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Nearly two years after the London Declaration on Neglected Tropical Diseases, there is no doubt that considerably more attention is being paid to them than was the case even five years ago.

If some of the messages in this report are familiar to regular readers, I make no excuse. One thing I have learned in my short time as a member of parliament is that you need to raise a subject time and time again before governments take notice. That is understandable. Ministers are under constant pressure to deliver with very limited resources. They will therefore rightly be sceptical of claims that your own project will give the best results for precious taxpayer’s money.

It is because I and my colleagues on the All Party Group are so convinced of the vital importance of tackling NTDs – and that success is possible - that we raise the subject time and again in parliament, in correspondence and through the annual reports.

It is so important because the lives of 1,400,000,000 – more than a sixth of the world’s population are affected by these diseases. Treating them enables children to learn more effectively at school and adults to live more productive and fulfilled lives. The World Bank’s excellent twin goals - the elimination of extreme poverty by 2030 and the promotion of shared prosperity through seeking to foster income growth among the poorest 40 per cent of a country’s population - cannot be achieved unless we tackle NTDs.

Success is possible because we have the means and increasingly the resources to achieve it. We continue to see large-scale donations of drugs by many of the world’s foremost pharmaceutical companies. International donors, such as the United Kingdom and United States, have substantially increased their support for programmes tackling NTDs while others such as France and Germany are also making valuable contributions. Finally, several of the countries in which NTDs are endemic are increasing funding from their own health budgets and are targeting these diseases with integrated programmes dealing with up to four NTDs at a time.

Chairman: Jeremy Lefroy MP
Vice Chairmen: Pauline Latham MP OBE; Lord Rea;
Kevin Barron MP; Baroness Hayman GBE, PC
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The value of such programmes was evident. Co-operation between the government health service, the private sector, research institutes, NGOs and donors; an increasingly integrated approach to tackling disease; and, most important of all, a strong commitment to beat these diseases which overwhelmingly affect the poorest.

I would like to thank my parliamentary colleagues, especially Pauline Latham OBE MP, Baroness Hayman and Lord Rea, for their constant support over the past year. Susan Dykes has again done sterling work as our administrator. Stephen O'Brien MP is, as always, a source of inspiration. To those who support the group financially, I am most grateful. Finally, Dr Wendy Harrison of Imperial College has done a great job in coordinating the production of this report.

Jeremy Lefroy MP
Chairman of the APPMG, meeting the co-chair of the US Senate working group on Malaria and NTDs - Senator Roger Wicker along with the Global Network’s Neeraj Mistry and Mr. Ibrahim Souleymani MP from the National Assembly of Niger.

The All Party Group (including Richard Bacon MP, John Mann MP and your Chairman) saw this integrated approach at work when we visited the Neglected Tropical Diseases Control Programme in Mkuranga District, Pwani Region, Tanzania with Dr Upendo Mwingira, the National Coordinator: Support for the programme comes from, among others, the Liverpool School Centre for Neglected Tropical Diseases, the Schistosomiasiis Control Initiative of Imperial College and Sightsavers. DFID is an important contributor. The programme uses mass drug administration (MDA) to treat the population for four NTDs in Pwani - lymphatic filariasis (LF), schistosomiasis, soil transmitted helminths and trachoma.

For those who already have LF, foot care is provided. We were able to speak with some of those with LF who told us how the programme had helped them to better manage their condition.

We also visited Dr Mwele Malecela, Director of the National Institute for Medical Research, and Dr Hussein Mwinyi, Minister of Health both of whom impressed us with their strong commitment to tackling NTDs.

It was the first time I had seen an NTD programme in action. Everything which we had been told in our APPG meetings in distant Westminster about the value of such programmes was evident. Co-operation between the government health service, the private sector, research institutes, NGOs and donors; an increasingly integrated approach to tackling disease; and, most important of all, a strong commitment to beat these diseases which overwhelmingly affect the poorest.

I would like to thank my parliamentary colleagues, especially Pauline Latham OBE MP, Baroness Hayman and Lord Rea, for their constant support over the past year. Susan Dykes has again done sterling work as our administrator. Stephen O’Brien MP is, as always, a source of inspiration. To those who support the group financially, I am most grateful. Finally, Dr Wendy Harrison of Imperial College has done a great job in coordinating the production of this report.

Jeremy Lefroy MP
Chairman of the All-Party Parliamentary Group on Malaria and Neglected Tropical Diseases

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Abbreviations

APPG ..................... All-Party Parliamentary Group on Malaria and NTDs
CDD ....................... Community drug distributors
GAELF .................... Global Alliance to Eliminate Lymphatic Filariasis
LF .......................... Lymphatic filariasis
MDG ....................... Millennium Development Goals
NNN ......................... NGDO NTD Network
NTD ......................... Neglected tropical disease
OEPA ....................... Onchocerciasis Elimination Program for the Americas
PEC ........................ Primary eye care workers
SAFE ....................... Surgery, antibiotics, face-washing and environmental hygiene
STH ........................ Soil-transmitted helminths
WHA ....................... World Health Assembly
WHO ....................... World Health Organization
We would like to give our thanks to the UK Coalition against Neglected Tropical Diseases (UKCNTD), chaired by Dr Wendy Harrison, Managing Director, Schistosomiasis Control Initiative, Imperial College London, for producing this report and for the contributions made by the UKCNTD to this report for the All-Party Parliamentary Group on Malaria and Neglected Tropical Diseases.

We would like to thank GlaxoSmithKline, which has generously funded the printing of this report.

We greatly appreciate the work and support of the Rt Hon Justine Greening MP, the Secretary of State at the Department for International Development.

Distinguished speakers we have been privileged to hear are listed at the back of the Report.

