LYMPHATIC FILARIASIS

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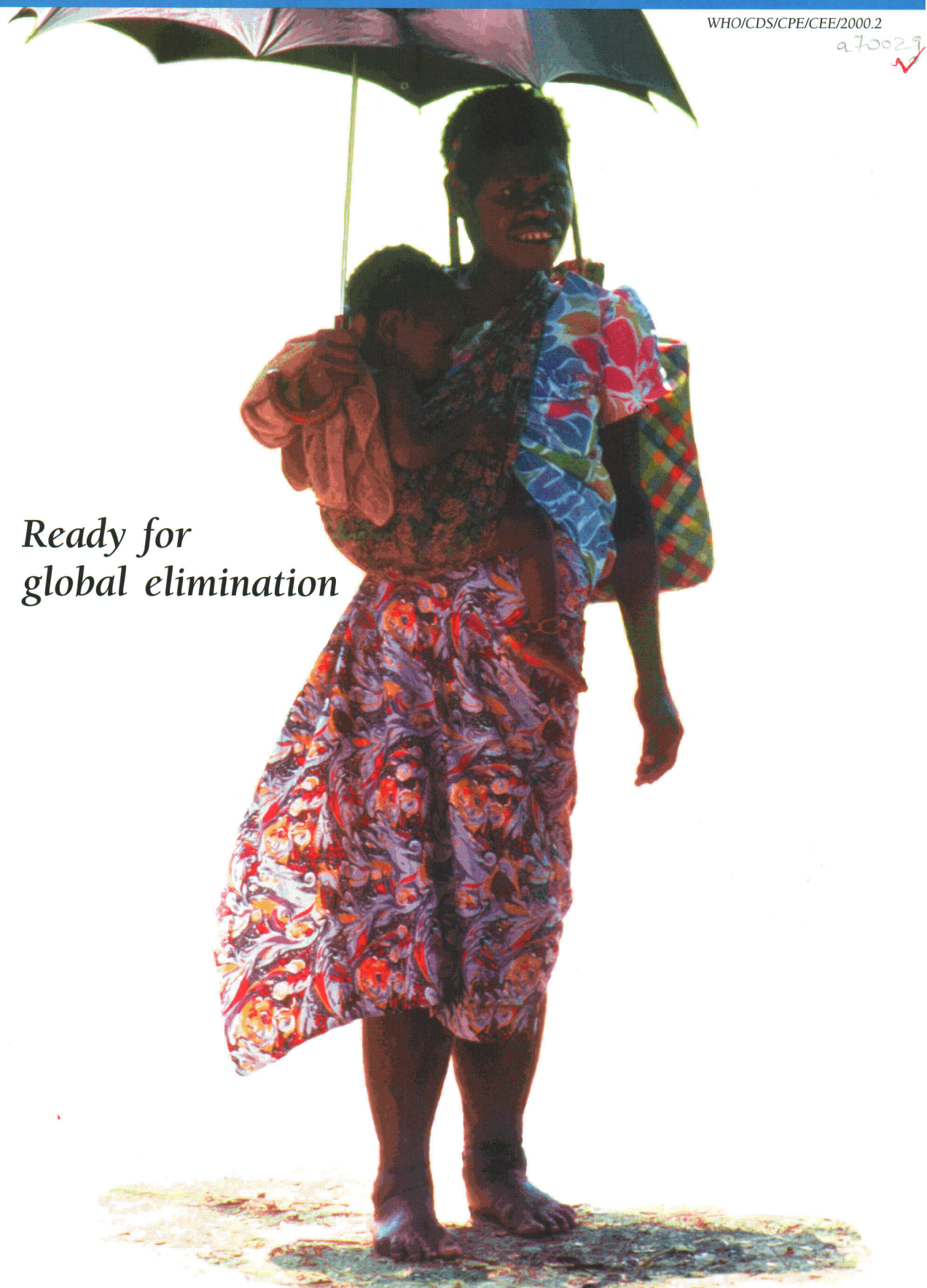
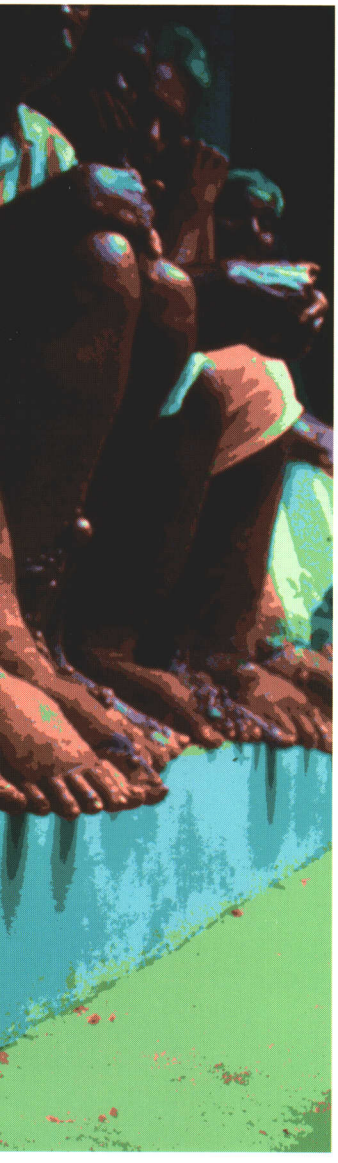


