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Regional Office for South-East Asia

Elimination of lymphatic filariasis in the South-East Asia Region

Report of the Tenth Meeting of the
Regional Programme Review Group (RPRG)
Dili, Timor-Leste, 25–27 June 2013

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Elimination of lymphatic filariasis in the South-East Asia Region

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Contents

	<i>Page</i>
Abbreviations.....	v
Executive summary	vii
1. Introduction	1
2. Opening session	2
3. Action taken on the recommendations of the Ninth RPRG Meeting (2012) held in Yangon, Myanmar.....	4
3.1 Bangladesh	4
3.2 India	5
3.3 Indonesia	6
3.4 Maldives	6
3.5 Myanmar	6
3.6 Nepal.....	7
3.7 Sri Lanka.....	7
3.8 Thailand.....	8
3.9 Timor-Leste.....	8
4. Updates on global and regional programmes for elimination of LF	9
4.1 Global.....	9
4.2 Regional.....	11
5. Preventive chemotherapy	12
6. Updates from GlaxoSmithKline.....	14
7. Progress made by the Member States	14
7.1 Bangladesh	15
7.2 India	16

7.3	Indonesia	17
7.4	Nepal	19
7.5	Maldives.....	20
7.6	Myanmar.....	20
7.7	Sri Lanka	21
7.8	Thailand	21
7.9	Timor-Leste	22
8.	Technical discussions and updates on programme implementation in relation to regional strategic plans	23
8.1	Critical and important role of programme managers in data collection and management.....	23
8.2	Transmission assessment survey and capacity building.....	24
8.3	Updates on operational research needs	25
8.4	Thailand mission.....	26
8.5	Update on morbidity management.....	27
8.6	Updates on CNTD.....	27
8.7	Group discussions.....	28
9.	Closing session	29
10.	Conclusions and general recommendations	30
10.1	Conclusions.....	30
10.2	General recommendations	31

Annexes

1.	Agenda	34
2.	List of participants.....	35
3.	Message from Dr Samlee Plianbangchang Regional Director, WHO South-East Asia Region	37

Abbreviations

ADLA	acute dermatolymphangioadenitis
ALB	albendazole
ASHA	Accredited Social Health Activist
CDC	Communicable Diseases Control
CNTD	Centre for Neglected Tropical Diseases
COR-NTD	Coalition for Operational Research on NTDs
DEC	diethylcarbamazine citrate
ELF	elimination of lymphatic filariasis
EUs	evaluation units
GoI	Government of India
GPELF	Global Programme to Eliminate Lymphatic Filariasis
GSK	GlaxoSmithKline
ICMR	Indian Council of Medical Research
ICT	immunochromatographic test
IEC	Independent Expert Committee
IUs	implementation units
IVM	integrated vector management
JAP	joint application package
JICA	Japan International Cooperation Agency
JRF	joint reporting form
JRSM	joint request for selected medicines
JVRP	Joint Virtual Review Panel
LF	lymphatic filariasis

LEM	LF Elimination Monitoring
MMDP	Morbidity Management and Disability Prevention
Mf	microfilarial
MDA	Mass Drug Administration
M&E WG	Monitoring and Evaluation Working Group
MoPH	Ministry of Public Health
NTD	neglected tropical disease
NTF	National Task Force
NVBDCP	National Vector Borne Disease Control Programme
PC	preventive chemotherapy
PCR	polymerase chain reaction
SAE	severe adverse effect
SCH	schistosomiasis
SEAR	South-East Asia Region
STH	soil-transmitted helminthiasis
TAS	transmission assessment survey
VBD	vector-borne disease
VBN	vector-borne and neglected tropical diseases
VCRC	Vector Control Research Centre
WR	WHO Representative

Executive summary

Lymphatic filariasis (LF), caused by one of the three species of filarial nematodes, is endemic in 73 countries, including 9 countries in the South-East Asia (SEA) Region. Globally, about 1.39 billion people require preventive chemotherapy (PC) (diethylcarbamazine citrate (DEC) + albendazole (ALB)). In 2012, post-Mass Drug Administration (MDA) surveillance was carried out in three countries in the region, and out of six countries that required MDA, only four countries could continue MDA. Due to some logistic problems, two countries could not continue the programme. The number of implementation units (IUs) covered under MDA was 327 against the target of 674 and the geographical coverage was 48.5%. During the year, with the ALB supplied as donation by GlaxoSmithKline (GSK) through WHO, the Member countries could allocate funds for the cost of DEC and operational cost. Out of 710.7 million treatments, with a supply of 457.4 million ALB tablets recommended by the Ninth Regional Programme Review Group (RPRG), about 332 treatments were provided with a programme coverage of 69.8%. Following the successful implementation of the programme in the Region and achieving less than 1% microfilaria prevalence, further rounds of MDA have been stopped so far in 400 implementation units (IUs). During 2012, Thailand initiated the verification of LF elimination in addition to Maldives and Sri Lanka which are under dossier preparation.

Endemic countries in SEA Region made significant progress since 2000. The tenth RPRG was organized by WHO Regional Office for South-East Asia (SEARO) in Dili, Timor-Leste, from 25 to 27 June 2013, to review the progress of LF elimination programme in its Member countries, identify operational and technical issues and suggest appropriate remedial measures, and to recommend the annual need of ALB for 2013.

The meeting noted that a capacity building regional workshop on transmission assessment survey (TAS) was conducted in 2012, which led the Member countries implementing the TAS protocol to decide on stopping MDA. The meeting approved a total of 571.01 million ALB treatments for the 2013 MDA round, out of which 528.19 million will be supplied as donation by WHO. In addition, 101.74 million DEC tablets of 200 mg from Sanofi Pharma will be supplied to Myanmar for the 2013 MDA round. The

meeting also recommended a capacity building meeting of the programme managers from Member States to ensure quality data, data management and TAS. The meeting recommended that the SEARO expanded the RPRG focusing on LF, soil-transmitted helminthiasis (STH), trachoma and schistosomiasis (SCH) and ensuring the sustenance of the gains already achieved in the LF elimination programme. The RPRG appreciated WHO/SEARO and the Member countries towards the progress made to achieve elimination of LF by 2020.

1. Introduction

The South-East Asia (SEA) Region accounts for about 57% of the global burden of 4.9 million disability-adjusted life years lost due to lymphatic filariasis (LF). Of the 11 Member countries in this Region, 9 are endemic for filariasis, and all the three human filarial parasites and their physiological races are prevalent in this Region. All the endemic countries have initiated the programme to eliminate LF and are in its advanced stage of stopping Mass Drug Administration (MDA). Three countries have stopped MDA and are under post-MDA surveillance. Maldives is expected to submit the dossier in 2014. Annually, about 700 million albendazole (ALB) tablets are supplied as donation by GlaxoSmithKline (GSK) through WHO. Ending 2012, MDA was stopped in 397 IUs and transmission assessment survey (TAS) was conducted in 400 IUs.

The Tenth Meeting of the Regional Programme Review Group (RPRG) for Elimination of Lymphatic Filariasis (ELF) in WHO SEA Region was held in Dili, Timor-Leste, from 25 to 27 June 2013. The agenda and the list of participants are given in Annexes 1 and 2, respectively.

The objectives of the meeting were to review:

- the reapplication submitted by endemic countries for free supply of ALB based on the annual report received from the countries and recommend to the Regional Director, WHO/SEARO, the requirement of this drug for MDA in Member countries;
- the progress of LF elimination in the nine endemic countries of the Region with a view to identifying and making recommendations on operational and technical issues including research needs;
- strategies and emerging technical issues with a view to providing technical advice to the Regional Director, WHO/SEARO.

2. Opening session

Dr Rajesh Pandav, Health Adviser, WHO Country Office, Timor-Leste, welcomed the participants. Professor A. P. Dash, Regional Adviser of Vector Borne and Neglected Tropical Diseases Control (VBN), WHO/SEARO, in his introductory remark, presented the objectives of the meeting. He mentioned that the LF elimination programme in the Region is progressing well with the commitments of the Member countries. While acknowledging the continued support provided by GSK and donation of ALB tablets, which amounts to over 700 million per year, he complimented the Member countries for the progress and efforts in mobilizing adequate funds. He also appreciated the follow-up activities undertaken by the Member countries in implementing TAS protocols following the regional training conducted during 2012. Professor Dash further stated that the meeting assumes significance with WHO-recommended preventive chemotherapy (PC) as a public health intervention for LF, schistosomiasis (SCH), soil-transmitted helminthiasis (STH) and trachoma which are prevalent in the Region.

