSA (if known)	Type of assessment	Diagnostic method (Indicator: Mf, FTS, etc.)
Lymphatic filariasis and STH	75	15	5	TAS1	FTS
OV	34	34	34	Epidemiological	OV-16 ELISA
		34	34	Entomological	PCR
SCH	75	29	29	Sentinel site surveys	Kato-Katz and filtration
Trachoma	39	24		TSS	Survey
		15		TT only survey	Survey

k) Supervision for M&E and DSAs

**Activity 1: DSA protocol review**

All the protocols developed by the program are reviewed by ENVISION staff, the HKI regional senior technical advisor for NTDs, and the HQ team and RTI/ENVISION. ENVISION ensures that WHO guidelines

are shared with the national program staff and followed. ENVISION assists the program in sharing data with the Regional Program Review Group to receive approval, as appropriate.

**Activity 2: Supervision of schisto evaluations**

During this supervision, the team ensures that activities are implemented as written in the approved protocols. This allows prompt correction in the field and ensures that the correct methodology is used.

**Activity 3: Report review**

The NTD program submits a final report to ENVISION staff after DSAs have been implemented. This gives the ENVISION staff time to review and make corrections where necessary.

l) Dossier Development

Act to End NTDs | West will support this activity.

m) Short-Term Technical Assistance

**Activity 1: Dossier Development Consultant**

Act to End NTDs | West will support this activity.



## APPENDIX 1: Work Plan Timeline

FY19 Activities	Q1			Q2			Q3		
	O	N	D	J	F	M	A	M	J
Capacity Strengthening Strategy									
Project Assistance									
Strategic Planning									
Technical Coordination Committee meetings and NTD Steering Committee meetings									
Training									
Training of laboratory technicians on FTS/Kato-Katz									
M&E									
SCH sentinel site surveys									

