



# Senegal 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 Senegal, ENVISION project activities are implemented by RTI International.

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## ACRONYMS LIST

|            |  |
|------------|--|
| AE         | Adverse Event  |
| AFRO       | Africa Regional Office (WHO)   |
| ALB        | Albendazole  |
| Amref      | Amref Health Africa  |
| BCC        | Behavior Change Communication  |
| BMGF       | Bill & Melinda Gates Foundation  |
| BREIPS     | Bureaux Régionaux de l'Éducation et de l'Information pour la Santé (Regional Offices for Health Education and Information)       |
| CAEL       | Cellule d'Appui aux Elus Locaux (Support Unit for Local Elected Officials)   |
| CBO        | Community-Based Organization   |
| CDD        | Community Drug Distributor   |
| CDTI       | Community-Directed Treatment with Ivermectin   |
| CM         | Case Management  |
| CODEC      | Collectifs des Directeurs d'École (School Principals' Group)   |
| CRS        | Catholic Relief Services   |
| CY         | Calendar Year  |
| DBS        | Dried Blood Spot   |
| DCMS       | Division du Contrôle Médical Scolaire (School Health Control Division) (MEN)   |
| DGS        | Direction Générale de la Santé (General Health Directorate) (MSAS)   |
| DLM        | Direction de la Lutte contre la Maladie (Disease Control Directorate) (MSAS)   |
| DQA        | Data Quality Assessment  |
| DSA        | Disease-Specific Assessment  |
| DSRSE      | Direction de la Santé de la Reproduction et de la Survie de l'Enfant (Reproductive Health and Child Survival Directorate) (MSAS) |
| ECD        | Équipe Cadre de District (Health District Management Team)   |
| ECR        | Équipe Cadre de Région (Health Region Management Team)   |
| ELISA      | Enzyme-Linked Immunosorbent Assay  |
| ENDA Santé | Environnement et le Développement en Afrique-Santé (Environment and Development in Africa-Health)                                |
| END Fund   | End Neglected Tropical Diseases Fund   |
| EPIRF      | Epidemiological Data Reporting Form (WHO)  |
| ESPEN      | Expanded Special Project for Elimination of Neglected Tropical Disease (WHO)   |
| EU         | Evaluation Unit  |
| EVE        | Eau-Vie-Environnement (Water-Life-Environment)   |
| FidC       | Fondazione Ivo de Carneri Onlus (The Ivo de Carneri Foundation)  |
| FTS        | Filariasis Test Strip  |
| FY         | Fiscal Year  |
| HQ         | Headquarters   |
| IA         | Inspection d'Académie (Schools Inspectorate)   |
| ICP        | Infirmier Chef de Poste (Health Post Head Nurse)   |
| ICT Card   | Immunochromatographic Test Card  |
| IE         | Inspection de l'Éducation (Education Inspectorate)   |
| IEC        | Information, Education, and Communication  |
| IEF        | Inspection de Formation et de l'Éducation (Training and Education Inspectorate)  |
| IME        | Inspection Médicale des Étudiants (Medical Inspectorate of Students)   |

|        |   |
|--------|---|
| IR     | Intermediate Result   |
| IRD    | Institut de Recherche pour le Développement (Development Research Institute)  |
| IVM    | Ivermectin  |
| JAP    | Joint Application Package (WHO)   |
| JRF    | Joint Reporting Form (WHO)  |
| JRSM   | Joint Request for Selected PC Medicines (WHO)   |
| KOICA  | Korea International Cooperation Agency  |
| LF     | Lymphatic Filariasis  |
| LLIN   | Long-Lasting Insecticide-Treated Bed Net  |
| LQAS   | Lot Quality Assurance Sampling  |
| M&E    | Monitoring and Evaluation   |
| MCD    | Médecin-Chef de District (Health District Head Doctor)  |
| MCR    | Médecin-Chef de Région (Health Region Head Doctor)  |
| MDA    | Mass Drug Administration  |
| MEB    | Mebendazole   |
| MEN    | Ministère de l'Éducation National (Ministry of National Education)  |
| Mf     | Microfilaremia  |
| MHA    | Ministère de l'Hydraulique et de l'Assainissement (Ministry of Water and Sanitation)  |
| MSAS   | Ministère de la Santé et de l'Action Sociale (Ministry of Health and Social Work)   |
| NGO    | Non-Governmental Organization   |
| NIH    | US National Institutes of Health  |
| NOEC   | National Onchocerciasis Expert Committee  |
| NTD    | Neglected Tropical Disease  |
| OMVS   | Organisation pour la Mise en Valeur du Fleuve Sénégal (Senegal River Development Organization)  |
| ONG-3D | Démocratie-Droits humains-Développement local (Democracy-Human Rights-Local Development)  |
| OV     | Onchocerciasis  |
| PC     | Preventive Chemotherapy   |
| PEPAM  | Programme d'Eau Potable et d'Assainissement du Millénaire (Millennium Potable Water and Sanitation Program) (MHA)   |
| PGIRE  | Projet de Gestion Intégrée des Ressources en Eau et de Développement des Usages Multiples du Bassin du Fleuve Sénégal (Integrated Water Resource Management Project) (OMVS) |
| PLMTN  | Programme de Lutte contre les Maladies Tropicales Négligées (Neglected Tropical Disease Control Program)  |
| PNA    | Pharmacie Nationale d'Approvisionnement (National Supply Pharmacy)  |
| PNEFL  | Programme National d'Élimination de la Filariose Lymphatique (National Lymphatic Filariasis Elimination Program)  |
| PNLBG  | Programme National de Lutte contre la Bilharziose et les Géohelminthiases (National Bilharzia and Soil-Transmitted Helminths Control Program)                               |
| PNLO   | Programme National de Lutte contre l'Onchocercose (National Onchocerciasis Control Program)   |
| PNLP   | Programme National de Lutte contre le Paludisme (National Malaria Control Program)  |
| PNPSO  | Programme National de Promotion de la Santé Oculaire (National Eye Health Promotion Program)  |
| PNT    | Programme National de Lutte contre la Tuberculose (National Tuberculosis Control Program)   |

|           |  |
|-----------|--|
| PPS       | Probability Proportional to Size   |
| PRA       | Pharmacie Régionale d'Approvisionnement (Regional Supply Pharmacy)   |
| PTA       | Plan de Travail Annuel (Annual Work Plan) (MSAS)   |
| PZQ       | Praziquantel   |
| Q         | Quarter  |
| RDT       | Rapid Diagnostic Test  |
| RM        | Région Médicale (Medical Region)   |
| RPRG      | Regional Program Review Group (WHO/AFRO)   |
| SAC       | School-Aged Children   |
| SAE       | Serious Adverse Event  |
| SAFE      | Surgery-Antibiotics-Facial Cleanliness-Environmental Improvement   |
| SCH       | Schistosomiasis  |
| SIM       | Subscriber Identity Module   |
| SMART     | Specific-Measurable-Achievable-Relevant-Time-Bound   |
| SNEIPS    | Service National de l'Éducation et de l'Information pour la Santé (National Health Education and Information Service) (MSAS) |
| SNH       | Service National d'Hygiène (National Hygiene Service) (MSAS)   |
| STH       | Soil-Transmitted Helminths   |
| Swiss TPH | Swiss Tropical and Public Health Institute   |
| TAS       | Transmission Assessment Survey   |
| TEMF      | Trachoma Elimination Monitoring Form (WHO)   |
| TEO       | Tetracycline Eye Ointment  |
| TF        | Trachomatous Inflammation—Follicular   |
| TIPAC     | Tool for Integrated Planning and Costing   |
| TIS       | Trachoma Impact Survey   |
| TSS       | Trachoma Surveillance Survey   |
| TT        | Trachomatous Trichiasis  |
| USAID     | U.S. Agency for International Development  |
| WHO       | World Health Organization  |

## COUNTRY OVERVIEW

### 1. General Country Background

#### a) Administrative Structure

Senegal has parallel structures for its administration and local communities (collectivités locales). The administrative structure includes 14 regions, 45 departments (départements), and 123 municipal districts (arrondissements). The local community structure includes the same 14 regions, with 114 municipalities (communes), 46 joint municipalities (communes d'arrondissements), and 370 rural communities. The presiding authority at each level of the administrative structure (governor, prefect, and sub-prefect) is appointed by the President of the Republic, whereas the presiding authority at each level of the local community structure (president of the regional council, mayor, and rural president) is an elected official.

