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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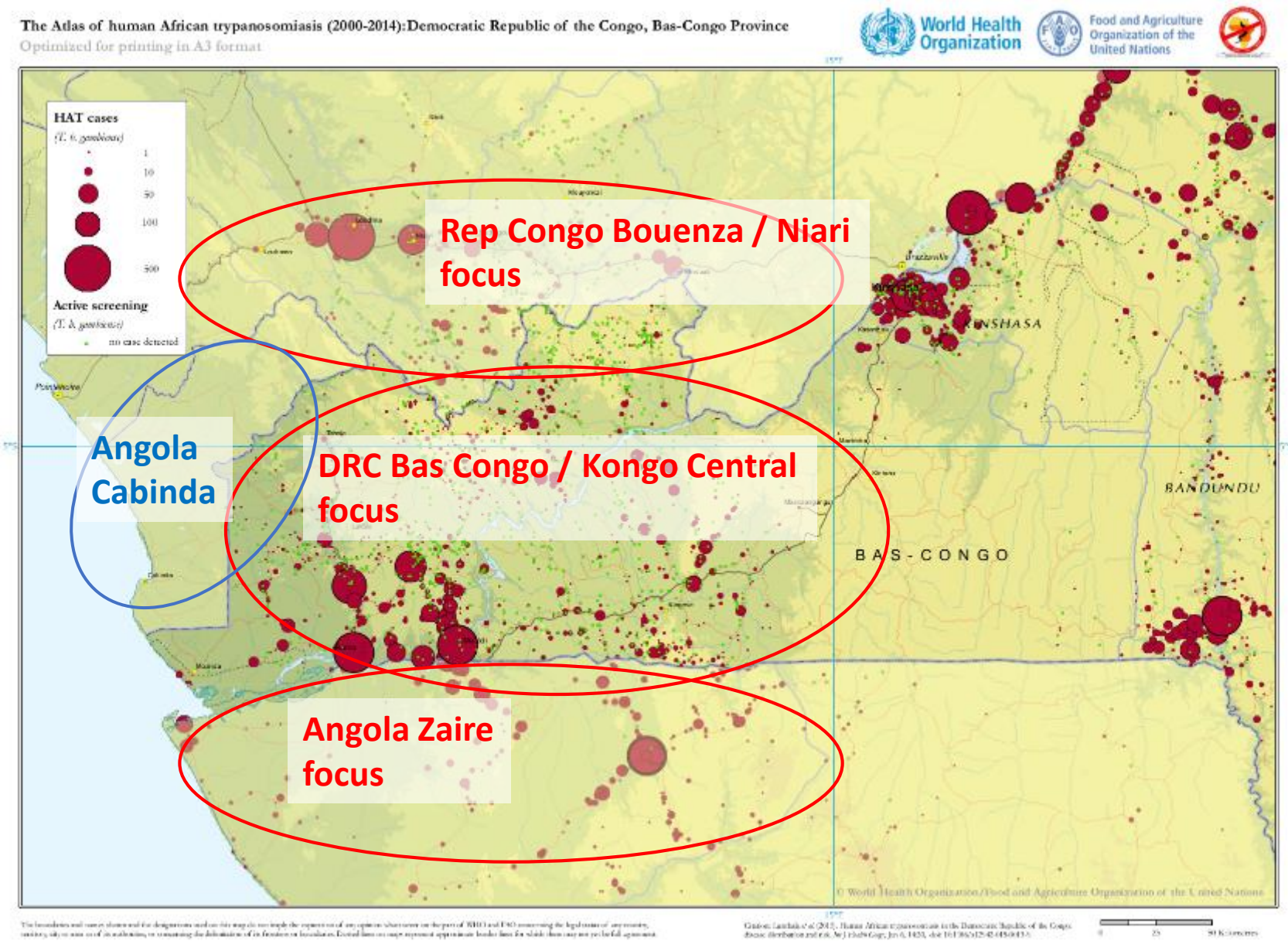
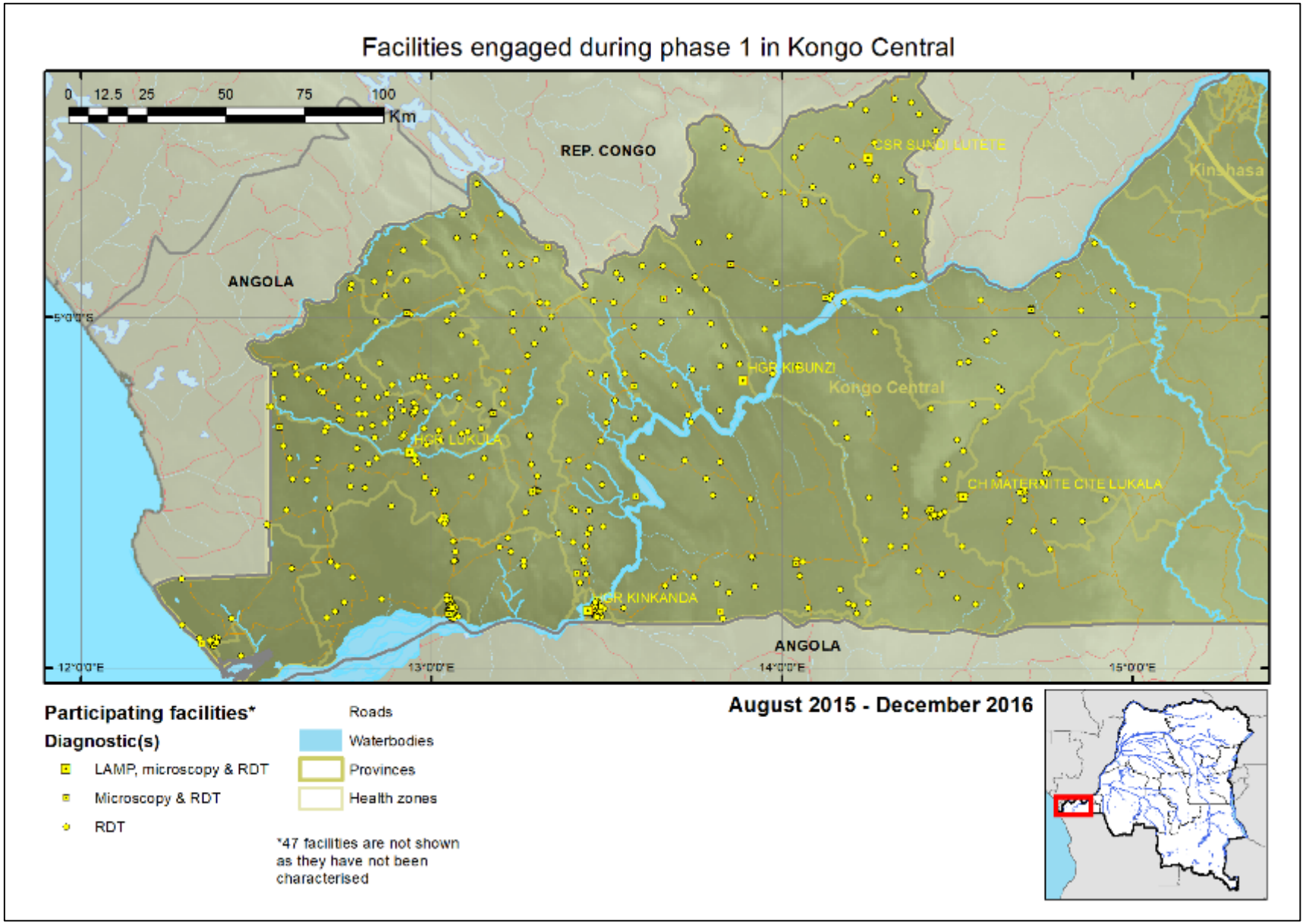
Transboundary focus



