



Schistosomiasis Control Initiative Business Plan 2013 -2018

Contents

1.	Summary	2
2.	Introduction	2
	2.1 Neglected Tropical Diseases	2
	2.2 Schistosomiasis	2
	2.3 Evolution of SCI	2
3.	Strategic Vision	3
4.	Objectives	3
	4.1 Estimated Global Need	3
	4.2 Assessing Global Impact	3
	4.3 Assessing SCIs impact	4
	4.4 Global objectives set by WHO	4
	4.5 SCI Strategic objectives in relation to WHO's objectives	4
	4.6 Operational Target	4
	4.7 Research into practice Target	5
	4.8 Capacity Building Target	5
5.	Achieving Objectives	5
	5.1 Organisation	5
	5.1.1 London based organisation	5
	5.1.2 Capacity building in endemic countries	6
	5.2 Resources	6
	5.2.1 Drug procurement	6
	5.2.2 Financial	6
	5.2.3 Human Resources	8
	5.2.4 Resources allocated for endemic countries	8
	5.3 Performance	8
	5.3.1 Monitoring and evaluation	8
	5.3.2 Risk Assessment	8

1. Summary

The Schistosomiasis Control Initiative (SCI) is a world leader in the field of Neglected Tropical Disease (NTD) research and control. Since its foundation in 2002 by Prof. Alan Fenwick OBE, SCI has delivered over 120 million treatments against the debilitating and life threatening NTD, schistosomiasis. SCI is based in an internationally renowned academic science technology and medicine institution, Imperial College London. All its activities are based on the highest calibre of scientific evidence. It is also recognised as among the most cost effective investments in the charity sector (www.givewell.org; www.givingwhatwecan.org) and has raised over £100 million for operational research and implementation of schistosomiasis control programmes. It has built unparalleled partnerships with NTD stakeholders including over 16 Ministries of Health in Sub-Saharan Africa and influenced disease control policy for schistosomiasis globally.

2. Introduction

2.1 Neglected Tropical Diseases

Neglected tropical diseases (NTDs) are a group of 17 diseases including schistosomiasis, that impact the economic potential of over billion people living under \$2 per day. NTDs have an impact on the achievement of the Millennium Development Goals (MDGs). Without addressing these diseases, the broader aim of poverty alleviation is unlikely to be achieved See ANNEX 1 for further information.

2.2 Schistosomiasis

Over 200 million people in Africa suffer with the disease Schistosomiasis (SCH) which is caused by the presence in the human blood vessels of trematode worms of the genus Schistosoma. This leads to long term disability and can be fatal. See ANNEX 2 for further information.

2.3 Evolution of SCI

SCI, established in 2002 from the Bill and Foundation, is housed Infectious Disease Public Health, Imperial SCI completed a "Proof years leading to treatments against SCH praziquantel (PZQ) and Transmitted Albendazole (ALB). from the UK donors SCI has



with a grant of \$32 million Melinda Gates within the Department of Epidemiology, School of College, London. In 2003, of Principle" study over 5 national coverage of with the drug intestinal worms (Soil Helminthiasis (STH) using Through a series of grants government and private facilitated the delivery of

over 120 million treatments in 16 countries by 2014. Current commitments will allow SCI to deliver

an additional 100 million treatments by 2018. In 2013 the World Health Assembly encouraging member states to expand programmes towards elimination. See ANNEX 3 for more information.

3. Strategic Vision

The **vision** of the SCI is to eliminate SCH through the development of evidence based strategies and the implementation of effective treatment programmes based on these strategies.

SCI mission is to

- To reach the target of delivering 200 million treatments against SCH and STH by 2018. This
 will contribute to the World Health Organisation (WHO) global strategic plan for SCH (20122020) of controlling morbidity due to SCH by 2020.
- To have developed, with partners, a comprehensive evidence-based elimination strategy¹ by 2018 allowing the WHO global strategic plan of eliminating SCH as a public health problem by 2025 to be achieved.
- To work with other partners to contribute to the elimination of transmission of other neglected tropical diseases amenable to preventative chemotherapy and by robust Monitoring and Evaluation to measure the achievements towards these targets.

SCI works with endemic country governments to deliver its mission see ANNEX 4 for a summary of SCI processes.

