



# Cross border surveillance in southern Angola

An analysis of the activities implemented and results achieved after three years (2017-2020)

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ELIMINATION 8



**ADPP Angola**



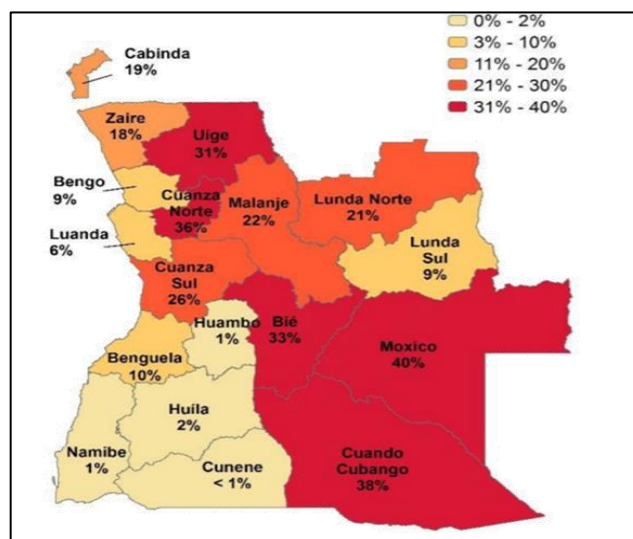


# Background – Southern Angola epidemiological profile

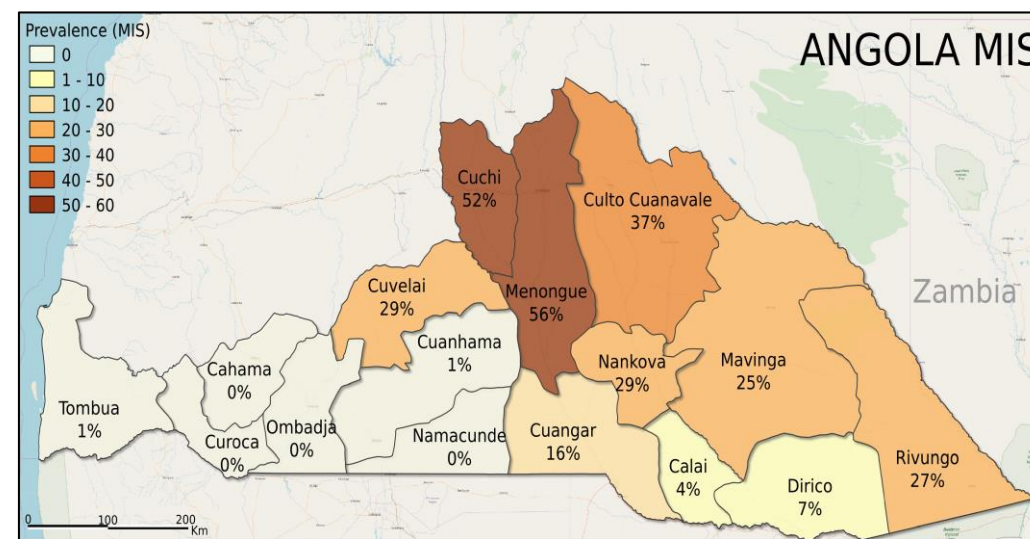
- Angola as a second line country in SADC efforts for malaria elimination but contributing for hindering progress in neighbouring countries (Namibia in particular)
- The entire Angolan population is at risk for malaria but there is a significant heterogeneity in transmission;
- Some Southern districts with very low transmission but some resgitering high prevalences



Source: Elimination 8 Acceleration Plan



Source: Angola MICS 2015



Source: CISA (2018) Malaria prevalence survey in southern Angola





# Background – Southern Angola epidemiological profile

- Malaria elimination in Namibia is highly dependent of control efforts done in bordering districts of Angola
- Malaria risk higher in districts bordering Angolan districts with higher prevalence
- The four northeastern regions bordering Angola reported >90% of Namibia's imported cases from 2017-2019, which generate new chains of local transmission

