

SEA-FIL-35  
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# Fifth Meeting of National Lymphatic Filariasis Programme Managers of the WHO South-East Asia Region

*Report of the Meeting  
Jakarta, Indonesia, 5-7 July 2006*



**World Health  
Organization**

Regional Office for South-East Asia  
New Delhi

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January 2007

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# 1. Background

Lymphatic filariasis (LF) is one of the most disfiguring diseases and a major cause of clinical morbidity. It is the world's second leading cause of permanent disability and a key impediment to socioeconomic development. The disease is endemic in 83 countries with more than 1.3 billion people at risk of infection. The South-East Asia Region accounts for the highest burden of LF, with an estimated 850 million people at risk of infection in 9 of the 11 countries, and nearly 50% of the 120 million clinical cases worldwide.

The World Health Assembly in 1997 adopted resolution WHA 50.29 calling on Member countries to work towards elimination of LF as a public health problem by 2020. Elimination was defined as a microfilaraemia (Mf) rate of <1% in all endemic areas, for five consecutive years. WHO therefore prepared a global strategic plan with all relevant stakeholders, aimed at the gradual reduction and ultimate interruption of transmission. This required endemic areas in all countries to be covered by the elimination programme by 2010. The two main strategies were: (a) interruption of transmission through annual mass drug administration (MDA) of two drugs (diethylcarbamazine citrate (DEC) and albendazole), to the entire endemic population for at least five years; and (b) alleviation of disability through morbidity management of clinical cases.

By 2005, all nine endemic countries in the South-East Asia Region (SEAR) were implementing, and in some cases scaling up, MDA. Increasing attention has been given by all countries to prevention and to alleviation of disability in affected patients.

In line with the global strategy, National LF Programme Managers Meetings have been held regularly since 2000 to review the progress of LF elimination, identify constraints and plan for the future. The first of these meetings was held in Orissa, India in February 2000. The second was a bi-regional meeting of SEAR and WPR countries, held in Bali, Indonesia in 2002. The third meeting was held in Kathmandu, Nepal in 2003 and the fourth in New Delhi, India in May 2005 after the forming of all nine endemic countries of SEAR into one group.

The objectives of this, the fifth meeting of National LF Programme Managers were:

- (1) to review the progress of LF elimination in SEAR endemic countries, including national policies and strategies;
- (2) to provide technical updates and discuss the Regional Programme Review Group (RPRG) recommendations related to implementation and scaling up of mapping, MDA and disability alleviation activities in the region;
- (3) to discuss and finalize the draft Regional Strategic Plan for LF Elimination 2006- 2010; and
- (4) to propose specific recommendations for acceleration of LF elimination activities.

Dr Hariadi Wibisono of Indonesia was unanimously designated Chairperson, Dr Manas Banerjee of Nepal Co-Chairperson and Dr Khin Mon Mon of Myanmar as the Rapporteur of the meeting.

## **2. Opening session**

Dr Georg Petersen, WHO Representative to Indonesia, welcomed participants and delivered the inaugural address on behalf of Dr Samlee Pliangbangchang, Regional Director. Dr Samlee said that elimination of LF was a priority programme of WHO and that achievement of this goal depended primarily on the South-East Asia Region, since it had the highest burden of the disease.

He was pleased to note that all endemic countries in the Region were implementing MDA and that, of the 146 million people across the globe who received the 2-drug MDA in 2005, 82.5 million were from the nine endemic countries of the SEA Region<sup>1</sup>. However, this represented only 9.7% of the 851 million people at risk of LF in the Region. Therefore, he stressed the importance of strengthening the programme, scaling up MDA rapidly and intensifying other needed activities.

Dr Samlee explained that WHO advocated an integrated approach to the control of neglected tropical diseases such as LF, kala-azar, leprosy and

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<sup>1</sup> Weekly epidemiological record, No. 22, June 2006

yaws. He therefore urged Member States to explore opportunities to integrate and synchronize LF interventions with activities such as vector control and the distribution of insecticide-treated bednets to maximize the benefits.

He reflected that in the past five years, WHO has learnt a lot. Firstly, that the use of DEC plus albendazole as the 2-drug strategy is safe and effective. Secondly, that the community-based approach for the prevention and alleviation of LF disability leads to improved clinical outcomes. Thirdly, that the impact of the strategy depends on high coverage and compliance. Finally, Dr Samlee observed that the scale-up of activities has been hampered by resource constraints.

In this connection, WHO had organized a meeting in November 2005 of 22 partners on the elimination/eradication of tropical diseases (Bangalore, India), which culminated in the Bangalore Declaration. Acting upon one of the recommendations of the Bangalore Declaration, "Regional Initiatives for Diseases Targeted for Eradication/Elimination", has been included as an agenda item at the WHO South-East Asia Regional Committee meeting in Dhaka, Bangladesh in August 2006.

Dr Samlee requested the Programme Managers to discuss three important issues in particular:

- (1) Advocacy to sustain and strengthen political commitment and policy support;
- (2) Resource mobilization; and
- (3) Integration of LF activities within other programmes.

## **3. Global and regional overview**

### **3.1 Global overview**

Forty-two of the 83 LF-endemic countries in the world are implementing mass drug administration (MDA) for LF elimination. South-East Asia accounts for 65% of the global population at risk, followed by the African Region (30%): the remaining 5% is shared among the Eastern Mediterranean, the Western Pacific and the Americas.

Globally, about 1.3 billion people are exposed to the risk of LF, of whom 120 million (about 10%) have disease manifestations. Of those with disease manifestations, 14 million are estimated to have chronic lymphoedema and about 2.5 million LF-induced hydrocele.