Dr Pandav delivered the message of Dr Samlee Plianbangchang, Regional Director of the SEA Region. While highlighting the contribution of the Region towards the global burden of LF, the Regional Director stated in his message that MDA, which is also known as preventive chemotherapy (PC), has collateral benefits for other neglected tropical diseases such as STH. An estimated 26.1 million preschool-aged (2–4 years) and 86.6 million school-aged (5–14 years) children were treated in 2011 through this programme. The message also showed that SEA Region continues to be the major contributor to the success of the global programme and, hence, efforts are needed to scale up treatment coverage. Sri Lanka and Maldives have entered post-MDA surveillance. Recently, the WHO expert team recommended stopping of MDA in Thailand, following a detailed review of the situation. The message also reflected the commitment shown by Timor-Leste in restarting the MDA, following a National Parasite Survey. While appreciating the efforts of the Member countries in conducting TAS, the challenges in the procurement of immunochromatographic test (ICT) cards and mobilizing resources for operational costs and capacity building were highlighted. WHO Regional Office for South-East Asia is also prioritizing capacity strengthening of Member States in the implementation of integrated vector management (IVM) strategy to hasten the process of elimination of vector-borne diseases (VBDs) including LF and

environmental management as a key component in the elimination of NTDs.

In his message, the Regional Director acknowledged and congratulated the national programmes for their concerted efforts and sustained collaboration with partners such as GSK. The message also stated that Eisai Company Limited has recently joined the public–private partnership network by coming to donate diethylcarbamazine citrate (DEC) tablets from 2014 onwards to the LF elimination programme besides the support of Sanofi to donate DEC to some countries in this Region. The Regional Director also highlighted the importance of research, monitoring and evaluation in identifying bottlenecks and implementing appropriate solutions. Challenges include improving coverage in urban areas and among difficult-to-reach populations, improving the data management practice, completing the MDA cycle in a given calendar year, drug procurement and supply, utilization and feedback at all levels in each of the endemic countries.

Action plans to integrate LF elimination programmes with other neglected tropical diseases (NTDs) to deliver PC are being implemented in Bangladesh, Indonesia, Myanmar, Nepal and Timor-Leste. This is in line with Regional Strategic Plan for Integrated NTD Control 2012–2016. Such integrated approaches have been proved to be cost-effective public health interventions.

Another key to success is technical support on morbidity management and disability prevention activities. In addition to successful MDA, another pillar of the elimination strategy aims to provide access to a package of basic recommended care for every person with acute attacks, lymphoedema, elephantiasis or hydrocele in all areas where LF is endemic. Member States should adopt an integrated approach managing morbidity and preventing disability from LF.

The Regional Director stated that achieving the regional and global target of the LF elimination by 2020 is our common goal. While concluding, he desired that members of the RPRG for elimination of LF play an important role to discuss, in-depth, all the technical and operational issues and make recommendations to sustain and accelerate the progress made so far.

Her Excellency Ms Natália de Araújo, Honourable Vice Minister for Ethics and Service Delivery, in her felicitation address, stated that LF is endemic in 9 out of 13 districts in Timor-Leste. The Minister further stated that the Ministry of Health, Government of Timor-Leste, is committed to resume the implementation of NTDs for 5 years (2014–2018). The goals of the programme are to eliminate LF by 2018, control STH and eradicate Yaws by 2017. The campaign will be coordinated by the National Task Force (NTF) on NTDs. A donor meeting will soon be conducted to secure a long-term funding commitment. Technical assistance is crucial for the success of any initiative. The Minister acknowledged technical support of WHO, academia, expert groups and other partners supporting Timor-Leste in implementing the strategy for the control of NTDs.

Dr S. Y. Kothari conducted the proceedings as the Chairman. Dr Udaya Senerath Bandara Ranasinghe and Dr K. Krishnamoorthy were the rapporteurs.

3. Action taken on the recommendations of the Ninth RPRG Meeting (2012) held in Yangon, Myanmar

Dr Rita Kusriastuti presented the “Action Taken” by the Member States on the recommendations of the ninth RPRG meeting held in Yangon, Myanmar, from 30 April to 1 May 2012. The RPRG noted that all the Member States complied with almost all the recommendations. The group recorded its deep appreciation of all the actions taken by the Member States with the support of WHO/SEARO. A summary of the actions taken on the general and specific recommendations of the last RPRG meeting by each of the endemic Member countries is given below.

3.1 Bangladesh

As per recommendation, the TAS survey is planned to reassess the current status of 15 districts which were originally “endemic” and currently “nonendemic” with less than 1% microfilarial (Mf) prevalence before they are excluded from the endemic list. Steps have been initiated to procure ICT cards and explore additional support from WHO (and other donors).

TAS was conducted in five IUs, and all the available 10 800 ICT cards were utilized before the expiry date as recommended. The reasons for low coverage in some areas were identified, appropriate measures were taken and more than 87% coverage was achieved in the IUs. The programme identified low coverage as a reason for the persistent infection in some districts with repeated MDA, and now, with improved coverage, 15 out of 19 districts have reached less than 1% Mf prevalence. In response to the recommendation to scale up morbidity management programme, community-based disability prevention activities have already been initiated, and patients are identified through community clinic-based surveys.

3.2 India

All the 350 million ALB tablets received during 2012 were utilized. In 2012, a total of 3500 ICT cards were made available by WHO, and with that two districts were subjected for TAS. Both districts passed the TAS. In addition, Puducherry has conducted TAS successfully by procuring ICT out of the assistance of the Government of India (GoI). It was proposed that four regional TAS workshops be conducted with the support of WHO. In the national plan, TAS has been proposed to be conducted in all the qualifying IUs. Ending June 2013, TAS was conducted in three IUs, and all qualified for stopping MDA. Provision of funding towards the purchase of ICT cards to implement TAS has been made in the 12th five-year plan. Continued efforts are made to regularize the MDA cycle without any gap in annual rounds. Strong social mobilization activities are carried out to enhance compliance in areas of low coverage. Protocol for a critical review of the programme by the Indian Council of Medical Research (ICMR) has been approved in principle and processed for financial support. On its implementation, the emerging recommendations will be implemented appropriately towards improving efficiency and impact, besides conservation of resources. Efforts were made to cover all the IUs in 2012, including the IUs where the previous round of MDA was missed and completed in 3 months time. The MDA 2011 round was completed in all the states except 38 IUs of Bihar and 36 IUs of Uttar Pradesh. Morbidity management and disability prevention activities have been scaled up and foot-care clinics have been established in some areas in addition to the ongoing home-based foot-care programmes. LF has already been integrated

with other national VBD control programmes as a comprehensive approach.

3.3 Indonesia

Out of 56 million ALB tablets approved for 2012, 18.5 million tablets were received. The country has initiated steps to involve the local bodies for social mobilization, as recommended. TAS was conducted in 14 districts that have geographically complete coverage and Brugia Rapid test kits were used in brugian endemic areas. While undertaking MDA in newer areas, attention is required towards adequate preparation to manage severe adverse effects. The health officers and the communities have been informed about the severe adverse effects and its management in newer areas covered under MDA. Integration of LF with other NTDs is yet to be initiated. Appropriate measures were taken in areas with low coverage due to lack of socialization in the community.

3.4 Maldives

As per the recommendations of the RPRG, the surveillance system has been strengthened and the immigrants are screened. Also, steps have been initiated to implement vector control measures. Information on morbidity management is generated and all the clinical cases are covered.

3.5 Myanmar

A total of 46.0 million treatments were approved by the RPRG for 2012. Both ALB and 46 million DEC (200 mg) tablets were supplied. Due to operational constraints, the country could not conduct MDA in 2012. A research study recommended in the area where Mf prevalence continues to remain high despite repeated rounds of MDA could not be conducted in 2012 and proposed to do it in 2013. Also, it was proposed to carry out an independent evaluation by JICA during 2013 to verify whether full course of treatment was taken instead of a single dose. Myanmar has planned for TAS in 2013 with the support of Centre for Neglected Tropical Diseases (CNTD), in response to the general recommendation for conducting TAS in all the eligible IUs. As recommended for resource mobilization, the country

has proposed to integrate LF with STH and nutrition programme and carry out MDA in August 2013.

