Malawi Reassessment Survey 2017
Recommendations Report
1 Programmatic recommendations

This report reviews the reassessment survey which was conducted across 13 districts in Malawi, in February-April 2017, following five rounds of mass preventive chemotherapy (PC) for schistosomiasis (SCH) and soil-transmitted helminths (STH). Sampling for the survey was stratified into high-risk or low-risk of infection within each district. The classification of the high-risk areas, or ‘hotspots’, were based on local knowledge, which created 22 sub-districts for analysis. The last PC was in April 2016 and the next is planned for July 2017. The following programmatic recommendations are:

Table 1: Observations, interpretations and programmatic actions determined from the reassessment survey results

<table>
<thead>
<tr>
<th>Finding or observation</th>
<th>Interpretation</th>
<th>Programmatic action</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre-treatment baseline mapping data existed for nine of the 13 districts, representing 14 sub-districts in the 2017 reassessment survey.*</td>
<td>PC is reaching target population in these areas.</td>
<td>Ministry of Health (MoH) control programme works to maintain these gains.</td>
</tr>
<tr>
<td>Schistosoma haematobium prevalence decreased from district-level baseline in all of these sub-districts.</td>
<td></td>
<td>MoH to complete reassessment in remaining districts in 2018 and 2019. National level treatment strategy to be adjusted based on findings.</td>
</tr>
<tr>
<td>For S. haematobium; in seven of the nine districts, with available data at both time points, the World Health Organisation (WHO) risk category has reduced to the level below i.e.</td>
<td>PC has had an impact on the district-level prevalence. However, there is still moderate risk of SCH infection in 4 of the districts.</td>
<td>MoH to continue implementing measures to reduce prevalence of SCH.</td>
</tr>
<tr>
<td>▪ Mulanje and Nsanje from &gt;50% (high-risk) to 10%-50% prevalence (moderate-risk)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>▪ Chipita, Karonga, Kasungu, Dedza, Thyolo from 10%-50% (moderate) to 1%-10% prevalence (low-risk)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Overall for S. haematobium:</td>
<td>Sub-districts have been re-classified based on prevalence and treatment strategy will need to be reviewed based on WHO guidelines (WHO 2013, Annex 10†).</td>
<td>MoH to complete reassessment in remaining districts in 2018-2019 to inform national treatment strategy.</td>
</tr>
<tr>
<td>▪ 5 of the 22 surveyed sub-districts had an average prevalence that fell within the WHO defined moderate risk category,</td>
<td></td>
<td>Treatment frequency to be determined by highest level of risk of any schistosomiasis, as per WHO guidelines.</td>
</tr>
<tr>
<td>▪ 15 fell within the WHO defined low risk category,</td>
<td></td>
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<tr>
<td>▪ The remaining 2 sub-districts had prevalence &lt;1%.</td>
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<td></td>
</tr>
<tr>
<td>Finding or observation</td>
<td>Interpretation</td>
<td>Programmatic action</td>
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<td>------------------------</td>
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</tr>
<tr>
<td>For <em>S. mansoni</em>, average prevalence estimates in all sub-districts were below 10%.</td>
<td>All sub-districts low-risk (&lt;10% prevalence) for <em>S. mansoni</em> according to WHO guidelines and treatment strategy will need to be reviewed (<em>WHO 2013, Annex 10†</em>).</td>
<td>MoH to complete reassessment in remaining districts in 2018-2019 and adjust treatment plan accordingly. Treatment frequency to be determined by highest level of risk of any schistosomiasis, as per WHO guidelines.</td>
</tr>
<tr>
<td>With the exception of 1 district, average prevalence of <em>S. mansoni</em> and <em>S. haematobium</em> was not significantly different between hotspot and non-hotspot schools within districts.</td>
<td>Hotspot classification of areas based on local knowledge and practices may not be related to prevalence or specific enough, to inform treatment of schistosomiasis.</td>
<td>Standardised criteria to be identified by MoH and implemented for classification of hotspot and non-hotspot schools, utilising WHO guidelines and recommendations, and evidence from other endemic settings.</td>
</tr>
<tr>
<td>STH were endemic in 10 of the 22 surveyed sub-districts.</td>
<td>Based on reassessment results, all sub-districts with ‘any STH’ categorised as low risk (&lt;20%) according to WHO thresholds.</td>
<td>MoH to complete reassessment in remaining districts in 2018-2019 to inform national treatment strategy for STH.</td>
</tr>
</tbody>
</table>

*Pre-treatment data were collected through MoH surveys (2003 – 2010), prior to SCI’s collaboration in the country. † Helminth control in school age children: a guide for managers of control programmes - 2nd ed. World Health Organisation (2013)*

### 2 Methods

All methods described in associated protocol:


#### 2.1 Field methods

The survey was paused for three weeks during school holidays, however data collection was resumed once schools had started again.

