Recommendations of the Regional Programme Review Group

from 28 June to 1 July 2022

World Health Organization
REGIONAL OFFICE FOR South-East Asia

The WHO South-East (SE) Asia Region accounts for over 60% of the global burden of lymphatic filariasis (LF), with about 56% of the target population requiring preventive chemotherapy (PC) for soil-transmitted helminthiases (STH) globally and a small population at the risk of schistosomiasis (SCH) transmission.

Out of the nine LF-endemic countries in the Region, five had stopped mass drug administration (MDA) and three of the remaining four countries continued it in 2021. Of the 1072 implementation units (IUs), MDA was stopped in 725 units (68%) as of 2021 and in the remaining 347 IUs, 262 million instances of treatment, or drug packages, were provided and administered in 2021, with a coverage of 52.2%. Bangladesh is preparing the LF elimination validation dossier and Timor-Leste met the criteria to stop LF MDA nationally.

Of about 591 million pre-school-age children (pre-SAC) and SAC requiring preventive chemotherapy for STH, about 308 million (52.2%) children in eight countries were treated in 2021 and five countries sustained effective coverage. SCH is prevalent in 28 villages in Indonesia, with about 29 000 people at the risk of infection. The programme has achieved a very low prevalence of infection in human population and hereafter, an enhanced surveillance is required.

The Regional Programme Review Group (RPRG) appreciated the progress made by the activities towards elimination of LF and SCH and control of STH despite the limitations due to COVID-19. The challenges to effective implementation of LF elimination programmes include persistent transmission and survey failures despite several rounds of MDA, a gap in the supply of quality-assured drugs and diagnostic tests, and a lack of systematically implemented post-validation surveillance.

The Group appreciated the fact that the deliberations during the current review primarily focused on the major technical and operational issues in the Region to identify appropriate measures to mitigate the challenges.

Recommendations

Recommendations to the WHO Secretariat

- With the support of partners, support Member States in addressing the emerging challenges in the Region, such as increasing the frequency of pre-Transmission Assessment Survey (pre-TAS) and TAS failures, never-treated populations, achieving effective coverage in urban areas, diagnostics and medicine supply chain constraints, new endemic districts, cross-border transmission and integrating MMDP in the primary health care (PHC).
- Continue and strengthen advocacy for comprehensive national LF Morbidity Management and Disability Prevention (MMDP) programmes across the Region and promote successful models of integration with PHC, best practices and knowledge-sharing to expedite burden estimates and 100% geographical coverage of MMDP activities.
- Consider formulating a global policy on integration of NTD interventions with other public health programmes and PHC and work with Member States to facilitate integration of NTD activities (e.g. surveys/surveillance, MDA and WASH) with other public health programmes or PHC/health system functions.

- Continue dialogue between WHO and the Global Fund (GF) to enable integration of NTD activities with GF-funded activities for malaria, TB and HIV, and issue a policy paper to encourage such integration.
- Facilitate data-sharing and joint planning for synchronizing MDA against LF in districts across the border in India and Nepal.
- Develop an indicator for monitoring quality of LF post-validation surveillance (PVS).
- WHO Working Group on Monitoring, Evaluation and Research should evaluate current research on geospatial statistics for informing NTD surveys and provide systematic guidance for programmatic use across the NTDs. The current research with LF and STH can be reviewed as first examples.
- Extend support to Member States in strengthening collaboration between NTD and pharmacovigilance programmes to enhance safety in administrating NTD medicines through dissemination of the new guidance and regional and national training workshops.
- Facilitate domestic procurement of rapid test kits and drugs by Member States to meet their full demand.
- Support Member States in preparing national plans for PVS, given the appreciable progress made in achieving elimination in the Region and the WHO initiative of developing PVS guidelines.
- Share the new STH impact assessment survey guidelines and once available, support capacity-building so that Member States can follow a similar protocol and decide on the treatment frequencies and demonstrate achievement of elimination of STH.
- Support Member States to improve supply chain management, using NTDeliver for real-time tracking of medicines. The system should also include wastage management, including disaster-related loss of medicines.

