World Health Organization
REGIONAL OFFICE FOR Africa

ESPEN ANNUAL REPORT

2021

ESPEN

Expanded Special Project
For Elimination Of
Neglected Tropical Diseases

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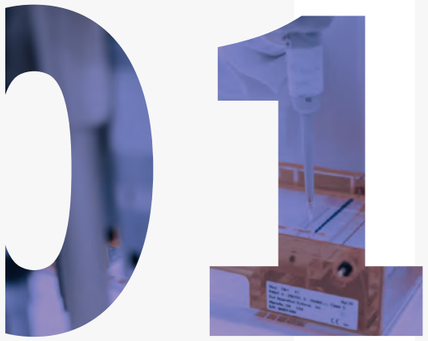
ABBREVIATIONS

ASCEND	Accelerating the Sustainable Control and Elimination of Neglected Tropical Diseases
AWP	Annual work plan form
CBM	Christian Blind Mission
CAR	Central African Republic (CAR)
CDDs	Community drug distributors
CHWs	Community health workers
COR-NTDs	Coalition for Operational Research on Neglected Tropical Diseases
DEC	Diethylcarbamazine
DRC	Democratic Republic of the Congo
DRG	Trachoma Dossier Review Group
EPIRF	Epidemiological reporting form
ESPEN	Expanded Special Project for the Elimination of Neglected Tropical Diseases
EUs	Evaluation units
FTS	Filariasis Test Strip
GTMP	The Global Trachoma mapping project
GSA	The Global Schistosomiasis Alliance
HKI	Helen Keller International
HQ	Headquarters
IDA	Ivermectin, DEC, and Albendazole
IHME	Institute for Health Metrics and Evaluation
ITI	International Trachoma Initiative
IUs	Implementation units
JAP	Joint Application package
JRF	Joint Reporting Form
JRSM	Joint Request for Selected Medicines
KOICA	Korea International Cooperation Agency
LF	Lymphatic filariasis
LSHTM	London School of Hygiene & Tropical Medicine
MDA	Mass drug administration
MoH	Ministry of Health
MMDP	Morbidity management and disability prevention
NGDOs	Non-governmental Development Organizations
NCC	Neurocysticercosis
NPO	National Professional Officer
NTD	Neglected Tropical Diseases
OEM	Onchocerciasis elimination mapping
ONCHO	Onchocerciasis
PC-NTDs	Preventive chemotherapy neglected tropical diseases
EPHP	Elimination as a public health problem
PZQ	Praziquantel
RPRG	Regional Programme Review Group for Preventive Chemotherapy
SAFE strategy	Surgery for TT, Antibiotics to clear bacterial infection, Facial cleanliness and Environmental improvement to reduce transmission
SAC	School age children
SCH	Schistosomiasis
SCM	Supply chain management
SDGs	Sustainable Development Goals
SOP	Standard operating procures
STH	Soil-transmitted helminthiasis
STP	São Tomé and Príncipe
TAS	Transmission assessment surveys
TEC	Trachoma Expert Committee
TEMF	Trachoma Evaluation and Monitoring Form
TIS	Trachoma Impact Survey
ToT	Training of trainers
TT	Trachomatous Trichiasis
UHC	Universal health coverage
UN	United Nations
USAID	The United States Agency for International Development
WASH	Water, sanitation and hygiene
WCOs	WHO country offices
WHO-AFRO	World Health Organization Regional Office for Africa
WHO-EMRO	World Health Organization Regional Office for the Eastern Mediterranean



01 EXECUTIVE SUMMARY

The year 2021 saw the official launching of the WHO's second road map for NTDs entitled 'Ending the neglect to attain the Sustainable Development Goals: a road map for neglected tropical diseases 2021–2030'. The year 2021 was also marked by two major and critical events in the African region: the continuing COVID-19 pandemic and the early interruption of the UK FCDO funding to NTD programmes from 19 African countries. Despite these two major challenging and disrupting events, ESPEN has continued to work with country programmes and partners to make sure that everyone keeps on track towards the achievement of the goals established by the new NTD Roadmap 2021-2030. ESPEN's major achievement in 2021 include:

I- Scaling up

- In 2021, ESPEN supported LF MDA in seven countries (Comoros, Congo, DRC, Equatorial Guinea, Madagascar, Nigeria, and STP) targeting over **28.9M** people in **172** implementation units (IUs).
  ESPEN supported technically Equatorial Guinea in the selection of its sentinel sites for monitoring LF interventions.
- ESPEN held the LF regional review targeting **20 countries** to assess their progress towards the elimination of LF as public health problem.
- ESPEN supported onchocerciasis MDA in **4 countries (Burundi, Congo, DRC, and Yemen)** targeting around 9M people in **113** IUs.
- ESPEN trained **49** staff of the MoH of Congo (25 at the national and 24 at the provincial level) on actions related to onchocerciasis elimination mapping.
- In 2021, ESPEN targeted **12,950,151** school-aged children and adults with PZQ on schistosomiasis MDA interventions in **102** IUs across 5 countries **(Nigeria, Kenya, Malawi and South Sudan)**, where funding gaps existed.
- In South Sudan ESPEN intended to support SCH/STH MDA in **44 Counties** targeting **1,359,539**, although due to the occurrence of severe adverse events, only three counties were finally covered.
- In The Gambia, ESPEN provided support for SCH/STH MDA targeting **1,664,835** people.

II- Scaling down

- ESPEN supported financially and technically **136** pre-TAS and TAS in 3 countries (DRC, Nigeria, and Zambia).
- In total **230,940** FTS (7,698 Kits) were approved and donated by WHO in 2021 to **Eritrea, DRC, Gabon, Kenya, Guinea Bissau, Nigeria, Mozambique, STP and Zambia.**
- The ESPEN Laboratory received and processed **116,024** samples of blackflies from Malawi (55,703) and Senegal (60 321), that were collected during onchocerciasis STOP MDA, and blackflies samples collected during onchocerciasis elimination mapping in Burkina Faso (57,867) and Cote d'Ivoire (7,818).
- ESPEN supported Botswana's **5** years impact assessment SCH/STH Impact assessment by protocol development training and field data collection.

III- Strengthening information management system

- ESPEN Data Portal has seen the number of disease-specific maps increased to over **12,000**, including data from activities implemented in 2020.
- New disease specific dashboards displaying major NTD indicators concerning endemicity and MDA/PC interventions by country have been developed.
- Analytical dashboard showing projections on treatment and survey needs until 2030 has been developed and embedded in the ESPEN NTD Data Portal.
- ESPEN JAP import tool has been finalized and currently **487** number of reviewed and validated JAP reports have been made publicly available.
- **10,343** users visited the ESPEN portal from **174 countries** (of which 55 from Africa) during **23,911 se**ssions.
- ESPEN has received **33** requests to use ESPEN Collect platform for surveys to be conducted in **10,378** sites from **20 countries: Angola, Benin, Botswana, Burkina Faso, Burundi, Cape Verde, Republic of the Congo, Cote d'Ivoire, Ethiopia, Ghana, Guinea, Liberia, Madagascar, Mozambique, Nigeria, STP, Senegal, Togo, Uganda and Zambia.**

IV- Improving the effective use of donated medicines through enhanced supply chain management

- ESPEN managed to approve allocations of **585,653,000** tablets of ALB, MEB, PZQ and DEC, for a total number of **37** countries out of **44**, saving **283,120,158** equivalents to US$ **20** million, out of a total of **868,773,158** unnecessarily requested by countries.
- The same exercise was conducted to secure sufficient supply of NTDs donated medicines for planned treatments in 2022, by providing support to member-states in the review of the JAP and contributed to saving almost **206M** tablets valued at **US$ 15,1 million**, as of March 2022.
- ESPEN provided real-time support in monitoring country accurate inventory reporting to mitigate expiry risks as the FCDO announced funding cuts in 2021.

V- Partnership and coordination

- By the end of 2021, ESPEN partnerships had mobilised over US$ 47 million, with a closing balance of US$ **16,526,642** at the end of 2021.
- ESPEN held the fourth National Programme Managers' meeting virtually on 15–16 December 2021. The meeting attracted **337** and **322** registered participants on the first and second day respectively, from WHO headquarters, WHO in the African Region, Eastern Mediterranean WHO region (EMRO), programme and data managers from ministries of health, national professional officers in WHO country offices, and partners.

CONTEXT

Neglected tropical diseases (NTDs) are a diverse group of 20 conditions that are mainly prevalent in tropical and subtropical areas. NTDs mostly affect remote impoverished communities living in underserved areas. These diseases cause devastating health, social and economic consequences to affected communities and disproportionately affect women and children. NTDs affect more than 1 billion people but only 0,6% of global healthcare funding goes to controlling NTDs. About 40% of the global NTD cases occur in Africa. NTDs cause blindness, painful disfigurement, anaemia, malnutrition and other health effects and disabilities or death, plunging communities into endless cycles of poverty.

The year 2021 saw the official launching of the WHO's second road map for NTDs entitled 'Ending the neglect to attain the Sustainable Development Goals: a road map for neglected tropical diseases 2021–2030'. The new road map represents a high-level strategic document and advocacy tool, aimed at strengthening programmatic response to NTDs through shared goals and disease specific targets supported by smarter investments.

The year 2021 was also marked by two major and critical events in the African region: the continuing COVID-19 pandemic and the early interruption of the UK FCDO funding to NTD programmes from 19 African countries. These two events have challenged maintaining the achievements that the African region has seen in its fight towards the control and elimination of NTD over the past couple of years. Despite initial setbacks, endemic countries have managed to continue with the implementation of their NTD programmes and to catch up on the initial delays due to COVID-19 pandemic. ESPEN has demonstrated again that it is a critical partner for the fight against NTDs in Africa by collaborating with its NTD stakeholders to avoid reversal of gains made by conducting gap analysis and ensuring financing for the implementation of critical interventions to mitigate the impact of the UK FCDO funding cuts.

ESPEN's mandate covers 52 countries: 47 in the WHO African Region with 45 requiring preventive chemotherapy (PC) for at least one NTD and two not requiring PC (Mauritius and Seychelles); five countries in the WHO Eastern Mediterranean Region (EMR): four on the African continent (Djibouti, Egypt, Somalia and Sudan) and one outside Africa (Yemen).

ESPEN focuses primarily on the five most prevalent NTDs amenable to preventive chemotherapy (PC-NTDs) that are responsible for 90% of the NTD burden in Africa. These are Lymphatic filariasis, Onchocerciasis, Soil-transmitted helminthiases, Schistosomiasis and Trachoma. ESPEN continues to provide operational support to countries to accelerate the elimination of PC-NTDs, including mapping disease burden, delivering treatments efficiently, strengthening supply chain management of donated medicines, supporting disease-specific evaluations, and using quality data for evidence-based decision making.

Major Progress in NTD Interventions in 2021

ESPEN has been preparing for the new decade in the fight against PC-NTDs in collaboration with many regional and international partners to address the need for evidence-based decision making, which is the core of the new NTD roadmap. In 2021, ESPEN has strengthened and expanded the NTD Data Portal so that new tools and resources intended to enhance and facilitate data collection, data reporting and analytics have been made available for the NTD country programmes and stakeholders.

