

Policy Brief: Lymphatic Filariasis (LF)

Background

To date, close to 700 million individuals in some of the poorest areas globally have received treatment to prevent one of the world's most incapacitating diseases, lymphatic filariasis.

Lymphatic filariasis (LF) is a disabling parasitic disease caused by microscopic worms that are spread from person-to-person by the bite of infected mosquitoes. The adult worms live in the human lymphatic system and can cause lymphedema (swelling) affecting the legs, arms, and breasts. They can also cause hydrocele (severe fluid accumulation) affecting the genitalia of men. The health impact of lymphatic filariasis usually appears many years after initial infection. LF causes chronic pain, severe and irreversible disfigurement, and social stigmatization. Treatment of communities where LF is transmitted can prevent new cases of disease.

Lymphatic filariasis is one of the world's Neglected Tropical Diseases (NTDs). This group of infectious diseases affects more than 1 billion persons and is responsible for tremendous physical and emotional suffering and economic loss. LF is recognized as one of the most disabling and economically costly NTDs, as infection with the disease can lead to lower productivity and inability to work. However, LF can be prevented, and eventually eliminated from the world, using inexpensive medications.

LF Fast Facts

- **Over 120 million persons are infected with the parasitic worms that cause LF**
- Another 1.34 billion persons (one-fifth of the world's population) are at-risk
- LF is present in 81 countries
- LF is a leading cause of disability globally
- 44 million persons suffer from chronic, debilitating conditions resulting from LF, including lymphedema or hydrocele
- Medications are readily available through donations made by Merck, GlaxoSmithKline, and Eisai

Global Program Successes

- The World Health Organization (WHO) launched The Global Programme to Eliminate Lymphatic Filariasis in 2000, with a target elimination date of 2020
- The elimination strategy is two-pronged:
 - 1) interrupt the transmission, or spread of infection, through mass drug administration (MDA) campaigns, and
 - 2) reduce the suffering of persons already affected through management of chronic disease
- Medication is distributed to entire at-risk populations through annual MDA campaigns
 - 5 or more rounds of MDA are needed to interrupt transmission of LF
- 53 countries have on-going MDA campaigns
- 37 countries have administered 5 or more rounds of MDA to at least some endemic districts in an effort to interrupt transmission
- 2.8 billion doses of medicine were delivered in the first 9 years of the Global Programme
- Because transmission of LF has been interrupted, 6.6 million newborns are now protected from becoming infected
- The economic benefit of the first 7 years of the program is estimated at US \$24 billion
- The full economic benefit could exceed US \$55 billion
- Treatment cost is estimated at less than US \$.50 per person

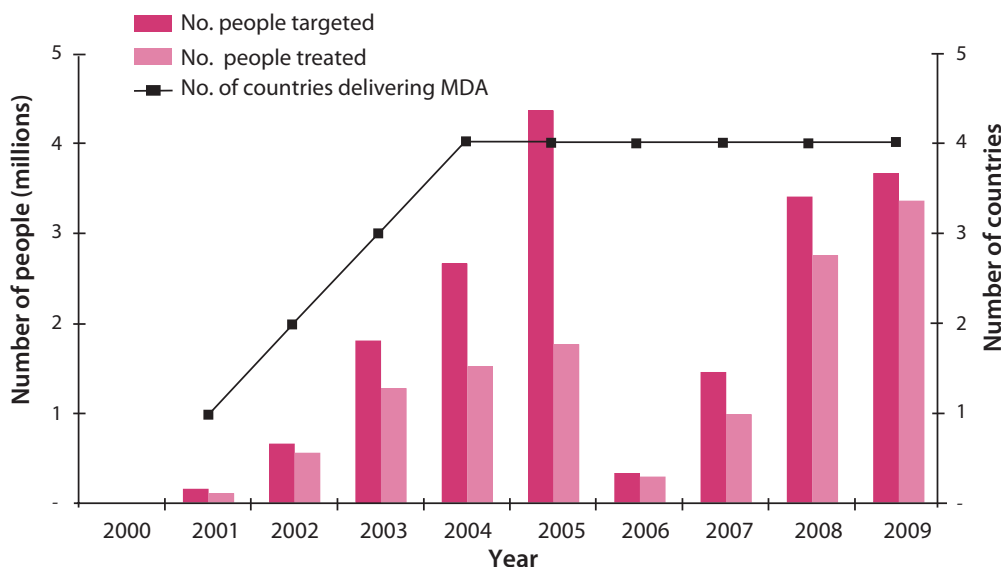


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LF Elimination: Progress in the Americas

Historically, lymphatic filariasis was endemic in many areas of the Americas. As the region developed, improvements in the standard of living, particularly in water and sanitation, greatly reduced or eliminated LF in most of the Western hemisphere. In areas where the disease remained, programs using drug treatment campaigns have been able to interrupt disease transmission in Costa Rica, Suriname, and Trinidad and Tobago. Expanded strategies to combat LF are being applied to the four countries in the Americas where the disease still exists: Brazil, the Dominican Republic, Guyana, and Haiti. These countries have achieved notable progress in their fight against LF and are scaling-up their elimination programs. Thanks to the success of these programs, elimination of LF in the Americas is within reach.

Progress in mass drug administration (MDA) for lymphatic filariasis, WHO's Region of the Americas, by year, 2000–2009



Leveraging the Benefits of LF Treatment

LF medications provide effective prevention of and treatment for several medically important intestinal helminth (parasitic worm) infections. For example, one medication used to treat LF, albendazole, also treats hookworm, roundworm, and whipworm infections. Prevention of and treatment for these infections (also NTDs), contribute to greater productivity and better quality of life by protecting children from cognitive impairment, anemia, and malnourishment.

Graph courtesy of World Health Organization, Global Programme to Eliminate Lymphatic Filariasis

CDC Recommendations

Global elimination of LF is achievable by the target date of 2020. In support of the global program, countries and partners are encouraged to:

- Continue and scale-up MDA programs
- Develop and implement strategies to accelerate the elimination of LF
- Increase efforts to provide disease management for persons with LF
- Wherever possible, integrate LF programs to deliver services for other NTDs and diseases

For more information on lymphatic filariasis, please visit www.cdc.gov/parasites/lymphaticfilariasis

