



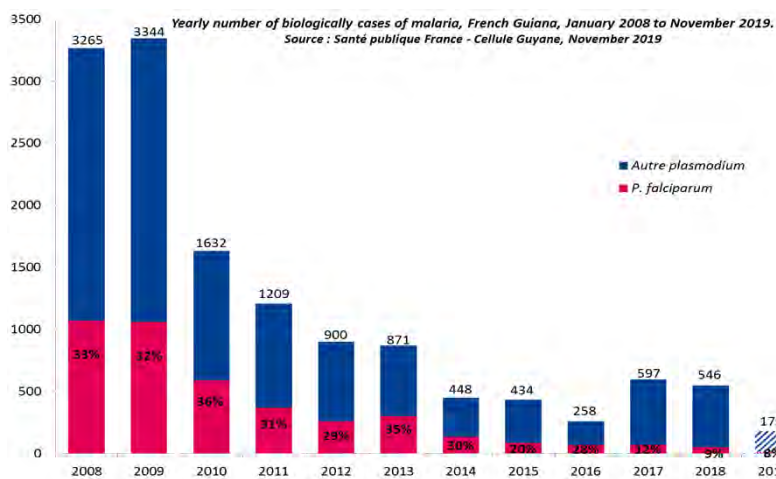
Situation du paludisme en Guyane Française

Sous-groupe santé de la Commission mixte transfrontalière
4 et 5 décembre 2019, Cayenne

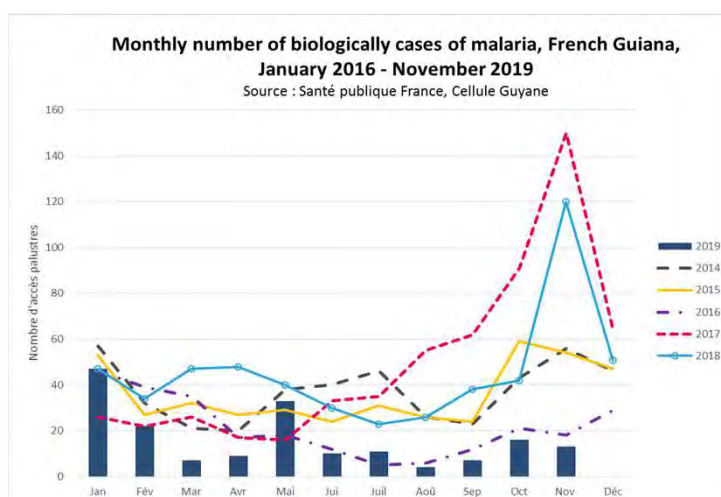
Dr Alice SANNA – Direction de la santé publique -ARS Guyane

— MALARIA EPIDEMIOLOGY

Paludisme: évolution globalement favorable



Paludisme – variations saisonnières



Distribution géographique de la transmission du paludisme

- Endémique dans l'intérieur de de la région
- Inactif sur la bande littorale
- La transmission a lieu essentiellement
 - A l'Est de la région (région frontalière) et dans les villages amérindiens du Haut Maroni
 - Sur les sites d'orpaillage



Malaria intensity of transmission by municipality

Bilan Plan Paludisme Guyane 2015-2018
Evolution de l'incidence annuelle % hab. par commune de contamination
Source : Cre Guyane / Santé publique France



Commune	2016	2017	2018
Apatou	0,00	0,00	0,00
Awala-Yalimapo	0,00	0,00	0,00
Camopi	5,14	4,07	9,94
Cayenne	0,00	0,00	0,00
Grand-Santi	0,31	0,00	0,13
Iracoubo	0,00	0,00	0,00
Kourou	0,08	0,08	0,67
Macouria	0,00	0,09	0,08
Mana	0,00	0,31	0,00
Maripasoula	2,46	4,45	2,94
Matoury	0,20	0,23	0,03
Montsinéry-Tonnegrande	0,80	0,40	0,00
Ouanary	0,00	0,00	0,00
Papaïchton	0,00	0,16	0,00
Régina	5,04	43,35	97,98
Rémire-Montjoly	0,00	0,00	0,00
Roura	0,90	1,21	2,29
Saint-Élie	0,00	53,33	13,78
Saint-Georges	13,96	66,30	34,31
Saint-Laurent-du-Maroni	0,05	0,00	0,00
Sauli	133,75	439,49	356,25
Sinnamary	0,00	0,00	0,00

