Senegal Work Plan

FY 2020

October 2019-September 2020

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LIST OF ACRONYMS

AFRO	Africa Regional Office (WHO)
ALB	Albendazole
ANSD	Agence National de la Statistique et de la Demographie (National Agency for Statistics and Demography)
BREIPS	Bureau Régional de l'Éducation et de l'Information pour la Santé (Regional Office for Health Education and Information)
CDD	Community Drug Distributor (known locally as "DC, distributeur communautaire")
CDTI	Community-directed treatment with ivermectin
CHW	Community health worker (known locally as "relais communautaire")
CM	Case management
CODEC	Collectifs des Directeurs d'École (School Principals' Group)
CS	Centre de Santé (Health Center)
CY	Calendar Year
DCMS	Division du Contrôle Médical Scolaire (School Health Control Division)
DGSP	Direction Générale de la Santé Publique (General Directorate of Public Health)
DHIS2	District Health Information System 2
DLM	Direction de Lutte contre la Maladie (Disease Control Directorate)
DPE	Direction Préfectorale de l'Education (Prefectoral Directorate of Education)
DSA	Disease-Specific Assessment
DSISS	Division du Système d'Information Sanitaire et Sociale (Health and Social Information System Division)
DSME	Direction de la Santé de la Mère et de l'Enfant (Directorate of Maternal and Child Health)
ECD	Health District Management Team
ECR	Medical Region Management Team
ELISA	Enzyme-linked immunosorbent assay
EPIRF	PC Epidemiological Data Reporting Form (WHO)
EPS	Education Physique et Sportive (Physical and Sporting Education)
EU	Evaluation Unit
FHI 360	Trade name for Family Health International
FY	Fiscal Year
GTMP	Global Trachoma Mapping Project
HCCT	Haut Conseil des Collectivités Térritoriales (High Council of Territorial Communities)
HD	Health District (known locally as "DS, District Sanitaire")
HSS	Health Systems Strengthening
IA	Inspection d'Académie (Schools Inspectorate)
ICP	Infirmier Chef de Poste (Health Post Head Nurse)
ICT	Immunochromatographic test card
IEC	Information, Education and Communication
IEF	Inspection de la Formation et de l'Education (Training and Education Inspectorate)
IR	Intermediate Result
IVM	Ivermectin
JAP	Joint Application Package (WHO)
JLS	Journée Locale de Supplémentation (Local Supplementation Day)
JRF	Joint Reporting Form (WHO)
JRSM	Joint Request for Selected PC Medicines (WHO)

LF	Lymphatic filariasis
M&E	Monitoring and Evaluation
MCD	Médecin Chef de District (Health District Head Doctor)
MCR	Médecin Chef de Région (Health Region Head Doctor)
MDCEST	Ministère du Développement communautaire, de l'Équité sociale et territoriale (Ministry of Community Development and Social and Territorial Equity)
MEDD	Ministère de l'Environnement et du Développement Durable (Ministry of the Environment and Sustainable Development)
MEN	Ministère de l'Education Nationale (Ministry of National Education)
Mf	Microfilaremia
MFFG	Ministère de la Femme, de la Famille et du Genre (Ministry of Women, Families and Gender)
MHA	Ministère de l'Hydraulique et l'Assainissement (Ministry of Hydraulics and Sanitation)
MSAS	Ministère de la Santé et de l'Action Sociale (Ministry of Health and Social Work)
NTD	Neglected Tropical Disease
OMVS	Organisation pour la Mise en Valeur du Fleuve Sénégal (Organization for the Development of the Senegal River)
OV	Onchocerciasis
PC	Preventive Chemotherapy
PNA	Pharmacie Nationale d'Approvisionnement (National Supply Pharmacy)
PNEFO	Programme National pour l'Elimination de la Filariose Lymphatique et de l'Onchocercose (National Program for the Elimination of Lymphatic Filariasis and Onchocerciasis)
PNEL	Programme National d'Elimination de la Lèpre (National Leprosy Elimination Program)
PNEVG	Programme National de Lutte contre les Bilharzioses et Géohelminthiases (National Bilharzia and Soil-Transmitted Helminths Control Program)
PNLBG	Programme National de Promotion de lutte contre les Bilharzioses et les Geohelminthiases (National STH/SCH Program)
PNLMTN	Programme National de Lutte contre les Maladies Tropicales Négligées (National Neglected Tropical Diseases Control Program)
PNPSO	Programme National de Promotion de la Santé Oculaire (National Eye Health Promotion Program)
PRA	Pharmacie Régionale d'Approvisionnement (Regional Supply Pharmacy)
PTS	Post-Treatment Surveillance
PZQ	Praziquantel
RM	Région Médicale (Medical Region)
RPRG	Regional Program Review Group
SAFE	Surgery, Antibiotics, Facial cleanliness, and Environmental improvement
SCH	Schistosomiasis
SLAP	Service de Lutte Antiparasitaire (Parasite Control Section)
SNEIPS	Service National de l'Education et de l'Information pour la Santé (National Health Education and Information Service)
SNISS	Service National de l'Information Sanitaire et Sociale (National Health and Social Information Service)
STH	Soil-Transmitted Helminths
TAS	Transmission Assessment Survey
TBC	To be confirmed
TBD	To be determined
TF	Trachomatous inflammation - follicular
TIS	Trachoma Impact Survey

TR	Trachoma
TSS	Trachoma Surveillance Survey
USAID	United States Agency for International Development
VAD	Visite à Domicile (Home Visit)
WHO	World Health Organization

Introduction: General information on Senegal

Senegal, located in West Africa, is bordered to the north by Mauritania, to the east by Mali, to the south by Guinea and Guinea Bissau, to the west by the Atlantic Ocean. The Gambia forms an enclave of land inside Senegal, on the lower reaches of the river of the same name. Dakar, the capital, is a peninsula located in the far west.
The climate is Sudano-Sahelian with a dry season (November to May) and a rainy season (June to October), with variable rainfall (1400 mm in the South and 381 mm in the North). Three climatic zones are identified: the forest zone in the south, the wooded savannah in the center, the semi-desert steppe zone in the north with a tendancy to desertification. The hydrographic network includes three major rivers: Senegal, Casamance, Gambia and tributaries, as well as some temporary rivers.

ADMINISTRATIVE STRUCTURE

The Republic of Senegal's national territory is divided into 14 administrative regions, 45 departments, 117 districts and 557 municipalities, per a decree establishing the territorial jurisdiction and capital of the regions and departments (10 September 2008) and by a law (No. 2013-10, 28 December 2013) on the General Code of Local Authorities (collectivités). The Government's "Act III of Decentralization", a reform of territorial administration, established a national policy to establish viable competitive territories (regions, departments, communes). The Act also phased out rural municipalities (communes rurales) leaving only municipalities (communes) and decentralizing certain sectors including health and education, along with their allocation of state funding, to the communes. The Act also replaced the regional councils were replaced by departmental councils. The regional, departmental, and municipal councilors are elected by vote, while the regional governors are appointed by the head of state. At each level, there is an authority that chairs a consultation framework where the health sector is represented:

- The Governor (region) chairs the Regional Development Council
- The prefect (department) heads the Departmental Development Council
- The sub-prefect (arrondissement) presides over the Local Development Council
- The mayor (municipality) chairs the Municipal Council

DEMOGRAPHIC ASPECTS

Senegal's estimated population for 2019 (based on projections from the 2013 general population census) was 16,028,940 inhabitants; women represent 50.21%. The Senegalese population is characterized by its large proportion of youth: 51% of the population is under 18. The population is growing rapidly (2.7% per year).
Almost half of the population is concentrated in three regions: Dakar, Thiès and Diourbel with respective proportions of 23%, 13% and 11%. Kédougou region is the least populated with only 1% of the population. Tambacounda region, geographically the country's largest with 21.5% of the country's land area, has only 5% of the country's population. The majority of the population, 53.3%, lives in rural areas. The average density is 80 inhabitants per km^2 with large regional disparities.