ESPEN team has also worked tirelessly together with the NTD community to mitigate disruptions of PC-NTD activities caused by COVID-19 pandemic. Additionally, the early interruption of the UK FCDO funding presented a major setback for the 19 countries and their NTD programmes that were benefitting from this international aid in the African region. The UK FCDO support was given through the "Accelerating the Sustainable Control and Elimination of Neglected Tropical Diseases" (ASCEND) programme, which was intended to support PC-NTD interventions in 19 countries and 1,858 implementation units in the AFRO region and Sudan, where also interventions against leishmaniasis were covered. ESPEN has teamed up with the NTD team at WHO-HQ, ASCEND programme implementers (Sightsavers and Crown Agents) and other partners such as the NTD Modelling Consortium and International Trachoma Initiative to estimate the impact of this withdrawal and to identify the most vulnerable areas: those close to achieve 2030 elimination goals, risk of drug expiry, with limited potential of other funding, and those that would struggle the most to keep their gains on track if MDA interventions were interrupted, based on modelling data. ESPEN led the generation of the data evidence used by a coalition of donors (Bill & Melinda Gates Foundation, CIFF and ELMA) to develop a strategic plan intended to allocate 100M US$ in the countries previously covered by the UK FCDO.

In April 2021, The Gambia became the second country in WHO's African Region after Ghana to have been validated for having eliminated trachoma as a public health problem.

Table 1: Major treatment indicators in the African region since 2014

Year	No.JRF submitted	Population Requiring pc for at least 1 PC-NTD	No.IU requiring PC for trachoma	Population Targeted for PC for at least 1 PC- NTD	Population Targeted for at least 1 PC- NTD	No.IU Implementing PC for trachoma	AF KPI 1.1.2a	% Treated Among those targeted for at least 1 PC- NTD	No.IU Implementing PC for trachoma
2014	28	554,955,679	1,398	312,889,866	254,473,274	562	45.85%	81.33%	40.20%
2015	30	558,210,376	1,400	362,118,989	294,780,112	672	52.81%	81.40%	48.00%
2016	34	620,327,683	1,353	369,615,820	324,931,417	776	52.38%	87.91%	57.35
2017	38	631,355,534	1,189	430,399,116	375,624,857	823	59.44%	87.19%	69.22%
2018	37	643,691,562	1,036	434,366,785	389,863,135	747	60.57%	89.75%	72.10%
2019	36	639,009,754	982	401,128,406	357,299,045	687	5.591%	89.07%	69.96%
2020	36	622,426,722	916	326,395,285	288,366,030	327	46.33%	88.35%	35.70%

AF KPI 1.1.2a: Percentage of population requiring interventions who received or are receiving interventions at least for one Neglected Tropical Disease (NTD).

03

ESPEN STRATEGIC FRAMEWORK 2021-2025 & THE WHO NTD 2030 ROADMAP

The year 2021 saw the development of ESPEN Strategic Framework 2021-2025 through a consultative process following the successful conclusion of the ESPEN Strategy Framework 2015-2020. The current ESPEN's strategic priorities are informed by progress in implementing the ESPEN Strategy Framework 2015-2020, the external evaluation of ESPEN's work, ESPEN accomplishments 2016-2019, and the NTD Global Roadmap, 2021-2030. These strategic priorities were validated through a broad consultation process, which included NTD programme managers and other key stakeholders.

ESPEN is focusing on 5 main strategic priorities for the next five years:

1 *Scaling Up MDA to Achieve 100% Geographic Coverage and Effective Coverage* which is a key priority in attaining UHC.

2 *Scaling Down MDA Toward PC-NTD Elimination and Reduction of morbidity due to NTDs.* It focuses on impact assessments to measure progress in reduction of disease prevalence and helping countries to document these achievements through dossiers to submit to WHO for validation. As part of this initiative, laboratory strengthening becomes key.

3 *Strengthening Information Systems for Evidence-Based, Implementation-Level Decision-Making* focuses on building a data strategy that supports the African governments to have accurate, high quality, timely, standardised information to help them in their decision making.

4 *Promote Effective Use of Donated Medicines.* ESPEN is working with governments to strengthen the quality of supply chain management, including ensuring that all donated tablets are procured and distributed to the intended population in a timely manner and without wastage, and any unutilized drugs are appropriately stored and repurposed immediately or during other MDAs.

5 *Enhancing country ownership and health-system strengthening (HSS) for sustainability.* ESPEN recognizes the complexities and multi-affectedness of health systems, as it supports the integration of different NTD programme components—such as advocacy, social mobilization, water and sanitation, preventative chemotherapy, and case management.

ESPEN recognizes that cross-sector collaboration will be key to accelerating progress for the next five years and beyond. There is a long-standing consensus that the root causes of NTDs cannot be solved without addressing their underlying determinants. Thus, ESPEN has envisioned to be inclusive of all stakeholders including health, finance, infrastructure, education, and social services.

The WHO's second road map for NTDs entitled '*Ending the neglect to attain the Sustainable Development Goals : a road map for neglected tropical diseases 2021–2030*' has set the following overarching targets :

- 90% fewer people requiring interventions against NTDs
- 75% fewer NTD-related disability-adjusted life years (DALYs)
- 100 countries having eliminated at least one NTD
- 2 NTDs eradicated

However, progress across African countries that shoulder nearly 40% of global NTD burden will be critical to achieving these new global targets and improving the lives of millions.

A/ Key achievements in 2021 by disease

Lymphatic filariasis

I- Scaling up

- In 2021, ESPEN supported LF MDA in seven countries (**Comoros, Congo, DRC, Equatorial Guinea, Madagascar, Nigeria, and STP)** targeting **28,895,283** people in **172** implementation units (IUs).
- ESPEN supported technically Equatorial Guinea in the selection of its sentinel sites for monitoring LF interventions.
- ESPEN supported the second round of MDA using ALB/DEC in loa coendemic settings in Congo and DRC.
- STP implemented the second round of MDA using the triple drug regimen in **7** IUs targeting **206,000** people
- Comoros implemented the first round of MDA using IDA in **7** IUs in the island of Ngazidja targeting **402,588** people.
- ESPEN supported the review of LF confirmatory mapping protocol in Eritrea (2 IUs), Gabon (18 IUs), Guinea-Bissau (5 regions), and Zimbabwe (24IUs).
- ESPEN held the LF regional review targeting 20 countries to assess their progress towards the elimination

II- Scaling down

- ESPEN supported financially and technically 136 pre-TAS and TAS in **3** countries (DRC, Nigeria, and Zambia).
- The ESPEN team reviewed and approved TAS eligibility forms from eight countries (Cote d'Ivoire, DRC, Ethiopia, Kenya, Mozambique, Nigeria, Senegal, Tanzania) for TAS implementation in 102 EUs.
- The ESPEN Team reviewed the protocol of Pre-TAS and TAS surveys in **Cote d'Ivoire, DRC, Guinea-Bissau, Kenya and STP**.
- In total **230,940** FTS (7698 Kits) were approved and donated by WHO in 2021 to **Eritrea, DRC, Gabon, Kenya, Guinea Bissau, Nigeria, Mozambique, STP and Zambia**.

Onchocerciasis

I- Scaling up

- ESPEN supported onchocerciasis MDA in 4 countries (Burundi, Congo, DRC, and Yemen) targeting 9,181,800 people in 113 IUs.
- ESPEN trained 49 staff of the MoH of Congo (25 at the national and 24 at the provincial level) on the identification of onchocerciasis breading sites, selection of first line villages and collection of dried blood samples for OEM in 14 IUs.

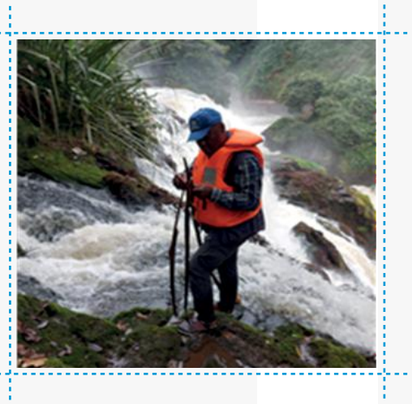


Figure 1: Illustration of the search for plant or rocky supports hosting aquatic stages of blackfly (Eggs, larvae, pupae)

Figure 2: Illustration of collection of blackfly larvae on supports brought from the river to the bank

II- Scaling down

- The ESPEN Laboratory received and processed **116,024** samples of blackflies from **Malawi (55,703)** and from **Senegal (60 321)** that were collected during onchocerciasis STOP MDA. Although the upper bound of the 95% confidence interval of the prevalence of L3, is less than the defined threshold [0.05% (< 1/2000)], table 2, persistent transmission was observed in these transmission zones (Data not shown).
- Thus, in **Malawi**, infected flies was detected at one collection point (Kalewa School point where 2 pools of fly heads were tested positive). In **Senegal**, infection was detected at Bambadji collection point in the Faleme transmission zone and at five collection points in the Gambia transmission zone. Results of analyses of DBS collected from children aged between **5** to **9** years are needed to inform decision of stopping or not onchocerciasis MDA in theses transmission zone.
- In addition to above mentioned blackfly samples, the ESPEN Lab processed samples from Burkina Faso **(57,867)** and Cote d'Ivoire **(7,818)** collected during entomological surveys supported by implementing partners.

Figure 3: Black fly samples processing at ESPEN laboratory Figure

Table 2: Summary of PCR analyses of blackfly samples from Malawi and Senegal

Country	Transmission Zones	Number of blackflies processed	# of blackfly collection site where no transmission was detected	# of blackfly collection sites with ongoing transmission detected	Overall infectivity rate (10^{-3})	Confidence interval 10^{-3}	
						Lower bound	Upper bound
Malawi	Shire river basin	55703	6	1	0.0341	0.004	0,1198
Senegal	Faleme river Basin	20270	6	1	0,0512	0,0015	0,2640
	Gambia river basin	40051	3	5	0.203	0,0815	0,4088

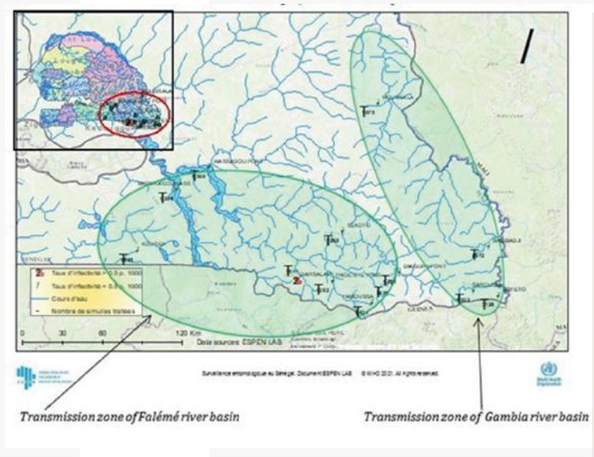


Figure 4: Transmission zones and infectivity rate result in Senegal

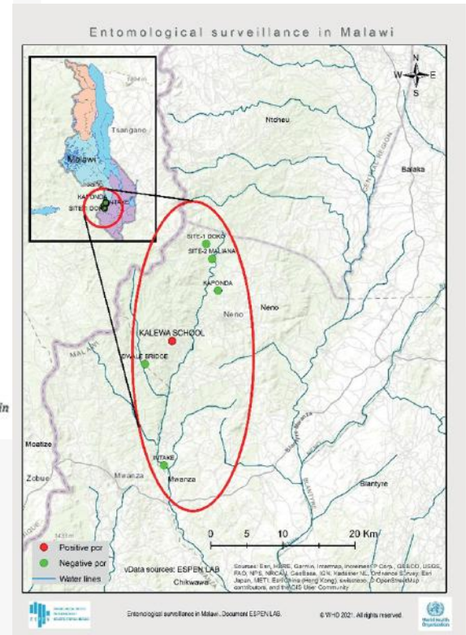


Figure 5: Transmission zone and infectivity rate result in Malawi

Schistosomiasis and STH

I- Scaling up

- In 2021, ESPEN targeted **12,950,151** SAC and adults in **5** countries: **Nigeria, Kenya, Malawi and South Sudan**, and covered existing funding gaps in **102** Implementation units (Table XXX).
- In South Sudan, ESPEN supported SCH/STH MDA in **44** Counties targeting **1,359,539**. However, activities were interrupted midway following the report of SAEs and so only three counties were covered. After thorough investigations to address community concerns and strengthen the community communication strategy and training of community health workers and teachers, the MDA will now proceed in 2022.
- In Kenya ESPEN is worked with the MoH to jointly support SCH/STH MDA in **20 IUs** targeting **2,419,209** people in the western Kenya region as part of the countries' national elimination strategy. This support is continuing in 2022.