Zone de non transmission $I = 0$
Zone de faible endémicité $0 < I < 1$
Zone de forte endémicité $I \geq 1$

Evolution of malaria epidemiology (I)

Bilan Plan Paludisme Guyane 2015-2018

Principaux indicateurs épidémiologiques

Source : Santé publique France - Cellule Guyane



	2015	2016	2017	2018
Nb total accès	433 (1,7‰)	258 (1‰)	597 (2,1‰)	546 (1,7‰)
<i>P. vivax</i> (%)	341 (79)	178 (69)	513 (86)	488 (89)
<i>P. falciparum</i> (%)	85 (20)	72 (28)	70 (12)	51 (9)
mixtes (%)	7 (1)	8 (3)	14 (2)	6 (1)
autres spp (%)	-	-	-	1 (<1)
Par cl. âge				
< 6 ans	8%	8%	9%	4%
≥ 6 ans	91%	91%	90%	96%
ND	1%	1%	1%	<1%
Réviviscences parmi les accès à <i>P. vivax</i> (%)	60 (17)	41 (22)	105 (20)	114 (21)
Nb cas hospitalisés	51 (12%)	35 (14%)	58 (10%)	74 (14%)
formes sévères	9	4	9	7
formes sévères dues à <i>P.f</i>	7	2	4	3
Nb décès	-	-	-	-
Nb de demandes (LBM et FAG)	11 558	9 430	6 195	7316 (LBM)

Evolutions recentes



Pendant les premiers 9 mois de 2019

— 150 cas (vs 333 en 2018 et 292 en 2017 janvier-septembre)

— Seulement 12 (8%) *P. falciparum* (vs 43 (13%) en 2018)

- 7 importés (Afrique et Brésil)
- 3 autochtones
- 2 inconnu
- Vs 34 autochtones ou inconnus 2018

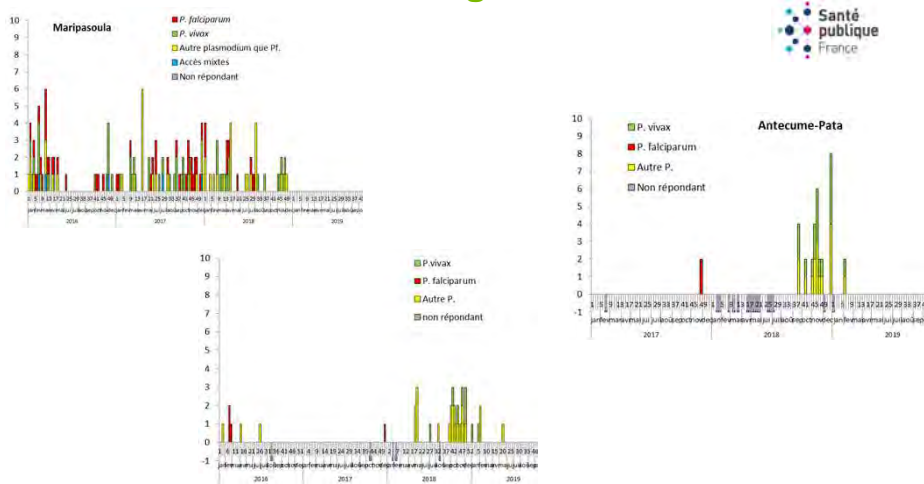
— Deux cas de *P. malariae* (rare)

