



Act to End Neglected Tropical Diseases | West FY 2023 Work plan-Benin

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ACRONYM LIST

Accelerate	Accelerate Trachoma Elimination
ABRP	Benin Agency of Pharmaceutical Regulation (Agence Béninoise de Régulation Pharmaceutique)
AE	Adverse Event
AFRO	Regional Office for Africa (WHO)
ALB	Albendazole
ALM	American Leprosy Missions
ANPS	Agence Nationale de Protection Sociale (National Social Protection Agency)
ARCH	Assurance de Renforcement du Capital Humain (Human Capital Strengthening Insurance)
BMGF	Bill & Melinda Gates Foundation
CAME	Centrale d'Achat des Médicaments Essentiels (Center for Procurement of Essential Medicines)
CDD	Community Drug Distributor
CDTI	Community-Directed Treatment with Ivermectin
Co-RUP	Co-Responsable d'Unité Pédagogique (Pedagogical Unit Deputy Chief)
CIND	Country Integrated NTD Database
CNSSP	National Primary Health Council (Conseil National des Soins de Santé Primaires)
CP	Conseiller Pédagogique (Pedagogical Advisor)
C/DESS	Head of Epidemiology and Sanitary Surveillance Division (Chef de la Division Epidémiologie et Surveillance Sanitaire)
CHAI	Clinton Health Access Initiative
C/SSPR	Head of Public Health Service and response to disease (Chef Service Santé Publique et Riposte)
C/RAMS	Chargé de Recherche et d'Appui à la Mobilisation Sociale
CRP	Chef de Région Pédagogique (Head of School District)
CRS	Catholic Relief Services
CY	Calendar year
DBS	Dried blood sample
DDEMP	Direction Départementale de l'Enseignement Maternelle et Primaire (Departmental Directorate of Pre-school and Primary Education)
DDS	Directeur Départemental de la Santé (Departmental Health Director)
DFID	UK Department for International Development
DHIS2	District Health Information Software 2
DIP	Direct inspection protocol
DNSP	Direction Nationale de la Santé Publique (National Public Health Directorate) (MOH)
DPP	Direction de la Programmation et de la Prospective (Planning and Forecasting Directorate)
DSA	Disease-Specific Assessment
DSI	Information Systems directorate (Direction des Systèmes d'Information)
EDC	Electronic data capture
ESPEN	Expanded Special Project for Elimination of Neglected Tropical Diseases (WHO AFRO)
EU	Evaluation Unit
FTS	Filaria Test Strip
FY	Fiscal Year
GOB	Government of Benin
GTMP	Global Trachoma Mapping Project
HAT	Human African Trypanosomiasis
HD	Health district

HdZ	Hôpital de Zone (Health Zone Referral Hospital)
ICT	Immuno-chromatographic Test
IEC	Information, Education, and Communication
IRCB	Institut de Recherche Clinique du Benin
ITI *	International Trachoma Initiative
IU	Implementation Unit
IVM	Ivermectin
JAP	Joint Application Package (WHO)
JRSM	Joint Request for Selected PC Medicines (WHO)
LF	Lymphatic Filariasis
LOE	Level of Effort
M&E	Monitoring and Evaluation
MCC	District Medical Officers (Médecin Chef de Commune)
MCZS	Médecin Coordonnateur de Zone Sanitaire (Health Zone Head Doctor)
MDA	Mass Drug Administration
MDP	Mectizan Donation Program
MDSC	Multi-Disease Surveillance Center
MEMP	Ministère de l'Enseignement Maternelle et Primaire (Ministry of Pre-school and Primary Education)
MESTFP	Ministry of Secondary and technical education, and professional training (Ministère des enseignements secondaire, technique et de la formation professionnelle)
Mf	Microfilaraemia
MMDP	Morbidity Management and Disability Prevention
MOF	Ministry of Finance
MOH	Ministry of Health
NGO	Nongovernmental Organization
NTD	Neglected Tropical Disease
NTDP	Neglected Tropical Disease program
OCP	Onchocerciasis Control Program
OEM	OV elimination mapping
OV	Onchocerciasis
PC	Preventive Chemotherapy
PIP	Public Investment Program (Programme d'Investissement Publique)
PNLLUB	Programme National de Lutte contre la Lèpre et l'Ulçère de Buruli (National Leprosy and Buruli Ulcer Control Program)
PNLMT	Programme National de Lutte contre les Maladies Transmissibles (National Program for Control of Communicable Diseases)
PNLP	Programme National de Lutte contre le Paludisme (National Malaria Control Program)
PZQ	Praziquantel
QI	Quality Improvement
RDT	Rapid diagnostic test
RUP	Responsable d'Unité Pédagogique (Pedagogical Unit Chief)
SAC	School-Age Children
SAE	Serious Adverse Event
SAFE	Surgery–Antibiotics–Facial Cleanliness–Environmental Improvement
SCH	Schistosomiasis
SCM	Supply Chain Management
SCT	Supervisor coverage tool
SMM	Sustainability Maturity Model
SOP	Standard Operating Procedures
SOW	Scope of work

STH	Soil-Transmitted Helminths
STTA	Short-Term Technical Assistance
TAS	Transmission Assessment Survey
TEO	Tetracycline Eye Ointment
TF	Trachomatous Inflammation–Follicular
TFGH	Task Force for Global Health
TIPAC	Tool for Integrated Planning and Costing
TIS	Trachoma Impact Survey
TSO	Technicien supérieur en ophtalmologie (Senior Ophthalmological Officer)
TSS	Trachoma Surveillance Survey
TT	Trachomatous Trichiasis
UNICEF	United Nations Children’s Fund
USAID	United States Agency for International Development
WASH	Water, Sanitation, and Hygiene
WHO	World Health Organization
ZS	Zone Sanitaire (Health Zone)

NARRATIVE

NATIONAL NTD PROGRAM OVERVIEW AND SUPPORT

Benin's administrative and financial capital is Cotonou. The country is divided into 12 regions: Alibori, Atacora, Atlantique, Borgou, Collines, Couffo, Donga, Littoral, Mono, Ouémé, Plateau, and Zou. Regions are further subdivided into 77 communes (hereafter referred to as districts), which are composed of 546 arrondissements (hereafter referred to as sub-districts) and 5,295 villages. The population size of a village can vary from 500 to 2,000 people.

The Ministry of Health (MOH) is responsible for the initiation, planning, implementation, coordination, and monitoring and evaluation (M&E) of the country's health programs, with plans laid out in its 2018–2022 National Health Development Plan. At the intermediate level of the health pyramid, the country's reorganization into 12 regions became effective in February 2017 with the appointment of a Departmental Director of Health (Directeur Départemental de la Santé [DDS]) for each region. The DDS is assisted in his/her functions by a Head of Public Health Service and response to disease (Chef Service Santé Publique et Riposte [C/SSPR]) and a Head of Epidemiology and Sanitary Surveillance Division (Chef de la Division Epidémiologie et Surveillance Sanitaire [C/DESS]).

Each region is subdivided into zones sanitaires (ZS – health zones)—two to four ZS per region, and a total of 34 ZS across Benin, and each ZS is made up of one or more districts. Each zone is supervised by a health zone head doctor (Médecin Coordonnateur de zone sanitaire [MCZS]) and consists of a network of first-line health facilities (village health units, stand-alone maternity wards, clinics, sub-district health centers), and private health facilities, all of which are supported by a ZS referral hospital (Hôpital de Zone [HdZ]). Since mid-July 2018, each of the 34 ZS has been allocated a focal point for Neglected Tropical Diseases (NTD), which are designated nurses based in one of the districts. At the ZS level, the MOH also has designated nurses to serve as “Chargés de la Recherche et d'Appui à la Mobilisation Sociale” (C/RAMS) who oversee social mobilization activities. The districts are the implementation units for public health activities. District Medical Officers (Médecins Chef de Commune [MCC]) oversee activities implemented at this level and supervise nurses, who oversee the sub-districts affiliated to that district.

