SCI Foundation

IMPROVING HEALTH
UNLOCKING POTENTIAL

ANNUAL REPORT 2019/20

WELCOME FROM OUR CEO

It is with great excitement that I share with you SCI Foundation's first-ever annual report.

It has been an exceptional 12 months for our team. Having started the year in our previous location at the Imperial College London St Mary's campus, we ventured to Kennington as a newly independent organisation in July 2019.

But the changes have gone far beyond a mere office move. This year has seen many great achievements, some of which we have collated in this report:

- We supported the treatment of over 48 million people and delivered 18 surveys.
- We completed our transformation into an independent, accountable and effective organisation. We appointed a new Board of Trustees, built up our governance structure and grew our team (see p3). I am delighted to say that our ongoing activities were not adversely affected by these governance changes – a testament to the commitment and skill of our team.
- We began implementation of the UK Aid flagship neglected tropical diseases programme, Ascend.
- We began our journey towards offering a comprehensive approach to disease control and elimination, while committing to increasing sustainability and strengthening health systems (see p8 for details of our new initiative on female genital schistosomiasis).

Of course, this year came with considerable challenges. Most significantly, the COVID-19 pandemic currently sweeping the globe has inevitably affected our operations too. Treatment campaigns and surveys scheduled towards the end of the financial year were delayed or cancelled, and our team will be working from home for the foreseeable future. I am pleased to say, however, that at the time of writing this report, activities are resuming and the team has been able to continue its work to the highest standards.

I hope you enjoy this report and look forward to sharing even more exciting news next year.

Dr Wendy Harrison
Chief Executive Officer

SCI FOUNDATION: OLD NAME, NEW SPIRIT

An independent organisation

Having been founded, incubated and successfully scaled up within Imperial College London since 2002 as the Schistosomiasis Control Initiative (SCI), we became a fully independent charity – SCI Foundation – in July 2019. Our team of dedicated staff transferred seamlessly to the new entity and we relocated our headquarters from Paddington to Edinburgh House in Kennington without disruption to our operations.

CEO Dr Wendy Harrison and founder Professor Alan Fenwick OBE inaugurate the new SCI Foundation office

NEW GOVERNANCE STRUCTURE

Day-to-day management of SCI Foundation is undertaken by the Senior Management Team, comprised of the CEO and the Directors of the four main functions:

- **Policy and Communications,** which includes development of key policy positions, advocacy and communications.
- **Finance and Operations,** which includes all operations, finance, assurance and reporting.
- **Programmes,** which advises and supports country partners on the implementation of the highest-quality neglected tropical disease (NTD) programmes.
- **Monitoring, Evaluation and Research,** which supports country programmes to implement highly effective monitoring and evaluation strategies and generates policy relevant evidence.

OUR BOARD OF TRUSTEES

SCI Foundation has a Board of Trustees committed to maintaining high standards of governance. Four of the current Trustees held advisory roles with the organisation while it was still part of Imperial College London. All Trustees are non-executive, are drawn from diverse international backgrounds and bring a broad range of relevant experience and skills.

Professor the Lord Trees
BVM&S, PhD, DVetMed (hc), DVMS, MRCVS, FMedSci, Hon FRSE – Chair

Dr Mwelecele Ntuli Malecela
Director, Dept of Control of NTDs, WHO – Observer to the Board of Trustees

Jon Gorrie
Former Partner, KPMG – International Development

Justine Frain
Former Vice President, Communications and Community Partnerships, GSK

Peter Dranfield
Former Vice President, British Gas

TACKLING PARASITIC DISEASES THROUGH OUR NEW VISION AND GOALS

At SCI Foundation, our mission is to prevent and treat neglected infectious diseases through comprehensive and impactful health programmes.

We put our mission into practice through robust goals which are driven by our vision: a world free of preventable disease, in which everyone everywhere can reach their full potential.

OUR VALUES

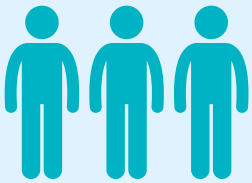
We are a team of people who are passionate about creating a world free of preventable disease. Everyone who works at SCI Foundation, as well as our partners and supporters, shares these same values and beliefs:

1. EQUALITY
We are a small and dynamic team, in which every staff member's contribution is crucial and equally valued.

2. INCLUSION
We are working towards a fairer world where no one is left behind.

3. TRANSPARENCY
We believe that openness and transparency create trust and a culture of continuous improvement.

61.5m
TREATMENTS SUPPORTED



EVERY £1
DONATED CAN TREAT UP TO
3 PEOPLE

145,000
PEOPLE TRAINED

13
COUNTRIES

HIGHLIGHTS

GOAL 1

Those affected by parasitic worm infections receive treatment and care.