The estimated economic loss due to LF is substantial. India alone suffers an annual loss of US\$ 1.5 billion. The return on investment in LF elimination is as high as 6:1 in China, and the ratio could be higher in the SEA region.

Since the launch of the programme in 2000, mapping of the distribution of LF has been completed in 59 of the 83 endemic countries, and MDA has been scaled up in all regions. Table 1 shows the proportion of endemic countries in each region implementing MDA.

**Table 1: Mass drug administration for LF in 2005, by WHO region or Regional programme review group (RPRG)**

WHO Region/ RPRG	No. of LF endemic countries	Total estimated population at risk	Countries implementing MDA	Countries unlikely to require MDA	Total population under MDA
Africa	39	394 320 581	11	1	44 479 405
Americas	7	8 870 000	4	3	4 361 357
Eastern Mediterranean	3	14 914 730	2	0	841 783
South-East Asia	9	851 317 304	9	0	542 681 535
Mekong Plus	8	23 551 709	4	3	16 800 695
Pacific Island countries (PacELF)	17	8 061 502	12	1	1 612 063
<b>Total</b>	<b>83</b>	<b>1 301 035 826</b>	<b>42</b>	<b>8</b>	<b>610 776 838</b>

Source: Weekly epidemiological record, No. 22, June 2006

In 2005, over 610 million people were targeted globally for MDA, of whom 146 million received the 2-drug regimen (DEC plus albendazole or ivermectin plus albendazole) or DEC-fortified salt. The rest received DEC alone – a strategy not recommended by WHO.

The impact of MDA on microfilaraemia (Mf) clearance as assessed through sentinel sites has been encouraging. Approximately 87% of sentinel sites showed Mf clearance rates of >50% after 2-3 rounds. WHO has provided technical assistance for monitoring, MDA scheduling, capacity building, access to quality drugs and diagnostics, operational research and resource mobilization.

The MDA 2-drug regimen scale-up is expected to increase significantly by the end of 2006, subject to its anticipated adoption in India as recommended by the Indian Council of Medical Research. It was reiterated that the goal of LF elimination by 2020 depended on all endemic countries implementing MDA for the population at risk by 2010.

### **3.2 Regional overview**

The SEA Region has the highest burden of LF with 65% of the 1.3 billion population at risk and 50% of the estimated 120 million clinical cases.

MDA is implemented in all the nine endemic countries. As of 2005, 82.5 million of the nearly 851 million people at risk have been covered by the MDA 2-drug regimen. The scale-up will substantially increase when India expands the 2-drug regimen from seven pilot districts to nationwide coverage. In addition, a population of 554 million was covered with DEC alone in India in 2005. Mapping has been completed in all countries except Indonesia and Myanmar which expect to complete the exercise by 2007.

The impact of MDA in selected sentinel sites shows complete Mf clearance in 27% of sites, and 50-99% clearance in the remaining sites, after two rounds. Sri Lanka will be the first country in the Region to complete five rounds of MDA in 2006.

Disability alleviation and care is receiving increasing attention. Sri Lanka, for example, has secured funding from the International Federation of Football Associations (FIFA) for a pilot disability programme, aimed at home-based care for LF-disabled persons.

The main issues and problems have been:

- insufficient resources;
- procurement of quality DEC;

- quality and reliability of diagnostics;
- effective logistics management;
- inconsistent reporting from many sentinel sites; and
- integration of LF with other programmes like soil-transmitted helminthic infections (STH), malaria, and school health.

WHO will continue to provide technical assistance to all countries, assist in advocacy and resource mobilization, promote integrated approaches, encourage research, enhance partnerships and the sharing of information with all concerned.

## **4. Country presentations**

### **4.1 Bangladesh**

In 2005, a total of 17.2 million people received MDA with a 93% reported coverage and actual coverage of 86% of the eligible population. The MDA commenced with one district in 2001, rising steadily to 12 districts in 2005. If funds are available, the entire 60 million population at risk is expected to be covered by 2007. An Mf survey is conducted before and after MDA in selected sites. Morbidity control and hydrocelectomy is carried out at both government hospitals and in one nongovernmental Filaria Hospital.

Deworming for STH control will be combined with LF MDA. A National Strategy on LF and STH control is in preparation. World Bank consortium-funded Health, Nutrition and Population Sector Program funds are earmarked up to 2010 but there have been delays in release of the funds. The procurement of quality DEC and ICT cards is a major issue that needs support from WHO to resolve.

The programme is funded by the Government of Bangladesh, World Bank, Japanese Government, WHO, Liverpool LF Support Centre, Japanese International Cooperation Agency and LEPR-UK. Albendazole donated by GlaxoSmithKline is supplied through WHO. Bangladesh is likely to receive free supplies of mebendazole for STH control.

## **4.2 India**

India first implemented a filarial programme in 1949 through a pilot project in Orissa state. The National Filaria Control Programme was then launched in 1955 with a strategy of DEC for five days plus anti-larval measures and Indoor Residual Spraying (IRS). However, the DEC plus IRS combination was withdrawn between 1960-1970 and only weekly anti-larval measures undertaken. In 1970, a 12-day DEC course was re-introduced, along with weekly anti-larval measures in urban areas. In 1984, this strategy was extended to rural areas. In 1997, MDA with a single annual dose of DEC or DEC plus albendazole was piloted in selected areas. In 2004, DEC alone was given in 195 districts and DEC plus albendazole in 7 districts. In 2005, 235 districts received DEC alone, and a further 7 DEC plus albendazole, covering a total of >500 million people. MDA will be further scaled up when use of the 2-drug combination becomes the formal policy in India.

