Road Map, Resolutions, Drug Donations and the Action Plan

- Provided PZQ is available in the quantity needed schistosomiasis could be “eliminated as a public health problem” in multiple countries in Africa by 2020 and globally by 2025
- Merck donation increases to 250 million tablets of praziquantel annually
- 75% of SAC in need of PC will be regularly treated in 100% of endemic countries by 2020
- May 2012: Resolution 65.21 WHA calls on all countries endemic for schistosomiasis to attach importance to prevention and control of schistosomiasis, to analyse and develop applicable plans with progressive targets, to intensify control interventions and to strengthen surveillance.
- Action Plan introduced at 2017 GSA meeting
### Action Plan for Schistosomiasis

<table>
<thead>
<tr>
<th>Category</th>
<th>Actions</th>
<th>Actions</th>
<th>Specific risks</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Scaling existing tools</strong></td>
<td>1. Ensure treatment is reaching all populations at risk, particularly preschool and school age children and women at risk of female genital schistosomiasis</td>
<td>2. Achieve better donor coordination</td>
<td>▪ Funding limitations, availability of drug</td>
</tr>
<tr>
<td></td>
<td>3. Improve support for supply chain (with a focus on ensuring full utilization of donated drug)</td>
<td>4. Improve reporting on distribution, leveraging new tools</td>
<td>▪ Funding limitations, availability of drug</td>
</tr>
<tr>
<td></td>
<td>5. Improve compliance by strengthening social mobilization, improved Behaviour Change</td>
<td>6. Improve data quality and mapping to support targeting and tracking progress</td>
<td>▪ Funding limitations, implementation</td>
</tr>
<tr>
<td><strong>Global elimination</strong></td>
<td>Optimize MDA through operational research and adjustments based on existing research</td>
<td>▪ Research failure</td>
<td>▪ Research failure, implementation challenges</td>
</tr>
<tr>
<td></td>
<td>1. Introduce micro-targeting of MDA and other interventions at the community level</td>
<td>2. Broaden MDA to additional populations and/or increase frequency to reduce transmission</td>
<td>▪ Systematic non-compliance</td>
</tr>
<tr>
<td><strong>WASH/Behavior change</strong></td>
<td>1. Develop/introduce alternative to Praziquantel or PZQ combination therapy</td>
<td>▪ Research failure</td>
<td>▪ Research failure</td>
</tr>
<tr>
<td></td>
<td>2. Develop/introduce revised diagnostic approach for elimination certification</td>
<td>▪ Research failure</td>
<td>▪ Research failure</td>
</tr>
<tr>
<td></td>
<td>3. Develop/launch safer, cheaper and effective snail control technology</td>
<td>▪ Research failure</td>
<td>▪ Research failure</td>
</tr>
<tr>
<td></td>
<td>4. Develop/launch effective vaccine</td>
<td>▪ Research failure</td>
<td>▪ Research failure</td>
</tr>
<tr>
<td></td>
<td>5. Develop/introduce effective WASH &amp; Behaviour Change interventions for schistosomiasis</td>
<td>▪ Research failure</td>
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</tr>
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<td></td>
<td>6. Use endemcity data to target WASH investment &amp; WASH data to track progress towards elimination</td>
<td>▪ Implementation challenges</td>
<td>▪ Research failure</td>
</tr>
<tr>
<td></td>
<td>7. Develop multi-sectoral schistosomiasis action plans including WASH &amp; Behavioral Change</td>
<td>▪ Political risk</td>
<td>▪ Research failure</td>
</tr>
<tr>
<td><strong>Sustainability and Ownership</strong></td>
<td>8. Revise WHO guidelines to reflect new evidence and tools available</td>
<td>▪ Political risk</td>
<td>▪ Research failure</td>
</tr>
<tr>
<td></td>
<td>9. Develop a coherent governance structure with a coordinating lead actor</td>
<td>▪ Political risk</td>
<td>▪ Research failure</td>
</tr>
<tr>
<td></td>
<td>10. Advocate and raise funds for scale-up of interventions, based on global business plan</td>
<td>▪ Political risk</td>
<td>▪ Research failure</td>
</tr>
<tr>
<td></td>
<td>11. Coordinate with local health system and other sectors to strengthen program ownership, effectiveness</td>
<td>▪ Political risk</td>
<td>▪ Research failure</td>
</tr>
<tr>
<td></td>
<td>12. Adopt strategy for long-term sustainability, including shifting to greater country ownership</td>
<td>▪ Political risk</td>
<td>▪ Research failure</td>
</tr>
</tbody>
</table>