Key highlights:

- Supported Ministries of Health (MoHs) in 13 countries to deliver treatment for parasitic infections to over **48 million** people.
- Supported the training of almost **145,000** community drug distributors, health workers, teachers, community mobilisers and supervisors involved in drug distribution campaigns.
- Conducted nine epidemiological surveys, demonstrating sustained changes in prevalence and intensity of schistosomiasis and soil-transmitted helminthiasis infections over time.

GOAL 2

Communities change their behaviours to reduce the risk of infection.

Key highlights:

- Developed **social assessments** looking at treatment uptake during mass drug administration campaigns (MDAs) in Niger, Malawi and Madagascar, and consulted with MoHs on how results will inform programme optimisation.
- Led two **systematic reviews** on schistosomiasis control in low and middle-income countries, one in partnership with the **Global Schistosomiasis Alliance**.

GOAL 3

Environmental changes are put in place to reduce the transmission of infection.

Key highlights:

- **Supported collaboration** between NTD programmes and water, sanitation and hygiene (WASH) agencies.
- Initiated the development of **One Health guidance and advocacy** through NGO networks and engagement with the World Health Organization (WHO) and the Lancet Commission on One Health.

GOAL 4

Everyone has access to all services that can reduce the risk of – and alleviate the problems associated with – infection.

Key highlights:

- Worked as a key member of the **Pediatric Praziquantel Consortium,** which is working to develop a praziquantel (PZQ) formulation suitable for the treatment of schistosomiasis among **preschool-age children** (3 months to 6 years) in endemic countries.
- Contributed to increased awareness and prioritisation of **female genital schistosomiasis** (FGS) within the schistosomiasis and broader health and NTD community.

OUR REACH

SCI FOUNDATION SUPPORTED TREATMENTS IN 2019-20

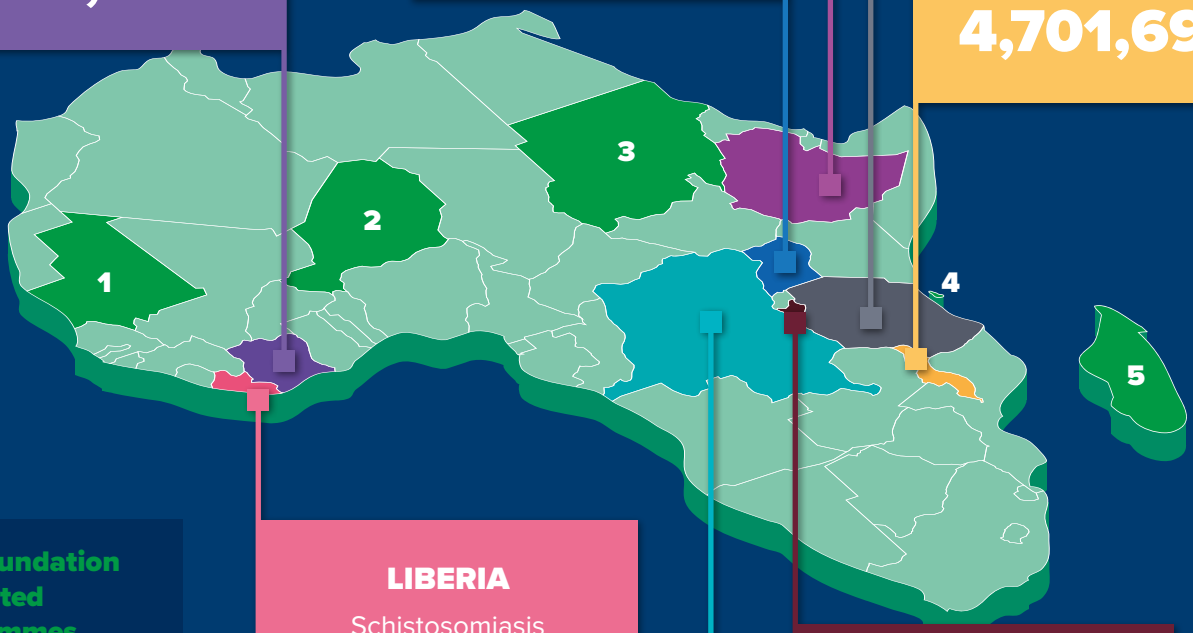
ETHIOPIA
Schistosomiasis
4,715,762
Soil-transmitted helminthiasis
20,335,767

TANZANIA
Schistosomiasis
61,446
Soil-transmitted helminthiasis
1,077,501

CÔTE D'IVOIRE
Schistosomiasis
1,782,425
Soil-transmitted helminthiasis
133,364

UGANDA
Schistosomiasis
2,589,972

MALAWI
Schistosomiasis
4,784,184
Soil-transmitted helminthiasis
4,701,698



LIBERIA
Schistosomiasis
539,432
Soil-transmitted helminthiasis
22,714

BURUNDI
Schistosomiasis
1,493,458

SCI Foundation supported programmes affected by delays:

1. **MAURITANIA**
2. **NIGER**
3. **SUDAN**
4. **ZANZIBAR**
5. **MADAGASCAR**

DEMOCRACTIC REPUBLIC OF THE CONGO

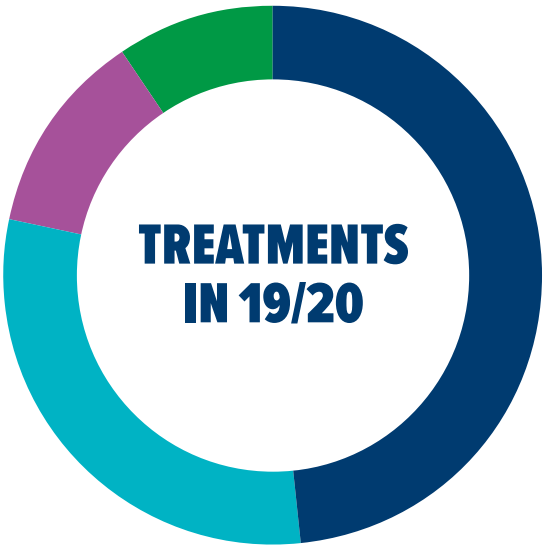
Schistosomiasis
2,410,137
Soil-transmitted helminthiasis
3,648,327
Onchocerciasis
5,795,665
Lymphatic filariasis
7,507,319

Between April 2019-March 2020, SCI Foundation supported governments across sub-Saharan Africa in their preparation, implementation and monitoring of MDAs for schistosomiasis and soil-transmitted helminthiasis. Six countries completed treatment delivery as planned, with Sudan's MDA continuing after a delay due to political unrest earlier in the year; however, the onset of the COVID-19 pandemic resulted in interruptions and delays to many programme activities in others.

In Ethiopia and Tanzania, the MDA was underway, but was suspended when school closures and mitigation measures to reduce the spread of COVID-19 were introduced. Treatments in Madagascar, Mauritania, Niger and Zanzibar were poised ready to begin, but had to be postponed in line with WHO COVID-19 guidance.

In spite of these challenges, over 48 million treatments were safely delivered, primarily to school-aged children and adolescents who are at highest risk of infection. Additionally, in the Democratic Republic of the Congo, SCI Foundation supported NTD treatments beyond schistosomiasis and soil-transmitted helminthiasis at the MoH's request, including 5,795,665 for onchocerciasis and 7,507,319 for lymphatic filariasis.

There have been many challenges for SCI Foundation and its MoH partners to navigate in relation to COVID-19 this year, but close collaboration continues to safely restart MDAs and maintain the gains made towards global control and elimination targets.



Soil-transmitted helminthiasis	29,919,371
Schistosomiasis	18,376,816
Lymphatic filariasis	7,507,319
Onchocerciasis	5,795,665