— Chute de cas diagnostiqués chez les militaires : 7 vs 55 en 2018

Malaria on border regions – the West



Malaria on border regions – the West



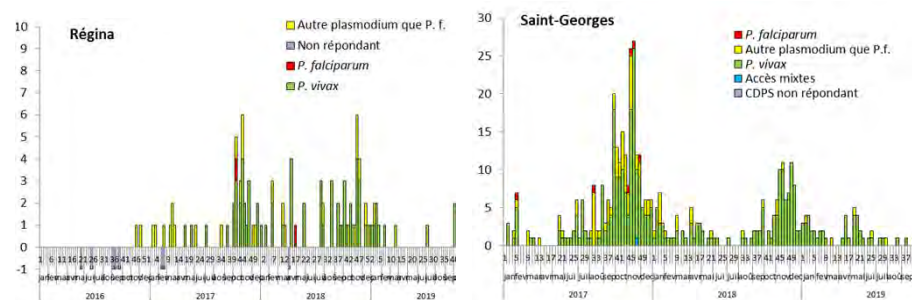
Source : Santé publique France – Cellule Guyane

Malaria on border regions – the East



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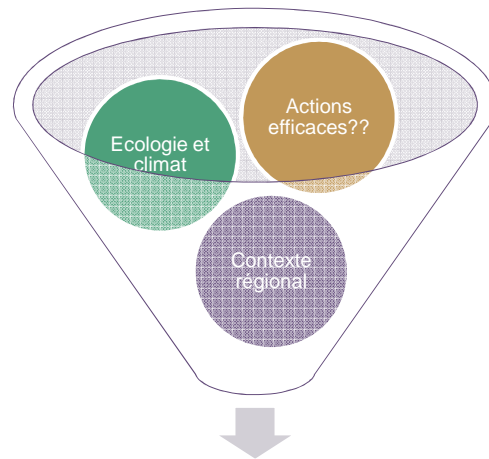
Courbes épidémiques – Guyane orientale



Source : Santé publique France – Cellule Guyane

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— Evolution de l'épidémiologie: interprétations



Diminution majeure du
nombre de cas en 2019

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— Propositions de travail 2020

- Calendrier partagé et coordination des opérations de démoustication programmée (CTG)
- Organisation d'un évènement de mobilisation sociale sur le paludisme à la frontière
- Partage de supports de communication

- Autres projets concernant ce domaine
 - Centre binational
 - Fin de projet de recherche Malakit et réflexion sur la suite
 - Réflexion sur outils de coordination de la lutte contre le paludisme sur le plateau des Guyanes (task force?)

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— REGIONAL MALARIA PROGRAM

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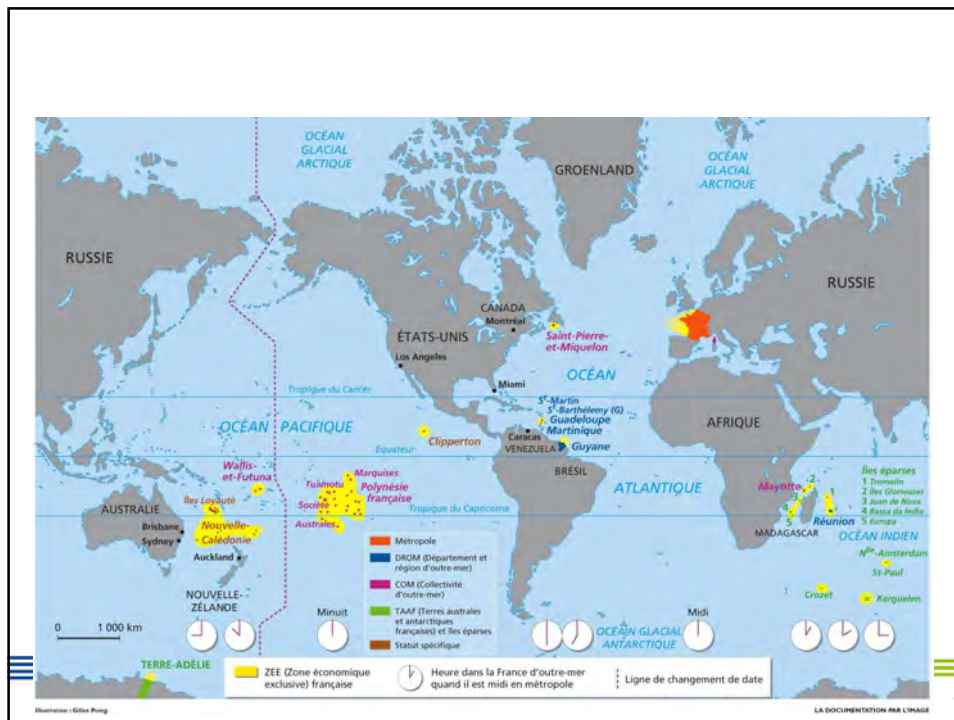
— French Guiana: a French and amazonian region



