Cambodia, Cook Islands, Niue and Vanuatu Eliminate Lymphatic Filariasis as a Public Health Problem

After over a decade of efforts, Cambodia, Cook Islands, Niue and Vanuatu have eliminated lymphatic filariasis as a public health problem. Dr Margaret Chan, World Health Organization (WHO) Director-General and Dr Shin Young-soo, WHO Regional Director for the Western Pacific Region, congratulated health ministers from the four countries for this historical achievement during the opening of the sixty-seventh session of the WHO Regional Committee for the Western Pacific.
Brunei Darussalam

The Ministry of Health conducted a coverage survey of mass drug administration (MDA) against lymphatic filariasis in Tutong and Belait districts in January 2016 to assess the actual treatment coverage of the MDA conducted between October and December 2015. The reported coverages were 79.5% in Tutong district and 65.0% in Belait district, whereas the surveyed coverage was 79.7% in Tutong district and 68.8% in Belait district, respectively.

Sentinel and spot-check site surveys to assess the prevalence of microfilariaemia and a transmission assessment survey (TAS) were conducted in Temburong district in March and May 2016, respectively. The results are pending. Sentinel and spot-check site surveys and a TAS in Belait and Tutong districts are planned in July and September 2016, respectively.

Cambodia

Evaluation of the current status of schistosomiasis in Cambodia was conducted between April and June 2016, with technical support from Dokkyo Medical University, Japan. Prevalence surveys were conducted in five sentinel villages (A Chen, Char Thnaol, Srae Khoean, and Sambok in Kratie province and Sdau Muoy in Stung Treng province) and two high-risk spot-checks villages (Kampong Krabei and Kbal Chuor in Kratie province), using both stool and serological examination, employing sodium metaperiodate (SMP) and enzyme-linked immunosorbent assay (ELISA). According to the preliminary results, no cases of high infection intensity were detected. Using Kato Katz method, six out of seven survey sites, including all five sentinel sites, reported zero positives. Formalin-detergent technique also detected zero cases in all sentinel villages except for one case with low intensity. However, the same technique detected four cases (1.5% positivity rate) in one spot-check village and 42 cases (19.4% positivity rate) in another spot-check village, both with low to medium intensity. The full evaluation report including analysis of the historical trend of sero-prevalence is pending.

The Ministry of Health conducted MDA targeting all schistosomiasis-endemic villages in March 2016, achieving the treatment coverage of 88.6% of all endemic villages in Kratie province and 83.7% of all endemic villages in Stung Treng province, respectively.

A multisectoral mission to Kratie province and Stung Treng province was conducted in February 2016 to develop a joint work plan for accelerating elimination of schistosomiasis in Cambodia. The mission involved national, provincial and district level officers responsible for neglected tropical diseases (NTDs), water, sanitation and hygiene (WASH), education, rural development and animal health. Following the mission, an informal multisectoral stakeholders meeting was held in Phnom Penh to discuss the next steps for development of a multisectoral initiative for elimination of schistosomiasis in Cambodia.

The WHO Director-General acknowledged Cambodia for having eliminated lymphatic filariasis as a public health problem in May 2016.

The nationwide deworming campaigns against soil-transmitted helminthiases for preschool-aged children, school-aged children and women of childbearing age were conducted between January and June 2016, achieving the national treatment coverage of 95.1% for preschool-aged children, 91.3% for school-aged children and 60.5% for women of childbearing age.

The Ministry of Health is developing the dossier for validation of elimination of trachoma as a public health problem with support from USAID ENVISION through Research Triangle Institute (RTI) International and WHO.

People’s Republic of China

Dr Matshidiso Moeti, WHO Regional Director for Africa, and staff from the WHO Regional Office for Africa, visited the National Institute of Parasitic Diseases (NIPD), Chinese Center for Disease Control and Prevention on 25 March 2016. Professor Zhou Xiao Nong, the Director of NIPD, introduced the control strategy and current epidemiological situation of neglected tropical diseases and malaria in China to visiting staff and presented progress on collaboration between China and Africa for control of tropical diseases.
On 16 and 17 June 2016, NIPD organized the third symposium on surveillance response systems for tropical diseases elimination in Shanghai, China, in collaboration with WHO headquarters and the Swiss Tropical and Public Health Institute. The forum reviewed the recent progress in research of tropical diseases and signed seven bilateral and multilateral agreements, including the Memorandum of Understanding on Cooperation for Research on Schistosomiasis Control and Elimination signed between five Chinese provinces in Lake Region and five African countries to develop a new model of China–Africa south–south cooperation.