The MOH has Established a National Health Information and Management System (Système National d'Information et de Gestion Sanitaire) that receives data from all public and many private health facilities. Since the fiscal year 2020 (FY20), the NTD program (NTDP) requested financial and technical assistance from Act | West to include NTD indicators in the central health information and management system through the District Health Information Software (DHIS2) platform (see status of that activity in IR2 section). The DHIS2 collects information that can be disaggregated at the village level if the NTDP enters the appropriate level of detail. As of May 30, 2022, NTD data from 2019–2021 are being entered in this system, making it possible to facilitate NTD-related decision-making at a central level.

In Benin, control and elimination of preventive chemotherapy (PC) NTDs are the responsibility of the Programme National de Lutte contre les Maladies Transmissibles (PNLMT) and the National Leprosy and Buruli Ulcer Control Program (Programme National de Lutte contre la Lèpre et l'Ulçère de Buruli [PNLLUB]). The MOH's National Public Health Directorate (Direction Nationale de la Santé Publique [DNSP]) oversees both programs. The PNLMT is responsible for lymphatic filariasis (LF), onchocerciasis (OV), schistosomiasis (SCH), soil-transmitted helminths (STH), and trachoma, as well as HAT (human African trypanosomiasis), Guinea worm disease (dracunculiasis), snake bite/venom-related issues, and loiasis. The PNLLUB is responsible for Buruli ulcer, leprosy, and yaws.

The MOH strategy for NTD control and elimination is laid out in its National Master Plan for NTD Control 2016–2020, which was launched in September 2017. The 2016–2020 master plan outlines a plan to address LF, OV, SCH, STH, and trachoma, along with Buruli ulcer, Guinea worm, HAT, leprosy, and loiasis.

The plan aimed to eliminate LF, OV, and trachoma, as well as HAT and leprosy by 2020; control SCH/STH (both by 2020) and Buruli ulcer; and maintain certification of Guinea worm eradication (certified since 2010). However, the elimination timeline for LF, OV, and trachoma has been delayed to 2025.¹ The submission of the trachoma elimination dossier is now scheduled to take place in 2022. In addition, there was also a need to catch-up with strategic and priority NTD activities such as mass drug administration (MDA) and disease specific assessments (DSA). In December 2021, a workshop gathering PNLMT (coordination team, central level staff, and intermediary level staff) and partners (FHI 360, Clinton Health Access Initiative [CHAI] staff) was held to draft the final version of this document. The document will now go through the review and technical validation process of the National Primary Health Council (Conseil National des Soins de Santé Primaires – CNSSP) before political validation and launch.

Baseline mapping is complete for all five PC NTDs. However, to ensure Benin has fully addressed any areas that need intervention, in FY20 and FY22, the PNLMT conducted trachoma pre-confirmatory mapping desk reviews in a total of 52 health districts (or the urban part of a district) which are not suspected to be endemic for trachoma. The results of this desk review are described below in the trachoma section.

The PNLMT uses two strategies to reach targeted populations with PC: 1) MDA or community-directed treatment, involving community drug distributors (CDDs) and 2) school-based MDA for school-aged children (SAC) 5–14 years of age, involving teachers as drug distributors assisted by CDDs. Typically, the community-based approach is used for OV and LF (including STH, where appropriate) and trachoma, and the school-based approach is used for SCH and STH. In 2017, the PNLMT piloted a community based.

MDA for SCH and/or STH in selected districts to address recurrent poor coverage. In 2018 and 2019, this approach continued to be used in all districts with recurrent low coverage and/or where lack of collaboration from the teachers and headteachers has been reported. Since FY19, the school-based approach has been resumed in all districts for SCH/STH to ensure sustainability of the MDA campaign. In districts where two or more NTDs are co-endemic, and based on disease prevalence and the treatment cycle, the PNLMT conducts integrated MDA in the following combinations: OV+LF, OV+LF+STH, LF+STH, and STH+SCH. In line with the standard practice in most countries, trachoma MDA was conducted separately.

The PNLMT has a staff of 12 led by a senior public health specialist with the assistance of a medical doctor who specializes in public health. The additional staff are divided into seven units: 1) M&E; 2) MDA; 3) Biological and Entomological Activities; 4) Prevention and Social Mobilization; 5) Financial Management; 6) Equipment and Logistics; and 7) Secretary. The PNLMT coordinator serves as the focal point for SCH/STH and venom-related issues. The trachoma focal point is a specialist designated by PNLMT who is responsible for trachomatous trichiasis (TT) surgeries at the Borgou Departmental Hospital Center,

The Government of Benin (GOB) contributes to PC-NTD activities by providing logistics including office space, vehicles and fuel for supervision and drug transportation, as well as meeting spaces, fuel, and supervision in the community during MDA and selected PC-NTD activities. In addition to technical support provided by partners, the PNLMT has drawn on the expertise of institutions such as the National Institute of Statistics and Economic Analysis (Institut National de la Statistique et de l'Analyse Économique), the International Institute for Tropical Agriculture, the Benin Clinical Research Institute (Institut de Recherche

Clinique du Bénin), the Beninese Society of Parasitology and Mycology (Société Béninoise de Parasitologie et de Mycologie), and the University of Abomey-Calavi to conduct its PC NTD- related activities.

In the context of school-based MDA for PC NTDs, the PNLMT collaborates closely with the Ministry of Pre-school and Primary Education (Ministère de l'Enseignement Maternelle et Primaire [MEMP]) and since 2022, the Ministry of Secondary and Technical Education, and professional training (Ministère des enseignements secondaire, technique et de la formation professionnelle [MESTFP]). The structure of the MEMP and MESTFP is like that of the MOH. The NTD program works with one MEMP technical department (Schooling Promotion Directorate or Direction de Promotion de la Scolarisation) and one MESTFP technical department (Direction de l'Enseignement Secondaire Général). A Departmental Directorate of pre-school and primary education (Direction Départementale de l'Enseignement Maternelle et Primaire [DDEMP]) and a Departmental Directorate of secondary school (DDESTFP) has been in place in each of the country's 12 regions since 2017. The DDEMPs oversee a total of 85 school districts, which are further subdivided into teaching units, jointly managed by the Pedagogical Unit Chiefs (Responsable d'Unité Pédagogique [RUP]) and Pedagogical Unit Deputy Chiefs (Co-Responsable d'Unité Pédagogique [Co-RUP]). By FY19, each DDEMP had nominated one NTD focal point who assists the PNLMT to implement school-based activities in their respective departments. The 12 focal points are responsible for disseminating messages and directives received from the national level to field actors and monitoring their effective implementation. The list of DDEMP NTD focal points was updated in 2020 and 2021 as some of the previously appointed focal points retired. A mechanism has been set up for the systematic renewal of the DDEMP focal points in line with the inter-ministerial decree that organizes MDA campaigns in schools. The MEMP is responsible for private and public pre-primary and primary schools in the country while the MESTFP is responsible for private and public high schools in the country.

IR1 PLANNED ACTIVITIES: LF, TRA, OV

Lymphatic Filariasis

Plan and Justification for FY23

TAS3 in a total of 11 EUs (21 districts): A school-based survey strategy will be used as the school enrollment rate is over 75% in the EUs. These surveys will be combined with a SCH/STH assessment in several HDs. The breakdown is described below.

TAS3 in five EUs (nine districts): The nine¹ districts that passed TAS2 in 2020 will undergo TAS3 in FY23. The nine districts will be grouped into five evaluation units (EU), in accordance with WHO guidelines. The association with SCH/STH assessment in six districts is further described under IR3 (below).

TAS3 in six EUs (12 districts)²: The 12³ districts that passed TAS2 in FY21 will undergo TAS3 in FY23. The 12 districts will be grouped into six EUs. TAS3 will be combined with a SCH/STH assessment in four⁴ of the districts. The association with SCH/STH assessment in four districts will be presented below.

Supervision of TAS3 in 11 EUs (21 districts): PNLMT central level staff, FHI 360 staff, and five supportive supervisors will supervise the field work during the implementation of this activity. One supportive

¹ Agbangnizoun, Zogbodomey, Allada, Ouidah, Kpomassè, Torri-Bossito, Bonou, Adja-Ouèrè, and Parakou

² Those 6 EUs (12 districts) were kept separate as this TAS3 will be implemented later than the TAS3 in 5 EUs considering initial month of TAS2 in the 12 districts and that the country wants to make sure the minimum 2 years are met.

