

# Guiana Shield and the elimination of *P.falciparum*

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**PAHO**

# BACKGROUND



## Guiana Shield

- Area comprising French Guiana, Guyana, Suriname, bordering areas of the states of Amapa, Para, and Roraima in Brazil and the state of Bolivar in Venezuela.



# BACKGROUND



## Guiana Shield

- The surge in the price of gold over the past decade has encouraged an increase in mining activities throughout the Guiana Shield



## BACKGROUND



- Malaria diagnosis and treatment is provided free of charge in the public sector
- Artemisinin-based combination therapy plus a single dose of primaquine is the recommended treatment for confirmed *P. falciparum* infections in Guyana, Suriname, and Brazil; only in French Guiana is primaquine not part of the recommended therapy
- In 2011 and 2012, *P. falciparum* therapeutic efficacy studies (TESs) carried out in both Suriname and Guyana suggested that some strains of *P. falciparum* had delayed parasite clearance, with an increased proportion of patients positive on day 3 following treatment with artemether-lumefantrine
- In October 2013, PAHO organized a meeting in French Guiana, to discuss the threat of artemisinin resistance in the Guiana Shield and consider approaches to dealing with this resistance if it should be confirmed

## BACKGROUND

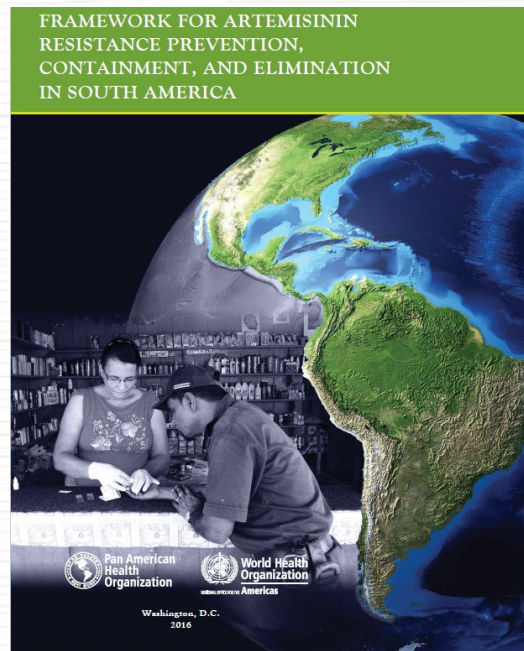


- November 2014, in Paramaribo, a follow-up meeting with malaria control program staff and stakeholders, reviewed updates on the two confirmatory resistance studies
- The artemisinin resistance studies in Suriname and Guyana were completed in 2014. No evidence of delayed parasite clearance or increased treatment failures
- No K13 mutations were found in any of the blood samples from subjects in either the Guyana or the Suriname studies or in 206 additional samples taken in French Guiana
- Contrasting with results collected in 2010 (Guyana) that found that 5.1% (5/98) of the samples had the artemisinin resistance associated with the K13 580Y mutation

# FRAMEWORK



- In light of signals identified in the Guiana Shield, a **FRAMEWORK FOR ARTEMISININ RESISTANCE PREVENTION, CONTAINMENT, AND ELIMINATION IN SOUTH AMERICA** was published in 2016
- The goal of this framework is protect ACTs – both the artemisinin component and partner drugs – as an effective treatment for *P. falciparum* malaria in the Americas



Available at: <http://iris.paho.org/xmlui/handle/123456789/31208>







# ACTION LINES



Improved case detection and treatment of malaria



Ensuring an uninterrupted supply of essential commodities



Scaled up and sustained coverage with vector control measures



Monitoring and supervising staff performance



Engaging other sectors in prevention and elimination efforts



Improved collection and use of surveillance data to target and assess operations

## SUPPORTING ACTIVITIES



1. Strengthened program coordination and management
2. Priority operations research and testing of new tools for prevention and elimination as they become available
3. Monitoring of antimalarial therapeutic efficacy
4. Strengthening pharmaceutical regulation of antimalarial drugs
5. Advocacy and communication to build political support and secure funding for prevention and elimination activities

## Ongoing activities in the Region



- South-South Cooperation: Agencia Brasileira de Cooperação – Suriname (Training)
- Malaria control and prevention of Resistance in the Gold-Mining Population (MALAKIT pilot project)
- Suriname and Guyana (Global Fund Proposals)
- Drug efficacy study in Guyana
- Sharing information (Brazil, French Guiana, Suriname)
- Border meetings (Suriname-Guyana)

The image features a light gray background. On the right side, there is a large, solid blue abstract shape that resembles a stylized speech bubble or a hand. Inside this blue shape is a white circle. Centered within the white circle is the text "THANK YOU!" in a white, uppercase, sans-serif font. The text is arranged in two lines: "THANK" on the top line and "YOU!" on the bottom line.

THANK  
YOU!