

# Neglected Tropical Diseases: Our commitment



do more  
feel better  
live longer



## Defeating Neglected Tropical Diseases through donation and research

Neglected Tropical Diseases (NTDs) affect more than 1.5 billion people in some of the world's poorest communities. They cause disability, disfigurement and death, they stretch healthcare budgets and they severely constrain development opportunities.

As a science-led healthcare company, GSK has an important role to play in improving the health and wellbeing of millions of people around the world. We want to help people to do more, feel better and live long healthy lives, wherever they are in the world. So we are committed to defeating NTDs to free future generations from their debilitating impacts.

Image: Ratna Maya Maharjan, an LF patient, in her home in Bungamati, Nepal, March 2015.

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NTDs are a group of parasitic and bacterial diseases that cause substantial illness. They can impair children's ability to grow and learn and reduce adults' ability to work and care for their families. As a result, NTDs trap the vulnerable in a cycle of poverty and disease.

As a leading partner of the London Declaration, we are working with the World Health Organization (WHO), the Bill & Melinda Gates Foundation, other pharmaceutical companies, donors and national governments to help control or eliminate 10 of the 17 NTDs by 2020.

We focus our contribution where we can make the biggest difference: our donation of albendazole, an anti-parasitic medicine, targets two NTDs, lymphatic filariasis (LF) and soil-transmitted helminths (STH, intestinal worms). In addition, at our R&D facility in Tres Cantos, Spain we operate an open innovation approach to stimulate research into new treatments for malaria, TB and other neglected diseases.

### One medicine fighting two NTDs

Two of the most widespread NTDs are LF and STH and our anti-parasitic medicine albendazole fights both. Since our donation programme began in 2000, we have donated 8 billion albendazole tablets to the WHO and reached over 850 million people. Our total commitment for these two neglected tropical diseases is approximately one billion tablets of albendazole each year.



8 billion tablets donated  
by GSK since 2000

### Researching new treatments

The urgent need for new treatments to combat NTDs requires a flexible and open approach to innovation. GSK is a founding member of an open innovation platform that seeks to accelerate the development of new and better treatments against NTDs, as well as malaria and tuberculosis. Our research and development facility in Tres Cantos, Spain prioritises research on NTDs and other diseases of the developing world.



Researchers estimate  
the number of people  
at risk of infection of  
LF has almost halved  
since 2000

# Eliminating transmission of lymphatic filariasis

## What is Lymphatic Filariasis (LF)?

LF is a parasitic infection spread by mosquitoes. It is found in the tropical and sub-tropical areas of Africa, Asia, the Pacific<sup>1</sup>, the Middle East and the Americas. LF is one of the world's leading causes of disability.<sup>2</sup> Symptoms can include chronic swelling of the legs, arms and male genitals. People with LF are also less able to resist common skin infections, resulting in a cruel cycle of fevers and painful swellings. In its severest form, LF leads to elephantiasis, a crippling condition in which the limbs often are swollen with marked thickening of the skin and underlying tissues.<sup>3</sup>

## How are lives affected?

LF is not life threatening, but those who are affected often suffer during their peak years. They may experience both disfigurement and emotional distress. Many people with LF are unable to work, which can exacerbate poverty. Overall, the economic cost of working days lost as a result of LF runs into billions of dollars.<sup>4</sup> People with LF are also frequently isolated in their communities and find it difficult to get married. In many of the societies that are affected, this is a major barrier to achieving personal and financial security.

## What are we doing about it?

We have pledged to continue our donation of albendazole to the WHO until LF has been eliminated as a public health problem. Albendazole administered annually with Mectizan<sup>®</sup> (ivermectin, donated by Merck & Co., Inc.<sup>5</sup>) or with diethylcarbamazine citrate can help stop the spread of LF infection.<sup>3</sup>

