MADAGASCAR: Improving health, building dreams

Madagascar, one of the largest islands in the world, is a low-income country that has suffered from several years of reduced international aid following a political crisis in 2009. Only recently has the country regained the confidence of donors, and has gradually been able to reinforce public health measures. Madagascar is endemic for five neglected tropical diseases (NTDs): schistosomiasis (SCH), soil-transmitted helminths: ascariasis, trichuriasis and hookworm (STHs), and lymphatic filariasis (LF). In most endemic districts, people have gone untreated for many years.

The Schistosomiasis Control Initiative (SCI) is supporting the Ministry of Public Health and of Education (MoHE) to put in place one of the first mass drug administration (MDA) treatment campaigns of school-age children in the northern and western parts of the country (highlighted in blue on the map). Six districts have been mapped for diseases, and up to 90% of school-age children were found to be infected with one or more NTDs. The World Bank is supporting MDA in the south and eastern parts (highlighted in grey on the map).

MDA among school-aged children was scheduled for 13 November across 6 districts. A MoHE team carried out cascade training of teachers, community health workers and a number of district level officials in preparation for the SCH and STH MDA. Information, Education and Communication materials were distributed during the training sessions.

Dr Peter Jourdan (SCI Programme Manager for Madagascar), while accompanying a team from the MOHE met Stanislas Rakotomamondy, the Chief Education Officer of the district of Marovoay in the north-western part of Madagascar. “This day is unforgettable for us”, he says, standing in front of the villagers that have all gathered in the shade of the tree. “Treating these infections is not only important for our health, but also for economic development and education of our children.” Stanislas tells the community members that infected children are not able to study well at school, or even go to school. “Good health is necessary for the work and for the education of our people”.

Community meetings, flyers, posters and radio spots will support the rolling out of the drug distribution in order to reach the largest possible number of enrolled and non-enrolled school-age children (SAC).

SCI plans to continue and expand assistance to Madagascar in years to come.
ETHIOPIA: Mapping prevalence of schistosomiasis and soil-transmitted helminths

To determine the negative impact that NTDs have on the health and educational outcomes of school-age children, the Ethiopian Public Health Institute (EPHI) undertook a national schistosomiasis (SCH) and soil-transmitted helminths (STH) mapping programme from Dec 2013 to March 2014 to obtain comprehensive and up-to-date data on the scale of infection within the country.

The SCI, in collaboration with Imperial College London colleagues from the Partnership for Child Development (PCD) supported the EPHI-led mapping of SCH and STH prevalence, collecting data from 125,000 school-age children across 2,700 primary schools. The partners in the project took advantage of this extensive logistics platform to also collect invaluable information on the school-level water, sanitation and hygiene (WASH) infrastructure, and school-feeding requirements from all sites.

Over 180 technicians and parasitologists from around the country were trained on the necessary techniques before heading into the field. International experts from the Kenyan Medical Research Institute (Dr. Jimmy Kihara), the Ugandan Ministry of Health (Betty Nebatte), the SCI (Dr. Narcis Kabaterine), and from the University of Ghent (Dr. Bruno Levecke) played a central role in the training.

Forty-one field teams spread across the country and conducted the surveys between December 2013 and March 2014. Data were collected using smartphone technology, using the LINKS® system developed by the Task Force for Global Health in Atlanta. This allowed the instant upload of data to the central servers to check the progress of the activities.

Data from these surveys were combined with previous mapping results for Amhara Region, supported by The Carter Center. This region is being re-mapped in order to collect information on S. haematobium, WASH and school-feeding, which had not been captured previously.

The findings showed that of the 807 districts in the country, 335 warrant mass drug administration (MDA) for STH, and 297 for SCH. It is estimated that 24.9 million annual treatments are required for STH and 9.9 million treatments for SCH. These numbers are expected to rise as additional mapping results become available for approx. 150 more districts. The first round of MDA will be carried out during the coming months, delivering 3.6 million treatments for SCH and STH. The target has been set to deliver 7 million treatments in year 2, 10 million treatments in year 3 and 15 million in year 4. Reaching these targets is dependent on Ethiopia receiving sufficient donated PZQ and Mebendazole, and funding to expand coverage.