Member States

A. Recommendations applicable to more than one country

- The countries are encouraged to collect geographical coordinates of surveyed sites so that a geospatial analysis can be conducted on the distribution of risk and prioritization of areas for targeted intervention and future surveys ***(all countries).***
- Member States are encouraged to improve capacity to implement high-quality NTD surveys ***(all countries).***
- Member States are encouraged to prepare microplans preferably at the level of supervisory area. In the countries already applying microplanning, microplans and the process should be improved according to the new WHO guidance ***(all countries).***
- Countries in which STH infections are endemic are encouraged to explore opportunities to integrate deworming for adolescent girls and women of reproductive age (WRA) into existing platforms, such as schools and antenatal clinics, informal training centres, adolescent-friendly clinics and services and educational institutions, where the importance of deworming can be incorporated as part of health education ***(all countries).***
- Develop and implement LF post-validation surveillance and robust response measures in countries validated for elimination of LF as a public health problem, using the guidance and new tools available, such as geospatial modelling ***(LF post-validation countries).***

- In countries that are not yet validated, PVS activities should be piloted in post-TAS 3 Evaluation Units (EUs) while waiting for all other EUs to pass TAS 3 and explore opportunities to integrate PVS in other existing surveillance platforms for sustainability ***(all LF-endemic countries).***

- The essential care package for MMDP is effective for reducing physical, mental, financial and psychosocial sufferings and improve the quality of life of persons affected with lymphedema and hydrocele. To be effective, MMDP must be integrated with the PHC system of the country. Countries are to sustain and scale up MMDP activities by systematic integration with the PHC system and other morbidity management programmes, advocacy, engagement with partners, training of health-care providers and mobilizing resources ***(all LF-endemic countries).***

- Countries are encouraged to report data from PVS and MMDP activities to WHO annually even after validation of elimination of LF as public health problem ***(Maldives, Sri Lanka and Thailand).***

- The group observed with concern the increasing proportion of failures in pre-TAS and TAS in the countries with current MDA. National programmes should dive deep into the data available on infection, including clustering of positive results and past implementation of MDA with the support of WHO. Use the checklists for improving TAS outcomes as guides and follow best practices for quality survey implementation. Involve the provincial and district programme managers concerned, local health staff and the community to identify causes and take corrective steps on a priority basis. Consider qualitative data collection to better understand how to strengthen MDA delivery ***(India, Nepal and Indonesia).***

- It is evident that never-treated (NT) population is critical for improving the impact of LF MDA. Countries are encouraged to include this indicator in any of the coverage assessment tools or epidemiological surveys (supervisors' coverage, CES, DQA, pre-TAS etc.). Using the NT data, appropriate action, such as "engage and treat" or "test and treat", can be initiated. Social mobilization can be revitalized using newer tools and approaches ***(India, Nepal, Indonesia, Myanmar).***

- Ensure that all positive individuals, identified in any LF survey, are treated with at least a single dose, preferably IDA (Ivermectin, DEC and Albendazole) [or DA (DEC and Albendazole) where ivermectin is not available]. Survey teams should have medicine with them to do so immediately. Active follow-up and extended treatment of residents around the positive individuals should be considered in the EUs that have passed TAS, if resources permit ***(Bangladesh, India, Nepal, Indonesia, Myanmar, Timor-Leste).***

- Continue to innovate and improve the quality and impact of LF MDAs and surveys through scaling up of IDA and microplanning, focusing on never-treated populations/groups, and SOPs, training and quality assurance mechanism pertaining to serological, parasitological and entomological surveys ***(India, Indonesia, Nepal and Myanmar).***

- Due to some quality-related issues of the new format of the Brugia rapid test (BRT), transmission assessment surveys in Brugia-endemic districts in Indonesia have been postponed. WHO coordinated a multicentric evaluation of the new format of BRT and shared the results with Diagnostic Technical Advisory Group (DTAG) LF subgroup for recommendations. Accordingly, the recommendations provided below for the countries using BRT for impact assessment in Brugia-endemic areas ***(Indonesia, India)***, based on the results of multicentric evaluation, can be followed in evaluating the impact of MDA.

  - For districts that are qualified for TAS 1, it is recommended that MDA is continued or mini-TAS conducted by testing adults (≥20 years) with night blood smears for microfilaria detection from 30 clusters (where the primary sampling areas are more than 40), otherwise from all clusters. In these districts, the result of the mini-TAS is accepted to determine whether MDA can stop.