³ Agbangnizoun, Zogbodomey, Allada, Ouidah, Kpomassè, Torri-Bossito, Bonou, Adja-Ouèrè, Parakou.

⁴ Akpro-Misséréfé, Ifangni, Pobè, Sakété.

supervisor will be assigned to each team for the duration of the survey, while the mixed PNLMT and Act | West partner teams will supervise only during the first five days to ensure that the WHO protocols are followed (i.e., survey methodology, data collection and importation via smartphone, etc.) and any problems are solved in a timely manner. The breakdown is described below.

Supervision of TAS3 in five EUs (nine districts, paired with SCH/STH assessment in six districts) Supervision of TAS3 in six EUs (12 districts, paired with SCH/STH assessment in four districts)

TAS2 in two EUs (four districts): The four⁵ districts that passed re-TAS1 in FY21 will undergo TAS2 in FY23. The four districts will be grouped into two EUs. A school-based survey strategy will be used, as the school enrollment rate is over 75% in the EUs. The TAS2 will be combined with SCH/STH assessment in three⁶ districts. As noted above, the association with SCH/STH assessment in three districts is described below.

Supervision of TAS2 in two EUs (four districts, paired with SCH/STH assessment in three districts): PNLMT central level staff, FHI 360 staff, and two supportive supervisors will supervise the field work during the implementation of this activity. As with the TAS3, one supportive supervisor will be assigned to each data collection team for the duration of the survey, while the mixed PNLMT and FHI 360 teams will supervise only during the first five days to ensure that the WHO protocols are followed (i.e., survey methodology, data collection and importation via smartphone, etc.) and any problems are solved in a timely manner.

Status of LF elimination dossier: The PNLMT expects to submit its LF elimination dossier by 2025. The final TAS3 is planned for 2025. MDA, DSA, and MMDP data are securely archived and backed up in computers and in the Country Integrated NTD Database (CIND) tool. Historical data entry is complete. The preliminary draft of the elimination dossier has been validated and is now in possession of the NTDP. Regarding support for activities required for validation, no gaps have been identified in MDA and impact survey implementation. As of May 2021, seven of the 12 regions are included in the MMDP program, and training followed by care has been provided. Anesvad has already provided support for MMDP in three regions and ASCEND has offered technical and financial support for MMDP case search and hydrocele care in four regions (Ouémé, Plateau, Zou, and Collines). The lymphoedema care support will be extended in the remainder of FY22 to the districts of the four departments, through Sightsavers' funding, covering gaps left by the FCDO withdrawal. The five departments remaining (of 12) are expected to start the MMDP interventions in FY23, if funding is confirmed.

Assessment of the readiness and quality of services for lymphedema management and hydrocelectomy provided in MMDP-designated facilities : The MMDP Situation Analysis, conducted in 2020, revealed that while the PNLMT has designated facilities to provide MMDP services and is organizing LF MMDP activities, challenges related to provision and access to MMDP services for lymphedema and hydrocele patients and staff capacity remain.

In areas where LF is endemic, the goal is to provide 100% geographical coverage of the essential package of care in all areas with known patients. Once MMDP services are established, it is necessary to assess the availability and readiness of designated facilities to provide high quality MMDP care to patients and document this as part of elimination requirements.

Benin has designated health facilities per implementation unit (IU) to provide MMDP services for LF-related morbidity. Two hundred and sixteen facilities have been designated to provide lymphedema management and 11 facilities have been designated to provide hydrocele surgery and management.

⁵ Zagnanado, Za-Kpota, Ouinhi, and Covè

⁶ Ouinhi, Zagnanado, Za-Kpota.

These health facilities are distributed across 31 health districts within seven health regions. While partners such as Sightsavers via the ASCEND project and Anesvad have supported activities such as MMDP training in some districts, as well as hydrocele surgery provision, an assessment of readiness of designated health facilities to provide MMDP services and an assessment of the availability and quality of services that are provided after the training has not been conducted. A total of seven out of 12 regions received hydrocele and/or lymphoedema care services. The assessment of readiness is addressed to those health centers. Therefore, the PNLMT identified this as a gap and is requesting technical assistance from Act | West to conduct a health facility assessment to determine the overall readiness to provide high-quality treatment for lymphoedema and hydrocele and document the current availability of treatment. Results from this assessment will guide the PNLMT to address any service delivery and quality gaps identified to improve MMDP services.

The PNLMT is requesting support to assess the availability and readiness of designated facilities to provide high quality MMDP care to patients and document this as part of elimination requirements. This will be done using the updated DIP tool. In FY23, Act | West will provide technical assistance to the PNLMT to implement the WHO-recommended direct inspection protocol (DIP) in 10% of the designated facilities which would result in approximately 30 facilities being assessed across the country. Aspects of the WHO Surgical Assessment Tool (SAT) will also be incorporated to assess hydrocele. The SAT addresses the criteria for assessing the quality and readiness of the health system to provide the recommended basic package of care for LF patients required to be documented in the LF elimination dossier.

PNLMT Technical Meeting to update LF dossier: With the financial and technical support of Act | West, by the end of FY21, the PNLMT completed the first draft of the LF elimination dossier (narrative section and Excel worksheet including all information available until the end of FY21). In FY22, the PNLMT will hold a workshop to update the dossier's content with activities completed since the first draft was completed. During these two-day meetings in Cotonou, PNLMT staff will be updating the content of the dossier with the assistance of FHI 360 Benin team. The FY22 meeting, planned in September 2022, will be useful to update draft with MMDP activities' data. In FY23, two meetings will also be held, to update dossier with TAS surveys' results and MMDP activities conducted.

Trachoma

Plan and Justification for FY23

Status of trachoma elimination dossier: In FY20, it was determined that Sightsavers would provide financial and technical support to the trachoma dossier elaboration and finalization process (including for dossier meetings), while Act | West would provide technical input only. In reviewing the required information for the dossier, in June 2020, the PNLMT had noted that it had not conducted activities specific to the facial cleanliness and environmental improvement activities and therefore identified gaps in the information it had available regarding the W A S H sector activity implementation as well as needs by district in the country. The Sightsavers-supported WASH situational analysis report was able to collect W A S H related data, and the report was validated in CY 2021. Following that validation workshop, the available WASH data included in this report and the ones collected through the latest trachoma desk reviews were included in the trachoma elimination dossier. Currently, all MDA, DSA, and trichiasis data are securely archived and backed up in computers, and in the CIND, TT tracker application, and Tropical Data platform. Regarding the dossier documents themselves, historical data entry as well as narrative writing are complete, and the dossier is ready to be submitted by the end of 2022.

Onchocerciasis

Plan and Justification for FY23

FY23 OV MDA in 51 districts (seven sub-activities: Drug transportation from central to departmental level, Training of C/RAMS, nurses and CDDs, supervision of cascade training, OV MDA campaign, social mobilization for MDA, supervision, and reverse logistics):

Drug transportation from central to departmental level:

In FY23, Act to End NTDs | West will provide financial support to the PNLMT to transport drugs from the central to departmental level for community-based OV MDA (IVM). AS the PNLMT does not own trucks to transport drugs, the financial support will cover vehicle rental and fuel to transport the drugs via two trucks from the port to the SoBAPS, from Cotonou to the regions, and then to districts targeted for MDA (latest costs supported by GOB).

Supervision of cascade training for the digitized OV MDA implementation in 51 districts: Act | West will provide technical and financial support the PNLMT to conduct supervision of digitized OV MDA cascade training. PNLMT staff will supervise the trainings at district (training of nurses & C/RAMS by the district head physician and NTD focal point) and sub-district levels. Supervisory visits to trainings at all levels include assessment of trainers' and trainees' knowledge of WHO guidelines, use of information and education communication (IEC) materials, treatment strategies, management of adverse and severe adverse events (AEs/SAEs), management of drugs, data collection and reporting, and corrections as needed.

Digitized MDA campaign: Act | West will support the PNLMT's digitized community-based MDA for OV in 51 districts targeting 5,815,200 persons. The campaign will last around 10 days. CDDs will simultaneously register the population (update existing database already uploaded on smartphones) and distribute the drugs, under the supervision of sub-district nurses, MCCs, and staff from other levels of the health pyramid.