The structure of Senegal's health sector consists of 14 medical regions (régions médicales [RMs]), which are the same as the administrative and local community regions: 76 health districts; 40 hospitals; and approximately 1,257 health posts. These levels are presided over by the health region head doctor (Médecin-Chef de Région [MCR]), health district head doctor (Médecin-Chef de District [MCD]), and health post head nurse (Infirmier Chef de Poste [ICP]), respectively.

The school system includes approximately 8,198 primary schools. Senegal's school health policy is the responsibility of the Ministry of National Education (Ministère de l'Éducation Nationale [MEN])'s School Health Control Division (Division du Contrôle Médical Scolaire [DCMS]), whose overall objective is to monitor the health of the school community. The DCMS's key activities include preventive health; regular visits to schools; immunization campaigns; medical monitoring of sports, sporting, and physical education (éducation physique et sportive); and transfers to hospitals and specialized services. The DCMS is represented in each region by a Medical Inspectorate of Students (Inspection Médicale des Étudiants [IME]), which conducts health inspections in schools. The DCMS manages relations between the MEN central administration and the IMEs, including coordinating activities and providing resources.

#### b) Other PC-NTD Partners

Preventive chemotherapy (PC)-NTD control and elimination activities in Senegal are supported by a range of partners. In fiscal year 2019 (FY19), the U.S. Agency for International Development (USAID) will support the Ministry of Health and Social Work (Ministère de la Santé et de l'Action Sociale [MSAS])'s national NTD program through the ENVISION project, led by RTI International.

ENVISION supports disease mapping and surveys, mass drug administration (MDA) for all preventive chemotherapy (PC) NTDs, social mobilization, technical training, advocacy, and monitoring and evaluation (M&E) and procures required drugs (including tetracycline eye ointment [TEO] for trachoma MDA, mapping, and surveys) and diagnostic tools. Support for surveys, training, and trachoma MDA may be provided anywhere in the country (for ENVISION-supported MDA for other PC-NTDs, USAID has selected specific geographic areas for support, based on a combination of coordination with other funders and prioritization of lymphatic filariasis [LF]).

The Senegal River Development Organization (Organisation pour la Mise en Valeur du Fleuve Sénégal [OMVS]) is a World Bank-funded intergovernmental organization involving Senegal, Mauritania, Mali, and Guinea. The Integrated Water Resource Management Project (Projet de Gestion Intégrée des Ressources en Eau et de Développement des Usages Multiples du Bassin du Fleuve Sénégal [PGIRE]) is a



project of the OMVS. PGIRE's implementing partner (agent d'exécution) for health-related activities (both PC-NTDs and malaria) is a consortium of nongovernmental organizations (NGOs) led by Environnement et le Développement en Afrique-Santé (Environment and Development in Africa-Health [ENDA Santé]) with sub-partners Eau-Vie-Environnement (Water-Life-Environment [EVE]), Démocratie-Droits humains-Développement local (Democracy-Human Rights-Local Development [ONG-3D]), le Partenariat (The Partnership), and Union pour la Solidarité et l'Entraide (Union for Solidarity and Mutual Assistance [USE]). In calendar years 2016 and 2017 (CY16-CY17), PGIRE supported the LF, onchocerciasis (OV), schistosomiasis (SCH), and/or soil-transmitted helminths (STH) MDA campaign in 24 districts of Kédougou, Louga, Matam, Saint Louis, and Tambacounda Regions; in CY16, PGIRE also supported the procurement and distribution of long-lasting insecticide-treated bed nets (LLIN) for malaria in the same areas. PGIRE supported lot quality assurance sampling (LQAS) surveys in the Vallée zone<sup>1</sup> of the Senegal River Basin, with sites selected based on probability proportional to size (PPS), to determine the public's knowledge of NTDs, in May 2018.

Plan International intends to support several activities in Saint Louis Region in CY18, CY19, and CY20, including MDA for LF, SCH, and/or STH in five districts, construction of latrines (30) and manual water pumps (10) in pilot villages, and routine social mobilization for ongoing awareness and prevention of PC-NTDs (the latter via subawards to community-based organizations [CBOs]).

Amref Health Africa (Amref)/Senegal provided funding to Kolda RM to support additional social mobilization for the ENVISION-supported MDA campaign in May 2017. Amref/Senegal has indicated that it intends to repeat this activity in CY18, and to support surgical camps for LF morbidity (hydrocele) in the same region.

Speak Up Africa supports the MSAS's PC-NTD program by reviewing draft communications and social mobilization materials such as newsletters and awareness-raising posters.

Sightsavers is supporting the MSAS National Eye Health Promotion Program (Programme National de Promotion de la Santé Oculaire [PNPSO]) in implementing surgery for trichiasis (S), facial cleanliness (F), and environmental improvement (E) components of the Surgery-Antibiotics-Facial Cleanliness-Environmental Improvement (SAFE) strategy for trachoma in the endemic districts of Diourbel, Kaffrine, Kaolack, Louga, and Thiès Regions.

The End NTDs Fund (END Fund) is planning to fund two sets of PC NTD-related activities in CY18. The first activity is OV impact surveys, with epidemiological and entomological components and with technical support from WHO's Expanded Special Project for Elimination of Neglected Tropical Disease (ESPEN), in eight OV-endemic districts. The second activity is the MSAS's MDA for LF, OV, SCH, and/or STH in the 15 LF-endemic districts of Kédougou (3), Louga (5), and Tambacounda (7) Regions, including associated training, social mobilization, supervision, and reporting, with RTI International as implementing partner.

Projet Crevette is a consortium of Stanford University, Ben-Gurion University, and the Centre de recherche biomédicale de Saint-Louis, which has reintroduced prawns into sections of the Senegal River in Saint Louis Region as a biological means of controlling SCH. The study is jointly funded by the US National Institutes of Health (NIH) and the Bill & Melinda Gates Foundation (BMGF).

The Starworms study on STH, a consortium of BMGF, Swiss Tropical and Public Health Institute (Swiss TPH), Ghent University, and The Ivo de Carneri Foundation (FidC), will be conducted in 11 countries

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<sup>1</sup> The Vallée zone is the area between the Senegal River and the Fatick Plateau.

including Senegal, in one district per country. The aim is to pilot a global surveillance system to assess anthelmintic drug efficacy and the emergence of drug resistance.

U.S. Peace Corps volunteers (PCVs) collaborated with RTI in FY16 and FY17 on joint social mobilization for and supervision of the MDA campaign in four ENVISION-supported regions (Fatick, Kaffrine, Kolda, and Thiès) where PCVs are also located. Before the campaign, the ICPs oriented the PCVs on PC-NTDs and MDA. In CY18 (early FY19), RTI plans to involve the PCVs in preparations for the campaign in the same regions—potentially including the district- and regional-level planning meetings, as feasible and appropriate.

USAID/Senegal's Assainissement – Changement de Comportement et Eau pour le Senegal (ACCES) current Millennium Potable Water and Sanitation Program (Programme d'eau potable et d'assainissement du Millénaire [PEPAM]) project is implemented by Catholic Relief Services (CRS). The PEPAM is a water and sanitation program run by the project supports the Ministry of Water and Sanitation (Ministère de l'Hydraulique et de l'Assainissement [MHA]) Programme d'eau potable et d'assainissement du Millénaire (PEPAM), and the USAID-funded project bears the same name.

## 2. National PC-NTD Program Overview

The Ministry of Health and Social Work (Ministère de la Santé et de l'Action Sociale [MSAS]) Disease Control Directorate (Direction de la Lutte contre la Maladie [DLM]) oversees most NTD activities in Senegal. The DLM supervises the Communicable Diseases Division, which includes the national PC-NTD programs—the National Lymphatic Filariasis Elimination Program (Programme National d'Élimination de la Filariose Lymphatique [PNEFL]); the National Onchocerciasis Control Program (Programme National de Lutte contre l'Onchocercose [PNLO]); the National Bilharzia and Soil-Transmitted Helminths Control Program (Programme National de Lutte contre la Bilharziose et les Géohelminthiases [PNLBG]); and the PNPSO, which is responsible for trachoma—along with the Case Management (CM)-NTD programs.

The Reproductive Health and Child Survival Directorate (Direction de la Santé de la Reproduction et de la Survie de l'Enfant [DSRSE]) oversees the treatment of pre-school-age children (PSAC) (defined as 1 to 4-year olds) for STH, which is conducted using albendazole (ALB).

The MSAS has a Master Plan for Integrated NTD Control, 2016-2020 (launched in September 2016), which establishes the national strategy for control and elimination of PC- and CM-NTDs.