4. Objectives

4.1 Estimated Global Need

WHO estimates that the total population requiring preventative chemotherapy for SCH globally is 237,216,451². In 2011 approximately 28 million people received treatment representing approximately 11% of those in need. At an estimate of 50 pence per treatment (including the cost of PZQ) there is an annual global requirement of approximately £120 million per year if all at risk populations were to be treated. Current WHO guidance suggests that treatment strategies should be re-assessed after approximately 5 years giving an interim target of £600 million. If elimination is to be achieved in some regions there may be a significantly larger resource requirement. For further details see ANNEX 5.

4.2 Assessing Global Impact

In the recent Global Burden of Disease Study 2010 researchers estimated that SCH causes 3.3 million Disability Life Years (DALYs) (measure that assesses both years lost through mortality and also those lost through disability). **26.1 million DALYs** are attributed to NTDs as a whole and approximately 49.4 million to TB, 81.5 million to HIV/AIDS and 82.7 million to Malaria. However there is significant controversy over the methodology for the calculation of DALYs for schistosomiasis. See Annex 6 for more details.

¹Elimination is defined as reduction of the incidence of infection to zero in a defined geographic area. For elimination to be achieved countries must sustain treatment with PZQ in combination with vector control and improved water and sanitation. The most effective combined strategy has yet to be defined.

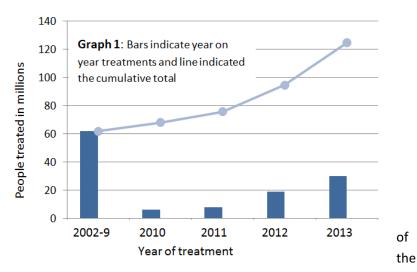
² Schistosomiasis Progress report 2001-2011 and Strategic Plan 2012 -2020 World Health Organisation Publication 2013 Geneva

4.3 Assessing SCIs impact

In all treatment programmes SCI works with Ministries of Health to implement a rigorous monitoring and evaluation regimen that is statistically robust to measure the impact of treatment.

This focuses on measuring changes in prevalence of disease and the intensity of infection (number of eggs in urine and stool samples) which serves as a proxy for morbidity.

In addition other early morbidity indicators have been collected including anaemia, and height and weight assessments. Cohorts children are followed over



lifetime of the programme in sentinel sites selected to be representative of the programme as a whole. Children entering the treatment programme for the first time are sampled to obtain an indication of whether treatment has reduced or not the infection rate in the environment.

4.4 Global objectives set by WHO ³

- 1. To control morbidity due to SCH by 2020
- 2. To eliminate SCH as a public-health problem by 2025
- 3. To interrupt transmission of SCH in the Region of the Americas, the Eastern Mediterranean Region, the European Region, the South –East Asia Region and the Western Pacific Region and in selected countries in Africa by 2025

4.5 SCI Strategic objectives in relation to WHO's objectives

- To scale up control and elimination activities in targeted endemic countries to achieve the WHO objectives
- 2. Perform operational research to validate and optimise treatment strategies and inform international guidelines on control and elimination of SCH
- 3. Work with endemic country Ministries of Health to advocate for 15% of government expenditure to be spent on health in line with the 2001 Abuja declaration and support of SCH elimination programmes to be included in health budgets.

4.6 Operational Target

- 1. Obtain a total of 200 million PZQ doses for the treatment of SCH and ALB for the treatment of STH where population are co-infected in targeted countries.
- 2. Using cost effective delivery systems to distribute the 200 million doses of PZQ and ALB to populations identified as requiring treatment in line with WHO guidance

cnis

Schistosomiasis Progress report 2001-2011 and Strategic Plan 2012-2020 WHO Geneva 2012

3. Implement appropriate monitoring and evaluation strategies to ensure that the impact and value for money are captured and that the required changes in programmatic strategies are undertaken.

4.7 'Research into practice' Target

- 1. To validate WHO guidelines and targets and provide evidence-based guidance on the implementation of validated guidelines
- 2. To engage in high quality operational research to optimise strategies for control and elimination of SCH and other NTDs where appropriate
- 3. To continue to advocate for 10% of implementation grants to be allocated to monitoring and evaluations
- 4. To continue to develop open access platforms for sharing data

4.8 Capacity Building Target

- 1. To work in partnership with endemic country governments to develop technical, programme management and financial capacity within the Ministry of Health and Education
- 2. Work with sub national health delivery systems to strengthen capacity to delivery preventative chemotherapy programmes
- 3. Work within existing school and community organisational structures to build capacity to deliver health education messaging around NTDs.