ORGANIZATION OF THE HEALTH SYSTEM

The Ministry of Health and Social Work (MSAS) is organized as a pyramid. Adminstratively, it includes:

- a central level which includes the Minister's Office, the General Secretariat, the Directorates-General, the National Directorates, the attached central services and the national social reintegration centres;
- an intermediate strategic level that brings together the medical regions (RMs) and the regional Social Work services;
- a peripheral operational level with the health districts and departmental social work services.

Health District:
The operational unit of the health pyramid is the health district (HD), of which there are 77 in total (an increase from 76 that took place in late FY19, with one of Dakar RM's HDs being split in two). Typically the HD covers a population of 100,000 to 150,000 inhabitants, but nine HDs exceed 400,000 (fiscal year [FY]20 data). The HD is made of one or more health centers and includes a network of health posts that typically ranges from 10 to more than 30 health posts. The HDs provide preventive, curative, social, and educational services.

Each health post has a geographic catchment area with the number of villages or neighborhoods depending on whether it is an urban or rural post. The population covered by a health center is generally between 5,000 and 10,000 inhabitants. In the area covered by a health center, there are several health posts and rural maternity wards.

Medical Region:
Like the administrative division, there are 14 Medical Regions (RMs). Their role is to ensure the coordination, supervision, inspection and monitoring of public and private health facilities in the region. They organize technical collaboration between all regional health facilities and assist them in their administrative, management and planning tasks. This intermediate level also includes departmental and regional hospitals.

Central Level:
The central (national) level includes, in addition to the minister's office, the general secretariat, the directorates and the related services. There are eight national referral hospitals. The central level establishes strategic goals and options in health and social policy, and oversees resource mobilization and use, the acquisition of traditional and/or modern technologies, and improving the governance of the sector.

1. NARRATIVE

1.1. NATIONAL NTD PROGRAM OVERVIEW

The National Programme for Neglected Tropical Disease Control (PNLMTN) is housed in the Disease Control Directorate (DLM) which is an entity of the General Directorate of Public Health (DGSP). The PNLMTN is composed of five programs: the National Leprosy Elimination Program (PNEL), the National Eye Health Promotion Program (PNPSO) (including trachoma), the National Bilharzia and Soil-Transmitted Helminths Control Program (PNLBG), the National Lymphatic Filariasis and Onchocerciasis Elimination Program (PNEFO), and the National Guinea Worm Eradication Programme (PNEVG). Each program is headed by a coordinator. Leishmaniasis is managed by the PNEL, rabies by the PNEVG, and dengue by the Parasite Control Section (SLAP).

Three strategic plans were developed by the DLM between 2007 and 2020, initially focused on ten NTDs:

- Five preventive chemotherapy (PC) NTDs: trachoma, lymphatic filariasis (LF), onchocerciasis (OV), schistosomiasis (SCH) and soil-transmitted helminths (STH);

- Five case-management NTDs: leprosy, rabies, dracunculiasis (Guinea worm disease), cutaneous leishmaniasis, and dengue fever.

In 2018, scabies, mycetoma and snake bite envenomation were added to the list.

The Ministry of National Education (MEN) is a platform for mass drug administration (MDA) for school-age (5-14 years) children. Enrolment rates averaged 93% in 2014.

Treatment for STH in preschool children (1-4 years old) is carried out by the Directorate of Maternal and Child Health (DSME) via twice-yearly Local Supplementation Days (JLS) during which the children receive both vitamin A and Mebendazole. One medical region (Kaffrine) has tested and adopted routine vitamin A administration and STH treatment, meaning no need to compensate community drug distributors [CDDs] or pay for supervision.

1.1. PC-NTD PARTNERS

Act | West consortium partners in Senegal in FY20 are FHI 360 as lead implementer with technical assistance (TA) from AIM, Deloitte, and World Vision.

1.2. IR1 PLANNED ACTIVITIES: LF, TR, OV

➢ LF

Previous and current FY activities and context:

LF has been fully mapped using immunochromatographic test cards (ICT cards), following standard WHO methodology. Mapping was conducted as funding became available: 14 HDs were mapped in FY03, 6 HDs in FY07, 27 HDs in FY10, and the final 6 HDs in FY12. A total of 50 HDs are LF-endemic across 12 of the country's 14 medical regions (all RMs 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 HDs of Tambacounda RM in FY07; sites in two HDs of Kolda RM and one HD of Sédhiou RM in FY12; and sites in one HD each in Diourbel, Fatick (also considered to represent Kaolack), Kaffrine, Kédougou, Louga (also considered to represent Saint Louis), Thiès, and Ziguinchor RMs in FY14.

LF MDA began in the seven HDs of Tambacounda RM in FY07 and was extended to Kolda and Sédhiou RMs (three HDs each) in FY13. In FY15, all 50 LF-endemic HDs were treated, with 37 receiving treatment for the first time.

Following five rounds of LF MDA (FY07–FY11), the MSAS conducted pre-transmission assessment surveys (pre-TAS) at sentinel sites in two HDs in Tambacounda RM in FY12. As these surveys detected zero Mf, the MSAS submitted a TAS eligibility request to the WHO Africa Regional Office (AFRO) Regional Program Review Group (RPRG) in FY13. The RPRG's reply in FY14 noted that the data submitted were insufficient (data from FY10 and FY11 were missing because of data retention by health workers during an extended strike; efforts to retrieve these by the MSAS, with WHO support, were unsuccessful) and recommended that Senegal conduct two additional rounds of MDA in Tambacounda RM. The MSAS resumed MDA in that RM in FY15, however epidemiological coverage was below the required 65% (0/7 HDs reached the target in FY15; 3/7 did so in FY16; 2/7 did so in FY17; and 6/7 did so in FY18). Through FY18, three of the seven HDs (Kidira, Koumpentoum, and

Tambacounda) completed five cumulative (but non-consecutive) rounds of MDA with sufficient coverage and will conduct both pre-TAS, and TAS1 if the pre-TAS is successful, in FY20.

The three HDs of Sédhiou RM conducted pre-TAS in FY18 with zero Filariasis Test Strip (FTS)-positives in each HD; in TAS1 later the same year there were zero FTS-positives across the evaluation unit (EU) as a whole. Those three HDs therefore stopped MDA for LF. They are scheduled to conduct TAS2 in FY20.

In FY20, as many as 14 HDs, that have conducted four effective MDA rounds, could conduct pre-TAS in late FY20, if they achieve the required coverage in MDA scheduled for FY20 Q1. This includes selected HDs from Diourbel, Kolda, Tambacounda, and Thiès RMs.

Plan and justification for FY20:

- **MDA for LF (plus OV, SCH and/or STH) in 44 HDs**: please see "Multi-disease activities" section, under MDA Coverage, for more details.
- **LF pre-TAS in 14 HDs**: Three HDs that do not require FY20 Q1 MDA will conduct pre-TAS in early FY20: Kidira, Koumpentoum, and Tambacounda (Tambacounda RM). Eleven HDs that require FY20 Q1 MDA will conduct pre-TAS in late FY20, six months after that MDA: Bambéye, Mbacke (Diourbel RM); Kolda, Vélingara (Kolda RM), Bakel, Dianké Makha, (Tambacounda RM), Joal-Fadhiouth, Mbour, Thiadiaye, Thiès, and Tivaouane (Thiès RM). Three HDs (Kidira, Koumpentoum, Tambacounda [Tambacounda RM]).
- **LF TAS1 in three EUs (three HDs)**: Kidira, Koumpentoum, and Tambacounda HDs (Tambacounda RM) will conduct TAS1. Given that years of MDA with effective coverage were discontinuous, it is prudent to set each HD as a single EU. In addition, Koumpentoum and Tambacounda HDs are only partly contiguous with one another, and Kidira is not contiguous with the other two.
- **LF TAS2 in one EU (three HDs)**: Sédhiou RM's three HDs, which are all adjacent, will conduct TAS2. This will be two years after passing TAS1.