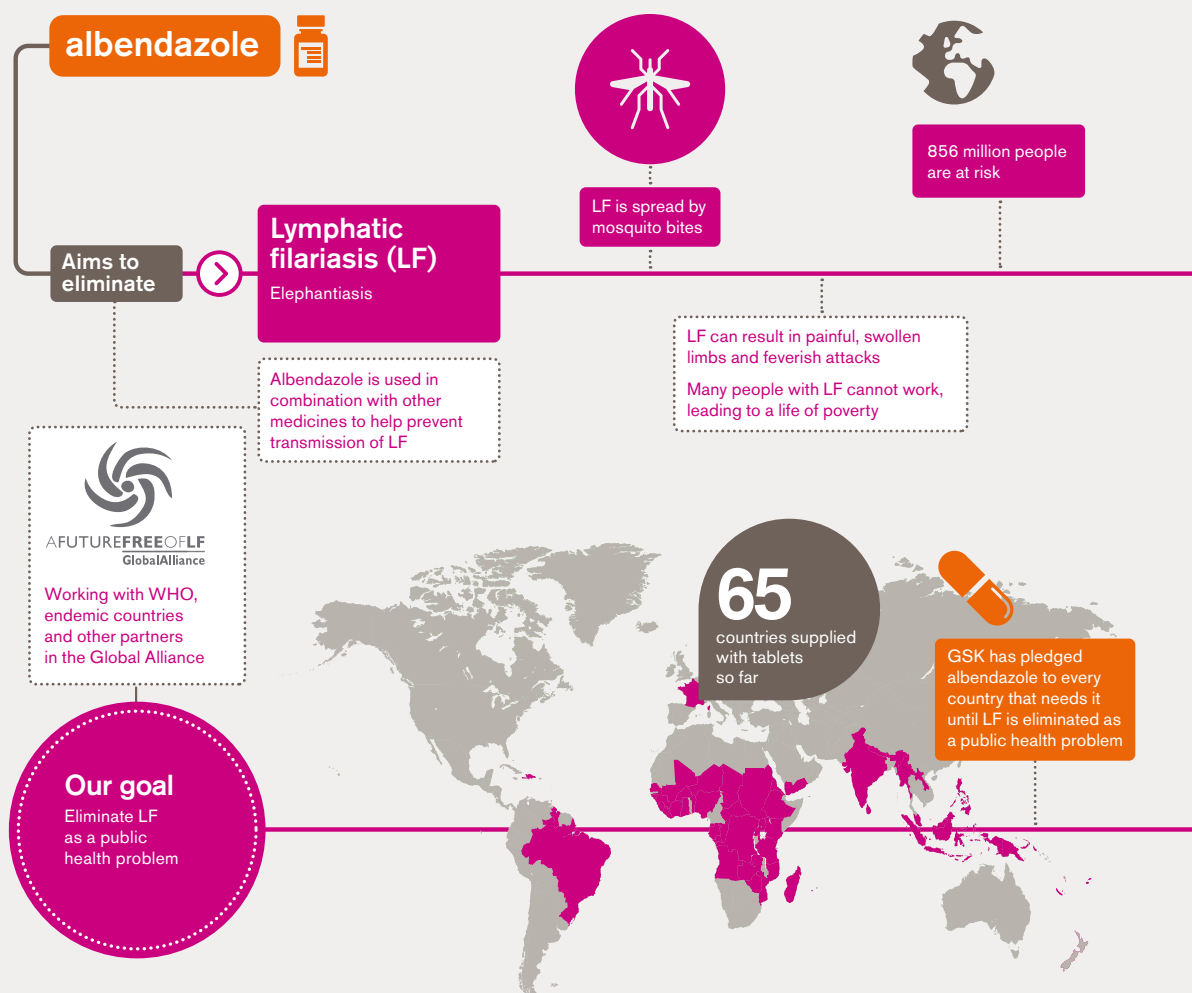


AFUTUREFREEOF LF  
Global Alliance

We are a founding partner of the Global Alliance to Eliminate Lymphatic Filariasis – a partnership that wants to free the world of this disfiguring and disabling disease forever. We work with the Global Alliance and WHO alongside Ministries of Health and over 40 other organisations. These include donors, international agencies, academic institutions, other pharmaceutical companies and non-governmental organisations.

- 1 Centers for Disease Control and Prevention. 2018. Lymphatic Filariasis - Epidemiology and Risk Factors. Available at: <http://www.cdc.gov/parasites/lymphaticfilariasis/epi>. Accessed June 2018
- 2 Centers for Disease Control and Prevention. 2018. Parasites - Lymphatic Filariasis. Available at: <http://www.cdc.gov/parasites/lymphaticfilariasis/epi.html> Accessed June 2018
- 3 World Health Organization. 2018. Lymphatic Filariasis Factsheet. Available at: <http://www.who.int/news-room/fact-sheets/detail/lymphatic-filariasis>. Accessed June 2018
- 4 Chu BK et al. The Economic Benefits Resulting from the First 8 Years of the Global Programme to Eliminate Lymphatic Filariasis (2000–2007). (2010). PLoS Negl Trop Dis, 4(6), p.708.
- 5 Merck Mectizan Donation Program. <https://www.merck.com/about/featured-stories/mectizan.html>. Accessed June 2018.

## How we fight lymphatic filariasis



# Controlling infection of soil-transmitted helminths

## What are soil-transmitted helminths (STH)?

STH are intestinal worms. They include roundworms, whipworms and hookworms and are among the most common causes of infection in people who live in tropical and subtropical countries.<sup>6</sup> STH are transmitted by eggs excreted in human faeces which contaminate the soil and unwashed food. Generally they are found in areas that lack adequate sanitation.<sup>6</sup>

<sup>6</sup> World Health Organization. 2018. WHO | Soil-transmitted helminth infections Factsheet. Available at: <http://www.who.int/news-room/fact-sheets/detail/soil-transmitted-helminth-infections> Accessed June 2018

<sup>7</sup> Hall, A et al. A review and meta-analysis of the impact of intestinal worms on child growth and nutrition. (2008). Maternal and Child Nutrition, 4(s1), p 118-236.

## How are lives affected?

A heartbreaking fact of STH is that children are most affected. Malnutrition caused by STHs has a significant impact on growth and physical development. STH infections can also impair cognitive development, limit educational advancement and hinder economic achievement.<sup>7</sup> The World Health Organization estimates that approximately 835 million children of all ages are living in areas where these parasites are transmitted easily.<sup>6</sup>

## What are we doing about it?

In 2010 we pledged to donate to WHO an additional 400 million albendazole tablets each year for deworming of school-age children. This donation, alongside Johnson & Johnson's donation of mebendazole, will have huge impact on treating the more than 568 million school-age children at risk of STH infection. The control strategy for STH involves periodic treatment of children at risk and can be integrated with school health programmes.<sup>6</sup>

## STH Coalition

The STH Coalition is a growing group representing country partners, national governments, academic and research institutions, donors, multilateral and non-governmental organisations, and the private sector. Working together, Coalition partners are advancing global and national efforts to control STH and contributing to improvements in the lives of children and communities.

## How we fight soil-transmitted helminths