#### 2.2 Deviations from protocol

- Eight schools out of the 252 that were randomly selected within the strata could not be visited (e.g. school was permanently closed). The reason for not visiting the school or for not selecting a reserve school was not always given.
• Eleven schools visited were reserve schools.
• On some occasions the age of the children were not recorded or the age fell outside the required range of 10 to 14 years old (4% of pupils).
• Gender was not recorded in 27 of 7,409 cases. Approximately 50% of the pupils surveyed in most school were girls, with the exception of 8 out of 244 schools where the percentage of females was either < 40% or > 60%.
• Following the protocol, the number of children surveyed was 30 in most cases. However, in 20 and in 7 schools, < 30 pupils and > 30 were examined, respectively.
• In a few cases, Kato Katz data were read over two days instead of one. To be consistent across all the schools, only the two readings from day one were included in the analyses.
• A total of 2.5% of the parasitological data were missing from the full dataset.

2.3 Ethical approval
Ethical approval was granted by Imperial College Research Committee ICREC_8_2_2. In Malawi, the National Health Sciences Research Committee determined this study was exempt from scientific and ethical review because it was an evaluation activity of an existing programme of the Ministry of Health.

3 Survey Recommendations
Table 2: Observations, interpretation and corrective measures for the survey process itself

<table>
<thead>
<tr>
<th>Finding or observation</th>
<th>Interpretation</th>
<th>Corrective action</th>
</tr>
</thead>
<tbody>
<tr>
<td>Many of the Global Positioning System (GPS) coordinates were not recorded correctly.</td>
<td>Some GPS coordinates were missing while others were out of range for Malawi.</td>
<td>MoH and Schistosomiasis Control Initiative (SCI) to jointly provide special attention to the correct recording of the GPS coordinates during the training. The discussion of possible mistakes with data collection team during supervision will result in better quality data. Consider use of mobile phones for electronic data collection in future surveys, as GPS coordinates can be recorded as part of the electronic data collection forms. N.B. The GPS coordinates of all but 3 of the schools have now been corrected by using online resources.</td>
</tr>
<tr>
<td>Finding or observation</td>
<td>Interpretation</td>
<td>Corrective action</td>
</tr>
<tr>
<td>--------------------------------------------------------------------------------------</td>
<td>--------------------------------------------------------------------------------</td>
<td>----------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Delays and errors in data entry process complicated data cleaning and analysis.</td>
<td>Use of paper forms can delay identification and resolution of data quality issues.</td>
<td>MoH and SCI to jointly provide additional training before the survey and supervision during the survey for data entry team.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Consider use of mobile phones for electronic data collection in future surveys.</td>
</tr>
<tr>
<td>Some of the sampled students were out of the age range specified in the protocol.</td>
<td>Ages below and above the required age range recorded on paper forms.</td>
<td>MoH and SCI to jointly provide additional training before the survey and supervision during the survey for data entry team.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Consider using mobile phones for future data collection to allow early identification of data issues. Ensure that constraints are incorporated in the data collection to ensure ages outside the range are not recorded.</td>
</tr>
<tr>
<td>Missing parasitological data.</td>
<td>Data could be missing because the person was not sampled or because no parasites were observed.</td>
<td>Pre-survey training and practical exercises to give special attention to registering all data including negative results. Additional supervision to be provided by MoH and SCI during data collection.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Consider using electronic data collection on mobile phone devices for future surveys to allow early identification of data issues. This will enable daily review of the data that has been collected and allow immediate feedback to the survey supervisors.</td>
</tr>
<tr>
<td>Schools not visited.</td>
<td>Not all the schools that are in the sampling frame can be visited. The role of the reserve school is to act as a backup for those cases.</td>
<td>It is important to emphasise during training and supervision that the reasons for not visiting the selected/reserve schools should be recorded to ensure representativeness of the sample.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Ensure that supervisors are accessible during the survey, so the teams can update them about inaccessible schools.</td>
</tr>
</tbody>
</table>
4 Results