## **4.3 Indonesia**

Indonesia has the third highest burden of LF globally and the second highest of the Region with an estimated 150 million people at risk. Of the 441 districts, 259 have been declared endemic based on the stratified mapping done to date. Mapping remains to be done in 182 districts. The country is following the RPRG recommendation that if 50% of the districts in a province are endemic on mapping, all districts in the province are to be considered endemic. Using this policy, mapping is expected to be completed by 2007.

MDA using DEC plus albendazole commenced in 2002 in five districts, but scale-up has been slow primarily due to resource constraints. In the past, the sub-district was used as the Implementation Unit (IU), so several districts were only partially covered. The country has now decided to take the district as the IU as advised by RPRG. In 2005, nine districts were fully covered by MDA and 22 districts were partially covered. It is proposed to complete coverage of these 22 districts in 2006, subject to availability of drugs and funds.

A total of 10,239 clinical cases have been recorded country-wide. Community home-based care caters for about 10% of the clinical cases. The scale-up of disability alleviation activities has been slow for lack of funds.

Issues and challenges are the uncertainty in budget allocations for LF at the local level after decentralization, inadequate data collection, insufficient policy/administrative support and lack of funding. Indonesia has also recently faced many natural disasters; in addition, polio resurgence and avian influenza led to a reallocation of in-country funds to these priority areas at the expense of programmes like LF.

#### **4.4 Maldives**

The filarial control programme was initiated in 1968 and by 1984, transmission was interrupted in most of the islands. An assessment was conducted from December 2003 to March 2004 through immunochromatographic cassette test (ICT) and night blood sampling. Only one island – Fonadhoo, with a population of 1740 – was found to be LF positive, with a low Mf rate of 0.08%. MDA was therefore administered to all inhabitants of the island in July 2004, 2005 and 2006. The coverage was 99% during each round. Vector control activities are being carried out country-wide in an integrated approach. A module for disability care has been developed in the local language and distributed to all the 151 chronic cases. Updated travel guidelines for expatriate workers will include screening for LF prior to arriving in the Maldives.

#### **4.5 Myanmar**

The district level has been selected as the Implementation Unit in Myanmar. Forty-five of the 65 districts in the country are LF endemic, with a total population of 43.2 million. Mapping has been completed in 60 districts, and should be completed in the remaining 5 districts in 2006. In 2004, a total of 17 million people received MDA. However, MDA could not be implemented in 2005 due to lack of DEC. In 2006, 11 million people have so far received MDA as part of the 2005 allocation.

WHO and other partners were urged to enhance their support to the LF programme in Myanmar, which is severely jeopardized due to lack of funds and DEC.

#### **4.6 Nepal**

Nepal has completed mapping in all 75 districts, 58 of which are endemic for LF, with a population of about 23 million.

MDA commenced in 2002 in one district (Parsa). In 2004, Chitwan and Makwanpur districts were added and by 2005, two additional districts of Rupendehi and Nawalparasi brought the total to five districts and 88.6% of the eligible population having received MDA. It is hoped that 17 districts will be covered by the end of 2006 with funding from World Bank grants. Subject to the temporary loan from India of DEC supplies, MDA should finally start to be implemented in July 2006.

#### 4.7 Sri Lanka

Sri Lanka is administratively divided into 9 provinces and 25 districts. The country completed mapping in 2004 and provided MDA to the entire endemic population of 10 million residing in eight districts (IUs) of three provinces. Coverage for 2005 was 83.7% of the total population and 91% of the eligible population. These high coverage levels can be attributed to strong social mobilization prior to drug administration. Approximately 46 000 volunteers were involved in the implementation of MDA. Sri Lanka will complete five rounds of MDA in all districts in 2006 and will then need to decide on when to stop administration.

A comprehensive disability prevention programme was piloted in Kalutara district, where 1316 clinical cases have been recorded. This disability care programme will be extended to Colombo, Gampaha and Kurunegala districts in 2006. The programme is partly funded by the Federation of International Football Association (FIFA).

Impact assessments in Colombo, Gampaha, Kalutara and Galle districts have shown a decline in both Mf prevalence and density. However, it was observed that infection rates in Culex mosquitoes are increasing in some districts with low density Mf.

#### 4.8 Thailand

The LF programme in Thailand commenced in 1961 but was restricted to the highly endemic southern provinces. Between 1976 and 1986, the programme was extended to the central and northern provinces and in 1994 to the entire country. *W. bancrofti* as well as *B. malayi* are prevalent.

Cats are the animal reservoirs of the latter. Mass Drug Administration with DEC plus albendazole commenced in 2002 in 336 villages (IUs) where the Mf rate was >1%. The population of the 336 villages was about 160 000.

The plan for 2007- 2009 is to continue MDA in Narathiwat province (a *B. malayi* area), to extend MDA to the migrants and refugees who may import infection from countries like Myanmar or Laos, and to control the animal reservoir. On the other hand, MDA will be stopped in *W. bancrofti* areas.

#### **4.9 Timor-Leste**

Timor-Leste, an independent nation since 2002, is still building its health infrastructure and manpower. The country has all three parasites that cause LF, 90% of the infections due to *B. timori* and *B. malayi*, and 10% due to *W. bancrofti*. All 13 districts of the country are LF endemic.

The LF programme is integrated with leprosy, STH, yaws, other skin infections and TB case detection. MDA was launched in four districts in February 2005, and a further two in 2006. It is proposed to cover all 13 districts by early 2007. This integrated disease model involves volunteers and non-medical staff in addition to the health professionals. It is also a partnership between the government, WHO, the Catholic Church and NGOs. The Geographical Information System (GIS) and stratification is used to support planning, implementation and monitoring of the programme.

