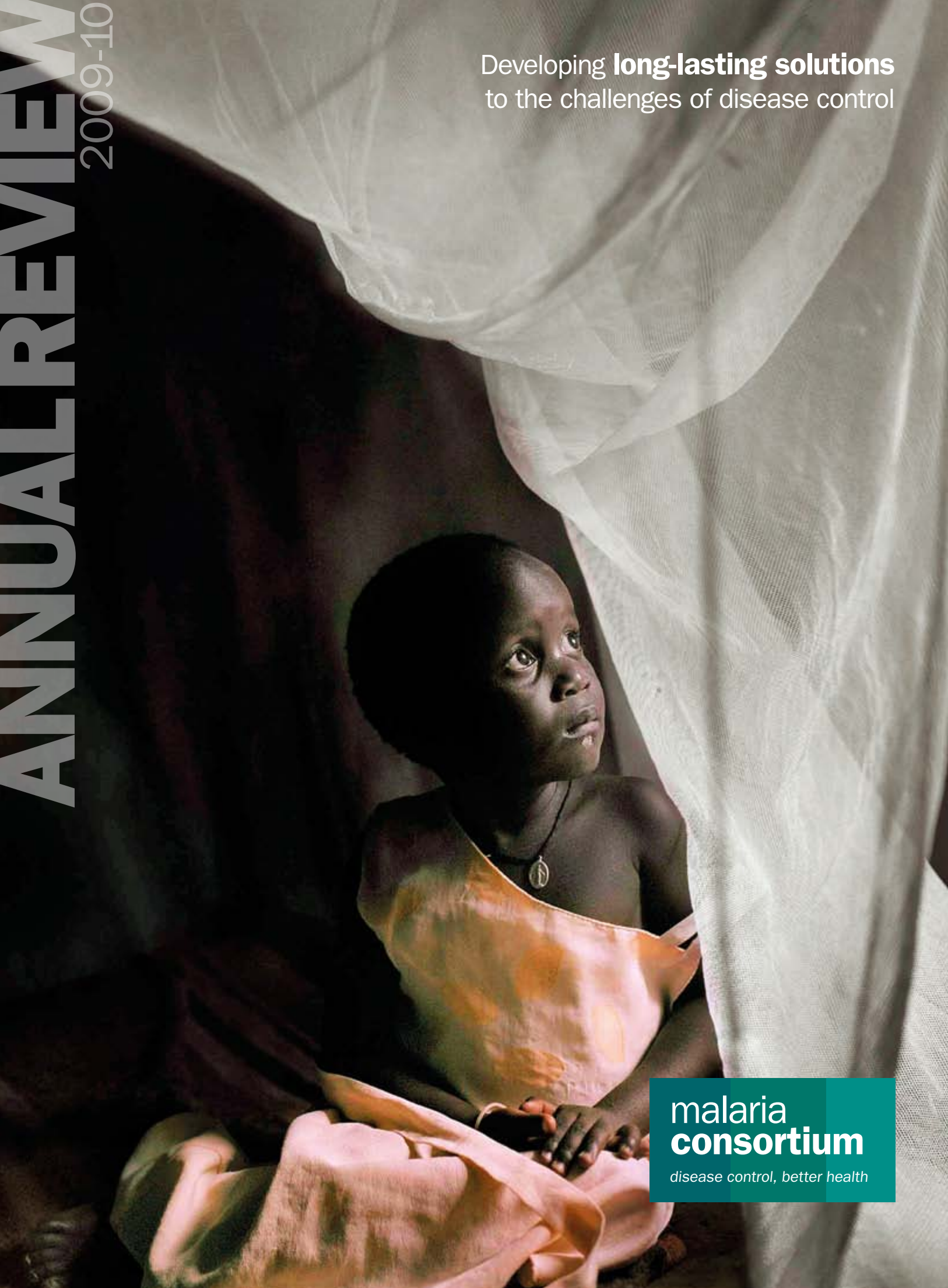
ANNUAL REVIEW 2009-10

Developing **long-lasting solutions**
to the challenges of disease control



malaria
consortium
disease control, better health

The main aim of Malaria Consortium is the relief of sickness among poor people suffering from communicable diseases, particularly malaria, and the protection of people at risk from such diseases

Photographs and captions on pages 2, 3, 9, 10, 17, 21, 23, 25 and cover in this Annual Review are by award winning photographer Adam Nadel, and are taken from the Malaria Consortium commissioned exhibition, Malaria: Blood, Sweat, and Tears, which was first shown at the United Nations Headquarters, New York in March-April 2010. The exhibition will be touring other venues in the future.

"Every single person in the UK Department for International Development feels that 850,000 deaths from malaria is unacceptable. More support is needed to strengthen health systems and to stem the tide of malaria."

Stephen O'Brien MP

Unusually, this Foreword is coming to you in the interim from another trustee. Our Chairman for this reporting period, Stephen O'Brien MP, since his appointment as Under Secretary of State for International Development in the UK's new government in April 2010, is not allowed to continue in this role; protocol does not permit it.

This important appointment means he had to resign as our Chair, however we pay tribute to his leadership of the board over the preceding four years; it was visionary, inspiring for the staff worldwide, dynamic and supportive. The trustees and all the staff of the Malaria Consortium would like to thank Stephen sincerely for his contributions to making the organisation a growing success.

Fortunately, Stephen's new senior governmental role in the UK Department for International Development (DFID) will allow him to continue to pursue his passion for malaria control. Although the government is still developing its malaria strategy, it has made it clear that malaria remains a high priority area for funding.

As this report shows, health systems and capacity strengthening is something we embed in much of our work. We have spent several years working in a range of countries across Africa at national and sub-national levels, under the Irish Aid funded CLOVER project.

The success this project has had on improving systems, especially at the delivery end, has been exemplary. As a result, health issues beyond malaria, including communicable diseases and childhood illnesses, will benefit. We are proud that through the CLOVER project we have been able to show the way to better, stronger systems using malaria control as the entry point. If we get it right with malaria, we should get it right for many other diseases.

In the past year Malaria Consortium has focused on managing and capitalising on the changes that have come about as a result of our growth. We have successfully continued to target opportunities that have allowed us to expand our technical leadership in malaria control interventions.

Such growth can be illustrated by the mass distribution of long-lasting insecticidal nets (LLINs), which reached its peak during this period with the distribution of 4,490,408 LLINs compared with around 1.1 million in the previous year. Quantity is not the end all, however, as the quality and innovations of our delivery systems have influenced the delivery of millions more LLINs in Nigeria alone.

We have also begun implementing the six elements of our new organisational strategy. This is not only keeping us focused on addressing the pathways that lead to elimination but also helping to position the organisation for its future direction – to be a fully established, leading international technical organisation with centres of expertise and excellence on disease control and elimination.

In line with this strategic ambition, special efforts have been undertaken during the year to establish 'areas of excellence'. These are sites where comprehensive malaria control is being pursued in the context of the country's national strategic plans by pooling resources, demonstrating successes and providing evidence on how strategies and health systems need to adapt on the road towards elimination. We look forward to seeing how these sites expand and develop over the coming years.

Our engagement in innovative implementation models, integrative approaches and strategic research is highlighted in this report, illustrating that we are on the long road to realising our future strategy. But above all else, we are concentrating our activities in areas around the world where there is high incidence of malaria and other communicable diseases. This ensures we are continuing to aim for the highest impact where those who are the most vulnerable live. We should not and will not settle for less.

Last, but not least, I would pay tribute to all our staff at every level and in every workplace in our organisation. As trustees we are immensely proud of their technical excellence and their commitment to the task and I give special thanks to our senior management and technical directors. Our success is all down to them.

Dr. Penelope Key OBE

Interim Chair, Malaria Consortium

New strategies, new approaches

This year Malaria Consortium's work has been focused on finding innovative ways to adapt the current approaches to malaria, childhood illness and neglected tropical disease control and elimination. The need to adapt constantly to changing environments is crucial, not only to respond to new challenges and introduce new technologies, but also to obtain far more from existing approaches.

As investments in malaria control gain momentum, with some countries seeing the prospect of elimination, major threats to progress include the detection of resistance to key drugs in Asia and to the insecticides used on nets in Africa. In Asia we are working intensively to find effective ways to contain artemisinin resistance, particularly by ensuring the surveillance, monitoring and evaluation provide information on problems and progress. In Africa we are planning novel strategies to combat insecticide resistance.

Integrated community case management is evolving from programmes to bring malaria treatment closer to the home. As malaria is not the only life threatening disease affecting young children, an opportunity is lost if only malaria treatment is offered in communities where access to health centres is very difficult.

In response we launched a new programme, supported by the Canadian International Development Agency in Mozambique, Southern Sudan, Uganda and Zambia to support community based health workers to treat the two other big killers – pneumonia and diarrhoea – in addition to malaria.

Malaria Consortium, working with additional support from the Bill & Melinda Gates Foundation, is in the process of gaining a better understanding of community based health workers' motivation and attrition, and finding workable solutions to their retention and performance. The findings could significantly increase the impact of investing in community based health workers.

Our long-standing work on large scale delivery systems for long-lasting insecticidal nets (LLINs) means we now have a strong evidence base for advising on, and supporting, the next phase of LLIN delivery. There has been a wave of mass distribution campaigns in Africa as efforts are intensified to reach global targets on net coverage, and this has yielded promising results. But we need to expand routine net delivery systems immediately before the high coverage starts to drop off. Without swift establishment of such systems, there will soon be significant numbers of people with no access to nets. It is not enough to wait three years when the nets have worn out and then organise another campaign.

Malaria Consortium's mixed models of delivery involving public routine systems, private markets and civil society partners have shown the pragmatic and long-term way for maintaining optimal coverage levels.

Another area where our work is expanding is the introduction of large-scale parasitological diagnosis. As countries follow new global recommendations to diagnose every fever in malarious areas rather than just assume malaria and treat, they face numerous challenges to setting up diagnostic services that ensure full coverage and high accuracy.

Two particularly challenging situations are private health providers and community health workers. In Zambia we have shown that good training with well-designed materials, curricula and job support enables community health workers to use rapid diagnostic tests properly. We are also developing innovative ways to promote good diagnosis in the private sector.