The All-Party Parliamentary Group on Malaria and Neglected Tropical Diseases is also most grateful for financial support from:

- UK Coalition against NTD members (Sightsavers, Centre for NTDs at the Liverpool School of Tropical Medicine, Schistosomiasis Control Initiative and Partnership for Child Development at Imperial College London, The Carter Centre UK and Malaria Consortium)
- Sabin Foundation Europe
- Medicines for Malaria Venture
- Malaria Consortium
- Malaria No More
- Dr Janet Lefroy and Mr Jeremy Lefroy MP
Introduction

In May this year the World Health Assembly (WHA) passed a Resolution on Neglected Tropical Diseases (NTDs), a major milestone in the efforts to raise the profile of NTDs and express disease control policies that endemic countries should adopt. This landmark resolution calls on World Health Organisation (WHO) Member States and international partners to intensify their support to control, eliminate and eradicate NTDs.

NTDs continue to place a huge burden on the poorest and most vulnerable communities in the world: they are keeping the bottom billion at the bottom. These insidious diseases hinder development by affecting the most marginalised and voiceless communities living in poverty and conflict zone. They keep individuals and communities trapped in a cycle of poverty as a result of pain, disfigurement, and disability (mental and physical). NTDs result in about half a million deaths each year: They flourish under conditions characterised by poor housing and sanitation, unsafe water, and limited access to basic health care.

The WHA Resolution recognises that elimination of these diseases calls for mobilisation of resources from sectors other than health, a stronger focus on leadership and ownership of national programmes by countries endemic for NTDs, and increased initiatives for research and development. In order to scale up NTD interventions and reach under-served communities, the Resolution calls for integration of control activities, such as the distribution of drugs, and awareness raising efforts in national primary healthcare systems. The adoption of these measures is key to reach the ambitious WHO Roadmap targets and end the misery and marginalisation caused by NTDs. Although diverse and challenging, NTD programmes provide opportunities to strengthen public health systems.

The WHA Resolution focuses on the policy context and required technical capacity of elimination programmes. It also outlines the need for donated drugs that are critical to NTD elimination to be recognised as Essential Medicines. This recognition fits in the wider context of universal access to health care especially for the poorest populations. In addition to emphasising better access to medicines, the Resolution calls for improved diagnostics and vaccines, and it recognises the important role of vector control and the control of animal derived diseases (zoonoses) in the NTD agenda.

The passing of this Resolution is a commendable achievement of the WHO, providing another platform to strengthen the advocacy for NTD control. The NTD community recognises the many challenges it faces both technically and in maintaining the momentum of progress. However, as WHO Director General Dr. Margaret Chan has pointed out, NTDs require new thinking about public-private partnerships and innovation as a response to market failure. To date, the NTD community has been highly innovative and the evidence is mounting that elimination of some diseases in specific settings is in sight, as is the eradication of Guinea worm, which continues to show a rapid decline in reported cases in 2013.

As with any global initiative, standing still is not an option. WHO leadership and the commitment of many partners have placed NTDs at a deservedly higher level of priority recognising the impact of these diseases on the world’s poorest. This Resolution, endorsed by all Member States, highlights this new level of priority. This critical platform should generate greater commitment from all parties to translate words into actions. The impact on policy of the work of the APPG and the British Department for International Development (DFID) has also been crucial in achieving greater visibility for NTDs. In the coming years the responsibility of the UK as an enthusiastic and committed Member State will remain critical as we move forward into the second decade of the NTD movement. This Resolution provides the ideal template for that continued momentum.

Mrs Pauline Latham OBE MP with Dr Jim Kim, President of the World Bank.
Recommendations

To support NTD endemic countries and their governments to deliver sustainable and cost effective programmes to control and eliminate NTDs in partnership with at-risk communities, international agencies and donors, the UK government should:

• Maintain commitment to support the achievement of the WHO NTD Roadmap goals.
• Ensure that preventive and curative components of NTD programmes are targeted towards the poorest and the most marginalised communities, including women and children, people with disabilities and the elderly.
• Ensure that NTD control and elimination programmes reflect the full range of care and include morbidity management and disability prevention components to promote stigma reduction, support for mental health care and livelihood initiatives.
• Recognise NTDs as a broader development issue and promote and support a cross-sectoral approach in partnership with water, sanitation and hygiene (WASH), behaviour change and disability stakeholders to achieve WHO NTD Roadmap targets.
• Support capacity development at national and sub-national levels for robust disease surveillance, monitoring of service delivery quality, and action based on data to achieve WHO NTD elimination targets.
• Support the full range of R&D for NTDs, including in the development of products and strategies which will contribute to the longer term elimination goals.
• Ensure funding and resource investments are sustained and taken into account in budget cycles and in partner priorities, in order to reinforce a cross-sectoral approach to achieving WHO Roadmap targets.
• Encourage endemic country governments to fulfil their pledges to commit 15% of government expenditure to health and support efforts to strengthen health systems to deliver essential NTD interventions.
• Promote the inclusion of NTDs within a health goal in the MDG successor framework.
• Ensure people infected with and affected by NTDs are fully supported to play an active role in their communities and participate equally in society.
Elimination of NTDs in the development context

Livelihoods in poor communities are fragile, and NTD infection and the consequences of living with NTDs can exacerbate this fragility further. To support the alleviation of poverty for the world’s poorest people, momentum must be maintained towards the control and elimination of NTDs. NTDs are intrinsically linked with broader development issues. Many NTDs are entirely preventable, but the poor economic and political position of those who are affected means that the importance of NTD programmes has not been fully recognised until recently.