3.6 Nepal

The national LF programme utilized about 8 million ALB tablets out of 26.4 million treatments approved during 2012. With respect to the recommendation to continue social mobilization activities, the country carried out awareness programmes during the MDA round in 2013. Media orientations were also organized by districts and centres during MDA. Integrated Independent Expert Committee (IEC) materials on NTDs (LF, STH and trachoma) were prepared and used. As recommended to procure DEC tablets locally, the country purchased DEC tablets from Unichem India with its own resources, as there are no local manufacturers. Quality check was done through laboratory tests upon drug arrival. As recommended, the report of ALB administered to children under 15 years through LF MDA programme was shared with the Child Health Division, which shared the same with WHO. The country has allocated funds for morbidity management including hydrocele surgeries for the financial year 2012–2013. Several surgery camps were carried out. Also, it has been proposed to scale up MDA programme in 2013. Post-MDA surveillance is planned in districts that stopped MDA. Attention was given to quality training and intensification of awareness through media and IEC activities. An IEC is in place at the national level to respond to severe adverse effect (SAE) cases. TAS is planned for 2013 in 16 districts which have completed 6 rounds as per the recommendations. LF Elimination Monitoring (LEM) is included in the national LF guidelines and the Integrated NTD Control Plan. Integrated NTD control plan is in place and is being implemented. The plan includes resource mobilization and funding gap analysis till 2014. USAID funding for LF has been ensured till 2016.

3.7 Sri Lanka

In response to the recommendation for initiating steps to assess the current LF situation in originally nonendemic districts and areas adjoining MDA districts, the country has completed the survey (Mf) in two districts and proposed to do the same in other districts. Night blood surveys and mosquito dissections are conducted routinely as recommended. Mass night

blood survey has been initiated. Few persons with *Brugia malayi* have been detected and further surveys have been planned to determine the presence of *B. malayi* in animals. Polymerase chain reaction (PCR) test of mosquitoes from endemic districts is a routine process. School-based TAS is continued in endemic districts. The existing infrastructure with anti-filaria campaign is retained and utilized to conduct parasitological and entomological surveillances. In addition, morbidity management clinics are conducted for patients.

3.8 Thailand

As recommended, TAS was carried out following the revised protocol of WHO (2011), covering all the IUs in the country. The results of TAS conducted in Narathiwat province showed that the antibody prevalence is below the critical level and, therefore, further rounds of MDA have been stopped. TAS was also conducted in the remaining IUs, and the results indicated absence of transmission. A mission from WHO with expert members visited the country in December 2012 and reviewed the results. The mission acknowledged the decisions on stopping MDA. The existing infrastructure at all levels is utilized to continue post-MDA surveillance and morbidity management. The activities include entomological surveillance, screening and treating domestic cats for *B. malayi* infection in Narathiwat province and morbidity management. The country proposes to carry out surveys to assess the current status of LF in nonendemic areas. It is proposed to prepare a plan of action for post-MDA surveillance through an integrated approach with other NTDs following the Task Force meeting planned in September 2013. The country has initiated the process of compiling the dossier for the completion of certification process.

3.9 Timor-Leste

Ministry of Health of Timor-Leste has developed National Strategic Plan 2011–2030, targeting LF and STH by re-establishing an Integrated National Control programme. The process of re-establishing MDA activities for LF elimination and STH and integrating Yaws with NTD control/elimination programme has been initiated. Capacity building of public health laboratories was carried out for the proposed national survey on LF and STH. As many as 90 laboratory technicians were trained in this national

level training throughout the country. The country has submitted re-application for both ALB and DEC to restart MDA. With WHO technical support, a parasite survey was conducted at national level between April and June 2012. This survey was supported by Sydney University, Ministry of Education, the National Laboratory and Department of CDC. Brugian antibody prevalence was 17.5% and STH prevalence was 29% among children aged between 7 and 16 years. Two national programme managers participated in capacity building regional workshop on TAS in July 2012. A national stakeholder workshop was organized in February 2013 to mobilize support in conducting LF elimination programme. With technical and financial supports from WHO, strategic and draft master plan has been prepared incorporating MDA for LF, STH and Yaws elimination.

4. Updates on global and regional programmes for elimination of LF

4.1 Global

Dr Kazuyo Ichimori, Focal Point for LF, Department of NTD, WHO/HQ, presented an update on Global Programme to Eliminate Lymphatic Filariasis (GPELF). Of the 73 countries where LF is currently considered endemic, 53 are implementing MDA to interrupt transmission, of which 12 countries have moved to a post-MDA surveillance phase. During 2000–2011, more than 3.9 billion doses of medicine were delivered to a cumulative targeted population of 952 million people. The target for MDA is to cover all the endemic countries by 2014 and achieve total geographical coverage by 2016, stopping MDA and post-MDA surveillance in all the endemic countries by 2020. By the end of 2020, 70% of countries are targeted for verification of absence of transmission and the remaining countries are under post-MDA surveillance. The target for morbidity management and disability prevention is to cover all the endemic countries by 2016 and achieve full geographical coverage and ensure access to basic care by 2020.

By the end of 2011, 59 countries had completed the mapping of endemic foci; mapping is in progress in 13 countries and only 1 country has yet to start mapping. MDA has been implemented in 53 countries;

20 countries, mainly in the WHO African Region (15 countries), have not yet started delivery of MDA. Of the 39 endemic countries outside the African Region that require MDA, 34 countries have implemented this strategy; only Brunei Darussalam, New Caledonia, Palau, Sudan and South Sudan have not initiated MDA. According to the data reported to WHO by August 2012, during 2011, the programme targeted 736.9 million people to receive MDA and treated 538.6 million; thus, reported coverage was 73%. The number of people, who received MDA in 2011, was increased by approximately 54.9 million as compared to 2010. More people were treated in 2011 than in 2010 in all WHO regions. In the African Region, although reports are yet to be received from three countries, 94.2 million people were treated in 2011; about 11.7 million more were reported in 2010. The highest increase between 2010 and 2011 was achieved in SEA Region where 414.1 million people were treated compared with 380.4 million in 2010. There was an increase of 8.2%. In 2011, people in all endemic countries except Brazil received combination therapy comprising DEC plus ALB or ivermectin plus albendazole.

During 2012, WHO guiding documents on Strategic Plan, Transmission Assessment Survey Training modules, LF atlas, LF entomology, WHO position statements on LF and malaria, TAS and Morbidity Management and Disability Prevention (MMDP) and meeting reports on strategy for Loiasis, subworking group meeting on monitoring and evaluation and TAS have been published to provide the necessary technical input for LF elimination programme. The challenges identified at global level include standardizing training modules for TAS, technical review of TAS, identification of MMDP impact indicators, revising global burden of filariasis, identifying the need of vector control and develop tailor made vector control plan. The recommendations that emerged from the meetings include development of eligibility and reporting forms for TAS, RPRG to review eligibility data for TAS, TAS results and morbidity data, conducting technical MMDP meeting in 2014 to discuss new tools, evidence and approaches and encourage to appoint MMDP focal points in the national programme.

The Vector Ecology and Management unit of the Department of Control of Neglected Tropical Diseases of WHO has published four guiding documents: a guidance on policy-making, a core structure for training curricula, a handbook on IVM, and indicators for monitoring and

evaluation of IVM. A WHO regional course on IVM was organized in WHO SEA Region in 2011. The unit works in collaboration with the PC. This initiative is to promote a multiple disease control IVM approach in areas endemic for LF, malaria and loiasis.

4.2 Regional

An update of the programme in the SEA Region was presented by Professor A.P. Dash, Regional Adviser, WHO/SEARO. In SEA Region, about 875 million people are at the risk of filarial infection with 505 people already infected. This Region with nine endemic countries contributes about 63% of the global population requiring MDA. India alone accounts for 69.4% of the total population requiring MDA in the Region (610 million people). In 2011, overall, 570.1 million people in the Region were targeted for MDA, and 414.1 million (72.6%) were treated. The total number of people treated increased by 33.7 million between 2010 and 2011. India, Indonesia, Myanmar, Nepal and Thailand increased the number of people treated in 2011 compared with 2010. Sri Lanka and Maldives achieved more than five rounds of and stopped MDA. In 2011, a WHO expert team visited these countries to review the situation; the team recommended that Sri Lanka should conduct TAS in accordance with the new guidelines before proceeding to the process of verification of elimination and that Maldives should start verification of elimination. All other countries in the Region except Timor-Leste implemented MDA in 2011; as a new country, Timor-Leste needs external financial and advocacy support to restart and scale up MDA. Professor Dash cited a recent report on the commitment of Sydney Medical School, Australia, to provide financial support to the NTD programme in 2013, and hopefully the country would restart the MDA programme in 2013.

