Enhanced passive screening for HAT in Kongo Central province of the DRC - progress towards elimination after three years (August 2015 – July 2018)

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Transboundary focus

- DRC Bas Congo / Kongo Central focus
- Rep Congo Bouenza / Niari focus
- Angola Zaire focus
- Angola Cabinda
Implementation in Kongo Central

1. Phase 1 from August 2015 – December 2016. Engagement of 600 health facilities (577 RDT sites, 18 MF LED sites, 5 LAMP sites)

2. Phase 2 from April 2017 – July 2018 Engagement of 146 facilities (124 RDT sites, 18 MF LED sites, 4 LAMP sites)

3. Phase 3 from August 2018 – Engagement of 61 facilities (45 RDT sites, 13 MF LED sites, 3 LAMP sites)
Facilities engaged in project phase 1

600 health facilities with HAT RDTs, 5 facilities with LAMP & parasitology, 18 with parasitology.
Phase 1: Aug 2015-December 2016

- 41,980 people screened in passive screening
- 930 positive by RDT
- 41.5% of referrals were completed
Phase 1 – cases

9 cases were diagnosed by the PNLTHA mobile team.

81 cases in passive screening

48.1% of cases were from RDT facilities; 65.4% of cases were in stage 1.

55 cases in reactive screening.
We used the methodology of Simarro et al (2012) to estimate the population at risk of HAT in Kongo Central.

The entire area is at risk of sleeping sickness.

A large area (in yellow) has not achieved <1 case / 10,000.
Phase 2: April 2017 – July 2018

Following phase 1, there was a scale back in the number of facilities that were screening.

Based on case distributions, facilities were scaled back by 75% in 2017.

142 facilities with RDTs, 4 facilities with LAMP & microscopy 18 with microscopy
Phase 2 cases

10 cases were diagnosed out of programme by the PNLTHA mobile team. 23 cases were diagnosed in passive screening. 19% of cases were from RDT facilities; 29% of cases were in stage 1. 2 cases in active screening.
Phase 2 – risk map

Reassessing the risk based on the cases identified during phase 2, but no part has >1 case / 10,000
Our aim is to ensure that the population at risk is within 20km of a health facility. Where facilities are nearby we prioritise the facility that performed most screening.

Stages:

1. We consider the whole area to be at non-negligible risk (> 1 case / 100,000)

2. We include any facility that screened or diagnosed a HAT case during phase 1 or phase 2
Phase 3 – facilities retained

Facilities that screened or diagnosed a case during phase 1 or phase 2 are retained.
Phase 3: Scale back methodology part 2

3. Considering facilities from part 1, we calculate the proportion of the population that is within 20km of a screening facility (ignoring rivers / topography)

4. Of the remaining facilities we take the facility that screened the most people. We test whether including it improves by >0.25% the percentage of population that is within 20km of a facility, if it does, the facility remains included.

5. Repeat steps 3 and 4 with the next facility that screened most.
Phase 3: Scale back facilities

61 facilities remain. 78.6% of the population are within 20km.

<table>
<thead>
<tr>
<th>Distance to facility (km)</th>
<th>% of population</th>
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<tbody>
<tr>
<td>5</td>
<td>23.5</td>
</tr>
<tr>
<td>10</td>
<td>45.9</td>
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<tr>
<td>20</td>
<td>78.6</td>
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<td>30</td>
<td>92.9</td>
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<tr>
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<td>97.1</td>
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Case history in Bas Congo / Kongo central

FIND-supported programme

- Implementation: 600 facilities
- 142 facilities

HAT cases:

- Passive
- Active

Conclusions

• During the phase 1 of the project, cases that were identified were in stage 1 of HAT (active transmission), reducing the potential of the patient to contribute to disease transmission.

• During the year 2017, the number of patients detected at 1st stage was reduced meaning reduction in disease transmission, reduction of active disease transmission (the phase 1 played role of reservoir cleaner)

• No case found in the area not covered by the project during phase 2
Acknowledgements

PNLTHA (field conditions)
WHO (drugs to treat patients)