

# Mauritania Coverage Survey 2017 Recommendations Report

---



## 1 Programmatic Recommendations

This report reviews the coverage evaluation survey which was conducted in 3 districts (Barkeole, Tintane and Tidjikja) in Mauritania, in May 2017 following 1 round of mass preventive chemotherapy (PC) for schistosomiasis (SCH) and soil-transmitted helminths (STH) in March 2017. This is the first coverage survey in Mauritania for a mass drug administration (MDA) campaign against SCH and STH. The following programmatic recommendations are:

**Table 1:** Observations and programmatic actions to help maintain and improve the high/low coverage in Mauritania.

Finding or observation	What to look for	Programmatic action
Survey coverage was high in three districts reaching 100% in one of the districts according to the data received.	Whether the data collected is reliable and reflects the treatment coverage achieved.	SCI to meet with the Ministry of Health (MoH) to confirm how the survey was conducted in the field. Next steps to be decided after this meeting.
Communication channels for sensitisation were under-utilised in Barkeole. In Tintane and Tidjikja the main methods of sensitisation were, respectively, health professionals and teachers.	Main methods of sensitisation are health professionals and teachers; other methods such as radio shows, posters, town criers are under-utilised.	<p>MoH to reinforce the importance of sensitisation messages during training of distributors, trainers and supervisors at all levels of distribution before the next MDA.</p> <p>MoH to trial a mass radio campaign to see whether there is an impact on coverage during the next financial year once budget has been allocated for it.</p> <p>MoH to review the use of posters and other methods of sensitisation through focus group discussions or a small survey before the next MDA.</p>
Refusal to take medications was overall low.	Highest reason for not taking the medicine is that the MDA did not take place in some of the villages.	SCI to discuss with MoH and consider carrying out key informant interviews to identify why distributions didn't occur in certain villages. Information from these discussions will be used to determine the appropriate course of action.

Finding or observation	What to look for	Programmatic action
All tablets were taken together most of the time but in Barkeole and in Tidjikja a small proportion did not take the Praziquantel (PZQ) tablets.	The treatment data provided by the MoH have inconsistencies and the administrative division have different information than what's available online. The 2 things to look for are either to check if treatment happened as reported or if the coverage survey was conducted as per the protocol.	SCI to discuss with MoH during the next country visit and consider carrying out key informant interviews to identify the source of the inconsistency. The true Information from these discussions will be used to determine the appropriate course of action. Consider carrying out focus group discussions to identify why distributions didn't occur in certain villages. Information from these discussions will be used to determine the appropriate course of action.
Treatment coverage was similar in both boys and girls indicating equitable reach by gender.	Maintain coverage good coverage.	MoH to sustain programme momentum for the next year to maintain coverage levels.

## 2 Methods

All methods described in associated protocol:

[https://imperiallondon.sharepoint.com/:w:/r/sites/fom/schisto/mer/2\\_Country\\_M%26E/MRT/Coverage/FY\\_1718/1\\_Protocol\\_%26\\_pre-survey/MRT-Coverage%20Protocol%20July%202017%20EN.docx?d=wf61c9d889365445c9add33904881b480&csf=1&e=R48bHN](https://imperiallondon.sharepoint.com/:w:/r/sites/fom/schisto/mer/2_Country_M%26E/MRT/Coverage/FY_1718/1_Protocol_%26_pre-survey/MRT-Coverage%20Protocol%20July%202017%20EN.docx?d=wf61c9d889365445c9add33904881b480&csf=1&e=R48bHN)

### 2.1 Field methods

- The enumerators selected did not know how to use SurveyCTO once in the field. Because of the security issues, SCI Programme Advisor was not able to provide field supervision and did not pick up on that issue from afar. This is also the first coverage survey conducted in Mauritania for the SCH programme. The enumerators entered the data on an excel spreadsheet while conducting the survey. The data were then entered in the phones once back in Nouakchott. No data quality checks were performed during the survey.
- The methodology for the household selection was not communicated to SCI and it is possible that the random selection principle was not respected.

## 2.2 Deviations from protocol

- Lacking information on reported coverage from the MoH (incomplete documentation received and issues highlighted, still in follow up on 10/7/18)
- Number of households to be selected in each village was not according to protocol in 22 of 39 villages (see Table 2)
- Lacking village questionnaire data, which impacts the finite population correction factor.<sup>1</sup>
- GPS data collected incorrectly.

## 2.3 Ethical approval

Imperial College Research Committee ICREC\_8\_2\_2. No ethical approval by the country was required to carry out this survey.