In 2011, 621 IUs in the Region have completed more than five rounds of MDA, and Mf prevalence was below 1% in 575 IUs. Out of 1067 endemic IUs, further rounds of MDA have been stopped in 287 IUs (Bangladesh: 5, Maldives: 1, Myanmar: 3, Nepal: 5, Sri Lanka: 8 and Thailand 265). A WHO/SEARO regional workshop was organized in 2012 to build capacity in all nine countries in the Region to plan and conduct TAS. Once the IUs pass TAS as set out in the revised WHO guideline, the population requiring MDA would progressively be reduced in the coming years. An estimated 26.1 million preschool-aged children (2–4 years) and

86.6 million school-aged children (5–14 years) were treated through the programme. A Regional Strategic Plan for LF (2012–2016) has been developed, and LF is already included as part of integrated approach of NTDs in Indonesia, Myanmar and Nepal. Professor Dash highlighted the following challenges and issues identified in the Region:

- Stopping MDA and post-MDA surveillance: capacity building in planning and implementing TAS, difficulties in procuring the diagnostics, short shelf-life of diagnostics, cost of ICT and operational cost of TAS, persistent infection despite repeated rounds of MDA, logistics and resources for post-MDA surveillance and sustaining political commitment and priority for surveillance;
- Scaling up MDA: insufficient resources, difficulties in achieving high levels of coverage in urban areas and areas with poor accessibility;
- Scaling up disability alleviation services: mobilizing operational cost, capacity building, developing community-based disability alleviation and sustaining disability alleviation services.

5. Preventive chemotherapy

Dr Albis Francesco Gabrielli, Department of NTD, WHO/HQ, presented a joint process for requesting PC medicines donated through WHO and reporting on annual progress of PC interventions. The focus was on joint application package (JAP). As a public health strategy, PC aims to reduce the burden of disease. In the context of NTDs, PC is defined as the widespread delivery of safe, single-dose, quality-assured medicines, either alone or in combination, at regular intervals to treat selected diseases. PC is recommended by WHO as a public health intervention for LF, onchocerciasis, SCH, STH and trachoma. The purpose of implementing PC and attaining high coverage is to ensure that by 2020 WHO goals will have been reached for these diseases. Other supportive interventions include providing management for chronic cases and people with disabilities, controlling vectors and intermediate hosts, providing veterinary public health services and providing safe drinking water, and sanitation and hygiene services. In areas where PC is recommended for more than one

disease, integrating and coordinating activities for all relevant diseases, including strategic and operational planning, are as important as for a programme targeting a single disease.

Dr Gabrielli cited the WHA66.12 Resolution on NTDs (2013) endorsed the NTD roadmap and previous disease-specific resolutions on NTDs. The key aspects of this resolution include encouraging country ownership of programmes, integration of control programmes into primary health-care services, expansion of interventions to reach roadmap milestones and targets, and matching partners support with national commitment. The old system was to make drug-specific requests and disease-specific reports. But the new JAP is a joint process, requesting PC medicine for the identified diseases. A single joint request for selected medicines (JRSM) form to request all PC medicines, such as ALB, mebendazole, DEC, praziquantel and ivermectin, and a single form to report on their use (joint reporting form (JRF) (individuals treated by type of PC intervention and by disease and the number of tablets used) are recommended. The request is required to be supported by the annual work plan. Three versions of JRSM and JRF are available. The first version is meant for countries requiring PC for LF, onchocerciasis, SCH and STH, the second version is for countries requiring PC for LF, SCH and STH, and the third version is for countries requiring PC for STH only. Work plans are for the Ministry of Health to clarify the specific objectives to achieve in the year, refocus on the key activities that need to be implemented to achieve the specific objectives, identify what needs to be done each month and identify the gap in financial and technical needs. This will also allow WHO to monitor the progress of each country programme, identify the issues or obstacles if activities are not moving as planned, and provide support and medicines in time. Excel-based formats are available for these purposes.

Dr Gabrielli further stated that there will be an external review to ensure fairness and independence. While RPRG is expanding towards technical supervision of all PC/NTDs, review can be delegated to the Joint Virtual Review Panel (JVRP), the membership of which is extended to RPRG members. Once the new integrated and expanded structure of the RPRGs is operational, review of applications can be delegated back to RPRG. A pilot testing of this new approach was done in 2012–2013 involving six countries, and the report is being finalized. A form to collect epidemiological data (baseline+impact) and morbidity/disability data has

been developed and will be disseminated together with the JAP. These data will be used for matching performance and impact. Dr Gabrielli briefed the procedure and the steps in using JAP.

6. Updates from GlaxoSmithKline

Ms Tijana Duric, Director, Albendazole Planning, GSK, stated that the commitment of GSK for NTDs is to supply up to 600 million ALB tablets each year to WHO until LF is eliminated as a public health problem and up to 400 million ALB tablets each year to WHO through 2020 for deworming school-aged children. Besides, it supports research and development for NTDs. In 2012, GSK donated 588 million ALB tablets to 56 countries worldwide and committed to supply 630 million tablets for 2013 MDA round. Towards STH, 17 million treatments were made available to 7 start-up countries in 2011 and 121 million treatments were donated to 29 countries in 2012. In 2013, 160 million tablets have been projected to be supplied to 42 countries.

Ms Tijana Duric informed that GSK will be able to supply the demand from SEA Region countries for the LF elimination programme. In order to meet the demand from India, which is about 600 million ALB tablets, a unit has been established through which about 350 million tablets can be supplied per year. She stated that the demand for more ALB tablets for India would be considered. In addition, ALB tablets will be supplied for STH control in Indonesia, Nepal, Myanmar and Timor-Leste.

7. Progress made by the Member States

The details of MDA carried out in the endemic countries in SEA Region for the year 2012 are shown in Table 1.

Table 1: Details of MDA carried out in SEA Region during 2012

Country	Population (million)	Population requiring PC for LF (million)	Endemic IUs	Number of IUs required MDA	Number of IUs stopped MDA	Number of IUs required MDA in 2012	Number of IUs covered	Geographical coverage	Total population of IUs covered (million)	Reported number of people treated (million)	Programme (drug) coverage	National coverage	Number of IUs subjected to TAS
Bangladesh	156.00	77.23	34	19	10	14	14	100.0%	27.01	14.41	86.43%*	18.7%	5
India	1221.00	617.17	250	250	0	250	176	70.4%	380.65	286.83	75.35%	46.5%	0
Indonesia	237.60	123.48	334	301	16	301	86	28.6%	52.53	23.62	44.96%	19.1%	24
Maldives	0.39	0	1	1	1	0	Post MDA surveillance					1	
Myanmar	48.30	41.94	45	45	5	40	0	0.0%	0.00	0.00	0.00%	0.0%	5
Nepal	26.50	25.00	61	61	21	56	51	91.1%	15.76	7.31	46.38%	29.2%	0
Sri Lanka	20.30	0	8	8	8	0	Post-MDA surveillance					8	
Thailand	67.50	0.08	357	357	357	0	Post-MDA surveillance					357	
Timor-Leste	1.14	1.07	13	13	0	13	0	0.0%	0.00	0.00	0.00%	0.0%	0
Total	1778.73	885.96	1104	1055	397	674	327	48.5%	475.95	332.17	69.79%	37.5%	400

7.1 Bangladesh

Out of 64 districts, 34 were endemic for filariasis in Bangladesh. Only *Wuchereria bancrofti* is prevalent in this country. Based on the Mf survey, 19 districts recording more than 1% Mf prevalence were covered under MDA from 2001. During 2012, 10 districts with a population of 16.7 million were covered. Coverage of MDA, assessed in five IUs, ranged from 48.4 to 81.9%. MDA was stopped in 10 districts following TAS in 2011–2012. It is proposed to continue MDA in nine districts in 2013, covering a population of 10.27 million. In its re-application, the country has requested 2.50 million ALB tablets. Districts with less than 1% Mf prevalence were resurveyed and Mf carriers were detected in two districts,

but the prevalence was less than 1%. Support from CNTD and USAID was obtained for ICT kits and social mobilization.

Recommendations

The RPRG:

- The Group appreciated the efforts of the country in mobilizing external funding for social mobilization, advocacy, TAS and morbidity management.
- While encouraging the proposal of remapping the areas by ICT survey in areas with less than 1% Mf prevalence but could not start MDA, it is recommended that the data on mapping/remapping are to be examined to identify the areas to be included for MDA.
- The Group recommended to maintain the regularity of MDA in the IUs.
- The Group recommended to strengthen social mobilization activities as the refusal rates were as high as 22%.
- The Group recommended to plan TAS in all the qualifying IUs towards decision-making.
- RPRG recommends to monitor migratory population from neighbouring endemic countries and treatment of positive cases.

