In 2016 the World Health Organization formally acknowledged elimination of lymphatic filariasis as a public health problem in Sri Lanka. This marks a momentous step in combating and eliminating neglected tropical diseases (NTDs) from the WHO South-East Asia Region.

This goal was realized through the contribution of many: the unwavering political will of the Government of Sri Lanka, the commitment and untiring efforts of the Anti-Filariasis Campaign, technical support from WHO and other international partners, and the hard work of health care workers of the country over the decades.

The strategies that enabled elimination of lymphatic filariasis (LF) as a public health problem were intensified parasitological surveillance and vector control efforts, increased access to health services with disability management for the affected, and mass drug administration (MDA) campaigns in endemic districts.

A debilitating disease, which was once the cause of much physical and psychological suffering for its citizens, is no longer a public health problem.

The Game Changers

- Establishment of a dedicated campaign for the control of filariasis nearly 60 years ago in 1947 – the Anti-Filariasis Campaign.
- Decentralization and delegation of filariasis control activities directly to the provinces.
- Implementation of high-quality mass drug administration (MDA) campaigns in endemic districts, supported by intensive social mobilization interventions.
- Sustained efforts drove the microfilaria (Mf) rate, which gauges the level of LF transmission, down to 0.03% by 2015, allowing the country to systematically work towards elimination status.
THE PATHWAY TO ELIMINATION

1914
Earliest epidemiological study of filariasis conducted in the Southern, North Western, Western and Eastern provinces of the country reported as foci of filariasis infection.

1926
The introduction of the health unit system of health administration in Ceylon leads to the intensification of primary health care services and environmental sanitation.

1937–1939
The first island-wide survey conducted indicating an Mf rate ranging from 20%-24%.

1947–1948
Anti-Filariasis Campaign (AFC) established in 1947, and the first clinic enabling contact between filariasis patients and health authorities established in Dehiwela in 1948.

1970s–1990s
Case detection, treatment with di-ethyl carbamazine (DEC), parasitological surveillance, and vector-control measures continued.

The average Mf rate in endemic districts was less than 1%.

2002–2006
Following the launch of WHO’s Global Programme to Eliminate Lymphatic Filariasis (GPELF), Sri Lanka embarked on a targeted campaign, with MDA campaigns in all endemic districts (2002–2006), achieving over 80% coverage.

2008
Post-MDA surveillance conducted using ICT kits among grade-1 schoolchildren in endemic areas. Results indicate no LF transmission.

2011
Sri Lanka declared by WHO as one of the first countries of the WHO South-East Asia Region qualified to initiate the validation process for having eliminated LF as a public health problem.

2011–2013
Transmission Assessment Surveys (TAS) to detect filarial antigen among school children, and special night blood film surveys in highly endemic ‘hot spots’ conducted.

2016
WHO validates Sri Lanka as having eliminated LF as a public health problem.

Key Challenges Encountered in Eliminating LF in Sri Lanka

- The attention and priority given to dengue, which causes massive epidemics in Sri Lanka, tended to divert human resources away from LF elimination activities without adequate planning.
- The finding of feasibility of detection through night blood slides.
- A few ‘hot spots’ remain in the country which necessitates continued vigilance; especially in Galle which is located in a high endemic area of Brugia malayi, another LF parasite in the country, needed specific monitoring and the technical support for the LF programme.
- Although the overall Mf rate for the country was <1%, at the sub-national level, there were a few areas in the North Western, Western and Eastern provinces of the country reported as foci of filariasis infection.

The Gameplan for Success

- Maintain the achievement of high population coverage through a combination of evidence-based social mobilization and community engagement strategies.
- Implement rigorous analysis and independent coverage evaluations of MDA, post-MDA and TAS surveys, as well as systematic strategies and interventions. Differential strategies for urban and rural settings were developed and fine-tuned.
- Support for the LF programme. Systematic surveys and surveillance, including active searches, routine surveillance, and ongoing awareness campaigns for the community were instrumental in achieving elimination. They will continue to play a key role in maintaining the elimination status and preventing the resurgence of LF.
- Maintain vigilance and continue to monitor and evaluate the situation to ensure the ongoing success of the LF elimination programme.