The MSAS first integrated its MDA for LF, OV, SCH, and STH (meaning that it conducted treatment for all diseases at once, administering all medicines together) in 2012 in Tambacounda Region, following the World Health Organization's (WHO's) recommendation. In the other OV-endemic regions—Kédougou and Kolda—OV treatment was first integrated with MDA for the other NTDs (including LF) in 2013. The integration of LF MDA with SCH and STH MDA reached national scale in 2015 with the launch of LF MDA in the other nine LF-endemic regions (Diourbel, Fatick, Kaffrine, Kaolack, Kédougou, Louga, Saint Louis, Thiès, and Ziguinchor). As of mid-July 2018, the criterion for stopping trachoma MDA has been reached and no further trachoma MDA is anticipated.

### a) Lymphatic Filariasis

Senegal's goal is to eliminate LF as a public health problem by 2020. PNEFL goals include implementing MDA in all endemic districts with  $\geq 65\%$  epidemiological coverage, surgical CM of  $\geq 25\%$  of identified hydrocele cases in endemic zones each year, community CM of  $\geq 75\%$  of identified lymphedema cases with the support of health services, and monitoring the impact of MDA via sentinel sites.

Senegal's strategies include annual MDA using ivermectin (IVM) and ALB in endemic districts, collecting data on morbidity cases (including hydrocele and lymphedema) during MDA campaigns, hydrocele surgery campaigns, community CM of lymphedema, and vector control in cooperation with the National Malaria Control Program (Programme National de Lutte contre le Paludisme [PNLP]) through the distribution of LLINs and other means (indoor residual spraying and control of peri-domestic larval nests).

LF has been fully mapped in Senegal using immunochromatographic test cards (ICT cards). Mapping was conducted as funding became available: 14 districts were mapped in 2003, 6 districts in 2007, 27 districts in 2010, and the final 6 districts in 2012. A total of 50 districts are LF-endemic across 12 of the country's 14 regions (all regions except for Dakar and Matam).

The MSAS collected baseline data (microfilaremia [Mf]) at sentinel sites before initiating LF MDA. These included sites in each of the seven districts of Tambacounda Region in 2007; sites in two districts of Kolda Region and one district of Sédhiou Region in 2012; and sites in one district each in Diourbel, Fatick (also considered to represent Kaolack), Kaffrine, Kédougou, Louga (also considered to represent Saint Louis), Thiès, and Ziguinchor Regions in 2014.

LF MDA began in the seven districts of Tambacounda Region in 2007, and was extended to Kolda and Sédhiou Regions in 2013. In 2015, all 50 LF-endemic districts were treated, with 37 receiving treatment for the first time.

The three districts of Sédhiou Region conducted pre-TAS and TAS1 in FY18.

The second prong required for disease elimination is managing morbidity and preventing disability. Over the course of USAID-supported MDA in LF-endemic districts in FY15 (all 50 endemic districts) and FY16 and FY17 (the 33 endemic districts supported by ENVISION in these two years), the DLM developed a list of persons with LF morbidity by appending to the MDA tally sheets a table containing a line-listing of hydrocele and lymphedema cases. In addition, the DLM (via the health districts) has asked drug distributors to refer persons with LF morbidity to the closest health post, where they are then referred to the health district and then on to the RM, which is responsible for organizing CM services.

In FY19, ENVISION will continue support for development of a preliminary LF elimination dossier, which is to be initiated in FY18 Q4.

#### b) Trachoma

Senegal's goal is to eliminate trachoma as a public health problem by 2020. The MSAS subscribes to the SAFE strategy. As of mid-July 2018, all endemic districts have achieved the stopping MDA criteria (<5% TF) and are now in a surveillance phase, with planned surveillance surveys in 2018-2020.

Trachoma mapping has been performed through clinical grading using the WHO simplified grading system and standard protocol. Mapping started in 2000, and the last 17 suspected-endemic districts were mapped in 2014. Mapping surveys found that all 56 districts mapped were endemic for trachoma (defined as TF >0%): 14 districts with TF 10-29.9%, 13 districts with TF 5-9.9%, and 29 districts with TF >0-4.9%.

TISs conducted with support from ENVISION have confirmed all 27 ever-endemic districts now have <5% TF. This includes 19 districts that have conducted and were able to stop MDA, and eight districts that registered 5%–9.9% TF at baseline in 2013 or earlier and never conducted MDA. Two districts completed TSS and results showed that TF remained <5%.

Reducing the prevalence of trichomatous trichiasis (TT) to less than 1 per 1,000 among the total population (below 0.2% among persons aged 15 years and older) is the other key criterion for elimination. As of mid-July 2018, a total of 45 districts (many of which did not require MDA) had trichiasis prevalence of  $\geq 0.2\%$  among adults, meaning that surgical interventions are required.

RTI has assisted the PNPSO, starting in FY17, to collect and compile information and data – including TF and TT prevalence, treatment coverage, SAFE interventions, and survey results – required for validation of the elimination of trachoma as a public health problem. This will help to ensure that the MSAS is ready to submit its dossier as soon as it meets both the TF and TT criteria.

ENVISION will continue to support all required TISs, TSSs, and trachoma elimination dossier development; as of mid-July 2018, it is not expected that any further mapping or MDA will be required. Needs beyond FY18 are expected to include TSSs in FY19 (19 districts) and FY20 (two districts).

#### c) Onchocerciasis

Senegal's goal is to eliminate OV in all endemic communities. The specific objectives of the PNLO include implementing annual MDA with IVM with programmatic coverage of  $\geq 80\%$  in all OV-endemic villages,

monitoring MDA impact via annual epidemiological evaluations in the network of village sentinel sites, and detecting transmission risk via annual entomological evaluation at capture points. After many years of treatment and assessments in known endemic areas, OV elimination seems possible.

OV was mapped in the southeast and south of Senegal in 1987, using skin snip microscopy (all age groups) and, in certain villages, ophthalmological examination (ages  $\geq 5$  years).

The PNLO control strategy is annual MDA with IVM in endemic zones, in Kédougou Region, Kolda Region, and Tambacounda Region.

The PNLO conducted treatment via health worker-led community-based treatment with IVM (1988–1996) or community-directed treatment with IVM (CDTI, 1996–2005) in all known endemic foci. Beginning in 2012 in Tambacounda Region and in 2013 in Kédougou and Kolda Regions, the MSAS shifted to an MDA model, integrating the treatment for OV with MDA for LF.

The MSAS conducted epidemiological assessments of the impact of IVM treatment on OV in 1996, 1999, 2000, 2001, 2002, 2003, 2006, and 2007. These assessments covered approximately 620 villages across eight districts, three regions, and two river basins (Falémé and Gambie); 73 sentinel villages were established, and a selection of these was visited during each assessment, which tested the entire population aged more than one year with skin snip microscopy.

During 2006–2011, Senegal’s MSAS and Mali’s Ministry of Health and Public Hygiene conducted a longitudinal study to determine whether OV could be eliminated in the African context through IVM treatment alone. This study focused on three OV-hyperendemic foci—along the Gambia River in Senegal, the Falémé River on the border of Senegal and Mali, and the Bakoyé River in Mali—in which 15 to 17 years of annual or six-monthly treatments with IVM had been conducted. The study combined epidemiological methods and entomological methods. Treatment was stopped in the test areas of five to eight villages in each focus area and, subsequently, in the entire study area. Five years after the last treatment, all infection and transmission indicators were below the postulated thresholds for elimination. As the treatment stoppage was experimental, the MSAS resumed treatment in 2013.

In 2014–2015, the PNLO conducted a comprehensive OV impact survey involving both epidemiological (in 2014) and entomological (in 2014 and 2015) components in these three regions. In all three regions, the epidemiological component consisted of OV skin snips (ages  $\geq$  five years) analyzed by microscope and paired with dried blood spot (DBS)-based OV antibody tests using Ov16 antigens (ages  $\geq$  five years in Kédougou Region and  $\geq$  one year in Kolda and Tambacounda Regions), which were subjected to enzyme-linked immunosorbent assay (ELISA). The entomological assessments identified no blackflies positive for the *O. volvulus* parasite by testing with O-150 polymerase chain reaction (Poolscreen).