The mapping also highlighted that only 44% of schools across the country had a water source within the school compound and only 15% of these had water connecting to the school building.

The results from the national NTD mapping are being used by the Federal Ministry of Health and partners to set the direction of SCH and STH treatment programmes, as well as school health and nutrition programmes. These government programmes will benefit millions of children at-risk and contribute to Ethiopia's commitment towards Education for All.
DFID funded ICOSA Project expanded

In July 2014, DFID awarded SCI an additional £16.6 million of funding to expand coverage of treatments with PZQ against schistosomiasis, and ALB against intestinal worms.

In Phase One of this award (known as ICOSA and launched in 2010) SCI promised to deliver 75 million treatments across 8 countries. With the additional funding provided for Phase Two, SCI will be expanding coverage to include Ethiopia and DRC and will deliver 203.5 million treatments across 10 countries by 2018.

Ethiopia and DRC have been included in Phase Two to enable these countries to add schistosomiasis and intestinal worm control to the current onchocerciasis programmes and start implementation of their National NTD Control Programmes.

SCI’S PLANS AND ACTIVITIES (NOVEMBER 2014 - MARCH 2015)

Thanks to the enormous generosity of so many people across the world, SCI has made the following plans for the next 6 months.

**Burundi:** After 6 years of consecutive treatment for schistosomiasis (SCH) and soil-transmitted helminths (STH), SCI and the SCORE Project have re-mapped the entire country in order to reassess the burden of these diseases. Almost 400 schools were visited and children tested with Kato Katz (KK) and CCA urine dipstick tests. There were marked differences in the prevalence estimates of KK and CCA, which SCI plans to investigate further. The next mass drug administration (MDA) with praziquantel (PZQ) and albendazole (ALB) will take place during June 2015 in collaboration with the SCORE project. One District will be selected for intensive control aiming at elimination.

**Cote d’Ivoire:** Armed with maps of SCH distribution in Cote d’Ivoire, two rounds of treatment (MDA) were scheduled for 2014/15. Thanks to the financial support of private donors, 1.4 million children were treated in 17 districts in May. A further 3.5 million school aged children (SAC) in 47 districts received treatment funded by DFID in November/December 2014. 11 new additional sentinel sites were visited before this MDA. For the first time in Cote d’Ivoire, LF and Oncho treatments will be integrated with SCH and STH treatments in 30 districts.

**DRC:** The first treatment round for SCH and STH took place in 4 provinces in November 2014. This was a cost-sharing activity with The END Fund, CNTD, APOC and the Ministry of Health (MoH). SCI is providing technical support for SCH and STH sentinel sites, input on training for the integrated MDA, as well as financial support for SCH and STH MDA. Baseline data was collected from sentinel sites before the MDA to facilitate monitoring & evaluation of the programme going forward.

**Ethiopia:** Updated prevalence maps have now been completed and are informing where large-scale MDA will be conducted in late 2014 and beyond (see article on p.2). SCI’s Dr Michael French has relocated to Addis Ababa in order to provide the increased level of technical assistance requested by the Ministry of Health of Ethiopia. Merck/WHO are sending 5.9 million tablets of PZQ to Ethiopia in late 2014 and have pledged 13 million further tablets for 2015. SCI is providing funding to deliver almost 3.6 million treatments before the close of 2014. SCI is collaborating on a Partnership for Child Development (PCD) led comprehensive school health and nutrition programme, including deworming, WASH, and home-grown school-feeding. SCI, PCD, and in-country partners have initiated a Research Committee to maximise research and capacity development outputs from the programmes.
Liberia: The Ebola epidemic has placed a huge pressure on the health system in the country and the Ministry of Health (MoH) has suspended all routine activities, including SCH and STH treatment. 10 provinces in Liberia were due to receive treatment in November 2014, and the remaining counties were scheduled to finish mapping SCH and STH. Sadly everything is on hold at present. The country’s healthcare infrastructure will take a considerable time to recover which will have a significant impact on the programme. In addition survey methods will have to be altered as we will be unable to collect urine and stool samples for quite some time, as this is a transmission route of Ebola.

