

Malaria diagnosis in Suriname

Access and Quality of the diagnosis

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MoH Malaria Program: "Looking for gold, finding malaria"

AMI/RAVREDA XXII annual evaluation meeting

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Malaria Diagnostic Services

- Medical Mission Primary HealthCare Suriname
- Anti Malaria Campaign (AMC) - Bureau of Public Health
- MoH Malaria Program: “Looking for gold, finding malaria”
 - Tourtonne laboratory
 - Malaria Service Deliverers
- Hospital – and Private Laboratories



Medical Mission Primary HealthCare Suriname (MM)

- 57 Healthpost
- 21 microscopist
- MM serves the entire population in the forested hinterland
- Stratification of population:
 - Stable communities (Marroon and Amerindian villages)
 - Mobile communities (Gold miners and loggers)
- The larger health centers are staffed with microscopist
- Smaller health outpost perform RDT and blood smears
 - All bloodsmears are sent to the larger health centers



MM Quality Control/Assurance

- RDT result from small health outpost are confirmed by microscopy by the health centers
- Smears from all health post are rechecked by the MM laboratory in Paramaribo
- Yearly 6 pannels consisting of 10 smears are sent to all microscopist
- Yearly at least 2 refresment training for microscopist of MM laboratory in Paramaribo



Anti Malaria Campaign (AMC)

Bureau of Public Health

- Malaria diagnostic and treatment Service in Paramaribo
 - Part of Central laboratory
 - National Malaria reference laboratory
- Draft plan Quality Assurance and Control available
- Internal
 - Laboratory technicians receive panels from the head of AMC
- External
 - Receive panels from laboratory in Peru



Hospital- and Private laboratories

- 5 hospital laboratories and 2 private laboratories with branches
 - Malaria diagnosis on request of physician
- All positive slides and 10% of negative slides recheck by AMC laboratory
- All smears from 1 private laboratory rechecked by AMC laboratory
- All hospital- and private labs. Participate in the annual refreshment course of the Bureau of Public Health

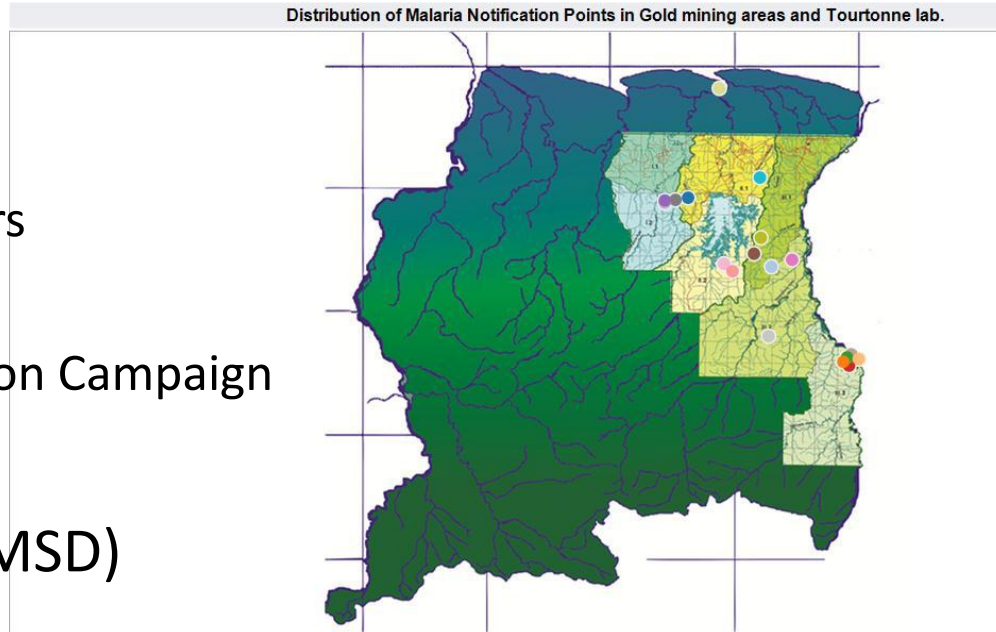


MoH Malaria Program

“Looking for gold, finding malaria”

- Tourtonne laboratory (TL)
 - Perform RDT and blood smears
 - