

Stop Filariasis now!

All it takes to prevent this disease is a few pills once a year for five years

# OUL RILASIS NOW

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### Foreword

### The problem

More than 1 billion people are at risk of lymphatic filariasis (LF). Some 120 million people are infected worldwide, including about 40 million who are incapacitated and disfigured by the disease. LF is endemic in more than 80 countries and territories. Although it does not kill, LF is thought to be the world's second leading cause of permanent and long-term disability.

In recent years, this disease has steadily increased because of the expansion of slum areas and poverty, especially in Africa and the Indian subcontinent. It is primarily a disease of the poor because of its prevalence in remote rural areas and in underprivileged periurban and urban areas and consequently reduces peoples' ability to work, resulting in loss of family income.

### The solution

Until recently, the diagnosis of LF depended on night blood examinations to detect microfilariae. Now, there is a detection test that can be used at any time of the day, making it more feasible to map the disease than ever before. Treatment is now available in the form of drugs, that are free or low-cost, safe and cost-effective. These drugs kill the microfilariae in the blood and stop the

disease in its tracks before the manifestation of debilitating effects. For those who cannot benefit from this prevention strategy, simple methods of hygiene and self-care can dramatically reduce the effects of the disease.

With effective tools at our disposal, the time had come for the world to engage in an intensified action against this disease. The World Health Assembly decided in 1997 that LF should be eliminated as a public health problem. WHO proposed a two-pronged strategy for achieving this goal: firstly to interrupt transmission by reducing disease incidence to almost zero and secondly to implement disability management interventions for those who are already suffering from disability.

### **Expanding resources for elimination activities**

In 1998, the effort to eliminate LF was given a powerful boost when GlaxoSmithKline announced its commitment to collaborate with WHO to support the Global Programme to Eliminate Lymphatic Filariasis, by donating albendazole (one of the drugs used against LF) free of charge for as long as necessary. Subsequently, Merck & Co., Inc., pledged to expand its ongoing Mectizan® Donation Program for onchocerciasis (river blindness) to cover treatment of LF with ivermectin in all African countries where the two diseases occur together.

The donations have enabled countries that are in need, but that lack the necessary resources, to acquire the drugs and to pursue their national elimination programmes.

In 2000, the Bill and Melinda Gates Foundation donated US\$ 20 million to support LF activities from 2000 – 2004. The grant proposal to the Bill and Melinda Gates Foundation was developed by representatives of a variety of public and private partners who have committed to work together to eliminate LF.

### The partnership

It was clear from the outset that to make maximum impact a systematic intervention at country level would be required and that the elimination programme would need to work with a variety of partners – first to implement the programme and later to expand it ("scale up"). WHO and GlaxoSmithKline brought together a broad coalition of partners and established the Global Alliance to Eliminate Lymphatic Filariasis. This partnership was forged between many organizations, each with a different mandate but all having a common goal. Early support for the Global Alliance came from the ministries of health of the endemic countries and a number of international organizations, including the Arab Fund for Economic and Social Development (AFESD), the United States Centers for Disease Control and Prevention (CDC), and the United Kingdom Department

for International Development (DFID).

### The Global Programme to Eliminate Lymphatic Filariasis scales up

Two years after the formation of the Global Alliance considerable energy and activity at country, regional and global levels has moved the LF elimination programmes forward. The meeting in New Dehli was a very appropriate moment for the Global Alliance members to take stock. This report aims to capture the basic elements of the discussions in which ministers and delegates, key decision-makers in public health, the private sector, nongovernmental organizations and academic centres took part. The main task was – and is – to identify how the Global Alliance can build on the progress achieved to create a stronger and more effective Global Alliance, which will scale up coverage and ensure that by 2020 LF will have seen its last day.

# Second Meeting of the Global Alliance to Eliminate Lymphatic Filariasis

### THURSDAY, 2 MAY 2002

OPENING SESSION		TECHNICAL SESSION			
09.05 - 09.10	Welcome address by Mr S.K. Naik, Secretary (Health), Government of India	11.00 – 11.30	Global Alliance to Eliminate Lymphatic Filariasis (GAELF) Secretariat Report, Dr M. Neira, Director, Communicable		
09.10 – 09.20	Message from the Director-General of WHO, followed by address of Dr D. Heymann, Executive Director, Communicable Diseases, WHO, Geneva	11.30 – 12.00	Diseases, Prevention, Control and Eradication, WHO, Geneva Keynote address by Dr S.P. Agarwal, Director-General of Health Services, Government of India		
09.20 - 09.25	Address by Mr A. Raja, Honourable Minister of State (Health and Family Welfare) Government of India	12.00 – 12.15	Statement by Dr J.P. Garnier, Chief Executive Officer, GlaxoSmithKline		
09.25 - 09.30	Address by Dr Uton Muchtar Rafei, Regional Director, SEARO	12.15 - 13.15	Reports of Regional Programme Review Groups		
09.40 - 09.45	Inaugural address by Dr C.P. Thakur, Honourable Minister of Health and Family Welfare, Government of India	14.15 – 14.30	Technical Advisory Group and New Research Report, Dr Y. Dadzie, Chair		
09.45 - 09.50	Vote of thanks by Dr S.P. Agarwal, Director-General of Health Services, Government of India	14.30 – 15.00	Discussion on the presentation of the Global Alliance for the Elimination of Lymphatic Filariasis		
09.50 - 11.00	Press conference	15.00 – 15.25	India presentation of country experience.		
		15.25 – 16.00	Burkina Faso presentation of country experience.		
		16.30 – 17.15	Elimination of LF as an instrument of Poverty Alleviation, and Sustainable Development: Policy Perspectives and Needs, Dr S. Stansfield, Gates Foundation; Mr K. Leich, Health and Population Department, (DFID) United Kingdom; and Dr J. Galvez Tan, former Secretary of Health, the Philippines		
		17.15 – 17.45	Statements by attending Ministers		
		17.45 – 18.00	Technical statements by GlaxoSmithKline and Merck. &, Co.		

### FRIDAY, 3 MAY 2002

08.30 - 13.00	Working group sessions
14.00 – 15.15	Plenary report from the working groups
15.45 - 16.45	Plenary resolutions

### Participating Organizations and Ministries of Health

### **MINISTRIES OF HEALTH**

Bangladesh Fiji Nepal Togo

Burkina Faso Gabon Nigeria Uganda

China Ghana Philippines United Republic of Tanzania

Comores Haiti Samoa Viet Nam

Dominican Republic India Senegal Yemen

Egypt Myanmar Sri Lanka

### **ORGANIZATIONS AND PRIVATE COMPANIES**

Bill and Melinda Gates Foundation Hand

The Carter Center

Catholic Medical Mission Board

Centers for Disease Control and Prevention (CDC)

Danish Bilharziasis Laboratory

Department for International Development (DFID),

Emory Lymphatic Filariasis Support Center

The Guardian

GlaxoSmithKline

GLOBAL 2000

Handicap International

Health and Development International (HDI)

James Cook University

Interchurch Medical Assistance, Inc.

International Foundation for Dermatology

International Skin Care Foundation

International Volunteers in Urology

**LEPRA** 

Liverpool Lymphatic Filariasis Support Centre

Mectizan® Donation Program

Michigan State University

United Kingdom

The World Bank

World Health Organization:

Headquarters, Geneva

Regional Office for Africa (AFRO)

Regional Office for the Americas (AMRO)

Regional Office for the Eastern Mediterranean

(EMRO)

Regional Office for South-East Asia

(SEARO)

Regional Office for the Western Pacific

(WPRO)



### Abbreviations and Acronyms

Mectizan® Donation Program

MDP

AFRO	African Regional Office (of the WHO)	MoH	ministry of health		
AMRO	Americas Regional Office (of the WHO)	NFCP	National Filariasis Control Programme		
APOC	African Programme for Onchocerciasis Control		nongovernmental developmental organization		
CDS	Communicable Diseases Cluster of WHO	NGO	nongovernmental organization		
COMBI	communication for behavioural impact	PAcELF	Pacific Programme for the Elimination of Lymphatic Filariasis		
CPE	Department for Communicable Disease Control, Prevention and	PAHO	Pan American Health Organization		
	Eradication  DEC diethylcarbamazine  ELF elimination of lymphatic filariasis		Programme to Eliminate Lymphatic Filariasis		
			primary health centre		
			Regional Programme Review Group		
EMRO	Eastern Mediterranean Regional Office (of the WHO)	QA	quality assurance		
GAELF	GAELF Global Alliance to Eliminate Lymphatic Filariasis		quality control		
GIS	geographic information system	SEARO	South-East Asian Regional Office (of the WHO)		
GSK	K GlaxoSmithKline -		Technical Advisory Group on the Global Elimination of Lymphatic		
ICT	immunochromatographic test		Filariasis		
IEC	information, education and communication	TDR	UNDP/World Bank/WHO Special Programme for Research and		
ITN	insecticide-treated nets		Training in Tropical Diseases		
IU	implementation unit	UN	United Nations		
JICA	Japan International Cooperation Agency	UNDP	United Nations Development Programme		
LF	lymphatic filariasis	WHO	World Health Organization		
MDA	mass drug administration	WPRO	Western Pacific Regional Office (of the WHO)		

# Opening Address by the Director-General of the World Health Organization

"It is a great pleasure and honour for me to be able to address you at the opening of this important conference on lymphatic filariasis.

Let me first thank Minister Thakur who is hosting the meeting and who, together with the members of the Global Alliance, has made a fantastic effort to ensure that this conference could take place. WHO is very grateful for the generosity shown by India and remains impressed by the energy and importance placed on tackling lymphatic filariasis.

We are also grateful to the Gates Foundation for creating the platform for all of us as partners to engage in an intensified fight against lymphatic filariasis and to reach our elimination goals.

We now have been given an opportunity to rid the world of lymphatic filariasis through this Global Alliance with the contributions of partners like GlaxoSmithKline and Merck & Co., Inc.

We have treatment available – treatment that is safe and cost-effective. A combination of two medicines taken once a year will prevent the disease from developing among those who already have the worms.

Thanks to these medicines, more than 1 billion people at risk can now have access to preventive treatment that will interrupt the transmission

of this disease. However for more than 120 million people who are living with lymphatic filariasis it is already too late to benefit from the prevention afforded by these drugs. For these people we must intensify our efforts to encourage healthy behaviour that can dramatically reduce further damage to affected body parts.

Many of the communities with the highest burden of lymphatic filariasis are also struggling economically. Improving the health of those at risk for lymphatic filariasis is not just a matter of reducing disability. It is about providing the opportunity for people to live a full and economically active life as individuals and as part of families.

Two years ago I commissioned leading economists and health experts from around the world to work together to consider the links between health and economic development. Five months ago the Commission on Macroeconomics and Health released its report. It concludes simply that disease is a drain on development and that investment in health is a concrete input into economic development. Fighting neglected diseases like lymphatic filariasis is an integral part of the massive effort we need in order to push back the diseases that perpetuate poverty and put a brake on economic and social development. As the Commission's report indicates, 32 out of the 38 least-developed countries are endemic for filariasis.



We can show success in more than 20 countries. These countries demonstrated that the lymphatic filariasis elimination programme can achieve concrete outcomes in a short space of time. Through these successes we have a solid base and evidence for elimination. The programme is more than fulfilling its targets, giving hope that elimination will be achieved.

We continue to be impressed by the level of political commitment shown by many countries considering that they are also struggling against major financial limitations. We are greatly impressed by the proactive involvement of affected communities and local businesses in working with lymphatic filariasis programmes on mass drug administration campaigns. This type of mobilization should be an example and a model for all.

The Global Alliance to Eliminate Lymphatic Filariasis shows what part-

nerships should be about. It is action-oriented and focused on outcomes. Most of all it reflects that the role of the partners goes beyond providing resources, to help endemic countries advance self-sustainable lymphatic filariasis elimination programmes. These will eventually strengthen the health systems and then reach into the communities.

We have the tools, and successes have proven that lymphatic filariasis can be controlled and eliminated. "

Dr Gro Harlem Brundtland Director-General World Health Organization

New Delhi, 2 May 2002

# Inaugural Address by the Minister of Health & Family Welfare, India

It gives me immense pleasure in extending a warm welcome to Honourable Ministers, esteemed scientists, public health experts, representatives of the World Health Organization, donor agencies, media professionals and distinguished delegates who have assembled here for the Second Global Alliance Meeting to deliberate on the strategy to eliminate lymphatic filariasis. Delhi is a historic city with many interesting places to visit. I hope your stay here will be enjoyable and comfortable.

Lymphatic filariasis is an important cause of physical disability, social stigma and loss of livelihood to affected individuals. It leads to significant economic loss to endemic nations. Today, we have the tools and knowledge which make it possible to set elimination goals in the foreseable future.

Availability of potent tools, development of sound strategic plans and effective implementation at the ground level are the three prerequisites to eliminate the target disease. Since Edward Jenner vaccinated James Phipps with a potent smallpox vaccine on 14 May 1796, it took 18 decades to eradicate smallpox from the globe through a special drive based on a new strategy developed by WHO. After the epoch making eradication of smallpox, India successfully launched eradication of guinea-worm disease with timely inputs from WHO and other donor agencies. Schistosomiasis, which was confined to a small focus in Ratnagiri district of Maharashtra, has also been successfully eliminated. We should reach our goal against poliomyelitis sooner than later. The progress made against leprosy, tuberculosis, yaws, etc, is commendable. Coming from the full medical community, I relentlessly conducted case management and operational research on visceral leishmaniasis and I am optimistic that we would also add this disease to medical archives after successfully implementing a strategic plan for its elimination. A few years back, it was unbelievable to think of eliminating lymphatic filariasis, but it is very exhilarating to note that some countries, though small, have already eliminated this disease.

Lymphatic filariasis, otherwise known as elephantiasis, has been a major public health problem in India next only to malaria. The disease was recognized in India in ancient times. Elephantiasis was recorded more than 2600 years back by the Indian physician, Sausruta, in his medical book 'Susruta Samhita'. In the 7th century A.D., an Indian pathologist, Madhavakara, in his treatise 'Madhava Nidhana' described signs and symptoms of the disease which hold good even today. In 1709, Clarke, a military physician in India, described elephantoid legs in Cochin as 'Malabar Legs'. In 1872, Lewis discovered microfilariae for the first time in the peripheral blood of a man in Kolkata City.

According to available data, the disease is widespread with evidence of active infection detected in about a third of all districts in India. Filariasis is a major problem in Bihar, Uttar Pradesh and many districts in the central and southern parts of the country. While a majority of the population may be affected in the endemic pockets, it is, unfortunately, recognized only in the few who manifest the end stage of chronic complications such as elephantiasis and hydrocele.

Paradoxically, most of the persons transmitting the infection through mosquitoes apparently remain healthy for many years, while the cases with chronic manifestations are usually free from circulating microfilariae. Recent scientific evidence shows that infected persons, though apparently healthy, actually suffer from hidden lymphatic pathology and kidney damage. The prognosis of the disease in humans is still enigmatic to the scientific community. Though the infection is often acquired in early childhood, the clinical manifestations surface after many years. Fortunately, a proportion of infected people may never acquire outward clinical manifestations. It is not known why only some people harbour circulating microfilariae and why some of them come down with massive manifestations at a later stage, when almost all the members of the community are exposed to frequent infective bites of mosquitoes in hyperendemic areas. We do not know why hydrocele is more often a common manifestation in the Gangetic belt and why elephantiasis of the lower limbs is more frequent in the southern states of India. Chyluria was seldom reported in India while the same was proportionately higher in formerly endemic belts of Japan.

I know that many other countries are equally affected and face sufferings as a consequence of this disease. As per WHO estimates, there are more than one billion people living in the endemic areas of over 80 countries; over 120 million people are



affected by the disease and nearly one-third of them are seriously incapacitated by massive elephantoid swellings. In India and perhaps in other countries as well, there is an urgent need to carry out fresh surveys and map areas to quantify the magnitude of the problem in scientific and realistic terms. I understand that there are genuine problems in conducting such surveys, including availability of acceptable diagnostic kits, but I am sure that such matters are receiving attention and you will also get the opportunity to discuss these during the course of the meeting.

Diethylcarbamazine (DEC) continues to be the drug of choice as a microfilaricide for the control of lymphatic filariasis. This drug was discovered in Lederle Laboratories in USA by a team of scientists headed by an Indian doctor, Dr Yellaragada Subba Rao, in 1946. Within three years of its discovery, India launched the first pilot project for the control of bancroftian filariasis using antiparasitic, antilarval and anti-adult mosquito measures individually. Subsequent to the pilot study, the National Filaria Control Programme (NFCP) was launched by the government of India with the cooperation of the United States Technical Cooperation Mission. The programme is presently confined to 206 urban areas in the country covering 53 million population, which is merely 11% of the population living in districts in which active transmission has been detected or indigenous patients identified.

In 1996, one district in Tamil Nadu was taken up for mass administration with a single dose of DEC. This was later extended to 12 more districts in seven states by 1998. The impact of the strategy has yet to be evaluated. Based on experience in some endemic countries, WHO recommended the use of co-administration of DEC and albendazole for elimination of lymphatic filariasis. Hence, 11 other districts have been added since 2000 for mass administration of DEC in combination with albendazole. About 41 million population is covered under DEC alone and 26 million under DEC + albendazole. This is a massive operation by any standards and the success or failure of the mission will have implications for the global goal of filariasis elimination.

Besides its field experience, India also has a large number of medical professionals with experience of treating cases of filariasis, national-level laboratories working

in this field as well as field personnel involved in operational research. This is our strength and we are ready to share our experience and expertise in this field.

But our problem is of a magnitude that perhaps no other country is facing. While the coverage of around 67 million population itself constitutes a challenging task, we will soon have to worry about covering the remaining 200 million or more. We will have to raise and optimally utilize the resources necessary for such operations. More importantly we have to evaluate the work already done before we up-scale the operations for the rest of the country. We will need all the support and help that the Global Alliance and other concerned organizations can provide.

I fully agree with the strategic plan developed by WHO that lymphatic filariasis should be integrated with other disease control programmes to achieve the objectives and reach a goal within the economic reach of developing nations through intrasectoral and intersectoral coordination, including the active participation of nongovernmental organizations, multilateral and bilateral donor agencies as well as individual companies/persons. Efforts should be sustained till the goal is achieved.

I wish you all success in your deliberations during the two-day meeting in the metropolis to develop a successful strategy, firmly based on the experience of the gathering here.

Minister C.P Thakur Health and Family Welfare India

New Delhi, 2 May 2002

Eastern Mediterranean 0.5%

Africa 34%

Western Pacific 15%

Americas 0.5%

# Accountabil

South-East Asia 50%

- ▶ 80 countries are endemic of LF
- 1.1 billion people are at risk of LF transmission
- ▶ 120 million people are affected world-wide
- one-third of them suffer disabilities

# and Progress

### LYMPHATIC FILARIASIS AND DEVELOPMENT

STATUS OF COUNTRIES							
Devlopment Category	of	of LF	,	At risk population (millions)	at-risk	with LF	
Least- developed countries	38	32	643	289.5	45.0%	10	
Other low-income countries	21	11	1777	633.3	35.6%	6	
Lower-Middle income countries	19	10	2094	39.69	1.9%	8	
Upper-Middle income countries	3	1	573	1.3	0.2%	0	

### DYNAMIC ACHIEVEMENTS OF A SUCCESSFUL GLOBAL PROGRAMME: GAELF SECRETARIAT REPORT

Dr M. Neira, Director, Communicable Diseases, Control, Prevention and Eradication, WHO



resenting the report of the Global Alliance to Eliminate Lymphatic Filariasis (GAELF) Secretariat, Dr Maria Neira, Director, Communicable Diseases, Control, Prevention and Eradication at the World Health Organization (WHO), highlighted the enormous burden of lymphatic filariasis (LF).

The disease is endemic in 80 countries and 1.1 billion people are at risk of infection; 120 million people worldwide are already affected by the disease and some 40 million of those affected suffer debilitating disabilities as a result.

LF is a disease of the poor. As indicated in the report released by the Commission on Macroeconomics and Health, it is endemic in 32 of the 38 least-developed countries. Forty five percent of the population of these endemic countries face a major risk of transmission and infection.

Elimination of LF should therefore be seen as a contribution to poverty alleviation since poor and neglected communities are those mainly affected. In macroeconomic terms, the disease costs India US\$ 1 billion per year. In China, on the other hand, at the macro level an investment of US\$ 1 in the elimination of LF is estimated to give a return of US\$ 15. At the individual, family and community levels, elimination of LF improves the



The Global Alliance, established in 2000, is a non-restrictive partnership for the exchange of ideas and the coordination of activities.

quality of life, reduces costs and provides the opportunity to become economically active and to contribute to increased productivity.

**The commitment to eliminate LF** is enshrined in World Health Assembly resolution 50.29 (May 1997) which:

- "Urges Member States...to strengthen activities toward eliminating lymphatic filariasis as a public health problem..."
- "Requests the Director-General...to mobilize support for global and national elimination activities."

### The Strategy aims at:

- ► **Interrupting transmission** through mass drug administration (MDA) for all endemic populations using either:
  - ▶ single-dose, once-yearly 2-drug regimen for 4-6 years, or
  - ▶ DEC-fortified cooking salt for 1 year.
- ▶ **Disability management** by taking care of the affected through:
  - ► home-based long-term care
  - increased access to hydrocelectomy
  - community care, inclusion and counselling.

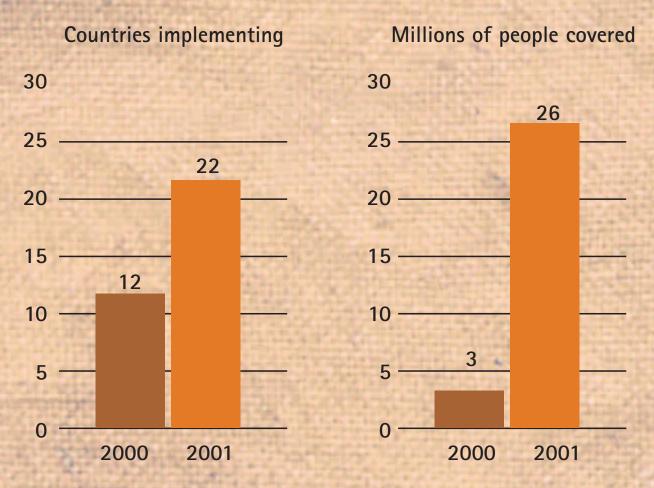
A major instrument of the overall effort is the Global Alliance which was established in 2000 as a non-restrictive partnership forum for the exchange of ideas and the coordination of activities. The Global Alliance includes 80 endemic countries and 39 other partners from the public and private sectors. The diversity of partners extends to nongovernmental developmental organizations (NGDOs), academia, and development and international agencies. WHO serves as the Secretariat to the Global Alliance. In the year 2000, members of the Global Alliance applied for and obtained a US\$ 20 million grant from the Bill and Melinda Gates Foundation. The grant is to cover a period of 5 years and is aimed at helping endemic countries begin national elimination programmes and at leveraging further support for the expansion of the programme from other donors. DFID (UK) and the Arab Development Fund have also given generous contributions towards the elimination programme.

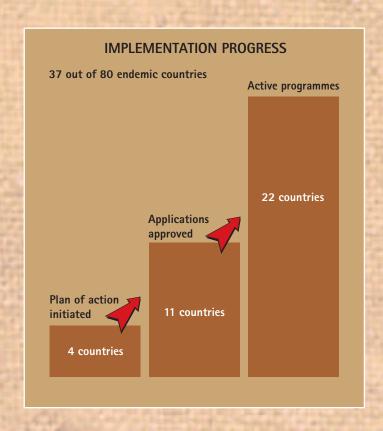
### **ACHIEVEMENTS SINCE 2000**

### Surveillance

Pharmacovigilance is a basic prerequisite of a successful elimination programme and the Global Programme has benefited from the active surveillance of the co-administration of drugs combined with systematic analysis of data by pharmacovigilance experts. Results from this surveillance confirm that co-administration of drugs is a safe measure for mass drug administration. On that basis, the Global Programme can begin to plan expansion ("scaling-up") with confidence.

### Progress in mass drug administration





### Mapping

This is an equally important first step towards an elimination programme. Detailed results derived from the mapping process give critically important parameters for programme planning. WHO is making available the HealthMapper software to all national partners for this purpose. Significant progress in mapping has been achieved since 2000. A primary target for the coming three years is to complete mapping in all relevant countries.

### Access to Drugs

The Global Alliance and the Global Programme benefit from the unprecedented donation of albendazole by GlaxoSmithKline to the programme. Merck & Co., Inc. also made donations of ivermectin for LF elimination in countries in Africa where onchocerciasis and LF are co-endemic. WHO has also provided assistance to many countries with the procurement of good-quality DEC. The combination of these efforts has ensured that national programmes have access to effective drugs so as to scale up towards the elimination of LF.

### Mass drug administration (MDA)

During 2002, 37 out of the 80 endemic countries are expected to implement LF programmes. These programmes may be at a stage where they have produced action plans, or have approved drug applications or have fully active programmes.

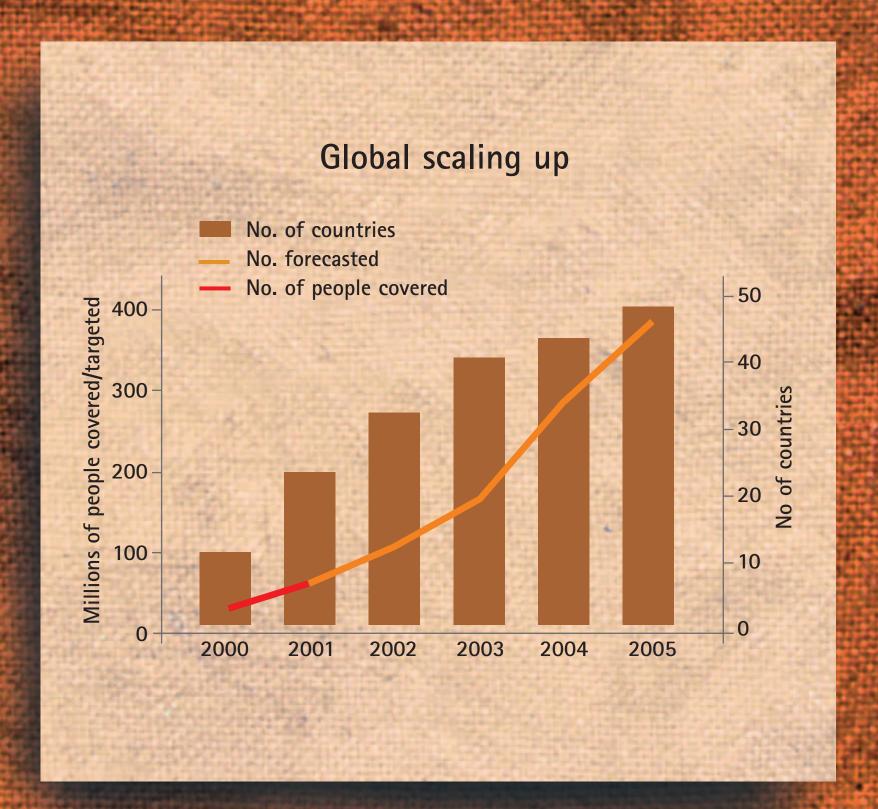
Overall the Global Programme reached its targets in 2001 by achieving MDA coverage of more than 26 million people.

### KEY SUCCESS FEATURES OF THE GLOBAL PROGRAMME

- Close link with poverty reduction and with giving people the chance to become economically productive.
- ► Strong public health perspective. Elimination interventions are not vertical and are deeply embedded in the national health system.
- ▶ Outreach to both at-risk populations and patients. The programme caters for both the vast number of people at risk and for the affected individuals.
- Strong partnership through the Global Alliance which is focused and committed to results at country level.
- Community involvement: the programme goes to the people as reflected in the drug administration successes in Mindoro (Philippines) and Zanzibar (United Republic of Tanzania).

**Mindoro:** Ninety-five percent of the eligible population was reached. Coverage at that level can be achieved only through intensive social mobilization and advocacy through rural health centres.

**Zanzibar:** An awareness and social mobilization campaign began in October 2001, three months before MDA was to begin. An intensive door-to-door strat-



The enormous challenge facing the Global Programme is that it must scale up to cover 350 million people at risk by 2005.

egy was used for 800 000 people in the two islands of Pemba and Unguja, achieving a cummulated observed coverage of 76% of the population. Essentially, the communities carried out the programme for and by themselves – they were in charge and at the centre of the programme.