Senegal’s national OV expert committee (NOEC) held its first meeting in February 2017, with participation by the Ministries of Health of Guinea, Mali, and Benin. Key outcomes include the recommendation that a NOEC be established officially and the identification of the country’s OV transmission zones. The committee recommended that the eight OV-endemic districts, all of which are co-endemic for LF, continue MDA for both diseases through 2019 or later, depending on the district; if MDA can be sustained with high treatment coverage, it seems likely that the country could stop MDA for OV before 2025. Schistosomiasis

Senegal’s goal is to treat at least 80% of school-aged children (SAC) and groups at risk for SCH by 2020. Specific objectives of the PNLBG include implementing MDA with  $\geq$ 80% program coverage in all SCH-endemic districts and determining the impact of interventions via regular evaluations of sentinel sites. The last districts were mapped for SCH in 2013.

Strategies include ensuring the availability of praziquantel (PZQ) in all health facilities in high- and moderate-risk areas for both routine treatment (for which patients are charged) and MDA, conducting MDA with PZQ for SAC and at-risk groups in high- and moderate-risk communities, performing case-by-case PZQ treatment of patients at the health facility level in low-risk zones, and promoting hygiene and sanitation in cooperation with other sectors.

Baseline data showed that 60 districts are endemic for SCH (defined as prevalence  $\geq 1\%$ , determined by parasitological means) – though one of these is considered due to imported cases, and not identified as endemic, bringing the total to 59 – including 18 high-risk districts ( $\geq 50\%$ ), 29 moderate-risk districts ( $\geq 10\%$  to  $< 50\%$ ), and 12 (11) low-risk districts ( $\geq 1\%$  to  $< 10\%$ ). The mapping took place in 70 districts overall: 10 in 1996; 21 in 2003; 13 in 2009; three in 2010; four in 2012; and in 19 in 2013. Prevalence evaluation surveys conducted in later years have shown that selected districts have since changed their risk category or are no longer endemic.

The MSAS conducted SCH-STH prevalence evaluation surveys in 11 districts (representing a total of 24 districts, via ecological zones) in FY16, and eight districts in FY17, that had each completed at least five rounds of SCH MDA at the time of the survey. The standard tests (dipsticks and filtration for urine and the Kato-Katz technique for stools) were used; in FY16, the circulating cathodic antigen point-of-care test, provided by TFGH, was also included as operational research. Where results for *S. haematobium* and *S. mansoni* varied, the higher of the two was used for programmatic decision-making.

The FY16 survey, which covered the regions of the Senegal River Basin divided by ecological zone, showed the following:

- The Haut Bassin zone, which extends from the Fouta Djallon to Bakel and included ten districts, has prevalence  $\geq 50\%$ .
- The Vallée zone, which extends from Bakel to Dagana and included six districts, has prevalence  $\geq 50\%$ .
- The Delta zone, which extends from Dagana to the mouth of the Senegal River a few kilometers downstream from Saint Louis and included eight districts, has prevalence  $\geq 50\%$ .

According to WHO, the districts situated in these zones should all conduct SCH MDA two times per year. The MSAS aims to conduct MDA in these districts once per year given the understanding that the WHO donation of PZQ will cover once-yearly treatment only.

Results from the FY17 survey, which was district based, revealed the following prevalence results:

- One district registered  $\geq 50\%$ : Per WHO guidance, twice-yearly PZQ MDA is required, but in practice, MDA will take place annually.
- Two districts registered  $\geq 10\%$  and  $< 50\%$ : PZQ MDA is required at the same frequency as previously; for both districts, this is once every two years.
- Three districts registered  $\geq 1\%$  and  $< 10\%$ : PZQ MDA is required once every two years.
- Two districts registered  $< 1\%$ : No further PZQ MDA is needed.

In FY18 Q1-Q2, SCH-STH prevalence evaluation surveys were conducted in three districts; as of mid-July 2018, the results are being analyzed.

In FY19, ENVISION will fund and participate in a technical meeting to develop a roadmap for SCH (and STH) control.

#### d) Soil transmitted Helminths

Senegal's goal is to treat at least 80% of SAC (aged 5–14 years) for STH by 2020. Specific objectives of the PNLBG include implementing MDA with  $\geq 80\%$  program coverage in all endemic districts, although in practice MDA occurs once per year, and determining the impact of interventions via regular evaluations of sentinel sites. The last districts were mapped for STH in 2013.

Strategies include ensuring the permanent availability of mebendazole (MEB) or ALB in all of the country's health facilities, performing MDA using MEB or ALB in schools and the community, providing case-by-case treatment of patients using MEB or ALB in health facilities, and promoting hygiene and sanitation in cooperation with other sectors. In practice, MDA for STH has been conducted using ALB, not MEB, since 2010.

MSAS baseline data showed that 4 districts were high risk ( $\geq 50\%$ ), that 7 districts were moderate risk ( $\geq 20\%$  and  $< 50\%$ ), and that 39 districts were low risk ( $< 20\%$ ); among the low-risk districts, 23 had prevalence of 0%. The mapping took place in 50 districts overall: one in 2003; five in 2008; 12 in 2009; four in 2010; seven in 2012; 21 in 2013. For 26 districts, baseline data are not available. Per WHO guidance, high-risk areas should conduct MDA twice per year, moderate-risk areas should conduct MDA once per year, and low-risk areas should conduct case-by-case treatment only (no MDA). Prevalence evaluation surveys conducted in later years have shown that selected districts have since changed their risk category or are no longer endemic.

The MSAS conducted SCH-STH prevalence evaluation surveys in 11 districts in FY16 and in 8 districts in FY17, that had each completed at least five rounds of SCH MDA at the time of the survey. STH was also surveyed at that time, using examination of stools through the Kato-Katz technique. The FY16 survey, which covered the regions of the Senegal River Basin divided by ecological zone, showed the following:

- The Haut Bassin zone, which included 10 districts, the prevalence of STH was  $< 2\%$ . Per WHO guidance, no further STH MDA is required.
- The Vallée and Delta zones, which included six and eight districts respectively, the prevalence of STH was  $\geq 2\%$  and  $< 10\%$ , meaning that STH MDA is required once every two years.

Results from the FY17 survey, which was district based, show the following for STH:

- One district registered  $\geq 20\%$  and  $< 50\%$ : The previous frequency of MDA should be maintained (in practice, annually).
- Three districts registered  $\geq 10\%$  and  $< 20\%$ : MDA is required annually.
- Two districts registered  $\geq 2\%$  and  $< 10\%$ : MDA is required once every two years.
- Two districts registered  $< 2\%$ : No further MDA is needed.

In FY18 Q1-Q2, STH-SCH prevalence evaluation surveys were conducted in three districts, and STH prevalence evaluation surveys in three districts; as of mid-July 2018, the results are being analyzed.

STH prevalence evaluation surveys are indicated in FY19 in three districts that have conducted five–six rounds of STH MDA with ALB with  $\geq 75\%$  program coverage among SAC and have not yet performed prevalence evaluation surveys for STH.

## PLANNED ACTIVITIES

### 1. PC-NTD Program Capacity Strengthening

#### a) Strategic Capacity Strengthening Approach

##### *Capacity goals*

The MSAS's overall NTD-related goals are stated in its Master Plan for Integrated NTD Control, 2016-2020. All four of the Master Plan's Strategic Priorities (and several of the Strategic Objectives within the Strategic Priorities), can be read as being concerned with capacity:

1. "Expand access to interventions and build system capacity" – Strategic Objective 1.3, "Strengthen the health system and capacity of MTN programs";
2. "Strengthen the results-based planning, resource mobilization and financial sustainability of national NTD programs" – Strategic Objectives 2.1, "Improve planning of NTD interventions at all levels of the health pyramid by 2020" and 2.2, "Institutionalize funding for NTD programs";
3. Strengthen advocacy, coordination and national ownership of NTD control – Strategic Objectives 3.1, "Strengthen National Coordination Mechanisms for NTD Control," 3.2, "Strengthen intra and intersectoral collaboration," and 3.3, "Strengthen communication on NTDs, sustainable development and development (émergence)";
4. Strengthen NTD monitoring, evaluation, monitoring and research – Strategic Objective 4.2, "Strengthen surveillance and research."

ENVISION's high-level goals in support of the PLMTN's capacity are represented by selected intermediate results (IRs) drawn from the project's results framework, namely:

1. The country has a plan of action that outlines surveillance strategies for LF, OV, and trachoma and appropriate, evidence-based strategies for SCH and STH control (IR 3).
2. The MSAS reports on MDA results (through data validation meetings and/or a written report), identifying districts with low coverage and analyzing the cause(s) (IR 2).
3. The country utilizes the Integrated NTD database to generate the Joint Reporting Form (JRF) and/or Trachoma Elimination Monitoring Form (TEMF) and submits the Joint Application Package (JAP) or TEMF on time (IR 2).
4. The country has information readily available on funding resources and gaps (IR 3).