Behaviour change communications are embedded in most of our programmes and are a crucial element. All our programmes also include intensive monitoring and evaluation, so that we have solid evidence to back up recommendations.

Through active participation in numerous global and national networks, we ensure that our learning from implementation and research feeds into global policies and strategies.

These are just some of the ways in which Malaria Consortium combines a commitment to large-scale delivery with a focus on operational research to achieve more for countries' and donors' money.

It was in the mid-nineties that we first calculated that in Africa a child died from malaria every 30 seconds. Today **a child dies every 45 seconds** – it has taken more than 15 years to slow this death rate by 15 seconds. This is progress, but at this rate it will take us many more decades to eliminate child deaths from malaria while the total number will keep accumulating

Children are registered for the bilharzia and intestinal worms survey in Mogori, Southern Sudan. **These diseases are endemic** across Southern Sudan and cause chronic illness

Getting the message out

Adam Stoltman

World Malaria Day 2010

2010 is a very significant year on the road to achieving the Millennium Development Goals and for malaria, the Abuja targets. In April this year, Malaria Consortium co-hosted a reception and exhibition at the United Nations main gallery in New York with the Roll Back Malaria Partnership to mark World Malaria Day 2010 and highlight the state of global malaria. The reception revolved around a special viewing of the highly successful photographic exhibition *Malaria: Blood, Sweat, and Tears* by award-winning photographer Adam Nadel and Malaria Consortium. The reception featured speeches from leaders in the world of public policy and malaria, including UN Secretary General Ban Ki-moon, HRH Princess Astrid of Belgium and Professor Awa Coll-Seck, Executive Director of RBM, among others.

Adam Nadel

The main message was a broad public one: malaria is a preventable and curable disease, yet nearly 850,000 people each year, mainly children and pregnant women, continue to die from it. High profile speakers at the event, including the Secretary General, also emphasised that it is widely recognised that malaria control has a positive impact on all of the United Nations' Millennium Development Goals, with its biggest effect on reducing child mortality, improving maternal health and combating other diseases.

"To realise the real impact of investments in our fight against malaria, we must not only maintain current funding levels but actually increase them. If we don't, then the achievements we have made would be short lived," said Malaria Consortium Executive Director Sunil Mehra to the 250 assembled guests.

The exhibition, conceived and produced by Malaria Consortium and Nadel and supported by Vestergaard Frandsen, showcased the complex relationships between malaria, poverty and the need for international support to combat the disease on a grand scale. According to the UN gallery manager, it was one of the most successful exhibitions they had ever hosted. It is estimated that over a hundred thousand people viewed the photos and accompanying information. The exhibition and reception provided an excellent opportunity to get the messages around malaria out to audiences that would not normally hear them. The exhibition garnered a great deal of media interest with coverage by more than 150 media outlets, including a preview and coverage by the New York Times.

As part of a concerted effort by Malaria Consortium to raise the organisation's profile in the US, the reception formed part of a trio of events throughout the day, each drawing upon different sectors within the malaria community. Also taking place in New York was a roundtable event, hosted by Malaria Consortium and Johns Hopkins Bloomberg School of Public Health, Centre for Communication Programs. A select gathering of technical experts from within the malaria community focused on discussions around Sustaining Success in Malaria Control Beyond 2010. Speakers at this event included Dr. Ray Chambers, the UN Secretary General's Special Envoy for Malaria and Dr. Michael Macdonald, Malaria Advisor of USAID.

The final event was a discussion on private sector engagement at which Admiral Tim Ziemer, Head of the US President's Malaria Initiative, John Tedstrom, Global Business Coalition on HIV/AIDS, Tuberculosis and Malaria, and Mikkel Vestergaard Fransden, CEO of Vestergaard Frandsen, among others,

Malaria is a preventable and curable disease, yet nearly **850,000 people each year**, mainly children and pregnant women, continue to die from it

"To realise the real impact of investments in our fight against malaria, we must not only maintain current funding levels but actually increase them. If we don't, then the achievements we have made will be short lived."

Sunil Mehra, Executive Director, Malaria Consortium

spoke on Public Private Partnerships in malaria control and inspired all to continue the worthwhile fight against malaria.

Mobilising 4 Malaria

Mobilising 4 Malaria (M4M) is an advocacy programme supported by GlaxoSmithKline's Africa Malaria Partnership and implemented by Malaria Consortium and its partners. The programme began in 2005 and reached the final stages this year. Malaria Consortium is grateful for the continued support of GSK.

The aim of the programme is to raise public awareness about malaria and mobilise African governments to fight the disease. By recognising the different role that civil society organisations play in African countries, M4M has focused on strengthening locally coordinated advocacy, increasing media coverage and offering support to regional media organisations. M4M has promoted the national advocacy coalitions that can better coordinate action on social factors involved in fighting malaria.

Malaria Consortium coordinated coalitions in the UK, France, Cameroon, Mozambique and Ethiopia. The same structure was also adopted on a more limited scale in Burkina Faso, Tanzania, Republic of Congo and Democratic Republic of the Congo. These coalitions have successfully consolidated action from the private, public and voluntary sectors, leading to more effective advocacy.

The Cameroon Coalition Against Malaria has continued to receive our support in its significant role as civil society advocate and the 'eyes' of the Global Fund programme. This is a critical development in malaria advocacy with the emphasis on local accountability for massive investments in malaria in endemic countries. We will continue to support such local activities that strengthen the ability of countries to respond to their own agenda.

In Cameroon, an All-Party Parliamentary Group on Malaria was established and many advocacy activities were supported including a Practical Guide on Malaria Control, which was disseminated to potential advocates throughout the country.

In other countries we have provided similar support. In Tanzania, 66 members of parliament were given training on malaria awareness and sensitisation.

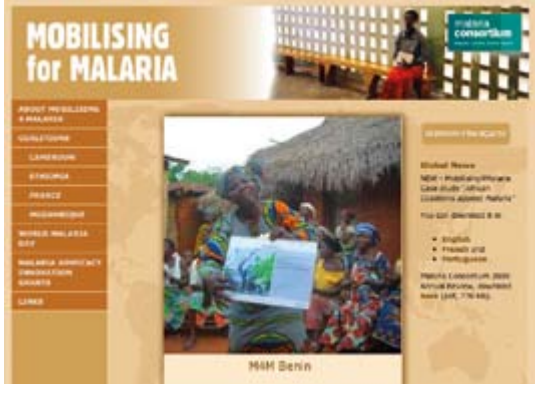
In the Republic of Congo, a media seminar for 60 participants in Congo Brazzaville focused on developing ways to mobilise the parliamentary community on malaria.

Ethiopia conducted orientation training for private medical practitioners on the national malaria policy and looked at effective ways to advocate in local communities for greater awareness of preventive measures.

Finally, in Burkina Faso, a workshop was held for national assembly members, in order to raise awareness of malaria as a public health issue.

In addition to the establishment of national advocacy coalitions, in 2007 M4M awarded Malaria Advocacy Innovation Grants to seven organisations and associations in Africa. The purpose of these grants was to inspire innovative, African-led advocacy that reached new audiences and improved African-to-African accountability in the area of malaria control.

These grants have been very successful, inspiring a new wave of awareness of the disease, its implications and ways in which it can be managed. The grants have helped to empower African civil society organisations and transform them into leaders in the fight against malaria; strengthening their ability to convince their governments to commit the high level of resources needed to defeat the disease.



The M4M website was launched in 2005 to publicise the programme and raise **public awareness**

Strengthening health systems

"I came here yesterday because my son had malaria. Now I'm sick. I have no net. If I did, I would use it. I can't afford to buy one. And I can't afford to go to the hospital; that's why I'm at this clinic. Sure, I have faith in the nurse, but it's affordable here."

Mercy Obizi, Nigeria

Using malaria as an entry point

Over the past seven years, Malaria Consortium's CLOVER programme, supported by Irish Aid, has implemented interventions in response to key systemic constraints in the provision of high quality prevention and treatment for malaria and other communicable diseases. Working in Ethiopia, Mozambique, Uganda and Zambia, we have used a practical and pragmatic approach in our work with partners to:

- Improve planning and budgeting through better availability and utilisation of evidence
- Improve quality of care and prevention
- Improve delivery of malaria drugs, supplies and commodities
- Share best practices in health systems strengthening to inform regional and national policy makers

Our joint teams have included health systems management and technical personnel to identify gaps and constraints, prioritise areas for intervention, develop and implement solutions, monitor outputs and evaluate outcomes. Working this way, we ensure that health personnel and authorities have ownership of work that is responsive to the local and changing landscape, while developing the capacity of our local partners. Importantly, we have worked together to do the business of health systems strengthening that provides tangible value and is long lasting.

Innovative approaches

We have built health workers' job-related competencies using mentoring and coaching techniques through on-the job training and supervision. For example, we have introduced clinical audits as a method of improving quality of care at 29 health facilities in Uganda and 62 in Ethiopia. In Mozambique a system of peer supervision, where district teams supervised one another, was developed and used in 16 health units, reaching over 100 health personnel.

We have also improved medicine quantification, ordering and recording procedures by developing generic tools and carrying out regular supervision. In Mozambique and Uganda, the capacity of 10 provincial pharmacy managers and 555 health workers has been improved respectively.

We have introduced web-based health management information systems for collation and transmission of health information from peripheral health facilities to national level. This has improved reporting, enabling health managers at all levels to have up-to-date information that can be used for planning and budgeting. All 25 health sub-districts implementing this approach in Uganda now report on time, compared to 67 percent in 2006/07.

Malaria Consortium also focused on the quality of microscopy by developing an external quality assurance system. Within a short period of time, we have managed to establish a system for maintaining quality that can measure improvements in accurate diagnosis, for instance from 90 percent to 96 percent in Ethiopia. The model of slide rechecking and quality assurance has now become institutionalised in both Uganda and Ethiopia and there is keen interest to implement at national scale.

We have helped create partnerships between public and private sector stakeholders at sub-national level to improve coordination, information sharing and resource mobilisation. In Zambia, our model of creating Malaria Task Forces has been emulated and Ugandan health officials are now keen to import this concept.

Going forward

Malaria Consortium has used malaria as an entry point into the health system through this multi-country programme. Sharing of experiences and best practices has seen some solutions transplanted from one country to another without the usual bureaucratic barriers to change.

Malaria Consortium ensures that **health personnel have ownership** of work that is responsive to the local and changing landscape

"Malaria does not need only medical solutions, it is a socio-economic problem. For example, artemether-lumefantrine is the recommended first line anti-malarial. But one needs a fatty diet at the time of administration to successfully digest the medication. The vast majority of individuals taking this medication have no money, nutrition is a real issue. As a consequence, they just spent what little money they had and are still sick."

Dr Byarugaba Baterama, Senior Consultant Physician, Uganda

The success of the CLOVER project demonstrates the need for long term investment in health systems strengthening. The gains made are contributing to tangible improvements which need to be consolidated and maintained over time for the beneficial effects on morbidity and mortality to be realised. With this pool of experience, Malaria Consortium is well positioned to expand our work in CLOVER project countries, as well as others.

CASE STUDY

Improving malaria diagnosis

"The introduction of quality control is an essential and commendable initiative. This is improving the skills of laboratory technicians to re-check their test results and thereby improving their expertise and quality of service to the community." Adem Seman, Disease Prevention and Health Promotion Core Process Officer, Halaba Special Woreda Health Office.

Ethiopia employs both microscopy and rapid diagnostic tests (RDTs) for malaria diagnosis. Microscopic diagnosis is useful for identifying the species of the malaria parasite and to estimate its density in the blood.

Before the decentralisation of the National Organisation for the Control of Malaria and Other Vector Borne Diseases, there was an effective malaria diagnosis quality control system across the country. However, the integration of malaria prevention and control into the basic health services coupled with a weak strategy for monitoring the quality of microscopic diagnosis resulted in the deterioration of the system.

In response to this, Malaria Consortium began working with the Southern Nations, Nationalities, and People's (SNNP) Regional Health Bureau on an External Quality Assurance (EQA) system. EQA implementation guidelines were developed with the active participation of the technical staff of the SNNP Regional Health Bureau, creating a sense of ownership of the tools and process.

A rapid assessment was carried out before implementation to determine the status of basic infrastructure, human resources, commodities and supplies. Sixteen health centres were selected to implement the EQA system. Reagents and supplies were provided to the health centres and training on basic malaria microscopy and EQA implementation procedures was provided to 59 laboratory technicians. Regular supportive supervision was initiated, establishing the process of measuring change and improvement as a key element of health systems strengthening.

The EQA system is based on slide re-checking through three levels to identify agreement or disagreement between slide results at the peripheral level with results of experts at central level. Over one year a total of 1,920 slides were re-checked and the average discordance rate progressive decreased from 10 percent to four percent.

The intervention has successfully enhanced the diagnostic capacity and quality of laboratories in the region. The regional health bureau has now adopted this approach into the government health structures and plans to roll it out to all health facilities across the region.

In Ethiopia the regional health bureau has adopted the EQA system into government health structures and plans to roll it out to **all health facilities** across the region

In microscopy, Malaria Consortium has established a system that can measure improvements in accurate diagnosis, for instance from **90 percent to 96 percent** in Ethiopia

Community level delivery

Malaria Consortium has developed considerable experience in the case management of malaria at all levels of the health system. In recent years our portfolio has extended beyond malaria to the case management of two other main causes of illness and death amongst young children, pneumonia and diarrhoea. Our focus is to use community delivery systems, linked to facility-based services, to improve access to diagnosis and treatment of these three diseases in Mozambique, Southern Sudan, Uganda and Zambia.

Through various programmes supported by our partners such as Canadian International Development Agency (CIDA), the Bill & Melinda Gates Foundation and World Health Organization - Research and Training in Tropical Diseases, we are demonstrating the feasibility of integrated community case management (ICCM) on a relatively large scale reaching a population of over 700,000 children aged under five years. Through ongoing evaluation over the next few years we will have estimates of the impact of this approach on child morbidity and mortality.

A tailored approach

Our approach is to empower community-based health workers to appropriately diagnose and treat sick children and refer those with severe illness. This has meant that in some cases, as in Uganda, Malaria Consortium has pioneered the use of malaria rapid diagnostic tests (RDTs) at community level and developed unit dose pre-packs of amoxicillin for pneumonia treatment.

In some countries where referral systems are weak, such as Uganda and Mozambique, we have designed our approach to include rectal artesunate as a life saving treatment that is given to 'buy time' for a severely ill child to get to a hospital for emergency care. We also hope to pilot this strategy in Southern Sudan where access to health facilities is very limited. Working in these diverse contexts enables us to generate lessons learned that can be shared across countries.

In Southern Sudan where acute malnutrition at 22 percent is the highest in the world, Malaria Consortium has added a nutrition component, recognising the close links between health and nutrition. In addition to other childhood illnesses, community-based health workers are being trained to screen children for malnutrition, referring those found to be severely malnourished to community-based outpatient therapeutic feeding sites for specialised treatment and supervision.

This year and beyond

This year we have made significant achievements in persuading government health officials to encourage the treatment of malaria, pneumonia and diarrhoea through community based health workers. We have also adapted training and supervision tools for community case management with an emphasis on adult learning techniques. Surveys have been carried out both in Uganda and Southern Sudan to record current attitudes to seeking treatment, and to develop estimates of child morbidity and mortality.

In future, we will conduct post-intervention surveys in the countries where we are currently implementing ICCM. In the next 12 months, we expect to deploy over half a million treatment doses of artemisinin-based combination therapy, amoxicillin tablets, low osmolarity oral rehydration salts and zinc. In addition, over 300,000 kits of malaria RDTs and just over 10,000 respiratory timers will be delivered.

We expect to understand better and improve performance of community-based health workers through more regular supervision, and through making them feel motivated to carry out their tasks. We have brought in research expertise from London School of Hygiene & Tropical Medicine and Institute of Child Health to work with us on this.

Malaria Consortium is committed to work with its partners at national, regional and global levels to scale up ICCM where it is rational to do so, with an approach that enhances access to quality care provided at facility level.

Our focus is to use community delivery systems to improve access to diagnosis and treatment of **malaria, pneumonia and diarrhoea**, the main causes of illness and death amongst young children

CASE STUDY

Bringing care to the doorstep

Angelina Abuk Luoth received training in June 2010 through Malaria Consortium's Integrated Community Case Management project to become a community drug distributor (CDD). She can now diagnose and treat children with malaria, pneumonia and diarrhoea.

"The community is very relieved to have me as a CDD. In the past they had to go to a clinic which is many hours walk away," she says.

The previous day, Angelina successfully treated a neighbour's child. Ahok Lual brought her seven month old daughter Aluat Deng to her as she had been sick for a few days. Angelina examined Aluat and gave her the first treatment at her house, and then sent her home with the remaining days' treatment. She showed Ahok how to break the tablets in half so that the dosage was correct for the child's age.

"Aluat already seems better since taking the treatment," said Ahok. If there had been no CDD, her daughter's treatment would have been delayed until Ahok was able to get to the clinic.

Angelo Agany is Angelina's supervisor. He has a total of 16 CDDs under his supervision. When asked about the biggest challenge in his role, he says that it is the rains, which hamper his ability to continue to supervise the CDDs who live across the river from him. The monsoon lasts for six months each year and makes crossing the river possible only by boat.

Masela Sekeseke-Chinyama

Acting Country Manager, Zambia

While working as a senior parasitologist at the National Malaria Control Centre, Masela pioneered the development of training materials and trained health workers in case management of malaria. Working as part of the 'change team', she successfully led the country through a major change in diagnosis and treatment of malaria.

Since joining Malaria Consortium, her focus has been strengthening the health system and establishing district Malaria Task Forces – formidable local partnerships for resource mobilisation and coordination.

"The most rewarding aspect about my work is knowing that whatever I do, I ensure that it has an impact. The most important intervention (no matter how small) is that which has an impact on the community, the district and the health system as a whole."

"The community is very relieved to have me as a CDD. As soon as a child is sick, including my own, I can treat them. In the past they had to go to a clinic which is many hours walk away."

Angelina Abuk Luoth, Community Drug Distributor in Southern Sudan

Pioneering research and surveillance

Lara Brehmer
COMDIS Communications Officer

Before joining Malaria Consortium in 2008, Lara worked for two UN agencies, including UNICEF, as an emergencies and communications consultant including in Pakistan, Senegal and the Democratic Republic of the Congo. She is now primarily responsible for the management of research communications for COMDIS, a DFID funded health programme.

"My current and previous roles provide me with a drive to explore the crucial role communication plays to both alleviate suffering and empower populations living in development contexts or facing crises. At Malaria Consortium I focus on building the confidence and capacity of our partners and staff in communications, so that they are better able to influence government strategy and improve the provision of health services."

Researching into communicable diseases

Malaria Consortium is a key partner in the Communicable Disease Research Programme Consortium (COMDIS) led by Nuffield Centre for International Health and Development, Leeds and fully funded by the UK's Department for International Development. COMDIS is a seven year £5 million programme that runs from 2006-2011.

Malaria Consortium leads COMDIS projects in Uganda and Southern Sudan, as well as managing overall communications for the programme in all project countries.

COMDIS is a large-scale research programme that helps to ensure the poorest and most vulnerable people benefit from prevention and treatment interventions for tuberculosis, malaria and HIV/AIDS through strengthened healthcare systems. It carries out relevant operational research that finds answers for priority questions on disease control that can be rapidly incorporated into policy and practice.

Malaria Consortium COMDIS projects in Uganda and Southern Sudan focus on developing new tools and strategies to improve delivery of disease control programmes in decentralised health systems. We conduct research around the main tools and strategies for vector borne disease prevention and treatment.

In Uganda, we have been conducting research around long-lasting insecticidal nets (LLINs) in terms of retention, usage, cost-effectiveness, equity and contrasting delivery methods via mass campaigns and antenatal clinics. We are now in the process of researching the impact of widespread coverage and use of LLINs on both malaria and lymphatic filariasis control.

Under COMDIS, Malaria Consortium trials of rapid diagnostic tests (RDTs) have allowed us to generate new knowledge about the behaviour of those who provide malaria treatment. This research has been used to inform the National Malaria Control Programme (NMCP) policy change on RDTs, and subsequently contributed to the national training curriculum for malaria diagnosis.

Other cutting edge research focuses on evaluating the quality of malaria treatment in public sector health facilities in Uganda following the change in national treatment policy to the use of Artemisinin-based Combination Therapies (ACTs). Our findings have been shared with the NMCP to help identify areas requiring more follow-up support and refresher training. The research is also being used to inform materials developed jointly with the NMCP, including case management guidelines, training manuals, implementation planning, monitoring, and quality assurance guidelines and tools.

Malaria Consortium is treating communities in Unity State, Southern Sudan for the **infectious eye disease trachoma**, as part of the neglected tropical disease control programme and based on our risk mapping

Malaria Consortium research into the burden and scope of neglected tropical diseases (NTDs) in Southern Sudan has been used as the basis for new national guidelines for NTD control in the country.

Trachoma, an NTD that is the main cause of blindness in Southern Sudan, has been geographically mapped by Malaria Consortium giving us a better understanding of the distribution of the disease. This resulting Risk Map will be used to prioritise surveys aimed at confirming suspected high-risk areas for trachoma and for monitoring and evaluating interventions in areas of the country that are currently not benefiting from trachoma control.

Surveillance of malaria and drug resistance in Asia

Some countries have made great strides in reducing the incidence of malaria, so it is unsurprising they are starting to consider the possibility of elimination. This requires a major shift in thinking where every single case in the community now needs to be found, treated and reported with extra prevention activities implemented wherever outbreaks occur. The only way to do this is to strengthen surveillance systems, which at present are very weak in many countries.

Beyond the surveillance of malaria as a disease, the recent problems of artemisinin resistance in Southeast Asia necessitate a system that can pick up every case of potentially drug resistant malaria. In Cambodia and Thailand, Malaria Consortium is working hard with partners to develop these systems and use the lessons generated to inform other countries.

Our short term priority is to develop systems and capacity for surveillance of *Plasmodium falciparum* cases still positive on the third day from start of treatment. This is particularly important, as little is known about the overall incidence and geographical distribution of such cases.

Malaria Consortium plays a leading role within the Bill & Melinda Gates Foundation funded project with the World Health Organization, a valuable starting point in the longer-term development of a comprehensive system of surveillance to support malaria elimination.

In Cambodia malaria surveillance is integrated into the national Health Information System and incorporates monthly routine reporting by health centres, hospitals, operational districts (ODs) and provincial health departments. In parallel, a system of case reporting by village malaria workers (VMW) exists in which data on malaria cases diagnosed in the community are reported monthly via health centres.

There are important limitations in existing routine systems. The manner in which data are transmitted through the system leads to slow and often inaccurate reporting.

Malaria Consortium, through the containment project, provides technical support to enhance monthly routine surveillance through the development and implementation of a Malaria Database. Linked OD-level reporting forms allow VMW and health facility data to be disaggregated to village level. This is a major advance and greatly increases the analytical value of routine Health Information System and VMW data, particularly in terms of mapping and risk stratification.

Although the enhanced routine surveillance system greatly improves the detail and local accuracy of malaria data, monthly reports are not adequate for the purposes of detecting, investigating and following up on patients who are still positive for malaria parasites on day three after treatment, which requires an immediate response to prevent spread of resistance.

Drug resistance is a multi-country problem and is a particular challenge along the Thai-Cambodia border. In addition to assisting the Cambodia national programme to strengthen its systems, we are working with both countries on cross-border surveillance to ensure districts have access to relevant information regarding increases of cases, deaths and day three positives in neighboring districts so they can prepare, react and respond.

The system of case reporting by village malaria workers means that **valuable data on malaria** in the community are reported monthly via health centres

Promoting net use

Benoist Carpentier

"I get bitten a bunch of times at night. I get sick five times a year, I think. When I get sick, I stay in bed. I am not lying in my bed; this isn't my mosquito net. I don't have a net. My brother does, but I don't."

Nanawewje Allen, Uganda

Mosquito nets save lives

Malaria Consortium has a managing role and is the technical lead for the UK Department for International Development (DFID) funded Support for the National Malaria Programme (SuNMaP) in Nigeria. Through SuNMaP Malaria Consortium is working with partners to help increase community awareness of malaria treatment and prevention.

CASE STUDY

Twenty six year old Rebecca Peter laughs as she slips under the new mosquito net covering her mattress. Her daughter, two year old Fatima, plays at her feet, twiddling the end of the net that hangs down. Fatima's cheeks are glowing and she is full of life.

Less than six months ago, Fatima's situation was very different. She was extremely weak, having convulsions and suffering from severe malaria. Worried that her child might die, Rebecca, who did not own a mosquito net at the time and was not aware of its benefits, carried her to the local clinic where she was admitted. After a stay of two weeks, Fatima was well enough to return home to her village in Tarauni, an area just outside of Kano, Nigeria.

"After my child was so sick I worried that it would happen again to one of my children. Then I heard from our town announcer they were going to give out free nets to stop us getting malaria," Rebecca explained. *"Now I have covered our bed and there will be no more mosquitoes in here, and no more fever."*

Promoting net use and care

Increasing community awareness in Nigeria and demand for effective malaria treatment and prevention is one of the key outputs of SuNMaP. Public messages focused on the importance of nets, the link between mosquitoes, malaria and net use, when and where to get nets, how to care for them, and most essentially to 'Use the net!' rather than re-sell it or use it as something else – such as a fishing net or a sieve for cooking.

Changing the behaviour of net recipients like Rebecca and her family can be more challenging – yet equally important – as organising and distributing the 63 million nets provided by SuNMaP and other National Malaria Programme partners including the World Bank, Global Fund to Fight AIDS, Tuberculosis and Malaria and USAID.

By all accounts the messages telling people when and where to collect their nets have been extremely successful, with thousands of people flocking to their local net distribution points, resulting in capacity crowds and lines of women waiting for hours to ensure they get their nets.

This year, we have distributed **4.5 million LLINs** through multiple channels, including campaigns, routine distributions and the commercial sector

Encouraging people to act

Malaria Consortium is engaged in a wide range of behaviour change and communication (BCC) activities across its projects and countries. BCC is an essential element to any project that involves changing a long-standing behaviour present in a community or individual. Without it, project implementation on the ground may fail to achieve the desired impact. Malaria Consortium is continuing to improve and expand BCC activities through innovation and shared learning across the organisation and beyond.

Uganda

The Uganda programme was very active this past year, with a total of 583,351 long-lasting insecticidal nets (LLINs) distributed in the districts of Hoima, Kiboga and Buliisa. This was supported by communication and follow up activities in each of the districts. Although reported usage rates are between 98 percent in Kiboga and 80 percent in Hoima, some barriers to use still persist.

Grace is a teacher in Hoima, Uganda and a recipient of nets for her family. During the post distribution follow-up activities, she said she knew mosquitoes caused malaria, but she did not use or encourage her family to sleep under the nets as they caused skin rashes and burning eyes. But once she'd talked about this with the Village Health Team member in her area, she realised that she needed to air out the net for a day before use. *"Now that I know, I will make sure we use the nets every day."*

Studies that inform BCC activities are often undertaken to gain insights into concerns and behavioural patterns. For the Global Fund Round 7 Stop Malaria Project LLIN distribution, Malaria Consortium produced radio scripts, frequently asked questions and other materials suited to a varied target audience. The knowledge, attitudes and practice study for Comic Relief-funded Pioneer Project and for Canadian International Development Agency supported Integrated Community Case Management project involved an intensive 45 day exercise led by a social research team from Uganda's Makerere University. This entailed focus group discussions, interviews and observation methodologies. Low-literacy tools for functional adult literacy, materials for school children and community sensitisation on tuberculosis and its relationship with HIV were also developed and put to use.

Southern Sudan

"The images in the flipchart and the way the health worker told us the story, made me realise we need to keep our water points clean," said Achol Kur, explaining how he came to understand how Bilharzia is transmitted. Achol was one among the hundreds of community members who participated in meetings held as part of the mass drug administration against Bilharzia and soil-transmitted helminths (intestinal worms) in Aweil East county.

Analysis of data from a sampling for Bilharzia and intestinal worm materials in Southern Sudan showed that 90 percent of community members took the drugs provided during the mass drug administration, with 61 percent saying they did so as a preventive measure. Ninety-three percent of households had heard messages about Bilharzia and intestinal worms, with the majority getting that information from health workers. In the Southern Sudan context, interactive communication with local leaders and community members, schools and churches, aided by highly visual campaign materials were found to be highly effective.

Mozambique

In Mozambique an interactive game on malaria prevention for school children, in the form of an illustrated sheet which can be folded into a hat, continues to be a major hit. After two years of implementation, data from 2009 demonstrated that nearly all the children reached are well informed and are persuading their caregivers to act according to the information they have received. According to the statistics, more than 88 percent of children in the provinces covered have retained and are acting on the messages.

A knowledge, attitudes and practice study followed the mass LLIN distribution earlier this year at the **Comic Relief** funded Pioneer Project in Hoima, Uganda

This activity is now a regular feature at all the district and provincial celebrations, in addition to other innovative education initiatives. These include making the information more accessible through stories, leaflets, audio materials, radio programmes and training sessions.

Asia

Malaria Consortium Asia began piloting a six month Positive Deviance (PD) technique, in response to the National Malaria Control Programme's interest in new approaches. PD is a strategy for behaviour and social change that is based on the uncommon but successful behaviours of those individuals in a community that enables them to find better solutions to problems than their peers.

This technique was used for the first time in malaria prevention and control among mobile and migrant workers as part of the Bill & Melinda Gates Foundation funded Containment Project to control the spread of artemisinin resistant parasites in Cambodia and Thailand.

Malaria Consortium organised a cross- border workshop to harmonise strategies and messages in Cambodia's Siem Reap province in August 2009 for 65 participants, paving the way for coordination and collaboration between both countries. In one activity, community members reinforced their understanding of malaria by drawing pictures to illustrate malaria related messages they remembered hearing over the previous six months.

Muhammad Shafique
Behaviour Change Communication Specialist, Asia

Before joining Malaria Consortium, Shafique was involved in the design and implementation of communication and community mobilisation strategies on primary health care, maternal and newborn health and malaria prevention and control for over 12 years in Pakistan and Myanmar. At Malaria Consortium, Shafique provides technical support to the national programmes of Cambodia and Thailand in developing, monitoring and evaluating culturally appropriate and effective behaviour change communication strategies for the Containment Project.