- Development of training materials such as guidelines for programme managers, manuals for drug distributors, essential elements for health personnel and training packages for community health workers as well as for the mapping process.
- ► An active programme of advocacy by the Global Alliance members including:

Generating global awareness through the Global Alliance meetings, networking, partners' meetings, discussions, interactions with the media and routine meetings with the public or potential partners.

Generating political commitment from governments with ministries of health and ministries of finance, mobilizing and empowering communities using references such as highlighting MDA success stories.

Emphasizing the important link between LF elimination and poverty alleviation using references such as the *Report of the Commission on Macroeconomics and Health*, as well as other high-quality socioeconomic studies.

Mobilizing resources to continue and expand the Global Programme

Producing good advocacy materials for wider use.

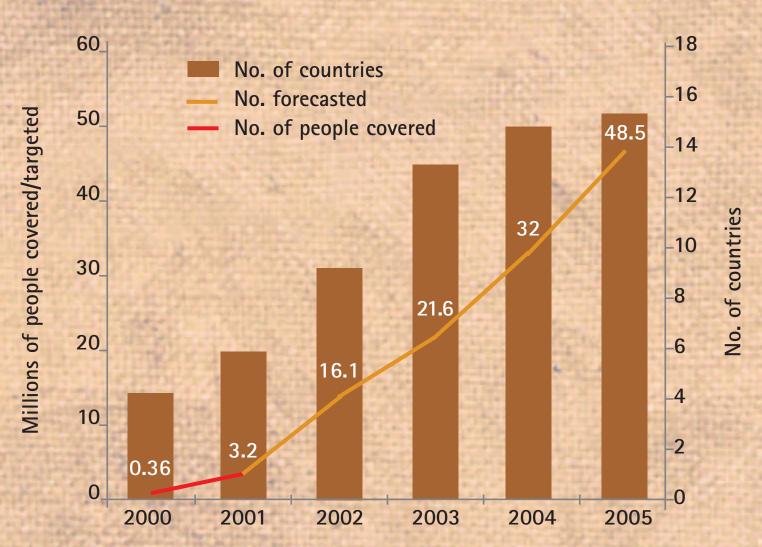
### THE CHALLENGE AHEAD - SCALING UP

To maintain the rhythm of progress achieved and inherent in the Strategic Plan adopted in Santiago in 2000, the Global Programme must scale up to cover 350 million people at risk by 2005. This is an enormous challenge that will require:

- ► Enhanced global advocacy
- Mobilization of additional financial resources
- Political commitment at endemic country level
- Promotion of community mobilization
- Operational and programme-based research
- Accelerated search for simpler drug dosages
- Diversification of drug delivery strategies
- Access to disability prevention interventions at community level.

These challenges are by no means easy to meet but, with determination and focused effort, the Global Alliance can achieve a world free from LF.

### Mass drug administration: medium-term targets for scaling up for the African RPRG



The key focus of the Regional Programme Review Groups is to ensure national ownership of LF programmes so as to develop high-quality national plans within existing systems.

### PROGRESS REPORT FOR THE AFRICAN REGION

Dr J. Gyapong, Acting Chair of the African Regional Programme Review Group

he African Regional Programme Review Group is one of the review groups that were formed as part of the Memorandum of Understanding with GlaxoSmithKline. Its task is to work together with national ministries of health to review applications and later to review national lymphatic filariasis programmes.

On behalf of the Chair who was unable to attend, Dr Gyapong reported that the size of the LF problem in Africa is more than considerable. At least 35% of the global burden of the disease is found in Africa; 512 million people are at risk; 43 million are already infected; 4.6 million people show lymphoedema; and an additional 10 million have hydrocele.

### THE MAIN REGIONAL ACHIEVEMENTS OF THE GLOBAL PROGRAMME IN 2002 WERE:

- Formulation of a Strategic Plan for the region.
- ➤ Setting up the Regional Programme Review Group (RPRG), which held its first meeting in October 2001. The key focus of the RPRG is to ensure national ownership of the LF programmes so as to develop high-quality national plans within existing systems and infrastructure such as that of the African Programme for Onchorcerciasis Control (APOC).
- ► The availability of a broad coalition of partners communities, national governments, NGOs and external bilateral and multilateral agencies.

**Overall progress** has been good but much remains to be done:

- ▶ **Mapping:** Work has been completed in five countries in West Africa and begun in Kenya, Uganda and United Republic of Tanzania; the sheer size and needs of a mapping exercise for Nigeria were enormous but such problems have to be overcome soon if elimination of LF is to succeed.
- ▶ Mass drug administration: The general uptake was good and an average of 76% of the population at risk was covered through mass drug administration (MDA).
- ▶ **Drug delivery:** In 2001, 7 million tablets of albendazole and 17 million of ivermectin were delivered.
- ▶ Disability management: Work has begun in Ghana, Nigeria, Togo and the United Republic of Tanzania. This issue is of high priority for the programme in the next few years.
- **Expansion of the programme:** Benin, Côte d'Ivoire, Kenya, Senegal and Uganda are all at the point where MDA can be planned.



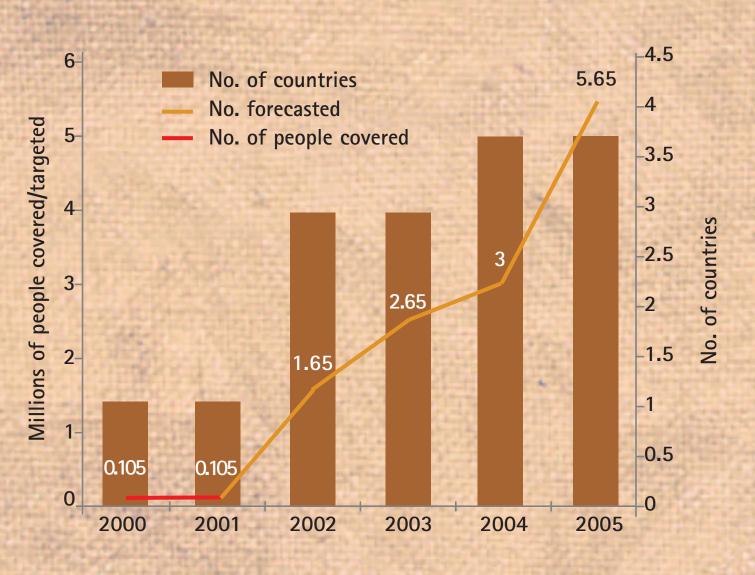
Raising funds for scaling up the Global Programme is of the highest priority since uncertainty about funding is often the main factor in delaying programme expansion.

### **CHALLENGES**

- ► **Mapping:** Completing mapping is a key priority since without mapping no good programmes can be planned.
- ▶ National government commitment: Resources and priorities for LF had to compete with many other public health priority demands, including those for "killer diseases" such as HIV/AIDS. The Global Programme needed to encourage governments to deal with LF.
- ▶ **Linkages with other programmes:** There was a great opportunity to link up with major programmes such as APOC and Roll Back Malaria. What is needed is an agreement at country level between the national managers of the different programmes.
- ► **Rewards:** The Global Programme needs to resolve this question. Those involved in LF activities such as MDA deserve some recognition.
- ► **Funding:** Raising funds needed for the scaling up of the Global Programme is of the highest priority since uncertainty about funding often is a factor in delaying programme expansion.

In concluding, Dr Gyapong expressed appreciation of the financial and other support the programme in Africa had received from national governments, WHO, the Catholic Medical Missions Board, DFID, Liverpool Lymphatic Filariasis Support Centre, the Bill and Melinda Gates Foundation, Global 2000, Health and Development International, and Interchurch Medical Assistance.

### Mass drug administration: medium-term targets for scaling up for the American RPRG



Achieving high treatment coverage and setting up effective monitoring and evaluation systems are some of the key challenges that the Dominican Republic programme will focus on.

### PROGRESS REPORT FOR THE REGION OF THE AMERICAS Dr B. Oostburg, Chair of the American Regional Programme Review Group

he American Regional Programme Review Group was formed in 2001 and met for the first time in August 2001. Dr Oostburg reported that seven countries showed problems of lymphatic filariasis. Costa Rica, Suriname, and Trinidad and Tobago are moving towards elimination. In the Dominican Republic, Guyana, and Haiti there are still many problems to overcome, and in Brazil there are four foci of which two are near elimination. The RPRG group deals with several key issues:

- ▶ Need for a link between the LF initiative and the national health systems.
- Encouragement of WHO's procurement process as a cost-effective mechanism for obtaining DEC-fortified salt.
- ▶ Need for a framework outlining the roles between national RPRGs and the Technical Advisory Group so as to facilitate the flow of information and avoid any overlap of responsibilities.
- ► The RPRG should provide orientation on where funds go and how they are managed and financed.

The RPRG also analyzed the funding situation, made estimates of drug requirements for 2002 – 2006 and reviewed national plans as appropriate as well as the prospects for implementing a two-drug regimen.

### **COUNTRY ACTIVITIES**

**Brazil:** Mapping is completed and social mobilization has been carried out but other programme components await initiation. The challenges facing the country programme are to obtain political commitment of the Ministry of Health and to establish morbidity and disability prevention as components of the National Plan.

**Costa Rica:** Mapping is pending and other programme components are still to begin. Some of the major challenges include obtaining political commitment of the Ministry of Health of the new government; appointing the National Commission and integrating research plans of the University of Costa Rica into the LF National Plan.