Implementation in Kongo Central

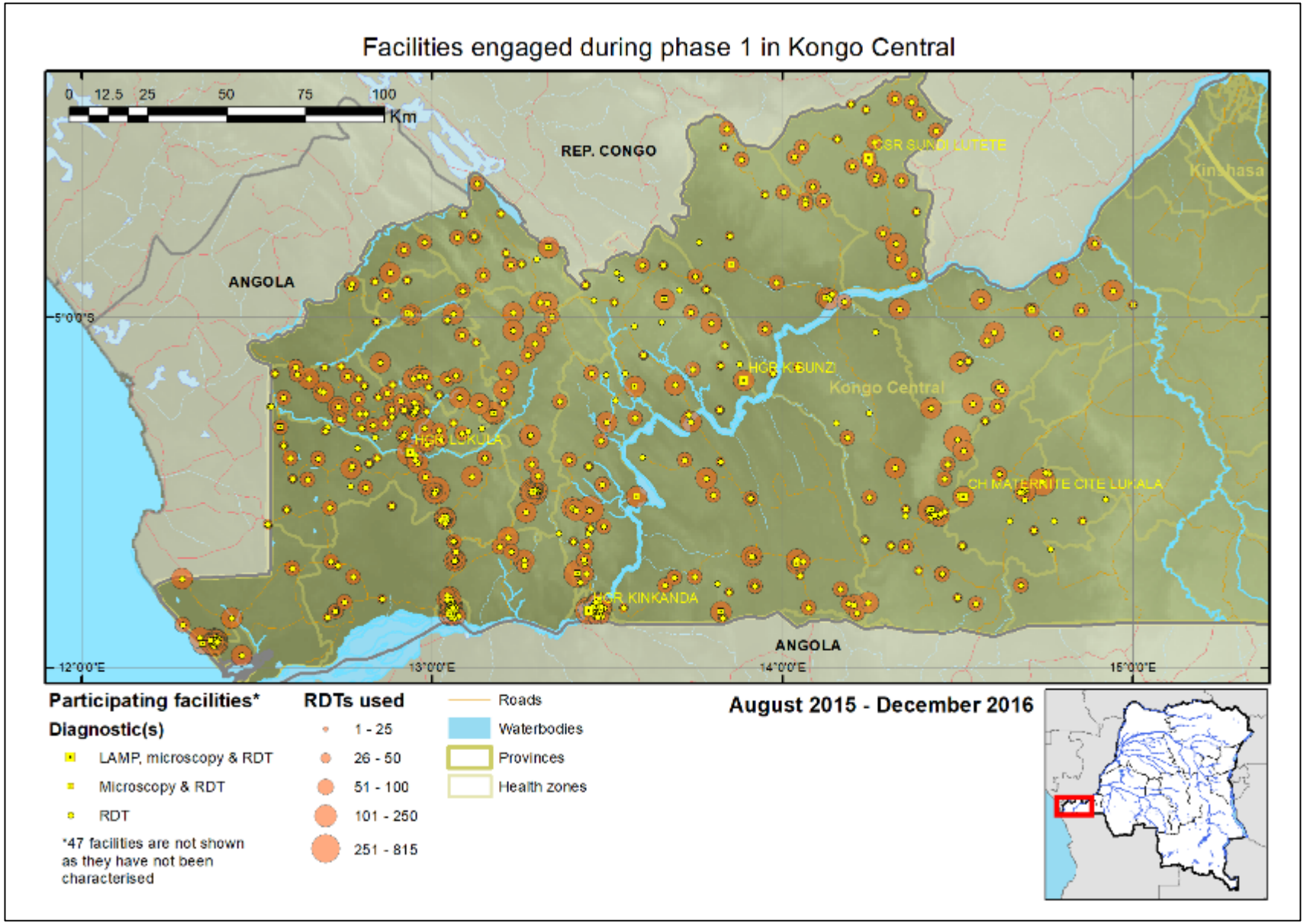
1. Phase 1 from August 2015 – December 2016. Engagement of 600 health facilities (577 RDT sites, 18 MF LED sites, 5 LAMP sites)
2. Phase 2 from April 2017 – July 2018 Engagement of 146 facilities (124 RDT sites, 18 MF LED sites, 4 LAMP sites)
3. Phase 3 from August 2018 – Engagement of 61 facilities (45 RDT sites, 13 MF LED sites, 3 LAMP sites)