Ready for global elimination

Lymphatic filariasis: one of only six infectious diseases considered eradicable or potentially eradicable, with the tools available today.

International Task Force on Disease Eradication



The Problem

Lymphatic filariasis, also known as elephantiasis, is one of the most debilitating and disfiguring of all diseases. One of the most prevalent of tropical diseases, it is also among the most neglected. It afflicts poor people in both urban and rural areas. Rarely fatal, it causes extensive disability, gross disfigurement and untold suffering for millions: young and old; men, women and children. In every community where it occurs, this disease remains a strong impediment to socioeconomic development.

Simple methods to stop elephantiasis

Effective, safe drugs; simple, inexpensive delivery systems; quick and accurate diagnostics.

All have appeared over the past few years, along with much greater understanding of all aspects of the disease itself. Proven means are now available to eliminate lymphatic filariasis as a public health problem.

The Challenge

Do we really want to eliminate one of the world's most depressing diseases? Can we stimulate the necessary political will and community support? Can we find and coordinate the necessary resources? There is unchallenged potential to place lymphatic filariasis alongside smallpox as having been eradicated from the face of the Earth by concerted human action.

What is lymphatic filariasis?

Lymphatic filariasis is an extremely debilitating, stigmatizing disease, caused by parasitic worms. It affects men, women and children. It is usually acquired in early childhood.

BUT....

it is a very special disease – one of only 6 infectious diseases now considered to be potentially eradicable with currently available tools.

How is it spread?

The 4-12 cm long thread-like adult worms live in the body's lymph nodes and lymph vessels, and female worms release millions of immature parasites, known as microfilariae, into the bloodstream. These can then be picked up by a biting mosquito and transmitted to other people when the mosquito bites again.

How do people suffer?

The disease causes a wide range of clinical problems. Some are easy to recognize. But many remain hidden from sight.

Easy to recognize:

- Elephantiasis and lymphoedema – the grotesque swelling that can accompany long-standing infection
- Filarial fevers caused by acute infections in damaged limbs or genitals

Hidden from sight:

- Visible, but covered up – genital damage, especially hydrocoele and elephantiasis of the scrotum and penis in men, and elephantiasis of the breast and vulva in women
- Damage, to the lymph circulation system and to the kidneys in all infected people – even those showing no outward signs of infection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Where is the disease found?

Lymphatic filariasis occurs in at least 80 countries. It is most common in India and Africa, but occurs elsewhere in Asia, the Pacific and the Americas as well.

How many people are infected?

At least 120 million men, women and children have lymphatic filarial infections. Some 40 million people have visible signs of the disease.

