

GLOBAL HEALTHLINK[®]

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SCALING UP REACHING OUT

**MOBILIZING
RESOURCES
TO FIGHT A
NEGLECTED
DISEASE**

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PERHAPS YOU'VE NEVER HEARD of lymphatic filariasis (LF). You're not alone. Ironically, while LF is little known outside the 83 countries where it exists in Africa, Asia, the Americas and the Middle East, it is one of the world's most disabling diseases. As disfiguring as leprosy, and as crippling as polio, LF is already burdening more than 40 million of the world's poorest people, causing lymphedema, elephantiasis and genital damage. Some 120 million more are infected, including children as young as three, and more than 1 billion remain at risk. Despite LF's enormous impact, there was little hope of combating it until several catalyzing events took place in the late 1990s.

The quest to eliminate LF began in 1993, after two decades of research, when the International Task Force on Disease Eradication deemed it one of only six diseases in the world that could potentially be eradicated with the tools available. In 1997, the World Health Assembly passed a resolution to eliminate LF, based on effective new diagnostics and a simple drug treatment strategy. A year later, pharmaceutical giants GlaxoSmithKline and Merck & Co., Inc. pledged unlimited quantities of two essential drugs needed for elimination – the largest drug donations in history, valued at more than \$1.5 billion. At this point, the pieces were in place but not yet in motion. The Bill &

Melinda Gates Foundation, the Department for International Development (UK), the Japan International Cooperation Agency and the Arab Fund for Economic & Social Development stepped in to help, contributing critical seed money that dramatically accelerated LF elimination efforts. The Global Programme to Eliminate Lymphatic Filariasis was formed, led by the World Health Organization and supported by a Global Alliance made up of more than 40 diverse public and private partners dedicated to a future free of LF. While this ambitious goal is more than a decade away, the first four years prove the Global Programme's profound impact on both scientific progress and the health of neglected populations.

UNPARALLELED EXPANSION IMPACTS MILLIONS

The LF strategy encompasses both preventing disease and reducing disability. A mosquito-borne disease, lymphatic filariasis can be stopped by treating everyone in affected communities with appropriate drugs. People need only take a few tablets once a year for four to six years, or use table salt fortified with an anti-parasitic drug. While there is no cure, simple measures like hygiene and skin care can stop lymphedema from progressing, and surgery can correct male genital damage.

No public health program has ever expanded so quickly as the Global Programme to Eliminate LF.

According to World Bank partners, governments in endemic regions increasingly view the program as a tangible, cost-effective way

to address poverty and improve health.

As a result, annual treatments have jumped rapidly, up from 25 million in 12 countries in 2000 to nearly 200 million in 39 countries in 2004.



AFTER THE TSUNAMI: FORGING AHEAD

In the wake of the killer waves of the tsunami, neglected diseases like lymphatic filariasis face more intense challenges than ever before. In Sri Lanka, for instance, where tsunami victims lost their families, homes and livelihoods, mass administration of anti-parasitic drugs is still vital for preventing LF and reducing disability, despite many hurdles. Fundraising remains crucial, even as the private sector is focusing on tsunami relief efforts.

Since LF is a mosquito-borne disease, LF infection rates may rise as mosquito breeding increases across tsunami-affected areas. LF epidemiological workers need to control and track infection rates in these areas, a process that requires additional time and money.

Yet against the odds, LF elimination efforts are forging ahead. In Sri Lanka, plans call for mass drug administration in July 2005, a date set before the tsunami struck. And Sri Lanka program officials are hopeful that, over the long run, the private sector will continue to provide the external funding that is so critical to creating a future free of LF.

With support from the Gates Foundation, intensive monitoring is now underway in 10 representative countries to document the feasibility of eliminating LF in different settings, using various strategies. Across the board, all data to date show that mass treatment leads to dramatic declines in infection prevalence. Indeed, in some areas where LF prevalence was low initially and where the program has been in place for three or four years, transmission appears already to have been interrupted. While more time is needed to track results, reports to date indicate that the project is making excellent progress. A strategic research plan, published in November 2004 by *The American Journal of Tropical Medicine and Hygiene*, has been developed with input from more than 90 experts to help resolve remaining issues and ensure the program's success.