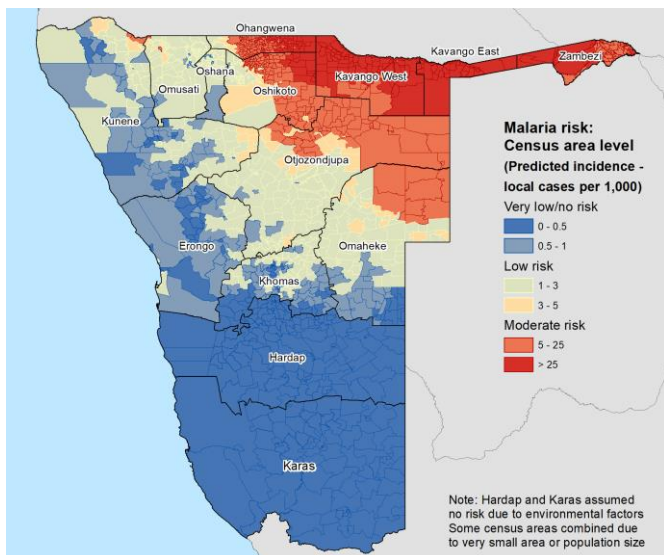
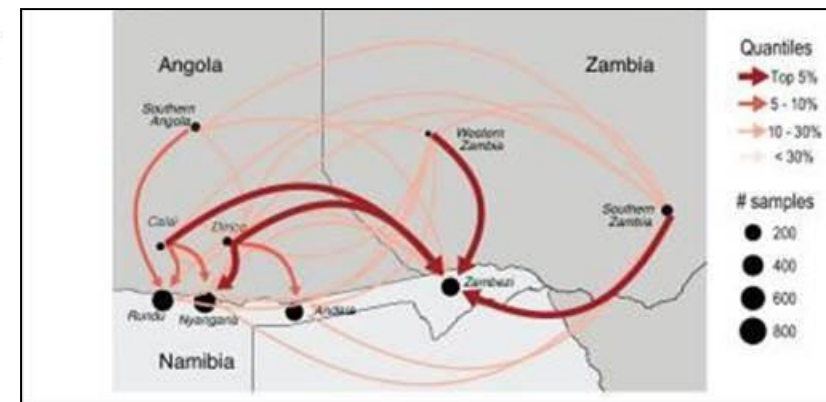


Image Courtesy: Namibia NVDPC/CHAI'

PROPORTION OF IMPORTED CASES REPORTED IN HEALTH FACILITIES IN NAMIBIA AND TARGETED AREAS FOR IRS<sup>2</sup> (JANUARY – MAY 2017)



Source: Elimination 8 strategy: Acceleration Plan 2018-2020



Tessema et al (2019) Using parasite genetic and human mobility data to infer local and cross-border malaria connectivity in Southern Africa. eLife. 2019; 8: e43510

**E8 Targeting sources of Infection Project** – Coordinated multi pronged approach to reduce malaria sources of Infection in Angola



# Interventions Implemented (2017-2020)



	2017	2018	2019	2020
<b>Case Management</b>		ADECOS (CHW) program		
		Cross-border malaria testing posts project		
<b>Vector Control</b>		LLIN Distribution		
		Indoor Residual Spraying		
		Entomological surveillance		Entomological surveillance
<b>Surveillance</b>				Surveillance project
<b>Research</b>		Prevalence study		
		Surveillance assessment		



# ADECOS program (2017-2019)



- ADECOS program has been implemented by World Vision Angola for 16 months
- Selected and trained 210 ADECOS: initial training provided; follow up supportive supervisions and supply chain was guaranteed
- Total of 37.458 malaria cases diagnosed by these ADECOS
- 188.706 tests conducted.
- ADECOS became a major source of health care seeking by populations (CISA, 2018; MENTOR, 2020)
- Program was discontinued in 2019



Image Courtesy: World Vision





# Cross-border malaria testing posts (2017-2019)

- Implemented by a Consortium led by ADPP
- Eight fixed malaria testing posts established in border areas of Cuando Cubango and Cunene in Angola
- Mobile posts and surveillance teams used to reach remote villages and populations
- Test Positivity rate sharply decreased across all posts