Facilities engaged in project phase 1



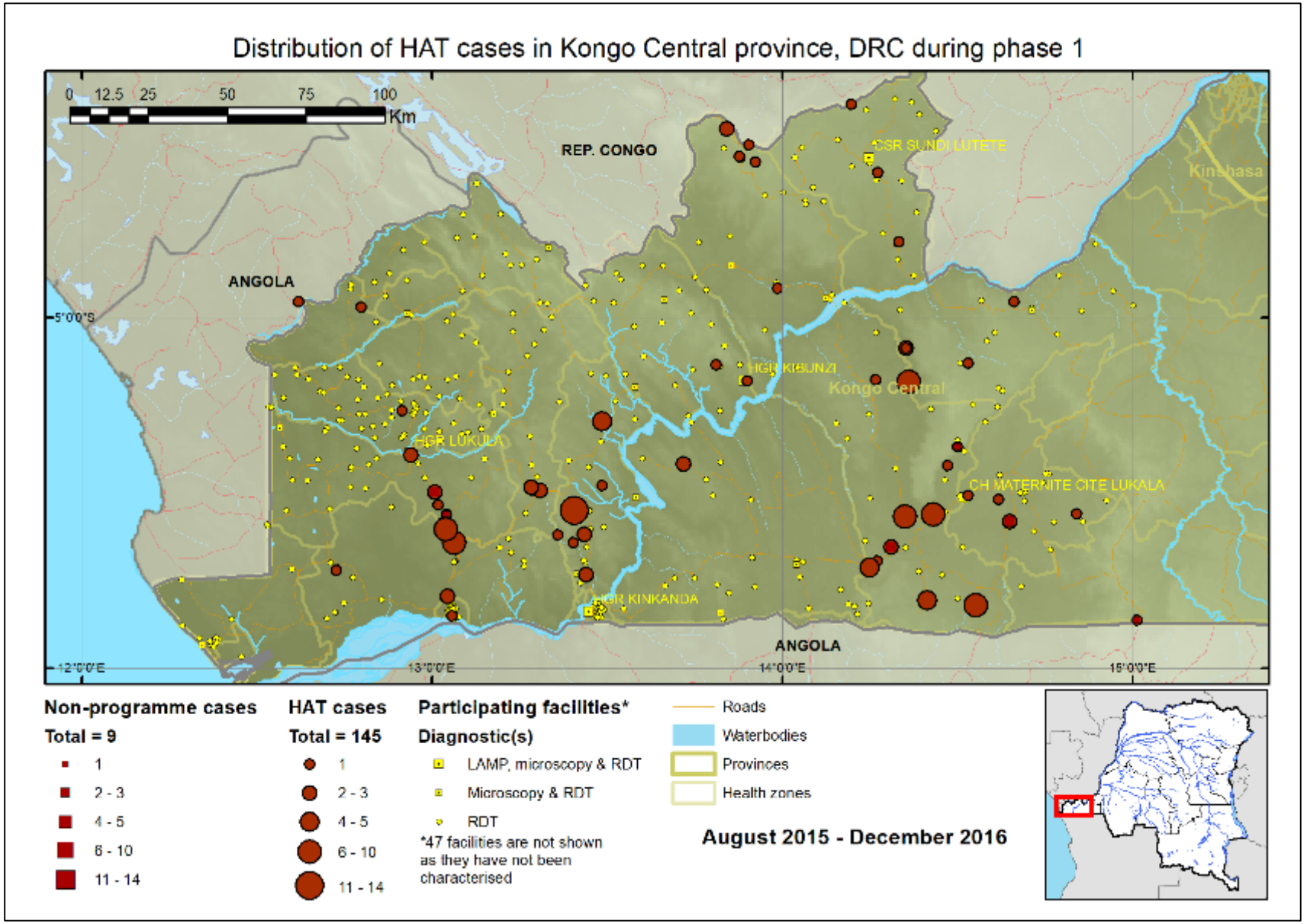
600 health facilities with HAT RDTs, 5 facilities with LAMP & parasitology
18 with parasitology

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



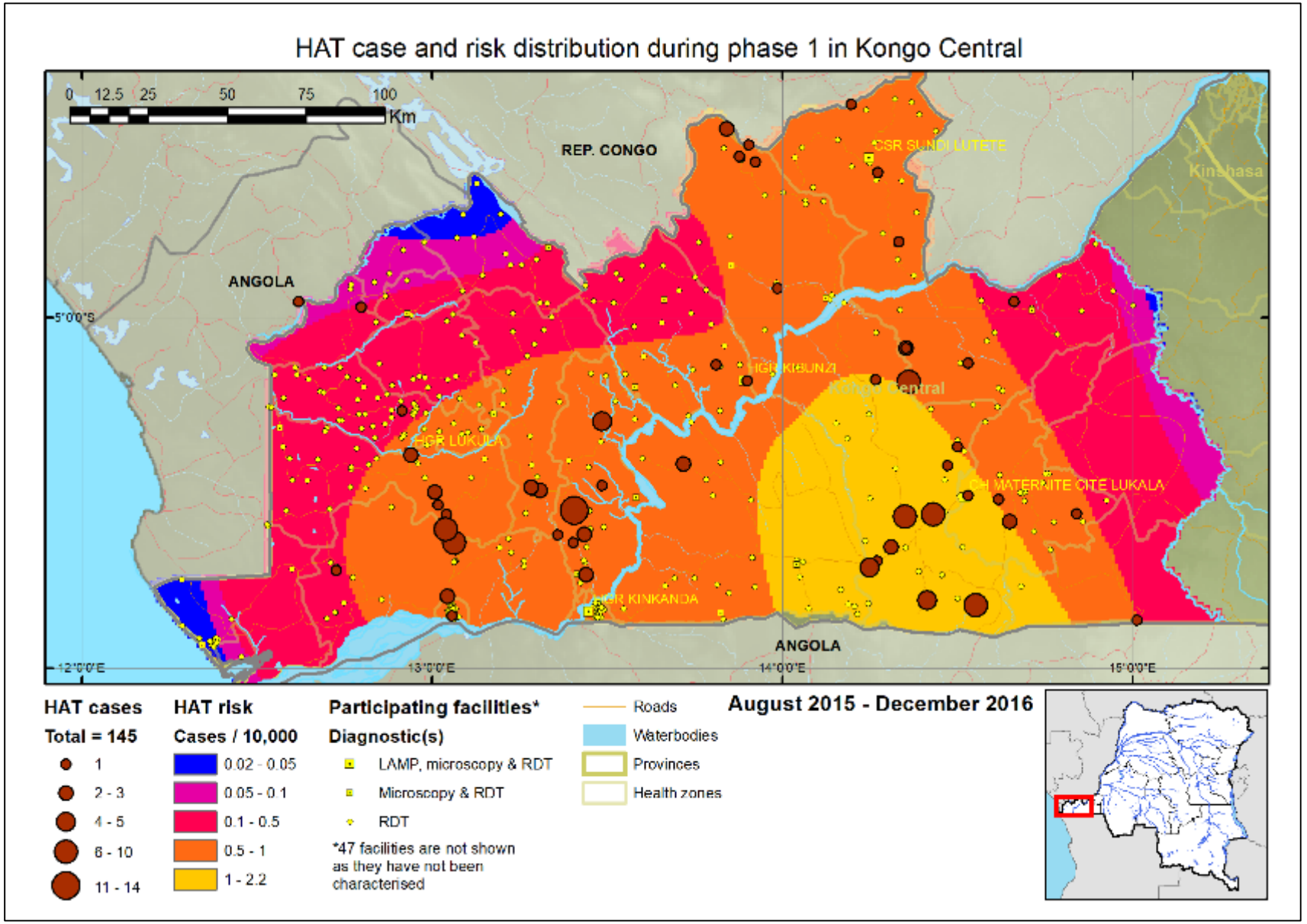
9 cases were diagnosed by the PNLTHA mobile team