"Malaria Consortium provides an enabling work environment for the team members to learn, grow and deliver high quality technical support to the communities to bring sustained positive changes in their lives."

Hundreds of community members participated in meetings held as part of the mass drug administration against Bilharzia and soil-transmitted helminths in Aweil East country, Southern Sudan

Our work on the ground

"We are in training to catch mosquitoes. In order to capture them you must expose some skin. When the mosquito comes, it will land on the skin and you direct the aspirator (that's the device at the end of the tube that is in my mouth) and you suck the mosquito into the aspirator.

David Kachope, Uganda

Malaria Consortium has continued to implement and improve delivery strategies for long-lasting insecticidal nets (LLINs) both through campaigns for rapid scale up and – more importantly – with continuous distributions through channels such as routine health services, community based distributions and by the commercial sector. The focus of these activities over the past year has been Nigeria, Southern Sudan, Uganda and Mozambique during which time the total number of LLINs distributed or supported through the commercial sector was nearly 4.5 million.

As global support for the successful control and elimination of malaria grows, we are investing in improving our capacity and capability for gathering evidence, developing and testing effective strategies to achieve such worthwhile international aims.

Key among these activities has been to establish 'areas of excellence' in Africa and Asia in different transmission settings where comprehensive malaria control is being pursued in the context of the national strategic plans. The first site was established in Western Uganda this year.

We have also continued to support Ministries of Health to implement their programmes to improve access to proper diagnosis and effective treatment with ACTs. This includes improving policy, strengthening supply management systems and improving skills of health workers in public health facilities, private clinics and pharmacies, the main providers of malaria treatment for poorer households.

Since 2009, we have implemented a significant programme to deliver a combination of interventions to tackle childhood illness at community level, including home based fever management in four countries: Uganda, Zambia, Mozambique and South Sudan. This will lead to a sustained increase in the proportion of sick children receiving effective treatment.

Uganda

Over the past year, Malaria Consortium Uganda has continued to expand and is now implementing more than 10 projects funded by a range of donors. The technical scope of these projects combines support to national policy and strategy development and review, operational research, and service delivery.

This year has also seen the start up of two key projects focused in the Western region. The first of these is the Integrated Community Case Management (ICCM) of the three main childhood diseases – malaria, pneumonia and diarrhoea – funded by Canadian International Development Agency (CIDA). ICCM is augmented by the Bill & Melinda Gates Foundation iNSCALE project which aims to show how ICCM can be scaled up rapidly without losing quality or long term impact.

Prevention was a key focus area and more than 311,000 LLINs were distributed to 113,021 households, helping to protect at least half a million people.

LLIN distribution in the Hoima district was completed under the new Comic Relief funded Pioneer project, coinciding with a visit from the donor and the UK celebrities who had helped to raise the funds.

Neglected tropical disease control work was introduced in Uganda this year, with a project funded by the Izumi Foundation to implement integrated control of intestinal worms and malaria through Uganda's health system.

The number of operational research studies being conducted within the Uganda programme has also reached an all time high. These included a severe malaria clinical practices baseline assessment completed across 11 districts and 105 health facilities under Irish Aid funded CLOVER project and an ante-natal clinic, post campaign and retail market net tracking surveys which have been applied across various countries, including Uganda.

Southern Sudan

Malaria Consortium distributed more LLINs than in any previous year since it has been working in Southern Sudan. Almost 800,000 were distributed by the end of October 2009. A follow up survey in Northern Bahr el Ghazal state to determine the effectiveness of the distribution

in Northern Bahr el Ghazal and Unity states, Southern Sudan, funding has been secured to train **over three thousand** community volunteers as community drug distributors

Our work on the ground

indicated that 88 percent of all households had been reached.

The team secured new funding from the Global Fund to Fight AIDS, Tuberculosis and Malaria and CIDA for community case management for malaria, pneumonia and diarrhoea. This has enabled us to implement an integrated community case management programme in Northern Bahr el Ghazal and Unity states, which will see over three thousand community volunteers trained as community drug distributors (CDDs), able to diagnose and treat malaria, diarrhoea and pneumonia in an estimated 660,000 cases at the community level.

With USAID funding, Malaria Consortium has continued to expand its niche in mapping and treating neglected tropical diseases (NTDs) including schistosomiasis (Bilharzia), lymphatic filariasis, trachoma and soil transmitted helminths (intestinal worms). We have also been responding to the kala azar outbreak in the north-eastern part of Southern Sudan through training health workers and community members and providing equipment and medicine to the state hospital with support from the Common Humanitarian Fund.

The first mass drug administration was also carried out in Northern Bahr el Ghazal for soil transmitted helminths and schistosomiasis, reaching over 30,000 and 24,000 beneficiaries respectively. Further expansion is expected in the coming year with at least a doubling in the numbers of reached.

Also in Southern Sudan health facility mapping in Upper Nile State was completed. A total of 113 'functional' health facilities were found. This is a significant achievement as many thought that the mapping was not possible. Malaria Consortium is now providing the secretariat for the Accelerated Child Survival Initiative for the State.

Continued membership in the NGO Forum Steering Committee and recent election as the NGO Health Forum Chair help ensure that Malaria Consortium plays a central role in helping to improve the effectiveness and impact of activities in the health sector in Southern Sudan.

Ethiopia

Malaria Consortium Ethiopia's recent achievements include health systems strengthening (HSS) activities, operational research and building partnerships for in-country advocacy.

Malaria Consortium has focused on a range of activities across four zones in the Southern region, incorporating more than 60 health facilities to support HSS. This has included support for Improved Health Management Information System strengthening for better response to malaria (training, IT materials, motor cycles, etc) and tailor made training programmes for health workers.

In collaboration with the Federal Ministry of Health in Ethiopia, Malaria Consortium organised training for 150 health workers on epidemic preparedness and micro-planning on the delivery of Artemisinin-based Combination Therapy (ACT), LLINs and insecticides for indoor residual spraying. We are also developing tools for improved drug and supply management and for malaria microscopic diagnosis.

Operational research was also conducted into areas including malaria risk mapping, repellents and insecticide treated nets. Research into rapid diagnosis tests (RDTs) enabled the creation of a database for RDT at three health centres and nine health posts, including training.

Finally, Malaria Consortium developed a database of Coalition Against Malaria in Ethiopia (CAME) members and it is being widely used by interested groups to learn about who and what is key to malaria advocacy in Ethiopia. Messages on malaria, short dramas and radio spots, were transmitted through local FM radio. Mass mobilisation using a mobile van in high risk areas was conducted and attended by hundreds of thousands in rural villages.

Mozambique

In the past year Malaria Consortium has focused on supporting the Ministry of Health

Malaria Consortium has focused on health system strengthening across four zones in the Southern region of Ethiopia, incorporating more than **60 health facilities**

"The level of malaria in school is going down. The local heath centre has the proper medication available. Of course, children still get sick and miss class, maybe once a term. That's three or four times a year. But, a decade ago the same student would get malaria possibly 10 times a year. If the students can't attend class due to illness, they can't learn."

Jackson Mburamanya, Headmaster, Uganda

to roll out its Community Health Worker strategy. Implementation support will be concentrated in Inhambane province where we are collaborating with the Provincial Health Directorate to support the initial training, subsequent support supervision, refresher training, and motivation and retention of Community Health Workers. This is being done with support from the Canadian International Development Agency, the Bill & Melinda Gates Foundation and Planet Wheeler Foundation.

The completion of the UK Department for International Development (DFID) funded project to develop sustainable distribution systems for LLINs has seen the system for routine distribution, now firmly established in five of the 11 provinces, complemented by support to three commercial LLIN distributors as well as intensive behavioural promotion activities. In the past year nearly half a million LLINs were distributed through ante-natal clinics and their retention and use was found to be high.

The CLOVER project, funded by Irish Aid, has been highly successful with the development of provincial peer supervision groups. CLOVER has also been instrumental in expanding the network of malaria sentinel sites from two to four, through technical assistance to the National Malaria Control Programme and selected sites. We are also working closely with the Laboratory Section in the Ministry of Health, to improve skills and quality control systems.

At the national level, an assessment on the impact of malaria in the workplace for the private sector concluded that although businesses consider malaria the main source of absenteeism, none have a tracking system to substantiate this and most have simply not thought of starting any activity to reduce the malaria burden in their workplace.

Finally, under the Mobilising 4 Malaria (M4M) programme, supported by Glaxo Smith Kline, Malaria Consortium leads advocacy activities to gain business investments to help fight malaria. Such investments include resources for the provision and use of health services and investments in people's health through education and empowerment.

Zambia

A key output this year was a study to assess the impact of training on case management and the home management of malaria in Livingstone, Zambia. This study, conducted with support from USAID, demonstrated that improved diagnosis and use of RDTs can increase appropriate use of ACTs. Results showed that there was a 90 percent reduction in reported cases of malaria, a 60 percent increase in the use of RDTs for diagnosis and a 90 percent reduction in the distribution of ACTs.

Two models were designed and implemented to compare delivery of malaria drugs, supplies and commodities. The availability of ACTs rose dramatically to double the 51 percent availability in control districts. Availability of sulfadoxine pyrimethamine (SP) used as preventative treatment for malaria in pregnancy, rose to 84 percent in pilot areas compared to 39 percent in control districts. Malaria Consortium also undertook a review of requirements for ACTs and RDTs in the public sector, forecasting up to 2015.

Another study was conducted in Livingstone with funds from FIND Diagnostics and the World Health Organization's Tropical Disease Research programme to assess performance in case management of malaria. Results showed that only six (17 percent) of health facilities adhered to both malaria diagnosis and treatment protocols. District level data personnel received training in the art of integrating and analysing data and a training of trainers was carried out in all nine provinces in Zambia.

Malaria Consortium Zambia trained frontline and community health workers in home management of malaria and introduced the bicycle ambulance programme (Zambulance). In all, 57 Zambulances were distributed to communities and we are currently conducting assessments on the use of the Zambulances.