Supervision of digitized MDA: Sub-district nurses, MCC, NTD focal points, MCZS, C/SPPR, and DDS of each district will supervise digitized OV MDA.

Reverse logistics to assess physical stock of all drugs (IVM, ALB, and PZQ)

Reverse logistics of drugs at national level post OV and SCH/STH MDA and warehouse assessment: In FY23, two MDA campaigns will be implemented: OV and SCH/STH (see below). Nine people divided into three teams will carry out the inventory in all targeted districts for all the MDA campaigns. In each HdZ, the team will conduct and document a physical inventory of the remaining drugs (number of bottles converted into the number of pills). As required, teams will visit districts to count the remaining drugs. The remaining drugs are returned to the health zones for proper storage until the next campaign. The information collected will be used to reconcile the remaining stock at the end of MDA, quantify drug needs for the following MDA, and complete the JRSM applications for FY24. In FY23, Act | West will support the PNLMT to implement a warehouse assessment (including the central storage room in Cotonou) in tandem with the reverse logistics activity. The central (SoBAPS) and regional warehouses and a subset (5%) of the district and peripheral health unit warehouses (if existing) will be assessed.

FY23 Quality Improvement (QI) application including learning sessions: This is a continuation of the activity initiated in 2020 in the four districts that failed TAS1 in FY18. After the training of central and intermediary level QI coaches in September 2020, the second step of the QI process took place in April 2021 in targeted districts. It aimed to set up and train the district level QI team members, all acting at the periphery level of the health pyramid (district/sub-district levels). The training sessions were facilitated by the

intermediary level QI Coaches (District's chief physician and NTD focal points), assisted by three central level coaches (two from PNLMT and one from Act | West). Among those who attended were 25 nurses (supervisors), 19 community leaders and local authorities, 25 CDDs, and 16 RUPs/Co RUPs from the primary school ministry. Participants were trained on the QI framework and multiple tools to implement QI action plans in their respective sub-districts with the goal of improving MDA coverage. The validation sessions of the QI action plan, developed for each of the three districts and facilitated by the QI Coaches, were held on November 4–5, 2021 in Ouinhi, Za-Kpota, and Zagnanado. The QI measures or packages to improve MDA coverage rate were implemented during FY21 OV MDA campaign conducted from November 17–26, 2021. The ideas for change packages included 1) broadcasting standardized social mobilization messages by town criers with the assistance of nurses, 2) conducting rapid assessment of effective broadcasting of social mobilization messages when interacting with community members, 3) using validated village maps and increased engagement with village chiefs and nurses to ensure good geographic coverage and census of entire population, 4) developing and using an adverse event management procedure, and 5) organizing effective supervision at all levels of the health pyramid. The QI teams identified up to four objectives in each of the three target HDs: Za-Kpota,²² Zagnanado,²³ and Ouinhi.²⁴

After the QI packages were tested during the OV MDA campaign, the PNLMT organized three concomitant assessment and review sessions of the QI application in each of the target HDs on February 8–9, 2022 with the technical and financial support of Act | West. In Za-Kpota and Zagnanado, two of the three objectives defined were implemented (objectives 1 and 2 in Za-Kpota, and 1 and 3 for Zagnanado, respectively), while in Ouinhi, three of the four objectives (1, 2, and 3) were implemented. The teams noted that the implementation of the QI process enabled the target therapeutic and geographic coverage levels to be achieved in the three districts. In addition, it was noted that all changes tested during the first round of the QI implementation led to overall program improvements and that the changes would be maintained for future implementation. For example, compared to MDA conducted in December 2020, completeness of census figures has improved in Zagnanado and Za-Kpota, and figures are in alignment with expected population growth (49,053 to 52,536 people, and 158,927 to 169,920 people respectively). Similarly, epidemiological coverage increased one percent in Zagnanado and 2% in Za-Kpota. During the session, the plans were also updated for FY22 activities (especially FY22 community-based OV MDA in 51 HDs planned for August 2022).

In the remainder of FY22, one QI learning session is still planned in the three pilot districts (assessment post FY22 MDA campaigns), while two sessions remain to be implemented in the new districts that will be enrolled. During the first session, the QI action plan for four additional districts and a scale-up strategy will be developed for MDA coverage and data quality improvement using best practices. The last session will focus on post-MDA assessment, learnings, and recommendations for next steps to maintain achievements. The two to three-day learning sessions and the extension of QI activities to the remaining districts targeted for OV MDA will be facilitated by the QI coaches.

In FY23, the QI process will continue in the seven districts enrolled in FY21 and FY22 and will be extended to an additional six districts. To ensure continuous improvement of NTD data quality, one QI impact assessment and update session (post-FY23 MDA) is planned in the three districts enrolled in FY21, one QI impact assessment and update session is planned in the four districts enrolled in FY22, and two sessions are planned for the six new districts that will be enrolled in FY23. For those new districts, the first session (a learning session) will focus on preparing districts for successful implementation of validated QI ideas for change packages after the last FY22 review meeting, while the second (impact assessment and update session) will review QI action plan (after the FY23 OV MDA) to address the experience and challenges of all targeted districts. QI action plans will be implemented and monitored locally. The QI coaches will also

visit local QI teams to provide coaching or NTD advice on the proper implementation of QI action plan and will include performance indicator data collection for M&E.

During the development of the QI action plan, participants reported that they needed additional tools, such as pictures presenting the OV-related complications, to effectively conduct social mobilization within the community. For this reason, additional IEC tools (1500 image boxes) will be printed and given to the CDDs for their use. The impact of this will be assessed during the post-OV MDA QI sessions.

OV cross-border meeting with Togo: The MOH's most recent annual cross-border OV meeting with Togo was organized in Aplahoué in July 2022. This was the first in-person cross-border meeting since August 2019. During previous meetings, the two countries had agreed to take steps to improve coordination, including to conduct geo-referenced mapping of border villages, reinforce (or extend where not already happening) collaboration between neighboring border sub-districts by organizing preparatory meetings between sub-district personnel prior to MDA (potentially taking advantage of another activity to discuss OV MDA), maintain joint supervision in villages along the border, and when possible to synchronize OV MDA campaigns. Benin has implemented the second and third recommendations have been implemented in two districts (Bassila and Boukoumbé); the PNLMT will continue advocating for their implementation in the remaining districts.

The main recommendation from the July 2022 meeting relates to the synchronization of MDA, which remains a challenge due to constraints on both sides. Directives have been issued for more communication, especially at the district and regional levels. Togo also informed their counterparts that MDA had stopped in the Maritime region to verify of the elimination of onchocerciasis in this region. This calls for more vigilance on the part of Benin, where the neighboring regions of Mono and Couffo are still conducting OV MDA. In addition, the meeting served as an opportunity to strengthen collaboration in border districts, which will result in an exchange of information regarding population movement to ensure all populations are being reached, to share critical data regarding OV impact assessment conducted in the cross-border regions as well as black fly breeding site locations.

In FY23, the PNLMT will continue to collaborate with Togo through a cross-border meeting organized to develop and strengthen common strategies for OV control along their shared border areas (which includes 13 OV-endemic districts on Benin's side).

Annual review of FY23 PC-NTD program activities and planning of FY24 activities: Once a year, the PNLMT organizes a meeting to review the previous (USAID FY) PC NTD activities to develop a detailed plan and timeline for PC NTD activities in upcoming FY. This meeting is envisioned to take place in FY23.

IR2 SUSTAINABILITY AND HSS STRATEGY ACTIVITIES

IMPROVING CORE NTD PROGRAM FUNCTIONS

Data security and management

Current state of NTD data management

MDA data follow two different paths corresponding to two different types of MDA platform. For the first, community-based MDA data are collected at the village level, aggregated at the sub-district level by nurses, and submitted to district level nurses or MCC. The district level then submits its reports to HZ nurse and MCZS who submit their report to C/DESS and C/SPPR at the department level. The department level submits complete reports by district to PNLMT central level staff.