Fiji completed a micro-plan for implementation of MDA since mapping surveys indicated that the prevalence of trachoma folliculitis assessed clinically was over 10% among children aged 1 to 9 in all four divisions. An application for donation of azithromycin for MDA was submitted and approved by the International Trachoma Initiative.

The national intersectoral partners’ consultation workshop on NTDs was held on 9 June 2016 to finalize the national NTD action plan 2016-2020. The meeting involved the Ministry of Health and Medical Services, Ministry of Women, Children and Poverty Alleviation, Ministry of Local Government, Housing, Environment, Infrastructure and Transport, the United Nations Children’s Fund (UNICEF), WASH Cluster and WHO. Discussions focused on collaboration and cooperation opportunities to accelerate control of NTDs in the country.

French Polynesia
A pre-TAS to assess eligibility to proceed to TAS was conducted in two implementation units (Tuamotu Gambier and Australes) in March 2016, both with 0% antigenaemia prevalence. MDA against lymphatic filariasis was conducted between April and May 2016, targeting all six endemic implementation units, including the above-mentioned two implementation units and Winward rural areas which implemented a pre-TAS survey in December 2015 with a result of 0.11% antigenaemia prevalence, but decided to implement another round of MDA for assurance. The other three implementation units (Marquesas, Moorea and Leeward islands) will undergo a pre-TAS survey in September 2016, whereas TAS 1 is planned for all three implementation units which already passed a pre-TAS survey (Winward rural areas, Tuamotu Gambier and Australes) between September and October 2016.

Cook Islands
The WHO Director-General acknowledged Cook Islands for having eliminated lymphatic filariasis as a public health problem in May 2016.

Fiji
The hydrocelectomy project to clear the backlog of hydrocele operations was completed in June 2016, covering all divisions in Fiji. The project received support from the Global Network for Neglected Tropical Diseases, Korea Centers for Disease Control and Prevention and WHO. Through the project, over 100 suspected cases were identified. Nearly half were diagnosed as hydrocele cases and underwent surgery, with no postoperative complications reported, while the others were mainly hernias. The surgical team is planning to conduct another similar project in Suva at the Colonial War Memorial Hospital in September 2016 to operate on any remaining hydrocele cases from all divisions.

Kiribati
Deworming of preschool-aged children, school-aged children and women of childbearing age against soil-transmitted helminthiases was implemented in March 2016. Coverage data is being compiled.

Micro-plans for TAS 2 in Line Islands and TAS 3 in Gilbert Islands for lymphatic filariasis were developed, including
A national consultation meeting to compile available historical data on prevalence of schistosomiasis in the Lao People’s Democratic Republic and analyse its current status was conducted with support of WHO from 7 to 8 July 2016. The meeting involved the Department of Communicable Disease Control, CMPE, NIOPH, the Pasteur Institute, JICA and the Swiss Tropical and Public Health Institute, which were identified as major institutions historically contributing to surveys on schistosomiasis in the Lao People’s Democratic Republic. The meeting enabled compilation of all key historical data into a central location and identified the weakness of the current selection of sentinel survey sites. Prevalence surveys in newly recommended sites and a further consultation to evaluate the new data is planned for the fourth quarter of 2016.

Deworming campaigns against soil-transmitted helminthiasis for preschool-aged children, school-aged children and women of childbearing age were conducted in April 2016. The coverage report is pending.

The Ministry of Health is finalizing the dossier for validation of elimination of trachoma as a public health problem with support from USAID ENVISION through RTI International and WHO.

Malaysia

Between January and March 2016, the seventh round of MDA was implemented in one of the implementation units (IUs) in Hulu Perak district, which had failed to reach 1% microfilaraemia prevalence after five rounds of MDA. The ninth round of MDA in seven IUs in Sabah and one IU in Sarawak, which failed transmission assessment survey in 2014, were also implemented. Transmission assessment surveys are to be implemented from August 2016 onwards.

In one IU in Sabah, which failed to achieve 1% microfilaraemia prevalence after ninth round of MDA, investigation on potential zoonotic transmission of *Brugia malayi* in dogs and cats and a drug efficacy study to monitor reduction of microfilaria density monthly following individual treatment has been initiated. The results of the studies are pending.