1.4 billion people, or one sixth of the world’s population, are affected by one or more NTDs. The majority of people at risk of NTDs live in Africa, Asia and Latin America. NTDs can cause painful and severe impairments through years of silent infection, with those infected unaware of where or how to seek care. Although they are varied in terms of causes and effects, different NTDs frequently affect the same communities causing immense pain and chronic disability, impairing children’s growth and mental development and subjecting affected people to social stigmatisation and discrimination.

Increased commitment to NTD elimination as represented by the London Declaration on NTDs, the WHO Roadmap for elimination, the inclusion of an NTD target in a proposed post-2015 health goal and this year’s WHA resolution on NTDs, which for the first time recognised all 17 NTDs as a group, demonstrate the importance of ending the devastation caused by these diseases. This importance is recognised by endemic country governments, donors and international agencies for both health and broader development goals.

Increasingly evidence demonstrates that control and elimination of these diseases will significantly reduce illness, social exclusion and mortality representing a significant contribution to poverty eradication efforts.

The opportunity to eliminate NTDs in turn offers huge prospects for the development community. Many NTDs have a significant impact on children. Soil-transmitted helminths, for example, cause one of the most common infections worldwide. In children, these infections can cause physical, nutritional and cognitively impairment, affecting their ability to learn and ultimately limiting their productivity and output.

The economic opportunities of NTD elimination are significant if we consider the economic impact of just one NTD, trachoma, one of the world’s leading causes of preventable blindness. More than two million people are currently either blind or suffer from a very painful disability, and it has been estimated that the annual lost productivity cost of trachoma are as much as US $2.9 billion.

NTDs have a dramatic impact on people’s ability to work and high NTD infection burden can significantly lower a person’s productivity. NTDs represent a significant contributor to healthy life years lost due to either painful disabilities or premature death. Every day over a billion people face the physical, social and economic consequences of these diseases including stigma and social exclusion.

NTDs must receive explicit attention within poverty reduction frameworks, particularly the successor framework to the MDGs. Universal health coverage offers an opportunity to incorporate NTDs into a basic package of care in response to citizen led health burdens. Moreover, NTDs efforts must be recognised as an opportunity to contribute to efforts to address the root causes of poverty, such as access to water and sanitation services, overcrowded living conditions and access to education.

A patient in Mkuranga District, Tanzania, showing MPs from the All-Party Group how to relieve symptoms of lymphatic filariasis.
Elimination of NTDs

To date, two infectious diseases have been successfully eradicated: smallpox in 1977, which affected humans, and rinderpest in 2011, which affected ruminants. Tremendous global progress has also been made to eradicate poliomyelitis, yaws and dracunculiasis.

The International Task Force for Disease Eradication has identified further five diseases as potentially eradicable, including lymphatic filariasis (LF) and cysticercosis. The selection of LF was based on (i) the fact that there is non-human reservoir host for *Wuchereria bancrofti* (the most common form of LF) and only a very minor animal reservoir for *Brugia malayi* (which occurs in restricted foci), (ii) the existence of effective and practical interventions to interrupt transmission and (iii) availability of an accurate diagnostic tool. In 1997, the WHA adopted Resolution WHA 50.29, which called on member states to initiate steps to eliminate LF as a public health problem (prevalence >1%). In response to this call, WHO launched the Global Programme to Eliminate Lymphatic Filariasis in 2000. By 2008, China and South Korea were declared to have eliminated LF as a public health problem and a number of other countries have made substantial progress towards this goal.

Onchocerciasis (river blindness) has recently been eliminated in numerous foci in Latin America and selective foci in Mali and Senegal. These successes provide evidence on the feasibility of elimination of onchocerciasis and elimination of onchocerciasis by 2020 has been proposed.

The current focus of schistosomiasis (elephantiasis) and STH (soil transmitted helminths) control is elimination as a public health problem. However, in certain settings, local elimination may be feasible, as has been the case for schistosomiasis in Japan, St. Lucia and other Caribbean islands.1

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Integrated Approaches & Drivers

Integrated approaches and drivers of elimination – a Nigerian case study

Together, NTDs present significant disease burden, but they can be treated collectively and cost effectively through large scale integrated programmes using safe and effective treatments. Evidence from countries such as Nigeria shows that integration of control interventions for several related NTDs and other health conditions is feasible, provides value for money and is in line with the principles of right to health.

NTD control and elimination programmes are multifaceted and no single ministry or organisation can control NTDs in a country on its own. Successful examples within NTD control and elimination show that the Ministry of Health must take the lead but with full participation of all stakeholders, including communities, other ministries, NGDOs and donors to achieve implementation goals. The integrated approach taken by Nigeria will be a strong tool to improve health and other development outcomes at minimal costs to health systems.

In early 2013, Nigeria launched its first multi-year national plan for the control and elimination of neglected tropical diseases, the NTD Master Plan. For a country that bears the largest NTD burden within Sub-Saharan Africa and the world’s highest burden for onchocerciasis and schistosomiasis, the NTD Master Plan provides a platform for Nigeria to stimulate global efforts to control and eliminate diseases as part of the commitment under the London Declaration on NTDs and the MDGs.

The Nigeria NTD story remains one of the most successful single disease control programmes, now turning its attention to elimination and stoppage of treatment. The roots of the NTD Master Plan can be traced from the first large scale onchocerciasis programme in 1982 to the fully integrated approach supported by the comprehensive and ambitious programmes of today.

The evolution of the Nigeria NTD programme highlights the benefits of collaboration for the implementation of the control and elimination of NTDs. The start of the Nigeria onchocerciasis programme embodies this collaborative approach and is a strong example of the NTD and eye health communities working together.

Although it was widely accepted that onchocerciasis was present within the country, data on the prevalence of the disease itself was very scarce until a survey conducted in 1987 determined where the disease was present. This understanding of the disease, combined with the discovery of the drug mectizan, enabled the initial drug trial for onchocerciasis in Nigeria. The success of this trial led to the first large scale mass treatment for onchocerciasis using community based distribution of mectizan in 1990.

In 2005 and 2007, the Nigeria national blindness survey sought to determine the causes and prevalence of blindness in Nigeria in order to direct action to reduce the prevalence and incidence of avoidable blindness in all the states.
of Nigeria. Through the survey it was established that the prevalence of blindness due to onchocerciasis and trachoma (avoidable blindness) was significant. It was clear from the survey that whilst cost-effective treatment was available, to comprehensively address the issue of blinding NTDs in Nigeria, the Ministry of Health would need to bring together primary eye care (PEC) workers alongside community drug distributors (CDD).

Through collaboration promoted by the Ministry of Health, health and community structures have been developed in Nigeria leading to over 22,000 trained health workers and 200,000 trained CDDs. Working together, the PEC workers trained CDDs to include promotion of eye health in their messaging on blinding NTDs. Both groups worked collaboratively to ensure that community members in need were referred for treatments, with CDDs referring eye health cases to the PEC workers. The local nature of the NTD programmes supported communities to own the programmes and demonstrated the value of trained CDDs.

The partnership demonstrated that it was easier to reach rural communities with eye health services using the NTD structure. As well as increasing the reach of the programme it also strengthened the coordination and surveillance mechanisms as well as building capacity at the community levels for eye care. Similarly, the findings of a 2002 programme have shown that there was no negative impact on the onchocerciasis programme by the addition of LF and schistosomiasis activities. Moreover, this integration of programmes attracted additional government funding and enhanced the sustainability and increased impact of the programmes.

The vision of the NTD Master Plan is to achieve a Nigeria free of NTDs. Nigeria’s commitment highlights NTDs as a major health concern, but also recognises the role that addressing these diseases can play in reducing poverty and improving quality of life.
The Need

Need for intersectoral approaches to reach elimination – a case study on WASH/NTDs

As the NTD community increase interventions to meet the ambitious elimination and control targets of the WHO Roadmap, there has been clear recognition of the critical role of the water, sanitation and hygiene (WASH) sector as a public health foundation to NTD programmes. It is imperative to link NTD elimination to system-strengthening efforts and consider broad social factors affecting them. Access to water and sanitation is critical to the prevention, control and elimination of a number of NTDs, such as trachoma, leprosy and schistosomiasis. Safe water provision has been a key factor in the guinea worm eradication programme which was launched during the International Water Decade in the 1980s.

This year the NGDO NTD Network (NNN) meeting recognised WASH as a central component in the planning and implementation of NTD programmes and the first day of the three-day conference was dedicated to WASH and NTDs. The focus of the day was on the central role of WASH for prevention of NTDs and also on fostering inclusive development and promoting stigma reduction for people affected by NTDs. The aim of the session was to move the dialogue between WASH and NTD stakeholders from rhetoric to action: looking at what has worked and what needs to be changed.

Both NTD and WASH sectors are critical players in global health and target their programmes to reach under-served communities. The focus of the NNN WASH session was to explore practical elements of collaboration, establish which elements are replicable and identify new opportunities for collaboration. The session identified a number of areas where the WASH and NTD sectors can work together, including: joint advocacy to develop stronger, coherent and harmonized messages, shared collection of mapping data, and a collaborative approach to delivering WASH and NTD programmes.

Cross-sectoral collaboration: A strong focus on equity, rights and rights-based approaches, and ensuring programmes deliver for everyone in a community, are strong drivers for collaboration between the WASH and the NTD sector. Achieving control and elimination of trachoma requires the full implementation of the SAFE framework (surgery, antibiotics, face-washing and environmental hygiene), a key example of cross-sectoral collaboration.

The Ghana trachoma control programme, part of a joint programme targeting guinea worm, cholera and trachoma, demonstrates the substantial impact of sanitation on trachoma and other infectious diseases. The programme involved joint planning, implementation and monitoring as well as sharing of national data to drive innovative approaches such as inclusion of trachoma in school curricula. The establishment of a strong national task force with full representation of health and WASH stakeholders was key to the success of the programme. All members of the task force were highly valued and with strong leadership from the Ghana health service. The government drove the process with the NGOs playing a catalytic role. The confidence of all parties in the SAFE strategy drove commitment and collaboration among stakeholders and other disease programmes to achieve impressive outcomes, including a reduction in the prevalence of trachoma from 9.7-16.1% to less than 3.0% in endemic districts between 2000 and 2010.

12 year old Yama Gandega washes her face during a lesson on preventing the spread of trachoma.

Credit: Javier Acebal/Sightsavers.
Shared data collection: There remains a dearth of information and research on WASH, especially information on the link between WASH and NTDs. A key motivator for the WASH sector to work with the NTD sector is the access to households within marginalised populations through community based MDA. This can also support shared data collection between WASH access as well as NTD data. Research and mapping data are vital to building an evidence base through which to target disease control programmes. The Global Trachoma Mapping Project (GTMP) is one example of shared mapping initiatives that shows the NTD community’s strength in mapping. There are basic questions on WASH access included in the GTMP survey. They capture data on access to water for face-washing and access to sanitation facilities. The bedrock of this project has been standardisation of the data collected by GTMP with data already collected by the WASH sector, including the WHO/UNICEF Joint Monitoring Programme for water supply and sanitation.