For the second, during school-based MDA, data is collected by teachers and CDDs. Compilation is done at

the school level and reports are sent to the Head of School District (Chef de Région Pédagogique – CRPs) (for teachers/headteachers) or nurses (for CDDs) who transmit them (after verification and compilation) to the HD's nurse (district staff). As with community-based MDA, the district level staff verifies and shares the data with the HZ nurse who in turn shares it with the C/DESS & C/SPPR who submits the region's report to the PNLMT central level staff.

For both data transmission systems, the verification process includes correction of any discrepancies observed in reports submitted by the lower levels. For the school-based platform, reports from the periphery to the district level, data collection, compilation, and transmission are paper-based. The situation was identical for the community-based platform until 2020 when the OV MDA digitization started (three districts for FY20 MDA and extended to 32 districts for the FY21 MDA), and electronic data collection was conducted at the village level. For both platforms, starting at the HdZ level all the way to the central level, data compilation, and transmission are electronic. However, to ensure access to previous year's information (especially when personnel leave for another duty station), staff have been advised to safeguard a hard copy of any information submitted electronically.

Before each MDA campaign, personnel in charge of NTD data collection, compilation, and management at central, regional (C/DESS and C/SPPR), HZ (NTD focal points), district (MCC and nurse), and sub-district (had nurses of sub-district) levels receive training or refresher training, including a module on how to complete the specific data collection and summary forms as well as proper data management.

Data security

To strengthen the data security system, the PNLMT has acknowledged the need to establish documented data governance or security processes including procedures or guidelines to store, access, and secure NTD data and information and to facilitate knowledge transfer. These needs were considered when developing the country's sustainability plan.

The PNLMT currently uses WHO's CIND for central health data management. CIND is regularly backed up to an external source and stored to an external drive/computer that is not used for new data entry. MDA and survey data from 2004 to 2021 have been imported into the CIND and access to this software has been secured. The CIND is updated annually with MDA and DSA data, and the updated Access file is copied to the computers of at least three different PNLMT staff. Since 2016, the PNLMT has set up its CIND containing all historical and current data available at the country level for the five USAID-supported NTDs.

The PNLMT undertook several actions in recent years to improve data security. Paper-based data collected or transmitted to the PNLMT are securely archived within its premises. MDA registers from 2017 to 2020 are now stored in a room with limited access at the sub-district level (nurses' office or another room). The HD staff and nurses have made efforts to collect the oldest registers and centralize the storage. All NTD-related electronic data forms (MDA for field work) are also archived on password-protected computers, which are backed up to an external hard disk monthly and stored in a different place from the computer. Those computers are protected against viruses but not connected to a secured server or an online data system. In its new partnership with CHAI, the NTDP intends to advocate to cover this gap.

In FY19, the PNLMT was able to advocate for the inclusion of some of the NTDP indicators into the DHIS2 platform to secure a part of the data in its possession and create the possibility of advocating for NTD support at higher GOB levels. With financial and technical support from Act | West, the PNLMT completed the process of integrating FY19 and FY20 data into the country's DHIS2 which is managed by the MOH's Planning and Forecasting Department (Direction de la Programmation et de la Prospective – DPP). During the first workshop, conducted in February 2020, all the media and software used for NTD data collection were reviewed along with mechanisms of data reporting and quality. The second four-day workshop, conducted in June 2020, aimed at creating and testing different data collection tools and indicators, as

well as setting up the platform to allow data entry at the periphery level (22 selected indicators only).

In FY21, the NTDP began implementing the last two activities of phase 1 of NTD data integration into the DHIS2 platform. The first activity, training NTD focal points (HZ nurses), aimed to strengthen the capacity of the focal points so they can start entering data (MDA, MMDP) into the DHIS2 platform. The training was conducted from June 14–18, 2021, and by the end, all the participants understood how the platform worked and the data entry/analysis process (per the pre- and post-training test). All NTD focal points were able to enter at least one year of MDA, DSA and/or MMDP data. The trainers (MOH staff, PNLMT, and DPP staff assisted by FHI 360 staff) supervised data entry two months after training, targeting NTD focal points who were experiencing issues in informing database and helping to solve them.

Phase 2 of this activity was completed in November 2021. The PNLMT aimed to import all available historical NTD data into the DHIS2 platform for OV and SCH/STH MDA in two successive workshops held in Lokossa from November 22–30, 2021, which gathered PNLMT staff, MOH DPP staff (renamed Information System directorate (Direction des Systèmes d'Information [DSI], in charge DHIS2 daily management), and FHI 360 staff. The first 3-day workshop focused on collecting, cleaning, and compiling the disaggregated data prior to import by sub-districts. Only 2019 and 2020 data were collected for both diseases.²⁵ The FY21 SCH/STH 2021 MDA data was available and was entered by each NTD focal point. During the second workshop, data collected from meeting participants was entered into an Excel database. Once data was entered for each sub-district, the Excel database was used to import all data into the DHIS2 platform. By the end of the workshop, all 2019 and 2020 data had been incorporated into the DHIS2 platform, with just a few missing data points that will be entered by NTD focal points during the data validation workshop. The program is seeking funding from other partners to hold the data validation workshop and to take the opportunity to enter the missing 2019-2020 data can be computed through a data request on the platform (manual generation). The main recommendations of this workshop include: 1) insist that the focal points keep a database with up-to-date disaggregated data (particularly relevant since the elimination goal is within reach), and 2) insist on data quality check for improved MDA data quality. The DHIS2 management team has stressed the necessity of an annual data validation workshop.

Phase 3 concerns the harmonization of metadata between the different NTD information systems/applications and setting up interoperability. From April 13–15, 2022, the PNLMT, with the technical and financial support of CHAI and Act | West, organized a three-day workshop in Cotonou. During this workshop, the specificities and challenges related to each NTD data collection platform/application used in Benin (TT Tracker/CommCare, RedRose, ESPEN Collect, CIND, and various Excel forms) was reviewed. It was concluded that they are all compatible with DHIS2, but the process that will allow communication (data exchange) between the different applications and DHIS2 includes several steps. At the end of the workshop, a mutually agreed upon operating plan to achieve inter-operability was finalized. It will require at least five months, and additional financial and human resources will be required.

In FY21, Act West provided technical assistance to the PNLMT to assess its data management system and help identify, where appropriate, the strategies to enhance the security of current and future data. The data security analysis was initiated by Deloitte team in collaboration with MOH during the third quarter of FY21 and was completed in Q4. Between March 1–4, 2022, Act | West facilitated a meeting for three PNLMT staff, two resource persons (previous staff with important knowledge related to PNLMT data security), three MOH DSI staff, and Act | West staff. On Day 1, the results of data security policies analysis were presented and discussed with the participants together with the proposed recommendations to improve data security. Each recommendation was discussed and, when validated by the participants (based on context), was tagged with a level of priority (low, medium, or high). At the end of the workshop, a revised draft of the data security policy report was available. The groups also developed simple SOPs to address in the short terms few identified gaps. The draft SOPs were circulated among the participants for

review and additional inputs. In March and April, the PNLMT provided feedback on the document which is ready to be used and shared with the entire PNLMT staff for its implementation. This document contains information on the responsibility of each staff that collects, manage, or archives NTD data. The data security policy document explicitly enumerates and documents roles and responsibilities of staff that oversee data security and suggests actions required for physical security of hard drives and formalization of data access management. The document also includes a process to report disruption if staff believe that data has been compromised; a process to respond to any data spillage, leak, or corruption, and a process to recover any lost device or remotely wipe it to prevent data from being used by an unauthorized person.

FY23 planned activities

Dissemination of the data security policy document: Act | West will support the PNLMT to print 100 copies of the document to be shared with HZ staff (NTD focal points, MCZS) and DDS. CHAI is planning to support the NTD program to train designated staff that will implement this policy daily.