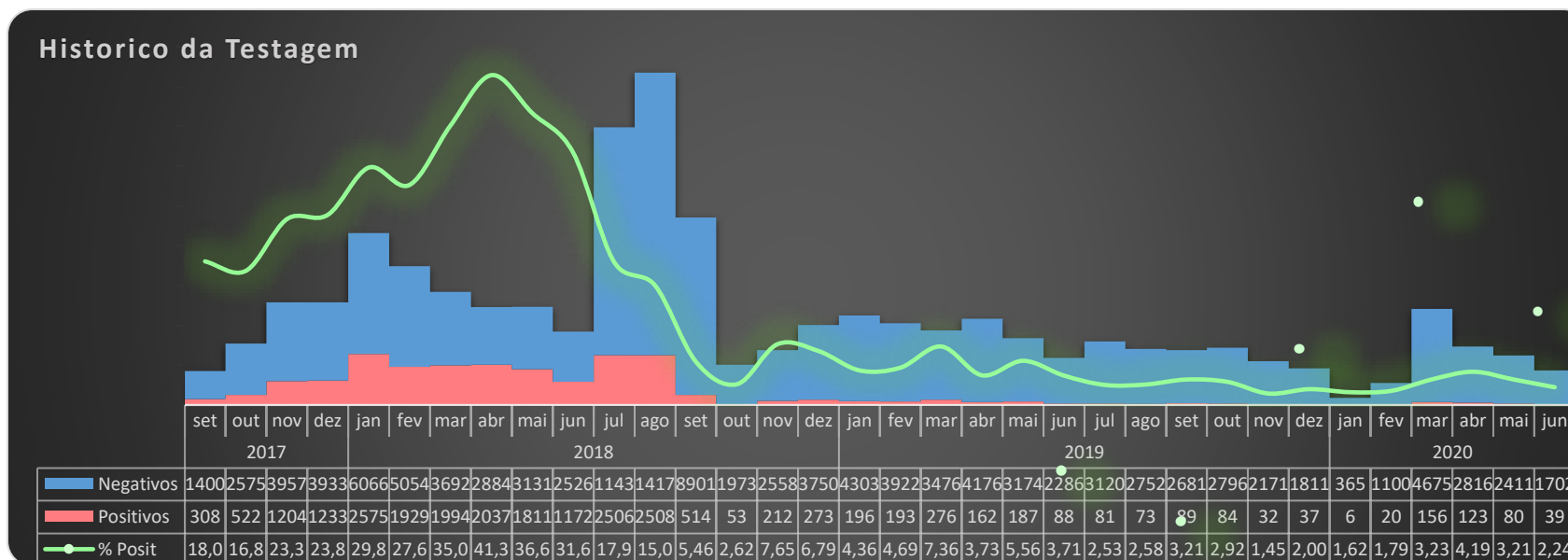


Image credits: ADPP Angola

Source: TKMI project database

# Insecticide-treated nets distribution



- Mass distribution conducted in 2018
- 529 444 LLIN distributed in Cunene in October/November 2017
  - 97% calculated coverage
- 286 543 LLIN distributed in Cuando Cubango in August-October 2018
  - 98% calculated coverage
- 63% of households in Cunene had at least one LLIN one year after the distribution (CISA, 2018)
  - 71% replied children slept under LLIN previous night
  - 29% of adults slept under LLIN previous night → not enough LLIN
- Prior to distribution, only 9.2% of household possessed a LLIN in Cuando Cubango (CISA, 2018)
  - 12% replied children slept under LLIN previous night