7.2 India

Out of 614 districts, 250 districts with a population of 617 million are endemic for LF. All the districts have completed more than five rounds of MDA. At least 186 IUs have shown Mf prevalence below 1%. It is proposed to continue MDA in 200 districts in 2013 and discontinue MDA in the rest based on prevalence of Mf below 1%. TAS is proposed in these IUs and national level training on TAS has been completed. Regional TAS training workshops have been proposed. About 1.28 million chronic cases of filariasis have been enlisted and are covered under MMDP. So far, as many as 16 000 cases of hydrocelectomy have been conducted. In 2012, MDA was conducted in 176 IUs with a geographical coverage of 70.4% and a programme coverage of 75.35%.

Recommendations

The RPRG:

- The RPRG complimented the country for achieving good coverage levels as shown from assessed coverage surveys.
- It is recommended that preparation for 2013 and 2014 MDA rounds should be planned in advance in view of ensuing general elections in the country in 2014.
- The Group noted that MDA rounds are not completed as per schedule and therefore recommended to complete before September (3 months) and submit the updated report for MDA 2012. Regularity of MDA rounds is very crucial. Efforts should be made to complete the rounds within 6 months in case of nonobservance during the calendar year and regulate the next round subsequently.
- The country should develop a national plan for TAS in view of proposed exclusion of IUs from MDA in a phased manner and share the progress with RPRG.
- The Group recommended for state- and district-wise reviews to identify the gaps for enhancing the compliance.
- The variation in total population and eligible population should be examined in indicated IUs.
- RPRG recommends monitoring migratory population within the country and from neighbouring endemic countries and ensuring treatment of positive cases.
- The programme should get priority to sustain the gains achieved as India contributes the maximum to global issue.
- The Group recommended to scale up MMDP activities.

7.3 Indonesia

All the three human filarial parasites are prevalent in Indonesia. Out of 497 districts and cities, filariasis is endemic in 334 areas. Out of 237 million people, 123.4 million people are at the risk of infection. The LF elimination programme was launched in 2002, and so far, about 30% of the endemic

areas have been covered. There are about 12 000 clinical cases of filariasis. MDA is implemented at IU level with the financial support from the local bodies. Financial constraint is shown to be the major limiting factor in expanding the areas under MDA.

Recommendations

The RPRG:

- The Group observed that only 30% of the endemic IUs have been covered and recommends for upscaling.
- A wide gap between total population and eligible population is observed. The Group recommends exploring the reasons so that relevant corrections can be made.
- Reasons for partial coverage are to be explored in seven IUs and suitable measures are to be identified to achieve total coverage.
- MDA needs to be continued in areas where IUs could not clear TAS.
- It is recommended that the country should ensure drug availability to complete MDA as planned.
- As MDA received fund from local governments, steps are to be initiated to ensure availability of funds for the rest of the programme.
- It is not clear whether pre-TAS criteria are checked before TAS. If necessary, pre-TAS data such as Mf prevalence in sentinel/spotcheck sites have to be generated.
- The Group recommends for detailed review of the programme so that more IUs could be included for TAS.
- The Group understands that there is scope to reduce the number of EUs by combining smaller IUs so that the cost of TAS can be reduced.
- Morbidity management activities are to be intensified.
- Possibilities of synchronizing MDA in the IUs in the neighbouring Timor-Leste should be explored.

7.4 Nepal

Out of total 75 districts, 61 districts are endemic for LF with a population of 25.13 million at risk of infection. All the endemic areas are covered. MDA was stopped in 21 IUs, five prior to TAS protocol. TAS is in progress in 16 units. The country has proposed to conduct MDA in the remaining 40 districts, with a target population of 14.8 million.

Recommendations

The RPRG:

- The Group appreciates the efforts the country has taken in implementing MDA in all the endemic districts with additional external financial support.
- The Group noted that the current level of coverage is below 50% and recommends identifying appropriate measures to achieve effective coverage (>65%) so as to lend the areas meeting the pre-TAS criteria.
- Priority should be given to identify the reasons for systematic low compliance (<65%) in some IUs and initiate community specific measures to bridge the gap.
- Steps are to be initiated conducting TAS in 21 IUs where MDA stopped.
- The Group observed that fear of side effects has been a limitation for compliance and recommends to address such issues while implementing social mobilization activities.
- The Group noted that neurocysticercosis which is prevalent in the country could be one of the reasons for higher incidence of side effects. It is recommended to exclude them from MDA to avoid adverse events.
- RPRG recommends monitoring of migratory population from neighbouring endemic countries and treatment of positive cases.

7.5 Maldives

Post-MDA activities are continued in the endemic area with a population of 2000.

Recommendations

The RPRG:

- The Group recommends the preparation of dossier and its submission at the next RPRG.
- Post-MDA surveillance should be sustained.
- Ongoing activities in monitoring tourists and migrant population for LF should be continued.
- Efforts to integrate surveillance for LF with dengue, the only NTD in Maldives, have to be initiated.

7.6 Myanmar

Out of 65 districts, 45 with a population of 41.7 million are covered under MDA. MDA was initiated in 2001 and new districts were added in the subsequent rounds. However, MDA was not conducted in 2012 due to paucity of funds. Mf rate was reported to range from 9.2 to 6.6% in 14 IUs covered under microfilaria survey in 2012.

Recommendations

The RPRG:

- The Group noted missing annual rounds of MDA and recommends observance of regular MDA rounds.
- External funding can be explored to support MDA activities.
- After minimum five rounds of MDA with >65% compliance and Mf rate <1% in SS and SC, TAS has to be planned in identified IUs.

- A team of experts should support the country in data analysis and review the MDA/TAS plan.
- Coverage maps have to be prepared for every round of MDA.

7.7 Sri Lanka

MDA in all the eight districts was discontinued after five rounds. TAS was conducted in all the units, and all showed absence or below the level of critical cut-off.

Recommendations

The RPRG:

- The Group appreciated that Mf survey was conducted in all the seven districts and follow-up TAS should be conducted for which the group recommends retaining the infrastructure available under anti-filaria campaign.
- In the context of ongoing Mf survey, all the detected cases should be treated and the area recording prevalence of Mf carriers should be under intensive surveillance.
- Dossier should be submitted before December 2013 so that it will be reviewed in the next RPRG.
- Morbidity management activities should be continued.

7.8 Thailand

Thailand is known to be endemic for two filarial parasites with three physiological races. At least five species of mosquitoes are involved in the transmission. Out of 65.5 million population, 0.14 million people are at the risk of infection. LF elimination programme was launched in 2002, covering 357 IUs. MDA was stopped in 2006 in 270 IUs and continued for 11 rounds in 87 IUs. TAS was conducted in three evaluation units (EUs) covering all the IUs. The results indicated the absence of transmission in areas where MDA was stopped in 2006. TAS results in Narathiwat province where MDA was continued showed that the level of infection was below the critical cut-off, and hence, further rounds of MDA can be stopped.

Recommendations

The RPRG:

- The group acknowledges the decisions taken in stopping MDA based on the results of TAS conducted in all the three EUs.
- Current surveillance activities and treatment of LF cases in migrant camps are to be sustained.
- The Group recommends continuation of entomological monitoring activities in the migrant camps. Capacity building on PCR-based xenomonitoring will be useful.
- Screening of cats for infection with *B. malayi* has to be continued besides mass treatment of infected cats with ivermectin.
- With the technical support from the Regional Office, the preparation of dossier is to be initiated.
- Information on the current status of nonendemic areas has to be generated.
- The Group recommends strengthening the ongoing MMDP activities.

7.9 Timor-Leste

The population at risk is 1.2 million in 13 districts. MDA was started in 2005, and after two rounds it was discontinued for want of funds.

Recommendations

The RPRG:

- The Group compliments the efforts in restarting MDA in 2013 by ensuring resources and drugs.
- The Group expressed its concerns about high levels of LF infection and STH in the country and emphasized the observance of regular MDA.
- The Group recommends that all preparatory activities should be ensured, including capacity building, before implementing MDA.

8. Technical discussions and updates on programme implementation in relation to regional strategic plans

8.1 Critical and important role of programme managers in data collection and management

Professor C.P. Ramachandran presented a detailed account on the importance of data management in LF elimination programme. It is important for the programme managers to know the current state of prevalence of LF after 12 years of MDA to assess whether interruption has been achieved or not. Recently, Sri Lanka has indicated that even at a lower level of 0.1%, there are indications of ongoing transmission. Therefore, it is necessary to examine whether the threshold prevalence of 1% Mf prevalence is valid. The role of programme managers in ensuring accurate data on prevalence and distribution of infection is critical. They need to ensure that the data, they receive, have been carefully verified by random repeat surveys of endemic communities, especially among the younger age groups and, if possible, supported by xenomonitoring. Many tools such as ICT card tests, Brugia Rapid tests, antibody lateral tests for *W. bancrofti* and DNA probes for L3 detection in mosquitoes are available for reassessment. This exercise will be useful to make sure if transmission has been interrupted at the level of below 1% Mf rate. Similarly, MDA coverage data need to be verified as they are critical as an eligibility criterion. From TAS results, we should be able to pick up some of the hotspots (transmission) and pursue them vigorously with the suitable treatment strategy.