Our work on the ground

Nigeria

In Nigeria, the Support to National Malaria Programme (SuNMaP) led by Malaria Consortium and funded by DFID, became the technical lead in supporting the national malaria control programme (NMCP) and its partners in planning a national LLIN coverage scale-up to achieve universal coverage. SuNMaP is applying the mixed model approach of working with all sectors – public, commercial, not-for-profit and civil society to achieve high LLIN coverage.

SuNMaP completed resource mapping and developed a plan to reach every household in the country with two nets by the end of 2010 through distribution campaigns for a total of 63 million nets. DFID funded the procurement of two million additional nets most of which were distributed through campaigns in two of the states supported by the project.

To achieve the coverage of two nets per household in the two project states, Kano and Anambra, SuNMaP trained and deployed more than 22,000 mobilisers and distribution personnel for campaigns in Kano and Anambra. In the four states that implemented campaigns in the first and second round, a total of 9.3 million nets were distributed applying the strategy and methodologies developed by SuNMaP.

Work has also commenced to support stakeholders to address systemic issues in malaria control. This includes building capacity at national, state and local levels for policy development, planning and coordination by developing a malaria control operational plan, tools and training materials. We assisted the NMCP in the development of comprehensive malaria operational plans and resources maps – for the first time in some states.

SuNMaP has also been leading the review of the NMCP coordination framework and is closely supporting its implementation. A comprehensive capacity building approach for all levels has been developed during the year for roll-out in the next year.

Ghana

Promoting Malaria Prevention and Treatment (ProMPT) Ghana is a three year USAID-funded programme under the President's Malaria Initiative implemented by University Research Co., Malaria Consortium and Population Council. The project aims to strengthen the capacity, effectiveness and reach of Ghana's National Malaria Control Programme and to support the engagement of all key actors in malaria prevention and control.

During the reporting period, ProMPT trained 95 health workers to roll out trainings at district level in all 29 districts of Northern and Upper East regions as part of case management and malaria in pregnancy activities. Another 237 health workers in two rural municipalities in Greater Accra region received training, and a facilitators' workshop for home based care of fevers was supported for national implementation.

ProMPT disseminated an assessment report on distribution mechanisms and low insecticidal net use in the Central region and trained 436 health workers on voucher scheme operations. A further 155 were trained in the Northern and Eastern regions to train volunteers on mass distribution campaigns for LLINs.

ProMPT also carried community mobilisation and behaviour change communication in 400 communities, developing the skills of 36 NGO staff and district personnel to become trainers of 976 community volunteers in malaria prevention and control.

Cameroon

Established in 2007, the Cameroon Coalition Against Malaria (CCAM), continues to be the leading advocacy organisation in the fight against malaria in Cameroon. Malaria Consortium provides financial and technical assistance to the programme, which will become a Malaria Consortium country office in the next reporting period.

This last year has presented CCAM with huge funding challenges and in light of this, key activities focused on raising resources. One


William Daniels

SuNMaP plans to reach **every household in the country** with two nets by the end of 2010

"I educate and diagnose malaria. The serious cases I refer to the hospital. We are the first line of defence for the village - and cases have been decreasing. I teach people to be careful, to use a net at night and to wear long-sleeved shirts after dusk. My job is not difficult, but it takes a lot of time to do properly. It's a big responsibility."

Som Suor, village malaria worker, Cambodia

such activity was the pivotal role played by CCAM to ensure the engagement of Cameroon civil society in the development of the successful Round 9 proposal for the Global Fund to fight AIDS, Tuberculosis and Malaria for which CCAM was selected to become a sub-recipient for the advocacy component.

This five-year project to scale up malaria prevention in Cameroon will achieve universal coverage for malaria prevention in Cameroon with LLINs and with the support of CCAM. Civil society participation is expected to boost the effectiveness and success of the project.

CCAM also mobilised the Cameroonian malaria community to launch the first in the Roll Back Malaria (RBM) Partnership series of malaria updates. Media coverage not only included Cameroon but also the francophone Central Africa region.

CCAM also conducted a survey on malaria indicators in the health district of Obala. One key finding showed that the householders in Obala owned and were using mosquito nets, but that more than half were not insecticide treated and a quarter were torn. We are working with community representatives as well as central level representatives to determine the best strategy to ensure effective uptake and use after the mass distributions planned under the Global Fund.

Thailand and Cambodia

As part of our five-year Centers for Disease Control and Prevention (CDC) funded project to strengthen surveillance, monitoring and evaluation (M&E) and operations research in the region, Malaria Consortium has contributed to the development of a regional framework. It will be used to help Mekong countries strengthen malaria information systems and provide guidance for national strategies and M&E.

In Southeast Asia we convened a multi-country meeting to plan case management and detection for artemisinin resistance containment, under the Bill & Melinda Gates Foundation funded Containment Project, and contributed to national policy update in Cambodia.

To ensure momentum and continued medium term funding for the containment strategy, Malaria Consortium provided technical assistance in the development of Cambodia's successful Global Fund to Fight AIDS, Tuberculosis and Malaria Round 9 proposal for malaria and will be a sub-recipient in implementing this grant, managing five other NGOs. We have also been helping to strengthen Thailand's M&E systems under the Global Fund Round 7 and are currently providing support for Thailand's GF Round 10 malaria proposal.

In Cambodia we conducted an assessment of day-three positive case detection and follow up surveillance system in the country. This work will lead to the development of a cross-border, harmonised surveillance system between Thailand and Cambodia. In Thailand we are also investigating the utility of low tech SMS mobile phones for recording positive cases.

We are developing a household-level database based on the census data collected for Zones 1 and 2 in Thailand. This information is for the micro-planning of LLIN distribution and can also serve as a basis for linking relevant information between Thailand and Cambodia. We also provided support for the World Health Organization (which leads the Containment Project) to conduct preliminary assessment of the Rapid Coverage Monitoring tool for insecticide treated nets following distribution in Cambodia.

Over the past year, Malaria Consortium has increased the knowledge base with a bibliographic resource on migrants and mobile populations and laid the ground work for an in-depth qualitative assessment of migrant treatment-seeking behaviour in western Cambodia. We are continuing to strengthen institutional capacity of the region's malaria programmes by contributing to the Asian Collaborative Training Malaria Network (ACTMalaria) through curriculum development, facilitation and training.

Our activities

Prevention

We distribute and provide guidance on improving access, use and evidence gathering on long-lasting insecticidal nets. In addition, we apply mixed model approaches for large scale delivery involving all sectors, we test new technologies and this year, we have begun to establish 'areas of excellence' where comprehensive malaria control is pursued in the context of national strategic plans by pooling resources on the road towards elimination.

Diagnosis and treatment

We support Ministries of Health and partners to improve diagnosis and effective treatment through improved access to rapid diagnostic tests, quality controlled microscopy services and artemisinin-based combination therapy. This includes improving policy, strengthening supply management systems, and building skills of health personnel in public and private health facilities, as well as pharmacies. Access to prompt and effective treatment for communicable diseases is one of the best ways to prevent severe disease and reduce the high mortality of young children from severe malaria.

Systems and capacity strengthening

We focus on building capacity to make disease control programmes sustainable for the long term. We do this through our work on health systems strengthening for better disease control across our country programmes. Our multi-country project in Mozambique, Uganda, Zambia and Ethiopia continues to focus specifically on district level systems strengthening and cross-country learning.

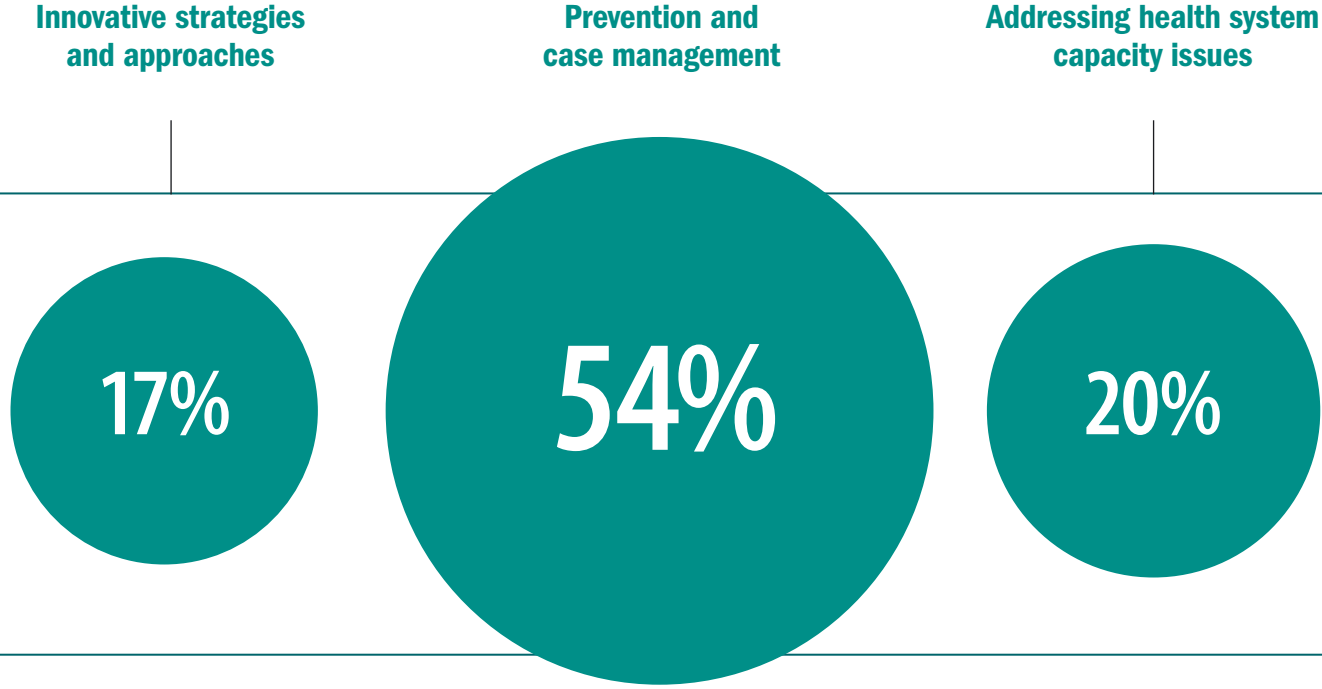
Childhood illnesses

Saving the life of a child depends on availability of drugs and basic diagnostic and treatment capacity close to where they live. We are expanding our previous home based management of fever programmes across a range of countries to cover other childhood illnesses, including acute respiratory infections and diarrhoea, which makes effective treatment accessible to children as soon as possible.