**Source:** Schistosomiasis: Progress report 2001-2011 and Strategic plan 2012-2020, Anderson et al. (2016), Toor et al (2017), ESPEN, PCT, Team analysis

**Notes:**

**Additional Resources:**
- [http://eliminateschisto.org/resources.php](http://eliminateschisto.org/resources.php)
Moving Schistosomiasis Out of the Red: Action Plan and Next Steps April 2018

The meeting agenda comprised a set of sessions covering previously identified key categories of the proposed action plan:

1. Developing Practical Targets and Frameworks
2. Scaling Existing Tools
3. Plans and Progress from Donors and Implementers
4. Optimizing Existing Tools
5. Introducing New Tools and Other Interventions
6. Developing a Framework for Transitioning to Elimination
7. Mobilization
An endorsed Strategic Action Plan for schistosomiasis control and elimination and identification of key next steps in putting the plan into practice.
<table>
<thead>
<tr>
<th>Category</th>
<th>Actions</th>
<th>17 18 19 20 21 22 23 24 25 26 27 28 29 30 31</th>
<th>Specific risks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Morbidity control and selective elimination</td>
<td>• Improve treatment is reaching all populations at risk, particularly preschool and school age children and women at risk of female genital schistosomiasis</td>
<td></td>
<td>Funding limitations, availability of drug</td>
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<td></td>
<td>• Introduce micro-targeting of MDA and other interventions at the community level</td>
<td></td>
<td>Funding limitations</td>
</tr>
<tr>
<td></td>
<td>• Sustain drug efficacy by identifying markers of resistance and establishing monitoring system</td>
<td></td>
<td>Systematic non-compliance</td>
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<td></td>
<td>• Develop/introduce revised diagnostic (assay and method) for implementation</td>
<td></td>
<td>Research failure</td>
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<td>• Develop/introduce pediatric Praziquantel</td>
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<td>Research failure</td>
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<td>• Develop/introduce alternative to Praziquantel or PZQ combination therapy</td>
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<td>• Adopt strategy for long-term sustainability, including shifting to greater country ownership</td>
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<td>Political risk</td>
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</table>

### Specific risks:
- Funding limitations, availability of drug
- Political risk
- Research failure
- Development failure
- Implementation challenges
- Systematic non-compliance
- Research failure
- Development failure

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**Action Plan for Schistosomiasis**
Moving Schisto Out of the Red: Key Follow-up Actions

- Input into revised NTD Scorecard
- Revise the Action Plan
- Identify and prioritize topics of preferred Practices working through and building on efforts of ESPEN
- Morbidity study protocol
- Identify effective WASH interventions for schisto and how schisto data can help plan and deliver WASH programmes
- Work with WHO - strengthen the relationship
- GSA to house the Action Plan, with responsibility for updating, tracking progress and facilitating coordination
Reconfiguring GSA Working Groups Activities

**Implementation**
- PC Gap Analysis
- Donor coordination
- Long-term Resource Planning

**Research**
- Work program under development

**M & E**
- Precision/Micro Mapping Priority
- Impact Assessments
- Data Standardisation
- Identify M&E OR needs

**Behaviour Change**
- Schisto BC Gap analysis
- Identify BC OR needs
- Identify BC recommendations
- Promote BC through meetings
Implementation Working Group

Current Chairs

Michael French
Senior Manager, Health Policy
RTI, USA

Alan Fenwick
GSA advisor and Founder of SCI
UK
Implementation Working Group

Purpose

To advance the agenda of the implementation of schistosomiasis control programs, in line with international targets on the control of schistosomiasis-related morbidity and, where appropriate, elimination.