➢ OV

Previous and current FY activities and context:

After many years of treatment and assessments in known endemic areas, elimination of OV seems feasible. It is expected that all OV-endemic HDs, which are also co-endemic for LF, will be able to stop ivermectin (IVM) MDA as soon as MDA for LF (which uses IVM + albendazole [ALB]) is stopped (before FY25).

OV was mapped in the southeast and south of the country in 1987 using skin snip microscopy (all age groups) and, in certain villages, ophthalmological examination (ages ≥5 years). The severity of disease was categorized as follows: 1) Falémé and Gambie River Basins: low to no risk in the northern part, and medium risk in the southern part. This zone includes the eight current HDs (three in Kédougou RM [Kédougou, Salemata, Saraya], one in Kolda RM [Vélingara], and four in Tambacounda RM [Dianké Makha, Goudiry, Kidira, Tambacounda]) that are considered endemic. 2) Tomine and Geba River Basins: low or no risk. 3) Fouta Djalon: the west subzone had low or no risk, and the others had medium risk. The Falémé River Basin, which runs through Kédougou and Tambacounda RMs' OV-endemic HDs, and the Gambie River Basin, which runs through Kédougou, Kolda, and Tambacounda RMs' OV-endemic HDs, are considered the country's two OV foci (or transmission zones).

The PNEFO's strategy is annual MDA with IVM in endemic HDs. 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 FY12 in Tambacounda RM and in FY13 in Kédougou and Kolda RMs, the MSAS shifted to an MDA model, integrating the treatment for OV with MDA for LF, resulting in treatment in the entire HD rather than in OV-endemic foci alone. As of July 2019, the MSAS has completed 21 rounds of treatment in both Kédougou and Kolda RMs, and 28 rounds of treatment in Tambacounda RM.

The MSAS conducted OV epidemiological impact assessments in 1996, 1999, 2000, 2001, 2002, 2003, 2006, and 2007. These assessments covered approximately 620 villages across eight HDs, three RMs, and the two main river basins; 73 sentinel villages were established, and a selection of these was visited during each assessment, which tested the entire population aged >1 year with skin snip microscopy. The assessments found that OV prevalence remained low, with most infections identified among people aged ≥15 years; the researchers however concluded that the continued presence of OV-infected persons constituted a possible avenue for recrudescence.

During 2006–2011, the MSAS and Mali's Ministry of Health and Public Hygiene conducted a study to determine whether OV could be eliminated through IVM treatment alone. This study focused on three OV-hyperendemic foci—along the Gambie 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 (skin snip, primarily) and entomological (deoxyribonucleic acid [DNA] probe of blackflies) methods. Treatment was stopped in selected villages within each focus 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 FY13.

In FY14–FY15, the PNLO conducted an OV impact survey involving epidemiological (FY14) and entomological (FY14 and FY15) components. The epidemiological component consisted of OV skin snips (ages ≥5 years) analyzed by microscope and paired with enzyme-linked immunosorbent assay (ELISA) antibody tests using Ov16 antigens (ages ≥5 years in Kédougou RM and ≥1 year in Kolda and Tambacounda RMs). While the sample sizes per focus were below the 2,000 children stipulated in WHO's 2016 guidelines, and the site sampling method was purposive rather than representative of the entire transmission zone, the results suggested that the two foci would not meet the criterion of <0.1% Ov16-positives in children ages <10 years required for stopping OV MDA. The entomological assessments identified no blackflies positive for *O. volvulus* by testing with O-150 polymerase chain reaction (Poolscreen). In contrast with the epidemiological results, these findings suggested no ongoing transmission.

As of July 2019, the PNEFO is completing an OV survey – it has not been clearly stated whether this is an impact survey or a stop-MDA survey, but it is recognized that HDs cannot stop OV MDA until they are ready to stop LF MDA (as the same drug, IVM, is used for both). The entomological component was conducted in FY18 (results to be provided by ESPEN lab) and further fly captures are taking place in FY19, both in the two main foci (river basins). The epidemiological component (Ov16, TBC which specific technique is being used) was conducted in FY18 in 77 villages across the eight endemic HDs.

Senegal's technical committee of experts for elimination of OV and LF held its first (and so far only) meeting in 2017, with participation by the ministries of health of neighboring countries Guinea and Mali, as well as Benin. Key outcomes included the identification of the country's OV transmission zones (as indicated above). Recommendations were to i) issue a decree formalizing the committee, ii) to put in place an independent technical committee to manage the process of verifying elimination, iii) conduct a complete desk review of OV control in the country in preparation for the work of the independent technical committee, iv) to develop a roadmap for elimination of OV in Senegal, and v)

strengthen collaboration between Senegal, Mali, Guinea, and Guinea-Bissau to manage cross-border aspects of the verification-of-elimination process in the four countries. The decree establishing the committee officially was issued in July 2019.

Plan and justification for FY20:

- **Meeting of national OV and LF elimination committee**: support the PNLMTN to organize a meeting of the committee of national and international experts (3 days, in Dakar). FHI 360's OV focal point will serve as a resource-person for the meeting. In advance of the meeting, FHI 360 will support the PNLMTN in compiling existing epidemiological and entomological data, and in requesting the country's data-set from ESPEN. After the meeting, FHI 360 will support the PNLMTN in following up on recommendations issued from the meeting.
- **LF-OV-SCH MDA in 6 HDs**: please see "Multi-disease activities" section, under MDA Coverage, for more details.

➢ Trachoma

Previous and current FY activities and context:

Senegal's goal is to eliminate trachoma as a public health problem by 2020. The MSAS subscribes to the SAFE (Surgery, Antibiotics, Facial cleanliness, and Environmental improvement) strategy. As of mid-July 2019, all known endemic HDs have achieved the stopping MDA criteria (<5% trachomatous inflammation - follicular [TF]) and are now in a surveillance phase, with the last trachoma surveillance surveys (TSS) planned for 2020.

Trachoma mapping was conducted through clinical grading using the WHO simplified grading system and standard protocol. Mapping was first conducted in 2000, at RM level (grouping Saint Louis and Louga; Fatick and Kaolack; Diourbel and Thiès; and, individually, Dakar's periphery and Tambacounda). HD-level mapping, of 56 HDs (out of a current total of 77), was conducted from 2004-2014, with the last 17 HDs that underwent mapping using the Global Trachoma Mapping Project (GTMP) system. The HD-level mapping found that 27 HDs were endemic for trachoma (defined as TF ≥5%): 14 HDs with TF 10-29.9% (requiring three rounds of MDA) and 13 HDs with TF 5-9.9% (requiring one round of MDA). 29 HDs registered TF <5%, meaning that no MDA was required. The HDs that were mapped at RM level only (in 2000), with no HD-level follow-up, registered the following prevalences among <11-year-olds: Dakar RM's peripheral HDs collectively had 3.3% TF/TI; and the 10 HDs of the former Tambacounda RM, which was since split into Kédougou (3 HDs) and Tambacounda (7 HDs) RMs, collectively had 4.8% TF/TI.