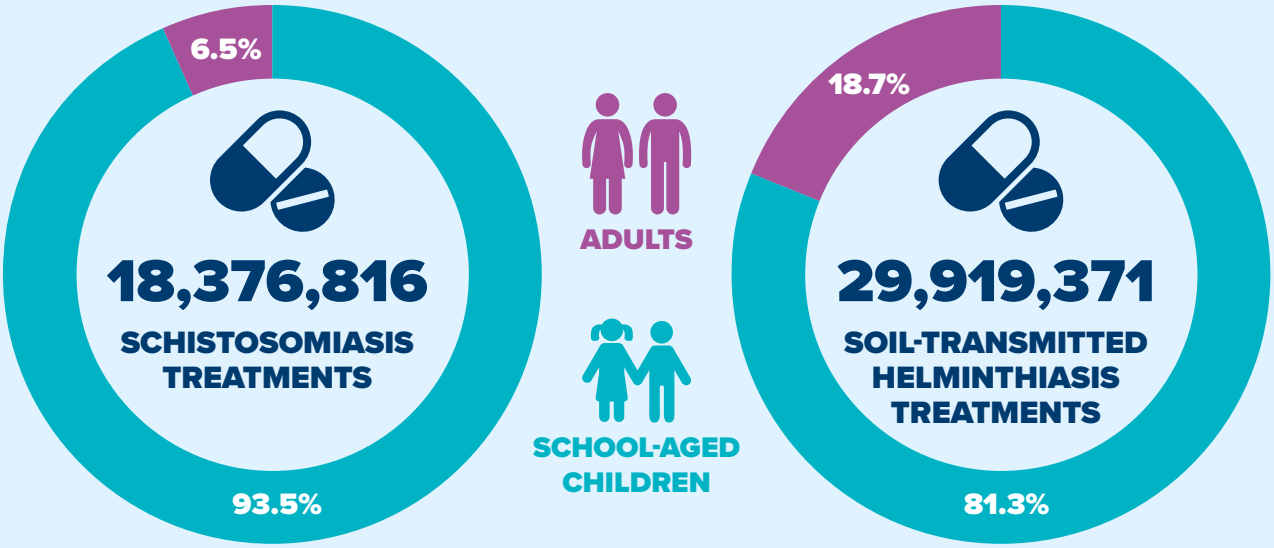
TOTAL NUMBER OF TREATMENTS SUPPORTED

61.5m

TOTAL NUMBER OF PEOPLE REACHED

48m

SCHISTOSOMIASIS AND SOIL-TRANSMITTED HELMINTHIASIS TREATMENTS PROVIDED IN FY19/20



SCHISTOSOMIASIS FACTS AND STATS

It is estimated that **200,000 people die** from this disease each year.[1]

At least 90% of those requiring treatment for schistosomiasis live in Africa.[1]

240 million people are affected globally.[1]

FEMALE GENITAL SCHISTOSOMIASIS FACTS AND STATS

Almost 56 million girls and women in sub-Saharan Africa are estimated to be affected by FGS.[2]

FGS occurs in **up to 70% of women** infected by schistosomiasis.[3]

FGS is underdiagnosed, with serious implications for women's reproductive health.[4]

FGS leads to **infertility** and can increase the risk of **HIV infection**.[2]

FGS leads to stigma, as symptoms are similar to those caused by sexually transmitted diseases;[5] and to social exclusion due to infertility, marital discord and depression.

1 https://www.who.int/health-topics/schistosomiasis#tab=tab_1
2 https://www.unaids.org/en/resources/documents/2019/female_genital_schistosomiasis_and_hiv
3 https://www.eliminateschisto.org/news-events/events/female-genital-schistosomiasis-opportunities-for-research
4 https://www.who.int/schistosomiasis/genital_schistosomiasis/en/
5 https://frontlineaids.org/schistosomiasis-the-unfamiliar-disease-that-increases-hiv-risk/

HIGHLIGHTS OF THE YEAR 19/20

1. FOCUSING ON FGS

In September 2019, the Coalition for Operational Research for NTDs partnered with SCI Foundation and the European Congress on Tropical Medicine and International Health to bring together experts in NTDs, HIV, gynaecology, child and adolescent health and related global health fields, as well as the Global Schistosomiasis Alliance, COUNTDOWN and the WHO, for a first-of-its-kind meeting on FGS.

The aim of the meeting was to identify priority research questions regarding the measurement, treatment and control of FGS in order to guide the operational research agenda on this neglected gynaecological disease. The meeting examined opportunities to engage with at-risk communities, gynaecological services and HIV programmes. SCI Foundation led on programmatic approaches for addressing FGS, including strategies for prevention, treatment and morbidity management.

Strong partnerships have been forged as a result of the meeting, and SCI Foundation has secured funding for operational research focusing on the integration of FGS prevention and treatment with other women's health services.

Promoting universal health coverage is at the heart of what we do at SCI Foundation. Focusing global attention on the complex issue of FGS and its impact on the overall health, safety and equality of women is key. FGS is now closer to securing its place on the global health agenda.

2. A PARTNERSHIP TO DEVELOP TREATMENT FOR INFANTS

The Pediatric Praziquantel Consortium was founded in 2012 as a public-private partnership that aims to develop, and make accessible, a PZQ formulation to treat and prevent schistosomiasis in infants and toddlers. Currently no suitable treatment is available for this age group.

The formulation is a small, orally dispersible tablet, more palatable than the current school-aged children and adult formulation and able to withstand warm climates. This infant formulation will help to reduce the global burden of schistosomiasis by addressing the medical needs of infected pre-school-aged children.

The consortium established a paediatric drug development programme, including pre-clinical and clinical development, registration and access.

SCI Foundation has been a consortium partner since 2016 and focused its efforts last year, coordinating work with PPC partners (Lygature, Merck, Astellas, Swiss Tropical and Public Health Institute, Farmanguinhos, Kenya Medical Research Institute and Université Felix Houphouët – Boign Côte d'Ivoire) developing a funding and implementation strategy, to ensure that once the formulation is available, it will be made accessible in various countries in Africa.

SCI Foundation has been working on the planning of a pilot and implementation programme in priority countries in Africa.

3. REVIEWING PROGRESS ON NTDS

In July 2019, SCI Foundation attended a meeting in Ethiopia, organised by the Expanded Special Project for Elimination of Neglected Tropical Diseases (ESPEN), to review the challenges and progress made by the MoHs across the African region to control and eliminate NTDs. The meeting provided an opportunity to build on lessons learned and capitalise on successes, laying the foundation for the next WHO NTD roadmap (2021-2030).