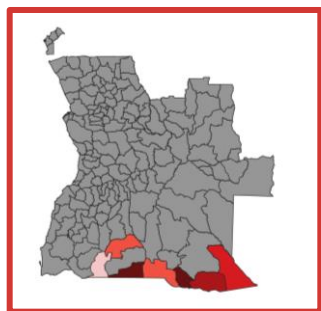




# Indoor residual spraying

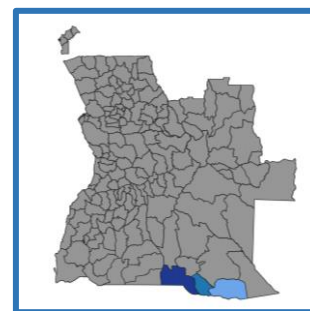
## Cunene and Cuando Cubango Province

APRIL 2018- FEBRUARY 2019

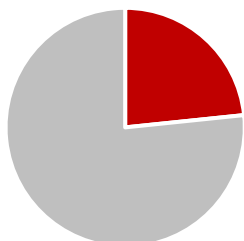


## Cuando Cubango Province

JANUARY 2020- MARCH 2020

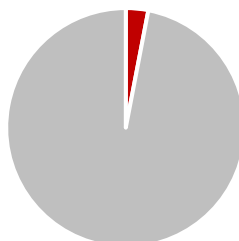


Under 5



24%

Pregnant women



3%

**OVERALL**

From 2018 to 2020

**168 621**

People protected

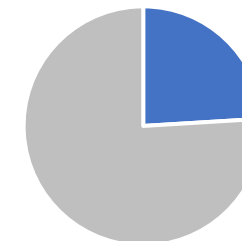
**31 946**

Structures sprayed

**93%**

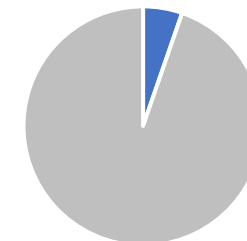
Total Coverage

Under 5



24%

Pregnant women



5%





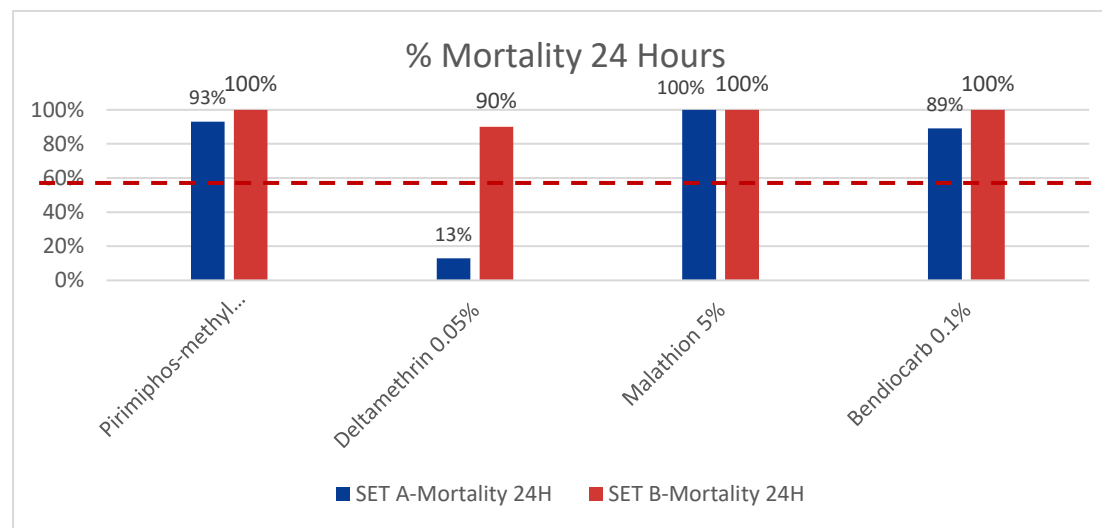
# Entomologic surveillance



- 8 sites sampled along the border:
  - 4 for entomological profiling
  - 4 for resistance monitoring
- Major species collected:
  - 65.4% (n=187) *An. gambiae* s.l.
  - 30.4% (n=87) *An. coustani*
  - 4.2% (n=12) *An. funestus* s.l.,



Entomological surveillance site locations, Southern Angola, 2018 (The blue sites represent sites targeted for entomological profiling (biting behaviour, resting behaviour) and the green for resistance monitoring)