Now, with the MSAS preparing to make a claim that elimination has been reached, the PNPSO wishes to re-examine Kédougou and Tambacounda RMs. As the results of the earlier RM-level mapping were so low, it makes sense to start with HD-level desk reviews, followed by mapping if there is an indication that trachoma may be a public health problem at this more granular level.

Trachoma impact surveys (TIS) conducted from FY14-FY18 confirmed that the 27 HDs that had ever demonstrated ≥5% TF, all now have <5% TF. Of those 27 HDs, 25 HDs have conducted TSS, all confirming that TF remained <5%. The last two HDs are slated to conduct TSS in FY21. TIS conducted in FY14 and FY15 utilized the GTMP system. From FY16 forward, all TIS and TSS have utilized the Tropical Data system.

Reducing the prevalence of trachomatous 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 July 2018, a total of 45 HDs (many of which did not require MDA) had trichiasis prevalence of ≥0.2% among adults, meaning that surgical interventions are required.

The PNPSO started in 2017 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.

Plan and justification for FY20:

- **Workshop to develop a protocol for trachoma mapping desk review**: a multicountry 2-day workshop, in Dakar to develop a standard protocol for use in desk reviews to determine whether and where to map for trachoma. This is needed in FY20 by Benin, Cameroon, and Senegal; personnel from Benin and Cameroon will travel to Senegal to participate in this workshop. The goal is to develop a methodology for desk reviews to ensure robust findings that can lead to a clear "map/no map" decision, and develop a timeline for the full protocol to be drafted, circulated, comments received/incorporated, and finalized, as well as those responsible for doing so.
- **Trachoma desk review in 10 HDs**: using the protocol to be developed during the "Workshop to develop a protocol for trachoma mapping desk review," review available data, at central level and additionally from health facilities within the RMs/HDs if needed, to determine whether HD-level baseline mapping is needed in any or all of the three HDs of Kédougou RM and the seven HDs of Tambacounda RM, which conducted RM-level mapping in 2000 and never initiated MDA. This may require travel to health facilities in the two RMs and possibly in certain of the HDs, depending on the methodology defined by the protocol development activity (see above).
- **Trachoma mapping surveys in HDs identified via the trachoma desk review (maximum of 10 HDs)**: if, and in those specific HDs where, the findings of the desk review (above) show that trachoma may be a public health problem. The Tropical Data system would be used.
- **Trachoma Surveillance Surveys in six EUs (two HDs)**: based on HD population, Touba (Diourbel RM) will be segmented into four EUs, and Saint Louis (Saint Louis RM) into two EUs.

Multi-disease activities:

➢ Strategic Planning

In FY20, Act | West will technically and financially support the following activities:

- **Participation in the MSAS's weekly NTD coordination meetings**.
- **MSAS's quarterly NTD coordination meetings**.
- **Participation by FHI 360 and PNLMTN staff in the quarterly coordination meetings of 11 RMs**.
- **Participation in the monthly coordination meetings of 44 HDs**.
- **Act | West Senegal team coordination meetings**.
- **Participation in PC-NTD partner coordination meetings**.
- **Workshops to develop and validate the MSAS's National NTD Master Plan for 2021-2025**.

➢ NTD Secretariat

In FY20, Act | West will financially support the following:

- **Procure five laptops for PNLMTN personnel**: the PNLMTN coordinator, the three PC-NTD disease coordinators (PNEFO, PNLBG, PNPSO), and DLM data manager are all using old, low-performing personal laptops. Act | West will equip them with standard-quality machines appropriate for their work.
- **Procure a multifunctional photocopier and toner cartridges for the PNLMTN**: the MSAS-owned photocopier assigned to the PNLMTN is more than seven years old and no longer

works. Act | West will equip the PNLMTN with a new photocopier, and a supply of toner cartridges for the FY20 period.

- **Internet subscription for the PNLMTN/DLM office**: internet service provided by the MSAS in the PNLMTN/DLM office is unreliable. Act | West will pay for a monthly internet subscription from a private internet service provider.
- **Mobile phone credit for seven PNLMTN/DLM personnel**: PNLMTN/DLM personnel often lack air-time for their mobile phones, with which to conduct PC-NTD-related work. Act | West will provide key PC-NTD personnel (the same individuals as mentioned for laptops, above, plus the DLM Director and the DLM's Finance Manager) with a monthly allotment of credit for their mobile phones.
- **Maintenance and repair for DLM vehicles**: the DLM's vehicles, which were donated by other partners and are used for PC-NTD activities among others, require periodic maintenance and repairs. Act | West will contribute to the cost of this activity.

➢ Building Advocacy for a Sustainable National NTD Program

In FY20, Act | West will technically and financially support the following activities:

- **Development and printing of the MSAS's semi-annual NTD newsletter**: Printed materials are an effective way of reaching government personnel and increasing the profile of the PNLMTN within the MSAS and other ministries is critical to the program's long-term success. This newsletter will show the current and upcoming PNLMTN/DLM NTD activities and will increase their visibility and share success story. The document will be a maximum of seven pages and include color illustrations, text, and photos. Two meetings will be held for editing, review and validation.

➢ MDA Coverage

In FY20, Act | West will support MDA for LF (plus any other applicable PC-NTDs) in 44 HDs of 11 RMs (Diourbel, Fatick, Kaffrine, Kaolack, Kédougou, Kolda, Louga, Saint Louis, Tambacounda, Thiès, Ziguinchor). This will be calendar-year 2019 MDA (reported as such to WHO by the MSAS), conducted in FY20 Q1. MDA for OV, SCH, and/or STH will be fully integrated with the LF MDA, if those diseases are targeted for MDA at that time. Planned combinations are as follows:

- LF+OV+SCH MDA in 6 HDs
- LF+SCH+STH MDA in 12 HDs
- LF+SCH MDA in 14 HDs
- LF+STH MDA in 3 HDs
- LF-only MDA in 9 HDs

The structure of orientations/training is as follows: Act | West-supported RMs, HDs, and health posts will each organize one workshop. Participants at each level (RM, HD, health post) will become trainers and supervisors for the lower levels. At RM level, the PNLMTN team will train the ECR; the Schools Inspectorate (IA); and the ECDs from the HDs supported by Act | West for MDA. In each HD, the ECR and the Prefectoral Directorate of Education (DPE) will train the health post head nurse (ICP) and the Training and Education Inspectorate (IEF)'s designated NTD focal point. At each health post, the ICP will train primary school teachers, Koranic school (daaras) teachers, CDDs and designated community supervisors (all drawn from the health sector).

CDDs, organized in teams of two, administer the drugs in the community. In schools, teachers administer the drugs; there is usually one teacher per class.

- **Social Mobilization to Enable PC-NTD Program Activities**

Act | West support in this area relates to the MDA mentioned above.

In FY20, Act | West will technically and financially support the following activities:

- **Participate in NTD communications committee**: FHI 360 will collaborate with other members of the NTD communications committee (the DLM and SNEIPS) in charge of IEC/BCC for PC-NTDs. This committee will also collaborate with the BREIPSs, which are extensions of the SNEIPS in the RMs. The committee will be responsible for:
    - Developing an NTD communications plan for FY20 Q1 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.