One of the challenges for the elimination of schistosomiasis identified by the participants was the lack of a paediatric formulation of PZQ to treat children under the age of 5.

During the meeting, SCI Foundation provided input into the draft WHO NTD roadmap. Key items highlighted at the meeting included:

- The ongoing need to increase the sustainability of NTD programmes
- Calls for more inclusion and partnership with WASH programmes
- The need for advocacy around gender equity and reaching marginalised groups to leave no one behind
- The need to continue aligning with Universal Health Coverage and the Sustainable Development Goals.

SCI Foundation also supported MoH programme managers in reviewing essential tools developed by WHO, including the Joint Application Package upload tool, which is used to apply for NTD drug donations; and the ESPEN Collect tool, used to map epidemiological results from surveys conducted for monitoring and evaluation.

The meeting culminated in an agreement from all partners to work towards the targets set out in the new WHO NTD roadmap to achieve goals for NTDs.

IN FOCUS: MALAWI

COUNTRY PROFILE

POPULATION: 17.5 million.[1]

ENDEMIC NTDs: Schistosomiasis, onchocerciasis, soil-transmitted helminthiasis and trachoma. **11,435,030 people** require treatment for at least one of these NTDs.[2]

ENDEMIC FOR SCHISTOSOMIASIS (UROGENITAL AND INTESTINAL): All 29 of Malawi's health districts.

Malawi: achievements in 2019/20

One of the first major activities to take place during the year was a **reassessment mapping survey** to measure the impact of the programme after multiple rounds of treatment, and to ensure the programme continues to have a maximum impact on people infected. Given the scale of the exercise, the reassessment mapping took place in three phases, completing in October 2019. Over the course of the survey, four teams from the MoH visited 125 schools, often negotiating difficult terrain, and collected and analysed stool and urine samples from 3,750 children. Through each stage of the survey process from training to analysis of results, SCI Foundation supported the MoH team to deliver quality outputs and ensure country ownership of the data.

During October and November 2019, the **annual round of MDA** of the drugs PZQ and albendazole (ALB) took place in all districts of Malawi. All school-aged children were targeted, as well as adults identified at risk. The MDA took place in schools, where health workers and teachers worked together to deliver treatments to enrolled children, as well as children who were not attending school or were otherwise absent during the activity. In total, 4,784,184 people were treated.

After the MDA, SCI Foundation supported the MoH to undertake a **coverage survey** in four districts (January-February 2020) to determine what proportion of individuals needing treatment were actually reached, whether there were differences in treatment coverage between different populations, and the reasons for high or low coverage. The survey teams visited 1,000 households and interviewed 1,586 children, and found that coverage for both PZQ and ALB was **above the WHO coverage target of 75%** in all surveyed districts. There was no significant difference in reaching boys or girls, although school-attending children were significantly more likely to receive treatment compared with children who did not attend school. SCI Foundation will work with the MoH to investigate the reasons for this and plan strategies to address this in future treatment rounds.

Completion of the reassessment mapping provided an opportunity to reflect on results and plan ahead. A one-day **results workshop** was jointly facilitated by SCI Foundation and the MoH in January 2020. It focused on how the reassessment results could be used to inform the national treatment strategy, as well as how the findings and recommendations from other surveys could be used for programme planning. The uptake of the survey results could then ensure that treatments are delivered to those who need them and that donated drugs are allocated efficiently.

1 www.nsomalawi.mw/images/stories/data_on_line/demography/census_2018/2018%20Malawi%20Population%20and%20Housing%20Census%20Main%20Report.pdf
2 https://espen.afro.who.int/countries/malawi

ASCEND WEST AND CENTRAL AFRICA
WORKING TOWARDS ELIMINATING 5 NTDS IN 13 COUNTRIES

Accelerating the Sustainable Control and Elimination of Neglected Tropical Diseases (Ascend) is an ambitious 3-year programme (2019-2022) funded by UK Aid through the Foreign, Commonwealth and Development Office.

The Ascend West and Central Africa programme works towards eliminating five painful and poverty-trapping NTDs in the world's poorest countries. It aims to deliver over 300 million treatments for NTDs in 13 countries.

The programme focuses on lymphatic filariasis, onchocerciasis, trachoma, schistosomiasis and soil-transmitted helminthiasis – offering an opportunity to redouble efforts and increase momentum towards elimination goals.

SCI Foundation is part of a consortium of partners led by Sightsavers, along with Mott MacDonald and the Liverpool School of Tropical Medicine. SCI Foundation is leading efforts in Côte d'Ivoire, Liberia and Niger.