- For districts that are due for TAS 2, the TAS 2 surveys can be skipped until new kits are available and if conducted at least four years after MDA has stopped, this represents TAS 3.
- For districts where TAS 3 is needed, the TAS 3 surveys should be delayed until improved Brugia rapid kits are available.
- In areas with both *W. bancrofti* and *Brugia* spp. infections, TAS may be conducted among children for *W. bancrofti,* using Filariasis Test Strip (FTS). If a school-based TAS is conducted, adults in the communities where the schools are located can be sampled for *Brugia* following mini-TAS. Alternatively, mini-TAS among adults is accepted for both species, given that night blood smears will detect microfilaria of both species.
- Collection of dried blood spots (DBS) is encouraged in all surveys, stored frozen for potential future testing.

B. Country-specific recommendations (also refer to recommendations under A)

Bangladesh

The country completed LF TAS 3 in the last EUs of the Rangpur district in 2021. All 64 provinces conducted deworming twice in 2021 for SAC, achieving 71.3% coverage (28 million SAC treated). The group commended the fact that the country conducted STH surveys using geostatistical model with WASH, climate change (annual flooding) and population movement, and the results were reviewed during the recent STH summit in June 2022. Deworming of pre-SAC, which is under the National Nutrition Services, has not been implemented since 2014.

- ❑ Update the LF dossier with the results of recently completed TAS 3 in the Rangpur district and other activities, and submit the same to WHO.
- ❑ Develop post-validation surveillance plan with a particular focus on EUs that identified antigen-positive children, including the Rangpur district, and include the plan in the dossier. Initiate PVS activities as outlined in the plan soonest.
- ❑ For STH, in the current year (2022), it is recommended that the current frequency of deworming of SAC be continued, given the disruptions of deworming in 2020 due to the COVID-19 pandemic. In 2023, annual deworming is recommended in the areas identified in the survey, where the STH prevalence is estimated to be lower than 20%. The prevalence and intensity of infection should be monitored in these areas after 2–3 years.
- ❑ The group noted that the country achieved over 90% coverage of SAC and 55% coverage of the out-of-school children through the STH programme. It is recommended that the country re-introduce deworming for pre-SAC with chewable/dissolvable anthelminthic drugs in conjunction with the Vitamin A supplementation programme.

Bhutan

RPRG noted that the programme will reduce the frequency of deworming from twice a year to once a year from 2023 onward, based on the STH prevalence and intensity data.

- ❑ Conduct STH impact assessment survey in 2024/2025 to monitor the prevalence of STH after reducing the treatment frequency.

Maldives

- ❑ Continue the planned PVS and MMDP activities in all 20 atolls, including treatment of migrant workers from endemic countries. Report the results of post-validation survey and any updated MMDP data to WHO, using the EPIRF by 15 September 2022.

- Continue implementation of annual deworming of children under five years of age and establish and strengthen the surveillance for STH transmission through the use of WHO-recommended STH impact assessment survey tools (e.g. sentinel site surveillance) to monitor the prevalence of STH. The results of lab-based surveillance for STH can be submitted to WHO to assess the readiness for integration with health facilities.

India

With the addition of newly identified endemic areas, the number of endemic districts for LF are 328, out of which, MDA has been stopped in 133 districts after passing TAS 1, and pre-TAS/TAS surveys are in progress in 62 districts. In 2021, 133 districts conducted MDA, achieving 51.3% treatment coverage (250 million people treated), of which 21 districts implemented IDA with 78.1% coverage (48.7 million people treated). In 2021, 17 EUs failed TAS.

The country has revised the LF national guidelines and prepared plans for block(sub-district)-level MDA implementation and impact assessments. RPRG commends the programme developing revised national guidelines for LF programme implementation and evaluation and downsizing the implementation/evaluation units for stronger evidence-based decision-making. RPRG noted that the programme had proposed to scale up IDA-MDA towards accelerating LF elimination. The group also noted the challenges associated with the quantity of FTS needed to conduct TAS.

The group noted that IDA was introduced in the Arwal district of the state of Bihar in India and following two effective rounds of MDA, pre-TAS was conducted and qualified for TAS. TAS 1 was conducted (n=1611) and 158 children were positive for CFA. Night blood samples from these positive children showed eight Mf-positive cases (0.5%).

The programme presented another situation for advice from RPRG. The Nagpur district in the state of Maharashtra conducted two rounds of IDA from 2019 to 2020, with reported coverage of 78.7% and 73.2% in the first and second round of IDA-MDA respectively. The district conducted TAS 1 in four EUs in this district in 2021. Two EUs (Umred and Medical), which are urban units, failed and the other two EUs passed. Following TAS 1, one more round of IDA-MDA has already been conducted in 2022.