  The messages used in the commercials and posters were initially developed in 2014 in a workshop organized by the SNEIPS with communications specialists. These messages were tested in the community, under the SNEIPS, and then adapted and validated in another workshop before production. After the 2014 MDA, RMs and HDs gave feedback on the posters, and this feedback was then incorporated into revised versions of the posters. After the 2015 MDA, RMs and HDs gave feedback on the posters and TV commercials; these suggestions were Updating incorporated into revised versions of the posters and TV commercials produced for the 2016 MDA. The same poster format will be used for the CY19 MDA.
- **Production of IEC materials for 44 HDs**: All IEC materials were developed as part of MDA preparatory activities in 2016. In FY20, only the production of these materials will be needed, for use in FY20 Q1 MDA. These materials will include t-shirts, baseball-type caps, collar t-shirts for supervisors, poster, banners. These materials will be provided to the 11 RMs that will be supported by Act| West for MDA. The materials will be transported to and distributed in RMs one month before the start of the MDA campaign. (Remaining materials from ENVISION, which will also be used, are t-shirts, caps, collar t-shirts, posters, banners.)
- **Delivery of IEC materials to 11 RMs**: Delivery from Dakar of the IEC materials mentioned above, to the 11 RMs supported by Act | West for MDA. HD-level personnel will retrieve the quantities from their parent RMs.
- **Updating and airing of commercials and shows on radio and TV**: FHI 360 will sign a contract with a communications agency to make updates to the commercials that were initially developed and aired in 2017. Revisions will include changes in logos, dates, geography, etc, to reflect what is planned for the FY20 Q1 changes and to incorporate any feedback received. With support from Act | West, the NTD communications committee will ensure the technical accuracy, appropriateness, and clarity of messages for the general population.
- **Airing of commercials and shows on national TV and radio**: Act | West 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. Broadcasts will be aired at appropriate times to reach the target populations and via broadcasters with national coverage and high viewer- or listenership.
- **Airing of commercials on local radio**: Act | West will fund local community radio stations, in HDs supported Act | West for MDA, to air commercial and shows over a specific time-period.

The local broadcasts are more linguistically diversified (broadcasting in local languages) than the national broadcasts and have their own viewer- and listenership. The NTD communications committee will provide the finished radio commercials and trailers to the RM teams, which consist of the RM NTD Focal Points, BREIPSs, and Act | West's regional focal points. These teams will be responsible for working with the local media to translate the commercials into local languages.

- **Internet advertisements during MDA**: Act | West will support 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 Act | West, in close coordination with the NTD Communication Committee. The goal is to reach authorities and personnel, in government service (including the MSAS and the MEN, and central, regional, and local authorities) at central level and in the regions, to inform them of the MDA; this website is visited daily by all internet users in the country. This will increase the visibility of the MDA campaign among authorities and public service personnel, and is a standard practice for other national public health programs, including the PNT, the National AIDS Control Council (Conseil National de Lutte contre le Sida), and other USAID implementing NGOs, which use this service.
- **Organization of a national MDA launch day**: FHI 360 will support the PNLMTN/DLM in organizing this activity around two days before the start of the FY20 Q1 MDA campaign, with the participation of senior health and education authorities. This activity will be organized outside of Dakar Region, in a HD where the MDA will be supported by Act | West (and where LF is endemic). Costs will include the rental of audio equipment and chairs, and transport for certain officials. The launch day strengthens the ownership of and commitment to the MDA campaign specifically and PC-NTD control more broadly by health personnel and partners. As in 2016-2018, the launch will be broadcasted on national TV to raise awareness and gain the adherence of the general public. The NTD Communication Committee will strive to recruit a senior MSAS representative to preside over the launch day. Senior MSAS representation of this sort encourages the MCRs to become more involved in the campaign in their respective regions.
- **Community mobilization strategy in 11 RMs**: 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 HDs and will be organized by the BREIPS supported by the RM NTD Focal Point. Activities to mobilize influential groups will be organized starting between one month and 15 days before the start of the MDA. Typical activities may include:
    - Community advocacy: This targets local and administrative authorities and community leaders, encouraging them to share information on the strategy and negotiating their active participation in the different phases of activity implementation. Advocacy is led by the ECRs, ECDs, and ICPs.
    - Information caravans: These are organized in target HDs for more active, personal communication and to mobilize the public. The CDDs supported by the ICPs and midwives post posters in public meeting places and will conduct home visits (Visite à Domicile [VAD]) to inform community leaders and their families. Discussion topics include the magnitude of NTDs in Senegal, preventive behaviors (draining of ponds, avoiding consumption of soil/dirt, using treated bed nets, and wearing shoes), diagnostics (what are the telltale symptoms), and the benefits of MDA against PC-NTDs.
    - Partnership with schools and daaras: This consists of using the teachers/Koranic teachers and students/talibés as potential relays to inform other students/talibés and community members about the MDA campaign. Educational and recreational activities include life-lessons and/or skits.

- Partnership with sporting and cultural associations (associations sportive et culturelle) and CBOs: CHWs and CBO members take part in the information caravans, to assist in communicating with the public.

➢ Training

In FY20, Act | West will technically and financially support the following activities:

- **Training/refresher-training on Integrated NTD Database and USAID M&E Workbooks for PNLMTN personnel**: FHI 360 staff will support PNLMTN personnel in the use of these tools, focusing on areas that pose challenges and functions of the tools that are less well-understood, or that are used irregularly. The utility in providing refresher-training is that while these tools serve multiple purposes (including filling the WHO JAP [JRF, EPIRF, and JRSM] annually, and serving as repositories of data from which elimination dossiers can be completed), details of the tools are easily forgotten when not used regularly. The sessions will be held periodically over the course of the fiscal year.
- **Printing of the MSAS's PC-NTD manuals, for use during orientations and MDA**: consists of the manuals mentioned above, the "Guide de mise en œuvre" for use by ICPs (and also primary-school teachers) and the "Manuel du distributeur" for CDDs.

➢ Supervision for MDA

The supervisory checklist updated by the DLM in 2015, and in use since 2016, allows for assessment of the quality of data, archiving, health personnel's knowledge, and the availability and use of data collection and management tools. The DLM revised the checklist in 2016, based on findings of DQAs. Changes included the inclusion of questions related to the quality of drug administration, of data quality, and of social mobilization among others.

Prior to MDA, participating MSAS and MEN personnel (including PLMTN/DLM, SNEIPS, and DCMS) will, as a team and together with FHI 360, review the expectations for the supervisory mission and the contents and use of the supervisory checklist.

The MSAS and FHI 360 supervisors will organize a joint session, before MDA, to review all of the MDA-related M&E tools – including the supervisory checklist, the tally and compilation sheets (to enable the supervisor to conduct quality checks), and the RM and HD-level data compilation templates – and to discuss the approach to be used while conducting supervisions. This will include practicing the use of the M&E tools, to see each supervisory team's approach and to make adjustments as needed; another point of emphasis will be the daily calculation of coverage by health post personnel. RM, HD, and health post-level supervisory teams will do the same as part of the MDA orientation sessions at their respective levels.

During MDA, at both RM and HD levels, there will be briefings in the morning and debriefings in the afternoon, to discuss daily coverage results as well as challenges encountered by the supervisory teams. At RM level participants will include the ECR, central-level MSAS/MEN representatives (DLM, SNEIPS, DCMS), and partner staff; at HD level participants will include the ECD and partner staff. The MDA daily reporting form makes it possible to know the daily coverage results and to adjust the strategy as needed; actions can include increasing the number of drug distributors in a given area, adding additional days of MDA, or asking the MSAS authorities (DLM and/or DGS) to call the MCRs to remind them of the importance of reaching target coverage.