Drug management

Support to supply chain challenges

- a. Improve NTD drug quantification practices and prevent over ordering

With the support of its partners (especially USAID and WHO), Benin has resolved significant supply chain challenges in recent years. Since FY16, NTD drug quantification and drug donation request forms are completed and submitted a minimum of 10-12 months from when the drugs are needed, with a good estimate of country drug needs. However, several updates to the WHO Joint Request for Selected Medicines (JRSM) were not incorporated in the Tool for Integrated Planning and Costing (TIPAC), necessitating updates to the TIPAC version. Once drug forms are submitted to WHO, feedback is sent to the PNLMT (if there are any discrepancies or errors found), and updated files are returned to WHO for processing by the Mectizan Donation Program (MDP), Merck, and GlaxoSmithKline (depending on the drug requested). To avoid overordering and wasting drugs, since CY17, the country has been using the CDDs' census population size to estimate country's drug needs. Previously, demographic projections (based on 2013 National Census data) contributed to the loss of thousands of NTD pills that expired in 2017 because the drug estimates for a few districts were significantly higher than population registered during census.

In 2020, the WHO created an online system for submission of all countries' JRSM (ESPEN Portal), and a second one (NTDeliver) intended to improve drug order follow-up and enable Act | West and USAID staff track shipments so they can follow up with pharmaceutical companies and drug donation programs to ensure shipments are delivered on time. In FY22, Act | West plans to support the PNLMT in implementing a warehouse assessment (including the central storage room in Cotonou) in tandem with the reverse logistics activity. This activity will be conducted after the OV MDA campaign later in FY22/early FY23.

- i. Reverse logistics

As noted above, NTD drugs reverse logistics is conducted yearly after completion of all MDA activities or after one type of MDA (when there is a high probability of delaying the other).

- b. Prevent the expiration of donated NTD drugs and diagnostics

The PNLMT's MDA Officer and the PNLMT's staff overseeing DSA activities check drugs and

diagnostics expiration date before they are shipped from the central level; MOH personnel (ZS, district, and sub- district levels) and lab technicians (involved in DSA) do the same. MOH staff are trained on first expired first out (FEFO) procedure. For DSAs, filariasis test strip (FTS) kits whose expiration date is soon are used before those with a later expiration date. For MDAs, reverse logistics are essential to confirm the remaining number of NTD drugs post-campaign and their date of expiration. This helps to monitor districts with drugs nearing date of expiration and provides a reminder to apply procedures discussed during pre- MDA training.

In FY20 and FY22 with FHI 360's assistance, the country was able to make essential decisions to avoid the loss of 127,577 PZQ (expiration date: September 2020), 21,076 ALB (expiration date: May 2022), and 2,442,058 PZQ (expiration date: September and October 2022). In FY20, The MOH requested the use of community funding to share those drugs using the community-based platform, since the GOB indicated that school would resume in October 2020 and the drugs could not be used before then. In FY22, great efforts were made to complete the SCH/STH MDA in May, including staggering the timing of supervisors training and MDA implementation in ten districts that were targeted for an SCH/STH impact survey in the same month. Because of this adherence to the planned dates, the PNLMT ensured that the PZQ that were set to expire in September/October 2022 (depending on the stocks) were all used, avoiding a major drug expiration.

For diagnostics, the situation is different, as all remaining FTS kits and supplies are returned to the central level of the PNLMT at the end of each DSA survey. In FY21 however, 2,712 kits expired for various reasons. The stock initially ordered for FY20 TAS2 and Pre-re-TAS surveys arrived six months later than expected; however, the authorization to re-start field activities was not received until September. The two surveys were completed by mid-October, too late to ship the remaining kits to another country that could use them before the expiration date. The loss of these FTS kits galvanized the FHI 360 team to develop (in collaboration with the PNLMT staff) a tracker to facilitate monitoring of all diagnostics and drugs in the country. The tracker is updated after each DSA study and after reverse logistics following each MDA campaign.

- c. Submission of complete drug donation applications, specifically:
 - ii. Prepare and submit JAP

As with previous years, project staff ensures that NTD activity data are collected in a timely fashion, stored in a secure place, and a copy of each activity report is sent to project staff. Each year, with the assistance of project staff, PNLMT staff completes and submits the MOH's JRSM form to WHO as part of the MDA drug request (IVM, PZQ, and ALB) process. Besides the JRSM, the Epidemiological Reporting Form (a report on all DSAs conducted in the year preceding the request) and Joint Reporting form (a report on the preceding year's MDA data) are also completed and submitted to WHO AFRO. A one-day workshop, in January will be conducted to help staff complete the required Joint Application Package (JAP) forms. The PNLMT submits the forms to WHO once this session is completed.

- iii. Support the NTDP to respond to WHO's request for additional JAP related information

Act | West staff are available to assist with any required revisions once the country receives feedback on JAP elements. Periodically, project staff enquire about the status of the submitted JAP to obtain confirmation that the package has been accepted and under review accordingly.

- b. Availability or reliability of storage or transport

The PNLMT also found ways to ensure proper drug storage and transportation. Drugs (ALB, PZQ, IVM, TEO) and diagnostics (FTS) are delivered to WHO Benin, which obtains customs clearance on behalf of the PNLMT. From the port of entry, the shipments are delivered to the central medical store, the Société

Bénoise Pour l'Approvisionnement en Produits De Santé (SoBAPS, ex Centrale d'Achat des Médicaments Essentiels [CAME]). NTD drugs are stored in one of the SoBAPS' facilities located in Cotonou at no cost to the program until they are dispatched to departments. However, in early 2022, all MOH programs, including the PNLMT, were notified by the SoBAPS that, henceforth, the storage of MDA drugs and any medical supplies would be subject to payment. The PNLMT has therefore included an estimation of this cost when completing the FY22 TIPAC file (not supported by any partner).³¹ Because the drugs are donated, sent, and/or received through WHO, they do not require further testing; because they are pre-qualified by WHO as safe and effective, the drugs are considered safe

Before an MDA, a PNLMT team manages the distribution of NTD drugs (ALB and PZQ for SCH/STH MDA, IVM for OV MDA) along with the registers or tablets that will be used for MDA data collection. Drugs are then transported from the SoBAPS' central warehouse to the targeted departments. Within each department, drugs and materials are delivered to the Department Public Health Service. After verification, the C/DESS and their supervisor (the C/SSPR) dispatches the drugs to each ZS according to the pre-determined distribution amount (prepared by PNLMT MDA officer); the drugs are then delivered from the ZS warehouses to the districts. In FY23, Act | West will support the SCH/STH and OV MDA drug and materials transportation costs from the central to the departmental level (including truck rental costs and PNLMT staff per diem for 5 days).

2. Support the NTDP to adopt and implement the WHO Supply Chain SOPs

With the technical and financial support of Act | West, the PNLMT conducted a three-day workshop on NTD drug supply chain management from March 15–17, 2022. The workshop gathered stakeholders involved in the supply chain management in the country including three PNLMT staff, three NTD Focal Points, three C/DESS, two managers of regional health zone warehouses, one SOBAPS' staff (the central warehouse), two Benin Agency of Pharmaceutical Regulation staff (Agence Béninoise de Régulation Pharmaceutique [ABRP], ex-Direction de la Pharmacie, du Médicament et des Explorations Diagnostiques [DPMED]), and two FHI 360 staff. At the end of the workshop, the ESPEN SOPs for the NTD drug supply chain management had been adapted to the national context and the roles and responsibilities of each of the stakeholders involved in the NTD drug supply chain management were defined. The draft document is still being reviewed by a reduced committee composed of PNLMT and FHI 360 staff. The finalized and approved NTD drug supply chain management SOPs will be shared with all stakeholders for implementation.

3. Planned technical assistance to strengthen prevention, monitoring, and management of Adverse Events (AEs) and Serious Adverse Events (SAEs)

a. Ensure SAE appropriate management procedures

Since FY17, the PNLMT has worked with targeted district health centers to monitor and treat all MDA-related AEs and SAEs using appropriate procedures according to the agreement between the PNLMT and various health centers, district, and sub-district health centers care for all cases of AEs and SAEs, free of charge to the patient. SAEs are referred to the HdZ. Documentation of AEs and SAEs cases are compiled from health centers by the DNSP and sent to the appropriate health authority, the ABRP, in charge of centralizing information available on MDA's AEs and SAEs campaigns-related cases. The project ensures that appropriate procedures are followed by actors involved in the MDA campaigns concerning AEs and SAEs reporting and care providing. The DNSP communicates all PC-NTD-related AEs and SAEs reports to the PNLMT. SAE reports are sent to pharmaceutical companies, drug donation programs, WHO, and FHI 360 by the PNLMT. In FY21, a meeting organized at the national level confirmed that the PNLMT is following the country's procedures in relation to AEs and SAEs reporting. The PNLMT is working to improve timely reporting of those events, as currently complete MDA results are not available until two months

post-MDA. The PNLMT has considered some actions in the sustainability plan to improve this aspect; it is hoped that the digitization process will also help with timely reporting.