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

Phase 1 – risk map

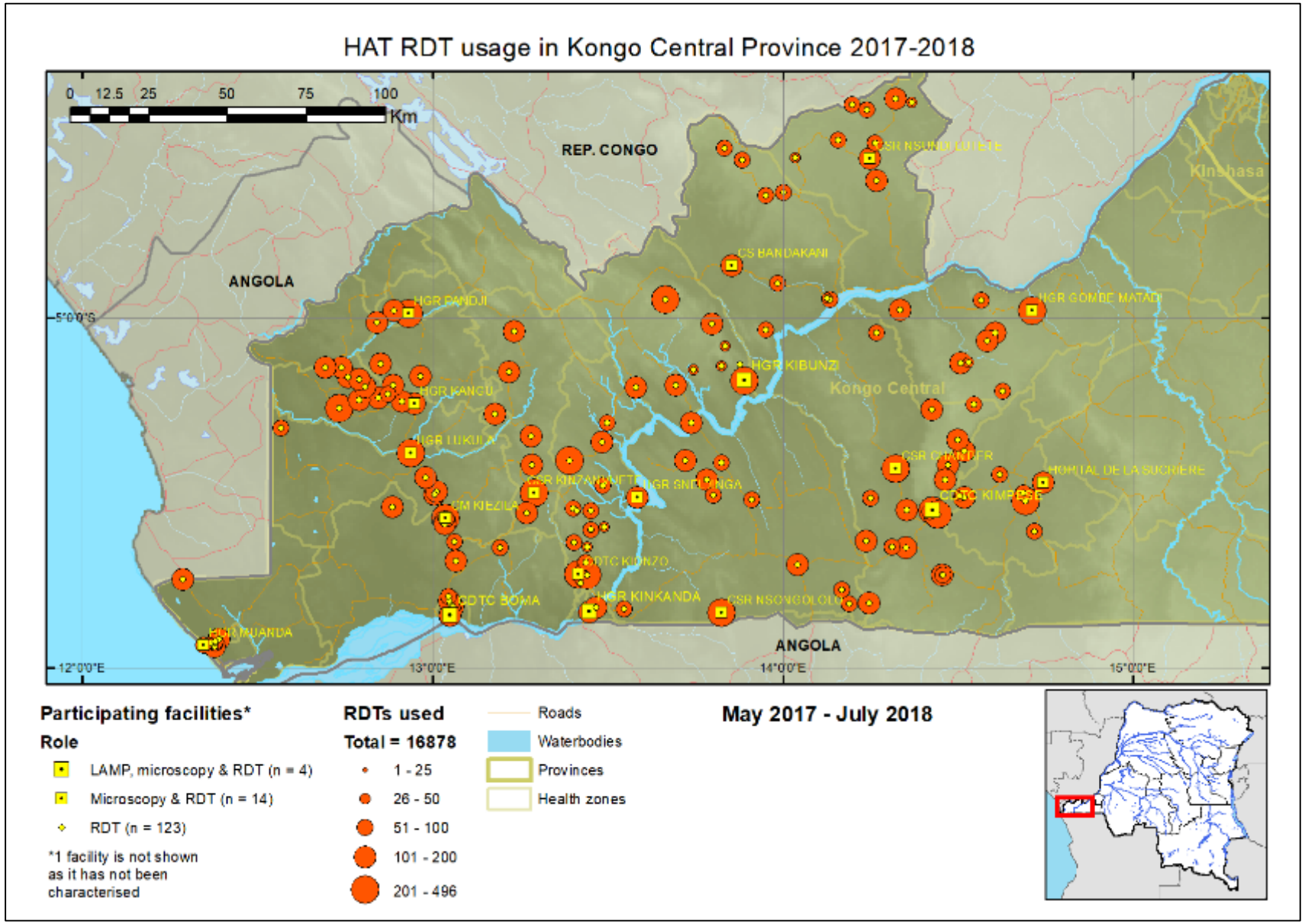


We used the methodology of Simarro et al (2012) to estimate the population at risk of HAT in Kongo Central

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

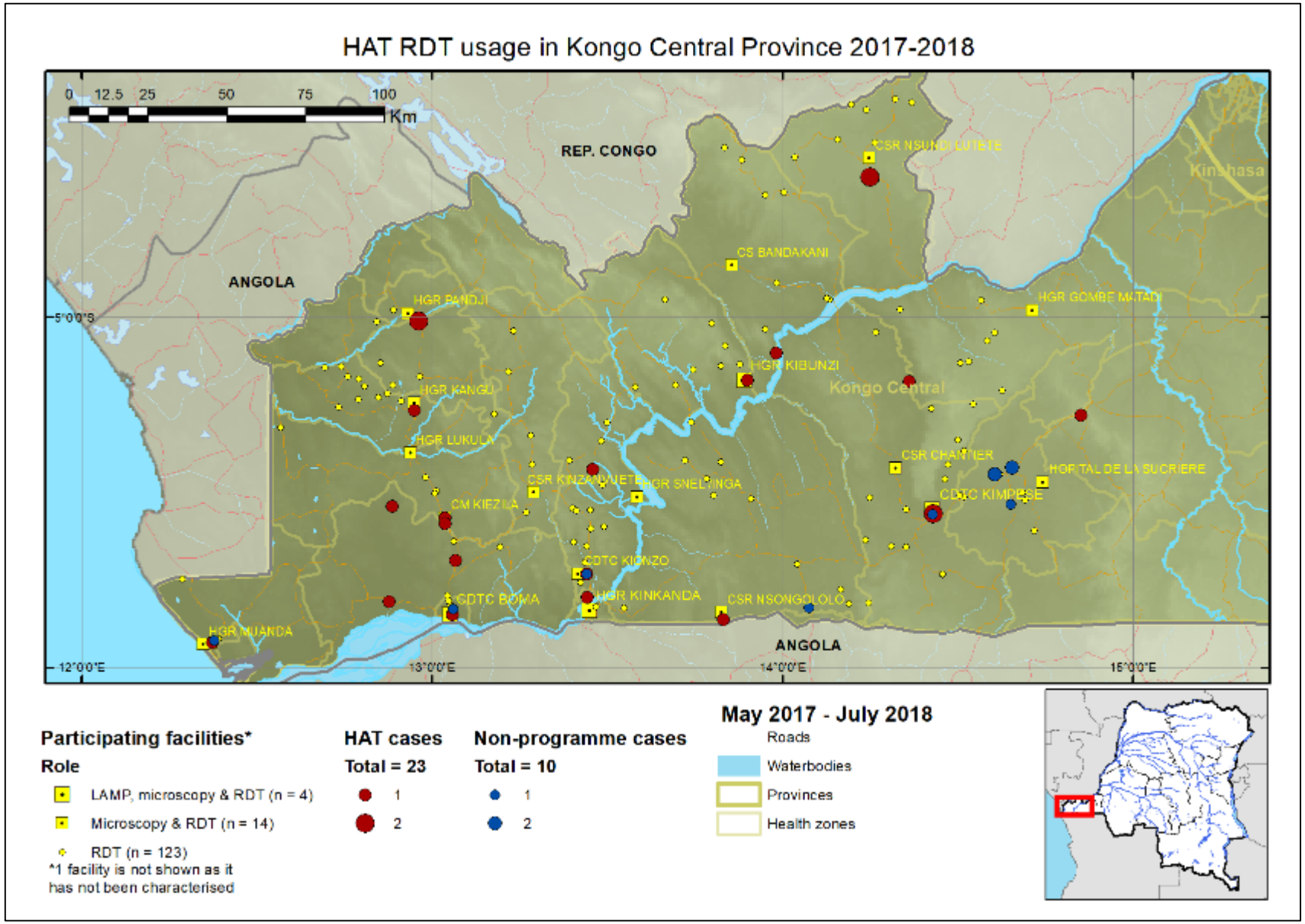


Following phase 1, there was a scale back in the number of facilities that were screening.