➢ Monitoring and Evaluation

In FY20, Act | West will technically and financially support the following activities:

- **Support for the preparation of the WHO JAP (JRSM, JRF, and EPIRF)**: assist the PNLMTN/MSAS in completing these documents for submission to WHO by the MSAS. This will facilitate ensuring that the JAP is high quality and submitted on time and will also enable easier follow-up with WHO HQ and WHO AFRO to ensure timely approval and shipment of the requested drugs. (Also see "Updating the Integrated NTD Database.")
- **Updating the Integrated NTD Database**: FHI 360 will conduct regular work sessions with the DLM Data Manager to update the data in this tool (CIND). FHI 360 will assist the DLM in updating demographic, disease distribution, and intervention data; survey results; and/or process indicators, as justified by any changes to these data (most of the historical data have already been incorporated). As of July 2019, the most recent data included are from 2016 (Demography, Surveys, Interventions, MDA, and Process Indicators) and 2017 (Demography and MDA); the remaining data from 2017 still need to be added. As previously, the PNLMTN will generate reports (JRF and EPIRF) using the CIND and share these with WHO.
- **MDA data validation workshop in 44 HDs**: Each of the 44 HDs conducting MDA with support from Act | West will be supported to hold a one-day workshop to review and validate the data from their FY20 Q1 MDA, formulating recommendations for subsequent campaigns as appropriate. They will also review remaining MDA drugs and supplies. The ECD, school representatives, health committees, ICPs and any local partners who participated in the MDA will participate in the workshop.
- **MDA data validation workshop in 11 RMs**: Each of the 11 RMs conducting MDA with support from Act | West will be supported to hold a one-day workshop to review and validate the data from their region's FY20 Q1 MDA, formulating recommendations for subsequent campaigns as appropriate. They will also review remaining MDA drugs and supplies. PNLMTN and FHI 360/Dakar personnel will participate in these workshops.
- **National MDA data validation workshop**: The PNLMTN will hold a one-day workshop to review and validate the data from the FY20 Q1 national MDA campaign, formulating recommendations for subsequent campaigns as appropriate. They will also review remaining MDA drugs and supplies. RM and FHI 360/Dakar personnel will participate in this workshop.

➢ Supervision for Monitoring and Evaluation and DSAs

Supervision of past pre-TAS and TAS surveys was apparently effective, but there were no specific tools for use by the supervisors. FHI 360 will assist the PNLMTN in developing a checklist and report template, as means of improving quality of the supervision and harmonizing approaches among and across the supervisory teams.

The PNLMTN has extensive experience conducting and supervising USAID-funded trachoma surveys, and the surveys teams have been composed of the same people for several years.

In FY20, Act | West will technically and financially support the following activities:

- **Supervision of LF pre-TAS in 14 HDs**.
- **Supervision of LF TAS1 in three HDs**.
- **Supervision of LF TAS2 in three HDs**.
- **Supervision of Trachoma Surveillance Surveys in two HDs**.

PNLMTN and FHI 360/Dakar personnel will jointly supervise each of the preceding, in collaboration with RM and/or HD-level personnel as appropriate.

➢ Dossier Development

Work on the LF dossier has not yet started; the same is the case for the OV elimination dossier (termed a "country report" by WHO).

Work by the PNPSO on the Trachoma elimination dossier started with support from the previous USAID-funded project; this has mainly consisted of filling the Surgery (S) and Antibiotics (A) components of the data annex, and starting to write up the A component of the narrative report. Thus far the PNPSO and its partners have been able to gather little information for the Facial cleanliness and Environmental improvement components.

In FY20, Act | West will technically and financially support the following activities:

- **LF elimination dossier training workshop**: two-day workshop in Dakar to introduce the WHO dossier requirements and the narrative and data annex templates, and work with the PNLMTN to start entry of available data – MDA, surveys, and morbidity – into the data annex. Thereafter, the PNLMTN will update the data annex with data as they are generated, and collate information needed for the narrative.
- **Quarterly meetings to work on MSAS's trachoma elimination dossier**: Act | West will support quarterly one-day work sessions, in the WHO/Senegal or FHI 360 office, bringing together Dakar-based personnel from the PNLMTN, the DCMS, the SNH, SNEIPS, and possibly other parties such as the Ministry of Hydraulics and Sanitation and the Ministry of Environment and Sustainable Development (MEDD), along with FHI 360, Sightsavers, and Act | West's consultant (see STTA section, below), to jointly review the dossier drafts, harmonize information, address any challenges, and decide on next steps.
- **Compilation of historical OV data**: The country's OV epidemiological and entomological data are dispersed geographically and among many people who are retired and/or of advanced age, given that the national program started its work in the 1980s. To enable the work of the national OV and LF elimination committee, and before this institutional memory disappears, it is crucial to compile all existing data in usable form. Given that the PNEFO's own personnel lack the time to do this work, Act | West will provide a local consultant to begin this task (see STTA section, below). The consultant will aim to be responsive to the guidance in WHO's *Guidelines for Stopping Mass Drug Administration and Verifying Elimination of Human Onchocerciasis*, Annexes (2016) on "Preparation of the country report," which specifies six "common elements and details" to be included in the eventual elimination dossier. The consultant's work will be presented and discussed in the meeting of the national OV and LF elimination committee.

➢ Short-Term Technical Assistance

In FY20, Act | West will recruit the following local consultants to support the PNLMTN's PC-NTD-focused activities:

- **Consultant to assist in developing the MSAS's National NTD Master Plan for 2021-2025**.
- **Graphic designer to update IEC materials for MDA**.
- **Consultant to assist in developing protocol for trachoma desk review**.
- **Consultant to assist in continued development of trachoma elimination dossier**.
- **Consultant to compile historical OV data**.
- **Senior consultant to support the MSAS in preparing for Side Meeting on NTD Sustainability at the 2020 World Health Assembly**.

SUSTAINABILITY STRATEGY ACTIVITIES (IR2 and IR3)

➢ DATA SECURITY AND MANAGEMENT

In FY20, Act | West will technically and financially support the following activity:

- **Technical assistance to review the security of the NTD data system**: As Senegal is moving towards disease elimination the PNLMTN needs a long-term, cost-effective system to secure its program data. To support the PNLMTN in strengthening its data security, Act | West will assist in reviewing the existing system. Factors to be considered include access, location, backups, compability with other systems, security, and sustainability.

Integration of PC-NTD data into the national data management system

The Health and Social Information System Division (DSISS) is responsible for producing the annual report of activities called the statistical yearbook, which provides basic statistical data on the health system's resources, curative, preventive and promotional activities. NTD data management is not integrated into this national system of collection, archiving and analysis. NTD morbidity data in routine consultations are not collected by the National Health and Social Information Service (SNISS). Data from MDA for PC-NTDs are collected in parallel and are not integrated into DHIS2.

In FY20, Act | West will technically and financially support the following activity:

- **Workshop for integration of NTD indicators in DHIS2, with DSISS**: Integration of NTD indicators into the SNISS is critical for ensuring wider access to and integrity of NTD data including, particularly, MDA data which are not presently captured in that system. This five-day workshop, in Thiès, will bring together the PNLMTN, DSISS, DCMS, and selected personnel involved in NTD field activities, to define NTD indicators for inclusion in the DHIS2 platform, and to integrate those indicators. Act | West has experience supporting other countries in this area and will share experiences and lessons learned from those different contexts.

➢ DRUG MANAGEMENT

The government's overall national drug supply system is based on a central parastatal procurement body, the National Supply Pharmacy (PNA), its Regional Supply Pharmacies (PRAs), and distribution structures at HD levels. For the drugs used in MDA for NTDs, once donated or purchased (TEO, provided by USAID) drugs arrive in country, the DLM depends on partners to cover the cost of freight forwarding, transport (usually only from the RMs to HDs, but also sometimes from the PNA to the PRAs), physical inventory after MDA (when this takes place), return of unused drugs, and waste disposal.

The National Drug Control Laboratory, which is part of the Directorate of Pharmacy and Medicines, conducts quality control of PC-NTD drugs.