# 3 Survey Recommendations

**Table 2:** Observations and corrective measures for the survey process itself

Finding or observation	What to look for	Corrective action
The survey shows very high school attendance and very high coverage, but GPS data and village data have not been entered according to protocol which casts some doubt on the results.	Whether the protocol has been followed.	SCI to reinforce the training, ensure supervision, sensitize the team to the importance of an unbiased survey (field visits were not possible due to security issues).  SCI to advise the MoH to actively follow up on the field teams.  SCI to request that the data are sent every time signal is available.

---

<sup>1</sup> The finite population correction factor takes into account the ratio of a population sampled to the total population from which can be sampled if sampling occurs without replacement. In this case, the ratio of the sampled households to the total number of households in a village cannot be calculated. The confidence intervals are marginally larger as a result.

Finding or observation	What to look for	Corrective action
<p>Out of the 39 villages, 22 had the correct 15 households per village. One village had only 4 households and 16 villages had more than 15 households.</p>	<p>Protocol being followed in the field.</p> <p>Data in villages with more than 15 households had to be reduced to 15 interviews to make every village comparable. No obvious pattern emerged on how to cull duplicates or superfluous entries. A reduction was tested using a) a heuristic logic based on the time of survey completion and b) a random reduction to 15 instances in each village. These results were compared to i) the full file (i.e., including the excess interviews) and ii) a random set of interviews out of the full file.<sup>2</sup></p> <p>There are no significant differences between all four approaches in terms of the PZQ and ALB coverage. For analysis, a random subset of 15 interviews in each village was used to make the data comparable.</p>	<p>To ensure that the correct number of households is selected in each surveyed village, SCI needs provide refresher training to all interviewers prior to the next coverage survey.</p> <p>Data collection to be conducted with phones to enable real-time data management and identification of flags for protocol deviations</p>
<p>Household numbering within village not correctly performed.</p>	<p>If a household is visited twice and it is not possible to amend a previously started questionnaire, the household numbering should ensure that the two entries are uniquely attributable to the same household.</p>	<p>Wherever culturally appropriate note the household number in delible marker (e.g., chalk). If not incorporate into enumerator training to keep a numbering sheet or simple hand-drawn map to reduce confusion.</p>

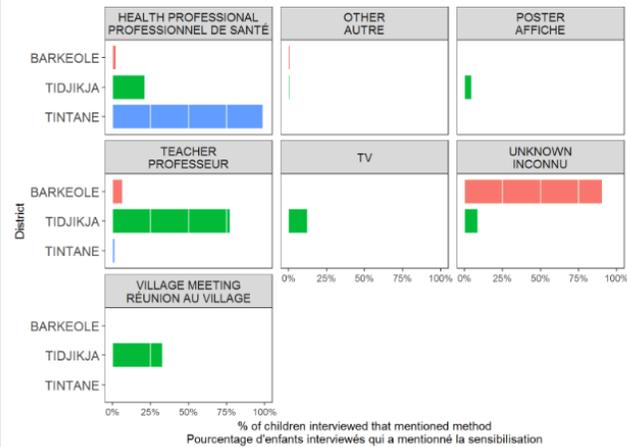
<sup>2</sup> Code and results of the simulations on the impact of the different methods on PZQ and ALB coverage are available from SCI on request