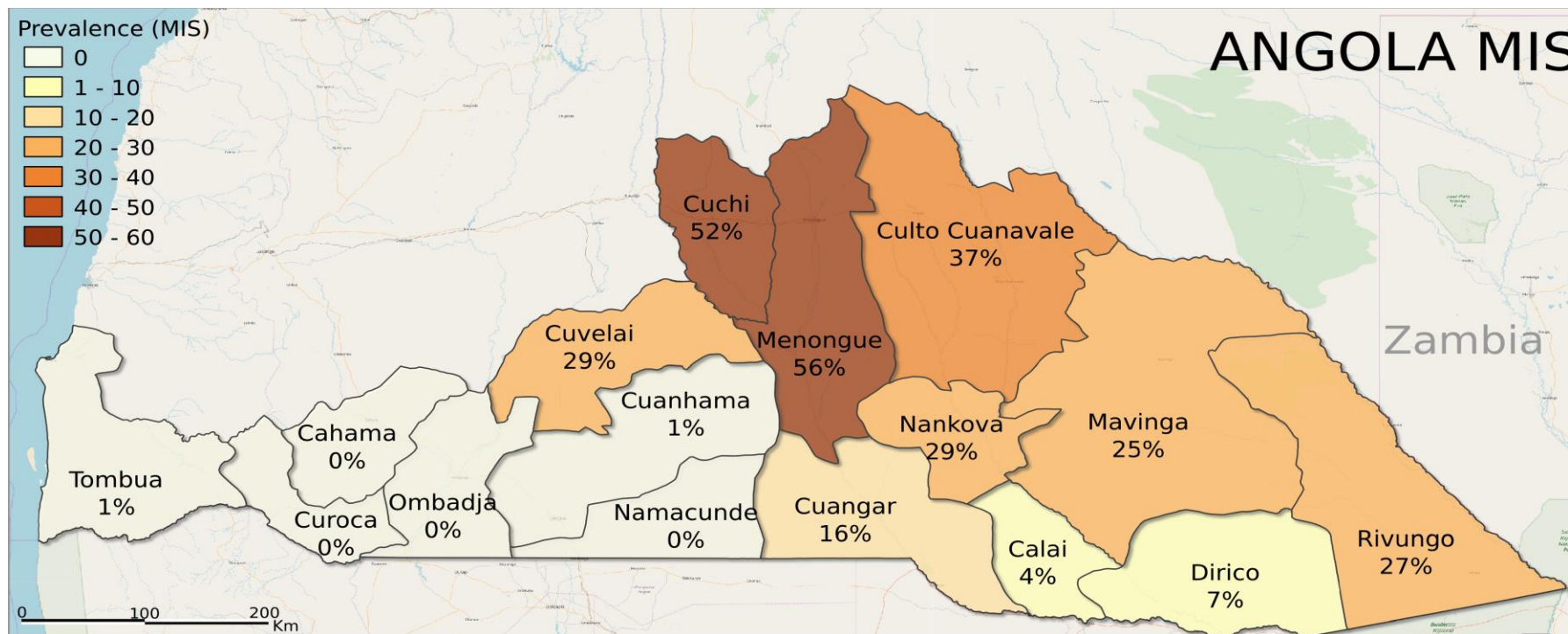
IR Test Results in Cuando Cubango



# Prevalence study



- Feb to jun 2018 led by CISA
- Cross sectional study in 16 municipalities of Cunene, Namibe and Cuando Cubango provinces: prevalence (RDT and PCR) and KAP survey questions included