##### *Capacity strengthening strategy*

The area of focus for ENVISION's capacity strengthening strategy is the following:

1. Strengthening of capacities for planning, monitoring, and evaluation:
  - a. In the supported RMs and health districts, the ENVISION Regional Focal Points will use the quarterly meetings of the Health Region Management Team (Équipe Cadre de Région [ECR]) and the monthly meetings of each Health District Management Team (Équipe Cadre de District [ECD]) to raise issues related to PC-NTDs, ensuring that the regional and district-level MSAS teams and partners receive the latest technical information and guidance from the PLMTN. Before, during, and after the MDA campaigns, the ENVISION Regional Focal Points



accompany and provide organizational and technical support to the RMs and health districts.

- b. In each of the PLMTN's activities that are supported by ENVISION, RTI will continue to assign an RTI staff person to support and accompany the DLM in identifying the appropriate documents (WHO guidelines, protocols, and forms), synthesizing this technical guidance for her or his colleagues, and developing a plan and timeline for the activity, paying attention to meeting the deadlines set by the MSAS and/or WHO. RTI will help to ensure that the PLMTN/DLM team receives copies of all key WHO guidelines, protocols, and recommendations.

b) Capacity Strengthening Objectives and Interventions

**Objective 1: Strengthen capacities for planning, monitoring, and evaluation**

**Intervention 1: Closely accompany PLMTN/DLM staff in activity planning, protocol development, implementation, and M&E:** Central-level RTI staff will closely accompany the PLMTN/DLM staff in the following:

- a. Jointly cleaning and finalizing the DLM NTD PTA for CY19 and establishing an action plan with a timeline and a checklist.
- b. In each of the PLMTN annual program phases (planning, coordination, protocol development, implementation, and M&E), RTI will do the following:
  - i. Assign a staff person to support and accompany the PLMTN/DLM in identifying the appropriate documents (WHO guidelines, protocols, and forms), synthesizing this technical guidance for her or his colleagues, and developing a plan and timeline for the activity, paying particular attention to meeting the deadlines set by the MSAS and/or WHO;
  - ii. Help to ensure that the PLMTN/DLM team receives copies of all key WHO guidelines, protocols, and recommendations; and
  - iii. To make sure that the preceding documents are understood, collaborate with the PLMTN/DLM team to provide individual or group orientations on particular topics within those documents for members of that team.

**Intervention 2: Integrated NTD Database, TIPAC, and USAID M&E Workbooks training/refresher-training for PLMTN/DLM personnel:** See description of "Integrated NTD Database, TIPAC, and USAID M&E Workbooks training/refresher-training for PLMTN/DLM personnel," under Training.

**Intervention 3: Accompany the MSAS's RM and health district staff in activity planning, implementation, and M&E:** In the 7 RMs and 30 health districts supported by ENVISION for MDA, RTI's Regional Focal Points will do the following:

- a. Use the quarterly meetings of the ECRs and the monthly meetings of the ECDs to raise issues related to PC-NTDs, ensuring that the MSAS teams and partners at these levels receive the latest technical information and guidance from the PLMTN/DLM; and
- b. Accompany and provide organizational and technical support to the RMs and health districts before, during, and after MDA. During the MDA orientations, the Regional Focal Points will assist MSAS personnel in administering pre and post-tests to the ECRs and ECDs; after the orientations, they will assist as needed to provide reminders and explanation of the recommendations from the sessions.

c) Monitoring and Evaluating Proposed Capacity Strengthening Interventions

*Assessing progress*

RTI will financially and technically support the PLMTN/DLM to hold PC-NTD-related coordination meetings as scheduled and will help the PLMTN/DLM track the participation of PC-NTD partners in these meetings. RTI will also assist the PLMTN/DLM to develop specific-measurable-achievable-relevant-time-bound (SMART)-type recommendations at the end of each coordination meeting, focusing on assigning responsibility to specific PLMTN/DLM personnel.

**Objective 1: Strengthen capacities for planning, monitoring, and evaluation**

**Indicators:**

- Number of MSAS M&E tools finalized, including the NTD Master Plan and NTD M&E Plan.

| Project assistance area  | Capacity strengthening interventions/activities   | Intended outcomes   |
|--|---|---|
| <p><b>a. Strategic Planning</b></p>  | <ul style="list-style-type: none"> <li>• Jointly clean and finalize the DLM NTD PTA for 2019 and establish an action plan with a timeline and a checklist</li> <li>• Encourage the PLMTN/DLM to designate a staff member to synthesize technical guidance and develop a plan and timeline for each related activity; assign an RTI staff person to support and accompany this person</li> <li>• Use the MSAS’s weekly and quarterly NTD coordination meetings to share information, guidance, and tools related to PC-NTDs</li> <li>• Use the quarterly ECR meetings and monthly ECD meetings to raise issues related to PC-NTDs</li> </ul> | <p>The PLMTN/DLM’s coordination and monitoring of PC-NTD-related activities, and its leadership in this area, will be strengthened</p> <p>The PLMTN/DLM staff’s knowledge of WHO’s PC-NTD-related guidance and protocols will be strengthened, improving the coherence of its activity implementation</p> |
| <p><b>c. Building Advocacy for a Sustainable National PC-NTD Program</b></p> | <p>Ensure involvement in and/or support for PC-NTD control activities of local elected officials</p>  | <p>Increased support for PC-NTD control activities by local elected officials</p>   |
| <p><b>e. MDA Coverage</b></p>  | <p>The Daily reporting form enables the central-, regional-, and district-level MSAS to know the daily status of coverage during the MDA campaign in ENVISION-supported areas. RTI helped the MSAS to finalize this tool by correcting formulae and population data and to build the capacity of the central, regional, and district levels to fill in the template correctly</p>   | <p>MDA coverage is monitored daily in ENVISION-supported areas, and issues are addressed as needed, by either strengthening supervision or increasing the number of drug distributors</p>   |

| Project assistance area   | Capacity strengthening interventions/activities  | Intended outcomes  |
|---|--|--|
| <b>f. Social Mobilization to Enable PC-NTD Program Activities</b> | Organize an orientation/refresher session on PC-NTDs for BREIPS personnel and MSAS NTD Focal Points  | The BREIPS will have the topical knowledge to conduct PC-NTD-related communications activities throughout the year       |
| <b>h. Drug Supply and Commodity Management and Procurement</b>    | Joint annual update of the JAP (JRF, JRSM, EPIRF) involving the DLM's NTD Pharmacist   | The collaboration between RTI and DLM on the JAP will make it possible to more accurately estimate PC-NTD MDA drug needs |
| <b>i. Supervision for MDA</b>                                     | Review the approach to MDA supervision, stressing the need for data quality control  | The data entered in the tally sheets will be more coherent   |
| <b>I. Dossier Development</b>                                     | Jointly review and update the working drafts of the LF and trachoma elimination dossiers with the PLMTN/DLM and with any of the MSAS's relevant partners, with remote quality control by RTI HQ's LF and trachoma focal points | The MSAS's LF and trachoma elimination dossiers will be as complete as possible with currently-available data            |

## 2. Project Assistance

### a) Strategic Planning

**Participation in the MSAS's weekly NTD coordination meetings:** RTI will regularly participate in these MSAS meetings, which are run by the PLMTN/DLM, as invited and appropriate.

**Funding of and participation in the MSAS's quarterly NTD coordination meetings:** RTI will fund and participate in three of these quarterly meetings run by the PLMTN/DLM. This meeting is held to monitor the progress of planned activities, discuss challenges, share information related to NTDs, and avoid duplication between partners.

**Participation by RTI and PLMTN/DLM staff in the quarterly coordination meetings of seven RMs:** The RMs conduct general quarterly coordination meetings, covering all health topics under their purview. ENVISION will fund the participation of PLMTN/DLM and RTI/Dakar staff in one quarterly coordination meeting in each of the seven RMs supported by ENVISION for integrated MDA. (RTI's Regional Focal Points will participate in all such meetings, in their parent RMs.)

**Participation in the monthly coordination meetings of 30 health districts:** Within each of the 30 health districts supported by ENVISION for MDA, RTI's local Regional Focal Point will attend monthly health district meetings organized by the health district ECDs. These health district meetings cover all health topics under the district's purview and constitute an opportunity to keep NTDs on the radar year-round.