**Dominican Republic:** Mapping, social mobilization, MDA planning and disability prevention are all in process. The launch of MDA is scheduled for July 2002; sustaining high treatment coverage and setting up effective monitoring and evaluation systems and surveillance of possible transmission of LF along the border with Haiti, are some of the key challenges that the programme will focus on.

**Guyana:** Mapping is complete, social mobilization is in the planning phase, DEC-fortified salt is used rather than albendazole and disability prevention is in progress.





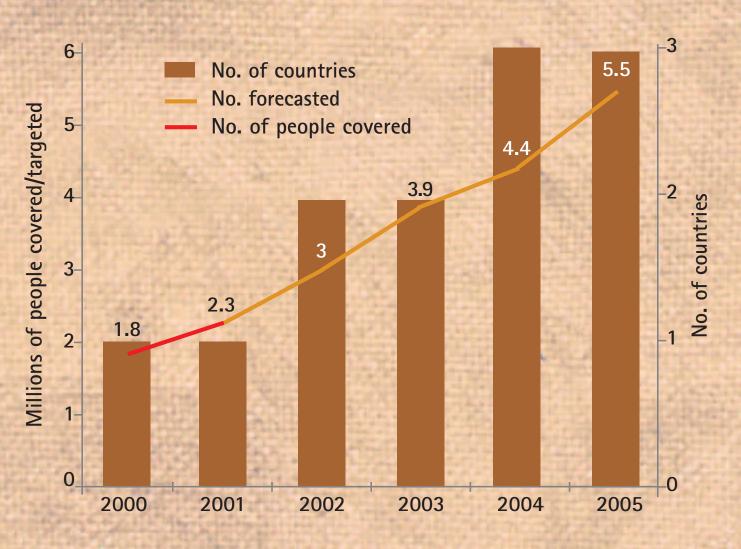
The challenges are to obtain political commitment from the Ministry of Health; to manage the salt fortification process and get local producers involved; to obtain funding and training for hydrocele surgery and to establish good monitoring and evaluation systems, including regular surveys of the sentinel site on the borders between Suriname and Guyana.

**Haiti:** Mapping is completed, social mobilization is in progress, MDA has been carried out in two sites and disability prevention is in progress. Remaining problems include articulating the LF programme within the Ministry of Health's strategic plan around maternal mortality; considering the use of DEC-fortified salt (and its side-effects) in certain areas and planning albendazole treatment for all the population at risk.

**Suriname:** Mapping is complete but other programme components such as social Mobilization, MDA and morbidity prevention are still to be initiated. The challenges in Suriname include making the National Commission effective and setting up border surveillance.

**Trinidad and Tobago:** Mapping is pending, no other programme component has begun. The challenge are to define cross-cutting issues shared by Costa Rica, Suriname, and Trinidad and Tobago in terms of verification of the absence of infection and to establish immigration surveillance systems.

### Mass drug administration: medium-term targets for scaling up for the Eastern Mediterranean RPRG



An assessment carried out in Yemen showed that LF was found in ten out of twenty governorates.

### PROGRESS REPORT FOR THE EASTERN MEDITERRANEAN REGION

Dr M. El Setouhy, Chair of the Eastern Mediterranean Regional Programme Review Group

he Eastern Mediterranean region includes Egypt, Sudan and Yemen with ongoing LF transmission. In Sudan and Yemen the disease is coendemic with onchocerciasis. In Djibouti, Oman, Pakistan, Somalia and Saudi Arabia the level of incidence of lymphatic filariasis still needs to be investigated.

On a regional level, a plan for LF elimination was prepared and a regional workshop held in April 2000 for national programme managers. In September 2000, the WHO Regional Committee approved a resolution on LF elimination in the region. The Eastern Mediterranean regional office of WHO gave technical assistance to Egypt, Saudi Arabia and Yemen. WHO also sponsored research on LF through a Small Grants Initiative. In December 2001, the Regional Programme Review Group was formed.

### **COUNTRY ACTIVITIES:**

**Egypt:** The National LF Plan is under implementation. Mass drug administration was carried out for 2.5 million people in 178 villages in eight governorates. Ninety percent of the target population – 80% of the total population – were covered by MDA. The third round of MDA took place in September 2002. A more detailed evaluation is needed to verify results; retraining of personnel involved in MDA is also needed.

**Oman:** The evaluation has not yet begun due to problems with the immunochromatographic test (ICT) cards. It seems probable that most cases of LF in Oman are imported.

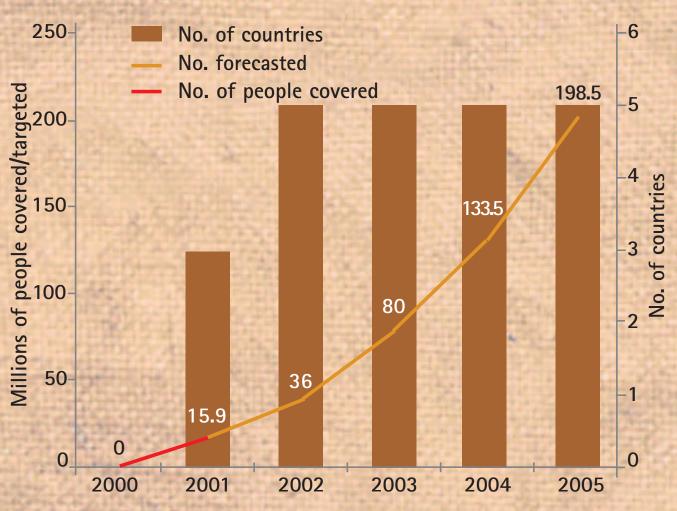
**Saudi Arabia:** An assessment has initially identified three sites – two in the south near Yemen and one in Mecca – where importation of LF is likely to occur during Hajj activities.

**Sudan:** Internal political problems have delayed action but the ministry of health has named a new focal point. The Carter Center will be able to work in both northern and southern areas of Sudan but has not yet begun the programme. In overall terms, data for Sudan must be updated.

**Yemen:** An assessment showed that LF occurs in 10 out of 20 governorates, covering 19 districts. A pilot house-to-house MDA was carried out in three districts with a coverage rate of 85% in 333 villages involving 41 824 people. Future activities will include completion of mapping (particularly in the valley areas where LF is endemic), training and social mobilization for the MDA campaign.

In the coming period, WHO/EMRO will concentrate on cooperation with the regional GIS sector for mapping, initial evaluation in other suspected countries (e.g. Pakistan), testing of the ICT cards and more cooperation with WHO/HQ and neighbouring endemic countries.

### Mass drug administration: medium-term targets for scaling up for the Indian RPRG



### PROGRESS REPORT FOR THE INDIAN SUBCONTINENT REGION

Prof. M. Ismail, Chair of the Indian Subcontinent Regional Programme Review Group



he Indian Subcontinent Region covers the area where 50% of the global burden of lymphatic filariasis is found.

### **COUNTRY ACTIVITIES**

**Bangladesh:** Although the disease is endemic in 12 out of 64 districts in Bangladesh, putting 21 million people at risk, LF is still rated a low priority in comparison with malaria and diarrhoeal diseases. In 2001, MDA was carried out in Panchagar district with a population of 800 000. Reported coverage was 93% and a further round was planned for January 2002. Extended mapping is planned for 2002 and two new implementation units covering a population of 4.5 million have been identified for MDA in 2002.

**India:** Twenty million people were targeted for DEC+albendazole MDA in 2001 and coverage was reported at 71%. MDA is planned for 21 million people in 2002. Scaling up of MDA is urgent in India but problems of planning, financing and implementation are huge (see separate detailed country report on India on page 46).

**Maldives:** Seven out of 20 atolls (with a population of 74 000) are endemic and 10 out of 240 inhabited islands report LF. In June 2001, the President gave his full support to LF elimination. MDA with DEC + albendazole will begin in late 2002.

**Nepal:** An application for drug supply was made in January 2002 and plans are being made for MDA in two districts in 2002.

**Sri Lanka:** Of the total population, 50%, (9.5 million people) are at risk but microfilarial rates are low, ranging from 0.01 to 2.86%. Limited MDA was carried out in 1999 and 2000. In May 2001, it was carried out for the total population at risk. The Colombo district received DEC + albendazole while other areas received DEC only. Coverage was reported as 65% of the at-risk population. The next MDA is planned for June 2002 when the entire population at risk will receive DEC + albendazole. Problems encountered in Sri Lanka include lack of awareness-building, lack of motivation to obtain drugs from fixed centres and lack of trained personnel to undertake door-to-door delivery.

### KEY PROGRAMME CHALLENGES FOR THE REGIONAL PROGRAMME REVIEW GROUP

▶ Drug delivery: The preferred strategy is house-to-house but there are insufficient trained personnel to carry this out. The population at risk (both poor and rich) is reluctant to accept drugs from volunteers mainly through fear of adverse reactions.

Fifty percent of the global burden of lymphatic filariasis is found in the Indian Region.

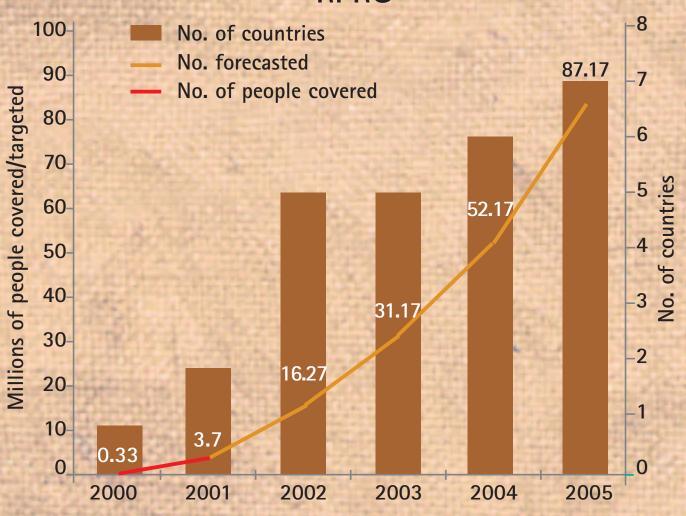




These problems can be alleviated, if not solved, by better and more extensive social mobilization and awareness-building in the future.