4.1 Dashboard

Average prevalence estimates were in all sub-districts below the WHO 10% threshold level for low infection. However, the upper 95% confidence intervals for 4 sub-districts were above 10% (i.e. Dedza 3, Thyolo 1, Dedza 6 and Karonga 1). This is due to the wide range of prevalence values within these sub-districts. Average prevalence was not significantly different between hotspot and non-hotspot schools within districts (95% confidence interval (CI) overlapped in all cases). However, the overall average prevalence of 0.78% (0.11%, 2.09%) for non-hotspot sub-districts was slightly lower than the overall average prevalence of 1.04% (0.33%, 3.52%) for hotspot sub-districts.

**Risk category**

- no risk (<1%): 17
- low risk (<10%): 5
- moderate risk (<50%): 0
- high risk (>50%): 0

Note: *Index 1 at the end of the district name indicates the sub-district inclusive of hotspot schools and 0 indicates the sub-district inclusive of non-hotspot schools.*

Five sub-districts had average prevalence estimates that fell within the WHO defined moderate risk area (i.e. Nsanje 1, Chikwawa 1, Machinga 1, and Phalombe 1). Average prevalence was not significantly different between hotspot and non-hotspot schools within districts, as their 95% CI overlapped, with the exception of the district of Chitipa hotspot 7.0% (4.2%, 11.4%) and Chitipa non-hotspot 1.7% (0.0%, 3.5%). Nsanje 1 had the highest prevalence of 25.1% (15.1%, 38.7%).

**Risk category**

- no risk (<1%): 2
- low risk (<10%): 15
- moderate risk (<50%): 5
- high risk (>50%): 0

"SCI Schistosomiasis Control Initiative"
Ascariasis lumbricoides was the most abundant of the three STH species identified in this survey. *A. lumbricoides* was found in 10 out of the 22 sub-districts surveyed with an upper prevalence of 16.7% (12.0%, 22.8%) in Chitipa 1.

**Risk category**
- low risk (<20%): 22
- moderate risk (>50%): 0
- high risk (>50%): 0

Hookworm was present in 8 out of the 22 sub-districts surveyed with an upper prevalence of only 2.0% (0.8%, 4.4%) in Mulanje 1.

**Risk category**
- low risk (<20%): 22
- moderate risk (>50%): 0
- high risk (>50%): 0

Trichuris trichiura was found in 8 out of the 22 sub-districts but in all cases its prevalence was relatively low, reaching a maximum of 3.3% (0.4%, 4.2%) in Mulanje 1.

**Risk category**
- low risk (<20%): 22
- moderate risk (>50%): 0
- high risk (>50%): 0

STHs were found in 10 of the 22 sub-districts: Machinga 1, Kasungu 1, Mchinji 1, Thysolo 0, Dowa 1, Dowa 0, Mulanje 1, Mzambe 1, Chitipa 0 and Chitipa 1.