Support governments to prioritise their trachoma interventions: These overlaps of mapping for WASH and NTDs contribute to the evidence base, tie household disease and WASH data at household level, and ensure that in trachoma endemic areas interventions can be well prioritised and targeted. This approach recognises the opportunity for collaboration between the trachoma and the WASH sector to maximise the potential to collect additional information on the relationship between trachoma and WASH.

WASHING away morbidity and disability: WASH is both a preventive measure and a means to promote social inclusion. WASH represents a critical component of community based care for LF and leprosy in order to address risk factors including poor hygiene and lesions. WASH is vital to address morbidity to support social inclusion of people who face disabling and chronic conditions due to NTDs. WASH must form part of a basic minimum package for self-care of people who have LF including washing with soap and clean water; exercise, elevation and inspection and treatment of skin lesions. Evidence shows that there is a significant decrease in the frequency of acute attacks following the introduction of basic minimum care. This reduction is clear whether cases are monitored at home or in a clinic.

The resounding call from the NNN meeting on WASH was that joint, coordinated indicators are essential to embed collaboration as the development sector moves towards a new set of post-2015 development goals. Both NTD and WASH actors seek to promote shared values of equity and inclusion. Together WASH and NTD programmes reach and serve a common target group: the poorest and most marginalised communities. The NNN WASH session recognised that collaboration between NTD and WASH actors can increase the effectiveness of programmes and achieve a deep commitment to fulfil community needs while implementing full sanitation.
Post-elimination surveillance –
case studies on leprosy in India
and onchocerciasis in Colombia

Post-elimination surveillance of leprosy:
Efforts to eliminate leprosy are close to being realised, but complacency among the aid community and poor quality, unreliable data risks derailing this progress. For people affected by leprosy, removing misconceptions and out-dated understanding and raising public awareness of the disease is critical to elimination efforts and also to counter social stigma and discrimination.

Leprosy, once a major global public health problem, is now considered by the WHO as eliminated (less than 1 case per 10,000 population) from all but one country. India achieved the target of leprosy elimination in 2005. However, India still accounts for more than half of the world’s disease burden (58%). India’s Leprosy Eradication Programme has been reporting an average increase of 5-7% in the Annual New Case Detection Rate over the last five years, including a rise in the proportion of child cases. This is due to lack of an efficient surveillance system undertaken after elimination was declared to trace contact and find cases.

This challenge underlines the need to ensure that national drives to attain elimination status do not rush or compromise leprosy prevalence surveys and that data on the disease is collected in a rigorous and robust way to ensure that hidden pockets of leprosy in underserved communities are not overlooked, and crucial leprosy elimination programmes are not stopped prematurely.

The move to a post-elimination approach in India has brought about a number of significant challenges including low levels of political support and shortage of resources such as insufficient drugs and trained health workers in addition to the lack of an efficient surveillance system for relapse, drug resistance and treatment dropouts.

Moreover, waning political attention to the issue of leprosy has meant that discriminatory laws, such as those that consider leprosy as grounds for divorce and those that prohibit leprosy sufferers from travelling on the Indian railways, have not yet been abolished.

The evaluation report by the Global Alliance to Eliminate Leprosy recommended that the WHO should pass a resolution that makes it clear to the world that leprosy has not been eliminated. The persistent advocacy efforts of the anti-leprosy organisations have resulted in the WHO and the Health Ministry of India re-evaluating the usefulness of national elimination targets in large diverse countries such as India, where some of poorest states have pockets of high endemicity.

The National Leprosy Eradication Programme (NLEP) has therefore come up with a Special Activity Plan to target 209 highly endemic districts by posting well trained District Leprosy Officers, ensuring effective supervision and monitoring of the programme and active engagement with local NGOs to dispel stigma surrounding the disease.

A model for onchocerciasis elimination:
Colombia recently became the first country in the world granted elimination status for onchocerciasis by the World Health Organization. Led by the Ministry of Health with a number of NGDO and other partners, Colombia’s elimination efforts were based on a strategy of twice yearly community-wide administration of the medicine ivermectin to all people in the afflicted area.

The leprosy sufferer.

2 Indian Journal of Medical Research 137, January 2013, pp 15-35
A defining moment in the fight against river blindness came when Merck (known as Merck Sharp & Dohme in the UK) pledged to provide ivermectin, packaged as Mectizan, for as long as it was needed. Mectizan was delivered through community driven programmes where community volunteers and leaders carried out the distribution together with health education and community engagement activities. Community volunteers and leaders were largely responsible for sustaining the programme for over a decade. Community workers devoted themselves to eliminating river blindness, working alongside Ministry of Health staff to deliver health interventions even in remote areas plagued by political insecurity and armed conflict.

Mectizan treatments were stopped in 2008, after which three years of post-treatment surveillance were required by the WHO to determine if transmission of the parasite would recur before elimination could be declared. WHO then sent a team of international experts to the country to verify the elimination of the disease. On April 5, 2013, WHO Director-General Dr. Margaret Chan provided Colombia with official notification that WHO verified elimination of the disease. The WHO is the only organisation that can officially recognise the elimination of a disease. This also makes Colombia the first country in the Americas to eliminate river blindness.

When the Onchocerciasis Elimination Program for the Americas (OEPA) program was launched in 1993, an estimated 500,000 people in the Americas were at risk of the disease in six countries: Brazil, Colombia, Ecuador, Guatemala, Mexico, and Venezuela. Today, as the result of highly successful national programmes, transmission of this NTD has been broken in 96 percent of the region. Mexico and Guatemala, formerly the region’s two most endemic countries, have interrupted transmission of river blindness, halted Mectizan treatment and begun their post-treatment surveillance. Ecuador, having completed its three years of post-treatment surveillance, has filed a request to WHO for a verification team visit. Transmission of the disease persists only in the hard-to-reach border area between Venezuela and Brazil in the Amazon rainforest where new villages of the indigenous Yanomani people were recently found.