### **5. Special presentations**

#### **5.1 Integrated Approaches to Neglected Tropical Diseases – Rationale for Prioritization: Professor David Molyneux, Lymphatic Filariasis Support Centre, Liverpool School of Tropical Medicine, UK**

The combined disease burden in terms of DALYs for 'neglected' tropical diseases (NTD) as a group is 56.6 million, which is more than malaria at 46.5 million and tuberculosis at 34.7 million. Only HIV/AIDS with 84.5 million DALYs is higher.

Dr Molyneux mentioned some of the success stories related to NTDs which have not been fully recognized, such as (a) elimination of lymphatic filariasis in China, with 350 million people no longer at risk; (b) control of onchocerciasis in 10 countries of Africa; (c) elimination of domestic transmission of Chagas disease in five countries of South America; (d) control of schistosomiasis in China and Egypt; and (e) elimination of leprosy as a public health problem in 116 countries.

The achievements of the above programmes can be attributed to availability of cost-effective interventions and strong partnerships, including drug donations from industry and partners, such as: multidrug therapy for leprosy; Mectizan for onchocerciasis and LF; albendazole for LF (supply assured until 2020); azithromycin for trachoma, and mebendazole for intestinal worms. The international partnerships of ministries of health, bilateral/multilateral agencies, United Nations agencies, NGOs and the private sector is growing stronger and provide an opportunity to intensify efforts to tackle communicable diseases in general and NTDs in particular.

The benefits of focused and coordinated efforts are: improved health systems delivery, significant impacts on poverty, improved likelihood of achieving Millennium Development Goals, economic returns, availability of high-quality drugs free of charge, and increased community involvement. Moreover, integrated programmes allow higher coverage, streamlined operating efficiency, simplification of work at the district level, enhanced community ownership, cost-effectiveness and sustainability.

Finally, Dr Molyneux noted that the control of soil-transmitted helminthic infections, integrated with LF, schistosomiasis and onchocerciasis programmes offered maximum benefits since they address the physical and cognitive growth of children and other vulnerable groups.

## **5.2 Global Programme for Elimination of LF – Background, Progress and Challenges: Professor Dato' Dr C.P. Ramachandran**

The WHO recommended 2-drug regimen of DEC PLUS albendazole for LF was an outcome of over 18 years of research and development, which included multi-centre drug trials of antihelminthic drugs, combination therapies, new drug development, immuno-diagnosis, immunotherapy and epidemiology.

When cost-effective interventions and reliable diagnostic tools became available, the World Health Assembly passed a resolution in 1997 calling on LF endemic States to work towards elimination of the disease as a public health problem. This led to the establishment of the Global Programme to Eliminate Lymphatic Filariasis, operating under the paradigm of public- private partnerships with shared responsibilities and common ownership. The WHA resolution requested the WHO Director-General to mobilize support for global and national elimination activities.

The progress of MDA so far has been limited, with less than 10% of the 1.3 billion population at risk covered by the 2-drug regimen as at the end of 2005, despite a supply of albendazole free of charge. This was primarily because of inadequate resources at national level and insufficient international donor support for this neglected disease. It should be noted that 56% of the operational costs of MDA is contributed by governments, 30% by international donors and 14% by WHO.

Recent positive elements should change this situation. These include the commitment of endemic countries to create budget lines for LF; the creation of a Commission for Africa on Neglected Tropical Diseases; the resolution passed by the European Union Parliament on NTDs, US Congressional Appropriation for a USAID grant of US\$ 100 million over five years for NTDs, and a grant of US\$ 30 million provided by the Asian Development Bank for Mekong countries. This increasing international attention for LF and other NTDs augurs well for the future.

### **5.3 Partnership in the Global Programme to Eliminate LF: Ms Minie Iwamoto, GlaxoSmithKline**

GlaxoSmithKline considers it a privilege to be a partner in the global fight against LF, and is inspired by the dedication of country managers, national authorities, WHO and other partners. GSK's collaboration with this partnership has earned it many awards including the World Business Award 2006 by ICC/UNDP/IBLF.

From 2000 to June 2006, GSK supplied 496 million albendazole treatments, of which South-East Asia received 55%. The cooperation of WHO and the Member States is vital to forecast requirements and manufacturing capacity, and for prompt reporting of severe adverse episodes.

#### **5.4 Monitoring the Global Programme to Eliminate LF: Dr Gautam Biswas, Medical Officer (Filaria), WHO/HQ**

The success of LF elimination depends on (a) effectiveness of drugs; (b) drug coverage, i.e. actual ingestion of drugs; (c) number of MDA rounds, and (d) baseline infection levels.

If quality drugs have been used and the drug coverage is above 80%, the impact in terms of declining Mf prevalence is usually observed from the second round onwards and the prevalence will be well below 1% after five rounds. Drug coverage should be measured separately in the total as well as the eligible populations. The reported coverage should be compared with a post-MDA surveyed population using the EPI 30 cluster sampling. A surveyed coverage study can be used to find age stratification and possible reasons for non-compliance. The surveyed coverage should ideally be conducted in all IUs or at least in 20% of the IUs rotating each year. The Mf rate, Mf density and disease rate need to be measured in all the selected sites.

Impact monitoring should be conducted at two sentinel sites per IU or roughly one sentinel site per 500 000 population. In addition, assessment should be done in a few spot-check sites randomly. The choice of all sites should be made as per WHO guidelines.

The following criteria should be used for stopping MDA:

- (1) At least five rounds of effective MDA have been carried out;
- (2) Less than 1% Mf rate in each IU is registered prior to the fifth round of MDA as assessed in sentinel and spot sites;
- (3) Less than 1 in 1000 cumulative incidence is measured in school entrants, i.e. no child in the 2- 4 age group is Mf or ICT positive in sentinel sites. In addition, community Lot Quality Assurance (LQA) cluster survey of ICT in 300 children of this age group has been carried out in areas of high risk; and
- (4) The children selected were born after initiating MDA.