**Risk category**
- low risk (<20%): 22
- moderate risk (>50%): 0
- high risk (>50%): 0
### Results tables

**Table 3. Reassessment survey results**

<table>
<thead>
<tr>
<th>Infection</th>
<th>District</th>
<th>Hotspot (0 = No, 1= Yes)</th>
<th>No. Schools</th>
<th>No. Pupils</th>
<th>Prevalence</th>
<th>95% confidence interval</th>
<th>Prevalence of heavy infections</th>
<th>Prevalence of heavy infections percentiles across all schools</th>
<th>Mean Intensity (epg / ep10ml) in egg-positive children</th>
<th>Mean intensity percentiles across all schools</th>
</tr>
</thead>
<tbody>
<tr>
<td>S. mansoni</td>
<td>CHIKWAWA</td>
<td>1</td>
<td>14</td>
<td>401</td>
<td>0.0%</td>
<td>(0, 0)</td>
<td>0</td>
<td>n/a</td>
<td>n/a</td>
<td>n/a</td>
</tr>
<tr>
<td></td>
<td>CHITIPA</td>
<td>0</td>
<td>10</td>
<td>297</td>
<td>0.0%</td>
<td>(0, 0)</td>
<td>0</td>
<td>n/a</td>
<td>n/a</td>
<td>n/a</td>
</tr>
<tr>
<td></td>
<td>CHITIPA</td>
<td>1</td>
<td>11</td>
<td>329</td>
<td>0.0%</td>
<td>(0, 0)</td>
<td>0</td>
<td>n/a</td>
<td>n/a</td>
<td>n/a</td>
</tr>
<tr>
<td></td>
<td>DEDZA</td>
<td>0</td>
<td>12</td>
<td>357</td>
<td>3.9%</td>
<td>(1.2,11.7)</td>
<td>0</td>
<td>n/a</td>
<td>110.6 (14)</td>
<td>51, 90, 132</td>
</tr>
<tr>
<td></td>
<td>DEDZA</td>
<td>1</td>
<td>8</td>
<td>236</td>
<td>8.5%</td>
<td>(3.2,20.4)</td>
<td>5</td>
<td>0, 0, 0</td>
<td>73.2 (20)</td>
<td>33, 54, 75</td>
</tr>
<tr>
<td></td>
<td>DOWA</td>
<td>0</td>
<td>12</td>
<td>352</td>
<td>0.6%</td>
<td>(0.1, 5)</td>
<td>0</td>
<td>n/a</td>
<td>138.0 (2)</td>
<td>135, 138, 141</td>
</tr>
<tr>
<td></td>
<td>DOWA</td>
<td>1</td>
<td>10</td>
<td>275</td>
<td>0.0%</td>
<td>(0, 0)</td>
<td>0</td>
<td>n/a</td>
<td>n/a</td>
<td>n/a</td>
</tr>
<tr>
<td></td>
<td>KARONGA</td>
<td>0</td>
<td>12</td>
<td>340</td>
<td>0.3%</td>
<td>(0.2.6)</td>
<td>0</td>
<td>n/a</td>
<td>12.0 (1)</td>
<td>12, 12, 12</td>
</tr>
<tr>
<td></td>
<td>KARONGA</td>
<td>1</td>
<td>8</td>
<td>232</td>
<td>3.1%</td>
<td>(0.6,13.8)</td>
<td>0</td>
<td>n/a</td>
<td>79.5 (8)</td>
<td>57, 84, 111</td>
</tr>
<tr>
<td></td>
<td>KASUNGU</td>
<td>0</td>
<td>12</td>
<td>432</td>
<td>0.2%</td>
<td>(0, 1.4)</td>
<td>0</td>
<td>n/a</td>
<td>108.0 (1)</td>
<td>108, 108, 108</td>
</tr>
<tr>
<td></td>
<td>KASUNGU</td>
<td>1</td>
<td>10</td>
<td>384</td>
<td>0.3%</td>
<td>(0.2,7)</td>
<td>0</td>
<td>n/a</td>
<td>24.0 (1)</td>
<td>24, 24, 24</td>
</tr>
<tr>
<td></td>
<td>MACHINGA</td>
<td>1</td>
<td>15</td>
<td>445</td>
<td>0.0%</td>
<td>(0, 0)</td>
<td>0</td>
<td>n/a</td>
<td>n/a</td>
<td>n/a</td>
</tr>
<tr>
<td></td>
<td>MCHINJI</td>
<td>0</td>
<td>9</td>
<td>267</td>
<td>0.0%</td>
<td>(0, 0)</td>
<td>0</td>
<td>n/a</td>
<td>n/a</td>
<td>n/a</td>
</tr>
<tr>
<td></td>
<td>MCHINJI</td>
<td>1</td>
<td>11</td>
<td>322</td>
<td>0.0%</td>
<td>(0, 0)</td>
<td>0</td>
<td>n/a</td>
<td>n/a</td>
<td>n/a</td>
</tr>
<tr>
<td></td>
<td>MULANJE</td>
<td>1</td>
<td>14</td>
<td>383</td>
<td>0.5%</td>
<td>(0.1,2.2)</td>
<td>0</td>
<td>n/a</td>
<td>42.0 (2)</td>
<td>39, 42, 45</td>
</tr>
<tr>
<td></td>
<td>NSANJE</td>
<td>1</td>
<td>15</td>
<td>415</td>
<td>0.0%</td>
<td>(0, 0)</td>
<td>0</td>
<td>n/a</td>
<td>n/a</td>
<td>n/a</td>
</tr>
<tr>
<td></td>
<td>PHALOMBE</td>
<td>0</td>
<td>11</td>
<td>321</td>
<td>0.0%</td>
<td>(0, 0)</td>
<td>0</td>
<td>n/a</td>
<td>n/a</td>
<td>n/a</td>
</tr>
<tr>
<td></td>
<td>PHALOMBE</td>
<td>1</td>
<td>9</td>
<td>266</td>
<td>0.0%</td>
<td>(0, 0)</td>
<td>0</td>
<td>n/a</td>
<td>n/a</td>
<td>n/a</td>
</tr>
<tr>
<td></td>
<td>RUMPHI</td>
<td>0</td>
<td>12</td>
<td>283</td>
<td>0.4%</td>
<td>(0.3,1)</td>
<td>0</td>
<td>n/a</td>
<td>84.0 (1)</td>
<td>84, 84, 84</td>
</tr>
<tr>
<td></td>
<td>RUMPHI</td>
<td>1</td>
<td>9</td>
<td>258</td>
<td>0.0%</td>
<td>(0, 0)</td>
<td>0</td>
<td>n/a</td>
<td>n/a</td>
<td>n/a</td>
</tr>
<tr>
<td></td>
<td>THYOLO</td>
<td>0</td>
<td>12</td>
<td>301</td>
<td>1.0%</td>
<td>(0.3,3.1)</td>
<td>0</td>
<td>n/a</td>
<td>36.0 (3)</td>
<td>30, 36, 42</td>
</tr>
<tr>
<td></td>
<td>THYOLO</td>
<td>1</td>
<td>8</td>
<td>214</td>
<td>6.1%</td>
<td>(1.4,22.6)</td>
<td>0</td>
<td>n/a</td>
<td>58.2 (13)</td>
<td>24, 60, 84</td>
</tr>
<tr>
<td>Infection</td>
<td>Characteristics</td>
<td>Prevalence</td>
<td>Prevalence of heavy infections</td>
<td>Mean Intensity (epg / ep10ml) in egg-positive children</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td></td>
<td>District</td>
<td>Hotspot (0 = No, 1= Yes)</td>
<td>No. Schools</td>
<td>No. Pupils</td>
<td>Prevalence</td>
<td>95% confidence interval</td>
<td>Prevalence of heavy infections</td>
<td>Prevalence of heavy infections percentiles† across all schools</td>
<td>Mean Intensity (No. egg-positive children)</td>
<td>Mean intensity percentiles† across all schools</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>S. haematobium</td>
<td>CHIKWAWA</td>
<td>1</td>
<td>14</td>
<td>417</td>
<td>15.6%</td>
<td>(10.4, 22.8)</td>
<td>6.15</td>
<td>0, 0, 0</td>
<td>17.5 (65)</td>
<td>3, 4, 8</td>
</tr>
<tr>
<td></td>
<td>CHITIPA</td>
<td>0</td>
<td>10</td>
<td>300</td>
<td>1.7%</td>
<td>(0.8, 3.5)</td>
<td>0</td>
<td>n/a</td>
<td>4.0 (5)</td>
<td>3, 4, 5</td>
</tr>
<tr>
<td></td>