- ESPEN has had a long-standing support of MDA gaps in Nigeria, where in 2021 SCH/STH MDA was supported in **38** IUs targeting **7,506,568** people.
- In The Gambia, ESPEN provided support for SCH/STH MDA targeting **1,664,835** people.

Figure 6: WHO team overseeing MDA in South Sudan

II- Scaling down

B/ Spotlight Spotlight on Botswana -progress on STH control

ESPEN supported Botswana's **5** years impact assessment SCH/STH Impact assessment by protocol development training and field data collection. Botswana started implementing MDA for Soil-transmitted helminthiases (STH) in 2016 after successfully conducting baseline mapping in 2015. This MDA targeting school-age children was implemented in **13** districts endemic for STH across the country in order to inform the progress on the STH control programme, and to provide evidence for programmatic decision making for the next phase of the programme towards elimination of STH as a public health problem (EPHP). The impact of this school-based MDA programme is monitored by the National NTD Control programme. This report focuses on the impact of MDA on STH infections and presents the overall achieved reductions from baseline to mid-term.

The mid-term evaluation employed a 2-tier level of assessments that was conducted in a total of **59** out of the initially planned 60 schools/sites (45 cross-sectional survey sites and **14** sentinel sites). Sites selected for the repeat cross-sectional surveys had received 4 rounds of MDA (n = 8), 3 rounds of MDA (n = 9), 2 rounds of MDA (n = 8), 1 round of MDA (n = 17) and no MDA (included as part of surveillance, n = 3). All the 14 sentinel sites were included in the baseline survey and surveys will be conducted pre-post MDA biennially. In the mid-term survey, stool samples were collected from **3,440** randomly selected school-age children (8-14 years) and tested for helminth infections using the standard Kato-Katz technique. The prevalence and mean intensity of each helminth species was calculated at the school and district (IU) levels and **95%** confidence intervals (CIs) were obtained. In addition, water, sanitation and hygiene (WASH) status was assessed using WASH questionnaires administered to children. The GPS coordinates of the schools surveyed was also recorded.

The prevalence of STH infection in the **13** districts under MDA was **16.1%** (STH combined); **6.9%** (Ascaris lumbricoides), **8.6%** (hookworms) and **1.9%** (Trichuris trichiura) at baseline. At mid-term, the prevalence was **21.9%** (STH combined); **17.8%** (A. lumbricoides), **4.8%** (hookworms), and **0%** for T. trichiura. Whereas there was an increase of **5.8%** in the prevalence of STH combined between baseline and midterm (largely driven by increase in prevalence of A. lumbricoides), STH infections were predominantly of light intensity at both timepoints, with light intensity infections increasing 1.4-fold at mid-term and with no moderate and heavy intensity infections at mid-term. The mean intensity of infection at baseline was **1,502.3** epg for hookworms, **204.1** epg for A. lumbricoides, and **346.8** epg for T. Trichiura; whereas it was **91.5** epg for hookworms, **44.3** epg for A. lumbricoides and **0** epg for T. Trichiura at mid-term. **5** districts from the Northern region (Serowe, Selibe Phikwe, Ngamiland, Tutume, Mahalapye) and 2 districts from the Southern region (Kgalagadi North and Charles Hill) had STH prevalence ≥20% at mid-term. STH prevalence reduced by **4.6%** and **8.3%** and 4.6% in districts that had received **4** and **3** rounds of MDA relative to those that had received 1-2 rounds of MDA where prevalence increased.

The school-based deworming was successful in reducing the prevalence of moderate and heavy STH infections to zero (sustaining this to <**2%**) between baseline and mid-term, but overall prevalence of infection increased suggesting ongoing transmission. Additional strategies including WASH interventions to augment chemotherapy coupled with good programme coverage will be required to achieve elimination and interruption of transmission.

Figure 7: Specimen collection during SCH/STH mapping in Botswana

Figure 8: Specimen preparation SCH/STH mapping in Botswana

C/ Spotlight on SCH community data analysis

ESPEN has over the last **3** years embarked on improving how countries implement their intervention activities. The main aim has been to appropriately manage schistosomiasis as a focal disease, and therefore increase efficiency for use of scarce resources and remain on track of elimination goals by focusing interventions based on data analysis at community levels.

This activity has involved working with a wide range of data and disease experts to collate all available epidemiological data from all SCH endemic countries; holding joint working sessions of ESPEN data team and experts in Brazzaville; developing data analysis tools and training manuals which are now available at the ESPEN NTD Data Portal; holding regional training workshops and webinars both for the **38** country teams and partners and country support virtual workshops for online technical support to translate this community level scheme to the medicine request applications.

Based on feedback from these activities, the data analysis tool developed by ESPEN is now updated up to version #4, with the possibility to choose the community prevalence calculation either by mean or maximum; community and district populations adjustment; automated data transfer between existing and new versions of the tool; generation of 5-years treatment requirements projections; generation of PZQ Request (JRSM) datasets; automated filling of the JAP (JRSM and JRF) from the tool; and the tool has been updated for full automation of the decision tree, and inclusion of qualitative environmental suitability determinations as well as use of health worker's local knowledge of the disease transmission at frontline health facilities.

Fifteen countries that have made significant progress in analysing their SCH community level epidemiology data: **Nigeria, Benin, Mali, Senegal, Togo, Tanzania, Zanzibar, Kenya, South Sudan, Zambia, Chad, DRC, Gabon, Liberia and Uganda**. They are working with a team of schistosomiasis expert consultants and ESPEN team to present their major findings and experience on manuscripts to be submitted to a scientific journal.

For countries where adequate community level data was available for analysis, the data shows that the African region had over **21M** children missing treatment due to inadequate data, and that over **26M** were treated unnecessarily before community data analysis (Figure 9).

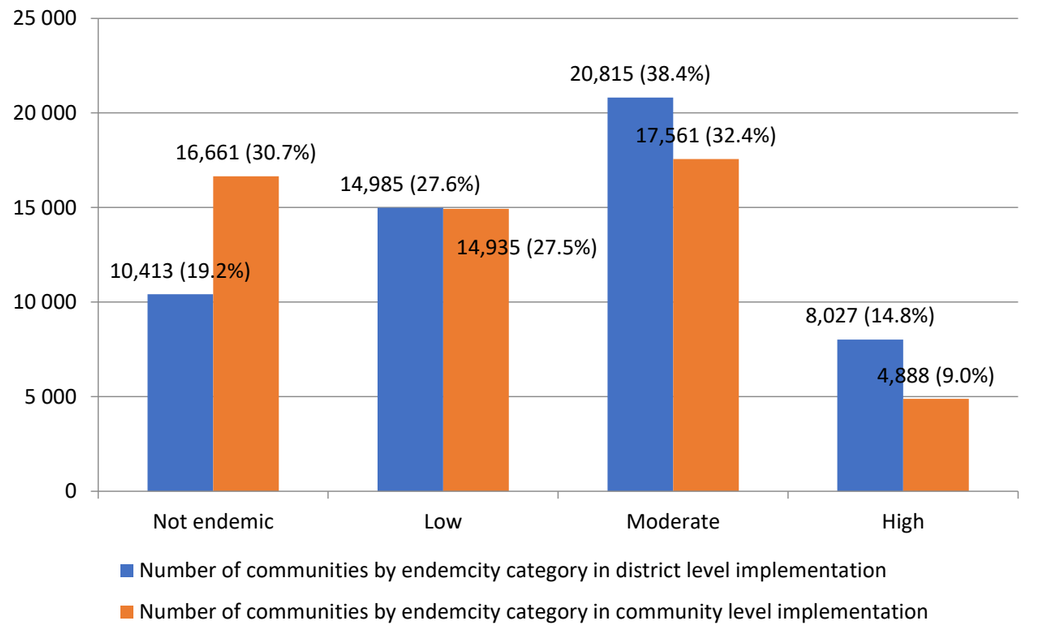


Figure 9: Comparison of number of communities by endemicity category in district level implementation and community level implementation

Integration of T. Solium control in SCH/STH activities

ESPEN is stepping up support for integration of PC-NTD activities into mainstream public health activities, as well as the One Health approach to NTDs, in line with the WHO NTD Roadmap 2021-2030. The burden caused by endemic neglected parasitic zoonoses continues to affect some of the most vulnerable populations. Global calls are being made to enhance preparedness for new and emerging zoonotic diseases.

Taenia solium, one of the listed NTD zoonotic diseases, is prevalent in **27** countries in the African region and suspected in **11** others (Figure 10). This parasite has pigs as its intermediate host and can cause two distinct diseases in humans: taeniasis and cysticercosis. People with taeniasis (the adult tapeworm) shed T. solium eggs in their faeces that can infect pigs and humans. The resulting larvae form cysts in the muscles, skin, eyes or central nervous system. Neurocysticercosis (NCC) refers to the development of larval cysts in the central nervous system of humans, causing seizures and epilepsy among other neurological symptoms. NCC is one of the leading causes of preventable epilepsy and in the communities where it is present, it can contribute to up to **70%** of the epilepsy cases. Epilepsy in vulnerable populations is difficult to treat and causes stigma affecting people's lives and livelihoods. This infection, when co-endemic with schistosomiasis, impacts the success of treatment for schistosomiasis with praziquantel (PZQ), due to the different dosing with PZQ and handling needed for cysticercosis, and the increased risk of adverse events in patients with cysticercosis.

WHO has launched a new set of tools to assist with the control of this parasite including a mapping tool to assist with the identification of high-risk areas, guidelines for preventive chemotherapy for the control of taeniasis and the guidelines for the clinical management of NCC. WHO is also promoting the implementation of these tools in several African countries, facilitating the donation of drugs for control of taeniasis, promoting WASH, and supporting One-Health control projects.

The endemicity has so far been determined at country level, but further work is needed to identify the highest risk areas and communities. Thus, community mapping is urgently needed in order to best estimate the burden of disease in the region. In 2021, ESPEN supported countries to estimate their treatment needs, and conducted preliminary discussions with some NTD programmes on piloting MDA using PZQ or niclosamide in selected prioritized areas, and development of mapping protocols using WHO tools.

These activities are ongoing in Madagascar, Cameroon, Angola, Namibia, and Rwanda, and will be scaled up in coming years.

ESPEN calls upon partners to leverage on the level of expertise on T. solium in countries, the opportunity to collaborate with other programmes such as schistosomiasis and STH, and the new tools and medicines available through WHO to support sub-national mapping and implementation of interventions.