Source: CISA (2018) Malaria Prevalence Survey in southern Angola



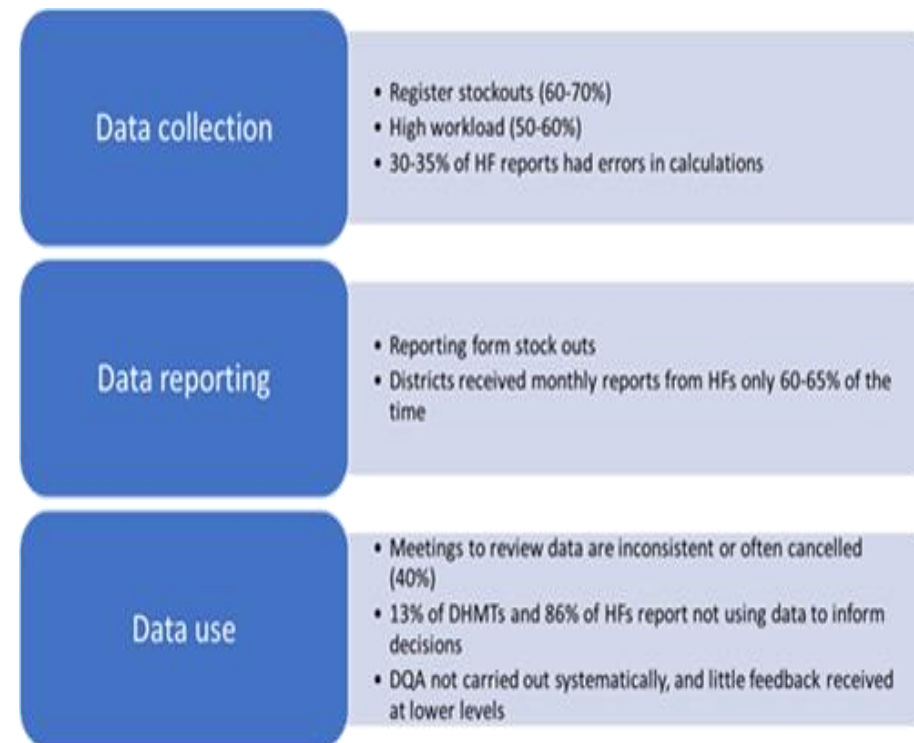
# Surveillance Assessment



From September to November 2018 led by E8 with CHAI support

In 13 municipalities of Cuando Cubango, Cunene and Namibe;

- The main challenges identified for data collection is register stockouts (60-70%), followed by high workload (50-60%);
- 13% of DHMTs and 86% of HFs report not using data to inform decisions
- Meetings to review data are inconsistent or often cancelled (40%);
- Data from the passive surveillance system was found not to be readily accessible by the provincial managers and NMCP;
- 30-35% of HF reports had errors in calculations
- Districts received monthly reports from HFs only 60-65% of the time
- The reporting forms are not always available at health facilities;
- Data quality audits are not carried out systematically and feedback from the highest levels to the lowest to address data gaps was found not to be effective;



# Surveillance project



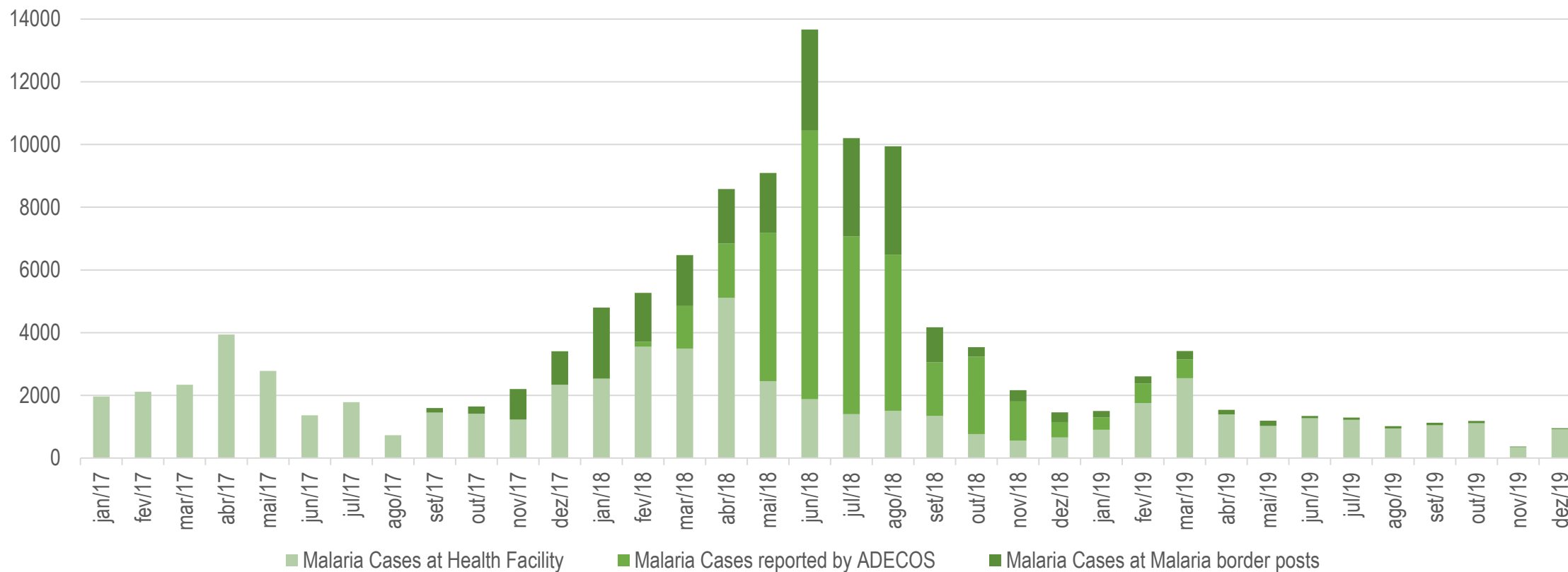
- Focused in the border districts of Cuando Cubango
- Jan 2020 – Sept 2021
- Ensure all malaria related data is reported on time and with quality
- Ensure data is used for decision making
- Baseline assessment
  - Monthly follow up at district and HF level
  - Monthly DQA
  - Monthly epidemiological analysis
  - Quarterly data discussions and operational planning
- Monitor DQ indicators on a routine basis