UKaid
from the British people

Ascend
West and Central Africa

IN 2019/20 SCI FOUNDATION:

1. Led a schistosomiasis MDA treating 1,782,425 people including school-aged children and adults in Côte d'Ivoire. A post-MDA coverage evaluation survey, conducted by an independent local organisation, confirmed that the reported results had surpassed the WHO minimum coverage of treating more than 75% of school-age children with >90% coverage.

2. Alongside our Ascend partners, supported the MoH in Liberia to deliver treatments to 5,599,611 individuals of all ages for lymphatic filariasis, onchocerciasis, schistosomiasis and soil-transmitted helminthiasis. This surpassed targets by almost 1 million treatments.

3. Supported training for 79,959 community drug distributors, 7,205 health workers and 5,314 teachers in methods to implement effective MDA campaigns across the Democratic Republic of the Congo, Liberia and Côte d'Ivoire.

4. Conducted a quality standards assessment tool (QSAT) in Côte d'Ivoire to measure and monitor the quality of the programme in relation to service delivery, heath workforce, programme effectiveness and WASH. Recommendations from this report are still under technical review, but will guide the MoH NTD programme going forward.

RESEARCH

SCI Foundation won funding for and started several novel research projects. The results and evidence they generate will guide more effective programme delivery.

FGS PILOT STUDY: Developing processes that facilitate the integration of PZQ for FGS into the national health system. **CÔTE D'IVOIRE**

ADOPT: Working with an international consortium to develop, register and provide access to a suitable paediatric PZQ formulation for appropriate treatment of pre-school-aged children globally. **CÔTE D'IVOIRE, KENYA**

MORBID: Morbidity Operational Research for Bilharziasis Implementation Decisions – a project to define the association between morbidity and prevalence to set targets and inform programmatic decision making. **MALAWI**

MEASURING OUR WORK

WHAT WE DO

Following WHO guidelines[1] for process, performance and impact monitoring, the Monitoring, Evaluation, and Research (MER) team supports country programmes to plan, implement and analyse three main types of programmatic surveys to answer key questions:

- **Who received treatment?**
  Coverage evaluation surveys[2] are conducted in households and measure what proportion of a target population received treatment during the last MDA in a selection of areas. These allow the MoH to assess the quality of the implementation process in terms of achieving targets, and give an indication of the quality of the country's reporting process.

- **What impact has treatment had on the disease (in terms of the number of people infected and the severity of those infections)?**
  Sentinel site surveys follow a random selection of schools across a country or treatment area over the course of a programme. These indicate the overall progress of a control programme (whether the prevalence and intensity of infection are falling), as well as highlighting potential problem areas.

- **After continued treatment, where does the disease persist geographically?**
  Reassessment surveys allow a broader and more robust assessment of the impact of a programme following several rounds of treatment and provide the data that MoHs need to determine future treatment strategies.

In the year ending 31 March 2020, we successfully supported nine country partners in completing 18 programmatic surveys.

HOW RESULTS ARE DISSEMINATED

Key findings, clean datasets and detailed analysis reports are developed with and shared with the MoHs after each survey. SCI Foundation works with country programme managers to interpret the data and produce actionable recommendations. We support countries to submit data to the ESPEN data portal,[3] making it publicly available.

ADDITIONAL ACTIVITIES TO SUPPORT PROGRAMME EFFECTIVENESS

Social assessments

SCI Foundation has completed three in-depth social assessments in Malawi, Niger and Madagascar, to understand people's knowledge and attitudes towards schistosomiasis and MDA, and to understand the broader cultural, social and policy barriers and challenges to MDA participation. One of the outputs of this work is the ongoing development of a rapid social assessment tool that can be used to complement coverage evaluation surveys.

Value for money

SCI Foundation develops and tracks indicators to monitor country programmes' value for money, ensuring that each pound invested is maximised to improve the lives of people and communities. Programmes are assessed in terms of economy, efficiency and effectiveness.

WASH

SCI Foundation is working with the MoH in Uganda to facilitate collaboration between public health and WASH stakeholders. The MER team has helped to develop decision-making, data collection and visualisation tools to support joint planning meetings.

Sharing technical expertise

The MER team sit on various technical advisory groups for the MoH in Ethiopia, Kenya, Burkina Faso and Uganda. In addition to participating on several of WHO's technical groups and Global Schistosomiasis Alliance working groups for M&E and Behaviour Change.

1 www.who.int/neglected_diseases/resources/9789241548267/en/
2 www.ntdsupport.org/resources/coverage-survey-builder-coverage-evaluations
3 https://espen.afro.who.int/

THANKS TO OUR SUPPORTERS

“I have donated to SCI Foundation for a couple of years now, having come across a recommendation for their work in the ‘Give Well’ top charities listings. It is important to me to know that the money I am donating is having the maximum impact and I believe that is what SCI Foundation offers, through their support to government-run deworming programmes.”