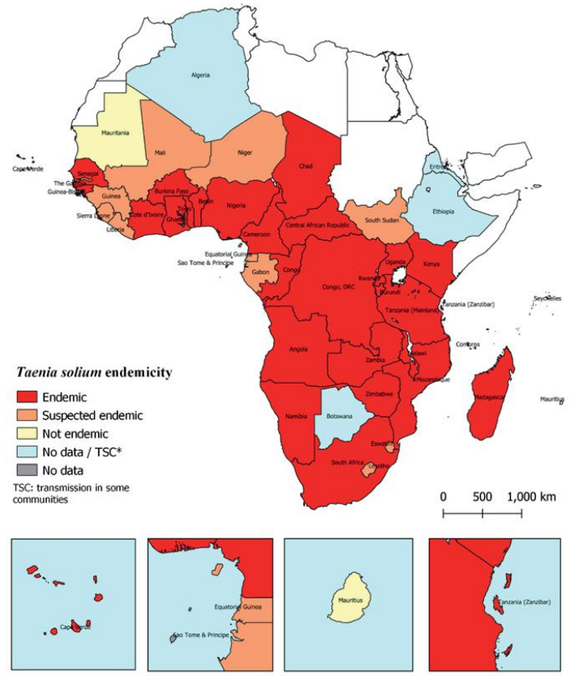


Figure 10: T. solium endemicity in WHO African Region

Trachoma

- Significant progress has been made in the field of trachoma control in the African Region. As of June 2021, population in areas that warranted treatment for trachoma decreased from **171** million in 2016 to **116** million. Eight countries have reached the elimination threshold for trachoma and no longer required MDA in 2020.
- The Gambia became the second country in WHO's African Region after Ghana to have been validated for having eliminated trachoma as a public health problem in April 2021.
- ESPEN provided technical and financial support for the trachoma baseline mapping in Algeria that applied WHO recommended methodologies using Tropical Data. The baseline mapping was conducted in **5** Wilayas: Adrar, Bechar, Tamanrasset, Ouargla and El Oued.
- ESPEN contributed towards the finalization of the trachoma baseline mapping protocols of Angola and Botswana. The Namibia baseline trachoma mapping protocol is still under development.
- ESPEN provided financial support to cover the funding gap for conducting trachoma impact surveys in four districts ((Mandiana, Kankan, Siguiri et Koundara) in the Republic of Guinea.

- ESPEN also provided financial support for trachoma MDA in 10 districts in the DRC and Beida district in Darfur, Sudan.
- In 2021, ESPEN provided technical support in providing an informal review of trachoma elimination dossiers of The Gambia, Malawi, Mauritania, and Togo.

[1] Benin, Burkina Faso, Burundi, Malawi, Mali, Mauritania, Senegal and Togo.
[2] Basali, Yalimbongo, Yahumab,Ghety, Bambu, Kiambi, Bosobolo, Karawa, Isangi and Yakusu.

Table 3: Treatment coverage in ESPEN-supported areas (IUs) in 2020

County	Disease	#IUs treated	Population requiring MDA	Number of persons treated	Coverage (%)
Burundi	Oncho	12	2,008,421	1,639,317	81.6
Chad	LF	31	4,877,390	3,744,433	76.8
	Oncho	46	6,360,820	4,995,968	78.5
	SCH	83	362,266	351,648	97.1
	STH	36	1,875,210	1,429,763	76.2
Comoros	LF	7	400,225	199,102	49.7
	STH	7	126,537	70,545	55.8
Congo	LF	49	1,322,376	630,219	47.7
	Oncho	10	151,439	98,422	65
	STH	49	1,322,376	630,219	47.7
DRC	LF	19	3,693,098	386,132	10.5
	Oncho	21	1,806,700	0	0
	SCH	7	275,509	0	0
	STH	20	350,364	0	0
	TRA	11	2,082,415	1,851,664	89
Egypt	SCH	17	2,932,815	2,897,891	98.8
Eritrea	LF	2	72,483	36,645	50.6
	SCH	28	61,425	55,836	90.9
	STH	28	18,061	15,865	87.8
Ethiopia	TRA	2	307,027	259,381	84
Guinea	SCH	3	231,831	192,939	83.2
	STH	3	273,569	160,003	58.5
Liberia	SCH	3	222,142	50,630	22.8
Madagascar	LF	25	4,129,306	2,786,251	67.5
	SCH	63	3,365,648	2,705,026	80.4
	STH	25	1,613,163	1,203,426	74.6
Mozambique	STH	62	4,686,811	1,108,902	23.7
Nigeria	LF	17	4,527,007	2,410,984	53.3
	Oncho	23	3,178,564	3,549,448	111.7
	SCH	169	8,474,148	7,836,373	92.5
	STH	22	2,100,575	1,225,800	58.4
Somalia	SCH	7	2,243,108	2,549,993	113,7
	STH	10	2,441,051	215,602	8.8%
South Sudan	SCH	9	1,231,448	201,862	16.4
	STH	5	444,113	449,724	101.3

Table 4: Population and IUs targeted for MDA support with ESPEN funding in 2021

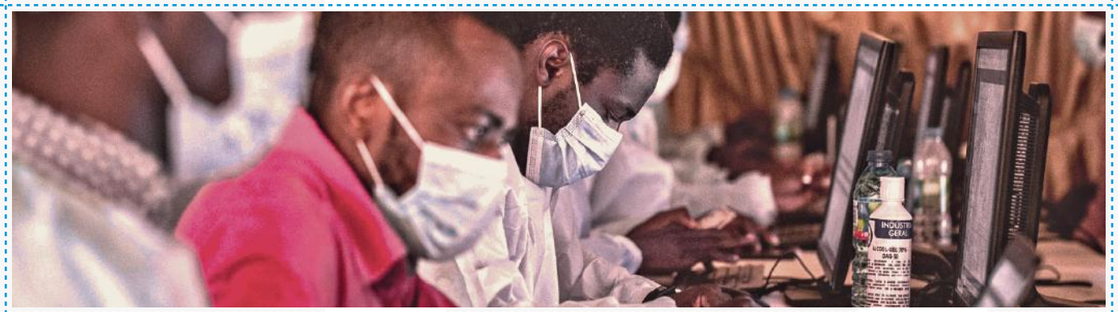
Country	Population and IUs Targeted for MDA										Budget (US$)
	LF		ONCHO		SCH		STH		TRA		
	Target Pop	#IUs	Target Pop	#IUs	Target Pop	#IUs	Target Pop	#IUs	Target Pop	#IUs	
Burundi	-	-	2,100,985	12	-	-	1,233,974	-	-	-	$ 176,370.00
Comoros	405,826	7	-	-	-	-	124,762	7	-	-	$ 148,000.00
Congo Republic	906,052	10	132,544	6	1,473	-	1,473,534	**52**	-	-	$ 391,460.00
DRC	10,585,422	60	1,860,901	12	-	-	254,674	-	1,976,336	10	$ 1,609,787
Equatorial Guinea	868,590	17	-	-	-	-	-	-	-	-	$ 64,681.00
Kenya	2,419,209	20			1,359,539	8	1,359,539	8	-	-	$ 1,387,432.00
Madagascar	4,081,695	24	-	-	-	-	-	-	-	-	$ 1,073,984.00
Nigeria	4,649,043	17	2,236,902	15	7,506,568	38	7,506,568	38	-	-	$ 645,000.00
South Sudan	1,334,680	5	2,114,319	9	1,359,539	44	1,359,539	44	-	-	$ 973,173.00
The Gambia	-	-	-	-	1,664,835	16	-	-	-	-	$ 125,476.10
STP	214,610	7	-	-	-	-	-	6	-	-	$ 55,873.00
Sudan	-	-	-	-	-	-	-	-	219,863	1	$ 117,000.00
Zambia	11,870,996	84	-	-	-	-	-	-	-	-	$ 4,641,328.90
TOTAL	**37,336,123**	**251**	**8,535,465**	**55**	**11,891,954**	**106**	**13,312,590**	**155**	**2,196,199**	**11**	**$ 11,409,565.00**

D/ Strengthening information management system

Summary

ESPEN's major achievements in 2021 include:

- ESPEN Data Portal has seen the number of disease-specific maps increased to over 12,000, including data from activities implemented in 2020.
- New disease specific dashboards displaying major NTD indicators concerning endemicity and MDA/PC interventions by country have been developed.
- Analytical dashboard showing projections on treatment and survey needs until 2030 has been developed and embedded in the ESPEN NTD Data Portal.
- ESPEN JAP import tool has been finalized and currently 487 number of reviewed and validated JAP reports ave been made publicly available.
- In 2021, 10,343 users visited the ESPEN portal from 174 countries (of which 55 from Africa) during 23,911 sessions.
- In 2021, ESPEN has received 33 requests to use ESPEN Collect platform for surveys to be conducted in 10,378 sites from 20 countries: Angola, Benin, Botswana, Burkina Faso, Burundi, Cape Verde, Republic of the Congo, Cote d'Ivoire, Ethiopia, Ghana, Guinea, Liberia, Madagascar, Mozambique, Nigeria, STP, Senegal, Togo, Uganda and Zambia.



Data-driven decision making is one of the key pillars of ESPEN. If NTD programmes are to be successful, collection and use of programme and epidemiological data are critical. The amount of data collected through the NTD programme is enormous and properly collecting, storing, analysing and using these data might require skilled personal and platforms. Through ESPEN, the WHO Regional Office for Africa developed its online portal, a user-friendly platform that allows key stakeholders to access and use sub-national PC-NTD data. The consolidated repository hosts data shared by health ministries through the the Joint Application Package reporting system and provides a detailed ongoing picture of the status of NTD programmes targeting PC-NTDs. Information is linked at the implementation unit level and can be freely accessed, enabling better tracking of progress, supporting cross-disease coordination, and facilitating comprehensive forward planning. Through the portal, users can readily view, and download validated, reliable longitudinal data and maps for planning and reporting purposes.

In its first phase, the ESPEN NTD Portal made endemicity and treatment status maps and related data at the level of the implementation unit (IU) publicly available. Since launching the portal, more NTD data has been made available, processed, and included in the integrated database at regional level. Currently, the ESPEN data repository compiles epidemiological and treatment data since 2014 and significant efforts are under way to collect historical data. ESPEN, with the approval granted from country programmes and Ministries of Health, is also releasing community level data for lymphatic filariasis, onchocerciasis, schistosomiasis, soil-transmitted helminthiases and loiasis for all endemic countries in the African region.

In 2021, to complement the existing suite of maps and datasets, ESPEN have now developed interactive dashboards detailing both current progress and projections for the next 10 years at the level of implementation. Using historical data compiled under the ESPEN data repository, we have forecasted when MDA interventions will be needed, what type of MDA strategy should be implemented (considering co-endemicity), and when impact assessment should be conducted, to achieve the goals established by the new 2021-2030 Roadmap for the Elimination of NTDs. These resources can greatly support completion of both National NTD Masterplans, and Annual Work Plans.

Moreover, ESPEN also provided the NTD country programmes with better tools for data collection and data reporting. In terms of improving the data collection within country programmes, ESPEN has setup up a survey planning and electronic data capture platform, the ESPEN Collect Survey Support Services, also known as “ESPEN Collect”. ESPEN Collect enables standardized data collection with the aim of improving the quality and timeliness of data. It enables country NTD programmes and their implementing partners to collect and upload data into the ESPEN Portal via EPIRF submission from supported surveys. ESPEN Collect also aims to reduce data fragmentation for disease specific epidemiological assessments, such as impact assessments, surveillance surveys and baseline mapping. In 2021, ESPEN has seen an increasing demand from NTD country programmes to use ESPEN Collect platform for their mapping and impact assessment surveys. Furthermore, ESPEN Collect services team has developed a tool, which allows NTD country programmes to rapidly generate EPIRF reports from the data collected with ESPEN Collect.

In the same way, ESPEN developed the ESPEN JAP Import tool, a tool to ease the submission and validation of the periodic Joint Application Package (JAP) report by countries. Through the ESPEN data portal, the NTD country programme teams can submit online their JAP reports and follow up the entire review process together with the other parties involved in the process: WHO country office, ESPEN Data team, and WHO headquarters team. In 2021, we have seen more countries joining this system to submit and validate their JAP reports. Thus, twelve countries fully relied on the JAP Import tool to submit their reports on MDA activities implemented in 2020.