COMPLEX CHALLENGES LEAD TO INNOVATIVE APPROACHES

While Global Alliance partners are making a powerful difference in the fight against LF, treating more than 1 billion people presents ongoing, complex challenges – challenges that have led to innovative approaches in areas such as program integration, fundraising and advocacy.

For example, home-based care for people with LF – and surgery for men with genital disease – not only reduces disability, but also fuels community participation in annual drug treatment (treatment must reach 70 percent or more of the population to be certain of stopping transmission) and integrates LF activities into primary health care. In addition, drugs that prevent LF also eliminate intestinal worms, providing an additional, immediate benefit. Annual treatment in Haiti, India and elsewhere has shown dramatic and persistent reductions in hookworm and roundworm infections, improving children's growth, nutrition and cognitive development.

By collaborating with existing community-based treatment programs, mass treatment for LF can also help combat other neglected diseases. For instance, a pilot program in two states in Nigeria focuses on ensuring treatment for schistosomiasis and onchocerciasis (river blindness), at the same time as for LF. Bed nets prevent LF as well as malaria, so collaboration between the two programs is

a natural fit to achieve the malaria program's ambitious goals for distributing bed nets and medicines, especially since LF programs target the entire population in 'at risk' areas. Because of the enormous potential for enhanced public health impact from such multi-disease integration efforts, LF experts are active participants in the innovative discussions now underway to define and meet the challenges of integrating or 'packaging' interventions for LF and other diseases of neglected populations, including trachoma, intestinal parasites and leprosy, as well as schistosomiasis and onchocerciasis.

Beyond support from typical funding sources, including the U.S. Agency for International Development, the LF program has attracted creative, non-traditional financing that is promising for the future of global health. For instance, missions by the World Bank to tap into potential government resources led to a commitment by Ghana and Tanzania to cover many of the costs associated with eliminating LF, starting in 2005. Collaborating with the Global Fund to Fight AIDS, Tuberculosis and Malaria stimulated the first successful malaria proposals to include LF, which will cover drug treatment in Togo and Papua New Guinea during the next five years.

This decentralized approach to fundraising also includes fundraising training at country and regional levels. National program managers and their teams learn how to approach local and corporate funding sources, as well as bilateral missions and nongovernmental organizations. Training in Burkina Faso – the first country to receive assistance in developing a fundraising plan – led to appreciable support from local corporations. More recent training in Sri Lanka involved staff from other disease programs beyond LF, casting a wider net for collaboration and cooperation.

Results like these are accelerating as evidence of program efficiency mounts. Preliminary data from costing studies in nine countries illustrates three important points: treatment is extremely cost effective (typically between 10 cents and US\$1 per person per year, depending principally on a country's economic level); costs are reduced as programs mature; and governments and in-country sources are paying a much higher portion of the costs than anticipated (73 percent in Egypt and substantial contributions in other countries). Packaging or integrating LF program activities with other health initiatives should increase cost-efficiency even further.

Advocacy efforts, including those toward integrated public health programs, are also underway, and are expected to gain momentum through the Global Health Council's current effort to mobilize an Infectious Disease Coalition. The coalition will increase awareness and support in the U.S. not only for malaria and tuberculosis, but also for LF and other lesser known infectious diseases such as onchocerciasis, trachoma, schistosomiasis and intestinal parasites.

A FUTURE FREE OF LF

LF is one of very few diseases offering the prospect and hope for elimination. Yet the grand initiative catalyzed by the Global Alliance's efforts goes far beyond proving that the debilitating disease can be stopped. In less than four short years, the sweeping, global program has rapidly expanded, mobilizing partners and engaging political will. The result of "learning by doing" is an innovative, collaborative initiative that is beginning to prove not only that LF can be eliminated, but that it offers one of the best possible opportunities to begin to close the health gap for the world's poorest people.

For more information about the Global Alliance to Eliminate LF, visit www.filariasis.org

A nurse, anti-parasitic medicines in hand, brings hope to the children of Sri Lanka. Photo © GlaxoSmithKline