Neglected tropical diseases

Neglected tropical diseases kill up to half a million of some of the poorest people each year and cause chronic illness or disability to millions of others. We are continuing to

How we allocate resources to meet organisational



Organisational Objectives:

Engage in malaria control/elimination in a range of malaria transmission settings using innovative strategies and approaches

Develop and implement improved approaches to delivery of prevention and case management for communicable diseases and childhood illness

Resolve health system and capacity deficiencies linked to disease control and childhood illness

Spearhead innovative approaches for monitoring, evaluation and surveillance systems, and realise high quality operational research, to allow evidence-based decision-making

Invest in Malaria Consortium's institutional strengths to maintain its position as an international high-quality technical organisation

Advocate and communicate to promote the effective use of resources for malaria control and communicable diseases

map these diseases to ensure drugs and treatments reach those who need them. Our research portfolio continues to grow with several new publications on neglected tropical diseases.

Helping the vulnerable and hard-to-reach

Our work in emergency and post-conflict settings is concentrated in northern Uganda and Southern Sudan, where Malaria Consortium delivers services to remote and poorly served populations. These have included preventive interventions and improved quality of treatment of malaria and other communicable diseases to displaced and returning populations.

Operational research

In line with the global ambition to eliminate malaria in more countries in future, Malaria Consortium is improving its capacity and capability to gather evidence, develop and test effective approaches and strategies to help achieve these aims. Our operational and implementation-led research is essential to understand more about how control measures are contributing to the decline of the disease.

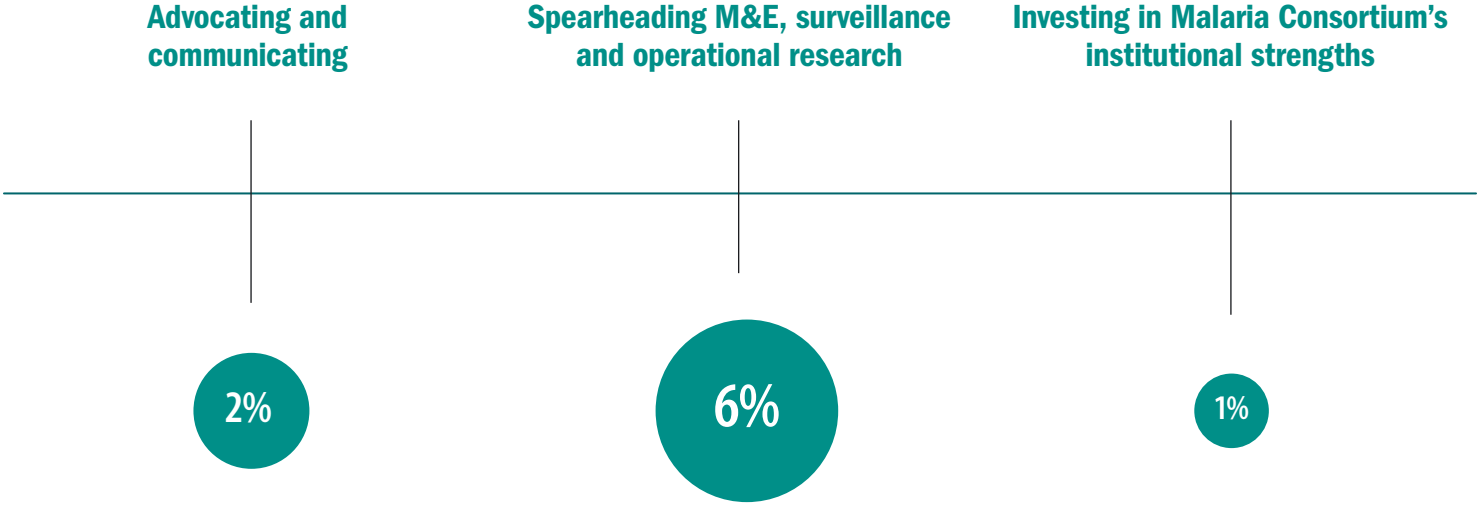
Monitoring and evaluation

Monitoring and evaluation (M&E) is fundamental to our work on the ground as well as supporting national and international policy and strategy decision making. Malaria Consortium provides M&E and surveillance activities to contain resistance to malaria drugs. We are also building up our evaluation of net retention and use after large scale net distribution campaigns.

Advocacy and communications

Malaria Consortium focuses communications and advocacy activities to promote the effective use of resources for the control of malaria and other communicable diseases. We work to build the capacity of southern civil-society advocacy groups. Our work in the UK and globally is influencing policy and practice, further fuelled by our long-lasting and strong support within the Roll Back Malaria Partnership.

objectives



Our structure

Trustees and organisational structure

The Malaria Consortium was established under a Memorandum of Association which established the objects and powers of the charitable company, and is governed under its Articles of Association. The charity is governed by a Board of Trustees (Directors), of whom there shall never be less than 3, and the maximum number shall be 18. The Trustees meet quarterly for the Board of Trustees meeting, and for the Annual General Meeting (AGM), at which the audited accounts for the year are formally approved. At the AGM one third of the Directors/Trustees retire, and are eligible for re-election as long as they have not served for a continuous period exceeding six years. After six years Trustees must retire. The Board of Trustees has appointed a Finance and Audit sub-committee to scrutinise and monitor the finances of the organisation, which meets at least quarterly, and makes recommendations to the Board of Trustees.

New Trustees should be recruited for their skills in areas relevant to the governance, aims or the changing nature of strategy and activities of the Malaria Consortium. The Trustees may at any time select a suitable person as a Trustee, either to fill a casual vacancy or by way of addition to their number, who should be appointed in consultation with all existing trustees on the Board and preferably with unanimous support for the appointment. Trustees are sought in a variety of ways involving exploration of the field of potential candidates, including by recommendation from those working for or with the Malaria Consortium, or from existing Trustees. Potential Trustees are scrutinised by the Officers of the Board of Trustees and the Board as a whole. All new Trustees should receive an induction to the organisation by the Chief Executive and are invited to attend a Board Meeting prior to election. All potential candidate Trustees are given an information pack on Trustee Responsibilities provided by the Charity Commission.

The Board of Trustees makes the major strategic decisions for the organisation. Every year Trustees are invited to make field visits to be fully informed about Malaria Consortium's activities thus enabling them to make effective strategic decisions. The Board of Trustees delegates day-to-day operational decision-making to the Chief Executive, who with the Executive Team runs the organisation. The Executive Team is supported by a Senior Management Team responsible for technical, management and finance functions, as well as programmes at regional and county level.

Malaria Consortium's head office is in London, United Kingdom. The regional office for Africa, based in Kampala, Uganda coordinates and supervises programmes and projects at country level in Africa. The regional office for Asia is located in Bangkok, Thailand. Global activities and work in other parts of the world are directed through the head office in the UK. During this reporting period country offices in Africa were operating in Kampala, Uganda; Juba, South Sudan; Addis Ababa, Ethiopia; Maputo, Mozambique; Lusaka, Zambia; Abuja, Nigeria. Additional provincial or sub-national offices were operational in Kotido, Arua, Gulu, Hoima and Soroti in Uganda, Malakal, Bentiu and Aweil in Southern Sudan, Inhambane, Nampula and Cabo Delgado provinces in Mozambique, Awassa in Ethiopia and in Kano, Lagos, Anambra, Katsina, Niger and Ogun states in Nigeria.

The Uganda Malaria Research Centre continues its activities in Kampala and staffing capacity has been strengthened in the project office in Yaoundé, Cameroon. In Asia, offices were operational in Bangkok, Thailand and Phnom Penh and Pailin in Cambodia.

During this year Malaria Consortium's partners at the global and regional level include: UKAid/Department for International Development, USAID and US President's Malaria Initiative, Irish Aid, Canadian International Development Agency, Bill & Melinda Gates Foundation, Roll Back Malaria, Global Malaria Programme of the World Health Organisation, the Global Fund to fight HIV/AIDS, Tuberculosis and Malaria, World Bank's Booster Programme, Centers for Disease Control and Prevention (USA), WHO's Tropical Diseases Research, UNICEF, United Nations Development Program and Jersey Overseas Aid Commission.

At country level, our partners include National Malaria Control Programmes and Ministries of Health; local and regional UN offices; regional organisations in West, East, and Southern Africa, bilateral donors; international foundations; civil society organisations; development projects, private sector and most importantly communities suffering from malaria and other communicable diseases.

Close collaborations are maintained with academic institutions including the Nuffield Centre for International Health and Development at Leeds University and the London School of Hygiene and Tropical Medicine; Johns Hopkins University in the USA; Makerere University, Uganda; Kwame Nkrumah University of Science and Technology, Ghana; the University of Nigeria; Eduardo Mondlane University, Mozambique; Mahidol University, Thailand; Shandong University, China; BRAC University; Bangladesh and Pasteur Institute, Cambodia. The Consortium is also involved with the Roll Back Malaria Partnership and Friends of the Global Fund in Europe based in France. In the UK, we work with the All Party Parliamentary Group for Malaria and Neglected Tropical Diseases, the Trade Union Congress, Global Business Coalition and others. As well as our ongoing work with the Cameroon Coalition against Malaria, we have a considerable amount of local advocacy partners in endemic areas, working to advocate for change and an end to malaria. In Nigeria we work with Action Family Planning. In Ethiopia, our partners include Coalition against Malaria in Ethiopia and the Carter Centre. In Mozambique, we work in conjunction with Medicos del Mundo España and NAIMA +. We worked in Burkina Faso with L'association SOS, Orphan Relief Services in Tanzania, Azur Developpement and Reseau SIDA Afrique in Congo, and in Ghana with African Media and Malaria Research Network among many other advocacy organisations on the ground.

Malaria Consortium works with the commercial sector internationally especially in assessing public health products (predominately mosquito nets) for Syngenta, BASF, Dawa among others and to improve access to and delivery of these products. Our commercial sector partners including Vestergaard Frandsen, Sumitomo Chemical, Syngenta and GSK support in part Malaria Consortium's advocacy efforts and activities. We also have the in kind support of the Financial Times.