Marshall Islands

The additional survey to assess prevalence of lymphatic filariasis in the two originally endemic atolls (Mejit and Ailuk) was conducted in February 2016 as per the recommendation of the Regional Programme Review Group (RPRG) in July 2015. RPRG queried a steep drop in antigenaemia prevalence to less than 1% following two rounds of MDAs from a high prevalence of 44% in Mejit and 29% in Ailuk. A survey of all inhabitants in both atolls found no positive individuals, reconfirming the findings of previous TAS conducted in 2014. The dossier for validation of elimination of lymphatic filariasis as a public health problem was updated accordingly to be re-submitted to the RPRG in July 2016 for review.
The Federated States of Micronesia

The second round of MDA against lymphatic filariasis was implemented in Chuuk State. Mortlocks region completed the MDA in May 2016 and the Northwest region in June 2016. The last region (Faichuk) is planning to start MDA in August 2016.

Niue

The WHO Director-General acknowledged Niue for having eliminated lymphatic filariasis as a public health problem in May 2016.

Palau

Logistics, including supply of Filariasis Test Strips, have been organized for the study of migrants from other lymphatic filariasis endemic countries to assess the potential risk of reinfection at a province level.

Papua New Guinea

As part of the multi-centre randomized control trial to compare treatment efficacy against yaws of two dosages of azithromycin (20mg/kg and 30mg/kg body weight), a trial commenced in Karkar Island in Madang province in April 2016. The recommended dosage of azithromycin for elimination of trachoma is 20mg/kg body weight. The same trial was implemented in Ghana in 2015. Nearly 200 study subjects have been recruited and randomized for treatment with either dosage. The six-month follow-up of each group of study subjects will continue till December 2016. The final report of the study is expected in the first quarter of 2017.

Philippines

MDA against lymphatic filariasis was implemented in 16 endemic provinces between November 2015 and April 2016, reaching 66.4% national coverage. Six provinces passed the TAS 1 and stopped MDA, including one province (Davao Oriental) that passed repeated TAS 1 after failure in 2013. However, another province (Mindoro Oriental) failed TAS 2 and re-assessment is being planned. Currently, 33 provinces are under post-MDA surveillance, while 12 are in the MDA phase.

The national programme acknowledged two provinces (Agusan del Sur and Bukidnon) for passing TAS 3 and thus having achieved the status of elimination of lymphatic filariasis as a public health problem at province level.

The Harmonized Schedule and Combined Mass Drug Administration was implemented in January 2016, targeting over 10 million preschool-age children and over 19 million school-aged children for soil-transmitted helminthiases. This was also the first time for schistosomiasis-endemic regions to implement co-administration of praziquantel and albendazole among school-aged children. The school-aged children enrolled in schools were reached through schools while those not enrolled in schools were reached through community drug distribution. The reported national deworming coverage was 67.7%.

The nationwide soil-transmitted helminthiasis prevalence survey covering 83 administrative units revealed an overall prevalence of 28.4%. Comparative analysis between the history of MDA against lymphatic filariasis and/or deworming against soil-transmitted helminthiases and prevalence is being conducted.

Integrated diagnosis of pulmonary paragonimiasis during screening of tuberculosis patients using sputum examination is being piloted in the province of Sorsogon and in Davao Oriental. In areas where pulmonary tuberculosis and paragonimiasis are co-endemic, misdiagnosis of pulmonary tuberculosis with pulmonary paragonimiasis has been frequently observed.

The NTD Research Forum was jointly organized by the Department of Health and the Research Institute of Tropical Medicine, Philippines, on 16–17 June 2016. This was attended by national and provincial focal points from the Department of Health and Department of Education. The forum provided a venue for the national NTD programmes and academia to exchange operational research agenda for accelerating elimination and control of NTDs and updates on the ongoing research activities on NTDs.
were improved and introduced at all levels. Development of the data reporting and management system to address timeliness, accuracy and security of NTD data reporting was also initiated in June 2016.

**Republic of Korea**

The Korea Centers for Disease Control and Prevention continued active case detection and selective chemotherapy in endemic areas targeting around 25,000 to 50,000 residents against clonorchiasis. Clonorchiasis remains endemic in the southern provinces of the Republic of Korea.

**Samoa**

WHO supported development of the protocols for combined assessment of soil-transmitted helminthiases with lymphatic filariasis transmission assessment surveys in two Evaluation Units (EUs) and microplanning of lymphatic filariasis MDA in North West Upolu for September 2016.

**Solomon Islands**

Solomon Islands developed plans to conduct an assessment of impact of the MDA against trachoma. The survey is expected to be carried out in 2016.

**Tonga**

The Ministry of Health developed the dossier for validation of lymphatic filariasis as a public health problem and submitted to WHO for a pre-review by the RPRG in July 2016.

**Tuvalu**

The second additional round of nation-wide MDA against lymphatic filariasis, as per the recommendation of the RPRG in 2013 for two additional round of MDA, commenced in May 2016. The previous round of MDA was implemented in November 2014. One outer island of Tuvalu is yet to be covered for this second additional round of MDA and expected to be completed in September 2016.