5. Achieving Objectives

In order to achieve the strategic objectives SCI has identified 12 key activities including further development of strategic partnerships, investment in technical expertise and develop innovative strategies to promote sustainability. See ANNEX 7 for further details.

5.1 Organisation

5.1.1 London based organisation

SCI has its technical and management headquarters in the Department of Infectious Disease Epidemiology, within the School of Public Health, Imperial College. SCI employs a multi-disciplinary staff based in UK plus several staff based in endemic countries.

The SCI has built a reputation for both high quality academic research and excellence in assisting endemic country governments to implement NTD control strategies. SCI is divided into 5 functional groups:

- Implementation
- · Capacity building
- Monitoring & evaluation and Operational Research
- Finance
- Advocacy and Strategic partnerships

SCI currently has 21 staff.

5.1.2 Capacity building in endemic countries

SCI works with countries to meet their specific technical and operational needs dependent on the stage and aim of the NTD programme; however the key to a successful collaboration is flexibility.

Thus SCI:

- Works in partnership with endemic country governments to promote NTD implementation and country ownership;
- Works within existing health systems with a view to strengthening them
- Promotes strategic partnerships with appropriate national and international stake holders to ensure effective, efficient and co-ordinated implementation of WHO treatment guidelines;
- Provides scientific leadership in the design, development, and optimisation of long term sustainable and evidence based NTD control strategies;
- Promotes integration between vertical NTD control programmes and incorporation of interventions from other sectors (e.g. water and sanitation) where appropriate.

5.2 Resources

There are 4 main types of resource required for SCI to achieve its objectives:

- drugs donated by pharmaceutical companies (namely GSK, Johnson and Johnson, and Merck KgGA);
- financial support for implementation, training, delivery of these drugs and M and E;
- human resources;
- resources allocated from endemic countries.

5.2.1 Drug procurement

A WHO expert committee, of which SCI is a member, has estimated the number of donated drugs that will be allocated to all countries in sub Saharan Africa including SCI assisted countries until 2016. This allows the number of drugs requiring to be purchased to be calculated on an annual basis. The continuation of the drug donation scheme and its expansion to a level of 250 million treatments per year is essential to maintain the commitment of other agencies that provide financial support that leverages the drug donations. See ANNEX 8 for Pledges of PZQ by major donors.

5.2.2 Financial

Cost analysis data from SCI and other organisations demonstrates that budgeting for 50 pence per treatment covers both management and distribution costs as well as appropriate expenditure on monitoring and evaluation. More detailed analysis has been carried out which outlines the endemic country programme costs of programmes at different stages of maturity have different target populations and different costs of living to give a more accurate prediction of cost per treatment. SCI will further refine its cost per treatment data for value for money analysis and for more accurate prediction of further costs. See ANNEX 9 for Costs per treatment in different endemic country setting to date. To reach the target of 200 million treatments by 2018 committed funds, funds in negotiation and the shortfall in funds on an annual basis have been calculated and illustrated in **Graph** 2 and **Table** 1 overleaf

SCI has identified the shortfall in funds that is required to fulfil its commitments. This includes programme cost for treatment delivery and also management costs including salaries. The continued endorsement by "Givewell" and "Giving What we Can" have increased donations from the general public with a total of £1.15 million being raised from general public donation between April 2013 – and 1 Feb 2014.

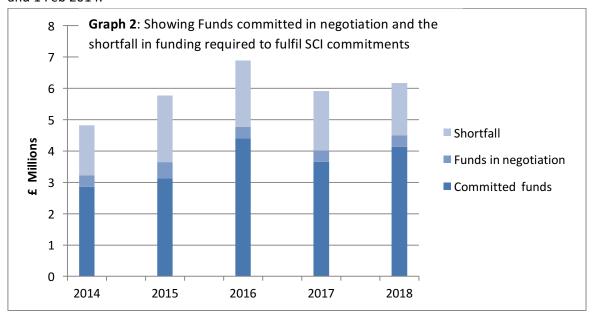


Table 1: **Table** showing Funds committed in negotiation and the shortfall in funding required to fulfil SCI commitments

	Millions of GBP				
	Committed		Shortfall	Total	
	funds	negotiation			
2014	£2.86	£0.36	£1.59	£4.82	
2015	£3.12	£0.52	£2.13	£5.77	
2016	£4.41	£0.36	£2.26	£7.04	
2017	£3.66	£0.36	£1.89	£5.91	
2018	£4.14	£0.36	£1.67	£6.17	

SCI will continue to work with these organisations to remain their preferred charities however SCI will also diversify their fund base by approaching:

- Corporates working in Sub Saharan Africa;
- Start-up companies with a less established sustainable development footprint;
- High net worth individuals;
- Sovereign wealth funds;
- Crowd sourcing opportunities also represent a possible approach.