Madagascar: Two MDA’s will be conducted during 2014/15 with the aim of treating 1.2 million SAC for SCH and STH. After initial mapping conducted in October, the first round of MDA was carried out across 6 districts during November 2014 (see article p.1). This is the first time for several years that these areas will receive treatment. A larger second MDA is planned for the end 2014/early 2015 with support provided by SCI.

Malawi: By the end of June 2014 approximately 3.2 million school enrolled children (82% coverage) were treated and 250,000 non enrolled children were also reached. High-risk adults were also targeted with 650,000 receiving the drugs. The “MDA review” to discuss lessons learned took place in Lilongwe in November. The next nation-wide MDA targeting school-age children (SAC) and adults is scheduled for May 2015.

Mozambique: 3.4 million children and high-risk adults were treated for LF and SCH in November 2014 with a further 0.5 million children to be treated for SCH only in non-LF endemic areas across 19 districts. In early 2015 5.7 million SAC in 108 districts will be targeted – in 18 districts only PZQ will be delivered, in 58 districts only ALB will be delivered and in 32 districts both PZQ and ALB will be delivered.

Niger: A joint MoH/RTI/FHI/SCI meeting took place in Niger in November 2014 at which the plans for the next 12 months were decided. A community-wide MDA will take place in December 2014, and a coverage survey will be conducted with support provided by SCI.

Rwanda: SCI, with funding from The END Fund and assistance from the SCORE Project, has re-mapped the entire country for SCH and STH infections. During 2014, a national MDA of school attending children was conducted in October, and the next MDA is scheduled to take place in mid 2015. Capacity building training for ongoing control and surveillance of NTDs endemic to Rwanda will be taking place before the end of 2014.

Senegal: SCI is assisting the MoH with capacity building for monitoring and evaluating the impact of MDA. Support for MDA is provided by USAID. SCI’s activities complement the work of other partners and overall the schistosomiasis programme is a very good example of coordination and integration of resources.

Sudan: In October 2014 Professor Fenwick responded to a request from the Sudan Government and visited Khartoum to offer support for a schistosomiasis treatment programme. SCI has now agreed to support mapping in areas still in need of data, participate in a stakeholders meeting with NTD officers from the districts, and assist with MDA in January 2015 targeting 4.3 million children using 11 million tablets of PZQ donated by Merck.

Tanzania: Mwanza will receive another round of treatment in early 2015. In addition, six regions around Lake Victoria (Mara, Kagera, Geita, Shinyanga, Kigoma, Simiyu) that have not received treatment since 2007 are scheduled to receive MDA in 2015. In preparation, SCI will be participating in high-level sensitisation and advocacy meetings in 2015 in all six regions. Expanding to these 6 regions means that Tanzania will have achieved its goal and treated all areas of highest burden of disease.

Uganda: Following Uganda’s biennial treatment plan for low endemic areas, no further MDA will take place in areas that received treatment during Feb/March 2014 until 2016. However in October/November 2014, on-going impact evaluation activities took place in the sentinel sites with 60,000 children receiving treatment. During July 2015, a further 3 districts will be mapped and 6 districts re-mapped to determine treatment strategies for any sub-counties found to be endemic for SCH.

Yemen: Sadly due to heightened political tension, Dr. Dhekrar Annuzaili, was evacuated from Sana’a in October. She used this unfortunate opportunity to come to London for training and consultation. She has now returned to Sana’a and treatment of SAC has been restarted during December.

