

Effort towards elimination of lymphatic filariasis in Cameroon: Results of the last transmission assessment survey in 20 HDs of Adamawa, Centre and Far-North regions

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BACKGROUND

Overall:

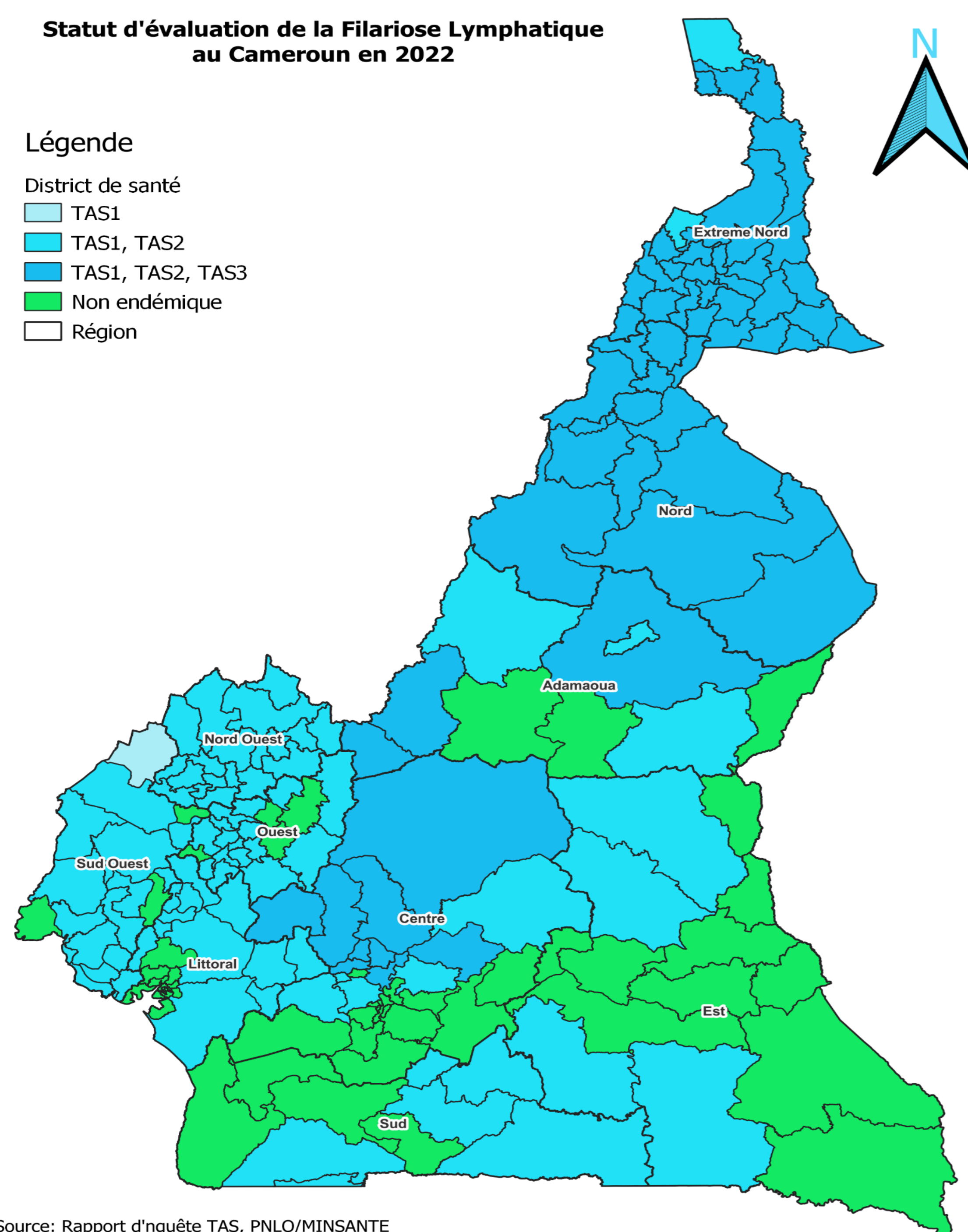
- Country-level elimination of lymphatic filariasis (LF) as public health problem is targeted for 2026.
- 2007-2012: Mapping surveys in 200 health districts (HDs); 144 out of 200 HDs in the country are LF endemic.
- 2008-2017: Mass drug administration (MDA) using ivermectin and albendazole in all endemic HDs.
- 2014-2021: Transmission assessment surveys (TAS1). All endemic HDs reached the criteria for stopping MDA.
- 2019-2022: 141 out of 144 HDs successfully passed the first surveillance survey (TAS2). The last TAS2 survey in Cameroon will be implemented in the Akwaya health district in 2024.

Adamawa, Centre and Far-North regions:

- 2017: Passing TAS1 in 20 HDs after 5 effective rounds of MDA with epidemiological coverage $\geq 65\%$ and pre-TAS prevalence ranging from 0% to 1.3% at each site in 2016.
- 2019: Passing the first surveillance survey (TAS2) in 20 HDs. Transmission was maintained below the threshold.
- 2022: TAS3 in the 20 HDs was conducted.



METHODS



Type of study

- Descriptive cross-sectional survey.

Sampling

- Survey was conducted in the 20 eligible HDs in Adamawa, Centre and Far-North regions in line with WHO guidelines.
- These HDs were grouped into 8 evaluation units (EUs) according to their epidemiological profiles and geographical locations.
- The Survey Sample Builder (SSB) was used to calculate the sample size and to select the clusters and children to be surveyed.
- sample size varied from 1556 to 1692 in EUs.
- The critical cut-off values were from 18 to 20 positive cases depending on EUs.
- Based on school enrolment rate, the survey was conducted in communities for the Adamawa and Far North regions and in schools for the Centre region.

Data collection

- Electronic data collection was done through ODK.
- The data was transferred to the ONA.IO for analysis and archiving.

Diagnosis

- The Filariasis Test Strip (FTS) was used to detect LF antigen.
- Children testing positive were all confirmed by a second FTS test.

Supervision

- Supervision of field activities were carried out by the national program and the local Helen Keller team to verify that the procedures of the approved protocol are respected.

RESULTS

EU	HDs	Sample size (SSB)	# valid samples	Critical cut-off value	Positive cases
EU10	Bankim; Banyo	1556	1564	18	0
EU11	Ngaoundere Rural; Dang	1556	1580	18	1
EU12	Bafia; Ndiki; Ebebda	1556	1606	18	1
EU13	Ntui; Yoko; Sa'A	1556	1567	18	1
EU14	Obala; Monatele; Mbandjock	1556	1575	18	0
EU16	Maga; Moulvoudaye; Vele	1692	1716	20	0
EU17	Tokombere; Mora	1684	1780	20	0
EU18	Kousseri	1684	1780	20	4
TOTAL		12840	13168		7

Out of the 13,168 children in 249 clusters tested, 7 children tested positive by FTS. The number of positive children in each EU ranged from --- 0 to 4 and was below the critical cut-off value of 18-20 per EU.

CONCLUSION

The results of the TAS3 confirmed the sustained interruption of LF transmission in these 20 HDs after stopping MDA, bringing the number of districts that have passed the second post-treatment surveillance survey (TAS3) to 59 in Cameroon.

The national program will establish a surveillance system in HDs that have completed TAS3. Cameroon is well placed to submit the elimination dossier for validation by WHO in 2026.

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