5.2.3 Human Resources

SCI has identified the appropriate skill sets and personnel requirements to deliver the number of treatments for committed targets. Dependent on the level of growth, SCI would require some further scaling up in programme management capability. A modelling tool has been developed to assist with the estimation of the appropriate level of support needed per country based on a number of criteria.

5.2.4 Resources allocated from endemic countries

SCI is working with endemic country Ministries of Health and other implementation agencies to quantify accurately the resources allocated by endemic country governments. These resources are most often in kind and may not be included in assessments of contributions to the programme. SCI will also work with endemic country Ministries of Health to advocate for 15% of government expenditure to be spent on health in line with the 2001 Abuja declaration and support of SCH elimination programmes to be included in health budgets.

5.3 Performance

SCI will use a set of standard performance management tools to ensure that operational and research and development target are met in a timely fashion. These systems will allow barriers to be identified at the earliest possible time and mitigation strategies to be implemented.

SCI is accountable to donors of specific grants for achieving the stated objectives and perform appropriate impact assessments. For non-institutional donations (general public and high net worth individuals and corporate sponsors) SCI is responsible to Imperial College Trust and Imperial College through their exempt status under the Charity Commission. SCI is accountable to the Department of Infectious Disease Epidemiology and The School of Public Health for organisation and financial performance and is required to comply with all the policies of Imperial College.

5.3.1 Monitoring and evaluation

SCI have developed a comprehensive monitoring and evaluation framework to assess health impact and monitor process and performance indicators. Extensive operational research over 10 years has informed the health impact assessment and contributed to the development of the WHO guidelines on monitoring and evaluation of schistosomiasis. Members of SCI are also at the forefront of the development of the monitoring of drug efficacy including PZQ under the stewardship of the WHO. SCI also works closely with all stakeholders to develop and implement best practice for process and programme monitoring. SCI is also expanding its ability to more closely track value for money of all its investments and do further comparative analysis between programmes to drive efficiencies.

5.3.2 Risk Assessment

SCI has in place a risk assessment process that identifies and mitigates programmatic and financial risks. A standard list of risks has been identified and is reviewed for each country and documented in the "Risk Register." Additional risks can also be added to the Risk Register as needed. The register will be reviewed during monthly meetings and consolidated for all programmes. A set of Finance Risks will be analysed that will help guide the Expense Audit Policy for each country. For further details see ANNEX 10.

ANNEX 1: Introduction of Neglected Tropical Diseases

Neglected tropical diseases (NTDs) are a group of 17 diseases that are diverse in terms of their distribution, epidemiology, transmission, vector involvement, pathology and requirements for prevention and control. However they are grouped as they have an important set of common characteristics (see **Box 1**).

Neglected tropical diseases (NTDs) have an impact on the achievement of the Millennium Development Goals (MDGs). Without addressing these diseases, the broader aim of poverty alleviation is unlikely to be achieved.

Straightforward and highly cost-effective strategies are available to control and eventually eliminate some of the more common NTDs.

The unprecedented decision of pharmaceutical companies to donate in some cases 'as much drugs as needed for as long as needed' in order to treat NTDs has changed the NTDs landscape by making the drugs accessible for the poorest countries.

Success in overcoming NTDs depends on

partnerships between multiple constituencies. These enable countries to adapt international guidelines to local contexts, integrate NTD programmes with other mass distribution interventions and into health systems and engage communities in implementation.

NTDs are endemic in 149 countries. Low-income and low-middle-income countries represent more than 70% of the affected countries, and some low-income countries are affected by at least five NTDs. Up to 90% of the global NTD burden is explained by five of these diseases soil-transmitted helminthiasis, lymphatic filariasis, onchocerciasis, trachoma and Schistosomiasis. There is a high degree of overlap of affected populations and therefore there have been efforts to create linkages between single disease programs to improve the delivery of health interventions given existing commitments and resources. The presence of many common elements and potential to benefit from economies of scale provide strong reasons to believe that integration can help improve both efficiency and effectiveness.