Zambia: 4 provinces were due to be offered MDA during July 2014, the school health month, but reports suggest that only “piecemeal treatments” – about 60,000 – were successfully delivered. In November 2014, a full MDA against Lymphatic Filariasis (LF) took place, on a cost share basis, providing deworming to 1.4 million SAC. In addition 1.5 million high-risk adults will be treated in early 2015 with PZQ for schistosomiasis.
SCI NEW FACES

**Dr Michelle Clements**, SCI’s Senior Biostatistician, joined in May 2014. Michelle has a background in mathematics and statistics with an emphasis on the data analysis of ecological studies. Following her PhD in Evolutionary Ecology at Edinburgh University, Michelle spent two years working as a biostatistician in agriculture before transferring to epidemiology with SCI. Michelle’s role focuses on the design of data collection methods, and the analysis of the resulting datasets, particularly in relation to mapping and M&E activities.

**Dr Peter Jourdan** joined SCI in July 2014 as Francophone Programme Manager for Madagascar & Niger. Peter completed his medical training in Norway, Cameroon & Zimbabwe. Throughout his training and work experience he has taken a strong interest in the control of NTDs, which resulted in his PhD on the potential effects of schistosomiasis on HIV infection. Prior to taking up the role at SCI Peter worked as programme officer for the United Nations World Food Programme in Burkina Faso.

**Antonio Zivieri** joined the SCI as a contractor in February 2014. Based in Bujumbura (Burundi) he is currently supporting the Burundi programme. Before joining SCI, Antonio worked as a pharmacist in Italy for a long time, and afterwards in the non governmental sector in several African countries, mainly in emergency support.

**Dr Eugene Ruberanziza** (MD, MScPH) is currently working in Rwanda on the NTD programme for SCI. After a decade of work on NTDs, Eugene has joined SCI as a contractor to support the smooth implementation of the NTD programme in Rwanda. He is currently based at the MoH in Kigali.

**Mr. Markos Sleshi** (Bsc, Msc) is currently engaged in schistosomiasis and soil transmitted diseases control efforts in Ethiopia. Previously he worked for many years at EPHI on different disease control areas; malaria, schistosomiasis and onchocerciasis. He is now working as a consultant for SCI to support the implementation of the schistosomiasis and soil transmitted helminths control programme in Ethiopia. He is currently based at FMOH in Addis Ababa.

---

**Polygeia**, an organisation designed to empower students to research and write policy on global health issues, on 15 November 2014 launched the latest social media stunt with integrity, raising money for SCI for deworming. So far £275 has been raised for SCI.

Please watch, have a go, nominate, donate and forward on: [https://www.youtube.com/watch?v=I4MxhgFRp90](https://www.youtube.com/watch?v=I4MxhgFRp90). To make a JustTextGiving donation to SCI which will be registered straight on their [JustGiving page](https://www.justgiving.com/SCI) text WORM55 and an amount of £1, £2, £3, £4, £5 or £10 to 70070.
LIVE BELOW THE LINE 2014 RAISED £21,161.50

A HUGE thank you to the 47 fantastic SCI supporters who lived on a budget of £1 a day for all their food and drink for 5 consecutive days and raised £21,161.50 for SCI.

Lovkush Agarwal (a student in Leeds) took the challenge for the first time this year and was struck by how simple it is for us to get enough food for 5 days on such a limited budget.

Having completed the challenge he said “to me, this experience added emphasis to just how lucky we are in comparison to those in extreme poverty: with minimal thought, planning and effort, I was able to stroll into my local supermarket and get enough food for five days with “only” five pounds. The amount of choice I had, even with this limited budget, can make one’s head spin, whereas those in poverty have almost no choice and are forced to be content with whatever happens to be available.”

Behind the scenes at SCI

We are very fortunate at SCI to have spirited motivated supporters who are passionate about what we do and the impact our work has on the poorest of the poor. At times we have called upon them for help and they have not let us down.

Dr Anna Phillips put out a call across her network for pro bono translation work for materials she had developed for SCI’s work in Cote d’Ivoire, Niger and Burkina Faso. SCI’s programme managers are a very resourceful bunch, trying to keep costs down wherever possible in order to maximise the number of people SCI is able to reach and treat for schistosomiasis and STH.