E/ Supporting countries in submitting reliable data to WHO

To monitor progress towards NTD programmes goals and planning preventive chemotherapy interventions, Ministries of Health (MoH) are asked to use five standard electronic workbooks designed by WHO to report on data: the Epidemiological reporting form (EPIRF), the Joint Reporting Form (JRF), the Joint Request for Selected Medicines (JRSM), the Annual work plan form (AW), and the Trachoma Evaluation and Monitoring Form (TEMF). The last one is provided as a stand-alone form whilst the others are part of the Joint Application Package. These forms constitute the main source of data feeding the ESPEN Data Portal.

To ensure the data reported in these forms meets a minimum data quality standard, the ESPEN data management team undertakes a thorough review and provide feedback to the country teams that include the WCO NTD focal person, MoH staff and implementing partners, for making needed corrections or providing appropriate explanations on discrepancies.

In 2021, a total of 37 treatment reports (JRF) for 2020 MDA activities, 13 survey reports (EPIRF) from 13 countries and 23 medicine requests (JRSM) for 2022 MDA were submitted by countries. Eight countries reported not having conducted MDA in 2020: Central African Republic, Equatorial Guinea, Eswatini, Ghana, Lesotho, Namibia, South African and The Gambia. From the 33 medicine request forms received for 2022, 22 have been approved and orders have been dispatched, 11 are under review at country level and 12 pending submissions by countries.

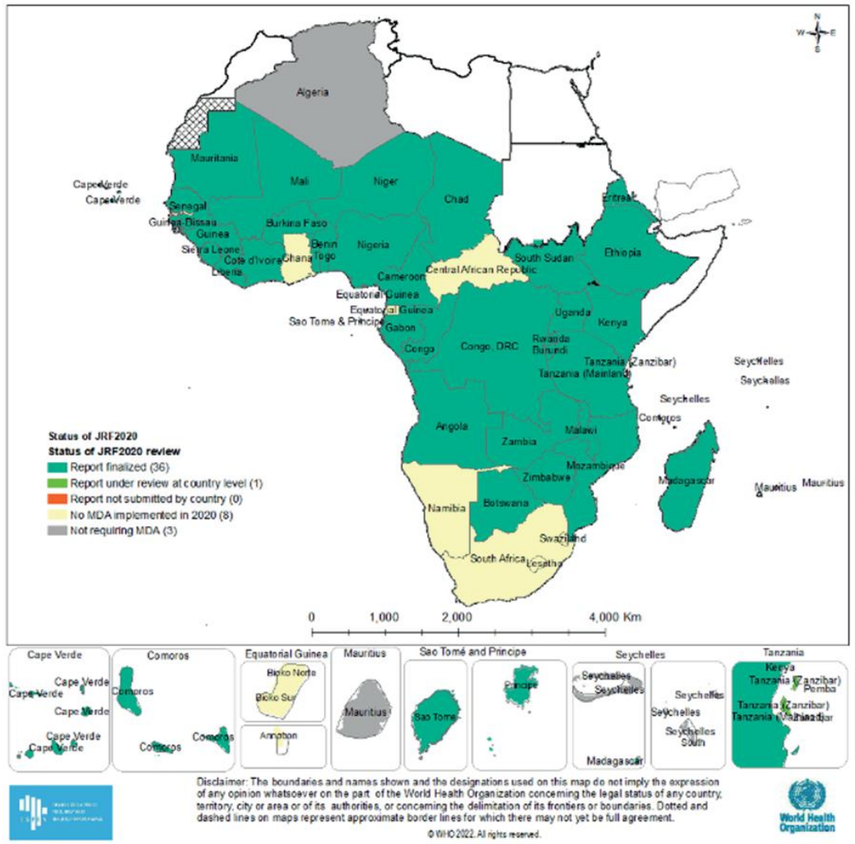


Figure 11: Status of JRF 2020 review

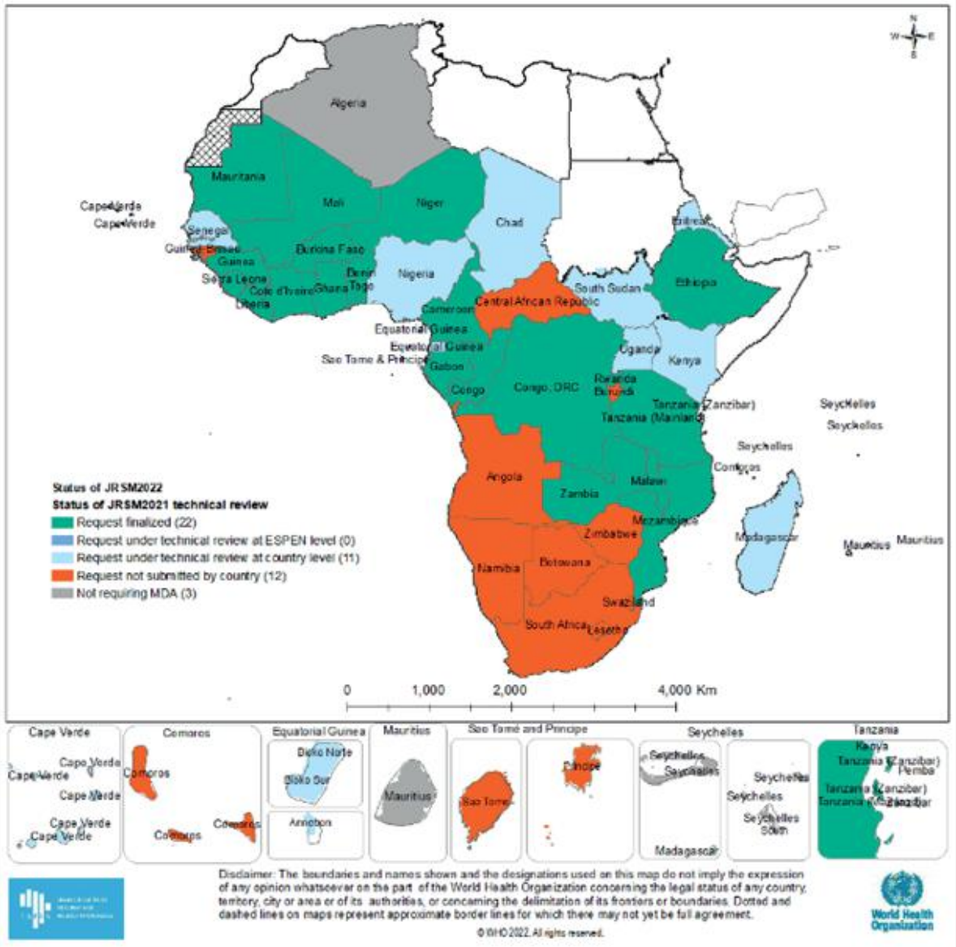


Figure 12: Status of JRSM 2021 technical review

Overall, ESPEN has managed to collect 241 JRF from countries between 2014 and 2020. Regarding the medicine request (JRSM), ESPEN has received 239 between 2014 and 2022, although still pending to complete the approval of some country reports for 2021. We have seen an increase in the number of submissions since the inception of ESPEN project in 2016. The few countries that did not submit reports are those that did not implement MDA (Figure 13).

Figure 13: Joint Reporting Form (JRF) and Joint Requestes for Selected Medicines (JRSM) submission between 2014 and 2020.

ESPEN NTD Portal

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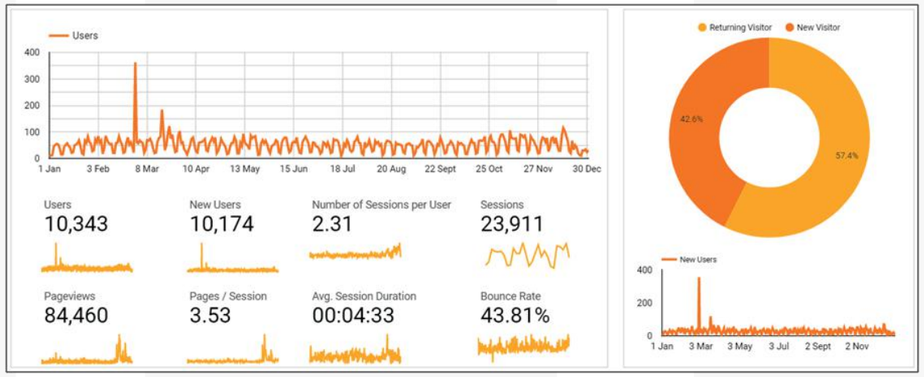


Continent	Users	Users	contribution to total: Users
	10,343 % of Total: 100.00% (10,343)	10,343 % of Total: 100.00% (10,343)	
1. Africa	3,194	30.23%	
2. Europe	3,038	28.76%	
3. Americas	2,843	26.91%	
4. Asia	1,316	12.46%	
5. Oceania	114	1.08%	
6. (not set)	59	0.56%	

Figure 14: ESPEN Portal users statistics

A/ Tracing history of implementation units districting over the years

ESPEN database includes longitudinal treatment data from 2014 to 2020 and medicine request data from 2016 to 2022 reported for each single implementation unit (IU). For monitoring the progress towards control/elimination goal and plan future impact assessment surveys, trend analysis is performed on these data. This trend analysis assumes the data is available for each implementation unit reported at the year the analysis is conducted for. A challenge faced is the continuous redistricting that some implementation units have undergone as part of the governments' efforts to strengthen health systems and bring health facilities closer to the patients. In 2018, ESPEN initiated the activity of tracing the history of each IU and the geographical changes they may have experienced (i.e.: splits, merging, reshaping). This activity has been completed for the IUs that have been reported by countries until 2021 and a database with all the recorded changes has been set up.

B/ Updating cartography of implementation units

With the update of IU history, the IUs boundaries has been updated to match the IUs existing in each year. This important update allows visualization of PC data using the exact IU division that applies to each year. The IU cartography publicly available in the ESPEN portal is a resource that can be used by other health programmes, in the same way other programmes such as WHO Polio Eradication programme are making their specific cartography available in the public domain.

Cartography database

Download

Year	Admin 0	Admin 1	Admin IU
2020	ESPEN_ADM0_2020.zip | 3.64 MB	ESPEN_ADM1_2020.zip | 8.16 MB	ESPEN_IU_2020.zip | 28.08 MB
2019	ESPEN_ADM0_2019.zip | 3.57 MB	ESPEN_ADM1_2019.zip | 8.13 MB	ESPEN_IU_2019.zip | 27.16 MB
2018	ESPEN_ADM0_2018.zip | 3.55 MB	ESPEN_ADM1_2018.zip | 8.04 MB	ESPEN_IU_2018.zip | 26.84 MB
2017	ESPEN_ADM0_2017.zip | 3.55 MB	ESPEN_ADM1_2017.zip | 8.04 MB	ESPEN_IU_2017.zip | 26.84 MB
2016	ESPEN_ADM0_2016.zip | 3.55 MB	ESPEN_ADM1_2016.zip | 8.04 MB	ESPEN_IU_2016.zip | 26.46 MB
2015	ESPEN_ADM0_2015.zip | 4.28 MB	ESPEN_ADM1_2015.zip | 10.14 MB	ESPEN_IU_2015.zip | 35.48 MB
2014	ESPEN_ADM0_2014.zip | 4.28 MB	ESPEN_ADM1_2014.zip | 10.14 MB	ESPEN_IU_2014.zip | 35.48 MB
2013	ESPEN_ADM0_2013.zip | 4.28 MB	ESPEN_ADM1_2013.zip | 10.14 MB	ESPEN_IU_2013.zip | 35.46 MB

Figure 15: ESPEN Portal cartography data base

C/ Progress and forecast analytical dashboards

Evidence-based decision making for NTDs helps drive progress. The ESPEN Data Portal has expanded to include a comprehensive suite of data dashboards designed to help NTD programmes better track rollout and impact of interventions and make data-driven decisions on future strategies.