# Results in 4 districts of Cuando Cubango

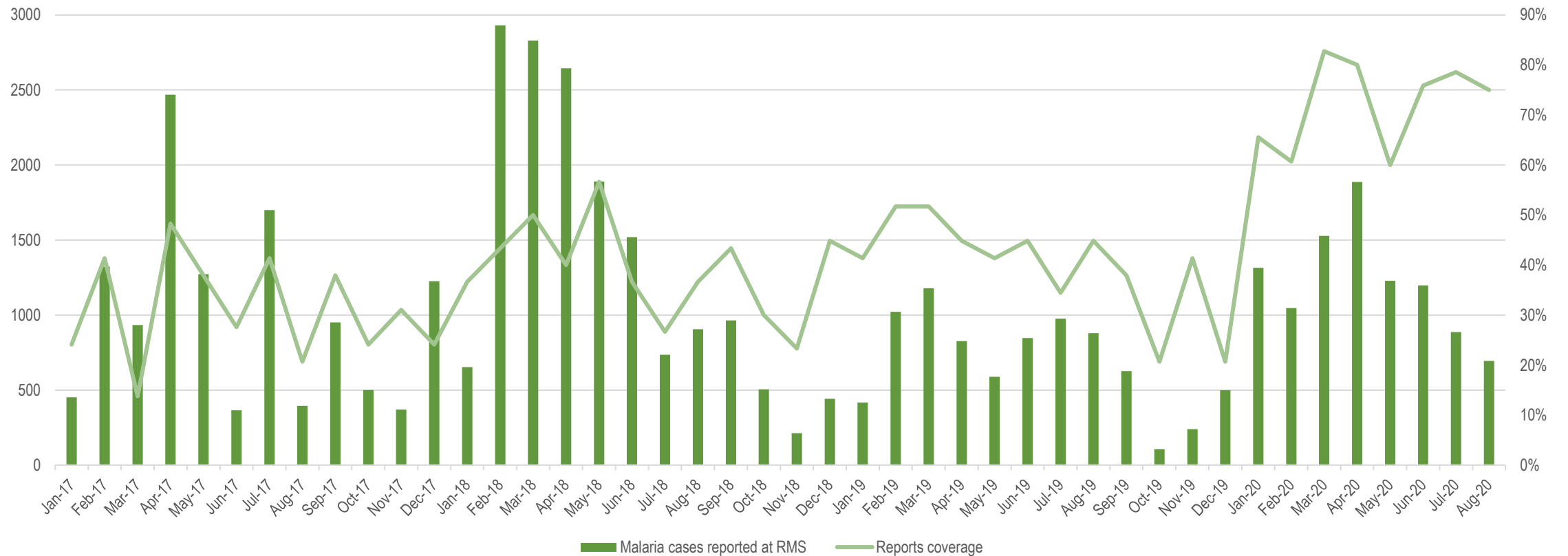
Malaria cases reported in Calai, Cuangar, Dirico and Rivungo (2017-2019)