Malaria Consortium achieves its objectives by receiving restricted income through successful project applications. The organisation currently receives a very small amount of unrestricted funding through fundraising efforts of public and private supporters. Current private supporters include Jez Kent, Sonal Shah, and Adam Wolley, who cycled solo across Africa to raise funds for the Consortium.

Risk Management

The responsibility for overseeing the management of risk has been delegated by the Trustees to the Finance and Audit Committee that reports regularly to the Board. The Risk Assessment and Risk Management processes are regularly reviewed and updated. The major risks to which the charity is exposed, as identified by the Trustees, are reviewed and processes have been established to manage those risks. The Finance and Audit Committee has prepared a Risk Assessment Register (RAR) that shows the impact and probability of the major risks, this is updated and reviewed regularly by the Committee and senior management.

Our Board of Trustees are:

Stephen Rothwell O'Brien MP FCIS *Chairman (resigned May 2010)*
Dr Penelope Key OBE *Interim Chair*
Richard Page *Treasurer (appointed June 2009)*

Richard Alan Barnett *(resigned December 2009)*
Professor Richard John Horton *(resigned December 2009)*
Derek Kenneth Reynolds FCMA *(resigned December 2009)*
Patricia Ann Scutt *(resigned December 2009)*
Dr Whitney Addington
Dr Geoffrey A Butcher
Dr Edward Brian Doberstyn
Dr Garth Glentworth
William Chalmers *(appointed June 2009)*
Roger Wilson *(appointed June 2009)*
Tim Armstrong, FCA *(appointed December 2009)*
Ian Boulton *(appointed December 2009)*
Roger Cousins, OBE, FCMI *(appointed December 2009)*

Trustees statement

The figures on these pages are extracted from the full trustee's report and financial statements that have been audited by Kingston Smith LLP, who gave an unqualified opinion. The full accounts were approved on 2 September 2010. Copies of the full accounts have been submitted to the Charity Commission and Register of Companies. This summarised financial information may not contain sufficient information to gain complete understanding of the financial affairs of the charity. The full trustees' report, audit report and financial statements may be obtained from the company's offices.

The auditor has issued unqualified reports on the full annual financial statements and on the consistency of the Trustees' report with those financial statements. Their report on the full annual financial statements contained no statement under sections 498(2), 498(2)(b) or 498(3) of the Companies Act 2006.

Richard Page
Treasurer

Accounts summary

Statement of Financial Activities for the year ended 31 March 2010

	2010	2009
	£	£
Incoming resources		
Donations in cash	116,741	23,798
Gifts in Kind	143,839	–
Interest received	5,865	23,557
Office & Vehicle Rental Income / Sale of Vehicle	30,610	18,401
Foreign Exchange Gain		185,560
Grants, contracts & consultancy income	18,735,973	12,220,294
Total Incoming Resources	**19,033,028**	**12,471,610**
Resources Expended		
Cost of generating funds	192,039	–
Charitable activities	19,569,569	10,550,988
Governance costs	102,755	16,596
Total Resources Expended	**19,864,363**	**10,567,584**
Net resources expended	**(831,335)**	**1,904,026**
Fund balances at start of year	5,442,586	3,538,560
Fund balances at end of year	**4,611,251**	**5,442,586**

Balance Sheet as at 31 March 2010

	2010	2009
	£	£
Fixed Assets		
Tangible Assets	**622,596**	**406,072**
Investments	1	–
	622,597	**406,072**
Current Assets		
Debtors	4,527,181	3,702,498
Bank and cash balances	10,631,050	1,606,713
	15,158,231	**5,309,211**
Creditors		
Amounts falling due within one year	**11,169,577**	**272,697**
Net assets	**4,611,251**	**5,442,586**
Represented by:		
Unrestricted funds	3,043,455	2,173,714
Restricted funds	1,567,796	3,268,872
	4,611,251	**5,442,586**

Independent Auditor's Report to the Members of Malaria Consortium

We have examined the summarised financial statements for the year ended 31 March 2010.

Respective Responsibilities of the Trustees and Auditors

The Trustees are responsible for preparing the summarised financial statements in accordance with the with applicable United Kingdom law. Our responsibility is to report to you our opinion on the consistency of the summarised financial statements with the full financial statements and Trustees' Annual Report and its compliance with the relevant requirements of section 427 of the Companies Act 2006 and the regulations made thereafter.

Basis of opinion

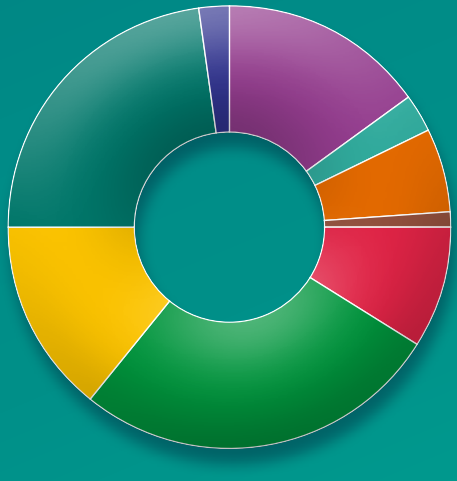
We conducted our work in accordance with Bulletin 2008/03 issued by the Auditing Practices Board. Our report on the company's full annual financial statements describes the basis of our opinion on those financial statements and the Trustees' Report.

Opinion

In our opinion the summarised financial statements are consistent with the full financial statements and the Trustees' Annual Report of Malaria Consortium for the year ended 31 March 2010 and complies with the applicable requirements of section 427 of the Companies Act 2006, and the regulations made thereafter.

Kingston Smith LLP
Chartered Accounts and Registered Auditors
Devonshire House, 60 Goswell Road,
London EC1M 7AD

Date: 6 September 2010



Nigeria	27%
Uganda	23%
Multi Country (Africa)	15%
Southern Sudan	14%
Mozambique	9%
Ethiopia	6%
Southeast Asia	3%
UK	2%
Ghana	1%

Malaria Consortium income

2009-10 £19.0m
2008-09 £12.5m
2007-08 £10.2m
2006-07 £5.4m
2005-06 £3.2m
2004-05 £1.2m

Preparing for the future

Contributing to the Achievement of Millennium Development Goals

The global malaria community has made great promises for 2010; its rallying call has seen amazing commitment and mobilisation of resources. We expect the epidemiology of malaria and some other communicable diseases to change with the large-scale programmes that are increasing coverage of both preventive and curative interventions. We also see the possibility of elimination in some settings. A lot more needs to be done to ensure the promises are kept and then maintained, as the fight against malaria is neither a short nor a swift one.

The targets of the Millennium Development Goals underpin much of what we do. The goals have a deliberate synergy across their targets which means that progress in one will have an impact on progress in others. Malaria is no exception. Goal 6 sets targets for malaria control to reduce morbidity and mortality, specifically aiming to halt and begin to reverse the incidence of malaria and other major diseases by 2015. Yet it is clear through our work, that successes in malaria control have a positive impact on achieving the other Millennium Development Goals, especially those relating to maternal and child health, education and poverty.

Last year we mentioned that the real test of delivering on our promises is whether remote and high burdened communities in Africa, Asia and other areas see not just episodic access to interventions but commitment of regular supplies for prevention, diagnosis and treatment for the longer term. We need to work harder to ensure this happens if we are serious about winning our fight against malaria and other communicable diseases. The emphasis must remain on access for all and uninterrupted coverage. As independent advocates, we will persist with our call for strengthening local voices above acquiescent global advocacy to achieve this.

This year also marks the launch of our new strategy that aims to bridge disease control and elimination stages. Our strategic objectives include development and implementation of innovative approaches to control and elimination of disease, address health systems and capacity needs, and improve evidence and enhance its dissemination. Given the likely policy context during the next few years, Malaria Consortium's sustainability will depend on its ability to integrate its technical and operational capacity with broader health and development initiatives.

The organisation's future will be underpinned by unrivalled technical capacity, effective delivery of creative solutions and operational efficiency. These aspirations link with the values of the organisation such as technical excellence, quality, responsiveness, innovation and collaboration. The organisation is moving from a period of exponential growth towards consolidation and institutional strengthening that will focus on systems and processes to maintain a culture for innovation and creativity. At the same time we are improving evidence, effectiveness and accountability.

Our strategy is to focus our activities in areas around the world where there is high incidence of malaria and other communicable diseases. This is to create the greatest opportunity for the highest impact where those most vulnerable live.

As 2010 draws to a close, we can congratulate ourselves on what has been achieved, but we also need to remain steadfast and focused on 2015 and the achievement of Millennium Development Goals in whatever we do.

Sunil Mehra
Executive Director, Malaria Consortium

Please support us

We rely on donors and supporters to carry out our work. Help us protect and save lives in the fight against malaria and other childhood illnesses, as well as neglected tropical diseases. Together we can provide some of the world's most vulnerable people with better health care and a future free from malaria.

With thanks to our funders and donors:

Department for International Development UK

United States Agency for International Development (USAID)

World Health Organisation (WHO)

Bill & Melinda Gates Foundation

John Hopkins University

Comic Relief

Canadian International Development Agency

Irish Aid

Global Fund to Fight AIDs, Tuberculosis and Malaria

Vestergaard Frandsen

Population Services International

Chemonics

Sumitomo Chemical

Research Triangle Institute

Imperial College of Science

United Nations Development Programme (UNDP)

Centers for Disease Control and Prevention

Basic Services Fund (BSF)

Medair

Ethiopia University Research Co-operation

United Nations Children's Fund (UNICEF)

Minnesota International Health Volunteers

GlaxoSmithKline

Malaria No More

Sudan Common Humanitarian Fund (CHF)

European Commission

We also thank those who have contributed to this report and appeared in the photos.

Malaria Consortium works with its partners across the world to combat the burden of disease in Africa and Asia

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Mozambique – Maputo, Inhambane, Nampula, Cabo Delgado, Sofala, Manica

Nigeria – Abuja, Lagos, Kano, Anambra (Awka) Katsina, Niger (Minna), Ogun (Abeokuta)

Southern Sudan – Juba, Aweil, Malakal, Bentiu

Uganda – Kampala, Gulu, Kotido, Arua, Wakiso, Hoima

Zambia – Lusaka

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