This is done through:

1) being responsive to the needs of endemic countries;
2) identifying ways to strengthen the implementation landscape
3) coordinating the work of organisations supporting implementation of schistosomiasis programs
Implementation Working Group Priorities and Next Steps

- Identifying priority gaps in knowledge and operational approaches to achieving schistosomiasis control, and subsequently identifying ways to fill those gaps
- Identifying current best-practice in implementation of MDA & relevant complementary strategies and sharing between partners
- Working in partnership with WHO to guide and strengthen the development of treatment and survey guidelines and other documents
- Linking with and supporting other working groups of GSA to strengthen implementation of surveys and other monitoring and evaluation
- Identify synergies with STH coalition to advance shared agenda and goals
- Providing an advocacy voice to groups working on schistosomiasis control and elimination
Schistosomiasis in Africa: Improving strategies for long-term and sustainable morbidity control

<table>
<thead>
<tr>
<th>Category of morbidity indicator</th>
<th>Urogenital schistosomiasis (S. haematobium)</th>
<th>Intestinal schistosomiasis (S. mansoni)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Currently recommended primary measures [3]</td>
<td>Prevalence of heavy infection (≥50 eggs/10ml) measured via urine filtration</td>
<td>Prevalence of heavy infection (≥400 eggs per gram of stool) via Kato–Katz thick smear testing</td>
</tr>
</tbody>
</table>

Available alternatives:

<table>
<thead>
<tr>
<th>Point-of-care test prevalences</th>
<th>Micro- and macrohematuria (blood in the urine)</th>
<th>Blood in the stool (including persistent bloody diarrhea)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Proteinuria</td>
<td>Fecal occult blood</td>
</tr>
<tr>
<td></td>
<td>Leukocyturia</td>
<td>Calprotectin in stool</td>
</tr>
<tr>
<td></td>
<td>Anemia</td>
<td>Anemia</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Prevalence of chronic and/or anatomic findings</th>
<th>Ultrasonography of bladder and ureters and genital organs</th>
<th>Ultrasonography of liver, spleen, portal branch, portal veins</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Palpation of bladder tenderness</td>
<td>Palpation of liver and spleen size</td>
</tr>
<tr>
<td></td>
<td>FGS signs and symptoms score (vaginal discharge, bleeding after intercourse, genital itching, pelvic pain)</td>
<td>Ascites</td>
</tr>
<tr>
<td></td>
<td>MGS signs and symptoms score (hemospermia, egg excretion in semen, prostatic enlargement)</td>
<td></td>
</tr>
<tr>
<td>Growth stunting (height for age)</td>
<td>Growth stunting (height for age)</td>
<td></td>
</tr>
<tr>
<td>Abnormally low BMI (physical wasting)</td>
<td>Abnormally low BMI (physical wasting)</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Quantifiable functional morbidities among SAC</th>
<th>Shuttle run test for exercise intolerance</th>
<th>Shuttle run test for exercise intolerance</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>School attendance and behavior</td>
<td>School attendance and behavior</td>
</tr>
<tr>
<td></td>
<td>Cognitive development</td>
<td>Cognitive development</td>
</tr>
</tbody>
</table>

**Abbreviations:** BMI, body mass index; FGS, female genital schistosomiasis; MGS, male genital schistosomiasis; SAC, school-aged children.

https://doi.org/10.1371/journal.pntd.0006484.t001
Monitoring and Evaluation Working Group
Current Chairs

**Fiona Fleming**
Director of Monitoring, Evaluation and Research, SCI, UK

**Louis-Albert Tchuem Tchuente**
National Coordinator for the Control of Schistosomiasis & Intestinal Helminthiasis
Director of the Centre for Schistosomiasis and Parasitology Cameroon
M&E Working Group

Purpose

- To provide evidence-based M&E strategies and operational frameworks to guide the implementation of programmes to control and eliminate schistosomiasis.

- This is done through:
  - Action 2. Improve data quality and mapping to support targeting and tracking progress
  - Action 4.
    - Optimize MDA through operational research and adjustments based on existing research &
    - Introduce micro-targeting of MDA and other interventions at the community level

- Support partners and work on:
  - Action 6. Develop/introduce revised diagnostic (assay & method) for implementation
  - Action 9. Develop/introduce revised diagnostic approach for elimination certification
M&E Working Group
Priorities and Next Steps

- Develop preferred practice/operational framework for precision/micro mapping
- Develop preferred practice/operational framework for impact assessments
- Identify appropriate diagnostics and sampling strategy tailored to epidemiological and programmatic setting
- Identify operational research needed for precision/micro mapping and impact assessments
- Promote data sharing with ESPEN and standardization of data by setting and goal
- Advocate for research into practical measurable indicators and monitoring for complicated morbidity e.g. for FGS and severe schistosomiasis
GSA Behaviour Change Working Group
Current Chairs

Willemijn Zaardnoordijk
Program Manager of the Praziquantel
Merck, Switzerland

Bobbie Person
Consultant-Experienced Behavioral Scientist, Qualitative Researcher, and Community Intervention Specialist, Namibia
Behaviour Change Working Group
Purpose

To advocate and drive the integration of education and behaviour change into existing and new schistosomiasis control and elimination programmes.