# 4 Results

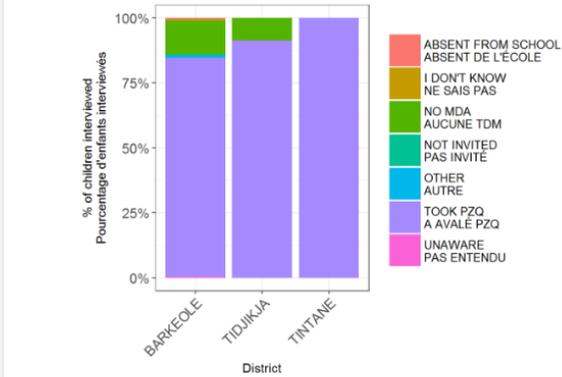
## 4.1 Dashboard

Mauritania Coverage Survey 2017		Page 1: Coverage Children	Page 2: Additional Info - children	SCI Schistosomiasis Control Initiative	pdf																														
<p>PZQ - Overall coverage with and without adjusting for population Couverture en général avec et sans ajustement en fonction de la population en fonction</p> <table border="1"> <caption>PZQ Overall Coverage Data</caption> <thead> <tr> <th>District</th> <th>No adjustment (%)</th> <th>With adjustment (%)</th> </tr> </thead> <tbody> <tr> <td>BARKEOLE</td> <td>~85</td> <td>~85</td> </tr> <tr> <td>Mauritania</td> <td>~90</td> <td>~90</td> </tr> <tr> <td>TIDJIKJA</td> <td>~90</td> <td>~90</td> </tr> <tr> <td>TINTANE</td> <td>~95</td> <td>~95</td> </tr> </tbody> </table>		District	No adjustment (%)	With adjustment (%)	BARKEOLE	~85	~85	Mauritania	~90	~90	TIDJIKJA	~90	~90	TINTANE	~95	~95	<p>PZQ - Coverage split by gender/ Couverture selon le genre</p> <table border="1"> <caption>PZQ Coverage by Gender Data</caption> <thead> <tr> <th>Gender</th> <th>BARKEOLE (%)</th> <th>TIDJIKJA (%)</th> <th>TINTANE (%)</th> <th>Overall mean (%)</th> </tr> </thead> <tbody> <tr> <td>Boys (Garçon)</td> <td>~85</td> <td>~90</td> <td>100</td> <td>~88</td> </tr> <tr> <td>Girls (Fille)</td> <td>~88</td> <td>~92</td> <td>100</td> <td>~90</td> </tr> </tbody> </table>		Gender	BARKEOLE (%)	TIDJIKJA (%)	TINTANE (%)	Overall mean (%)	Boys (Garçon)	~85	~90	100	~88	Girls (Fille)	~88	~92	100	~90	<p>Comments</p> <p>PZQ survey coverage is above the WHO minimum threshold of 75% in all districts, reaching 100% in Tintane.</p> <p>Although survey coverage is higher for girls than for boys the differences in each district were not significant.</p>	
District	No adjustment (%)	With adjustment (%)																																	
BARKEOLE	~85	~85																																	
Mauritania	~90	~90																																	
TIDJIKJA	~90	~90																																	
TINTANE	~95	~95																																	
Gender	BARKEOLE (%)	TIDJIKJA (%)	TINTANE (%)	Overall mean (%)																															
Boys (Garçon)	~85	~90	100	~88																															
Girls (Fille)	~88	~92	100	~90																															
<p>ALB - Overall coverage with and without adjusting for population Couverture en général avec et sans ajustement en fonction de la population en fonction</p> <table border="1"> <caption>ALB Overall Coverage Data</caption> <thead> <tr> <th>District</th> <th>No adjustment (%)</th> <th>With adjustment (%)</th> </tr> </thead> <tbody> <tr> <td>BARKEOLE</td> <td>~85</td> <td>~85</td> </tr> <tr> <td>TIDJIKJA</td> <td>~90</td> <td>~90</td> </tr> <tr> <td>TINTANE</td> <td>100</td> <td>100</td> </tr> </tbody> </table>		District	No adjustment (%)	With adjustment (%)	BARKEOLE	~85	~85	TIDJIKJA	~90	~90	TINTANE	100	100	<p>ALB - Coverage split by gender/ Couverture selon le genre</p> <table border="1"> <caption>ALB Coverage by Gender Data</caption> <thead> <tr> <th>Gender</th> <th>BARKEOLE (%)</th> <th>TIDJIKJA (%)</th> <th>TINTANE (%)</th> <th>Overall mean (%)</th> </tr> </thead> <tbody> <tr> <td>Boys (Garçon)</td> <td>~85</td> <td>~90</td> <td>100</td> <td>~88</td> </tr> <tr> <td>Girls (Fille)</td> <td>~88</td> <td>~92</td> <td>100</td> <td>~90</td> </tr> </tbody> </table>		Gender	BARKEOLE (%)	TIDJIKJA (%)	TINTANE (%)	Overall mean (%)	Boys (Garçon)	~85	~90	100	~88	Girls (Fille)	~88	~92	100	~90	<p>Comments</p> <p>ALB survey coverage is the same as PZQ coverage, except slightly higher coverage for girls in Barkeole.</p> <p>As was the case for PZQ, the differences between genders are not significant.</p>				
District	No adjustment (%)	With adjustment (%)																																	
BARKEOLE	~85	~85																																	
TIDJIKJA	~90	~90																																	
TINTANE	100	100																																	
Gender	BARKEOLE (%)	TIDJIKJA (%)	TINTANE (%)	Overall mean (%)																															
Boys (Garçon)	~85	~90	100	~88																															
Girls (Fille)	~88	~92	100	~90																															

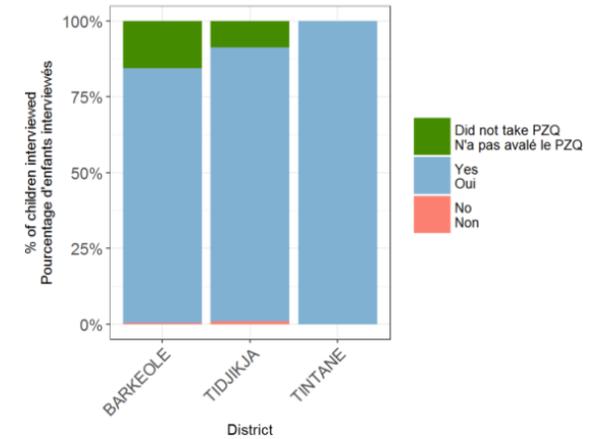
Method of sensitization / Mode de sensibilisation