All programme managers must from now on provide more accurate data on prevalence for the ensuing 8 years of GPELF in order to assess transmission interruption globally and to provide global burden of LF in order to make judicious decisions on elimination strategy at country level. The second aspect for the programme managers is to provide better quality and reliable data on morbidity and clinical diseases. Monitoring of new clinical cases in the community, particularly in the younger age group, is important. Programme managers should continue to include morbidity data, including hydroceles in all their annual submissions and for RPRG to

review. The third area, where we need the help and indulgence of all programme managers, is the estimation of the current global burden of LF after 12 years of GPELF and how to revise the original estimates. In 2010, the estimated burden, calculated by the Task Force in Atlanta, indicates 43 million infected, 14 million with lymphoedema and 20 million with hydrocele. As GPELF is in its halfway mark towards elimination of LF as a public health problem by 2020, it is an opportune time now for us to assess progress and identify major challenges and future opportunities. In this regard, the role and involvement of all programme managers are crucial and critical in achieving our goals.

8.2 Transmission assessment survey and capacity building

Dr Kazuyo Ichimori presented the initiatives undertaken by WHO to promote TAS and capacity building in planning, implementation and interpretation of TAS. As per the publication of TAS protocol in 2011, WHO conducted six regional training workshops covering Regional Office for the Western Pacific (2), Regional Office for South-East Asia (1), Regional Office for the Eastern Mediterranean (1), Regional Office for the Americas (1) and Regional Office for Africa (2). Trainees from 45 countries participated in these workshops. The recommendations of the informal TAS meeting and Monitoring and Evaluation *Working Group* (M&E WG) meeting held in 2012 include preparation of TAS training modules and WHO position statement, RPRG to technically review TAS eligibility before TAS and TAS results after TAS, throughout the year on a virtual basis, WHO to develop standard form for TAS eligibility and reporting to ensure appropriate implementation of TAS, as part of WHO reporting package, ensure availability of ICT test to be available and affordable for use by national programmes and to form TAS coordination group to work with WHO to capture TAS results, and maintain ICT forecasting and necessary resource mobilization. The TAS protocol was presented by Dr Krishnamoorthy. ICT requirement for SEA Region was discussed, and about 1.3 million tests are projected for 2013. It was recommended that TAS should be technically reviewed and the RPRG should take the task of reviewing TAS eligibility and TAS results.

8.3 Updates on operational research needs

In January 2013, The Task Force for Global Health received a grant from the Bill & Melinda Gates Foundation to support operational research to address challenges faced by NTD programmes and to foster increased collaboration among groups conducting operational research on NTDs. A series of meetings with disease-specific experts, programme managers, social scientists and WHO representatives were held and the challenges to the NTD programs were reviewed. Professor Ramachandran, as a member of this group meeting, presented the outcome and recommendations of the meeting. Modelling for predicting the impact, diagnostics and electronic data capture and management strategies are the major themes emerged from the NTD experts. The Coalition for Operational Research on NTDs (COR-NTD) is intended to play a catalytic role in guiding new operational research by creating linkages between researchers and NTD programmes to permit new ideas to be tested, validated and translated into practice, especially where these ideas have the potential to accelerate progress towards 2020 goals.

The challenges while starting, conducting and stopping programmes have been identified. Issues related to post-MDA surveillance and sustainability have also been recognized. Development of accelerated MDA strategies and regimens for “late-starter” (and poor-performing) country programmes (in LF, onchocerciasis, trachoma) and tools to rapidly and simply assess MDA coverage/compliance are required for programme implementation. Optimization for changing IUs into EUs for LF TAS surveys, testing algorithms and sampling strategies to define endpoints for stopping trachoma, onchocerciasis and STH programs, defining optimal diagnostics and sampling strategies for disease-specific and “integrated” post-MDA surveillance (LF, onchocerciasis, trachoma and SCH), defining the importance of “hotspots” identified during stopping surveys and post-MDA surveillance (LF, trachoma and onchocerciasis), and developing tools and strategies to ensure absence of infection in areas initially excluded from MDA treatment (LF, onchocerciasis and trachoma) are identified to be operational research issues for stopping MDA and post-MDA surveillance. For sustainability, it is important to monitor for development of drug resistance (ivermectin, ALB, mebendazole, praziquantel and azithromycin).

8.4 Thailand mission

Based on the recommendations of the ninth RPRG for elimination of LF in 2012, an expert mission to Thailand was organized by the WHO Regional Office for South-East Asia from 11 to 21 December 2012. As a member of the mission, Dr Krishnamoorthy presented the observations and recommendations.

The programme to eliminate LF with MDA was launched in Thailand covering a population of 138 471 in 357 IUs in 11 provinces in 2001. After five successful rounds of MDA with DEC and ALB, MDA was stopped in 260 IUs with a population of 91 000 in 7 provinces in 2006 where the subperiodic form of bancroftian filariasis was prevalent. Similarly, MDA was stopped in 10 IUs in 2006 in 3 provinces where the subperiodic Brugian filariasis was reported. However, MDA was continued in 87 *B. malayi* endemic IUs in Narathiwat province targeting a population of about 87 000.

The objectives of the mission were to:

- initiate TAS as per the revised guidelines of WHO 2011 in Narathiwat province to decide stopping MDA;
- initiate the process of verification of LF elimination in IUs where MDA was stopped;
- initiate the process of developing dossier.

The mission team held consultations with programme managers and officials of the Ministry of Public Health (MoPH) along with representatives of the WHO Country Office in Thailand. The team examined documents and undertook field visits to observe ICT card and *B. malayi* Rapid tests in the schools to verify the interruption of LF transmission among 6- to 7-year-old children as per the LF TAS Manual of WHO 2011. The mission, after conducting the field exercises and examining the available data as well as the results of TAS, acknowledged the stopping of MDA in 2007 in seven provinces (EU1) where *W. bancrofti* was endemic. The results of TAS from the evaluation unit (EU2) covering three provinces endemic for nocturnally periodic form of *B. malayi* where MDA was stopped indicated the absence of transmission. The mission acknowledged the decision of stopping MDA in these areas by the programme. Based on the results of TAS in Narathiwat

province (nocturnally subperiodic form of *B. malayi*), the team recommends stopping of MDA. The programme should continue morbidity management and disability alleviation activities as per WHO guidelines (2013) and explore an integrated approach for disability management wherever feasible. The mission recommends initiating preparations for drafting country dossier.

8.5 Update on morbidity management

Dr Pradeep Kumar Srivastava, Joint Director, National Vector Borne Disease Control Programme (NVBDCP), India, provided an update of morbidity management in India. The issues related to “home-based care” of lymphoedema cases and “hospital-based operation” of hydrocele cases were presented. In India, after launching of ELF programme in 2004, the activities including morbidity management have been integrated with District Health Care system of the states and LF patients are treated and trained in 224 “filaria clinics” of the National Filaria Control Programme units which are still functioning in different locations of endemic areas. The importance of updating information on the prevalence of cases is highlighted for monitoring the change in disease burden. However, there is a need to identify appropriate indicators to assess the impact of MMDP programme. Surveillance for new cases particularly among children is crucial, particularly in hot spot areas. Dr Srivastava concluded with the recommendations such as high burden states need to be convinced and stimulated to take care of morbidity management in a time-bound manner, capacity building of ANM, health worker and accredited social health activist (ASHA) to be augmented, early detection and management of Acute dermato lymphan gioadenitis (ADLA) cases, promotion of “Camp Approach” for clearing the backlog of hydrocele surgeries and strengthening social mobilization activities to enhance community compliance.

8.6 Updates on CNTD

Professor Louise Kelly-Hope, Project Manager (Scientific), CNTD, presented an update on CNTD initiatives. She stated that LF Support Centre, Liverpool School of Tropical Medicine, supports 12 countries to address operational issues. The Centre has developed data management protocol which can be utilized for data capturing and managing for information flow.