ANNEX 2: Schistosomiasis

Schistosomiasis (SCH) which is caused by the presence in the human blood vessels of trematode worms of the genus *Schistosoma*. Either *S. mansoni* (intestinal schistosomiasis) or *S. haematobium* (uro-genital schistosomiasis) or *S.*japonicum which also affects the intestinal tract. The parasites eggs develop in water and require a snail as an intermediate host. The infective stage cercaria is released from the snail and can infect humans by penetrating unbroken skin. The first sign of infection is

Box 1: Common features of NTDs

- A proxy for poverty and disadvantage
- Affect populations with low visibility and little political voice
- Often overlap geographically
- Cause stigma and discrimination, especially for girls and women
- Have an important impact on mortality, morbidity and quality of life
- Are relatively neglected by research
- Some can be controlled, prevented and possibly eliminated using simple, effective and feasible solutions

Source: WHO (2010)

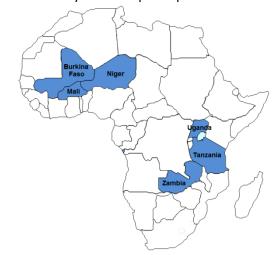
blood in the urine (*S. haematobium*) or blood in the stool (*S.mansoni and S.japonicum*) and the immediate effects of infection, usually in children, are blood loss, anaemia and malnutrition. The longer term consequences of an untreated infection can be life threatening. Consequences include liver fibrosis, haematemesis (vomiting blood)), bladder cancer, hepato-splenamegaly (enlarged liver and spleen) and ascites. The symptoms can be alleviated and children protected from the serious consequences of SCH by a single oral treatment with the safe and effective drug praziquantel (PZQ), at a dose of 40 mg/kg. However for long term control and elimination snail control and improvements in water, sanitation and hygiene are needed.

ANNEX 3: Evolution of SCI

SCI, established in 2002 with a generous grant from the Bill and Melinda Gates Foundation, is housed within the Department of Infectious Disease Epidemiology, School of Public Health, Imperial College, London. In 2003, 6 countries were selected by a Technical Advisory Board to participate in a "Proof

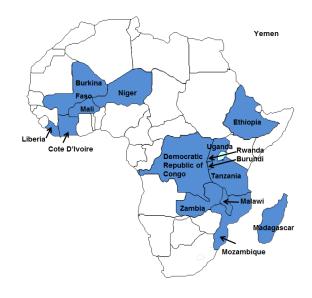
of Principle" study over 5 years leading to national coverage offering treatments against SCH and intestinal worms (Soil Transmitted Helminthiasis STH).

PZQ was used to treat those infected or at risk of infection with SCH and Albendazole (ALB) used against the STH. In 2006, two more countries were added, Burundi and Rwanda using funds from a private donor. Between 2006 and 2011 SCI received funds from USAID to expand coverage in three countries (Burkina Faso, Niger and Uganda) and to develop in those countries an



implementation programme against four NTDs, Schistosomiasis, Lymphatic Filariasis, Onchocerciasis and the Soil transmitted helminthiasis.

In 2010 SCI won a DFID, UK competitive bid to assist 8 sub Saharan Africa countries to deliver 75 million treatments against SCH and STH. Since then SCI has been recognised as a "best value charity" by "Giving What We Can" and "Givewell", and their publicised recommendations have led to donations from the general public in UK and USA based on a promise to deliver treatments in sub Saharan Africa for the sum of 50 pence per person per year. By 2013 SCI has facilitated the delivery of over 120 million treatments in 16 countries. In 2013 the World Health Assembly encouraging member states to expand programmes towards elimination.



ANNEX 4: Process of SCI



Endemic Country Engagement

To generate political commitment and ensure that available resources are made available to the programme



Financial & Programme planning

To ensure programme activities are appropriately planned and resourced



Mapping of disease prevalence

To identify treatment strategies for each area in accordance with WHO guidance



Training of personnel & capacity building

Training on disease biology and programme logistics cascaded from central to district, school and community level



Social mobilisation / sensitization

To increase awareness of the disease and publicize timing of treatment campaign primarily through radio and print media



Health education

Alongside Social mobilization inclusion in school curriculum where possible and community based to raise awareness of the disease



Distribution of drugs to district level

Following arrival and clearance at central level drugs delivery from the central level to the district and then to the community



Delivery of equipment

Delivery of equipment required for drug distribution and also for monitoring impact



Community led distribution

Following a high profile launch the treatment campaigns are led by schools and communities