Countries that are nearing completion of five rounds should seek WHO technical assistance to carry out the required assessments for consideration of stopping MDA. The revised guidelines developed by WHO

will facilitate evaluation of the impact of intervention measures and provide indications of when to terminate MDA. Verification of interruption of transmission before stoppage of MDA in each IU will be critical to the programme.

## **5.5 Update on the Global Alliance to Eliminate LF: Professor David Molyneux, Executive Secretary**

The sole objective of the Global Alliance to Eliminate LF (the Global Alliance) is to support the WHO-based Global Programme on LF described above. The new Executive Group of the Global Alliance is working on advocacy for resource mobilization. A US\$ 10 million proposal, to be submitted to the Bill and Melinda Gates Foundation, has three goals: to define features of successful programmes; to explore supplementary interventions and alternative drug regimens; and to acquire economic impact data and innovative financial strategies.

A further proposal of US\$ 100 million for five years is under consideration by USAID. The Global Alliance is also in contact with UK Department for International Development, the European Union and selected American foundations.

The Global Alliance is promoting integrated proposals that incorporate an LF component. Since donor interest in such integrated proposals is focused mainly in Africa, SEAR countries and WHO should make a case for support to this Region, which accounts for the highest burden of LF.

## **5.6 Urine Test as a Diagnostic Tool for LF: Dr Atsuhide Takesue, Sasakawa Memorial Health Foundation, Japan**

Preliminary results from a pre-MDA baseline prevalence survey conducted in Timor-Leste in 2005 using the ELISA test on urine samples were shared. Timor-Leste was selected for the survey since it did not have baseline data on LF endemicity although MDA had started in a few districts. Also, blood testing was difficult because of inadequate health infrastructure and manpower.

The objectives of the study were (a) to determine the sensitivity of urine Elisa on Mf-positive people as a gold standard; (b) to compare the

Brugia Rapid Test with urine Elisa; and (c) to study the distribution and intensity of filarial infection in the country using urine ELISA on school students. Final results from objectives (a) and (b) are still awaited. For objective (c), 89 (2.6%) of the 3461 children surveyed in 20 schools were found positive for urine ELISA.

Urine ELISA detects filarial-specific urinary IgG4 antibodies. The ELISA was used in China, Nepal, Sri Lanka, and Thailand with satisfactory results. While the sensitivity of the urine ELISA for *W. bancrofti* infections is established, the specificity for *Brugia timori* – a leading cause of LF in Timor-Leste – has not. In the present study, reliable sensitivity and specificity could not be established because of the small number of positive samples obtained using the Brugia Rapid Test. Contrary to expectations, the results obtained from the schools suggest that LF prevalence may be low in Timor-Leste. It is therefore necessary to confirm the sensitivity of urine ELISA for Brugia infections.

The advantages of urine ELISA are the ease of collection, especially from children, and that large samples can be processed at relatively low cost. The urine ELISA is certainly useful to identify *W. bancrofti* foci, to monitor the impact of MDAs and to confirm the elimination of LF.

## 6. Group work

**Group 1** discussed issues related to mapping, MDA, disability alleviation. Group members identified procurement of quality DEC, logistics management, availability and procurement of diagnostic tests, social mobilization, monitoring and resource mobilization, a priority issues.

**Group 2** discussed integrated approaches to LF elimination. Group members identified the following health programmes that could be integrated with LF: leprosy, yaws, soil transmitted helminths, vitamin A distribution, antimalarial drug or bednet distribution, school health, nutrition and vector control. Successful integrated programmes or activities require policy decisions, proper planning, intersectoral coordination and strong partnerships, with the role of each partner clearly identified.

The recommendations of the two groups are reflected in the conclusions and recommendations of the meeting.

## **7. Report and recommendations of the Sixth Meeting of the WHO Technical Advisory Group (TAG) on LF, Geneva, 20-23 September 2005**

The major successes recorded by TAG included LF elimination in many countries of the Western Pacific Region, and a request to WHO from China for external verification of the absence of LF transmission. Major concerns were that large populations in the South-East Asia and African regions were yet to receive the MDA 2-drug regimen, and that international financial support had stagnated or decreased.

TAG warned that unless the current funding situation is improved, efforts may have to be abandoned in poor countries, despite the donation of albendazole and ivermectin, and a high risk that the goal of eliminating LF as a public health problem will not be reached.

## **8. Recommendations of the Third Meeting of the South-East Asia Regional Programme Review Group (RPRG) for Elimination of LF, Jakarta, 27-28 April 2006**

The deliberations of the Third Meeting of RPRG were shared with National Programme Managers. Broadly speaking, the RPRG endorsed the need for increased global commitment and resources to elimination of LF, using an integrated approach with other NTDs. It specifically urged increased preparation and surveillance of sentinel sites and, in view of the anticipated scale up of MDA, expressed concern over the issues of procurement and access to quality DEC. Full recommendations are provided in Annex 3.

## **9. The Revised Regional Strategic Plan on LF elimination, 2006- 2010**

The Revised Regional Strategic Plan for 2006- 2010 was adopted after inclusion of modifications proposed during discussion of the draft plan.

Programme Managers requested the Regional Office to finalize the revised document and share it with the LF national programmes without delay.