French overseas region

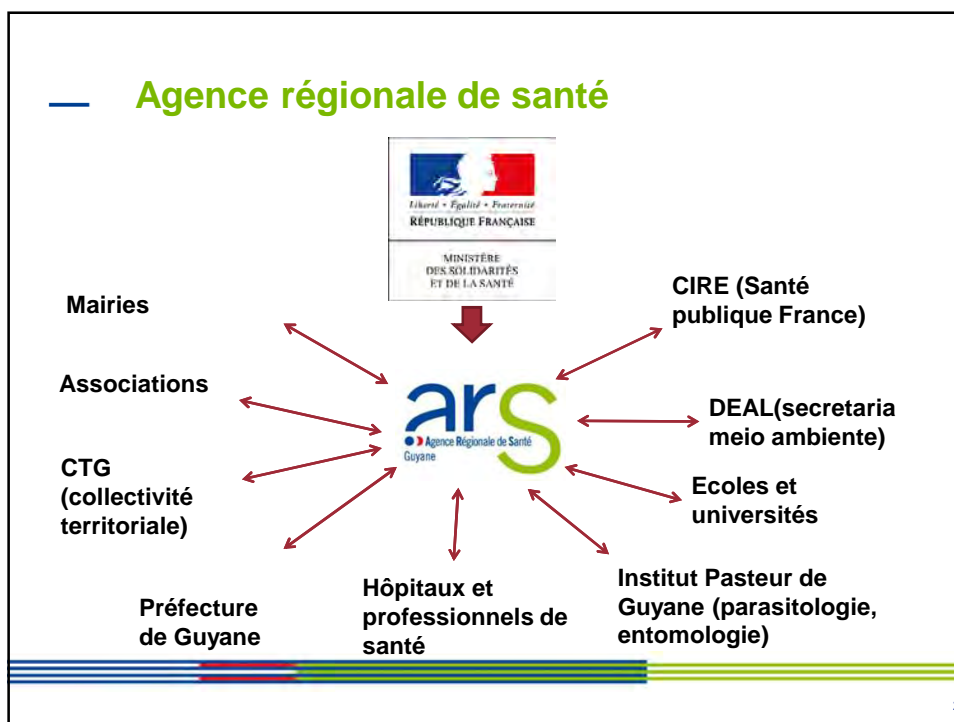
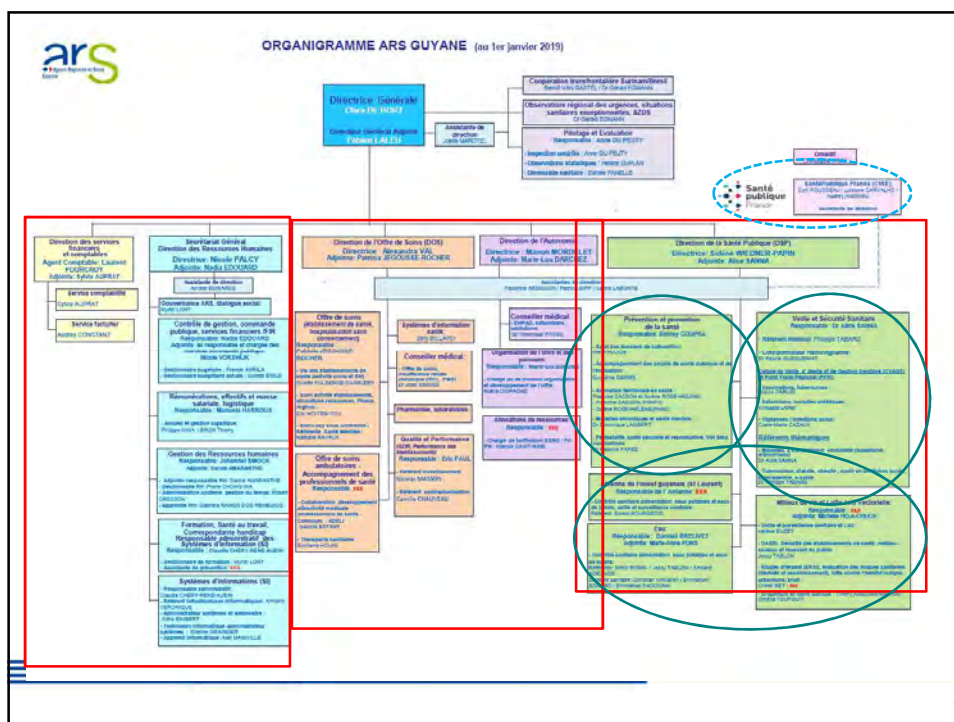
- > 90% rainforest
- 259 865 inhabitants in 2015
- Capital: Cayenne

