

Rethinking elimination strategies for lymphatic filariasis transmission hot spots in Haiti

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Introduction

Based on baseline mapping (2000/2001) in Haiti, lymphatic filariasis (LF) was determined to be endemic throughout the country. LF transmission is prevented through mass drug administration (MDA) of albendazole and ivermectin in endemic areas on a yearly basis.

Ninety percent of 140 total communes had low prevalence (below 4.5%), while 15 communes, categorized as “red zone,” had prevalence ranging from 10 to 45%.

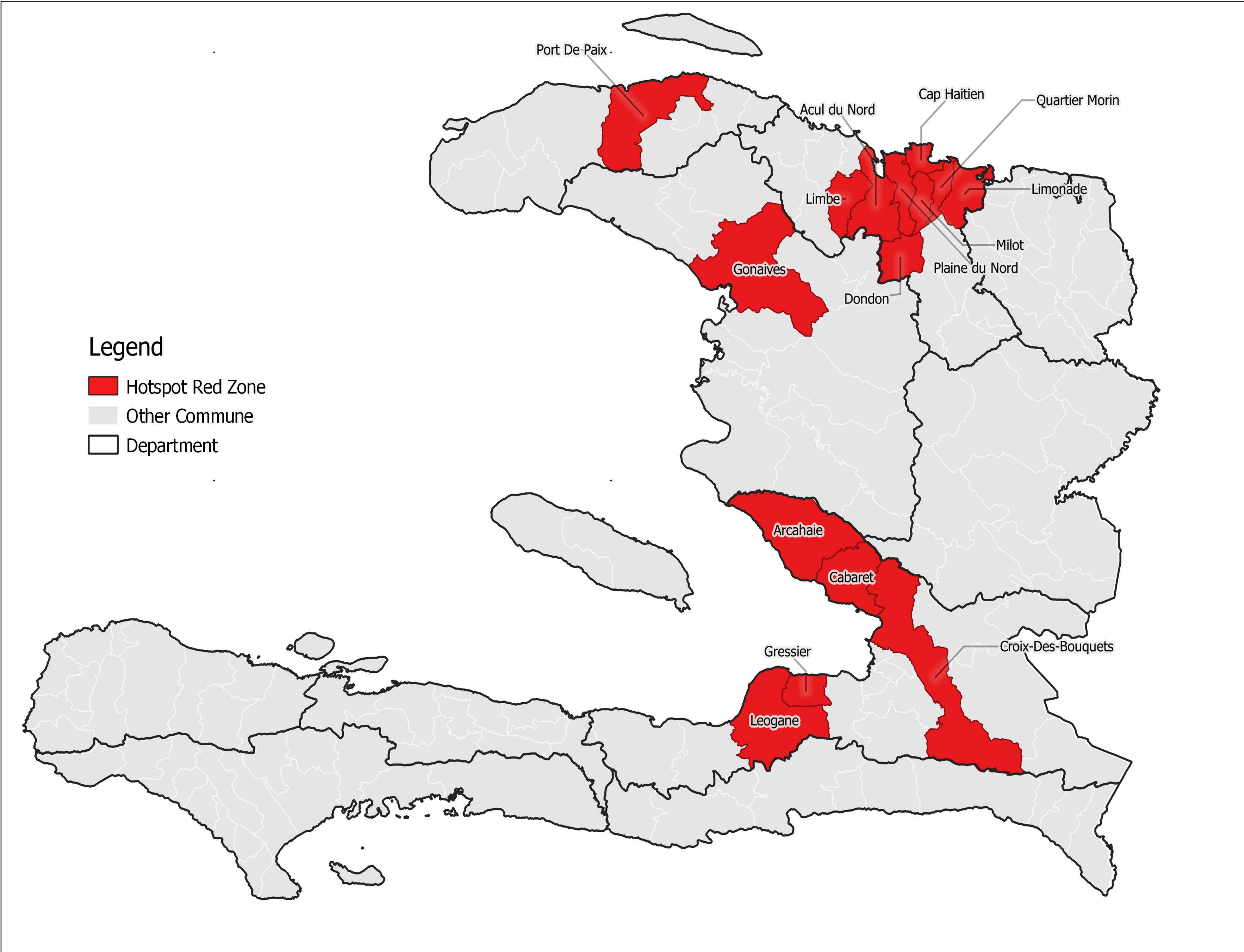
While there has been significant progress to date, with 85% of communes in post-MDA surveillance phase, LF transmission still persists in a total of 14 communes in the red zone, including Arcahaie, Cabaret, and Croix-des-Bouquets in the West department.

Method

In order to conduct a transmission assessment survey (TAS), WHO guidance recommends at least 5 MDA rounds of > 65% coverage of total population and sentinel and spot-check site results with < 2% antigenemia.

Results

Figure 1. West communes



Sentinel and spot-check site surveys in 2015 found continued high antigenemia prevalence in the West communes: Arcahaie, Cabaret, and Croix-des Bouquets (See Table 1).

As a result, MDA in 2016 and 2017 was changed to increase social mobilization in those sites with >2% prevalence. However, in 2017 repeated sentinel and spot-check sites still found more than 20% antigenemia in Arcahaie and 8% in Cabaret and Croix-des-Bouquets.

MDA coverage has been decreasing over the years and by 2017 despite, coverage was marginal in Croix-des-Bouquets (mean: 68.6%) and Arcahaie (mean: 57.5%).

Conclusion

While the country is approaching elimination of LF, extra effort will be required to lower the prevalence in hotspot communes that are below the threshold in order to halt transmission.

Table 1. MDA Coverage and Pre-TAS result of the West hotspot communes

Commune/IU	2012		2013		2014		2015		2016		2017	
	MDA Coverage	Pre-TAS Prevalence	MDA Coverage	Pre-TAS Prevalence	MDA Coverage	Pre-TAS Prevalence	MDA Coverage	Pre-TAS Prevalence	MDA Coverage	Pre-TAS	MDA Coverage	Pre-TAS
Arcahaie	56%						60%	41%	57%		57%	20%
Cabaret	74%				90%		93%	8%	75%		77%	7%
Croix-des-Bouquets	77%				70%		67%	9%	63%		68%	8%

Recommendations

The results underline a need for improved strategies including:

- Conducting a triple drug study per WHO guidelines as was done in North department;
- Conducting a targeted MDA followed by a mini-TAS in hot spot zones, including conducting a microplanning exercise to identify challenges and missed opportunities to improve access to MDA, generate demand and support communes through better tools (supervisor checklists and guidelines) as a way to increase the coverage rate in the hot spot areas.

Acknowledgements