8.7 Group discussions

During group discussions, the RPRG discussed some of the following important issues related to LF elimination:

- Professor Ramachandran discussed the need for developing quantitative antibody test for *Brugia*. He also stressed the need for the programme managers to validate available epidemiological data and generate quality data, if necessary. He also suggested some research studies to validate the cut-off value of 1% Mf prevalence using antigenaemia and xenomonitoring data.
- Professor Dash suggested that research studies are necessary to test the higher detectability of the ICT new test strip in areas where residual antigen levels are low after multiple MDA. Dr Krishnamoorthy suggested that field trials will be useful to compare the performance of the new and old ICT tests.
- Dr Garib Das Thakur discussed the cross-border (intercountry) issues and stressed the need to examine the data on migration, exchange of data between the countries and initiate joint activities to address the problem.
- Dr Ichimori emphasized the need to reassess the disease burden in order to appreciate the benefit of LF elimination programme. She further suggested to review the TAS technically and standardize *proforma* for TAS eligibility and reporting. She also suggested that RPRG should review the data and provide necessary recommendations for making decisions on stopping MDA.
- Dr Rashmi Arora suggested that while integrating LF elimination programme with other NTDs, priority for LF should not be lost. Disease-specific subgroups can be formed to discuss the progress of integrated programmes.
- Professor Kelly-Hope stated that the current rates of national coverage are low and discussed the need to identify specific areas to improve coverage. Morbidity management activities are to be scaled up in many countries. Priority can be given to areas with high endemicity.

- Dr Krishnamoorthy, while stressing the need to standardize the new ICT, discussed that the TAS cut-off should not be modified or some correction factors (conversion formula) are to be used in response to the improved sensitivity of the test strip. He further stated that in view of integrating NTDs, it is necessary to consolidate the gains achieved in LF elimination and include the intervention measures such as IVM in areas with evidence of infection and transmission during post-MDA surveillance.
- Dr Srivastava suggested that the programme encourages purchase of drugs locally, and some states in India experience difficulties in procuring the drugs. If DEC is available under PC, this can be extended to such areas.
- Dr Kyaw N. Sein suggested that MMDP activities should be integrated with the existing health system and partnership approach should be encouraged.
- Dr Kusriastuti suggested that the size of EUs and the criteria to include IUs are to be addressed particularly for Indonesia where there are a number of endemic islands with smaller population.

The meeting also discussed the issues relating to the proposed extended RPRG and recommended that priority to LF should not be lost as it is a major VBD and has achieved good progress in its elimination in the Member countries. The group also recommended exploring the benefit of IVM in areas reporting with persistent infection despite multiple MDAs.

The conclusions and recommendations, arising out of these group discussions, were incorporated in the recommendations of the meeting.

9. Closing session

Dr Sergio G.C. Lobo, Honourable Minister of Health, Government of Timor-Leste, participated in the closing session. The Minister stated that the Ministry of Health has initiated steps to implement integrated NTD in 2013 with external support. He expressed his concern on the results of a recent nationwide parasitological survey which showed high levels of prevalence of STH and filariasis in Timor-Leste. He acknowledged all the members of RPRG for the deliberations and recommendations for the Member

countries in implementing LF elimination programme. Professor Dash welcomed the Minister and Dr Rajesh Pandav delivered the vote of thanks.

10. Conclusions and general recommendations

10.1 Conclusions

Three Member countries (Maldives, Sri Lanka and Thailand) have already stopped MDA following an assessment and are under post-MDA surveillance. Maldives is expected to submit the dossier by the end of 2013. Five countries continued MDA in 2012 while two countries (Myanmar and Timor-Leste) could not continue MDA due to some operational constraints. During 2012, 394 IUs were under post-MDA surveillance, and out of 674 IUs requiring MDA, 327 were covered with a geographical coverage of 48.5%. A total of 332.2 million treatments were provided during 2012 with a coverage of 69.78%. Following the capacity building on TAS in 2012, many of the qualifying IUs are under TAS to take the decision of stopping MDA. Furthermore, rounds of MDA were stopped in 470 IUs, and at least 400 IUs were evaluated for the impact using the TAS protocol (Bangladesh: 5, Indonesia: 24, Nepal: 16 and Thailand: 357). All the countries received technical support for continuing MDA and evaluating the impact. The action taken on the recommendations of the previous meeting was much satisfactory. In addition to Sri Lanka and Maldives, Thailand was brought under post-MDA surveillance and dossier preparation has been initiated in the respective countries. Limited resources were the main hurdle, particularly in Indonesia, Myanmar and Timor-Leste, in continuing and expanding MDA programmes. Morbidity management continues to be in low profile. Resource mobilization was also achieved in a few countries. Steps have also been initiated to understand the current status of nonendemic districts.

A regional capacity building on TAS was conducted in 2012 and 20 programme managers were trained. Revised TAS protocol is being used to take decision on stopping MDA.

10.2 General recommendations

- The RPRG noted that Member states have progressed well with upscaling MDA programmes and started realizing the impact of the LF elimination programme. At this juncture, the countries are encouraged to consolidate our achievements and move forward further with monitoring and evaluation. To facilitate this, a capacity building meeting of the programme managers from Member States is recommended for ensuring quality data, data management and TAS.
- The Group recommends 571 million treatments and 528 million ALB tablets for 2013 (Table 2). A supply of 102 million tablets for Myanmar and Timor-Leste is also recommended.
- Countries are urged to prepare a full updated report for review to understand the current status of the programme and appropriateness of methods used for programme evaluation. The RPRG is required to design a common format for updating the progress.
- The Group after reviewing the progress of the programme understood that the pre-MDA information and data on impact assessment are not adequate to understand the current situation and the impact of MDA. In this context, countries may carry out surveys to reassess the filarial endemicity.
- In view of the proposed integration of all NTDs, disease-wise technical subgroups may be constituted to deal with disease-specific issues and support RPRG.
- The Group also recommends the use of JRF which is designed to assist countries in reporting annual progress on integrated and coordinated distribution of medicines across diseases including LF.
- Countries are encouraged to follow WHO guidelines for TAS and use standard *proforma* (TAS eligibility, design and results) while submitting the data to RPRG for review.
- Adequate TAS training workshops should be conducted at national/regional levels in countries where MDA is continued.

- RPRG recommends for an expert group meeting in Indonesia to resolve issues in designating areas as IUs, identify EUs, and delineate the roles and responsibilities of the stakeholders towards networking.
- The Group noted the difficulties in scaling up MDA in Myanmar. A team of RPRG members may be sent to assist WR of Myanmar and national programme managers in analysing the data and developing appropriate plans for programme expansion.
- Since elimination will be from the entire country, the Group recommends that information should be compiled for each of the endemic units separately as well as for the whole country.
- Close monitoring is required to prevent the possible resurgence of infection due to migration in areas where MDA is discontinued.
- Joint cross-border surveillance can be designed between the endemic countries to prevent possible introduction of LF infection, particularly in countries where MDA is stopped.
- Countries are encouraged to strengthen MMDP activities by ensuring adequate funds.
- The RPRG will be expanded to cover other NTDs amenable to PCT. The expanded RPRG will be for 5 days back to back with the programme managers' meeting. The SEARO-expanded RPRG will focus on LF, STH, trachoma and SCH (only in a pocket in Indonesia). The relevant experts will be identified by SEARO in the respective field. While expanding the RPRG, all efforts will be met to sustain the gains already achieved in the LF elimination programme.

Table 2: Summary of albendazole requirement of countries in the SEA Region approved by the Tenth RPRG meeting held at Dili, Timor-Leste, 25–27 June 2013

Country	Number of treatments approved (million)	No of albendazole tablets to be shipped (million)	No of DEC tablets requested (million)	Expected arrival date of drugs in country	MDA scheduled for 2013	Remarks
Bangladesh	16.70	2.50	NA	June 2013	Nov 13	
India	460.00	460.00	NA	Per monthly quota	Nov 13	GSK agreed to supply 350 million tablets and RPRG requested GSK to explore the possibility of donating more albendazole
Indonesia	38.00	35.00	NA	Aug 13	Jul 13	
Maldives	No MDA 2013					
Myanmar	40.25	13.14	101.74	Jul 13	Mid Aug 13	This is MDA in 2012; requested 40.7 million is until 2014 as MDA 2012 was postponed to 2013
Nepal	14.87	16.35	NA	Nov 13	Jan/Feb 2014	MDA 2012 ongoing till Jan/Feb 2013. Requested tablets include 10% buffer stock
Sri Lanka	No MDA 2013					
Thailand	No MDA 2013					
Timor-Leste	1.20	1.20	0.60 awaited	Sep 13	To be decided	Pending operational cost
Total	571.02	528.19	102.34			–