M. Jessop

“The Effect Foundation supports SCI Foundation for the important work they do, tackling one of the world’s most neglected problems, and for the outstanding cost effectiveness of their programmes and operations.”

A. Stråbø Normann, CEO, Stiftelsen Effekt

“Happy to be supporting the incredible work you do. Prevention and treatment of non-lethal or less-lethal diseases isn’t glamorous – that’s exactly why we need more distributed fundraising for these causes. Keep up the great work!”

A. Krishnan

“I support SCI Foundation as the main part of my Giving What We Can pledge. I chose SCI Foundation as providing one of the most effective interventions to allow me to do the most good with my donations, based on GWWC recommendation and evidence from Give Well.”

T. Adye

“SCI Foundation ticks all the boxes for us, with the most cost-effective approach and efficient reach, and we are consistently impressed by Wendy and her team. The knowledge that our money is working hard to combat schistosomiasis has made us happy to be supporters for the last five years.”

Helen & Michael Brown Charitable Trust

“For under £1.00 they can save a person for a year from the horrible effects of a parasitic worm infection. This must be among the best uses for any charitable donation. I am pleased to be a regular donor to SCI Foundation and wish them every success for their future plans.”

Anonymous Regular Donor

We thank all our funders for supporting our work this year. Your valuable contributions enable SCI Foundation to work towards a world free of preventable disease.

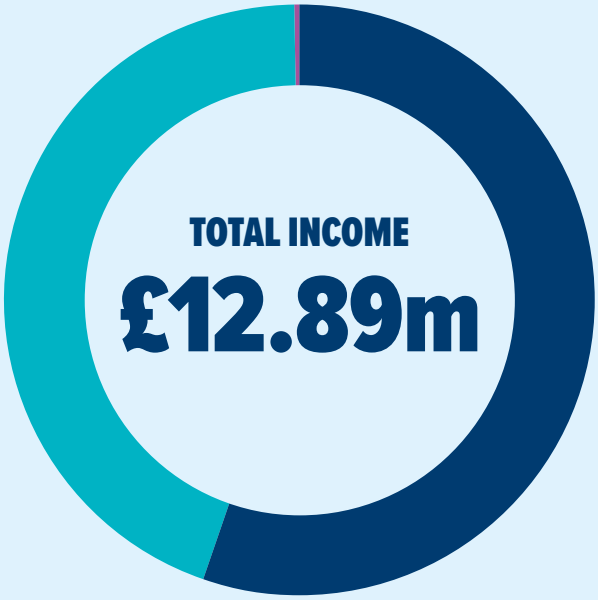
FINANCIAL REVIEW

SCI Foundation was established within Imperial College London in 2002 as the Schistosomiasis Control Initiative. SCI Foundation was incorporated as a company limited by guarantee on 18 January 2019 and was registered by the Charity Commission as a charity on 21 February 2019. SCI Foundation continued its operations from Imperial College London until July 2019, when employees were officially transferred from Imperial College London to SCI Foundation.

During the transition period (January to July 2019), most financial transactions went through Imperial College London, while activities delivered under the UK Aid Ascend programme were funded by the NGO Sightsavers, acting as the lead partner of the programme delivery consortium in which SCI Foundation is a partner.

This financial review encompasses the combined operations of SCI Foundation throughout the reporting period – whether delivered directly by SCI Foundation or under Imperial College London before and during the transition to SCI Foundation, or by Sightsavers directly to our partners – in order to provide a full picture of operations.

INCOME 2019–20



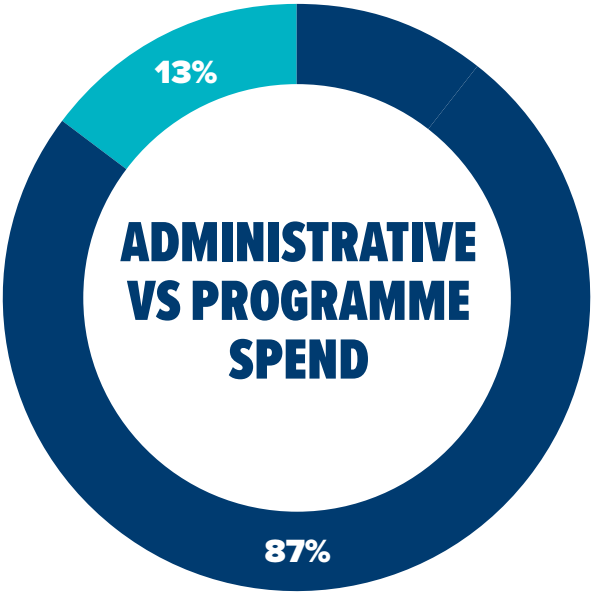
Charitable activities	£7.13m
Donations and legacies	£5.75m
Investment income	£0.01m