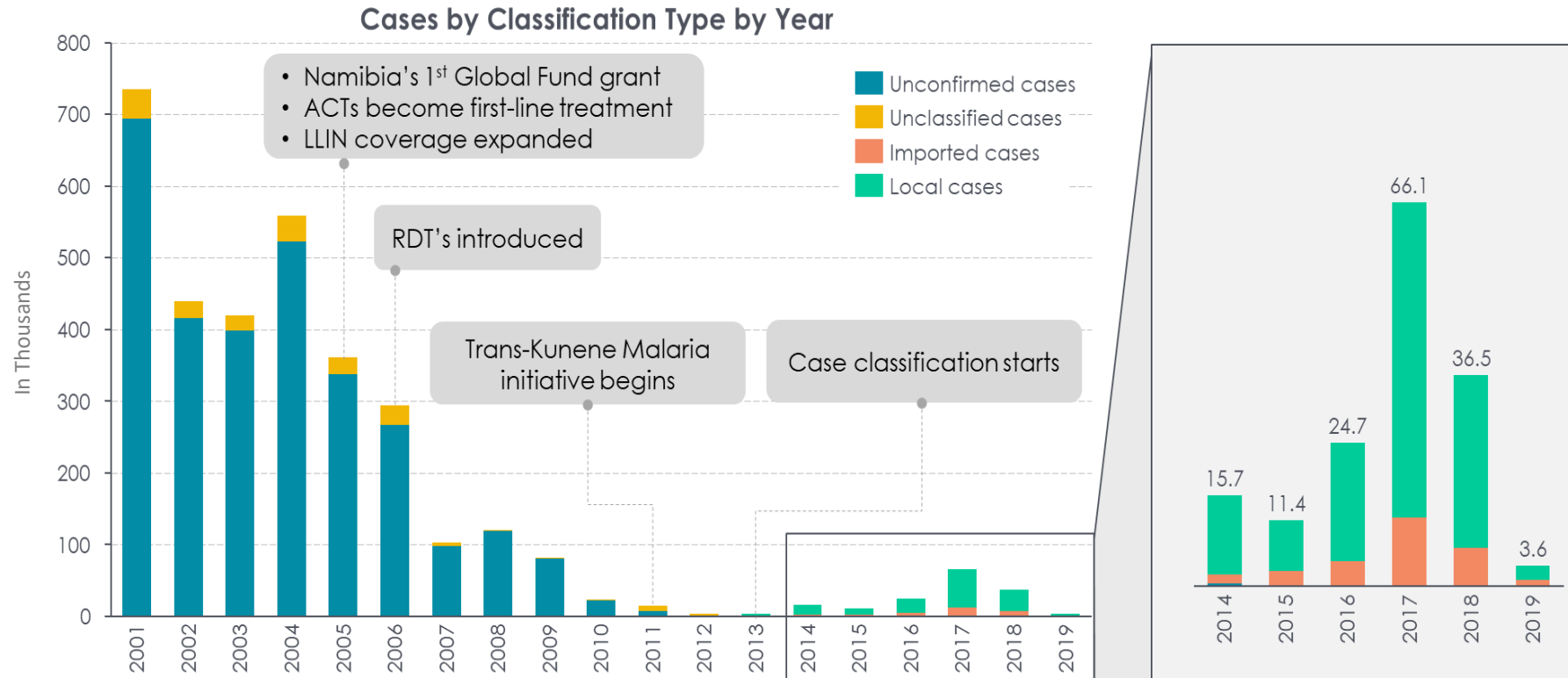


# Results in 4 districts of Cuando Cubango

Malaria cases reported at RMS in Calai, Cuangar, Dirico and Rivungo (2017-2020)



# Results in 4 districts of Cuando Cubango and its neighbouring districts in Namibia...



# Key Conclusions and takeaway messages



- Cross border surveillance and collaboration is essential in contexts of very low/very high incidence neighbouring countries
- Angola proved to be engaged in contributing for Regional malaria elimination efforts
- Coordinated approach with partners support led to high quality intervention implementation
- Results seem to show a decrease in number of cases (even when quality of data and coverage of reporting increased)
- Need to keep these efforts and implementation (and scale up) to not lose gains and to support neighbouring countries efforts
- Detailed Operational Plan for 3 years elaborated





# Aknowledgments