Annex 1

Agenda

- Address by the Honourable Minister of Health, Timor-Leste
- Opening session
- Action-taken report on the recommendations of the Ninth RPRG meeting
- Update on global programme for elimination of lymphatic filariasis
- Updates from GlaxoSmithKline
- Critical and important role of programme managers in data collection and management of database with reference to clinical disease and prevalence of infection in LF endemic communities
- Country presentations on summary of LF reports 2012 and review of reapplication for albendazole 2013
- Finalization of albendazole requirement by each country
- Panel discussion on:
 - Regulating MDA rounds and methods to improve treatment coverage
 - Investigating persistent microfilarial rate
 - Verification of LF nonendemic districts
 - Post-MDA surveillance including xenomonitoring
- Conclusion and recommendations
- Closing

Annex 2

List of participants

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Annex 3

Message from Dr Samlee Plianbangchang Regional Director, WHO South-East Asia Region

(Delivered by Dr Jorge Mario Luna, WR Timor-Leste)

Distinguished experts, partners, country representatives, ladies and gentlemen,

It is with great pleasure that I welcome you all and convey greetings from the Regional Director, Dr Samlee Plianbangchang. Since the Regional Director is unable to attend this meeting because of other commitments, I have the honour to deliver his message. I quote:

“Lymphatic filariasis (LF), an ancient mosquito-borne disease, is a leading cause of permanent and long-term disability worldwide. Caused by filarial nematodes, the disease affects an estimated 120 million people worldwide. The most common clinical manifestations of LF include lymphoedema. The disease has a devastating effect on the quality of life of victims, impacting them not only physically but also emotionally and economically.

An estimated 1.39 billion people in the world live in areas where filariasis is endemic, and are therefore at risk of infection. Approximately 63% of those at risk reside in WHO’s South East Asia Region. This translates to about 884 million people in nine countries in this Region. The Region also accounts for approximately 57% of the total global burden of 4.9 million disability-adjusted life years lost due to LF.

The Global Programme to Eliminate Lymphatic Filariasis, launched following adoption of World Health Assembly Resolution WHA 50.29, has been facilitated by new research findings, drug donations, the availability of diagnostic tools, disability management strategies to help those affected and the development of partnerships. In the 72 countries where filariasis was endemic in 2010, WHO’s strategy to eliminate LF includes annual mass drug administration (MDA) using combinations of albendazole and diethyl carbamazine citrate (DEC) to entire populations at risk. This approach, also known as preventive chemotherapy (PC), has collateral benefits for other neglected tropical diseases such as soil-transmitted helminthiasis.

India alone accounts for 69 % of the total population requiring MDA in the Region. In 2011, over 570 million people in the Region were targeted for MDA, and over 414 million (72.6%) were treated. The total number of people treated increased by 33.7 million between 2010 and 2011. India, Indonesia, Myanmar, Nepal and Thailand increased the number of people treated in 2011 compared with 2010. An estimated 26.1 million preschool-aged children (2–4 years) and 86.6 million school-aged children (5–14 years) were treated through the programme. Our Region continues to be the major contributor to the success of the global programme, and it is our responsibility to scale-up treatment coverage through mass drug administration (MDA).

Sri Lanka and Maldives achieved more than five rounds of MDA with >65% coverage and <1% microfilaraemia prevalence and MDA was stopped in 2007 and 2009, respectively, and the countries moved into post-MDA surveillance phase. In 2011, a team of WHO experts visited these countries to review the situation; the team recommended that Sri Lanka should conduct Transmission Assessment Survey (TAS) in accordance with the new WHO guideline before proceeding with verification of elimination, and that Maldives should start verification of elimination.

The third country where MDA has been successful is Thailand. 87 out of 355 Implementation Units were implementing MDA until 2011, but it carried out TAS in 2012, and a similar WHO expert mission in December 2012 recommended stopping of MDA.

Distinguished members of the RPRG and participants,

All countries in the Region except Timor-Leste have implemented MDA. Timor-Leste needs external financial support and advocacy to re-start and scale-up MDA. The country's commitment has been reinvigorated after a National Parasite Survey carried out in 2012.

Bangladesh and Nepal stopped MDA in 10 districts after completing a TAS exercise in 2011 and are implementing post-MDA surveillance. About 173 districts of the 250 endemic districts in India have already completed more than five rounds of MDA and reached a microfilarial rate of less than 1%. A TAS exercise is being planned to stop MDA in due course.

A regional workshop was organized in 2012 by WHO/SEARO to build capacity in all endemic countries in the Region to plan and conduct TAS. Once the implementation units conduct TAS, as set out in the WHO guideline, they will be qualified to stop MDA and the global population requiring MDA should reduce progressively in the coming years. However, procurement of immunochromatographic (ICT) kits and mobilizing resources for operational costs including capacity building is a challenge for Member States.

WHO's Regional Office for South-East Asia is also prioritizing capacity strengthening of Member States in the implementation of integrated vector management (IVM) strategy to hasten the process of control/elimination of vector-borne diseases, including LF. Environmental management is a key component in the elimination of LF.

Distinguished participants,

The progress made so far is the result of concerted efforts made by national authorities and sustained collaboration with partners. I would like to acknowledge and congratulate the national programmes for their efforts in strengthening their collaboration with various partners to mobilize resources and in building partnerships to expand MDA. Uninterrupted and generous donations of albendazole by GlaxoSmithKline (GSK) through WHO to all endemic countries for the MDA activities is an example of this partnership. Recently, Eisai Co. Ltd. joined this public-private partnership network by committing to donate DEC from 2014 onwards to the LF programme. In addition, Sanofi has also decided to donate DEC tablets to some countries in the Region. We hope that more partners will come forward to combat LF and other neglected diseases in the Region.

Research, monitoring and evaluation are crucial in identifying bottlenecks and implementing appropriate solutions. Various social, cultural and epidemiological factors cannot be ignored as they influence the performance of the programme. The way forward is not easy and challenges remain for successful expansion of MDA implementation in Member States of our Region. Improved MDA coverage in urban areas and among difficult-to-reach populations, intersectoral collaboration among government agencies and appropriate local bodies, social and resource mobilization, sustained political commitment and morbidity management

are all needed. Other challenges include improving the data management practice, completing the MDA cycle in a given calendar year, drug procurement and supply, utilization and feedback at all levels in each of the endemic countries.

Action plans to integrate the LF elimination programmes with other neglected tropical diseases to deliver preventive chemotherapy or mass drug administration are being implemented in Bangladesh, Indonesia, Myanmar, Nepal and Timor-Leste. This is in line with the Regional Strategic Plan for Integrated NTD Control 2012–2016. Such integrated approaches have proven to be a cost-effective public health intervention.

Another key to success is technical support on morbidity management and disability prevention activities. In addition to successful MDA, another pillar of the elimination strategy aims to provide access to a package of basic recommended care for every person with acute attacks, lymphoedema, elephantiasis or hydrocele in all areas where LF is endemic. Member States should adopt an integrated approach to managing morbidity and preventing disability from LF.

Achieving the regional and global target of LF elimination by 2020 is our common goal. As members of the RPRG for Elimination of Lymphatic Filariasis, you all play an important role to discuss, in depth, all the technical and operational issues and make recommendations to sustain and accelerate the progress made so far. I wish you productive deliberations and a comfortable stay in Dili.” Unquote

I will, of course, apprise the Regional Director of the outcome of this meeting. I too would like to take this opportunity of wishing you fruitful deliberations.

Thank you,



The Tenth Meeting of Regional Programme Review Group (RPRG) was organized by the WHO Regional Office for South-East Asia in Dili, Timor-Leste, from 25 to 27 June 2013, for the elimination of LF. The Group reviewed the progress and identified the operational and technical issues and suggested appropriate remedial measures to nine endemic countries in the South-East Asia (SEA) Region.

The Group approved a total of 571.01 million ALB, and 1111 and 101.74 million DEC tablets of 200 mg from GSK and Sanofi Pharma, respectively. The meeting recommended a capacity building workshop for programme managers, particularly for ensuring quality data, data management and transmission assessment survey (TAS), and expansion of RPRG for other NTDs in the Region.

Endemic countries in SEA Region have made significant progress since 2000. The Group identified operational and technical issues, and suggested appropriate remedial measures and to recommend an annual need of ALB for 2013. The meeting recommended the SEARO expanded RPRG focusing on LF, STH, trachoma and schistosomiasis and ensuring the sustenance of the gains already achieved in the LF elimination programme. The RPRG appreciated WHO/SEARO and the Member countries for the progress made to achieve elimination of LF by 2020.



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