Today, as the result of highly successful national programmes, Colombia also serves as a model for Africa, where 99% of onchocerciasis cases occur and where over 120 million people are at risk of contracting the disease. Uganda and Sudan have interrupted transmission, and eight more African countries are working towards elimination.
Areas for Control & Elimination

Map to illustrate areas identified for control and elimination of NTDs

Credit: Sightsavers.

Antou Mbaye, 12, has been taught to wash his face - to prevent the spread of trachoma infection.

Credit: Javier Acebillo/Sightsavers.
## Fact sheets on common NTDs

<table>
<thead>
<tr>
<th>NTD</th>
<th>Symptoms / Disability caused</th>
<th>Number of people at risk globally, worldwide</th>
<th>Global DALY burden in millions</th>
<th>Current method of treatment and prevention</th>
<th>Target for control elimination and target year to be eliminated</th>
<th>Percentage of at-risk population receiving appropriate treatment</th>
<th>Water, sanitation and hygiene links for control and prevention</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chagas Disease</td>
<td>The disease is caused by a protozoan transmitted through contact with the faeces of an insect, the triatomine bug, known as the “kissing bug”. It can also be transmitted through blood transfusion and organ transplant. Without treatment, is potentially fatal following cardiac and intestinal complications.</td>
<td>100 million</td>
<td>0.55 Disability Adjusted Life Years (^1)</td>
<td>Existing treatments have an unsatisfactory cure rate and can have toxic side effects. There is a great need to develop new treatments for this disease.</td>
<td>The WHO Roadmap for Implementation sets a target of regional elimination of transmission through blood transfusions by 2015 and intra-domiciliary transmission in the region of the Americas by 2020</td>
<td>Only a small proportion of infected people receive appropriate treatment.</td>
<td>Good hygiene practices in food preparation, transportation, storage and consumption are recommended alongside vector control activities and improved housing.</td>
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<tr>
<td>Human African Trypanosomiasis (HAT)</td>
<td>HAT is caused by a parasite transmitted by the tsetse fly which invades the nervous system and causes mental deterioration and other neurologic problems and is fatal without treatment</td>
<td>60 million</td>
<td>0.56 Disability Adjusted Life Years (^1)</td>
<td>Up until 2009, existing treatments for stage 2 of the disease were toxic or difficult to administer. In 2009, DNDi and its partners launched the first new treatment for HAT in 25 years.</td>
<td>The WHO Roadmap for Implementation sets a target of country elimination in 80% of affected foci by 2015</td>
<td>Only a small proportion of infected people receive appropriate treatment.</td>
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</tr>
<tr>
<td>Leishmaniasis</td>
<td>The parasite that leads to infection is called Leshmani and is transmitted by sandflies. Leishmaniasis has several different forms; visceral leishmaniasis, which is fatal without treatment, and cutaneous leishmaniasis are the most common causing disfigurement and stigma.</td>
<td>350 million</td>
<td>3.32 Disability Adjusted Life Years (^1)</td>
<td>Diagnosis is difficult in visceral disease, existing treatments are difficult to administer; toxic, and costly. Drug resistance is also an increasing problem. There is a great need to develop new treatments for this disease.</td>
<td>The WHO Roadmap for Implementation sets a target of Regional elimination for visceral Leishmaniasis on the Indian subcontinent by 2020</td>
<td>Only a small proportion of infected people receive appropriate treatment.</td>
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<tr>
<td>Leprosy</td>
<td>Caused by Mycobacterium Leprae. The disease attacks the skin and nerves and can lead to irreparable nerve damage, impairments and disabilities affecting hands, feet and eyes.</td>
<td>The number of new cases of Leprosy detected during the year 2012, was 232,857 reported from 115 countries. (An increase of 2.8% on 2011 data). 16 countries account for 95% of these cases. India accounts for 58% and Brazil for 14.3%.</td>
<td>0.006 Disability Adjusted Life Years (^2)</td>
<td>6 or 12 months Multiple Drug therapy (MDT) depending on classification of disease. Early diagnosis and treatment is the best prevention of disability. Prevention - Bacillus Calmette - Guérin (BCG) vaccine provides some protection and trials are also underway to roll out chemoprophylaxis using single dose rifampicin for close contacts.</td>
<td>WHO Global target of elimination as a public health problem (prevalence of less than one case per ten thousand population) was achieved by 2000. Current WHO Global Strategy 2011-2015 and recommendation of WHO Expert Committee (2010) set targets as reduction of grade two disability rate per 100,000 population by 35% by 2015 and global goal of reducing to one new case of leprosy with Grade two disability (visible) per million population by 2020.</td>
<td>Over 15 million treated since introduction of Multiple Drug Therapy in early 1980s, although coverage with MDT for all new cases is still difficult in hard-to-reach populations in areas of conflict, nomadic populations and urban slums. Even once treated, many remain at risk of further disability, stigma and discrimination.</td>
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Global DALY: Disability Adjusted Life Years

WHO: World Health Organization

MDT: Multiple Drug therapy

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Number of people at risk:

<table>
<thead>
<tr>
<th>NTD</th>
<th>Symptoms / Disability caused</th>
<th>Number of people at risk globally</th>
<th>Global DALY burden in millions</th>
<th>Current method of treatment and prevention</th>
<th>Target for control elimination and target year to be eliminated</th>
<th>Percentage of at-risk population receiving treatment</th>
<th>Water, sanitation and hygiene links for control and prevention</th>
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<tbody>
<tr>
<td>Lymphatic Filariasis</td>
<td>Severe intermittent fever. Clinical manifestations include hydrocele (severe swelling of the scrotum) and lymphodema (swelling of the lower limbs)</td>
<td>1393 million people living at risk worldwide</td>
<td>2.77 Disability Adjusted Life Years²</td>
<td>Annual preventive chemotherapy with either diethylcarbamazine citrate (DEC) and albendazole or ivermectin and albendazole in countries co-endemic for onchocerciasis for at least 5 years. Morbidity management through hygiene of affected limbs and hydrocele surgery. Integrated vector control in particular where Anopheles is the vector in malaria co- endemic areas using bed nets (LLINs)</td>
<td>The WHO Roadmap for Implementation sets a target of elimination of lymphatic filariasis as a public health problem by 2020</td>
<td>41.8% of people at risk of currently receive treatment</td>
<td>Poorly constructed latrines increase presence of LF-transmitting Culex mosquito vectors. Patients with chronic disabilities resulting from LF are advised to maintain rigorous hygiene and take necessary precautions to prevent secondary infection and aggregation of the condition. Availability of water for limb washing important in reducing severity of LF</td>
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<tr>
<td>Onchocerciasis</td>
<td>Caused by a parasitic worm that is spread by the bite of a black fly. It can cause blindness as well as debilitating skin conditions including intense itching and skin depigmentation</td>
<td>123 million people living at risk worldwide</td>
<td>0.49 Disability Adjusted Life Years²</td>
<td>Treatment of communities at risk of transmission (formerly hyper and meso endemic) by annual community directed treatment with ivermectin. For elimination there is a need to roll out treatment to areas of low endemicity formerly untreated</td>
<td>The WHO Roadmap for Implementation sets a target of elimination of transmission using ivermectin by 2020 in selected African countries and in the endemic foci in Latin America by 2015. Elimination of all transmission in Africa by 2025</td>
<td>65.7% of people at risk of currently receive treatment</td>
<td>Measures for blackfly control include insecticide treatment of larval breeding sites (fast flowing water) but including water-flow manipulation if possible (dam sites, spillways)</td>
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<tr>
<td>Schistosomiasis</td>
<td>Caused by a parasitic worm that is spread by the bite of a black fly. It can cause blindness as well as debilitating skin conditions including intense itching and skin depigmentation. Repeated infections with schistosomes lead anaemia, malnutrition, and learning difficulties in children. After years of infection, the parasite leads to severe damage of the liver, intestines, lungs, female urogenital tract and bladder. Bladder cancer a frequent sequela</td>
<td>236 million people living at risk worldwide and circa 200 million in Africa</td>
<td>3.31 Disability Adjusted Life Years²</td>
<td>Preventative Chemotherapy with Praziquantel (40mg/ kg) and improved water sanitation and hygiene</td>
<td>The current WHO Global Strategy for Schistosomiasis 2011 -2015 is to: To control morbidity of schistosomiasis by 2020 To eliminate schistosomiasis as a public health problem by 2025 To interrupt transmission in selected regions by 2025</td>
<td>13.1 % of people at risk of currently receive treatment</td>
<td>Control measures include snail control, improved sanitation and health education and reduced contact with surface water. Health education to induce behaviour change necessary</td>
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<td>Soil transmitted Helminths</td>
<td>Infestations with 4 species of nematodes are collectively referred to as soil-transmitted helminthias: Morbidity is related to the number of worms harboured; light infections usually have no symptoms. Heavier infections can cause a range of symptoms including intestinal manifestations (diarrhoea, abdominal pain), general malaise and weakness, and impaired cognitive and physical development. Hookworms cause chronic intestinal blood loss that can result in anaemia.</td>
<td>890 million people living at risk worldwide</td>
<td>5.18 Disability Adjusted Life Years</td>
<td>Preventative Chemotherapy with albendazole or mebendazole and improved water sanitation and hygiene.</td>
<td>The current WHO Global Strategy for soil-transmitted helminthias from 2011-2020 is to: Control morbidity through the periodic treatment of at-risk people living in endemic areas. The global target is to regularly treat at least 75% of all school-age children at risk of illness from soil-transmitted helminths by 2020. Progress made by each country is measured against this target.</td>
<td>3.11% of people at risk of currently receive treatment</td>
<td>Eggs ingested through contaminated vegetables or water, or directly by children placing soil in mouth; hookworm larvae penetrate skin when walking barefoot on contaminated soil (no direct person-to-person Transmission). Prevention through improved sanitation and hygiene (hand washing)</td>
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<td>Taeniosis/ Cysticercosis</td>
<td>Taeniosis is a parasitic disease that is caused by eating of infected undercooked pork. The parasite develops into a tapeworm (taeniosis) in the gut of humans causing intestinal disorders but also the parasite can invade other organs (cysticercosis) including the nervous systems and cause neurological problems including, epilepsy and can be fatal.</td>
<td>50 million people worldwide</td>
<td>0.50 Disability Adjusted Life years</td>
<td>Treatment is with anti-epileptic treatments for neurological conditions and praziquantel and niclosamide for the tapeworm. Also confinement of pigs and increased food hygiene combined with improved sanitation prevent the spread of taeniosis/cysticercosis.</td>
<td>No elimination target has been set for taeniosis/cysticercosis</td>
<td>Only a small proportion of infected people receive appropriate treatment</td>
<td>Prevention requires strict meat inspection regimens, health education, thorough cooking of pork, sound hygiene, and adequate water and sanitation by preventing pig access to human waste.</td>
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<tr>
<td>Trachoma</td>
<td>A bacterial infection that causes repeated conjunctivitis. Repeated infections can turn the eyelid inwards making the eyelashes scratch the surface of the eyeball (trichiasis). Prolonged scratching of the cornea by the eyelashes can lead to irreversible blindness. Trachoma is the world's leading infectious cause of blindness.</td>
<td>281 million people living at risk worldwide</td>
<td>0.33 Disability Adjusted Life Years</td>
<td>The WHO recommended SAFE strategy-Surgery of eyelids, Antibiotics to treat the community pool of infection, Facial cleanliness to reduce transmission and Environmental improvements to reduce the number of flies people come into contact with. The WHO recommends 2 antibiotics for trachoma control: oral azithromycin and tetracycline eye ointment.</td>
<td>The WHO Roadmap for implementation sets a target of elimination trachoma as a public health problem by 2020</td>
<td>1.31% of people at risk of currently receive treatment</td>
<td>Prevention through promotion of face washing of children, improved access to clean water, and proper sanitation for disposal of human waste to reduce fly population and transmission.</td>
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</table>