To become the referenced convening platform for practitioners of schistosomiasis-related education and behaviour change projects and programmes.

To assemble existing materials, protocols and processes and identify operational gaps.

To deliver new tools and guidance for education and behaviour change practitioners.
Behaviour Change Working Group
Priorities and Next Steps

- Identify Gaps in schistosomiasis Behaviour Change
- Consolidate best-practices, strategies, research, implementation and evaluation in Behaviour Change and Health Education
- Identifying existing measurable, specific indicators and tools for schistosomiasis behavioural change for M&E
- Advocate for value of integrating behaviour change and health education strategies in schistosomiasis & NTD control and elimination programmes.
- Cooperating with other disease-specific groups (STH Coalition, Trachoma) and cross-cutting groups (NNN, WASH Working Group)
- Investigating technology-based solutions to improve sensitization or promote behavioural change.
GSA Research Working Group
Current Chairs

Dr Poppy Lamberton
Senior Lecturer and Lord Kelvin Adam Smith Leadership Fellow
Institute of Biodiversity Animal Health and Comparative Medicine, University of Glasgow, UK

Dr Jutta Reinhard-Rupp
Head of Merck Global Health Institute
Merck Group, Germany
Research Working Group
Priorities and Next Steps

- Identify Operation Research needs:
  - Diagnostics, surveillance and vector control
  - Schistosomiasis in pre-school-aged children, morbidity and treatment
  - Female Genital Schistosomiasis morbidity, diagnosis and treatment
  - Other

- Discussion welcome!
2018 Advocacy

Multi-lateral organisations & Networks

• Work with WHO AFRO and ESPEN
• Work with international networks including Uniting to Combat NTDs and NTD NGO Network

Topical Issues

• Advocate for a focus on FGS, Behaviour Change, Snail Control & WASH

Resource mobilisation

• Interact and encourage non-conventional partners
• Liaise with End Fund, DFID & USAID & Gates Foundation

Tools, Kits & Resources

• Promote the use of NTDeliver, Donor Coordination Tool & FGS Pocket Atlas, Envision tool kit & upcoming WASH-NTD toolkit

Wormzilla makes re-appearance at G20 Health Ministers’ Meeting in Berlin 2017

2017 “The people #MakingSchistory” report is published and shared

Engaged stakeholders for coordinated Schistosomiasis Action Plan

Worked with Uniting to Combat NTDs with development of material on FGS for EDD & AIDS conference
Communications

NEW GSA WEBSITE LAUNCHED!

TO CATER TO STAKEHOLDER NEEDS AND PROMOTE SCHISTO NEWS AND INFORMATION SHARING.

USE COMMUNICATION TOOLS TO STREAMLINE INTERNAL AND EXTERNAL COMMS FOR STAKEHOLDER ENGAGEMENT

USE SOCIAL MEDIA, PRINTED MEDIA TO PROMOTE SCHISTO NEWS, RESOURCES AND TOOLS FROM GSA PARTNERS AND STAKEHOLDERS
Other recent meetings promoting GSA activities and the Action Plan

- ESPEN programme Managers Meeting - side meeting with ESPEN/WHO “When Where and How can Schistosomiasis be eliminated”. Rwanda 20 July
- International Schistosomiasis Meeting Brazil
- Regional Network for Asian Schistosomiasis / Surveillance -Response Systems leading to Tropical Diseases Elimination. Shanghai June 25-26
- NNN 2018 Addis Ababa, Ethiopia 24-26 September
- Strengthening the evidence base on schistosomiasis micro-mapping. Oxford 29 and 30th August 2018
Next steps

- Promote and further develop the Schistosomiasis Action Plan. Meeting for stakeholders
- Develop a future focused road-map and plan for GSA to enable the housing and collective execution of the Action Plan
- Maintain and build on the momentum within each of the Working Groups ensuring outputs are achieved.
- Explore subject areas that may benefit from a Working Group/Task Force e.g. snail control
- Prioritize greater involvement from partners in endemic regions
- Increase opportunities for training and capacity building
- Promote and assist countries transitioning from morbidity control to elimination
- Work with and support ESPEN, WHO and all GSA Partners to achieve our common goals
Thank You!

► www.eliminateschisto.org
► info@eliminateschisto.org
► @elimin8schisto