Mathilde as a freelancer occasionally has some free time for additional projects and felt that the work of SCI fitted well with her chosen specialism, the fields of health and environment, in particular infectious diseases and wildlife conservation. Mathilde accepted the invitation as she saw she could play a vital role in helping SCI to improve the lives of even more people. The translation work Mathilde has undertaken pro-bono for SCI has specifically supported the work of people in country carrying out screening and mapping of SCH and STH.

Mathilde has seen her work for SCI as reciprocal as she has learnt more about neglected tropical diseases and worm infections, adding to her knowledge base for other work she undertakes in her role as a conference and public service interpreter as well as translator.

Mathilde continues to help SCI whenever possible. We thank her for the crucial part she is playing in making SCI programmes effective and successful across sub Saharan Africa.

SCI to benefit from the sale of gift calendars by Pomegranate

Advocacy & Fundraising can take many forms. Inspired by advent calendars, Pomegranate gift calendars include the option of selecting one or more “good deed” gifts, of which a portion of sales goes to the charity represented by the gift. SCI has been included in the “Community” category as we “have a big impact on the communities” where we work. Click here for more information.
FUNDRAISING (sadly we had to be selective)

On 5 May Nathan, Sophie and Thomas from Medsin Queen’s University Belfast ran the Team Relay at the Belfast City Marathon and raised £115.01 for SCI. SCI is fortunate to have been chosen as medsinQUB’s beneficiary charity this year! https://www.justgiving.com/Thomas-Thompson

“One thousand miles of bicycle based worm killing!” Johnny, George and Phil hate worms and love cycling. The three cycled from Land’s End to John O’Groates between 31/5-14/6/2014 and it rained every day bar one! George fell ill and couldn’t complete the trip, Johnny’s gears snapped outside Wensleydale and Phil sailed over his handlebars in Kingussie! The good news.. they smashed their target and raised £781.52 for SCI! https://mydonate.bt.com/fundraisers/noworms

Imperial Alumni Adam Johnson cycled from Land’s End to John O’Groates and raised £565 for SCI! Accompanied by his father and brother, Adam set off on 8 June and cycled the length of Great Britain in 15 days! https://www.justgiving.com/AdamDoesLeJog

6 brave SCI staff members took part in the 2014 London Triathlon
Six members of SCI, split into two relay teams, endured sweat and pain and raised £16,805.26 for SCI!! A huge thank you to an anonymous donor who matched what the teams raised.

Ben Mellor hates swimming pools but loves swimming so he signed up to do the Great Northern Swim on 14 June. Ben completed his 1 mile swim in 40mins 49secs and raised £185 for SCI. Ben said “It seemed fitting to use my luxury of being able to swim in clean open water to help people who aren’t so fortunate”. https://mydonate.bt.com/fundraisers/benmellor

Kerry Thorne completed the Great West Run on 19 Oct 2014
Kerry, had never heard of schistosomiasis until she started medical school. She chose to support SCI “because diseases affecting developing countries need money”. Kerry raised £158 for SCI! https://www.justgiving.com/Kerry-Thorne

Arthur Snell & Michael Toolan ran the Stroud Half Marathon on 26 Oct 2014
Former British High Commissioner to Trinidad and Tobago, Arthur Snell, chose to run for SCI having heard the Tim Harford BBC Radio 4 Programme. Having worked in some regions of West Africa affected by schisto he knew all about the horrific effects of the disease. Michael Toolan ran for SCI too. Together they raised £2,340.88! https://www.justgiving.com/arthur-snell

Olivia Cramer and her Dad climbed Kilimanjaro on 3 Nov 2014
With little training, hiking boots that she hadn’t had time to break in and a partially infected kidney, Olivia completed her climb and raised a staggering £7,563.21 for SCI, incredible! https://www.justgiving.com/olivia-cramer