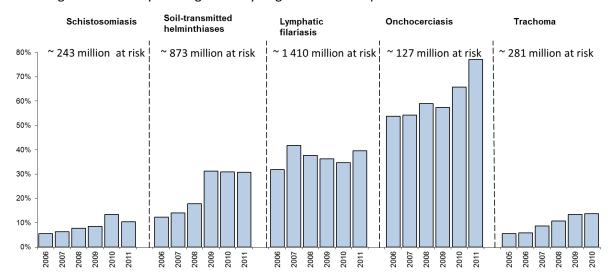


Monitoring and Evaluation

To assess the impact of treatment on disease prevalence intensity and morbidity

ANNEX 5: Estimate of Global Need

WHO estimates that the total population requiring preventative chemotherapy for SCH globally is 237,216,451⁴. In 2011 approximately 28 million people received treatment representing less than 11% of those in need. At an estimate of 50 pence per treatment (including the cost of PZQ) there is an annual global requirement of approximately £120 million per year if all at risk populations were to be treated. Current WHO guidance suggests that treatment strategies should be re-assessed after approximately 5 years giving an interim target of £600 million. If elimination is to be achieved in some regions there may be a significantly larger resource requirement.



2011	Schistosomiasis	Soil-transmitted helminthiases	Lymphatic filariasis	Onchocerciasis	Trachoma
# of counties reported	24	63	34	28	ND
# of people treated	28,140,136	302,523,800	557,434,305	98,089,495	ND
Coverage (%)	10.4	30.6	39.5	77.1	ND

Table 1: Illustrating the % coverage of people at risk for 5 NTDS (ND = no data)

If elimination is to be achieved in some regions there may be a significantly larger resource requirement. There are currently two major donors, DFID has pledged £20 million over 5 year until 2018, and USAID has pledge \$450 million to support integrated NTD programmes a proportion of which will be allocated to SCH control. Merck KgGA has committed to increase its donation of PZQ to reach 250 million treatments by 2016. Pledges made for purchase and donation of PZQ from 2014 to 2016 will cover treatment of a total of 400 million people equating to approximately £70 million.

ANNEX 6: Assessing Global Impact of SCI

However, there is some controversy of the disability weighting that attempts to quantify the severity of the disability used in these calculations⁵. Some expert opinion suggests that the DALY burden may

⁴ Schistosomiasis Progress report 2001-2011 and Strategic Plan 2012 -2020 World Health Organisation Publication 2013 Geneva

⁵ King CH, Dickman K, Tisch DJ. Reassessment of the cost of chronic helmintic infection: a meta-analysis of disability-related outcomes in endemic schistosomiasis. Lancet. 2005;365:1561–1569

be far higher. In addition because SCH is mostly found in locations with limited governmental and health resources, vital statistics (populations at risk cause of death data) are disproportionately lacking for this disease.

Evidence suggests a causative link between schistosome infection, antiparasite inflammation, and risk for anaemia, growth stunting and under nutrition in affected populations, as well as exacerbation of co-infections and impairment of cognitive development and work capacity⁴. Therefore the treatment of SCH with PZQ can have a significant effect on reducing these chronic and debilitating conditions. However accurate quantification of the impact of treatment has been problematic. Several randomized placebo controlled trials of SCH treatment have been performed, and these could provide floor estimates of the impact of antischistosomal deworming. Such trials were complicated by problems of rapid re-infection, which blunted the apparent effects of treatment.

Analysis of treatment impact often avoided the issue of lifetime accrual of parasite-mediated disease, focusing only on short-term (1- to 12-month) effects of a single treatment on the disease course of study subjects⁶

Moreover, recent immunology research indicates that chronic parasitic infections can impair protective responses against unrelated acute bacterial and viral infections, including impaired responses to childhood vaccines and increased risk of mother-to-child HIV transmission⁷. Therefore, SCH could be considered a serious but under-recognized disease burden for many developing countries. Links between SCH infection and long-term disabilities and early death reduce the chances of combating rural poverty.

Changes in our appreciation of SCH-related disease burden means it is no longer appropriate to leave infected persons untreated even without obvious symptoms, and newer approaches to control should focus on reducing and preventing transmission.