Neglected Tropical Diseases Debate

Neglected Tropical Diseases Speakers who made a valuable contribution to the debate in the year July 2012-July 2013

STRENGTHENING HEALTH SYSTEMS: THE CROSS-OVER BETWEEN NTD AND MALARIA CONTROL

Dr. Phyllida Travis, International Health Partnership Core Team, Department of Health Systems Policies & Workforce, WHO
She spoke about aid effectiveness, the international health partnerships and human resources for health and supply chain management.

Elaine Ireland, Head of Policy, Sightsavers
Explained the need for more effective use of human resources in the strengthening of health systems to ensure access to better treatment for NTDs.

David Jamieson, Director, Global Partnerships, Partnership for Supply Chain Management
David introduced JSI’s recent document “Getting Products to People, The John Snow Inc. Framework for Integrated Supply Chain Management in Public Health.”

THE LAUNCH OF THE NEGLECTED TROPICAL DISEASES REPORT

Launched by The Lords’ Speaker Baroness D’Souza

CHRISTMAS RECEPTION

Martin Dinham, Vice Chairman of Sightsavers International and a Non-Executive Director of the International HIV/AIDS Alliance
Welcomed the success of the London Declaration in January 2012 and gave a round-up of progress on NTD control through the year.

TO MARK WORLD LEPROSY DAY & THE FIRST ANNIVERSARY OF THE LONDON DECLARATION ON NTDs

Doug Souter, General Secretary International Federations of Anti Leprosy Associations
Talked of his experience gained through his work with leprosy and what it can bring to the NTD debate.

Dr. Lorenzo Savioli, Director of the Department of Neglected Tropical Diseases, WHO
Discussed the report published by Gates & WHO, to mark the first anniversary of the London Declaration.

Edwina Chin, Policy Cures
Highlighted the most recent Policy Cures G-FINDER Report on financing Malaria & NTDs.

Dr. Neeraj Mistry, Director the Global Network for Neglected Tropical Diseases
Said the Global Network focused on three regions with the highest burdens of NTDs: Africa, Asia Pacific, and Latin America and the Caribbean. He advocated that new funds should be provided to achieve the WHO Roadmap and 2020 goals.

FOCUS ON HEALTH IN TANZANIA

Jeremy Lefroy MP, reported on the Group’s recent field trip to Tanzania supported by Susan Dykes

Professor Moses Bockarie, the Centre for Neglected Tropical Diseases, LSTM
Working in conjunction with National Institute for Medical Research (NIMR) in Tanzania spoke of their work with lymphatic filariasis.

Tim Allen, Professor of Development Anthropology and Head of the Department of International Development, LSE and Melissa Parker, Director, Centre for Research in International Medical Anthropology, Senior Lecturer in Anthropology, Brunel University
Explained their work on lymphatic filariasis in Tanzania.

WASH AND INFECTIOUS DISEASES

In conjunction with the Water and Sanitation in the Developing World and the Child Health & Vaccine Preventable Diseases Groups

Tom Slaymaker, Deputy Head of Policy at WaterAid
Spoke about the role of WASH in the control of infectious diseases, the challenges, implementation and successes on the integrated WASH and NTD programmes.

Dr. Anthony Solomon, London School of Hygiene & Tropical Medicine, and Chief Scientist, Global Trachoma Mapping Project
Gave a presentation on the DFID supported trachoma mapping project.

Anthony Costello, Professor of International Child Health and Director of the UCL Institute for Global Health

INSECTICIDE RESISTANCE

Dr. Tom McLean, Chief Operating Officer, Innovative Vector Control Consortium (IVCC)
Liverpool School of Tropical Medicine, spoke of Managing Insecticide Resistance: Progress, the Challenges and Opportunities.
The pharmaceutical industry has increased its contribution to global health

**Merck & Co Inc** – have reconfirmed their commitment to donate Mectizan for as long as needed for both onchocerciasis and filariasis in Africa.

**GlaxoSmithKline** – have already donated almost 2 billion tablets of albendazole for lymphatic filariasis and will continue until elimination is achieved. In October 2010 GSK committed an additional 400 million tablets a year for to deworm school aged children in Africa (now 1 billion each year).

**Johnson & Johnson** – has for several years donated up to 50 million tablets mebendazole per year for intestinal worms – from 2013 this will be increased to 200 million tablets per year.

**Pfizer** – originally committed to provide 120 million doses of azithromycin for trachoma. In 2009 alone they donated 50 million – in 2012 that number reached 70 million.

**Novartis** – is continuing their commitment to MDT for leprosy.

**EISAI** – in October 2010, EISAI committed to provide 2 billion tablets of DEC for LF which is used with albendazole outside of Africa.

**E. Merck** – in 2007 E. Merck committed to 20 million praziquantel tablets/year. This will increase annually to 250 million pzq tabs/yr from 2016.