In FY20, Act | West will technically and financially support the following activities:

- **Support for the preparation of the WHO JRSM**: assist the PLMTN/MSAS in completing the JRSM for submission to WHO by the MSAS. This will facilitate ensuring that the overall JAP is high quality and submitted on time and will also enable easier follow-up with WHO HQ and WHO AFRO to ensure timely approval and shipment of the requested drugs. FHI 360 will request to be copied on the DLM's submissions to WHO.
- **Procurement of FTS for use in Act | West-supported LF surveys**.
- **Procurement of TEO for use in Act | West-supported Trachoma surveys**.
- **Transport of MDA drugs from PNA to PRAs in 11 RMs**: As in prior years, there is a chance that funding for this may be required so long as the DLM and National Supply Pharmacy (PNA) have not signed an agreement for PC-NTD MDA drugs. To note, Kaffrine and Kédougou RMs do not have PRAs; in those two RMs the drugs are held in the RM office.

- **Transport of MDA drugs from PRAs in 11 RMs to health posts in 44 HDs**: The MDA drugs must be transported from the PRAs to the HDs and on to their component health posts before MDA, as needed.
- **Return of unused MDA drugs to PRAs in 11 RMs after MDA**: After the MDA campaign, the RMs will collaborate remotely with the DLM Pharmacist to confirm the supply of unused drugs that remain. All drugs remaining at the health posts and HDs are intended to be returned to the parent region's PRA. For the Act | West-supported MDA, the cost of carrying out this activity will be the staff time of Act | West's regional focal points, who will collaborate closely with the HDs in their parent RMs.
- **Conduct post-MDA drug inventory in RMs and HDs supported by Act | West for MDA**: Personnel at each health post will conduct their own inventory and send to their parent HDs, which will compile and share with their parent RMs; the RMs will then transmit this information to the PNLMTM (for use in the JRSM, among others). Act | West's regional focal points will collaborate with the RMs and PRAs to review the inventory at RM level; and by visiting the supported HDs. This will be under the remote guidance of the DLM Pharmacist.
- **Technical assistance for monitoring and management of AEs and SAEs**: Act | West will encourage: 1) the DLM and the ECRs and ECDs of the RMs supported by Act | West for MDA to 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 Act | West for MDA to react quickly to AEs, informing the central-level MSAS. Act | West will also ensure greater focus on the AE/SAE component in the cascade trainings for ECRs, ECDs, ICPs, and drug distributors before MDA.

➢ MAINSTREAMING AND HSS ACTIVITIES (IR2)

In July 2019, Act | West supported the PNLMTN to organize a PC-NTD sustainability sensitization meeting, with more than 40 participants from across the MSAS, the MEN, the Ministry of Community Development and Social and Territorial Equity (MDCEST), WASH actors, various health-related programs and in-country PC-NTD partners. Participants discussed the USAID-designed NTD sustainability framework and the six sustainability-related outcomes (Financing, Services, Information Systems, Operational Capacity, Policy/Planning, and Coordination) proposed within that framework. Per the meeting's recommendations, Act | West will support the PNLMTN to develop a NTD sustainability plan that aims to 1) ensure sustained control programs for SCH and STH, and 2) sustain elimination of LF, trachoma and OV in the long term.

Develop a NTD sustainability plan

During the FY19 PC-NTD sustainability sensitization meeting the PNLMTN expressed interest of having a NTD sustainability plan to maintain the gains achieved through implementation of NTD control activities; this was captured in the DLM's national NTD work plan for CY20. The NTD sustainability plan will also be used to address identified gaps such as the lack of partner support for SCH and STH control activities.

Act | West will technically and financially support the PNLMTN to develop a NTD sustainability plan. The process will include the following specific activities:

- **Perform a joint landscape analysis of sustainability of NTD control**: the landscape analysis will aim to provide a clear view of NTD programming's status relative to the six sustainability outcomes. The analysis will include an HSS component and a cross-sector component. The HSS component will help the PNLMTN assess gaps and opportunities to mainstream NTD programming into national health policies and the planning and budgeting framework. The cross-sector component of the landscape analysis will support the PNLMTN to conduct a rapid analysis of nutrition, MCH, family planning, and community mobilization programs that will

offer integration opportunities for NTD activities. The results of the landscape analysis will be captured into a sustainability country profile.

- **Perform an analysis of barriers to cross-sector collaboration for sustainable NTD control**: Following the joint landscape analysis, Act | West will provide TA to the DLM/PNLMTN to conduct a barrier analysis to understand barriers, gaps and opportunities for the implementation of a cross-sector collaboration mechanism. The barrier analysis will aim to understand structural and infrastructural factors associated with the lack of integration of the NTD program with sectors such as WASH, Malaria, School Health, Nutrition, and Environment. Act | West will lead the development of the barrier analysis tool and interview guide along with the final matrix, and will hire a consultant to support the data collection and data analysis tasks.
- **Workshop to share findings of the landscape analysis and barrier analysis**: A four-day workshop. Over the first two days, Act | West will share the findings of the landscape analysis. The next two days, Act | West will share findings of the barrier analysis and support the PNLMTN in conducting discussions with all invited stakeholders to obtain priority for development of an action plan for cross-sector collaboration and sustainable approaches for NTD control.
- **Perform in-depth NTD sustainability assessment**: 4-day workshop using the results of the landscaping and through the application of the Sustainability Maturity Model (SMM), Act | West will provide technical assistance to the PNLMTN in defining sustainability gaps and targets in each area of the sustainability outcomes. Inputs from the in-depth sustainability assessment will inform the development of the sustainability plan.
- **Develop a NTD sustainability plan**: Based on the outputs of the landscape analysis, the sustainability assessment, and the barrier analysis, Act | West will jointly assist the PNLMTN/DLM in developing a NTD sustainability plan.
- **Workshop for review and finalization of the NTD sustainability plan**: 3-day workshop for review and finalization of the draft of the NTD sustainability plan. Participants in this workshop will be decision-makers from the entities that participated in the workshops on landscaping, sustainability, and cross-sector barrier analysis.
- **National political validation meeting for the NTD sustainability plan**: Once the sustainability plan is developed, the PNLMTN will share that document with the authorities and partners to gain wider buy-in as well as dialogue to enable different stakeholders to understand the MSAS's aims in terms of sustainability as well as opportunities to support different activities included in that plan. The process of promoting the plan will also include presenting the plan to specific groups (e.g., Ministry cabinets, local communities, the education sector, regional-level management teams). Act | West will support the PNLMTN in holding a 1-day meeting, and in advance of this in preparing an advocacy package to be provided to partners and local stakeholders who may be able or interested in supporting implementation of the plan.

Additionally, Act | West will support the following activity:

Support the MSAS in preparing for its role as co-lead for a side-meeting on NTD sustainability at the 2020 World Health Assembly: Act | West will support the MSAS in preparing its contributions as a co-lead for a side-meeting on NTD sustainability at the 2020 World Health Assembly. This support will consist of:

1. Providing a senior consultant (see STTA section, above) who will i) garner political will from the government to participate in the aforementioned WHA side-meeting in May 2020, ii) support the government's preparatory committee to prepare the country's application to jointly hold that side-meeting, and to identify and influence the key stakeholders whose participation USAID and WHO will want to secure, iii) support the preparation of the country's statement to share during the WHA side-meeting, and participating in the two workshops and the

preparation meetings (see below), and iv) follow up with the MSAS after the WHA side-meeting to translate commitment into concrete actions.
2. Organizing two preparatory workshops, each with 10 participants in Dakar, to prepare the MSAS for its role at the WHA side-meeting.
3. Holding five monthly check-ins with the government's preparatory committee, to ensure the preparations are on track.