Two rounds of deworming for STH control were conducted in 2020 with a coverage of about 66%–89%. However, STH treatment data in 2021 has not been submitted to WHO yet.

- Noting the continued challenges to attaining effective treatment coverage in urban settings, the programme is encouraged to develop innovative strategies to improve programme performance in urban areas.
- Review the situation in pre-TAS and TAS-failed districts with support of WHO and implement corrective measures. A targeted approach can be followed in situations where the infections were clustered in TAS by delineating new EUs for resurveying or implementing IDA, where appropriate.
- Ensure proficiency of survey teams, both for TAS and for the new IDA impact survey (IIS).
- The Arwal district of Bihar and the Nagpur district of Maharashtra should implement another IDA-MDA round and follow the IIS protocol.
- In scaling up IDA-MDA, use the experience from the districts that completed 2–3 rounds of MDA to achieve effective coverage.
- Until the global supply of LF diagnostic tests can be scaled up to meet India's demand, the programme should consider conducting the mini-TAS in EUs that have passed pre-TAS and have TAS 1 pending in DA districts, decreasing overall FTS requirements and allowing more surveys to be completed. In these EUs, the result of the mini-TAS is accepted to determine whether MDA can stop.

- Continue to augment the disease burden data from states and strengthen the MMDP programme to achieve 100% geographical coverage. Successful models may be studied and adopted towards a comprehensive MMDP programme.
- Expedite remapping all the uncertain districts, using the confirmation mapping protocol, and include the newly identified endemic districts under IDA-based intervention as an accelerated approach.
- Continue the implementation of deworming programmes in endemic states, as planned.
- Conduct impact surveys in seven states, as planned for 2022.

Indonesia

Out of the 236 endemic districts, MDA was stopped in 112 districts. In 2021, 31 districts implemented MDA, achieving 70.9% coverage (6.5 million people treated), of which four districts implemented IDA with 71.6% coverage (0.7 million people treated). WHO will support coverage evaluation in IDA districts in 2022. In 2021, one IU failed TAS 3 and five IUs failed pre-TAS.

In 2021, deworming was conducted in all 381 districts, achieving 55.3% coverage (11.2 million pre-SAC and 29.2 million SAC). In 2021, selective treatment was conducted for SCH in one district, treating 159 individuals. An annual prevalence survey was conducted in 28 endemic villages, with an overall prevalence of 0.22% (0%–1.72%).

- In the districts that reported failure in pre-TAS and TAS (one TAS 3 and two pre-TAS), review and analyse the data from such districts, involving the staff responsible for MDA implementation, and identify the reasons for such failure with support of WHO. Use the WHO guidance to improve TAS outcomes and take corrective steps to improve compliance.
- Implement IDA-MDA in areas that failed pre-TAS and TAS, with proper supervision and monitoring of implementation.
- For districts that received one IDA round after one DA round following a previous pre-TAS or TAS failure, a pre-TAS can proceed, if effective coverage was achieved in both rounds.
- Continue implementation of deworming programme through integration with family health and school health departments.
- The SCH elimination programme needs to consider introduction of ELISA in addition to using the Kato-Katz test in routine surveillance of S. japonicum. With support of WHO, consider cross-programme learning in this aspect with the Philippines.
- The programme is encouraged to work with WHO and partners to develop a schistosomiasis elimination surveillance strategy, considering the use of geospatial mapping and ELISA, and adopting systematic and rapid surveillance. Intensification of the intersectoral approach (e.g. CLS-WASH model, environmental modification and veterinary interventions) is also encouraged to achieve elimination by 2025, as per the country roadmap.

Myanmar

MDA has stopped in 28 out of 45 endemic districts. IDA-MDA is proposed in two districts and the remaining districts are under pre-TAS/TAS. However, it is noted that MMDP activities are not yet in full scale-up. The country has reported over 75% coverage of SAC for STH-MDA and the results of planned STH impact survey can be used to revise the treatment frequency.

The group noted that the endemicity mapping study, initiated in 2021 in one of the districts with suspected SCH cases, has not progressed due to local problems and recommended completion of the study once normality returns.

This extensive study will be expected to provide results for confirmation of endemicity of SCH in the country. The WHO Regional Office may provide necessary support, including capacity-building for the diagnostics and snail survey.

- ❑ Enumerate the number of people with lymphoedema and hydrocele in all IUs and report these data to WHO.