- ► **Scaling up MDA:** While the planning problems are considerable, there is a need to scale up more quickly in Bangladesh and India.
- ▶ **Mapping:** A more efficient way of using ICT cards should be identified.
- ▶ **Morbidity control:** Progress in this area is hampered by lack of funds, inadequate training programmes and an insufficient number of specific treatment centres.
- ► **Technical assistance:** The RPRG will need to visit programme countries and expert assistance must be made available to countries, particularly at the initial planning stage.
- ▶ **Operational research:** RPRG members have been asked and are expected to nominate topics for this type of research.

### Mass drug administration: medium-term targets for scaling up for the Mekong-Plus RPRG



#### PROGRESS REPORT FOR THE MEKONG-PLUS REGION

Prof. C.P. Ramachandran, Chair of the Mekong Plus Regional Programme Review Group

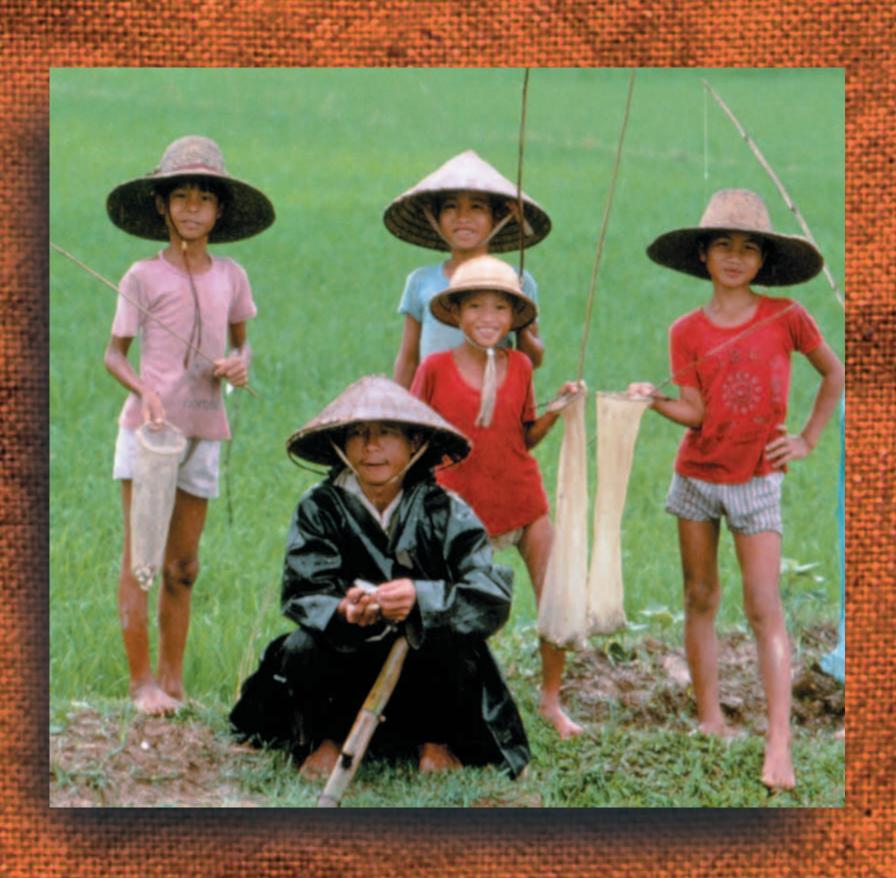


he Mekong-Plus RPRG covers two WHO regions (SEARO and WPRO) "from India to Australia". Certain characteristics of the region are unique or very special:

- ► All three LF parasites are found, although *Brugia* predominates
- ► More than 25 vectors have been identified
- ► Zoonotic infections are transmitted from some animals to humans
- Cross-border transmission of LF through legal and illegal immigration is a major problem.

The RPRG held its first meeting in Kuala Lumpur on 8–9 January, 2002. The meeting was held jointly with the Indian Subcontinent RPRG. Key issues discussed were:

- ► Scaling up of the programme
  - The need to complete mapping by 2005
  - How to define non-endemic countries
  - How to certify countries
  - Finalization of national plans
  - Speeding up the programme in countries such as Indonesia
  - The need to be flexible and adaptive to local circumstances in the implementation of the programme.
- Advocacy, training and decentralization
  - The need for regional advocacy, e.g. LF regional web site
  - The need for RPRG members to take country responsibility for site visits and guidance
  - The need for countries to take a more prominent role
  - The need to develop a directory of experts
  - The possible regional sources of funding.
- ▶ Brugian infections and their unique aspects such as parasite and vector biology, difficulties of diagnosis and treatment of reactions.
- ► Zoonotic infections, for example in Malaysia, the Philippines and Thailand.
- ► Cross-border issues and the need for regionally specific guidelines.
- ► Certification issues: the need for definitions, guidelines and processes, including efficient use of existing tools and the development of new tools for Brugian infections.





▶ Operational research: the RPRG felt that there was a great need to establish strong contact with the Technical Advisory Group to deal with questions such as diagnostic tools for Brugian infections, regimens to decrease reactions in such infections, delivery strategies for urban areas and scattered islands and funding for specific operational research.

Two workshops were held in 2001, the first on mapping for the region and the second for Programme Managers on implementation and guidelines.

#### **COUNTRY ACTIVITIES:**

**Cambodia and Lao People's Democratic Republic:** Both countries have begun mapping.

**China:** The programme is in the last stages of LF elimination and the RPRG needs to address the question of the criteria for validating the elimination of LF as a public health problem.

**Indonesia:** The government has made a firm commitment to LF elimination and the application for drug supply has been approved. Mapping should be completed by 2005. MDA will reach 1 million people in 2002 and 20 million by 2005/6.

**Malaysia:** The country has had a successful programme for many years based on DEC but in 2000 the Ministry of Health authorized the use of DEC + albendazole. Implementation units have been defined and mapping will be completed by mid-2002. Drug distribution is planned for October 2002.

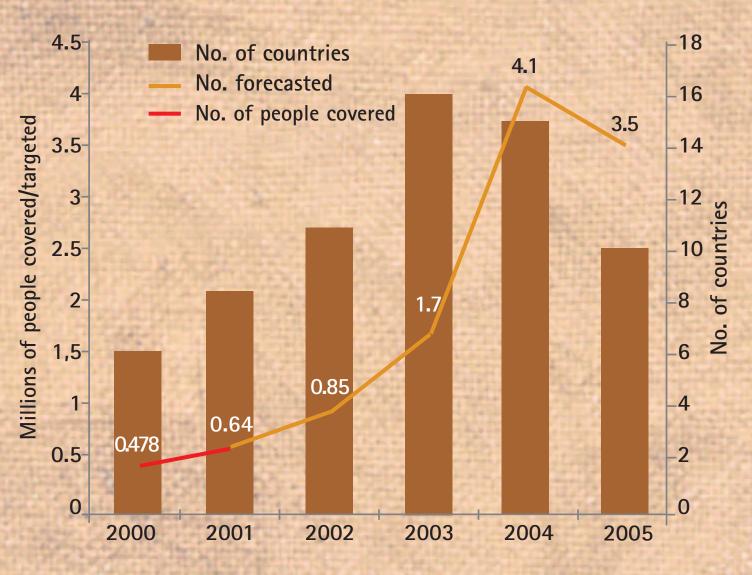
**Myanmar:** The programme is in the very early stages of implementation. In its first mass drug administration 1.8 million people were covered and the aim is to cover 10 million people in 2002.

**Philippines:** The programme is going well and building on 95% coverage. Innovative measures such as local fairs have been used for social mobilization and special attention has been paid to handling adverse reactions to treatment.

**Thailand:** The programme is at an advanced stage of completion with focus on "mopping up" residual foci.

**Viet Nam:** Mapping is well advanced and current plans call for a first round of MDA in three provinces by the end of 2002. The Malaysian diagnostic test for Brugian infections will be used.

# Mass drug administration: medium-term targets for scaling up for the PacELF RPRG



A Pacific regional collaborative approach to eliminate LF and confirm elimination of the disease by 2010, 10 years ahead of the global target date.

# PROGRESS REPORT FOR THE PACIFIC REGION (PACELF)

Dr J. Koroivueta, Chair, Pacific Regional Programme Review Group



n 1999 the national authorities of the 22 islands and territories in the Pacific area established the Pacific programme to eliminate lymphatic filariais(PacELF). This is a regional collaborative approach to eliminate filariasis as defined by individual countries by 2005 and to confirm

elimination for the Pacific sub-region as defined by PacELF by the year 2010 – 10 years ahead of the global elimination target date.

PacELF works through the introduction of new tools and the efforts of a coordinating body with the aim to:

- ► To share resources including information and
- ► To cooperate to implement a comprehensive regional strategy.

Coordination is necessary because most Pacific island countries are small with few resources and because people travel frequently from island to island and country to country.

Since 2000, PacELF has defined the Strategic Plan, identified the methods and tools required, made arrangements for drug supply and distribution, set up the coordinating mechanism and forged needed partnerships. PacELF annual meetings have been held since 1999. Workshops have been held on clinical management and on the use of geographical information systems. The epidemiological information system has been set up throughout the region by the Star Connection network. Collaboration and partnership arrangements have been established with a variety of international and national partners.