**Funding of and participation in technical meeting to develop a roadmap for SCH control:** ENVISION will fund and participate in a meeting, with technical assistance from a recognized SCH expert, to assist in developing a roadmap. DLM and RTI personnel will compile data and prepare presentations for the meeting, and draft the report afterwards.

**Updating and use of the TIPAC:** ENVISION will conduct quarterly work sessions with the new PLMTN Data Manager to update the data in this tool.

### b) NTD Secretariat

**Internet connectivity for the PLMTN/DLM:** In FY16-FY18, ENVISION paid for a subscription to a reliable internet service provider for the MSAS NTD team located in the DLM Dakar office and equipped the office with appropriate routers. ENVISION will continue to pay for this service in FY19.

**Air time for existing mobile phone SIM cards for the DLM's NTD personnel:** In FY17, RTI ENVISION added 10 subscriber identity module (SIM) cards to its existing network of mobile phone numbers with a mobile phone service provider, for DLM NTD staff, as an economical way of enabling DLM staff to communicate more effectively. ENVISION will continue to pay for this service in FY19.

**External hard drives for backup and archiving by the PLMTN's data manager:** ENVISION will purchase two external hard drives for use by the PLMTN data manager, to allow for regular proper backing up and archiving of the MSAS's working versions of the Integrated NTD Database, TIPAC, and other key PC-NTD-related electronic files.

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

**Raise awareness of PC-NTDs among local elected officials:** in their respective RMs, RTI's Regional Focal Points together with the ECRs will schedule meetings with the Support Unit for Local Elected Officials (Cellule d'Appui aux Elus Locaux [CAEL]), which has influence with and access to elected officials (such as

mayors and sub-prefects) who can be advocated to for public support and, potentially, resources. The CAELs write reports on activities and living conditions within their zones.

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 |
|----------------------------|---|---|---|---|
| Lymphatic filariasis       | Entire population aged ≥5 years                     | 1 per calendar-year; FY19 will include the CY18 (carryover) and CY19 rounds | Door-to-door<br>Fixed-point<br>Schools and daaras (Koranic schools) | CY18: 27<br>CY19: 30                      |
| Onchocerciasis             | Entire population aged ≥5 years in endemic villages | 1 per calendar-year; FY19 will include the CY18 (carryover) and CY19 rounds | Door-to-door<br>Fixed-point<br>Schools and daaras                   | CY18: 1<br>CY19: 1                        |
| Schistosomiasis            | SAC   | 1 per calendar-year; FY19 will include the CY18 (carryover) and CY19 rounds | Schools and daaras  | CY18: 11<br>CY19: 19                      |
| Soil-transmitted helminths | SAC   | 1 per calendar-year; FY19 will include the CY18 (carryover) and CY19 rounds | Schools and daaras  | CY18: 8<br>CY19: 10                       |

**Fund and participate in orientation and MDA micro-planning workshops at the regional (CY19), district (CY19), health post (CY18 and CY19), and community (CY18 and CY19) levels in seven RMs:** Planned for seven RMs and 27 districts in CY18, and seven RMs and 30 districts in CY19. Typically, the planning at each level takes place as part of a two-day workshop, consisting of a one-day orientation and refresher training on NTDs and the MDA campaign, and a one-day planning session.

These sessions will take into account the recommendations and lessons learned from past MDA and will take place at each of the following levels:

- Region: orientation of the ECRs (30 in CY19) and IAs (7 in CY19).
- District: orientation of the ECDs (90 in CY19) and IEFs' NTD Focal Points (30 in CY19).
- Post: orientation of the ICPs and the school principals' group (Collectifs des Directeurs d'École [CODEC]) in 27 districts in CY18 and 30 districts in CY19.
- Community: (refresher) training of teachers from public schools and daaras and CDDs in 27 districts in CY18 and 30 districts in CY19.

The PLMTN/DLM team will conduct orientations for each of the seven supported regions' ECR, ECD, IA, and IEF personnel in their respective regional capitals. The regional-level personnel will constitute the

pool of trainers for their region and will be responsible for orienting the ICPs and CODECs. Once the ICPs and CODECs are trained, they will, in turn, orient the teachers and CDDs (who are also responsible for raising awareness in the community).

The education sector plays a key role in MDA for the target population in the schools. The public school and daara teachers teach life-skills lessons on NTDs and MDA to strengthen their students' knowledge, and in turn, the students serve as relays in their communities.

**Support for implementation of MDA in seven RMs in CY18 and CY19:** Approaches to be used for MDA in ENVISION-supported districts:

- Participation in high-level preparatory activities for the MDA campaign: RTI will support the PLMTN/DLM with weekly work sessions of the MSAS NTD Technical Committee and NTD Communications Committee to plan the MDA campaign jointly.
- Orientation of and micro-planning with personnel in the targeted regions, districts, health posts, and communities: the PLMTN/DLM and RTI will jointly supervise the aforementioned workshops, bringing assistance as needed.
- Continuous accompaniment of MDA planning, implementation, and reporting: RTI's Regional Focal Points will be involved in all phases of the MDA campaign in their respective regions.
- Monitoring of the implementation of the MDA communications plan: each RM's BREIPS prepares a report on the status of the RM's MDA communications plan, after the campaign. This report is shared with the ECR and with RTI's Regional Focal Points; the RM then shares the report with the DLM.
- Monitoring of the collection of MDA data: RTI's Regional Focal Points will assist the NTD district focal points in closely monitoring the tally sheet and other M&E tools.
- Close supervision of MDA drug distributors (teachers and volunteers): Central-, regional-, and district-level MSAS supervisors will supervise the drug distribution teams using the Daily reporting form to assess the distribution technique, the management of MDA drugs, and the distributors' knowledge levels.
- Daily data reporting: The ICPs will be responsible for reporting their MDA data to the health districts each day of the campaign, calculating their coverage, and changing their strategy as needed to reach the goals. The supervisory teams will support the ICPs to ensure that daily monitoring of treatment coverage is effective at the health post and community levels.
- Informing schools of the MDA campaign: In collaboration with the DLM, RTI will strive to ensure that the MEN's letter to school inspectors regarding the MDA campaign reaches the school inspectors in time. One to two weeks before the start of the campaign, the PLMTN/DLM should call each of the MEN's regional IAs to ensure that they have received the message.
- Close coordination with other campaigns: the PLMTN/DLM will coordinate with other MSAS programs to avoid overlap in activities, where possible, and will set an optimal date for the MDA campaign.

e) Social Mobilization to Enable PC-NTD Program Activities

**Participate in NTD communications committee in CY18 and CY19:** RTI will collaborate with other members of the NTD communications committee (the DLM and SNEIPS) in charge of IEC/BCC for PC-

NTDs in FY19. This committee will also collaborate with the BREIPSSs, which are extensions of the SNEIPS in the RMs. The committee will be responsible for the following:

- Developing an NTD communications plan for 2019 focused on MDA and other NTD control activities;
- Organizing an NTD information day for the SNEIPS's "numéro vert" free public-health information phone line staff and BREIPS staff;
- Developing NTD-related event trailers for radio and TV regarding the MDA launch day and the dates of the MDA campaign;
- Developing and organizing the broadcasting of NTD-related commercials for radio and TV;
- Posting internet ads on Senegal's most-visited website, Seneweb, for 10 days during the month of MDA; this communications channel is effective in reaching authority figures and public-service personnel around the country;
- Producing and distributing IEC materials; and
- Monitoring the impact of social mobilization activities.

**Production and delivery of IEC materials for 30 districts for CY19:** All IEC materials were developed as part of MDA preparatory activities in FY16. In FY19, only the production of these materials will be needed, for use in CY19 MDA. These materials will include t-shirts and baseball-type caps. These materials will be provided to the seven RMs that will be supported by ENVISION for MDA. The materials will be transported to and distributed in those seven regions one month before the start of the MDA campaign.

**Updating and airing of commercials and shows on radio and TV in CY18 and CY19:** RTI will sign contracts with national TV and radio stations that stipulate the number of commercials and shows to be aired over a specific time-period. RTI will make payments to local radio stations for the same purpose.

The commercials initially developed and aired in 2017 will again be used in 2019, with minor revisions to reflect changes in that year's campaign and to incorporate any feedback received. Awareness-raising audio segments will be developed for use in health-focused radio shows (previously done in Ziguinchor in 2017, raising much interest). With support from RTI, the NTD communications committee will ensure the technical accuracy, appropriateness, and clarity of messages for the general population. Broadcasts will be aired at appropriate times to reach the target populations and via broadcasters with national coverage and high viewer- or listenership. The PLMTN/DLM and SNEIPS will moderate health-focused radio and TV shows to raise the public's awareness of NTD control and inform them of the strategies used by the MSAS.