<td>CHITIPA</td>
<td>1</td>
<td>11</td>
<td>330</td>
<td>7.0%</td>
<td>(4.2, 11.4)</td>
<td>0</td>
<td>n/a</td>
<td>5.0 (23)</td>
<td>2.5, 5, 5</td>
</tr>
<tr>
<td></td>
<td>DEDZA</td>
<td>0</td>
<td>12</td>
<td>360</td>
<td>6.9%</td>
<td>(3.4, 13.7)</td>
<td>12</td>
<td>0, 0, 0</td>
<td>20.1 (25)</td>
<td>4, 5, 19</td>
</tr>
<tr>
<td></td>
<td>DEDZA</td>
<td>1</td>
<td>8</td>
<td>240</td>
<td>9.6%</td>
<td>(4.3, 20.1)</td>
<td>8.7</td>
<td>0, 0, 0</td>
<td>14.5 (23)</td>
<td>3.5, 6, 13.5</td>
</tr>
<tr>
<td></td>
<td>DOWA</td>
<td>0</td>
<td>12</td>
<td>350</td>
<td>1.1%</td>
<td>(0.2, 6)</td>
<td>75</td>
<td>75, 100, 100</td>
<td>172.8 (4)</td>
<td>97.5, 188, 263.25</td>
</tr>
<tr>
<td></td>
<td>DOWA</td>
<td>1</td>
<td>10</td>
<td>278</td>
<td>0.7%</td>
<td>(0.2, 3.2)</td>
<td>0</td>
<td>n/a</td>
<td>10.5 (2)</td>
<td>9.25, 10.5, 11.75</td>
</tr>
<tr>
<td></td>
<td>KARONGA</td>
<td>0</td>
<td>12</td>
<td>347</td>
<td>1.7%</td>
<td>(0.3, 10.2)</td>
<td>16.67</td>
<td>0, 0, 0</td>
<td>12.7 (6)</td>
<td>1, 2.5, 10.75</td>
</tr>
<tr>
<td></td>
<td>KARONGA</td>
<td>1</td>
<td>8</td>
<td>238</td>
<td>4.5%</td>
<td>(2.3, 8.7)</td>
<td>0</td>
<td>n/a</td>
<td>2.3 (12)</td>
<td>1, 2, 3.25</td>
</tr>
<tr>
<td></td>
<td>KASUNGU</td>
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<tr>
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<td>8.7%</td>
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<tr>
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<td>12.3%</td>
<td>(9, 16.4)</td>
<td>3.64</td>
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<td>8.4 (55)</td>
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<tr>
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<td>9</td>
<td>268</td>
<td>1.7%</td>
<td>(0.7, 4.6)</td>
<td>0</td>
<td>n/a</td>
<td>7.6 (5)</td>
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</tr>
<tr>
<td></td>
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<td>11</td>
<td>323</td>
<td>3.7%</td>
<td>(1.6, 8.2)</td>
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<td>40.8 (13)</td>
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<tr>
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<td>0, 0, 0</td>
<td>52.8 (50)</td>
<td>5, 7, 13.25</td>
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<td>7.4%</td>
<td>(3.6, 14.6)</td>
<td>4.17</td>
<td>0, 0, 0</td>
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<td>1, 3.17, 5</td>
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<td>10.5%</td>
<td>(5.1, 20.2)</td>
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<td>(0.2, 3.3)</td>
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<tr>
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<td>8.3%</td>
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<tr>
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<td>8</td>
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<td>5.1%</td>
<td>(1.4, 16.8)</td>
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<td>Hotspot (0 = No, 1 = Yes)</td>
<td>No. Schools</td>
<td>No. Pupils</td>
<td>Prevalence</td>
<td>95% confidence interval</td>
<td>Prevalence of heavy infections</td>
<td>Prevalence of heavy infections percentiles(^*) across all schools</td>
<td>Mean Intensity (epg / ep10ml) in egg-positive children</td>
<td>Mean intensity percentiles(^*) across all schools</td>
</tr>
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<tr>
<td>Hookworm</td>
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<td>(0.2, 1)</td>
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<td>11</td>
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<td>0.9%</td>
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<td>(0.0)</td>
<td>0</td>
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<td>n/a</td>
</tr>
<tr>
<td></td>
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<td>8</td>
<td>236</td>
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<td>(0.0)</td>
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<tr>
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<tr>
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<td>(0.0)</td>
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<tr>
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<td>n/a</td>
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<tr>
<td></td>
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<tr>
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<tr>
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<td>(0.0)</td>
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<td>n/a</td>
</tr>
<tr>
<td></td>
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<td>(0.0)</td>
<td>0</td>
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<td>n/a</td>
<td>n/a</td>
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<tr>
<td></td>
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<td>11</td>
<td>322</td>
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<td>(0.0)</td>
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<tr>
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<td>n/a</td>
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<tr>