## **10. Conclusions and recommendations**

- (1) The participants noted with appreciation the progress to date of LF elimination in the Region in spite of many constraints. They requested WHO and partners to enhance their technical and financial support to scale-up LF elimination activities, including completion of mapping by 2007. National governments and WHO were requested to strengthen existing partnerships and identify new partners to support LF elimination.
- (2) Participants were pleased to note that LF was on the agenda of the 59<sup>th</sup> meeting of the Regional Committee (RC-59) for South-East Asia (Dhaka, Bangladesh, 22-25 August 2006) under "Regional Initiatives for Eradication/Elimination of Tropical Diseases". It was recommended that Programme Managers should provide appropriate briefing to delegates attending the RC-59.
- (3) Concern was expressed about the continued lack of adequate resources for LF elimination activities in all endemic countries. Participants recommended that global, regional and national advocacy, targeting the highest political levels, development partners and key groups like industry, private sector foundations and media, be accorded top priority. It was further recommended that appropriate advocacy strategies should be developed by WHO and national programmes, and significant achievements made so far documented and highlighted to promote advocacy and resource mobilization.
- (4) Participants were also concerned at the difficulties in procuring drugs and diagnostics like ICT. The delay in the supply of DEC and, in some instances, albendazole was adversely affecting timely MDA implementation. It was recommended that WHO establish a mechanism for national procurement of quality DEC. For their part, countries should allocate adequate funds for DEC procurement, clearance and in-country delivery of the drugs.

In addition, WHO should also explore and promote the development of alternative diagnostic tools.

- (5) National LF programmes should follow the national procedures for reporting and investigating promptly any serious adverse experiences

- (SAE) during mass drug administration. The need for special care in administration of tablets to very young children in order to prevent asphyxia was emphasized.
- (6) The participants endorsed the need to integrate LF elimination within existing health services such as malaria, leprosy, STH, immunization/Vitamin A programmes. It is recommended that WHO and partners assist countries to develop national policies and plans for integrated approaches.
  - (7) The need for better coordination among agencies, organizations and programmes implementing similar control initiatives was stressed. It was also recommended that a coordinated reporting system be established.
  - (8) The need for timely planning and implementation of preparatory activities such as training, IEC, social mobilization and procurement of drugs was reiterated. It is recommended that long-term planning and forecasting of drug requirements be made and submitted to WHO.
  - (9) The meeting noted that progress towards disability prevention had lagged behind and recommended that national programmes should scale up and prioritize disability alleviation in parallel to MDA. Attempts should be made to integrate LF disability care with leprosy and other programmes dealing with disabilities.
  - (10) Operational research should become an integral part of the programme implementation and the national programmes should take steps to involve research institutions, universities, medical colleges, etc. in LF elimination activities.
  - (11) The meeting endorsed and adopted the Regional LF Strategic Plan 2006- 2010 as amended. WHO was requested to finalize the document based on the inputs of the National Programme Managers and, with relevant partners, assist countries in implementation of the Plan.

## **11. Closing session**

Professor Mahroof Ismail, Chair of the South-East Asia Regional Programme Review Group concluded that the progress made so far to eliminate LF in the nine endemic countries of the Region had been modest and needed to be accelerated. He impressed upon the national programme managers the

need to ensure in-country resources and nationwide advocacy for this purpose, regardless of attempts to attract funds from international agencies.

He thanked the Chair, Co-Chair and Rapporteur for conducting efficiently the meeting, and thanked all participants for their useful inputs and sharing of information. He thanked the WHO Representative, Indonesia and his staff for the excellent arrangements made and for the secretarial support and facilitation of the meeting.

## Annex 1

### List of participants

#### National Programme Managers

##### Bangladesh

Dr Moazzem Hossain  
Programme Manager (Filariasis)  
Directorate-General of Health Services  
House No.401, Road No.29  
New DOHS, Mohakhali, Dhaka

##### Indonesia

Dr Hariadi Wibisono  
Director of Vector Borne Disease Control  
Directorate General of CDC & EH  
Ministry of Health, R.I., Jakarta

Dr I Nengah Darna  
National PELF Programme Manager  
Directorate General of CDC & EH  
Ministry of Health, R.I., Jakarta

Dr Mulin Simangunsong  
PELF Programme Manager  
Central Kalimantan Province

Ms Farida Bey  
PELF Programme Manager  
Bangka Belitung Province

Dr Gindo Simanjuntak  
Member, National Task Force of Indonesia  
Jakarta

##### Maldives

Dr Hassan Samir  
Director  
Department of Public Health  
Ministry of Health, Malé

Ms Rasheeda Najeeb  
Assistant Statistical Officer  
Department of Public Health  
Ministry of Health, Malé

##### Myanmar

Dr Khin Mon Mon  
National Programme Manager  
(Lymphatic Filariasis)  
Department of Health, Yangon

Mr U Hla Than  
Malaria Inspector  
VBDC Unit  
Magway, Magway Division

##### Nepal

Dr Manas Kumar Banerjee  
Officiating Director  
Epidemiology & Disease Control Division  
Department of Health Services, Kathmandu

##### Sri Lanka

Dr (Mrs) T.S. Liyanage  
Director, Anti-Filariasis Campaign  
Ministry of Healthcare and Nutrition, Colombo

##### Thailand

Mrs Weena Santabutr  
Health Technical Officer  
Ministry of Public Health, Nonthaburi

Miss Sunsanee Rojanapanus  
Health Technical Officer  
Ministry of Public Health, Nonthaburi

##### Temporary Advisers

Prof Mahroof M Ismail  
Professor Emeritus  
Faculty of Medicine  
University of Colombo  
159 Kynsey Road  
Colombo, Sri Lanka

Prof Dato' Dr CP Ramachandran  
8A-4-4, Belvedere, 1/63, Off Jalan Tunku,  
50480 Kuala Lumpur, Malaysia