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— The « Agence régionales de santé »

- **Public institution, autonomous but under the control of the Ministry of Health**
- **Responsible of public health policy**
 - Surveillance, alert and response
 - Prevention and health promotion
 - Preparedness and management of health crises
- **Responsible for the health care services regional organization**



French Guiana Malaria Program

- No France national program
 - Historical reasons
 - Regional programs in French Guiana and Mayotte
 - Ministry of health : technical support to regional health agencies
- Regional control program 2015-2018
 - Objective: control of malaria transmission on the whole regional territory
- Five axes
 - Strengthen surveillance
 - Strengthen vector control actions
 - Improve access and quality of diagnostics and treatment
 - Operational research
 - Transborder cooperation
- Regional coordination and national advocacy tool
- Malaria elimination program 2020-2025 = under preparation

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The institutional context of vector-borne diseases control programs

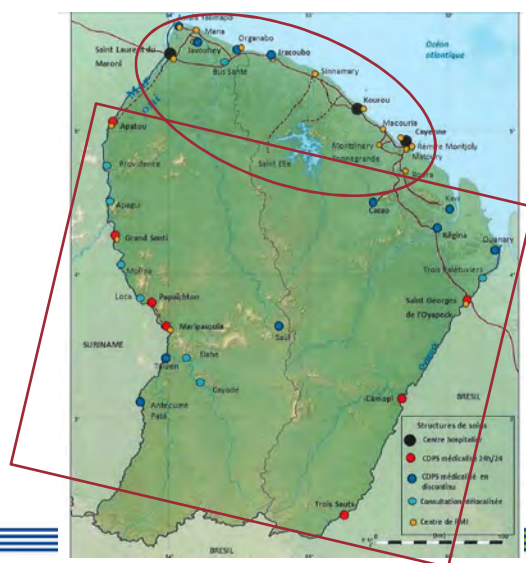
- **In French Guiana**
 - No vertical program – public health plans are coordination tools
 - Multiplicity of partners working on this topic
- **The ARS has a coordinating role, as a pilot of « alert and response » mission and prevention health policy in the region**

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MERCI BEAUCOUP!