The new ESPEN Progress and Forecast dashboards allow users to explore key statistics and analytics, graphics and maps, at both sub-national and national level. They outline current endemicity and MDA progress to date for each of the PC-NTDs, together with future treatment and impact assessment needs over the next ten years. The dashboards have been purposely designed to support national programmes to readily access and use their data, make better-informed decisions, and distribute resources more efficiently. Disease-specific dashboards can be accessed through country pages – simply visit your country page, and select the disease you are interested in.

05 ESPEN COLLECT

Summary

ESPEN Collect's achievements in 2021 include:

- 33 requests for support from 20 countries.
- 29 surveys from 14 countries received the full package on support: protocols review by diseases subject matter experts, supports in data collection, monitoring, cleaning and assistance in generation of EPIRFs.
  Analytical dashboard showing projections on treatment and survey needs until 2030 has been developed and embedded in the ESPEN NTD. Data Portal.
- 8 partners used ESPEN Collect for surveys: CBM, Crown Agents, FHI360, HKI, Mentor initiatives, SCI, LSHTM and Sightsavers
- 5 New countries used ESPEN Collect this year: STP, Ethiopia, Burundi, Botswana and Guinea.
- ESPEN provided in total 96 smartphones to Botswana, Ethiopia, Republic of Congo and Togo.
- ESPEN Collected was used to collect data from 1379 districts and 10,378 sites (school and village)

In 2021, a total of **29** surveys were supported in **10,378** sites from **1379** districts across **14** countries to conduct epidemiological and coverage evaluation surveys. All these surveys were conducted by NTD country programmes in collaboration with several international and local stakeholders: Crown Agents (Ascend project), FHI360, Christian Blind Mission (CBM International), Hellen Keller International (HKI), Mentor Initiatives, Schistosomiasis Control Initiative Foundation (SCI), Sightsavers, London School of Hygiene & Tropical Medicine (LSHTM) and ESPEN. NTD country programmes have benefited from the support provided by these partners to buy smartphones for data collection, funding, training facilitation, and data management.

Below is the survey scale up per year:

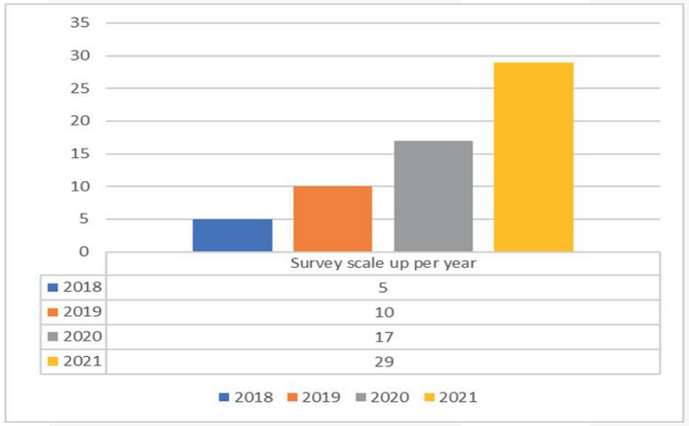


Figure 16: ESPEN Collect survey scale up

All the 4 PC-NTDs targeted by ESPEN Collect services were supported in 2021. Figures 17 & 18 show more details on the surveys conducted using ESPEN Collect since the inception of ESPEN Collect Services in 2018 and in 2021, respectively.

In addition to disease-specific assessments, ESPEN has been using ESPEN Collect to deliver a variety of qualitative surveys to collect information concerning the programmes functioning, like the impact of Covid-19 on the implementation of NTDs control activities.

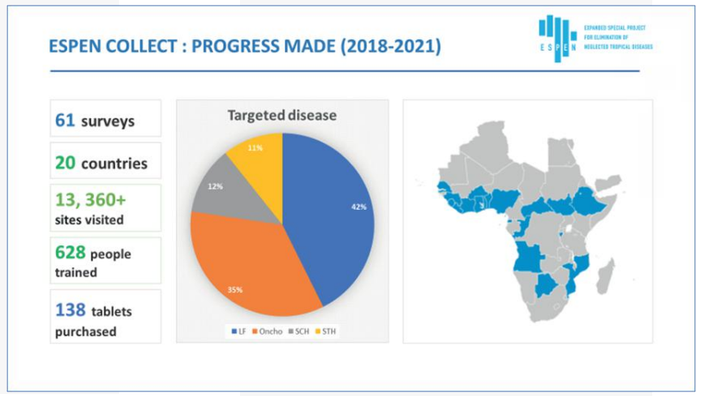


Figure 17: ESPEN Collect Dashboard with major milestones (2018 – 2021)

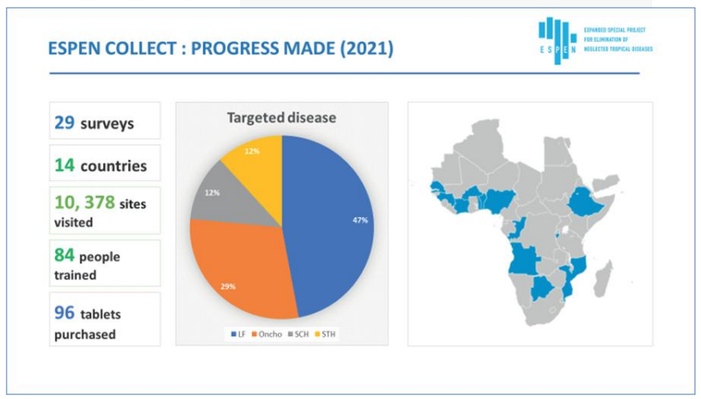


Figure 18: ESPEN Collect Dashboard with major milestones in 2021

Table 5: Number of surveys per country.

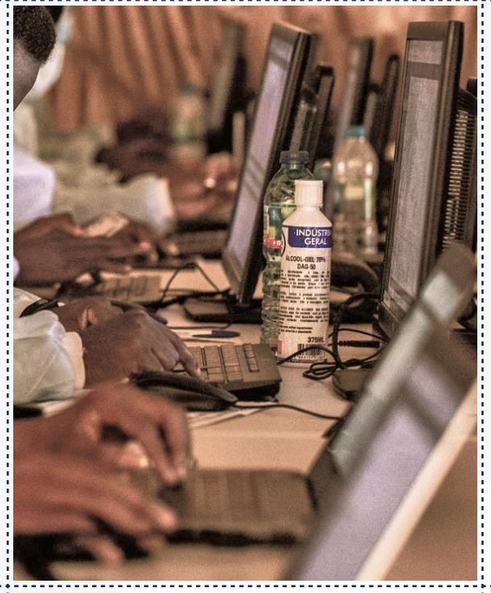
Country	LF surveys	SCH /STH Surveys	Oncho surveys
Angola	0	1	0
Benin	2	0	0
Botswana	0	1	0
Burkina Faso	2	0	3
Burundi	0	0	1
Congo	0	0	2
Cote d'Ivoire	2	0	0
Ethiopia	0	1	0
Guinea	0	0	1
Mozambique	3	0	0
Nigeria	1	0	1
STP	1	0	1
Senegal	5	0	0
Togo	0	1	1
Total	**16**	**4**	**10**
Number of sites surveyed	**2,277**	**7,566**	**1,181**

ESPEN JAP Import tool

To improve availability of preventive chemotherapy for country programmes and stakeholders, ESPEN has improved its internal data management system by developing new file upload tool and an Extract-Transform and Load tool. Using these tools, the forms below have been made publicly available through the ESPEN Portal:

- **34** treatment reports for 2019 MDA
- **34** treatment reports for 2020 MDA
- **33** medicine request forms for 2021 MDA
- **6** medicine request forms for 2022 MDA

Overall, the ESPEN Data Portal has made available 178 treatment report forms, 169 medicine request forms, 27 Annual workplan forms.



ESPEN Analytics

ESPEN is committed to provide evidence-based guidance to NTD country programmes so that their decisions are better informed and adjusted to their current epidemiological situation. For this, we have continued processing all the data compiled under the ESPEN Data repository, including the data extracted from the recently submitted JRF 2020 report, to generate key indicators for monitoring and evaluating progress towards disease-specific control and elimination targets. These key indicators are intended to measure the impact of the MDA interventions over time and to determine the areas, which may require more attention by the NTD programmes. The ESPEN Data team has generated through these analyses endemicity and treatment related indicators at different geographical level: implementation unit and country level, and for the whole African region.

These indicators are being released through the ESPEN Data Portal as maps, tables and more recently using country and disease specific dashboards. Analytical dashboards for monitoring progress are available for each PC-NTD disease and by country and include key statistics by year including demographics and implementation unit level summaries for PC interventions. Progress dashboard provides with a simple graphic to monitor the national coverage by year. There are also detailed graphics highlighting trends in population and MDA coverage at implementation unit level over time. Finally, there is an interactive map showing treatment coverage over time which is linked to an IU level plot showing PC treatment coverage. All the charts and plots are downloadable.

New analytical dashboards with projections of treatment and survey needs until 2030 has also been created and embedded in the ESPEN NTD Portal. As well as the progress dashboard, projections are available for each PC-NTD disease and by country and include key statistics and indicators by year projecting MDA and survey needs for each disease until 2030. It provides with a simple graphics showing disease specific timeline, and an interactive map showing the number of MDA required to achieve the disease control or elimination, which is linked to an IU level PC plot showing treatment and survey needs for the coming years.

All the charts and plots are downloadable. In addition, the users can download country and implementation unit data on projections (Figure 19).

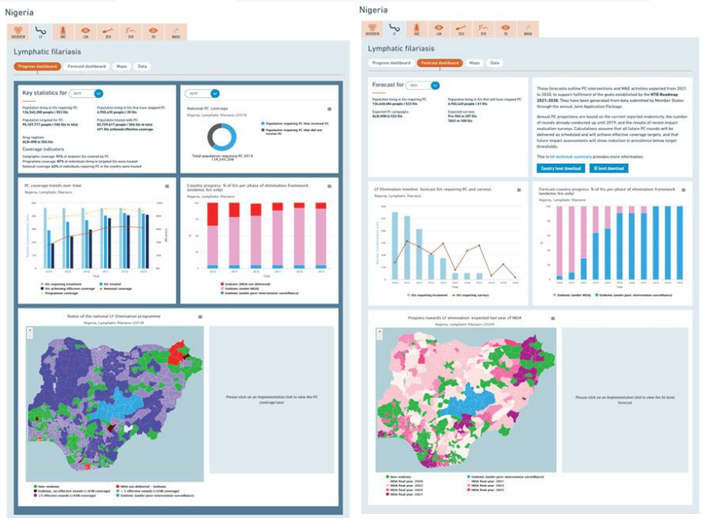


Figure 19: Progress and forecast analytical dashboards (country and disease specific)

We have also generated disease specific indicators for the entire African region. These indicators have been made available through the different services and tools embedded in the ESPEN NTD Data portal, including a new country landing page feature..