#### Moving into widespread action

Safe and efficient drug supply was a major need. In 2000 – 2001, 41 000 ICT test kits, 10.9 million DEC tablets and 1.7 million tablets of albendazole were delivered. Fourteen countries are supported by JICA for the ICT test and for DEC while 12 countries have made applications for the supply of albendazole.

#### MDA coverage

In 1999, Samoa had an MDA with 90% reported coverage. In 2000, Samoa repeated the MDA with 96% coverage, Niue reported 94%, French Polynesia 93%, Vanuatu 83% Cook Islands 81% and American Samoa reported 17% coverage. In 2001, the figures were: French Polynesia 95%, Niue 95%, Tonga 95% and Tuvalu 94%, Cook Islands 91%, and American Samoa, Kiribati, Samoa, and Vanuatu were not reported.

#### **Future plans**

MDA will be continued and in 2002, all countries in the region except New Caledonia and Papua New Guinea will have MDA in progress. In 2003, all countries will have MDA. Other issues that have been prioritized for the coming year include:

- Vector control guidelines
- ▶ Determining the Pacific standard for evaluation, elimination and certification
- ► Needs for logistics, training, advocacy and networking.



Communications for behavioural impact should be particularly emphasized and developed for situations with social barriers to MDA coverage.

#### **NEW SCIENCE AND RESEARCH**

Dr Y. Dadzie, Chair, Technical Advisory Group, Global Alliance for the Elimination of Lymphatic Filariasis



he Technical Advisory Group (TAG) was established in the year 2000 and advises WHO on key scientific issues relevant to the implementation and monitoring of elimination efforts. Its role is to also identify research questions to be addressed as well as sustainability of elimination programmes.

Its third meeting was held from 19-22 March 2002. Dr Dadzie reported that considerable progress had been made and action had been taken on all previous recommendations.

# Programme expansion and monitoring

The Technical Advisory Group was impressed with the expansion of the elimination programme: mass drug administration in 22 countries and almost half of the 80 affected countries have submitted proposals to the Regional Programme Review Groups. Some active country programmes, however, require standardization of the sampling protocols to verify the observed reported coverage. TAG recommended improvements to the production and supply of the ICT test kit. In view of the importance and urgency of reliable monitoring and evaluation for each national elimination programme, TAG asked WHO to set up a small working group on monitoring and evaluation to examine critical issues and assessment procedures.

#### Social mobilization.

A social scientist has been added to the TAG group of members in order to support social mobilization as an important tool for programme delivery. The effective role of social mobilization has been well demonstrated through COMBI (communication for behavioural impact) in Zanzibar and similar efforts under way in other country programmes (e.g. Haiti, India and the Philippines). COMBI should be particularly emphasized and developed for situations where social barriers to MDA coverage exist. Relevant training materials and courses should be developed urgently to facilitate social mobilization from the outset of each national elimination programme.

#### Evidence-base and research

The need to assemble and coordinate relevant scientific information on LF, its treatment and elimination was emphasized. This should include epidemiological records from the past and recent baseline data on endemicity in each country. The resulting database and documentation should be collated, summarized and made available in suitable format for use by programme managers as well as researchers. Considering the rapid evolution of the GPELF, there is a need for key policy decisions, milestones and basic technical facts underlying the programme to be summarized in a simple document for general availability. Abstracts and/or original text of the most important research papers on LF should also be issued as a concise bibliography.

Given the effectiveness of the simple, low-cost treatment strategy for disability prevention and management which can be implemented by non-medical personnel after a short training, extraordinary efforts must be made to find ways of extending these services to the endemic communities.

TAG welcomed the new WHO post shared between TDR and LF Secretariat, and recommended emphasis on implementation research to support the PELF. Priority areas for operational research proposed by the Secretariat were endorsed by TAG. In addition, Region specific LF operational research should be encouraged and funded. It may be necessary also to mobilize research funds at the regional and country levels.

# **Disability prevention**

TAG re-emphasized the importance of prevention, alleviation and rehabilitation of disability from LF as important components of all national elimination programmes, expecting that those involved in each country will experience a large element of "learning by doing" in their differing circumstances. Moreover, given the effectiveness of the simple, low-cost treatment schedule which can be implemented by non-medical personnel after a short training, TAG recommended that extraordinary efforts be made to find ways of extending these services to the endemic communities under-served by medical personnel. TAG endorsed the conceptual framework outlined by PELF along with its partners, placing these issues of disability and rehabilitation in the broader context of social, cultural and environmental determinants.

# Communication and training

TAG welcomed the upgraded web site of the Global Alliance (www.filariasis.org) for the PELF and encourages its use by all partners as the primary source of information. Bearing in mind that workers in many of the affected countries may have difficulties connecting to the Internet, TAG pointed out that essential programme news and information should also be distributed in a concise printed newsletter. TAG stressed the need for a fully consultative process on the content of training courses and the production of materials. Training packs should be supplied to facilitate scaling up of national ELF programmes. Records of LF courses and trainees should be compiled by the Secretariat as a routine component of programme monitoring.

# Safety monitoring of co-adminstered drugs

TAG received the report of the Review Meeting on Safety Monitoring of Combination Drugs used in the GPELF. This showed satisfactory progress in gathering active surveillance data following MDA, without detection of severe adverse effects. Provided that steps are taken to strengthen the reporting system for severe adverse events, TAG expects that ongoing passive surveillance should provide increasingly robust data to reinforce conclusions on safety of both drug combinations employed by the PELF.

#### Other treatment issues

The Secretariat is urged to examine the potential benefits of treatment with albendazole alone for children in areas of Africa where LF and onchocerciasis are co-endemic.

Similarly, TAG urged that mapping of loiasis should be completed as a priority. The impact on LF of administering albendazole alone, or perhaps albendazole prior to ivermectin, deserves further investigation for such populations, and the problem of LF treatment in endemic areas for loiasis should be resolved urgently.

The Programme to Eliminate Lymphatic Filariasis needs to include a strong operational research component in order to be sustainable and successful.

#### Vector control

TAG welcomed the Report of the Informal Consultation on Defining the Roles of Vector Control and Xenomonitoring in the GPELF and acknowledged the considerable work performed by the expert contributors to this review of vector control methods and their operational values. TAG identified the need for further information, especially on the relative cost-effectiveness of different vector control approaches under various programme conditions. TAG recommended that the Secretariat, after appropriate further experience and reflection, develop guidelines for LF programme managers to help them assess the optimal role of vector control in their local circumstances.

# Operational research

The Programme to Eliminate Lymphatic Filariasis, like any other public health programme to control or eliminate a disease, needs to include a strong operational research component in order to be sustainable and successful. The Programme, in association with TDR, has promoted research in key areas that have relevance to the implementation and monitoring of the programme. For example the Programme has been concerned with the problem of low coverages during the MDAs and high priority has been placed on developing cost-effective drug delivery strategies for achieving high and sustained treatment coverage (studies in Ghana, India, Kenya, Myanmar, Viet Nam) and also examining the strategies for effective drug delivery in urban areas (India).

Where onchocerciasis coexists with LF the development of integrated drug delivery strategies is essential and currently there are studies in Ghana and Mali to examine this issue. Since advocacy and communication are vital for the elimination, programme strategies to enhance drug delivery are ongoing in India. Long-term transmission studies to answer key questions relating to the impact of MDA in achieving elimination for the main vector-parasite complexes are being undertaken in Ghana, Kenya, India, Mali and Papua New Guinea. Methods for community-based management of lymphoedema and related adenolymphangitis are being examined with TDR support in Ghana, Kenya, Mali, Nigeria and the United Republic of Tanzania.

The strategies and tools for monitoring and evaluating filariasis elimination programmes are being developed in laboratories in Germany, Ghana, Indonesia, Malaysia, Netherlands and Uganda. A rapid assessment method to identify areas where there is a risk of *Loa-loa*-associated encephalopathy after ivermectin administration was developed after the completion of studies in Cameroon and Nigeria.

The efficacy and safety of the albendazole-plus-ivermectin co-administration regimen in decreasing microfilaraemia was the subject of studies conducted in Ghana, Kenya and Zanzibar. In addition, the pharmacokinetics of two-drug co-administration regimens were studied in Ghana and India.

Sustaining a five-year campaign and still maintaining the necessary high levels of coverage remains an enormous challenge.

#### THE CASE OF INDIA

Dr J. Sokhey, Director, National Anti-Malaria Programme, Ministry of Health and Family Welfare



background and context for health provision in India was given by Dr Jotna Sokhey. In India, health is a responsibility of the individual state government. The state governments implement health programmes and the national authorities provide technical guidance, a certain

amount of funding and programme evaluation. The states implement LF programmes through the existing system, pay the operating costs and conduct monitoring and surveillance activities.

LF is reported in 20 states and territories, including 261 districts. Distribution of the disease is probably not uniform within a given district since a district will usually have a population of between 1 and 2 million persons. Nevertheless, the district is the implementation unit for the LF programme.

LF Control programmes began in India in the 1920s. Pilot projects and studies were carried out in the period 1949 – 54 and the national programme was launched in 1955. Its objectives were to:

- ► Expand earlier programmes
- ► Introduce new control measures
- Provide training of personnel.

Under the programme, 206 LF control units, 27 survey units and 198 clinics were set up. Control of LF became a major element of the activities of the National Institute for Communicable Diseases (NICD) and of the Indian Council for Medical Research (ICMR).

A major problem was the volume and quality of data available. Surveys were limited in size and were non-representative. There was a considerable need to update information. The programme produced a number of well-trained personnel and this has helped in, for example, introducing LF disability management into the current primary health care system.