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Diagnosis and treatment



- Health care: free and universal at public health care facilities
- Possible in:
 - Public hospitals
 - Labs and clinicians from the private sector (reimbursed by the public health insurance, if person registered)
 - Remote health care facilities (CDPS) which are a department of the Cayenne Hospital

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Diagnosis and treatment

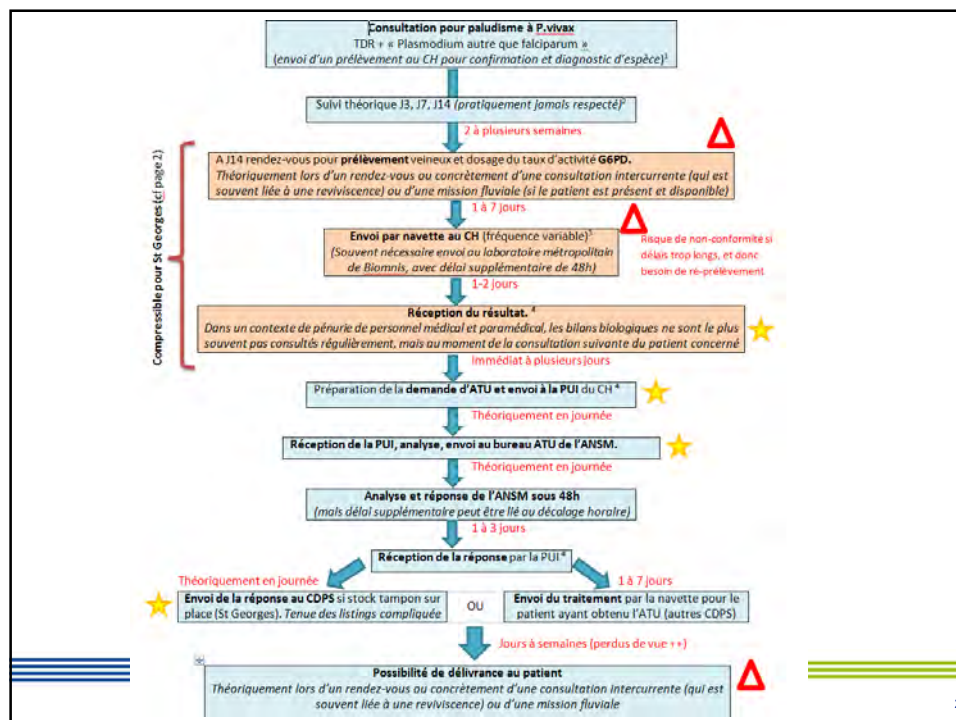
Diagnosis

- Microscopy (littoral region, bio labs in hospitals and private sector)
- RDT in the interior
 - If positive, blood sample is sent in Cayenne hospital in order to confirm, identify specie, and resistance surveillance

Traitement

- **P. falciparum :**
 - Artemeter + lumefantrine or Atovaquone + proguanil
 - Primaquine 0.25mg/kg monodose: OK since 5/7/2019!
 - If severe malaria : Artesunate or quinine IV
- **P. vivax:**
 - Cloroquine
 - Primaquine after G6PD testing
 - 0,5 mg/Kg/d 14 days, if normal
 - 0,75 mg/kg/week 8 weeks if G6PD activity 30-80% or <30%

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Diagnosis and treatment

Creation of « mobile public health teams »

- At present 3 teams = nurse + facilitator
- In St Georges and Maripasoula malaria patients follow up and investigation among their missions:
 - G6PD testing,
 - Treatment of lost-to-follow-up patients
 - Patient education to improve compliance

Parasitology Lab in the Institut Pasteur will test G6PD point of care device

Maybe tafenoquine soon...

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Surveillance

National compulsory notification

Passive surveillance: all the cases diagnosed in the private and public sector are notified to the ARS, which send for analysis to the epi team (regional Santé publique France epidemiology unit)



- Notified by bio labs
- Notified by the Army health services
- Notified by the CDPS

For practical reason (no HR directly working on malaria in health care facilities) FG abandoned the standard notification form

- Collection of a few variable per patient
- Investigation: systematic on littoral area, not systematic in the interior

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— Alert and response organization