The nationwide community-based deworming against soil-transmitted helminthiases was conducted in June 2016, with 76.2% treatment coverage among children aged 2–14 years old.

**Vanuatu**

Semi-annual deworming campaigns for children against soil-transmitted helminthiasis were conducted during the first half of 2016. The coverage data are still being collected. A nationwide soil-transmitted helminthiasis prevalence survey was implemented in March 2016. The results from preliminary analysis showed over 20% of Kato Katz positivity rate for any soil-transmitted helminthiases among targeted school-aged children. School deworming against soil-transmitted helminthiasis has been implemented twice a year at least since 2011. The last round of MDA against lymphatic filariasis was implemented in 2004.

The WHO Director-General acknowledged Vanuatu as having eliminated lymphatic filariasis as a public health problem in May 2016.

Trachoma pre-MDA survey was conducted in June 2016. The results showed a 16.5% (184/1113) prevalence of trachomatous inflammation – follicular (TF) for ages 1–9 and 7.4% (259/3472) prevalence of TF for all ages, with zero cases of trachomatous trichiasis. The first MDA against trachoma is planned in August 2016 with support from WHO and the Fred Hollows Foundation and funding from the Queen Diamond Jubilee Trust and implemented. The drug donation of azithromycin was facilitated through the International Trachoma Initiative.
Currently, WHO recommends the dossier for validation of elimination of lymphatic filariasis as a public health problem to include the estimated number of patients with morbidity, the number of health facilities with minimum package of care for such patients in each implementation unit with known patients, and the availability and readiness of services in 10% of facilities in areas with known patients. The tool has been developed to facilitate this, and was found to be useful in identifying the gap in morbidity burden estimates, positive and negative availability of infrastructure and resources for lymphatic filariasis morbidity management and to indicate the next steps for further improvement.

The National Institute of Malariology, Parasitology and Entomology under the Ministry of Health is developing the dossier for validation of elimination of lymphatic filariasis as a public health problem with support from USAID ENVISION through RTI International.

Between May and June 2016, deworming campaigns reached 1.5 million preschool-aged children in 22 provinces and over 3 million school-aged children in 32 provinces where prevalence of soil-transmitted helminthiases is historically known to be moderate to high.

The Ministry of Health, with support from USAID ENVISION, is planning to conduct district-level surveys to confirm trachoma prevalence in Hai Giang province, as well as to implement MDA in one of its districts where a high trachomatus inflammation – follicular (TF) prevalence in 1-9 year olds was found during provincial-level surveys in 2014 and was further confirmed in the follow-up surveys in January 2015 and May 2016.

Wallis and Futuna

WHO supported planning for the final lymphatic filariasis TAS, including the supply of diagnostic tests. TAS was to be conducted in March 2016 but re-scheduled for September 2016 due to logistical issues.

2 REGIONAL NEWS

Calls for applications for the second Joint TDR/WPR Small Grants Scheme for implementation research in infectious diseases of poverty closed on 15 March 2016. A total of 52 applications from nine countries (Cambodia, China, Fiji, Mongolia, Papua New Guinea, the Philippines, Samoa, Solomon Islands and Viet Nam) were received, more than half of which were on NTDs, including dengue and leprosy. Experts from the WHO Western Pacific Region, WHO headquarters and TDR reviewed the proposals and 12 are to be funded with US$ 12,500 each. The funded proposals included: three on schistosomiasis from the Philippines; two on dengue from Viet Nam and one from Fiji; one from China on soil-transmitted helminths; one on food-borne trematodes from Cambodia; and one on paragonimiasis from the Philippines.

A joint visit by JICA and the WHO Regional Office for the Western Pacific was conducted to selected Pacific Island countries to review the current status of elimination of lymphatic filariasis and to conduct a feasibility analysis for expanding support, which is currently limited to the donation of diagnostic tests, with the goal of further accelerating elimination of lymphatic filariasis in the Pacific. JICA has been supporting the Pacific Programme to Eliminate Lymphatic Filariasis (PacELF) since its inauguration in 2000.

WHO supported a visit by four vector control specialists to seven Pacific Island countries to provide vector control assistance for Zika virus outbreaks, including development of national action plans on vector control, mainly targeting Aedes mosquitoes. At least four countries (Fiji, Marshall Islands, Samoa and Tonga) conducted nationwide clean-up campaigns to eliminate Aedes breeding sources. Since Aedes mosquitoes are the vectors of lymphatic filariasis in some Pacific Island countries and areas, collateral benefits to the lymphatic filariasis programme are expected.