**Donor/UN Agencies/Nongovernmental Organizations**

**German Technical Cooperation (GTZ), Indonesia**

Dr Yustina Yudha Nita  
Project Officer  
Improvement of District Health System  
Kupang, Nusa Tenggara Timur, Indonesia

**GlaxoSmithKline**

Ms Minne Iwamoto  
Manager, LF Programme  
One Franklin Plaza, FP 2130, P O Box 7929,  
Philadelphia PA 19101, USA

Mr Sameer Deb  
GlaxoSmithKline Pharmaceuticals Ltd.  
Bharat Yuvak Bhawan Building  
1 Jaisingh Road, New Delhi 110001, India

**Japan International Cooperation Agency (JICA)**

Ms Yukie Yoshimura, Project Formulation  
Advisor, Bangladesh Office, Uday Tower,  
7<sup>th</sup> Floor, 57 & 57A Gulshan Avenue (South),  
Circle-1, Dhaka – 1212, Bangladesh

**Liverpool School of Tropical Medicine**

Professor David Molyneux  
Director, Lymphatic Filariasis Support Centre  
Pembroke Place, Liverpool L3 5QA, UK

**Sasakawa Memorial Health Foundation (SMHF)**

Dr Atsuhide Takesue  
ippon Zaidan Bldg., 1-2-2 Akasaka, Minatoku,  
Tokyo 107-0052, Japan

**WHO Secretariat**

Dr Georg Petersen, WHO Representative,  
Indonesia

Dr G. Biswas, Medical Officer,  
Lymphatic Filariasis, WHO/HQ

Dr Derek Lobo, Regional Adviser,  
Leprosy and Other Priority Diseases,  
WHO/SEARO

Dr Muhammad Asri Amin,  
National Professional Officer (Malaria),  
WRO, Indonesia

Dr Salvador Amaral,  
Assistant (Lymphatic Filariasis), WRO,  
Timor-Leste

Mr Joao Gosmao, Assistant (GIS),  
WRO, Timor-Leste

## Annex 2

# Programme

### Wednesday, 5 July 2006

- 09.00-10.00      Inauguration  
                    Inaugural Address by the Regional Director, WHO-SEARO  
                    (Read by WR Indonesia)  
                    Opening Remarks by Dr Nyoman Kandun, Director-General,  
                    Communicable Disease Control and Environmental Health, Indonesia  
                    Introduction of Participants  
                    Nomination of Chair, Co-Chair and Rapporteur
- 10.30-11.30      Session 1: LF Elimination: Global and Regional Reviews  
                    Overview of Global LF Situation – Dr Gautam Biswas, WHO-HQ  
                    Overview of South-East Asia LF Situation – Dr Derek Lobo,  
                    WHO-SEARO
- 11.00-12.30      Session 2: Country Presentations  
                    Bangladesh, India, Indonesia  
                    Discussion
- 14.00-15.30      Session 3: Country Presentations (cont.)  
                    Maldives, Myanmar, Nepal  
                    Discussion
- 16.00-17.30      Session 4: Country Presentations (cont.)  
                    Sri Lanka, Thailand, Timor-Leste  
                    Discussion

### Thursday, 6 July 2006

- 09.00-10.30      Session 5: Special Presentations  
                    Integrated Approaches to Neglected Tropical Diseases – Prof. David  
                    Molyneux, LF Support Centre, Liverpool School of Tropical Medicine,  
                    Liverpool, UK  
                    LF Elimination: Global Perspective – Prof. Dato C.P. Ramachandran,  
                    Chair, WHO TAG  
                    Partnerships in Global Programme to Eliminate LF –  
                    Ms Minie Iwamoto, GSK  
                    Discussion

11.00-12.30      Session 6  
Update on Monitoring and Evaluation – Dr Gautam Biswas  
Update on GAELF – Prof. David Molyneux  
Urine Test as a Diagnostic Tool - Dr Atsuhide Takesue, Sasakawa  
Memorial Health Foundation, Japan  
Discussion

14.00-17.30      Group Work  
Group 1: Issues on Mapping, MDA and Disability Prevention  
Group 2: Integrated Approaches to LF Elimination

**Friday, 7 July 2006**

09.00-09.30      Sixth WHO Technical Advisory Group on LF, Geneva,  
20-23 September 2005  
09.30-10.00      Third SEA Regional Programme Review Group, Jakarta,  
27-28 April 2006  
10.00-10.30      Revised Regional Strategic Plan 2006-2010  
11.00-12.30      Group Reports  
14.00-15.00      Presentation of Draft Conclusions and Recommendations  
15.00-15.30      Closing Session

### **Annex 3**

## **Conclusions and recommendations of the Third Meeting of the South-East Asia Regional Programme Review Group for ELF, 27-28 April 2006, Jakarta, Indonesia**

### **General recommendations**

- (1) RPRG recorded its appreciation on the holding of a Partners' Meeting on neglected tropical diseases by WHO-SEARO on 17-18 November 2005 in Bangalore, India. It noted with appreciation the "Bangalore Declaration" made at this meeting. RPRG suggests that follow up meeting should be held in due course in order to sustain the interest generated among partners gathered at the meeting and to mobilize resources for neglected tropical diseases.
- (2) RPRG reiterates that an integrated approach should be adopted for control of Neglected Tropical Diseases including LF.
- (3) National Programmes should pay adequate attention to improve sentinel surveillance and report on sentinel data on regular basis. Sentinel sites which are once used for baseline MF rate assessment should not be changed during prospective monitoring in the following years.
- (4) RPRG noted with concern that MDA was conducted in some places without adequate planning, preparation and social mobilization often leading to poor compliance and other outcomes. It reiterated the need for countries to pay adequate attention for preparatory activities including social mobilization before MDA.
- (5) RPRG noted that some implementation units are completing five or six rounds of MDA in some countries. It recommended that the national programmes should undertake a proper assessment of the LF elimination status prior to taking a decision on stopping MDA.