A/ Setting up a Country Health Information Platform (CHIP)

ESPEN, in collaboration with Sightsavers engaged in a time-limited activity entitled “Country Health Information Platform (CHIP) – A nationally managed data product to improve access to longitudinal data through ESPEN Platform integration”. The aimed to design a data visualization tool that will help to review data submitted as part of the Joint Application Package (JAP) and Trachoma Elimination Monitoring Form (TEMF) at national, regional, and district levels, avoiding additional data entry at the countryside. CHIP uses data already submitted by Ministries of Health to WHO and available on ESPEN Portal without any additional data input needed. Five (5) countries have been engaged in the pilot phase: Cameroon, DRC, Guinea, Kenya and Malawi. During this pilot phase countries were supported in identifying and filing historical data gap gathering their and needs on relevant visualizations. Following the successful implementation of the pilot phase, the CHIP platform has been embedded into the ESPEN portal and the visualizations (Figure 20) are available for 13 countries that requested their enrolment using this URL https://espen.afro.who.int/tools-resources/chip

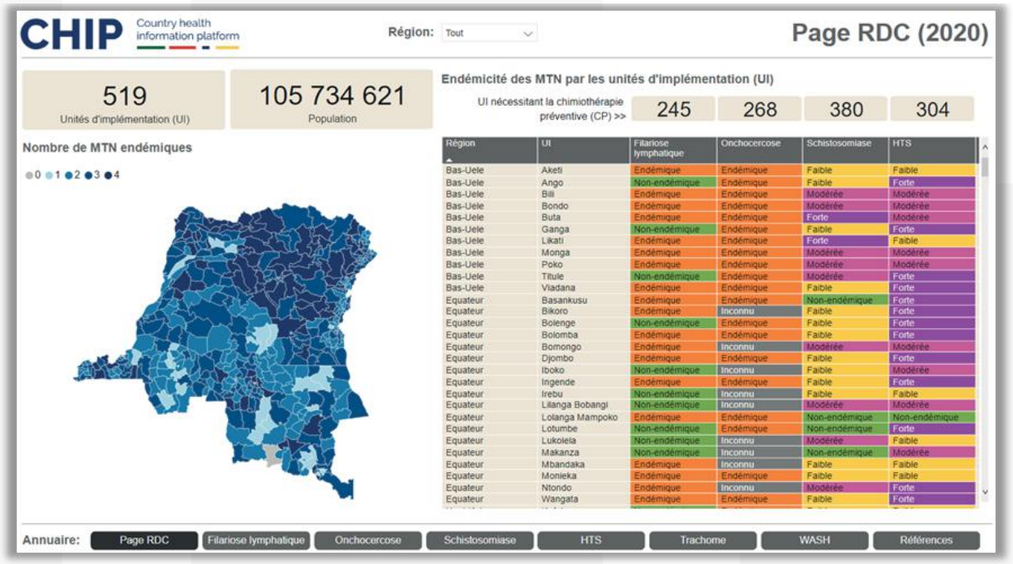


Figure 20: Progress and forecast analytical dashboards (country and disease specific)

B/ Identifying funding gap due to the early interruption of the ASCEND project

ESPEN has developed an analytical tool that presents for each IU, endemicity status, interventions and survey needs, and funding gaps for the coming three years. This pre-populated country MS Excel based workbooks were organized to collect the latest updates on gaps for five diseases (i.e. lymphatic filariasis, onchocerciasis, schistosomiasis, soil-transmitted helminthiases, and trachoma) in 2021 and 2022. The country workbooks have been shared and reviewed with programme and data managers from affected countries and WHO country officers. Fourteen virtual meetings with the country teams were organized in July to present them for updating and validation.

This tool will be presented in 3 phases:

- ☑ Phase 1: IUs previously covered by ASCEND, for MDA and survey gaps.
- ☑ Phase 2: All IUs in all 22 countries previously covered by ASCEND to identify potential existing or expected gaps for MDA, survey and morbidity management and disability prevention (MMDP) activities.

☑ Phase 3: All endemic IUs in all the countries in the WHO African region for MDA, survey and MMDP gaps
Phase 1 has been completed, and phases 2 and 3 are underway. Results for the phases 2 & 3 will be shared in the coming months.

C/ Applying modelled data to address programmatic challenges

In 2021, ESPEN data team has continued to explore new sources of modelling data that can be used by NTD country programmes to make better informed programmatic decision. Summary country reports with major outcomes of onchocerciasis environmental modelling have been generated for 15 African countries that require onchocerciasis elimination mapping (OEM) or remapping. ESPEN data team has prepared country reports and workbooks with environmental indicators (probability of occurrence, maximum environmental suitability) for those implementation units that may reportedly be eligible for OEM. In April and May 2021, we have conducted two webinars covering anglophone and francophone countries to present the potential utilization of environmental suitability to identify priority areas for OEM. ESPEN is planning to validate some of the products develop around the modelled environmental suitability for onchocerciasis with field data obtained during OEM conducted in Ethiopia, Guinea Bissau, Mozambique and Angola. For this, ESPEN is joining forces with onchocerciasis control programmes and partners, such as Sightsavers and The END Fund. Furthermore, ESPEN data team has constructed environmental suitability models for schistosomiasis, species-specific (S. mansoni and S. haematobium) and generic models (Schistosoma spp). These models are to be used in a new analytical framework to estimate endemicity at community-level area.

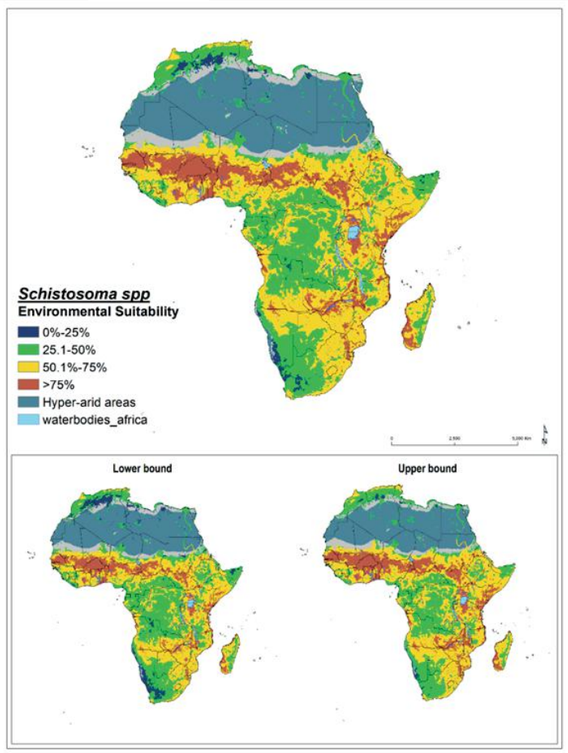


Figure 21: Potential environmental suitability for Schistosoma spp

D/ A strong partnership for a strong data system

ESPEN established a strong partnership with the London School of Hygiene & Tropical Medicine (LSHTM), Manta Ray Media, Sightsavers and Standard Code for the development of the ESPEN NTD Data Portal and all the available supporting tools. During 2021, the LSHTM team continued providing technical support in the data management, guidance to enhance the contents of ESPEN Portal and develop new features to improve the interaction with the data. In addition, capacity building training and data analysis support have been provided by the LSHTM. Manta Ray Media provides service in developing the ESPEN Portal website and generating enhanced visualization tools. Standard Code has continued developing new tools for a more efficient access to NTD data. Thus, a wealth collection of APIs (Application Programming Interface) has been generated by Standard Code so that the users can easily gain access to the data and run more efficient queries against the database. Sightsavers provides two technical staff who are fully dedicated to the implementation of the ESPEN Collect. In 2021, the partnership worked towards consolidating and enhancing all the features available at the ESPEN Portal. This year has seen the completion of new analytical tools, interactive dashboards detailing both current progress and projections for the next 10 years at the level of implementation for guiding NTD country programmes decision and planning.

E/ Strengthening Supply Chain Management

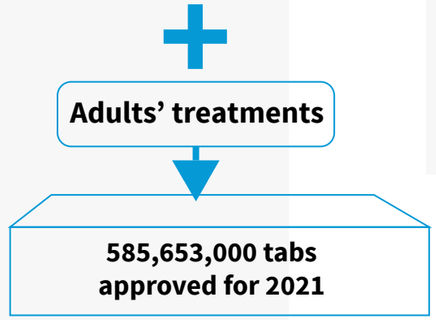
In terms of strengthening supply chain management of PCT-donated medicines in 2021 in the African region, ESPEN achieved great results in areas such as timely review and clearance of medicines requests (JAP) for planned treatments of 2021 as well as the JAP for planned treatments of 2022, efficient monitoring of medicines utilization to reduce expiry and wastage rate, inventory tracking to reduce wastage rate due to FCDO funding cut and COVID-19, proactive support in the coordination of shipment and medicines delivery and storage at central medical stores, significantly reducing green-light lead-time, tax exemption and customs clearance delays.

Medicines requests (JAP) review and clearance for planned treatments of 2021 and 2022

Endemic countries are required to prepare and submit quality medicines requests as per the WHO official deadlines (15th March and 15th July of each year) and it takes approximately six to ten months from the time a request is approved until medicines reach the national warehouse. To ensure that endemic countries have timely access to sufficient quantities of donated medicines in 2021, ESPEN managed to approve allocations of **585,653,000** tablets of ALB, MEB, PZQ and DEC, for a total number of **37 countries** out of **44**, saving **283,120,158** equivalents to $ 20 million, out of a total of **868,773,158** unnecessarily requested by countries (Table 6).

Table 6: Medicines requests and review 2021

Medicines	Tablets initially requested	Tablets approved	N# of Tablets saved	Unit price	Total costs saved in USD
PZQ	277,489,348	161,264,349	116,224,999	0.13	15,109,250
ALB	364,526,012	277,251,129	87,274,883	0.03	2,618,246
MEB	75,555,755	48,365,646	27,190,109	0.0495	1,345,910
DEC	63,524,826	11,094,659	52,430,167	0.02	1,048,603
Total	**781,095,940**	**497,975,782**	**283,120,158**		**20,122,010**



The same exercise was conducted to secure sufficient supply of NTDs donated medicines for planned treatments in 2022, by providing support to member-states in the review of the JAP and contributed to saving almost 206 M tablets valued at 15,1 million US dollars, as of March 2022. This figure may increase in view of the additional requests to be received and those currently under review by ESPEN. Practically saying, these 206 M tablets were reallocated in countries which most needed them, to avoid overstocking, huge expiries, wastage, leakage, and diversion (Table 7)

Table 7: Medicines requests and review 2022

Medicines	Tablets initially requested	Tablets approved	N# of Tablets saved	Unit price	Total costs saved in USD
PZQ	204,950,538	119,268,080	85,682,457	0.13	11,138,719
ALB	147,375,678	47,050,000	100,325,678	0.03	3,009,770.34
MEB	60,624,000	39,696,000	20,928,000	0.0495	1,035,936
DEC			-	0.02	-
Total	**412,950,216**	**206,014,080**	**206,936,135**		**15,184,426**

Efficient monitoring of medicines utilization to reduce expiry and wastage rate
In 2021, ESPEN monitored medicines wastage and the impact on efficient supply chain management. It was very important to carry out that exercise to be able certify the quantities of drugs, which reach the targeted communities, as compared to the overall quantities of medicines supplied. In public health supply chains, acceptable wastage rate is across **2%** to **4%** or max **5%** of the volume supplied as a sign of rational use and stewardship in rationalization of health finance resources.

It was noticed that the quantities of medicines damaged, wasted or lost during 2020 and 2021 MDA was around **5,286,781** tablets while **63,892,543** tablets expired between 2020 and 2021 either due to short shelf-life, poor MDA planning, inaccurate quantifications and forecasting, poor distribution planning, poor inventory management, COVID-19 impact, or lack of funding to conduct MDA, resulting in a total wastage of **69,179,322** tablets out of a total donated quantity of **1,081,588,000** tablets of 2020 and 2021. The average wastage rate was **6,5 %** and may increase if we add the quantities of tablets damaged during 2021 MDA as this information will be made available when 2021 treatments reports are ready and shared by countries NTD programmes.