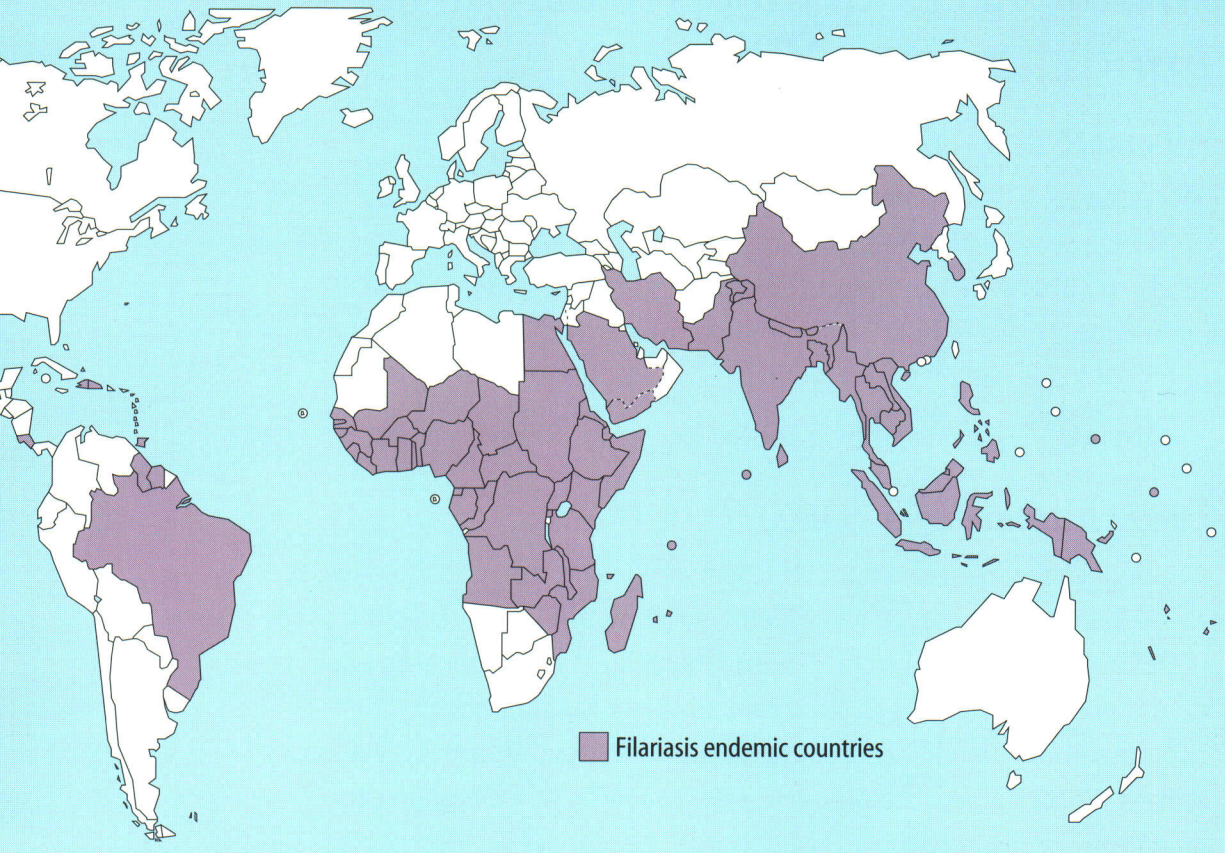
How many people are endangered?

At least 1 billion individuals – 1 out of every 5 people alive – are at risk of developing lymphatic filariasis.

What is the true cost of the disease?

- Permanent or long-term disability; lymphatic filariasis is the world's second leading cause of disability
- Social loss (lost or broken marriages, lost parenthood opportunities)
- Personal shame and injury (mental and physical)
- Lost/diminished economic productivity
- High treatment costs (that financially cripple health services in developing countries where the disease is often at its worst and where resources are limited)

Actual financial costs are difficult to calculate but are huge. In India alone costs are estimated to be in excess of $1.5 billion annually.



Lymphatic filariasis is a disease of the poor, in both rural and urban areas.

As poverty spreads, and millions in the developing world abandon their rural homes, travelling to towns in search of a means of survival, the rapid and unplanned urbanization that results is causing widespread and alarming proliferation of the disease.

Are the necessary tools available now? For treatment – YES!

Albendazole

Albendazole is one of the most widely used antiparasite drugs for curing intestinal worm infections of children, and when co-administered as a single treatment with either of the older anti-filarial drugs, DEC or ivermectin, it also enhances the ability of these drugs to stop the spread of filarial infection.

- Cost = US $0 donated by its developer, SmithKline Beecham

Diethylcarbamazine (DEC)

Developed over 50 years ago, DEC is inexpensive, safe and effective. A single annual dose can reduce microfilariae by 90% for at least one year. If DEC is given in combination with albendazole or ivermectin, effectiveness is greatly enhanced and transmission can be dramatically interrupted. Unfortunately, DEC cannot be used to treat lymphatic filariasis in most of Africa because of severe side-reactions when certain other infections are also present.

- Cost = US $0.02/person/year

Ivermectin

A drug that is safe and easy to use. A single dose quickly kills immature forms of the filarial worms (microfilariae) within the human body and