Countries should use the WHO guidelines on Monitoring and Evaluation to guide their decision on stoppage of MDA.

- (6) RPRG reiterated that SAEs should be thoroughly investigated and immediately reported to appropriate National Authorities and WHO.
- (7) Children should not be forced to swallow tablets. It recommends that when administering the tablets to children, albendazole tablets should be broken and chewed.

## **Recommendations to WHO**

- (1) RPRG expressed concern over the availability only one antigen detection tool and problems associated with its reliability, short shelf-life and high cost. It recommends that WHO explore and evaluate alternate antigen detection assays which are currently available. In the long term, it recommends that WHO should support the development of more stable, reliable and valid assays.
- (2) In view of the anticipated scale up of MDA, RPRG expressed concern over the issues related to procurement and access to quality DEC. RPRG recommends that WHO should promote the establishment of an independent quality assurance mechanism in each country and seriously consider a global procurement system for DEC.

## **Annex 4**

### **Further reading**

***The following documents may be requested from the Secretariat***

- (1) Draft Regional Strategic Plan 2006-2010
- (2) Lymphatic filariasis in the South East Asia Region – Progress Report 2005
- (3) Annual Reports submitted by Member countries of South-East Asia
- (4) Regional Strategic Plan 2004-2007
- (5) Report of the Third Meeting of National Lymphatic Filariasis Programme Managers, New Delhi, India, 5-7 May 2005
- (6) Report of the WHO TAG meeting, September 2005
- (7) Report of the SEA RPRG meeting, Bangkok, 26-27 October 2005

## Links

- (1) Global: <http://www.who.int/topics/filariasis/en/index.html>
- (2) SEAR: <http://www.searo.who.int/en/Section10/Section2096.htm>
- (3) Related links:

WHO Infectious Diseases Homepage: <http://www.who.int/ctd/filariasis/home/>

WHO-India Lymphatic Filariasis Homepage:  
<http://www.whoindia.org/EN/Section3/Section127.htm>

WHO Western Pacific Region Homepage:  
[http://www.wpro.who.int/health\\_topics/filariasis/](http://www.wpro.who.int/health_topics/filariasis/)

Special Programme for Research and Training in Tropical Diseases (TDR):  
<http://www.who.int/tdr/diseases/lymphfil/> Established in 1975 and co-sponsored by the United Nations Children's Fund (UNICEF), the United Nations Development Programme (UNDP), the World Bank and the World Health Organization (WHO), the TDR aims to help coordinate, support and influence global efforts to combat a portfolio of major diseases of the poor and disadvantaged.

Weekly Epidemiological Record (WER): <http://www.who.int/wer/en/>

The Global Alliance to Eliminate Lymphatic Filariasis:  
<http://www.filariasis.org/index.pl> The Global Alliance to Eliminate Lymphatic Filariasis is a free, non-restrictive partnership forum for the exchange of ideas and coordination of activities, with membership open to all interested parties.

UNICEF: <http://www.unicef.org> The Global Alliance to Eliminate Lymphatic Filariasis has been forged among many organizations, including UNICEF, each with a different mandate but all having a common goal – to eliminate LF as a public health problem.

Centres for Disease Control and Prevention (CDC), USA:  
<http://www.cdc.gov/ncidod/dpd/parasites/lymphaticfilariasis/default.htm> CDC provides technical assistance to LF-endemic countries.

Liverpool School of Tropical Medicine, UK:  
<http://www.liv.ac.uk/lstm/majorprogs/LymphaticFilariasisprogramme.htm> The Lymphatic Filariasis Support Centre has been based in the Liverpool School of Tropical Medicine since April 2000.

Department for International Development (DFID), UK:  
<http://www.dfid.gov.uk/> DFID is a strong supporter of lymphatic filariasis elimination and funds the LF Support Centre at the Liverpool School of Tropical Medicine, UK.

World Bank: <http://www.worldbank.org> The World Bank established a Trust Fund to manage the \$20 million grant that the Bill & Melinda Gates Foundation gave to accelerate the elimination of lymphatic filariasis.

Bill & Melinda Gates Foundation:  
<http://www.gatesfoundation.org/default.htm> The Bill & Melinda Gates Foundation is dedicated to improving people's lives by sharing advances in health and learning with the global community. The implementation of the Gates grant for LF is now in its second year.

The Lymphatic Filariasis Support Centre, Emory University, Atlanta, USA:  
<http://www.sph.emory.edu/LFSC/> The Centre provided the technical expertise to ensure a strong scientific base for the Global Programme to Eliminate Lymphatic Filariasis.

GlaxoSmithKline (GSK): <http://www.gsk.com/filariasis/> GSK is a founder member of the Global Alliance to Eliminate Lymphatic Filariasis.

World Alliance for Community Health, Canada:  
<http://www.wacommunityhealth.org/> The World Alliance for Community Health is a private sector initiative formed to develop and implement community health projects in cooperation with the World Health Organization (WHO).

AMRAD ICT, Australia: <http://www.amrad.com.au/AMRAD/Home/Home.asp>  
AMRAD ICT, a division of AMRAD Corporation Limited, Sydney, Australia, produces rapid immunochromatographic test (ICT) kits for qualitative detection of *W. bancrofti* antigen.

Vector Control Research Centre, Pondicherry, India:  
<http://www.pondicherry.nic.in/fil-free/index.html> The Cell for Elimination of Lymphatic Filariasis at the Vector Control Research Center, Pondicherry, was established by the Indian Council of Medical Research.