In the regions and districts where MDA will be conducted, there are community radio stations that broadcast in local languages. The NTD communications committee will provide the finished radio commercials and trailers to the RM teams, which consist of the RM NTD Focal Points, BREIPSSs, and RTI's Regional Focal Points. These teams will be responsible for working with the local media to translate the commercials into local languages and collaborating with the health districts to sign contracts for airing the commercials on community radio.

**Internet advertisements during MDA in CY19:** As previously, RTI will sign a contract with Seneweb.com, Senegal's most-visited website, to post ads about the MDA campaign for 10 days during the month that MDA is supported by ENVISION, in close coordination with the NTD Communication Committee.

**Organization of a national MDA launch day in CY19:** RTI ENVISION will financially and organizationally support the PLMTN/DLM in organizing this activity before the start of the CY19 MDA campaign, with the participation of senior health and education authorities. This activity will be organized outside of Dakar Region to better involve the public in rural areas, who are more exposed to NTDs.

**Community mobilization strategy in seven RMs in CY18 and CY19:** This will consist of systematically involving influential community groups in the organization of PC-NTD control activities. The strategy will be focused on informing the public about MDA via the appropriate communications channels, messages, and use of IEC materials. The intent is to secure the targeted populations' acceptance of and adherence to the MDA. This community mobilization will be conducted in the RMs and health districts and will be organized by the BREIPS supported by the RM NTD Focal Point and RTI's Regional Focal Point; the Regional Focal Point handles the funds for this activity in each supported RM. The following activities to mobilize influential groups will be organized starting between one month and 15 days before the start of the MDA: community advocacy, information caravans, partnerships with schools and daaras, and partnership with sporting and cultural associations (associations sportive et culturelle) and CBOs.

f) Training

**Integrated NTD Database, TIPAC, and USAID M&E Workbooks training/refresher-training for PLMTN/DLM personnel:** RTI staff trained, and in some cases, refresher-trained several members of the DLM's NTD team on the use of these tools in prior years. It will do so again in FY19, focusing on areas that pose challenges and functions of the tools that are less well-understood, or that are used irregularly.

**PC-NTD training/refresher-training for the SNEIPS's "numéro vert" staff and BREIPS staff in seven RMs:** RTI ENVISION will technically and financially support the PLMTN/DLM's orientation on NTDs and MDA for staff members from the SNEIPS "numéro vert" free public health information phone line and from the BREIPS of regions supported by ENVISION for MDA, one month before the start of MDA. This activity will help to ensure that these MSAS departments provide correct information to the public at their respective levels of the health system and will increase the visibility of the PLMTN and of MDA through improved understanding of and increased interest in these topics among the trainees. Involving the BREIPSs will enable them to provide accurate information about NTDs to the public within their respective RMs.

g) Drug and Commodity Supply Management and Procurement

**Transport of MDA drugs from PNA to PRAs in seven RMs in CY19:** As in prior years, there is a chance that funding for this may be required.

**Transport of MDA drugs from PRAs in seven RMs to health posts in CY19:** The MDA drugs must be transported from the PRAs to the health districts and on to their component health posts before MDA, as needed.

**Return of unused MDA drugs to PRAs in seven RMs after MDA in CY19:** After the MDA campaign, the RMs collaborate remotely with the DLM Pharmacist to confirm the supply of unused drugs that remain. RTI's Regional Focal Points support the RMs in counting the quantity remaining. In theory, all drugs



remaining at the health posts and health districts are returned to the parent region's PRA. Funds are provided if needed.

For the ENVISION-supported MDA in CY18, the cost of carrying out this activity will be the staff time of RTI's Regional Focal Points, who will collaborate closely with the health districts in their parent RMs.

**Technical assistance for monitoring and management of AEs and SAEs:** RTI will encourage: 1) the DLM and the ECRs and ECDs of the RMs supported by ENVISION for MDA to more actively refer to the copies of the Handbook for Managing Adverse Events following Mass Drug Administration and Serious Adverse Events that they have on hand; and 2) the ECRs and ECDs of the RMs supported by ENVISION for MDA to be more reactive to AEs, informing the central-level MSAS (anti-poison center, with a copy to the DLM) quickly. RTI will also ensure greater focus on the AE/SAE component in the cascade trainings for ECRs, ECDs, ICs, and drug distributors before the MDA campaign.

As noted above, in the case of any SAEs in districts supported for MDA by ENVISION, RTI Senegal will encourage the DLM to inform the MSAS's anti-poison center, drug donation programs, and WHO within 24 hours.

ENVISION printed additional copies of the Handbook in FY18, and will provide these to the RMs in FY19, in advance of the CY18 MDA.

#### h) Supervision for MDA

**Supervision of regional-level MDA orientation and micro-planning workshops in seven RMs in CY19:**

The PLMTN/DLM and RTI's Regional Focal Points will jointly supervise these workshops in the regions supported by ENVISION for MDA.

**Supervision of district-level MDA orientation and micro-planning workshops in 30 districts in CY19:**

ECR personnel and RTI's Regional Focal Points will jointly supervise these workshops in each of the districts supported by ENVISION for MDA.

**Supervision of health post and community-level MDA orientation and micro-planning workshops in 27**

**districts in CY18 and 30 districts in CY19:** ECD personnel, assisted by ECR personnel and RTI's Regional Focal Points, will supervise these workshops in each of the districts supported by ENVISION for MDA.

**Supervision of MDA in 27 districts in CY18 and 30 districts in CY19:** RTI will join the central-level teams in supervising the ENVISION-supported MDA in 27 districts in CY18 and 30 districts in CY19. Each RM will be supervised by central-level personnel during the MDA. Each supervisory team will ensure the quality of drug distribution and assist in awareness-raising, data quality control, and data compilation. RTI's Regional Focal Points will also be involved in those regions where they are present, together with regional-level personnel.

#### i) M&E

**Support for the preparation of the WHO JAP (JRSM, JRF, and EPIRF):** RTI will assist the PLMTN/MSAS in completing these documents for submission to WHO by the MSAS, as invited and appropriate. (Also see Updating the TIPAC above and Updating the Integrated NTD Database below.)

**Updating the Integrated NTD Database:** ENVISION will conduct regular work sessions with the PLMTN Data Manager to update the data in this tool.

**Funding and participation in MDA data validation workshop in seven RMs in CY18 and CY19:** Each of the seven RMs conducting MDA with support from ENVISION will be supported to hold a workshop to

review and validate the data from their region’s CY19 MDA campaign, formulating recommendations for subsequent campaigns as appropriate. They will also review remaining MDA drugs and supplies.

**Funding of and participation in national MDA data validation workshop in CY18 and CY19:** The PLMTN/DLM will hold a workshop to review and validate the data from the CY19 national MDA campaign, formulating recommendations for subsequent campaigns as appropriate. They will also review remaining MDA drugs and supplies.

**TSSs in 13 districts:** RTI will technically and financially support the PNPSO in conducting TSSs in 13 districts, with implementation by PNPSO personnel under the supervision of the PNPSO Coordinator and RTI. All districts will conduct their TSSs a minimum of 24 months after their prior TIS that showed that TF was <5%.

The TSSs will follow the standard WHO protocol and use Android smartphones and WHO’s Tropical Data system for data collection.

**Table 2: Planned Disease-specific Assessments for FY19 by Disease (USAID funds)**

| Disease  | No. of endemic districts | No. of districts planned for DSA | No. of Evaluation Units planned for DSA   | Type of assessment  | Diagnostic method |
|----------|--------------------------|----------------------------------|---|---------------------|-------------------|
| Trachoma | 0                        | 13                               | 16 (one per district, except for three districts which will each be split into two EUs) | Surveillance survey | Clinical grading  |

j) Supervision for M&E and DSAs

**Supervision of TSS in 13 districts:** The PLMTN/DLM and RTI will jointly supervise this activity.

k) Dossier Development

**Ongoing LF elimination dossier development:** RTI ENVISION will continue to technically support the PNEFL, PLMTN/DLM, and partners supporting LF elimination in Senegal to review the information and documents needed for the dossier and compile those that are available. Through informal work-sessions, RTI will assist the MSAS in continuing to prepare a preliminary version of the dossier’s narrative and data annex files based on the information available, drawing on the MSAS’s Integrated NTD Database as appropriate.