The Pathway to Elimination

- 1914: Earliest epidemiological study of filariasis conducted in the Southern, North Western, Western and Eastern provinces of the country reported as foci of filariasis infection.
- 1926: The introduction of the health unit system of health administration in Ceylon leads to the intensification of primary health care services and environmental sanitation.
- 1937–1939: The first island-wide survey conducted indicating an Mf rate ranging from 20%-24%.
- 1947–1948: Anti-Filariasis Campaign (AFC) established in 1947, and the first clinic enabling contact between filariasis patients and health authorities established in Dehiwela in 1948.
- 1970s–1990s: Case detection, treatment with di-ethyl carbamazine (DEC), parasitological surveillance, and vector-control measures continued.
- 1981–1998: The average Mf rate in endemic districts was less than 1%.
- 2002–2006: Following the launch of WHO’s Global Programme to Eliminate Lymphatic Filariasis (GPELF), Sri Lanka embarked on a targeted campaign, with MDA campaigns in all endemic districts (2002–2006), achieving over 80% coverage.
- 2008: Post-MDA surveillance conducted using ICT kits among grade-1 schoolchildren in endemic areas. Results indicate no LF transmission.
- 2011: Sri Lanka declared by WHO as one of the first countries of the WHO South-East Asia Region qualified to initiate the validation process for having eliminated LF as a public health problem.
- 2011–2013: Transmission Assessment Surveys (TAS) to detect filarial antigen among school children, and special night blood film surveys in highly endemic ‘hot spots’ conducted.
- 2016: WHO validates Sri Lanka as having eliminated LF as a public health problem.
Key Challenges Encountered in Eliminating LF in Sri Lanka

- Although the overall Mf rate for the country was <1%, at the sub-national level, there were a few areas in Galle district with Mf rate >1% for *Wuchereria bancrofti*, higher than the elimination target.
- The finding of *Brugia malayi*, another LF parasite in the country, needed specific monitoring and the technical feasibility of detection through night blood slides.
- The attention and priority given to dengue, which causes massive epidemics in Sri Lanka, tended to divert human resources away from LF elimination activities without adequate planning.

The Gameplan for Success

The Political: The unswerving national commitment to eliminate LF was the primary driver for eliminating LF as a public health problem in Sri Lanka. Systematic endemicity mapping across the whole country, ensured that interventions remain targeted and steadfast. Ensuring the domestic production and procurement of the drug DEC, and cooperation with WHO for the import of Albendazole for the MDA campaigns, defined a visionary leadership. The declaration of ‘National Filariasis Days’ during the MDA campaigns ensured that the full government and administrative machinery was mobilized to ensure robust campaigns.

The Technical: An uncompromising commitment to technical excellence and attention to scientific evidence has underpinned the LF control and elimination programme. Collaboration and partnerships with WHO, the Liverpool School of Tropical Medicine (UK), the Washington University in St. Louis (USA), and others, ensured strong technical support for the LF programme. Systematic surveys and surveillance, including active searches, routine surveillance, sentinel and special surveillance, generated rich datasets for precise endemicity mapping and the design of strategies and interventions. Differential strategies for urban and rural settings were developed and fine-tuned. Rigorous analysis and independent coverage evaluations of MDA, post-MDA and TAS surveys, as well as systematic entomological and parasitological studies provided robust epidemiological evidence for characterizing disease dynamics and decline. A strong commitment to the social and communication sciences, including substantial investments in evidence-based social mobilization campaigns, ramped up coverage and uptake of services during the MDA campaign in a quantum manner.

The Social: The critical interface between communities and the drug distribution chain during the MDA campaigns were the highly trained cadre of Public Health Midwives (PHMs), who also recruited an army of local volunteers – the Filariasis Prevention Assistants (FPAs). Using a mix of house-to-house and booth-based strategy, and a WHO-supported intensive, evidence-based social mobilization campaign using the Communication for Behavioural Impact (COMBI) methodology, over 50,000 frontline workers and volunteers ensured a resoundingly high-quality and high-impact implementation of the MDA campaign in the targeted endemic areas. Furthermore, highly committed health functionaries trained patients for home-based care of lymphoedema, distributing implements and utensils to enhance motivation and compliance.

The Financial: Since the very first filariasis study conducted over a hundred years ago in 1914, and the inception of the Anti-Filariasis Campaign in 1947, the programme has been financed largely through domestic funding, including the provision of free medicines and preventive services.

Maintaining the Achievement

Sri Lanka intends to maintain the success of eliminating LF as a public health problem, and prevent its resurgence. A few ‘hot spots’ remain in the country which necessitates continued vigilance; especially in Galle which is located in the southern part of the country and has remained an area of high endemicity for decades. Treatment interventions ensuring high population coverage would be carried out as necessary, with patients taking their drugs under directly observed supervision.

Regular parasitological and entomological monitoring activities, elimination of breeding sites, continued special and routine surveillance activities, and ongoing awareness campaigns for the community were instrumental in achieving elimination. They will continue to play a pivotal role in sustaining the elimination status.
The elimination of lymphatic filariasis as a public health problem in Sri Lanka is a major public health achievement, made possible by our strong commitment, dedication of our health workforce, and active participation and support of the community.

– Dr Rajitha Senaratne, Minister of Health, Sri Lanka

Neglected tropical diseases (NTD) are typically of the 'neglected' populations – the poor and the marginalized. By eliminating lymphatic filariasis as a public health problem, Sri Lanka has shown the way for reaching out to these populations with other health interventions much needed to improve their overall health.

– Dr Poonam Khetrapal Singh, Regional Director, WHO South-East Asia Region