COR-NTD 2015
Philadelphia, PA, October 22-23

Breakout Group Summary Report

This document is intended to capture the key outputs of your breakout discussion, and to be representative of the group as a whole. Please denote your group's topic, presentations and research priorities before the start of the session, and dedicate the latter portion of your session to determining the key discussion points, knowledge gaps and recommended steps. Also, please indicate whether your group's recommendations align with the specified initial priority target. Your report will be shared on the NTD-SC website, and will inform future advisory panel discussions and donor priorities.

Section I

To be filled out before the session begins.

Breakout Topic:

3E: Defining Hotspots and Understanding Persistence of Infection

Presentations:

1. Definition of hot spots with examples, Chair Joseph Koroma
Gary Weil - LF Hotspots post-MDA: Definitions, examples
Maria Rebollo - Hot spot? Or focal transmission?: A second decision rule for TAS
Ben Koudou - Persistence of LF transmission in Burkina Faso & Ghana: Causes, challenges and perspectives for elimination

2. Why are there hotspots
Wilma Stolk - Defining hotspots and understanding persistence of infection: insights from modelling
Alison Krentel - Poor Compliance and hot spots
Moses Bockarie - Ento factors and migration into cities in W. Africa?

3. How to identify hot spots (no individual presentations)

4. Special approaches for LF elimination in hot spot areas other than MDA
Gary Weil - Special approaches for LF elimination in hot spot areas other than MDA

Research priorities to be discussed:

- Establish definition of a hotspot and criteria for when something needs to be done about a hotspot
- Determine the factors that can cause hotspots
- Determine what tools and strategies can be used to identify hotspots
- Identify special strategies that can be used to effectively treat and eliminate hotspots

Form continues on the next page.

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Section II

To be filled out as the session concludes.

What were your group's key discussion points?

The definition of a hotspot and how it could impact programmatic guidelines for verification of LF elimination. Hotspots should be discussed within the context of strengthening TAS as it is the current recommendation for systematically demonstrating elimination of LF as a public health problem. An example of how the problem of hotspots could be incorporated into TAS was the suggestion that an Evaluation Unit fail TAS if the true prevalence of the EU or any of the clusters in the EU is greater than 2%. However, reaction to this idea was mixed.

Ways to improve/complement TAS surveys to better detect low-level ongoing transmission, including adult TAS, expanded number of sentinel sites, smaller EUs, and xenomonitoring. Strengthen pre-TAS by reducing the size of EUs, using antigen tests instead of Mf testing, testing more sentinel/spot check sites per EU.

Situation analysis becomes important for national programs in addressing hotspots, either reactively, or pro-actively since certain patterns can predict which areas will become hotspots (ex. high baseline prevalence, high biting rates, vector's efficiency in spreading disease, human migratory patterns). Wilma Stolk's presentation showed how hotspots can emerge and that hotspots are expected after MDA. The critical issue here is whether a "hotspot" can lead to spread and recrudescence of LF in other areas.

Gary Weil described potential options for clearing LF from hotspots. These included human/MDA factors (such as DOT, new treatment regimens/schedules), DEC salt, and ento factors (IVM with ITNs, screens, personal protective measures, environmental cleanup). Focus on worm coverage rather than on population coverage. What are the characteristics of persons with persistent antigenemia following MDA?

What knowledge gaps (if any) did your group identify?

When do hotspots lead to recrudescence?
Which tools and strategies that strengthen or complement MDA show the most promise and should therefore be evaluated for clearing hotspots?
What happens to hotspots over time, why might some die out and others not?
Which MDA approaches have the smallest coverage-compliance gap?
How are selectively excluded populations affecting the success of the program?
What specialized activities can be used to reach the systematic non-compliers?

What next steps does your group recommend?

- We should focus on what happens to the areas that fail TAS2 to understand why these programs are failing.
- Identify patterns that are predictive of hotspots.
- Modelers could help identify which alternative or improved MDA strategies should be first considered and field tested.
- Identify tools and resources to help countries conduct situation analysis and design solutions for problem areas. This should include best practices already being used in some programs
- What kind of secondary assessment can be done once a TAS has failed or hotspot has been identified?
- Investigate how the second TAS could be used to indicate recrudescence. This information could be used to validate modeler's expected thresholds.
- Compare different methods for verifying elimination of LF and for detecting persistence/recrudescence of infection.

Do your recommended steps align with the research priorities identified on page 1? ◉ **Yes** ○ **No**