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



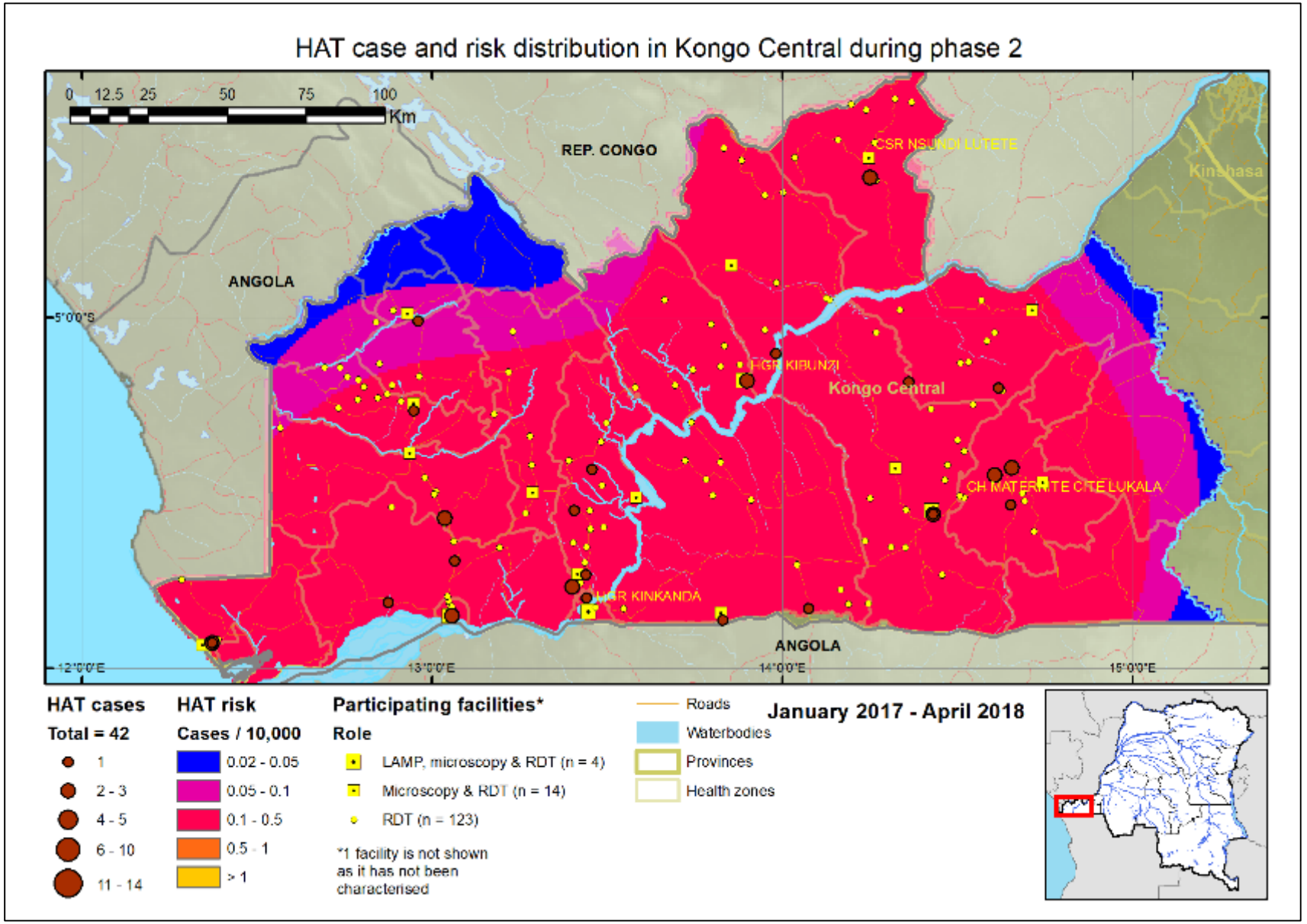
10 cases were diagnosed out of programme by the PNLTHA mobile team.