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<td>(0.0)</td>
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<td>n/a</td>
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<tr>
<td></td>
<td>RUMPHI</td>
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<td>0.4%</td>
<td>(0.3, 1)</td>
<td>0</td>
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<tr>
<td></td>
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<td>9</td>
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<tr>
<td></td>
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<td>(0.0)</td>
<td>0</td>
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<td>n/a</td>
<td>n/a</td>
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<tr>
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<td>District</td>
<td>No. Schools</td>
<td>No. Pupils</td>
<td>Prevalence</td>
<td>95% confidence interval</td>
<td>Prevalence of heavy infections</td>
<td>Prevalence of heavy infections percentiles† across all schools</td>
<td>Mean intensity (epg / ep10ml) in egg-positive children</td>
<td>Mean intensity percentiles† across all schools</td>
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</tr>
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<td>------------------</td>
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<td>----------------------------------------------------------------</td>
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<tr>
<td><em>Ascaris lumbricoides</em></td>
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<td>1</td>
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<td>(0, 0)</td>
<td>0 n/a</td>
<td>46.5 (31)</td>
<td>24, 36, 66</td>
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<tr>
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<td>300</td>
<td>10.3%</td>
<td>(6.1, 17)</td>
<td>0 n/a</td>
<td>n/a</td>
<td>n/a</td>
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<tr>
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<td>11</td>
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<td>16.7%</td>
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<td>67.2 (55)</td>
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<tr>
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<td>236</td>
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<td>(0, 0)</td>
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<tr>
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<td>(0, 0)</td>
<td>0 n/a</td>
<td>n/a</td>
<td>n/a</td>
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<tr>
<td></td>
<td>KARONGA</td>
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<td>8</td>
<td>232</td>
<td>0.0%</td>
<td>(0, 0)</td>
<td>0 n/a</td>
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<tr>
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<tr>
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<td>15</td>
<td>445</td>
<td>0.2%</td>
<td>(0.1, 9)</td>
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<td>n/a</td>
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<td>0 n/a</td>
<td>n/a</td>
<td>n/a</td>
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<tr>
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<td>11</td>
<td>322</td>
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<td>0 n/a</td>
<td>24.0 (1)</td>
<td>24, 24, 24</td>
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<td>383</td>
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<td>415</td>
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<td>0 n/a</td>
<td>n/a</td>
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<tr>
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<td>(0, 0)</td>
<td>0 n/a</td>
<td>n/a</td>
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</tr>
<tr>
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<td>RUMPHI</td>
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<td>(0, 0)</td>
<td>0 n/a</td>
<td>n/a</td>
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<tr>
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<td>258</td>
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<td>0 n/a</td>
<td>n/a</td>
<td>n/a</td>
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</tr>
<tr>
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<td>60.0 (3)</td>
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<td>(0, 0)</td>
<td>0 n/a</td>
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<td>n/a</td>
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<td>Characteristics</td>
<td>Prevalence</td>
<td>Prevalence of heavy infections</td>
<td>Mean Intensity (epg / ep10ml) in egg-positive children</td>
<td></td>
<td></td>
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<tr>
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<td>Hotspot</td>
<td>No. Schools</td>
<td>No. Pupils</td>
<td>Prevalence</td>
<td>95% confidence interval</td>
<td>Prevalence of heavy infections percentiles† across all schools</td>
<td>Mean Intensity (No. egg-positive children)</td>
<td>Mean intensity percentiles† across all schools</td>
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† 25th, 50th (median), 75th
### Table 4. Reassessment survey results by sex