The national programme was evaluated on four occasions. Following the latest evaluation in 1995, a workshop was held in 1996 at which a strategy was defined with the following components:

- Annual single dose of DEC would be provided at 6mg/kg of body weight
- ► The management of chronic disability would be emphasized
- ► The existing programme would be expanded.

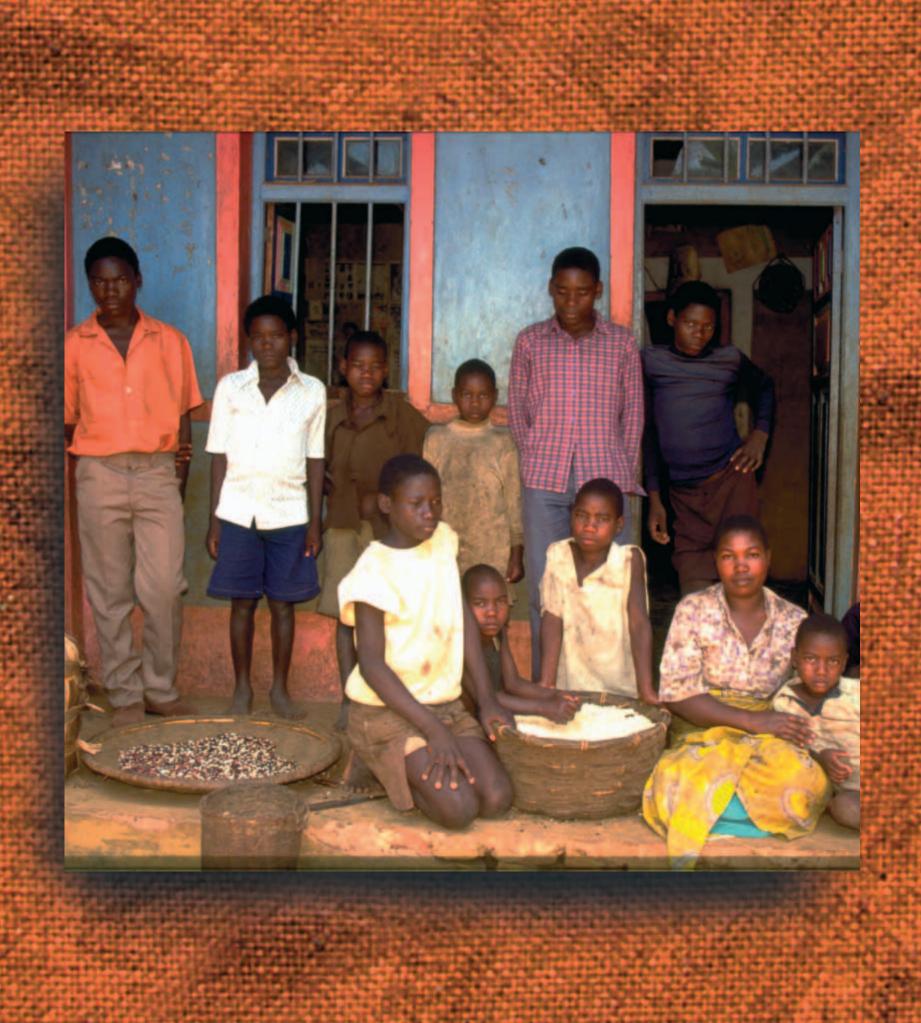
The expansion covered 13 districts in seven states. A mid-term evaluation of three states in 2000 showed that, in Tamil Nadu and West Bengal, where DEC was distributed door-to-door, coverage rates of 80 - 97% were achieved. In Uttar Pradesh, where distribution took place from fixed sites, coverage rates were 43 - 65% in urban areas and 63 - 84% in rural areas.

The issue of whether to add albendazole to DEC should be studied and resolved soon in India, so that one agreed strategy can be followed.

Following the first meeting of the Global Alliance for the Elimination of Lymphatic Filariasis in Santiago de Compostela, pilot projects – with the co-administration of DEC and albendazole – were implemented in nine districts. Today, in India, MDA is taking place in 27 districts.

#### Priorities for the future

- 1. **Mapping** is a very high priority and, given the size of the country, achieving good mapping of distribution by district is an enormous but necessary task.
- Method and protocols must be developed to assess the coverage and impact of MDA.
- 3. **By 2003, several districts will have gone through five rounds of MDA**. Decisions must be taken on what future action should be taken in these districts.
- 4. **Morbidity management** must be improved in terms of access to services for the chronically affected. This priority will be carried out across the range of medical services and practice, including the involvement of non-medical personnel.
- 5. **The problem of how to sustain a five-year campaign** and still mantain the necessary high levels of coverage must be examined.
- 6. **MDA campaigns are expensive** and funding should be guaranteed over the whole campaign period.
- The issue of whether to add albendazole to DEC must be studied and resolved soon so that one agreed strategy can be followed.
- 8. Adverse reactions must be monitored and dealt with quickly.
- While the current programme covers 67 million people, there are 234 endemic
  districts where there is no LF programme and plans should be made to obtain funding and for trained manpower to eventually extend the programme to those districts.





#### THE BURKINA FASO EXPERIENCE

Dr D. Kyelem, National LF Programme Coordinator, Burkina Faso

urkina Faso, a land-locked country with a population of 12 million, ranks as the world's third poorest country. It has a serious burden of lymphatic filariasis.

Work on the elimination of LF began in March 2000 with a workshop on mapping methodology, following which, in June – July 2000, mapping was done in 104 villages. In early 2001, WHO conducted a validation survey of the country, and a workshop was held to analyse the mapping results in Burkina Faso and three neighbouring countries. In June 2001, a team was established to write the national ELF plan. By October 2001, with the endorsement of the Ministry of Health and programme partners, ELF became a component of the Health Development Programme for 2001 – 2010.

Currently the LF programme enjoys the contributions of a variety of partners including the World Health Organization, the Onchocerciasis Control Programme, Liverpool Lymphatic Filariasis Support Centre, Handicap International, Helen Keller Worldwide, Save the Children (USA), GlaxoSmithKline, the Mectizan® Donation Program, Merck & Co., Inc. and the Bill and Melinda Gates Foundation.

# Programme objective

▶ Interrupt LF transmission by 2015 and eliminate LF as a public health problem by 2020.

# **Strategy**

► The programme strategy is to administer MDA (albendazole and ivermectin) over 6 years in each intervention unit, accompanied by morbidity control measures, operational research and social mobilization.

#### **Implementation**

- November-December 2001: Meetings were held with regional teams to plan activities and to train district teams; manuals were developed; baseline studies were conducted in two sentinel sites; microfilaria/morbidity was assessed and drugs procured; local training was carried out. The National Programme was launched on 15 December 2001.
- ▶ December 2001 February 2002: First round of MDA and the second yearly round of ivermectin (for onchocerciasis) were implemented in the 4 districts of Gaoua using a community strategy with trained local drug distributors: evaluation of the treatment coverage and of the side effects of the co-administration of albendazole and ivermectin; morbidity surveys conducted with Handicap International showed the prevalence of hydrocele at 0.8% and elephantiasis at 1.5%. The overall observed coverage result of the first MDA in Gaoua region was 90.4%.

### Operational research

Three major topics were identified:

- ► The evaluation of the effects of insecticide-treated nets used by the malaria programme on the prevalence of LF in the district of Ziniare
- ► The impact of ivermectin treatment conducted in the endemic district of Dano (Bougouriba basin)

# Result of the first MDA in Gaoua region

Total population: 558 552

Districts	Number treated	Reported coverage (%)	Observed coverage (%)
Gaoua	171 165	75.84	89.15
Dano	151 749	80.59	95.25
Diebougou	61 588	71.65	85.6
Batie	46 897	80.1	87.5
Total	431 399	77.23	90.4



► The impact of ivermectin treatment in the context of onchocerciasis control in Burkina Faso.

# Constraints/challenges include

- ▶ Insufficient and irregular release of funds resulting in problems in planning
- Fitting LF activities into regional, district and national events schedules
- ► Maintenance of motivation levels of drug distributors
- ► Low literacy rate in the country resulting in illiterate drug distributors
- ► Inaccurate demographic data
- ▶ WHO training/IEC materials not available meaning no exchange of other experiences
- ► Logistic problems such as cars and computers
- ► Lack of expertise for disability prevention the weakest component of the programme.
- ► Inter-country cooperation has not yet been developed.

# **Future plans**

- ▶ Develop guidelines to implement the national elimination programme in the districts and colour-coded data-record form for community drug distributors
- ► Develop the disability prevention plan with Handicap International and operational research partners
- ▶ Prepare the second phase of the programme implementation
- ► Exchange experiences with the Ghana/Togo LF programmes
- ► Hold an advocacy meeting with all partners and stakeholders
- ► Finalize IEC materials
- ▶ Develop partnership with Helen Keller Worldwide for information, education and communication (IEC) and with Save the Children US.

In 2001, 446 242 persons were eligible for ELF treatment. This number will rise to 2 160 987 persons in 2002.

#### Lessons learned

- ► Health authorities and partners should be kept informed and involved
- ► A good reserve stock for albendazole is key
- ► The planning process and full data collection should be well discussed with local staff and community sensitivities emphasized and taken into account
- ► Plans for a regional/local launch of MDA should be related to and connected with morbidity control activities
- ► Contingency funds for unexpected activities should be available
- ► Collaboration with local NGOs and with the Liverpool Lymphatic Filariasis Support Centre has been very important.

#### Highlights of experience in the two years to date include

- ► All Burkina Faso has been mapped
- ▶ 431 399 persons were treated within a community approach in a period of 8 weeks
- ► Critical learning experiences for future disease control work in LF and other diseases was invaluable.