FY23 planned activities

Workshop to fill in 2024 drug application forms (FHI 360): Each year, with the assistance of Act | West, PNLMT staff completes the MOH's JRSM form for submission to WHO for MDA drug requests (IVM, PZQ, and ALB). The PNLMT provides estimates using the TIPAC to plan for PC-NTD activities and subsequently for drug requirements. The tool will also be used to analyze the country's gaps as well as the GOB and each partner's contribution. If there are any gaps identified after the submission of the JRSM and drug request forms to WHO and the donation programs, PNLMT will inform WHO and donation programs so that the request can be adjusted accordingly. In FY23, Act | West will assist the MOH during the preparation of the FY24 JAP forms and discuss any data discrepancies or issues with the PNLMT prior to submission to WHO. [This activity is LOE only.]

Acquisition of FTS kits for TAS3 in 11 EUs and TAS2 in two EUs: Act | West will support the PNLMT to acquire FTS kits required for survey implementation.

Dissemination of the adapted WHO Supply Chain SOPs: Eleven WHO SOPs have been adapted to the country's context. They will be shared with stakeholders from different health pyramid levels (central PNLMT, SoBAPS, DDS, ZS, and health center). Act | West will support the PNLMT in printing copies of the documents to be shared with designated staff (number will vary by type of personnel).

ACHIEVING SUSTAINABILITY: MAINSTREAMING & HEALTH SYSTEMS STRENGTHENING

FY23 planned activities

Governance activities

Political validation of the sustainability plan: The PNLMT intends to share the sustainability plan with the government authorities and partners during a one-day event. This event will foster a broader endorsement and create a space for dialogue, allowing the various actors to understand the MOH's orientations that aim to maintain achievements in the fight against NTDs. This event will also give the PNLMT an opportunity to find partners that will assist in the implementation of the sustainability plan. The sustainability plan will be presented to specific stakeholder groups (MOH, MOE, and other Minister's offices, local authorities, regional health department staff, etc.).

TIPAC Data Entry update: Act | West will provide on-site and remote technical support for a TIPAC data entry workshop to the PNLMT. During FY22, the PNLMT expressed the need for each staff member to master the tool to avoid knowledge gaps when losing key personnel in charge of managing and updating the tool; the PNLMT has new staff members that will take the training in FY 2023. The workshop will focus on how to ensure proper entry of the TIPAC data based on the 2022 NTD Master Plan, including unfunded activities, as well as using it as an opportunity to refresh data based on changed funding from the GOB and other donors. FHI 360 Benin will facilitate the workshop. The completed TIPAC tool will have all the financial data as well as medicine procurement data to effectively analyze the financial gaps that exist in a changing donor landscape and will serve as a comparison to the data entered into the FY22 TIPAC.

TIPAC Data Analysis, medium term financial forecast: The program is requesting additional assistance with the analysis of the TIPAC data. The session will yield the following outcomes for the PNLMT: 1) improved capacity for financial analysis; and 2) better use of financial data for targeted budget advocacy and

strategic engagement with the MOH.

Deloitte will support the PNLMT to perform comparative analysis using TIPAC data from FY21 and FY22 to inform management decisions. Of the many interventions that targeted for completion in the Sustainability Plan, the PNLMT have expressly outlined their need for the TIPAC data analysis to update and validate its resource mobilization plan. The TIPAC data analysis workshop will be crucial to the successful interventions outlined in the Sustainability Plan.

Development of Targeted Budget Advocacy Materials and Stakeholder Engagement: Act | West will provide technical assistance to the PNLMT to develop targeted budget advocacy materials using the TIPAC analysis. Program is looking to use FY23 TIPAC to leverage lessons learned and improve data quality to use the analysis for stakeholder engagement and advocacy activities. This support will begin during the TIPAC data analysis workshop and continue throughout the year through remote consultations and meetings with the NTDP as the budget cycle progresses. The PNLMT will engage with these stakeholders, as well as interested parties from the Finance Directorate of the MOH, using the advocacy materials developed from the TIPAC data analysis workshops to increase the PNLMT budget line.

Stakeholders' engagement for Domestic Resource Mobilization: The PNLMT will leverage the results of the financial gaps analysis and the advocacy materials developed through TA (see activity: development of budget advocacy and stakeholders' engagement) to organize domestic mobilization round table with MOH and limited government agencies including the PIP, the association of mayors who showed willingness and interest to have further engagements with the PNLMT, the Ministry of Education, the Ministry of Finance and the UHC agency, for example. Prior to the DRM, Act | West team in Benin with remote support from the Act | West team, will work with the PNLMT to map the key stakeholders and prioritize the opportunities for budget allocation and domestic resources mobilization and define a road map and sequences for DRM pre-engagements meetings. Building upon the outcomes of the previous activity (see activity: development of budget advocacy materials) the Act | West team in Benin will work with the PNLMT to produce a concept note that will explain the process and methodology of the DRM process. The program will take ownership of the structure of the workshop based on identified priorities and opportunities. This activity will leverage TIPAC data and the understanding of the program's financial gaps to further inform the prioritization of stakeholder engagement based on the PNLMT's needs. This activity will culminate in an event where the PNLMT will host multiple targeted stakeholders and communicate their needs for to improve their funding sources as well as resources allocation for NTDS.

Integration of LF MMDP modules into the nursing school training curriculum: Findings from the FY21 MMDP situation analysis indicate that training related to LF and trachoma MMDP is not incorporated into the nursing school training curriculum in Benin (or other health worker training institutions); only a brief discussion on parasitic infections is included. This is an opportunity to advocate for a review of the current curriculum and to revise it to include MMDP components, which will ensure the upcoming workforce are adequately trained before beginning service at various health facilities and reduce future ad hoc training costs.

The Universities of Parakou and Abomey-Calavi and one institute associated with each university are targeted as partners for this activity. Within the University of Abomey-Calavi is the Institut National Medico-Sanitaire/National Medical Institute and the Faculty of Health Sciences, and within the University of Parakou is the Institut de Formation en Soins Infirmiers et Obstétricaux (IFSIO)/Nursing and Obstetric Care Training Institute. INMeS and IFSIO are responsible for nurse training, and IFSIO is involved in the curriculum accreditation process.

This activity is included in the country's sustainability plan and requires two meetings and two workshops for completion of set objectives. With the support of Act | West, the PNLMT and school representatives will revise the current curriculum and develop modules to submit to selected school curriculum review boards/committees.

Provide technical assistance to the PNLMT to assess the process to integrate LF and trachoma MMDP into the basic care package of the Human Capital Strengthening Insurance (ARCH) program: Results from the Benin MMDP Situation Analysis, conducted in 2020 as part of Act | West, indicate that the Agence Nationale de Protection Sociale/National Social Protection Agency (ANPS) is in charge of implementing ARCH (Assurance de Renforcement du Capital Humain/ Human Capital Strengthening Insurance) funded by the government of Benin. The policy of ANPS is to provide health coverage to all segments of the population, especially the most vulnerable.

The situation analysis also confirmed that complications related to trachoma and LF are not currently covered by ARCH. As part of the Act | West FY23 workplan, the PNLMT aims to understand the process for possible inclusion of LF and trachoma MMDP services into the ARCH basic care package. Once this is understood, the PNLMT may also require TA to develop an advocacy plan to support inclusion and improved access to available care. This will help support the LF and trachoma elimination dossier objectives of ensuring access to MMDP services post-elimination.

In FY23, Act | West will provide technical assistance to the PNLMT to document the process for the possible integration of LF and trachoma MMDP services into the basic care package of the ARCH project. Act | West will also provide TA for developing an advocacy package based on the findings.