Trusts & foundations	£6.23m
Government	£3.87m
Through Imperial College	£2.61m
Individuals	£0.15m
Corporates	£0.02m
Investment income	£0.01m

These figures have been extracted from the SCI Foundation Annual Report and Financial Statements for the Period 19-20 audited by Haysmacintyre, and receiving a clean audit. Please refer to the Audited Accounts for a full picture of the SCI Foundation Financial Performance

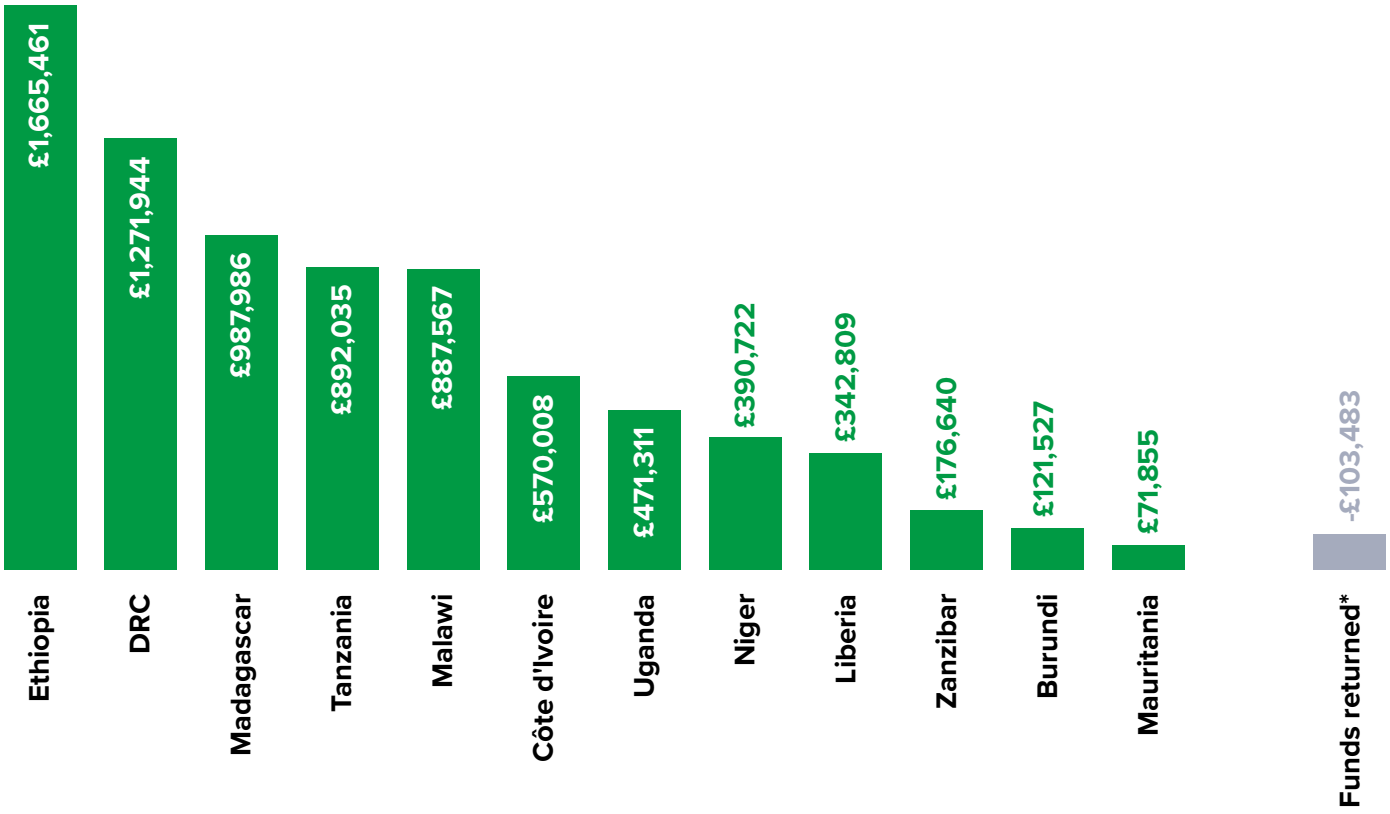
EXPENDITURE 2019–20

- Transfers to partners £7.74m
- Other (general and programme support costs) £2.26m
- Fundraising and publicity £0.20m



- Programme costs £8.90m
- Support costs £1.30m

TRANSFERS TO PARTNERS



* 'Funds returned' refers to the return of unspent funds from discontinued programmes in Nigeria and Zambia

schisto.org