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

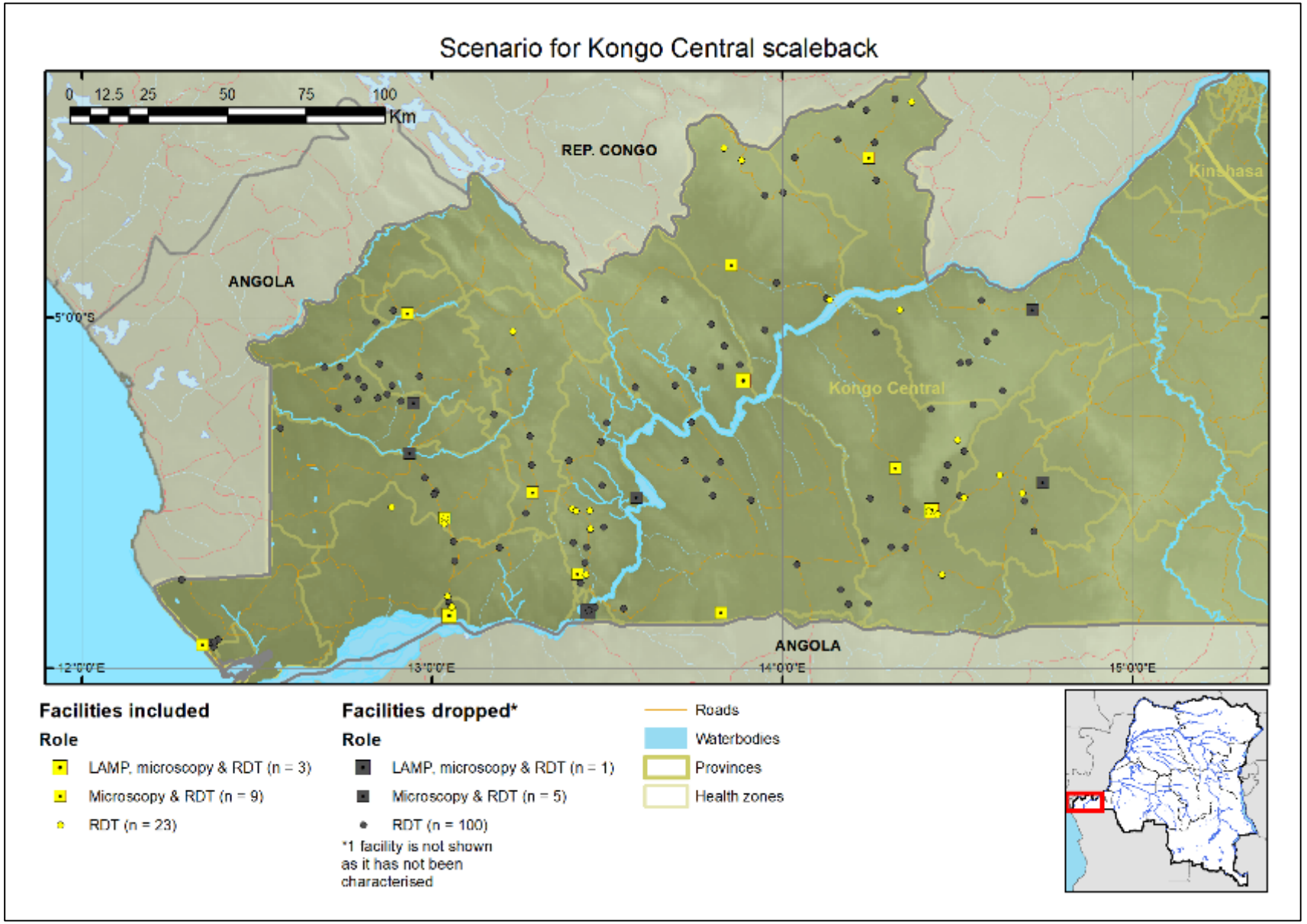
Phase 3: Scale back methodology part 1

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

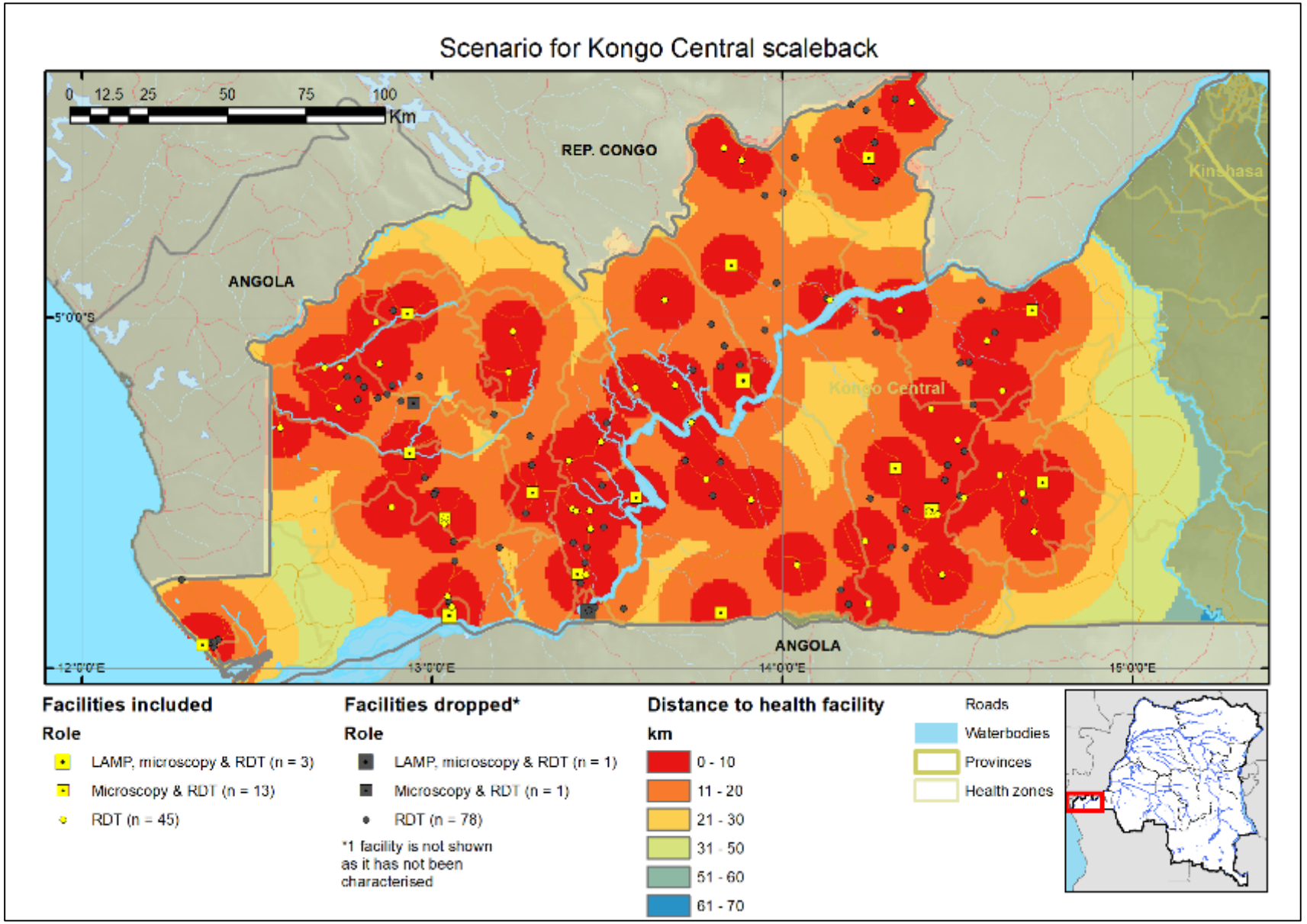


Facilities that screened or diagnosed a case during phase 1 or phase 2 are retained

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.