Prioritized activities

Support the interoperability process in collaboration with other NTD program partners including CHAI, Sightsavers: From April 13–15, 2022, the PNLMT, with the technical and financial support of CHAI and Act | West organized a three-day workshop in Cotonou. During this workshop, the specifics, and challenges of each NTD data collection platform/application used in Benin (TT Tracker/CommCare, RedRose, ESPEN Collect, CIND, and various Excel forms) were reviewed. It was concluded that they are all compatible with DHIS2, but the process that will allow communication (data exchange) between the different applications and DHIS2 involves several steps. At the end of the workshop, participants finalized a mutually agreeable operating plan to achieve interoperability. It will require at least five months of continuous work and additional financial and human resources will be required.

The process includes four steps composed of eight activities (workshops) and a timeline has been proposed to achieve interoperability between all NTD database applications and the DHIS2. CHAI has offered to support the PNLMT for the implementation of step 1: Presentation of the concept of data repository to the GOB and partners; step 2: Validation workshop of technical documents and specifications, alignment; and the first activity of step 3: Initial development of the NTD data repository and capacity building of the technical working group). During the April 2022 meeting described above, it was agreed that Act |West and Sightsavers would also support this effort. Therefore, Act | West is proposing to support the PNLMT in implementing three activities: 1) Identification, cleaning, and importation of historical data (step 2); 2) User testing and incorporation of feedback (step 2); and 3) Preparation for the NTD repository deployment (step 3). The first activity will be conducted in two phases (10 days in Cotonou and 5 days in Bohicon) and will gather 15 persons, the second one will be conducted in Cotonou and will gather 15 persons for two days, the third one will gather also 15 persons for two phases (10 days in Cotonou and 5 days in Bohicon).

Other activities

HMIS Integration Documentation: Act | West will provide technical assistance to document the process of integrating NTD indicators into HMIS. In 2020 and 2021, the PNLMT integrated data that included NTD indicators into the DHIS2 and trained staff on the new process. The PNLMT has also started digitizing its MDA and is also engaged in a process to ensure the interoperability between all NTD databases in use and the DHIS2. Some challenges with this process include providing access to and accreditation for the DHIS2 system to NTD focal points and creating synergies between DHIS2 actors and the program team. Additionally, the PNLMT faces difficulty reconciling historical and new parameters (variables and indicators) in the DHIS2 that make it difficult to include non-MDA and morbidity data. By capturing lessons learned and country perspective in using DHIS2, CIND, or other programmatic databases/platforms, Act | West will have a full and complete picture of the DHIS2 integration process to share with other countries that will be attempting a similar system migration. The potential benefits of documenting the HMIS integration process are wide reaching across the PNLMT as well as other consortium countries.

Act | West will work with the PNLMT and partners to finalize the documentation process following stepwise approach.

IR3 PLANNED ACTIVITIES: SCH, STH

SCH/STH

FY23 planned activities

SCH/STH MDA: In FY23, Act | West will support school-based SCH/STH MDA in 48 HDs³³. The treatment will target 14 SCH-only HDs, six SCH/STH HDs, and 28 STH-only HDs.

SCH/STH MDA in 48 districts: Drugs will be distributed in schools on a day of their choosing; the PNLMT will allow each school one week to select the most appropriate date. Once treatment is completed in schools, mop-up is conducted by CDDs in their own villages.

Integrated SCH/STH/TAS impact survey in 13 districts: In FY23, an integrated SCH/STH/TAS impact assessment survey is proposed in 13 districts that have conducted at least five effective STH MDA rounds by the end of FY22 across five regions (see table 7 below). All districts with STH baseline prevalence over 20% (under treatment) and targeted for TAS2 or TAS3 have been considered for this assessment. On top of the STH assessment using Kato-Katz kits, urine dipsticks will be used to assess the situation of intestinal and urogenital SCH, respectively. The results will provide information on the impact of previous SCH and/or STH MDAs in the districts and inform decisions for applying change in MDA frequency. The 13 districts are part of the 25 undergoing either TAS2 or TAS3 in FY23.

SCH/STH assessment during TAS in 13 districts: Benin has already conducted an integrated STH/TAS assessment in FY17. In FY23, to support efficient use of human/financial resources, it is proposing to adapt a protocol to integrate SCH/STH/TAS into one survey. The protocol will use a sample size calculation to estimate prevalence at the sub-district level (as done during the FY22 SCH/STH impact assessment) to provide guidance on reduction in frequency of MDA. Data will be collected using ESPEN Collect, with database development, training on electronic data capture (EDC) data entry, and phones previously purchased to the NTD program through the ENVISION project. Act | West will support the country for equipment and materials costs, diagnostic training, data collection, and supervision. The assessment will be conducted in three phases: six districts will be assessed during TAS3 in nine districts, another three during TAS2 in four districts, and the remaining four during TAS3 in 12 districts.

Table 7: STH assessment during TAS in 13 districts

Region	District	SCH [BL] prev %	STH [BL] prev %	Year MDA started	# SCH MDA rounds to date	# STH MDA rounds to date	Treatment Coverage						
							FY21	FY20	FY19	FY18	FY17	FY16	FY15
Atlantique	Allada	0.8%	29.2%	2011	-	11	68%	90%	89%	-	86%	81%	80%
Atlantique	Torri-Bossito	13.6%	32.8%	2011	4	11	107%	83%	98%	-	94%	78%	86%
Borgou	Parakou	22.4%	27.6%	2011	5	10	88%	97%	85%	-	91%	88%	86%
Ouémé	Akpro-Missérété	3.2%	20.8%	2013	-	10	82.6%	105.1%	93.5%	92.9%	88.9%	86.0%	82.0%
Plateau	Adja-Ouèrè	32.4%	28.8%	2011	4	9	78.6%	95.1%	92.6%	-	84.3%	84.0%	81.0%
Plateau	Ifangni	5.6%	35.6%	2013	1	10	80.1%	97.7%	96.5%	98.7%	85.0%	82.0%	82.0%
Plateau	Pobè	29.2%	32.4%	2013	4	10	76.3%	93.0%	94.2%	85.7%	89.4%	88.0%	88.0%
Plateau	Sakété	1.6%	30.0%	2013	-	10	79.9%	96.8%	98.4%	88.3%	81.6%	85.0%	88.0%
Zou	Agbangnizoun	8.0%	22.8%	2006	1	15	78.0%	97.7%	94.8%	-	87.2%	87.0%	88.0%
Zou	Covè	2.8%	28.4%	2005	-	11	-	284.8%	83.5%	-	90.3%	85.0%	90.0%
Zou	Ouinhi	14.0%	24.8%	2006	4	16	-	254.1%	82.7%	84.62%	85.5%	82.0%	88.0%
Zou	Za-Kpota	34.0%	28.0%	2006	4	16	-	251.0%	86.0%	86.75%	84.9%	86.0%	80.0%
Zou	Zogbodomey	29.2%	36.0%	2006	4	15	75.9%	91.3%	82.6%	-	83.4%	85.0%	82.0%

SCH/STH Data Review Meeting

Given the success of multiple years of disease control in some countries, the WHO set a more ambitious vision for controlling SCH morbidity (defined as the prevalence of heavy-intensity infection of <5% across sites) by 2020 and elimination of SCH as a public health problem (prevalence of heavy-intensity infection of <1% in all sites) by 2025. A similarly ambitious vision has also been set for STH elimination. Impact assessments conducted in FY22, population of the SCH/STH tracker, and the subsequent SCH/STH data reviews will enable Benin to see how much progress has made towards the goals of the WHO roadmap.

The Benin SCH/STH tracker populated in FY22 gathers multiple sources of epidemiological data to understand progression of disease prevalence. The FY22 SCH/STH impact assessment survey has been conducted in ten HDs. A SCH/STH data review meeting is planned early Q4 of FY22 to determine whether Benin has 1) achieved the WHO-defined threshold criteria for 2020 (or 2025), and (2) whether sufficient data is available to move to sub-district MDA, and if not, in what districts gaps remain. This three-day meeting in Grand-Popo will gather six PNLMT staff (coordination and technical officers), two researchers specialized in SCH/STH, four NTD focal points, and Act | West staff. A similar meeting will be organized in FY23 to make programmatic decisions considering FY23 SCH/STH impact assessment survey results.