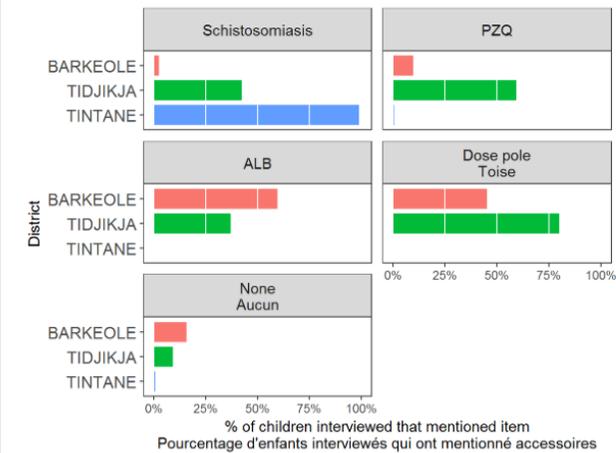
Reason for not taking PZQ / Raisons pour lesquelles le PZQ n'a pas été avalé



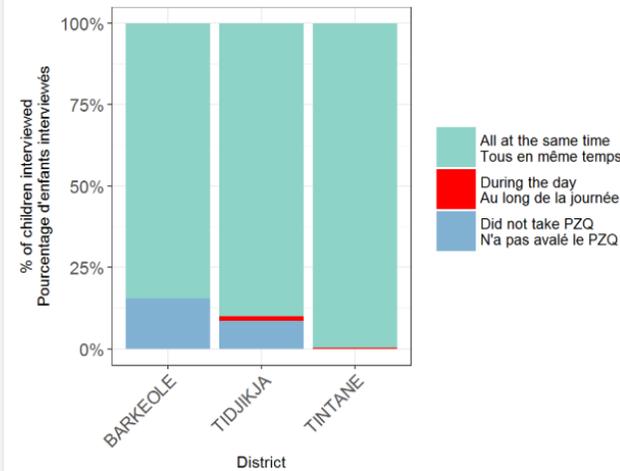
Was the distributor present when drugs were taken? / Un des distributeur était-il présent quand l'enfant a avalés comprimés



Recognition of words and items / Reconnaissance des mots ou des accessoires



How children took the drugs / Comment est-ce que l'enfant a avalé les médicaments



Commentary on additional information

The drugs were ingested by the majority of children at the same time and with the distributor present. The method for sensitisation about MDA varies from one district to the next as does the recognition of the words like Praziquantel and Schistosomiasis.

## 4.2 Results table: children

**Table 3.** Coverage survey results overall and by district

Indicators	Overall	Barkeole	Tidjikja	Tintane
N villages	39	13	13	13
N children interviewed	1146	390	390	366
Percentage of children attending school	99.7%	99.5%	100%	99.7%
PZQ coverage: not adjusted for population size (95% CI)	91.6% (87.3%, 94.5%)	84.1% (77.1%, 89.3%)	91.3% (81.6%, 96.1%)	100% (100%, 100%)
PZQ coverage: adjusted for population size (95% CI)		83.7% (76.8%, 88.9%)	90.8% (81.2%, 95.7%)	100% (100%, 100%)
Percentage girls	47.1%	44.6%	50%	46.7%
PZQ coverage in girls	93.3%	85.1%	94.9%	100%
PZQ coverage in boys	90.1%	83.3%	87.7%	100%
PZQ p-value of difference between sexes	0.32	0.77	0.78	*
ALB coverage: not adjusted for population size (95% CI)	91.6% (87.3%, 94.5%)	84.1% (77.1% , 89.3%)	91.3% (81.6%, 96.1%)	100% (100%, 100%)
ALB coverage: adjusted for population size (95% CI)		83.7% (76.8%, 88.9%)	90.8% (81.2%, 95.7%)	100% (100%, 100%)
ALB coverage in girls	93.3%	85.6%	94.9%	100%
ALB coverage in boys	90.1%	83.3%	87.7%	100%
ALB p-value of difference between attendance	0.32	0.77	0.78	*

\* No difference calculated as all children have taken both PZQ and ALB.

Calculation of 95% confidence intervals of coverage, and p-value of differences between subgroups incorporated clustering at the village and household level. Statistical methodology is available from SCI on request.

## 4.3 Flexboard of dashboard



F\_MRT\_cov\_Dashboard.html