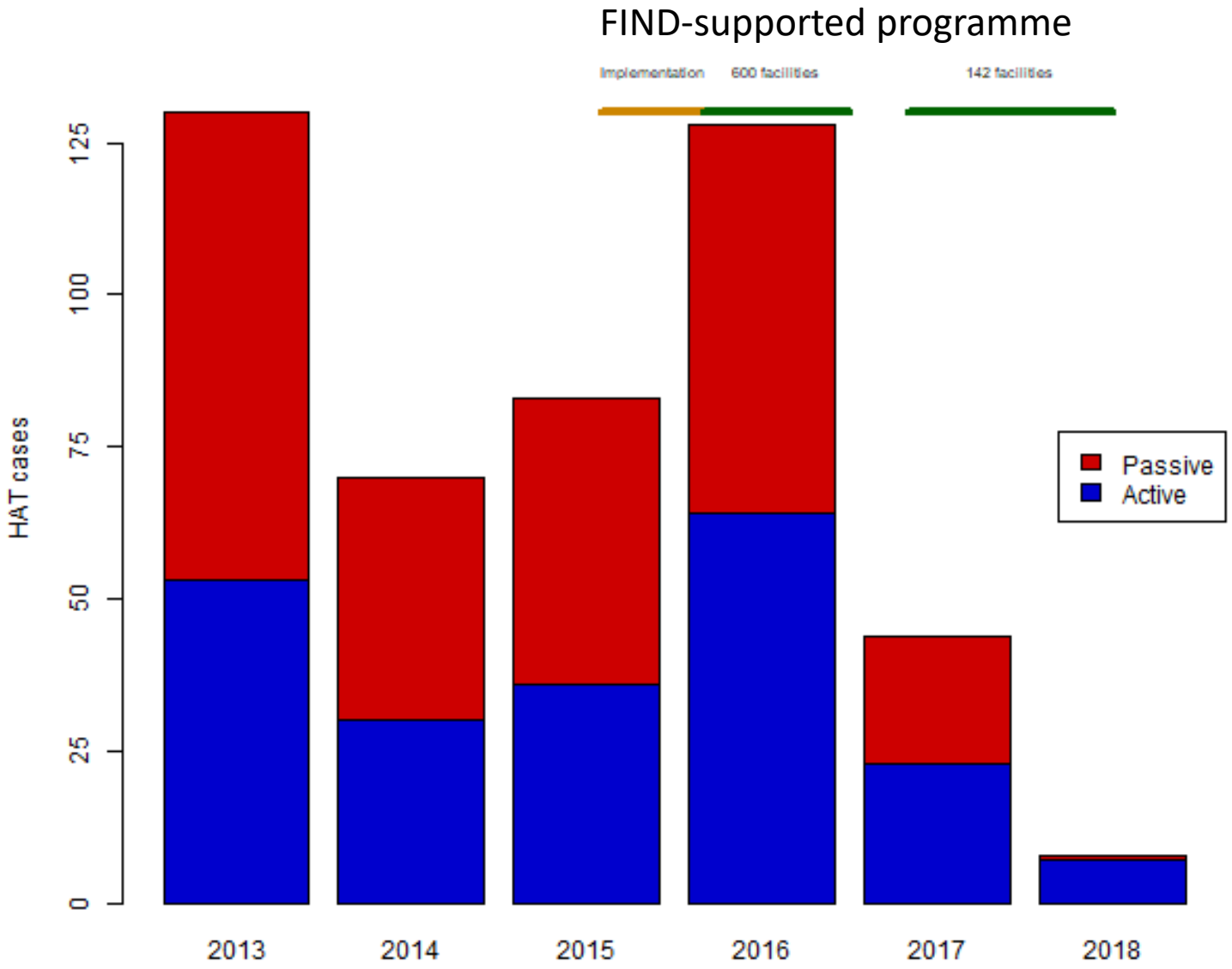
Phase 3: Scale back facilities



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

Distance to facility (km)	% of population
5	23.5
10	45.9
20	78.6
30	92.9
40	97.1

Case history in Bas Congo / Kongo central



Conclusions

- During the phase 1 of the project, cases tat 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)