Nepal

LF is endemic in 64 districts. In 2021, 12 districts implemented LF MDA, achieving 75.6% coverage (5.3 million people treated). The first round of IDA was implemented in 2022 in five districts with persistent transmission despite implementation of several rounds of MDA with two drugs (DA). Starting IDA in additional 10 IUs in 2023 was proposed. RPRG noted failures of TAS 3 and pre-TAS surveys in 2021 in 15 districts. Survey failures, including failure of TAS 3 in five districts, are a concern.

There is currently no standard mechanism to follow up on and treat positives identified during LF surveys. Confirmatory LF mapping in the remaining eight districts is planned for late 2022 and 2023. LF morbidity mapping is completed in 37 districts and continuing in the remaining 27 districts. Deworming was conducted in all 77 districts, achieving 46.9% coverage (1.9 million pre-SAC and 1.8 million SAC) in 2021. The STH impact assessment survey is planned for 2022 and 2023.

- ❑ Analyse the reasons for such TAS failures, implement corrective steps and improve survey outcome with support of WHO and implementing partners.
- ❑ Proceed with the mini-TAS in Sindhuli, as recommended in prior RPRG.
- ❑ Implement IDA in the remaining districts. In view of suboptimal impact, the programme is to prepare the community adequately to improve coverage. The programme should have plans to improve compliance, which is critical for the success of MDA, particularly with IDA, which requires fewer rounds of MDA, compared with two drugs, only when effective coverage is achieved.
- ❑ Complete remapping in districts with uncertain endemicity and implement IDA-MDA in all newly identified endemic districts to accelerate elimination of LF.
- ❑ Strengthen the deworming programme for SAC and WRA with improved coverage to achieve effective coverage. Plan for the STH impact assessment survey and expedite its implementation.

Sri Lanka

The group appreciated the fact that the country continues to carry out extensive and intensive epidemiological and entomological surveys as part of PVS. The progress on surveillance for prevalence of LF infection in non-endemic districts was noted. However, detection of active foci of Brugia infection in certain areas demands more investigation on the risk factors and the possible role of zoonotic transmission.

- ❑ Carry out in-depth analysis of the PVS data, implement response measures to prevent resurgence and ensure below-threshold-level infection across the communities.
- ❑ Prepare and implement plans to eliminate LF transmission, supported by PVS and response measures.
- ❑ Consider implementing targeted IDA in any hotspot communities with >1% Mf identified during PVS activities.
- ❑ Plan activities for home-based management of lymphoedema cases, apart from continuing the efforts to reach hydrocelectomy targets, given the fact that MMDP activities are limited to only filaria clinic-based services.
- ❑ Expedite implementation of the plan for STH surveillance activities in high- and medium-risk areas.

Thailand

The group noted that the programme was progressing well with the National Strategic Plan (2018–2027) for PVS with improved financing. The group commended the programme for continued efforts towards MMDP and the implementation of the direct inspection protocol to assess the quality of care for persons with lymphoedema.

- ❑ Continue the current post-validation surveillance activities, including migrant treatment programme for LF, prioritizing zoonotic B. malayi areas and investigating reports of LF infection in non-endemic IUs.
- ❑ Share the results of the survey regarding suspected Schistosoma mekongi transmission along the border between Thailand and Lao People's Democratic Republic, once completed.
- ❑ Continue the implementation of the national helminthiasis programme with the goal of elimination of STH transmission. The results of the national survey and the remote area survey can be used to develop appropriate preventive chemotherapy strategies for STH.

Timor-Leste

LF-TAS 1 was conducted and all EUs successfully passed in 2021. No deworming was implemented in 2021. The group noted that the frequency of deworming for STH had been revised, based on the STH prevalence and intensity data, and could be implemented from 2023. The group also commended the country on successful demonstration of integrated surveillance, using LF-TAS as a platform in the co-endemic EUs for LF, STH, yaws and scabies.

- ❑ Plan TAS 3 in 2023, with the timing being four years after the last round of MDA.
- ❑ Initiate preparation of a draft dossier documenting the national LF programme achievements to date with support of WHO and partners and submit to WHO for informal review and comments by Q2 2023.
- ❑ Conduct a readiness and quality assessment of MMDP using the Direct Inspection Protocol with support of WHO and partners.
- ❑ Continue the successful demonstration of integrated surveillance of multiple diseases in further assessments too.
- ❑ Implement the integrated impact assessment of STH with LF TAS 2 to monitor impacts.