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<td>244</td>
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<td>0.03%</td>
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<td>8.29%</td>
<td>0.36%</td>
<td>0.90%</td>
<td>12 (258)</td>
<td>23 (305)</td>
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<td>n/a</td>
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<td>0.00%</td>
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<td>0.00%</td>
<td>0.00%</td>
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<td>0.00%</td>
<td>86 (6)</td>
<td>1215 (9)</td>
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Table 5. Reassessment survey results by district.

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<th>Prevalence</th>
<th>Prevalence of heavy infections</th>
<th>Mean Intensity (epg / ep10ml) in egg-positive children</th>
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<td>No. Pupils</td>
<td>Prevalence</td>
</tr>
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<td>Mean Intensity (epg / ep10ml) in egg-positive children</td>
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</tr>
<tr>
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<td>Characteristics</td>
<td>Prevalence</td>
<td>Prevalence of heavy infections</td>
<td>Mean Intensity (epg / ep10ml) in egg-positive children</td>
</tr>
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<td>----------------</td>
<td>------------</td>
<td>-------------------------------</td>
<td>--------------------------------------------------------</td>
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<td>District</td>
<td>No. Schools</td>
<td>No. Pupils</td>
<td>Prevalence</td>
</tr>
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4.3 Pdf of dashboard

MWI_2017_re_assessment_dashboard.pdf