ANNEX 7: Achieving Objectives

In order to achieve the strategic objectives SCI will need to:

- Recruit, develop and retain highly qualified and experienced staff to manage SCH national programmes in partnership with endemic country Ministry of Health
- Recruit, develop and retain highly qualified and experienced staff to provide scientific leadership and high level operational research to guide the design, development and optimisation of long term sustainable and evidence-based NTD control strategies;
- Development of strong partnerships with endemic country governments to promote NTD implementation and country ownership and strengthen existing health systems while working within existing guidelines recommended by the WHO
- Remain secure in a centre of academic excellence for NTDs and public health
- Maintain and further develop strong partnership with the WHO through representation on the Strategic Technical Advisory Group and its working groups and through collaborations and consultancies
- Maintain and develop relationships with the relevant drug donation programmes including Merck KgGA and GlaxoSmithKline and ensure availability of sustainable financial resources to support drug procurement and delivery

⁶ http://www.ncbi.nlm.nih.gov/books/NBK62510/

⁷ http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2812649/

- Continue to be active members of the London Centre for NTD Research http://www.londonntd.org/
- Continue to be active members of the UK Coalition for NTDs http://ntd-coalition.blogspot.co.uk/
- Continue to work closely with other implementing agencies in receipt of DFID NTD investments
- Promote strategic partnerships with appropriate stakeholders in countries to ensure effective, efficient and co-ordinated implementation of NTD control strategies;
- Promote integration between vertical NTD control programmes and incorporate interventions from other sectors (e.g. water and sanitation) where appropriate;
- Explore demand driven novel strategies to ensure sustainability

ANNEX 8: Table showing unconfirmed pledges by major funders and donors of PZQ

Funder		2014	2015	2016	Total
USAID	Tablets in millions	100	100	100	300
	Treatments in millions	40	40	40	120
	Cost in GBP	7,000,000	7,000,000	7,000,000	21,000,000
DFID	Tablets in millions	70	70	70	210
	Treatments in millions	28	28	28	84
	Cost in GBP	4,900,000	4,900,000	4,900,000	14,700,000
Other	Tablets in millions	20	20	20	60
	Treatments in millions	8	8	8	24
	Cost in GBP	1,400,000	1,400,000	1,400,000	4,200,000
Merck	Tablets in millions	65	120	250	435
	Treatments in millions	26	48	100	174
	Cost in GBP	4,550,000	8,400,000	17,500,000	30,450,000
Total	Tablets in millions	255	310	420	985
	Treatments in millions	102	124	168	394
	Cost in GBP	17,850,000	21,700,000	29,400,000	68,950,000

ANNEX 9: Table Showing endemic country costs per treatment*

High Cost of Living Country				
Treatment strategy		Targeted population		
		>2 million	<2 million	
National scale treatment	Annual	0.08	0.1	
National scale treatment	Biannual	0.12	0.15	
Scaling up treatment	Annual	0.15	0.18	
Start up 0.2				

Low Cost of Living Country				
Tuestment Stusters	Targeted population			
Treatment Strategy	>2 million	<2 million		

national scale treatment	Annual	0.06	0.08
national scale treatment	Biannual	0.1	0.12
Scaling up treatment	Annual	0.12	0.15
Targeted treatment		0.15	

^{*}These cost are indicative on the in-country costs only and do not take into account drug costs or any management or evaluation costs.

ANNEX 10: Risk Assessment

SCI has in place a risk assessment process that identifies and mitigates programmatic and financial risks. A standard list of risks has been identified and is reviewed for each country and is documented in the "Risk Register." Additional risks can also be added to the Risk Register as needed. The register will be reviewed by the Implementation Director and Finance/Operations Director during monthly meetings and consolidated for all programmes. A set of Finance Risks will be analysed that will help guide the Expense Audit Policy for each country. For example, if a country is identified as a High Financial Risk country, the SCI Finance Department will audit more of their receipts compared to a Low Financial Risk country.

Risks will be rated on a 1-5 (1-low and 5-high) scale for both Probability (the likeliness that an event will occur) and Impact (the affect or influence of an event). By multiplying Probability and Impact, a "Risk Profile" will be created and assigned a rating of Low (green), Medium (yellow) or High (red). Risks will be analysed at the onset of a programme ("Initial Risks") and reviewed monthly ("Current Risks"). For each risk identified, a control procedure and owner will be documented.

If a new risk is identified or there are changes to previously recorded risks that need to be immediately communicated, the Programme Manager will complete the Escalated Issues and Risks Template and send to the Implementation Director. The Implementation Director will discuss the risk and formulate mitigating actions with the Programme Manager and other SCI Directors as required.