Pre-TAS
GPELF Strategic Framework

Integrated Vector Management

Mapping

MDA

Post-treatment surveillance

Pre-TAS
<1% Mf/ <2% Ag

TAS1
TAS2
TAS3

Blood smear

Brugia Rapid

FTS

Post-validation surveillance

VALIDATION

World Health Organization
WHO pre-TAS guidance

- 2011 M&E TAS manual
  [http://apps.who.int/iris/handle/10665/44580](http://apps.who.int/iris/handle/10665/44580)

- TAS Facilitator’s Guide and TAS ppt modules
Eligibility criterion for pre-TAS

- For pre-TAS, after:
  - ≥5 rounds of 2-drug MDA
  - ≥2 rounds of IDA
- Conduct 6 months after latest MDA round

Achieve at least 65% *epidemiological coverage*
**Epidemiological coverage**

- **Epidemiological coverage** is defined as "the proportion of individuals in an IU who actually ingested the medicines"

\[
\text{Epidemiological coverage} = \frac{\text{No. people recorded to have ingested the medicines}}{\text{Total population in IU}} \times 100
\]

\[
= \frac{8}{10} \times 100 = 80\%
\]
What is a ‘pre-TAS’?

• **Survey design:** Measures level of infection in two areas considered highest-risk in the IU
  - Cut off: prevalence of Mf < 1% or prevalence of Ag < 2% *in each site*

• **Survey sites:** Sentinel and spot-check sites

• **Survey population:** All ages > 5 years; at least 300 samples

• **Diagnostic tools:** Rapid diagnostic tests using fingerprick blood
  - *W. bancrofti* areas: Filariasis Test Strip (FTS) for filarial antigen
Survey area for a pre-TAS

- **Implementation unit (IU):** The administrative unit in a country used for MDA

- If IU can be divided into sections of differing risk, consider splitting IU into 2 or more evaluation units (EUs)
  - Peri-urban vs urban areas
  - Mountains vs plain
Sentinel and spot-check sites

- At least 1 each per 1 million population
- **Sentinel sites** are used to establish the baseline infection level and to monitor the impact of MDA on infection prevalence periodically.
  - Once a sentinel site is selected, it should continue to serve as the sentinel site throughout the programme.
- **Spot-check sites** should be sites biased toward finding infection.
  - At least one spot-check site is selected for each sentinel site.
  - If no sentinel site exists in the IU, two spot-check sites are selected.
Characteristics of sentinel and spot-check sites

- The population should be **at least 500 people** (to collect samples from at least 300 people aged > 5 years)

- Should be in an area of **high transmission**: high disease or parasite prevalence or vector abundance
  - or an area where difficulty in achieving high drug coverage is anticipated

- Migrant populations are eligible for pre-TAS
  - People testing positive should be treated and assessed for length of residency.
  - **Exclude persons** who have lived in the community/EU for **less than 1 year** in analysis.
What to do if pre-TAS fails?

- If either the sentinel or spot-check site is >1% mf or >2% Ag, implement two more MDA rounds with > 65% coverage regardless of regimen
- Repeat pre-TAS (e.g. re-pre-TAS)
  - Re-survey sites that did not meet the criteria
  - Select a new spot-check site to replace a site that met criteria
  - Consider asking people if they were tested and treated in earlier pre-TAS
EM1  third subpoint under point 2. It will be helpful to indicate course of action/decision to take based on response to the question.
Ernest Mensah, 1/3/2020

mw1  Will leave comment for Didier to see... what is happening in SEARO and in PAHO is that this data is being collected and then reported as part of results to RPRG for a decision. In SEARO thus far, it was shown to not impact results, e.g. surveys failed regardless of whether the few people tested earlier who were still positive were included or excluded.
molly work, 1/6/2020

EM2  Secondly, if individual tested positive in earlier test and was treated but history shows individual is persistent non-compliant; perhaps this is only the first or second treatment even though is a resident of the community.
Ernest Mensah, 1/3/2020

mw2  Treatment here refers to treatment after being found positive in last pre-TAS and not during MDA. So your point is true.
molly work, 1/6/2020
What to do if TAS fails?

- If TAS fails, implement two more rounds with > 65% coverage regardless of regimen
- Implement a new pre-TAS (e.g., pre-re-TAS)
  - Select two new spot-check sites of expected highest risk
  - To determine risk, can use sites with most positives in TAS
### Summary: How to chose sites in pre-TAS?

<table>
<thead>
<tr>
<th>Survey type</th>
<th>Site 1</th>
<th>Site 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre-TAS</td>
<td>Sentinel site (established at baseline)</td>
<td>Spot-check site (area of highest risk)</td>
</tr>
<tr>
<td>After pre-TAS failure (re-pre-TAS)</td>
<td>Site that did not meet criterion in pre-TAS, e.g. ≥2% Ag</td>
<td>New spot-check site (area of high risk) to replace site that met criterion</td>
</tr>
<tr>
<td>After pre-TAS passes, but TAS fails (pre-re-TAS)</td>
<td>New spot-check site (area of highest risk)</td>
<td>New spot-check site (area of highest risk)</td>
</tr>
</tbody>
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How to ensure a quality pre-TAS?

- Implement refresher training before every planned survey
  - Limit technicians to only those who demonstrate efficiency in blood collection and test function
  - Develop a team of TAS trainers to build capacity in TAS implementation; supervise correct methodology and test operation in the field
- Implement diagnostic tests according to job aid – reduce number of invalids
- Read diagnostic tests at correct time
- Be respectful of community members
- Adapt TAS preparation and supervision checklists for pre-TAS
Lessons learned

- If a chosen site can’t be accessed due to insecurity or logistics, x y z.
- Be prepared to go door to door if sample size won’t be met by convenience sampling
- Have enough supplies to test more than the target sample size
Thank you