Proactive provision of support in the coordination of shipment and medicines delivery and storage at central medical stores, significantly reducing green-light lead-time, tax exemption and customs clearance delays

ESPEN continued to provide regional technical support to countries NTD programmes, DHL and pharma donors on a daily basis, in terms planning and monitoring of shipments going from airfreight and sea freight booking, pre-shipment inspections, import permits, green-light processes, tax exemption and customs clearance, to ensure free flow of the donated medicines and timely arrival of drugs at central medical stores amidst the COVID-19 pandemic.

From a total of **91** shipments for the planned 2021 treatments, **93%** of shipments arrived in-country in 2021 while **7%** were still under shipment process as of February 2022. The **7%** remaining shipments were mainly for the following countries: **Zanzibar, Liberia, Cabo Verde, Gabon, Mozambique, Guinea Bissau & DRC.**

Inventory tracking to mitigate FCDO funding cut and COVID-19 expiry risks.

ESPEN provided real-time support in monitoring country accurate inventory reporting to mitigate expiry risks as the FCDO announced funding cuts in 2021. At the early stage of the information about FCDO funding cut, almost **63 million** tablets of PZQ were at risk of expiry in 2021 and 2022 if no funding is available to fully use the drug, and by 2023 almost **280 million** tablets of PZQ would be expiring if not used before expiration date. ESPEN jointly organized meetings with the with affected countries and advocated for more transparency and responsibility in sharing accurate inventory data and advocating with countries to develop contingency plans involving all the stakeholders while ESPEN was exploring funding gaps and checking priorities areas where to provide support. That helped to save about **57 million** tablets making sure they were used before reaching expiration dates, by end of 2021 as only **2.8 million** tablets were reported as expired in one of FCDO previously supported countries (Tanzania)

08 PARTNERSHIPS AND COORDINATION

Fourth Meeting of NTD Programme and Data Managers

The fourth meeting of NTD programme and data managers was held virtually on **15** and **16** December 2021. The objective of this fourth meeting was to introduce the new technical support structures at WHO/AFRO to NTD country programmes and stakeholders; to discuss renewed disease specific targets for the African region as included in the NTD Roadmap 2021-2030; and to present new guidance tools and resources intended to help NTD programmes better plan their interventions for the coming years.

The meeting was attended by **337** and **322** registered participants, on the first and second day respectively, from WHO headquarters, WHO in the African Region, programme managers from ministries of health, national professional officers in country offices, and partners. It was noted that the year 2021 was marked by the ongoing COVID-19 pandemic as well as the unexpected early interruption of the UK FCDO funding to the ASCEND project, which was providing support for NTD activities to over 1,800 implementation units across Africa. WHO/AFRO sees the importance of integration across diseases and programmes. To promote integration and cross learning among different disease programmes, communicable and non-communicable diseases are brought under the same cluster and form the Universal Health Coverage, Communicable and Non-Communicable Diseases (UHC/CND or UCN), where ESPEN belongs. This new structure of the WHO Regional Office for Africa brings a unique opportunity to fully implement the integration envisaged in the NTD road map 2021-2030. Within the Team of Tropical and Vector-Borne Disease (TVD), it provides the structural support for NTD full integration and collaboration with communicable and non-communicable diseases as well as with other clusters contributing to Universal Health Coverage.

FINANCIAL OVERVIEW

Table 8: Fund Utilization by Objective from January to December 2021.

Objectives	January to December 2021 Fund Utilization by Objective
HR Cost	2,488,065.45
Objective 1	8,444,135.48
Objective 2	1,162,747.19
Objective 3	131,109.91
Objective 4	405,709.02
Objective 5	93,388.44
Grand Total	**12,725,155.49**

Table 9: Distribution and Utilization of Funds by Country Office in 2021

Budget Centre	Objective Funded	Distributed to the Budget Centre in 2021(USD)	Utilization in 2021 (USD)	Unutilized Balance in 2021 (USD)
AF_AGO Angola	HR Cost		-	-
AF_AGO Angola	Objective 1	8,500.00	726.00	7,774.00
AF_BEN Benin	Objective 3	1,408.00	1,407.66	0.34
AF_BDI Burundi	Objective 1	24,330.00	16,413.58	7,916.42
AF_CVP Cape Verde	Objective 1	50,000.00	49,453.84	546.16
AF_COM Comoros	Objective 1	144,815.00	44,943.54	99,871.46
AF_COM Comoros	Objective 2	4,640.00	1,018.94	3,621.06
AF_COG Congo, Republic of	Objective 1	627,050.00	612,643.88	14,406.12
AF_COD Democratic Republic of Congo	Objective 1	1,705,960.00	1,566,993.63	138,966.37
AF_GNQ Equatorial Guinea	Objective 1	235,267.00	210,869.44	24,397.56
AF_ERI Eritrea	Objective 1	194,858.00	194,705.62	152.38
AF_ETH Ethiopia	Objective 1	303,650.00	199,406.39	104,243.61
AF_GMB Gambia	Objective 1	125,476.00	92,539.19	32,936.81
AF_GHA Ghana	Objective 1	50,000.00	37,621.17	12,378.83
AF_GIN Guinea	Objective 2	55,810.00	34,350.41	21,459.59
AF_GIN Guinea	Objective 3	12,141.00	11,641.56	499.44
AF_KEN Kenya	Objective 1	103,000.00	13,737.73	89,262.27
AF_LBR Liberia	Objective 2	2,066.00	1,963.75	102.25
AF_MDG Madagascar	Objective 1	338,538.00	161,273.52	177,264.48
AF_MLI Mali	Objective 1	9,875.00	-	9,875.00
AF_MWI Malawi	Objective 1	349,506.00	188,185.47	161,320.53
AF_MWI Malawi	Objective 2	5,400.00	5,399.74	0.26
AF_MRT Mauritania	Objective 2	31,560.00	5,756.55	25,803.45
AF_MOZ Mozambique	Objective 1	91,454.00	90,562.50	891.50
AF_NAM Namibia	Objective 1	43,842.00	-	43,842.00
AF_NGA Nigeria	HR Cost	102,000.00	98,894.64	3,105.36
AF_NGA Nigeria	Objective 1	551,000.00	541,962.94	9,037.06
AF_NGA Nigeria	Objective 2	263,000.00	262,227.17	772.83
AF_NGA Nigeria	Objective 3	110,000.00	109,272.02	727.98
AF_SEN Senegal	Objective 2	43,529.00	32,794.02	10,734.98
AF_SLE Sierra Leone	Objective 1	8,585.00	1,504.00	7,081.00
EM_SOM Somalia	Objective 1	77,980.00	77,960.00	20.00
AF_SSD South Sudan	Objective 1	1,065,322.00	403,513.56	661,808.44

AF_SSD South Sudan	Objective 1	1,065,322.00	403,513.56	661,808.44
AF_STP Sao Tome & Principe	Objective 1	108,468.00	108,246.95	221.05
EM_SUD Sudan	HR Cost	159,350.00	82,371.75	76,978.25
EM_SUD Sudan	Objective 1	200,000.00	82,132.15	117,867.85
AF_TZA Tanzania	Objective 1	116,074.00	30,612.44	85,461.56
AF_TCD Chad	Objective 1	295,848.00	275,320.99	20,527.01
EM_YEM Yemen	Objective 1	200,000.00	146,021.20	53,978.80
AF_ZMB Zambia	Objective 1	1,197,650.00	870,571.24	327,078.76
AF_ZMB Zambia	Objective 2	490,762.00	162,623.70	328,138.30
AF_ZWE Zimbabwe	Objective 1	7,700.00	6,398.43	1,301.57
HQ/UCN/NTD-ACT-PTC	Objective 1	18,377.00	18,377.00	-
HQ/UCN/NTD-ACT-PTC	Objective 2	4,830.00	4,830.00	-
HQ/UCN/NTD-ACT-PTC	Objective 3	2,376.00	2,376.00	-
HQ/UCN/NTD-ACT-PTC	Objective 4	14,535.00	14,535.00	-
HQ/UCN/NTD-ACT-PTC	Objective 5	9,446.00	9,446.00	-
++Grand Total		**9,565,978.00**	**6,883,605.31**	**2,682,372.69**

Table 10: Available funding 2021 - 2022 and beyond

Donor	End Year	Award End Date	Country/ Activities	Award Amount USD	PSC Amount (USD)	Cumulative Utilization (USD)	Award Balance excl. PSC as of 31 December 2021	Available 2022 (USD)	Available in the Future (USD)
Bill & Melinda Gates Foundation	2021	Feb	Activities	565,000	65,000	356,968	143,032	143,032	
World Bank	2021	Dec	Flexible	2,893,721	189,309	2,692,032	12,381	12,381	
Bill & Melinda Gates Foundation	2022	Mar	Activities	6,003,107	392,727	4,370,337	1,240,043	1,240,043	
Qatar Fund for Development	2021	Dec	Flexible	3,000,000	196,262	2,586,347	217,391	217,391	
Merck Sharp and Dohme Corp.	2021	Dec	Country & activities	500,000	32,710	228,821	238,469	238,469	
Bill & Melinda Gates Foundation	2022	Mar	Country & activities	7,500,000	490,654	6,198,878	810,468	810,468	
China funding agency	2022	Sep	Activities	336,735	38,739	297,996	(0)	(0)	
USAID	2022	Sep	Flexible	3,997,175	261,497	2,077,212	1,658,466	1,658,466	
Swiss Development Cooperation Agency (SDC/DDC)	2024	Jul	Activities	7,040,000	460,561	3,462,132	3,117,307	948,181	2,169,125
Korea International Cooperation Agency (KOICA)	2023	Sep	Country & activities	4,959,495	324,453	3,414,794	1,220,248	685,140	535,108
End Fund	2022	Dec	Activities	1,504,427	98,421	741,596	664,411	664,411	
Sightsavers	2021	Dec	Activities	396,040	25,909	84,000	286,131	286,131	
Japan Ministry of Health	2022	Dec	Flexible	974,463	63,750	562,935	347,778	347,778	
Germany Ministry of Health	2022	Feb	Flexible	559,902	64,413	435,528	59,961	59,961	
Germany Ministry of Health	2022	Feb	Flexible	262,530	30,203	210,557	21,770	21,770	
Sightsavers	2022	Jun	Country & activities	55,700	3,644		52,056	52,056	
Christoffel-Blindenmission	2022	Aug	Country	230,793	15,099		215,694	215,694	
Japan Ministry of Health	2022	Dec	Flexible	920,741	60,235	119,498	741,008	741,008	
Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ), Germany	2023	Nov	Activities	5,844,740	364,712		5,480,028	2,740,014	2,740,014
				47,544,569	**3,178,298**	**27,839,631**	**16,526,642**	**11,082,394**	**5,444,247**

Further, ESPEN would like to acknowledge the previous funding support from The Taskforce for Global Health (TFGH), Johnson & Johnson, Reaching the Last Mile Fund (RLMF), OPEC Fund for International Development (OFID), GSK, The Cater Center, Arab Bank for Economic Development in Africa (BADEA), The Kuwait Fund for Arab Economic Development (KFAED), DFID (currently FCDO) and The World Bank without which ESPEN would not have achieved the current milestones.

ANNUAL REPORT 2021

ESPEN
Expanded Special Project
For Elimination Of
Neglected Tropical Diseases

World Health Organization
REGIONAL OFFICE FOR Africa