**Ongoing trachoma elimination dossier development:** RTI has assisted the PNPSO in filling the dossier package’s data annex (focusing on the Surgery and Antibiotics components) and has begun drafting the narrative report (focusing on the Antibiotics component). ENVISION will support the PNPSO to complete a draft of the narrative report and of the data annex, which will include adding F and E data to both.

As previously, ENVISION will continue to technically and financially support quarterly sessions to jointly review the dossier drafts, harmonize information, address any challenges, and decide on next steps.



## APPENDIX 1: Work Plan Activities

| FY19 Activities  |
|--|
| <b>PC-NTD Program Capacity Strengthening</b>   |
| Closely accompany PLMTN/DLM staff in activity planning, protocol development, implementation, and M&E  |
| Accompany the MSAS's RM and health district staff in activity planning, implementation, and M&E  |
| <b>Project Assistance</b>  |
| <b>Strategic Planning</b>  |
| Participation in the MSAS's weekly NTD coordination meetings   |
| Funding of and participation in the MSAS's quarterly NTD coordination meetings   |
| Participation by RTI and DLM staff in the quarterly coordination meetings of seven RMs   |
| Participation in the monthly coordination meetings of 30 health districts  |
| Funding of and participation in technical meeting to develop a roadmap for SCH control   |
| Updating and use of the TIPAC  |
| <b>NTD Secretariat</b>   |
| Internet connectivity for the PLMTN/DLM  |
| Air time for existing mobile phone SIM cards for the DLM's NTD personnel   |
| External hard drives for backup and archiving by the PLMTN's data manager  |
| <b>Building Advocacy for a Sustainable National PC-NTD Program</b>   |
| Raise awareness of PC-NTDs among local elected officials   |
| <b>MDA Coverage</b>  |
| Fund and participate in orientation and MDA micro-planning workshops at the regional (CY19), district (CY19), health post (CY18 and CY19), and community (CY18 and CY19) levels in seven RMs |
| Support for implementation of MDA in seven RMs in CY18 and CY19  |
| <b>Social Mobilization to Enable PC-NTD Program Activities</b>   |
| Participate in NTD communications committee in CY18 and CY19   |
| Production and delivery of IEC materials for 30 districts for CY19   |

| FY19 Activities  |
|--|
| Updating and airing of commercials and shows on radio and TV in CY18 and CY19  |
| Internet advertisements during MDA in CY19   |
| Organization of a national MDA launch day in CY19  |
| Community mobilization strategy in seven RMs in CY18 and CY19  |
| <b>Training</b>  |
| Integrated NTD Database, TIPAC, and USAID M&E Workbooks training/refreshers-training for PLMTN/DLM personnel                                 |
| PC-NTD training/refreshers-training for journalists, the SNEIPS's "numéro vert" staff, and BREIPS staff in seven RMs                         |
| <b>Drug Supply and Commodity Management and Procurement</b>  |
| Transport of MDA drugs from PNA to PRAs in seven RMs in CY19   |
| Transport of MDA drugs from PRAs in seven RMs to health posts in seven RMs in CY19   |
| Return of unused MDA drugs to PRAs in seven RMs after MDA in CY19  |
| Technical assistance for monitoring and management of AEs and SAEs   |
| <b>Supervision for MDA</b>   |
| Supervision of regional-level MDA orientation and micro-planning workshops in seven RMs in CY19  |
| Supervision of district-level MDA orientation and micro-planning workshops in 30 districts in CY19   |
| Supervision of health post and community-level MDA orientation and micro-planning workshops in 27 districts in CY18 and 30 districts in CY19 |
| Supervision of MDA in 27 districts in CY18 and 30 districts in CY19  |
| <b>M&amp;E</b>   |
| Support for the preparation of the WHO JAP (JRSM, JRF, and EPIRF)  |
| Updating the Integrated NTD Database   |
| Funding and participation in MDA data validation workshop in seven RMs in CY18 and CY19  |
| Funding of and participation in national MDA data validation workshop in CY18 and CY19   |
| TSSs in 13 districts   |

| <b>FY19 Activities</b>                           |
|--|
| Supervision for M&E and DSAs                     |
| Supervision of TSS in 13 districts               |
| Dossier Development                              |
| Ongoing LF elimination dossier development       |
| Ongoing trachoma elimination dossier development |

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

|    | Medical Region | Health District    | MDA (CY18 round) |    |     |     | MDA (CY19 round) |    |     |     | DSA |
|----|----------------|--------------------|------------------|----|-----|-----|------------------|----|-----|-----|-----|
|    |                |                    | LF               | OV | SCH | STH | LF               | OV | SCH | STH | TRA |
| 1  | Diourbel       | Bambéye            | X                |    | X   |     | X                |    | X   |     | TSS |
| 2  |                | Diourbel           |                  |    |     |     |                  |    |     |     | TSS |
| 3  |                | Mbacké             | X                |    | X   |     | X                |    | X   |     |     |
| 4  |                | Touba              | X                |    |     |     | X                |    | X   |     |     |
| 5  | Fatick         | Dioffior           | X                |    | X   | X   | X                |    | X   | X   |     |
| 6  |                | Fatick             | X                |    | X   |     | X                |    | X   |     |     |
| 7  |                | Gossas             | X                |    | X   |     | X                |    | X   |     | TSS |
| 8  |                | Niakhar            | X                |    | X   |     | X                |    | X   |     |     |
| 9  |                | Sokone             | X                |    |     |     | X                |    | X   |     |     |
| 10 | Kaffrine       | Birkelane          | X                |    |     |     | X                |    | X   |     | TSS |
| 11 |                | Kaffrine           | X                |    | X   |     | X                |    | X   |     | TSS |
| 12 |                | Koungheul          | X                |    | X   | X   | X                |    | X   | X   | TSS |
| 13 |                | Malem Hodar        | X                |    | X   |     | X                |    | X   |     | TSS |
| 14 | Kaolack        | Guinguinéo         | X                |    |     |     | X                |    | X   |     |     |
| 15 |                | Kaolack            | X                |    |     |     | X                |    | X   |     |     |
| 16 | Kolda          | Kolda              | X                |    | X   |     | X                |    | X   |     |     |
| 17 |                | Médina Yoro Foulah | X                |    | X   | X   | X                |    | X   | X   |     |
| 18 |                | Vélingara          | X                | X  | X   |     | X                | X  | X   |     |     |
| 19 | Louga          | Coki               |                  |    |     |     |                  |    |     |     | TSS |
| 20 |                | Dahra              |                  |    |     |     |                  |    |     |     | TSS |
| 21 |                | Louga              |                  |    |     |     |                  |    |     |     | TSS |
| 22 |                | Sakal              |                  |    |     |     |                  |    |     |     | TSS |
| 23 | Thiès          | Joal-Fadhiouth     | X                |    | X   | X   | X                |    | X   | X   |     |
| 24 |                | Khombole           | X                |    | X   |     | X                |    | X   |     |     |
| 25 |                | Mbour              | X                |    |     |     |                  |    |     | X   |     |
| 26 |                | Mékhé              |                  |    |     |     |                  |    |     |     | TSS |
| 27 |                | Popenguine         | X                |    |     |     | X                |    | X   |     |     |
| 28 |                | Pout               | X                |    |     |     | X                |    |     | X   |     |
| 29 |                | Thiadiaye          | X                |    | X   | X   | X                |    | X   | X   |     |
| 30 |                | Thiès              | X                |    |     |     | X                |    |     | X   |     |
| 31 |                | Tivaouane          | X                |    |     |     | X                |    | X   |     | TSS |
| 32 | Ziguinchor     | Bignona            | X                |    | X   |     | X                |    | X   |     |     |



|    | Medical Region | Health District | MDA (CY18 round) |    |     |     | MDA (CY19 round) |    |     |     | DSA |
|----|----------------|-----------------|------------------|----|-----|-----|------------------|----|-----|-----|-----|
|    |                |                 | LF               | OV | SCH | STH | LF               | OV | SCH | STH | TRA |
| 33 |                | Diouloulou      | X                |    | X   | X   | X                |    | X   | X   |     |
| 34 |                | Oussouye        | X                |    |     |     | X                |    |     |     |     |
| 35 |                | Thionk Esyl     | X                |    |     |     | X                |    |     |     |     |
| 36 |                | Ziguinchor      | X                |    | X   | X   | X                |    | X   | X   |     |