➢ PLANNED ACTIVITIES: SCH, STH, POST-VALIDATION/VERIFICATION SURVEILLANCE (IR3)

➢ SCH

Previous and current FY activities and context:

The last HDs were mapped for SCH in 2013.

Strategies include ensuring the availability of 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.

MSAS baseline data showed that 60 HDs are endemic for SCH (defined as prevalence ≥1%, determined by parasitological means), including 18 high-risk HDs (≥50%), 29 moderate-risk HDs (≥10% to <50%), and 12 low-risk HDs (≥1% to <10%). However, the MSAS considered just 59 districts to be endemic; Guédiawaye HD (Dakar RM) registered 1.49% in baseline mapping, but the DLM attributed this result to an imported case.

From FY16-FY18 the PNLBG conducted SCH evaluations in HDs that had completed 5-6 rounds of MDA. The evaluations followed the standard protocol, adapted to the local context (at each site, 50 children aged 7–14 years were selected), and used standard diagnostic techniques (Kato-Katz for *S. mansoni*; reagent strips and urine filtration for *S. haematobium*). The FY16 evaluation, in three ecological zones of the Senegal River Basin, found that the Haut Bassin (10 HDs), the Vallée (6 HDs), and the Delta (8 HDs) zones all had SCH prevalence ≥50%, meaning MDA should be conducted twice per year (per WHO guidance). The FY17 evaluation, in 8 HDs, found 1 HD with prevalence ≥50%, (twice per year MDA); 2 HDs with prevalence ≥10% and <50% (continue MDA with same frequency); 3 HDs with prevalence ≥1% and <10% (biennial MDA); and 2 HDs with prevalence <1% (no further MDA). The FY18 evaluation, in 3 HDs, found 1 HD with prevalence ≥50% (twice per year MDA); and 2 HDs with prevalence ≥10% and <50% (continue MDA with same frequency). The PNLBG has maintained or adjusted the frequency of HD-level MDA in line with WHO guidance based on the prevalences found, except where twice-yearly MDA is recommended; in these areas the PNLBG has maintained once-yearly treatment for reason of available internal and external resources, including the donation of PZQ.

Plan and justification for FY20:

- **Technical meeting to develop a roadmap for SCH control**: Certain HDs, particularly in the Senegal River Basin, are exhibiting persistent high SCH prevalence despite regular PZQ MDA with sufficient coverage. In addition, a range of partners is supporting SCH-related work in the country, with limited coordination between them and by the MSAS. Act | West will fund and participate in a two-day meeting in Saint Louis (whose parent region is highly endemic for the disease) to assist in developing the roadmap. PNLMTN and FHI 360 personnel will compile data and prepare presentations for the meeting and draft the report afterwards. Participants could include the DLM, a selection of MCRs and MCDs, UCAD Faculty of Medicine's Parasitology Department, and partners.
- **LF+OV+SCH MDA in 6 HDs, LF+SCH+STH MDA in 12 HDs, and LF+SCH MDA in 14 HDs**: please see "Multi-disease activities" section, under MDA Coverage, for more details.

- **STH**

Previous and current FY activities and context:

The last HDs were mapped for STH in 2013.

The MSAS's overall overall strategy for STH includes 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 HDs were high risk (≥50%), that 7 districts were moderate risk (≥20% and <50%), and that 39 HDs were low risk (<20%); among the low-risk HDs, 23 had prevalences of 0% (i.e., non-endemic). For 26 HDs, no baseline data are available (and by definition can no longer be obtained, since all of the country's HDs have conducted MDA). 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). As noted below, prevalence evaluation surveys conducted in later years have shown that selected HDs have since changed their risk category or are no longer endemic.

In practice, the PNLBG's strategy has been to treat all SAC annually in all of the country's HDs, based on the understanding that STH is a problem everywhere in the country. The PNLBG decided, beginning in 2018, to align fully with WHO guidance for MDA targeting and frequency.

From FY16-FY18 the PNLBG conducted STH evaluations in HDs that had completed 5-6 rounds of MDA. The evaluations followed the standard protocol, adapted to the local context (at each site, 50 children aged 7–14 years were selected), and used standard diagnostic techniques (Kato-Katz). The 2016 evaluation, in three ecological zones of the Senegal River Basin, found that the Haut Bassin zone (10 HDs) had STH prevalence <2%, meaning that no further MDA is required; the Vallée zone (6 HDs) had STH prevalence ≥2% and <10%, meaning that MDA should be conducted once every two years; and the Delta zone (8 districts) had STH prevalence ≥2% and <10%, meaning that MDA should be conducted once every two years. The FY17 evaluation, conducted in 8 HDs, found 1 HD with prevalence ≥20% and <50%, meaning that MDA should be continued at the same frequency (in practice, annually); 3 HDs with prevalence ≥10% and <20%, meaning that MDA should be conducted annually; 2 HDs with prevalence ≥2% and <10%, meaning that MDA should be conducted once every two years; and 2 HDs with prevalence <2%, meaning that no further MDA is needed. The FY18 evaluation, conducted in 6 HDs, found 1 HD with prevalence ≥20% and <50%, meaning that MDA should be continued at the same frequency; 3 HDs with prevalence ≥2% and <10%, meaning that MDA should be conducted once every two years; and 2 HDs with prevalence <2%, meaning that no further MDA is needed. The MSAS has maintained or adjusted the frequency of MDA, or stopped MDA entirely (in a total of 14 HDs, for the latter), in line with WHO guidance for each disease based on the prevalences found in each HD or ecological zone.

Plan and justification for FY20:

- **LF+SCH+STH MDA in 12 HDs and LF+STH MDA in 3 HDs**: please see "Multi-disease activities" section, under MDA Coverage, for more details.

- **Cross-sector coordination and integration with existing platforms**

In FY20, Act | West will implement the following (IR3) activities in support of the PNLMTN's sustainability goals:

Institutionalization of multi-sector mechanism for sustainability of the NTD program

During the Act | West-supported NTD sustainability sensitization meeting in FY19, the DLM/PNLMTN highlighted the lack of a multi-sector mechanism for sustainability of the NTD program. The

DLM/PNLMTN requested TA from Act | West to establish and institutionalize a multisector platform for better coordination of NTD programming with other sectors, and to move towards routinization of deworming (SCH and STH control) services. This multi-sector mechanism will bring together stakeholders across sectors from WASH, Malaria, Nutrition, MCH, Immunization, Education and others as appropriate.

Act | West will technically and financially support the PNLMTN through the following steps and activities to establish and institutionalize the multi-sector mechanism:

1. Provide TA to DLM/PNLMTN to develop a mandate, TORs, and prospective membership for a Senegal multi-sectoral NTD sustainability mechanism. Act | West will support the PNLMTN to develop TORs to include a specific mandate and strategies to develop and expand and support integration of NTD programming into other sectors. This will include brainstorming sessions on roles, membership, mandate, structure, where it should be housed etc.
2. Once an initial draft is complete, Act | West will assist the PNLMTN in organizing a workshop to validate the mandate, TORs, and membership. The workshop will also bring together stakeholders from across sectors to gain buy-in and build ownership.
3. Once the mandate, TORs, and membership list have been validated, Act | West will support the PNLMTN to organize a workshop to develop an action plan for the multi-sectoral mechanism for NTD sustainability. The action plan will identify activities to be implemented; these may include advocacy and joint implementation. This action plan will be led by the PNLMTN.
4. Act | West will support the PLNMTN with the organization of a one-day event to officially launch the identified platform as the NTD sustainability multi-sector coordination mechanism. This event will target high-level government officials to obtain high-level country engagement and ownership.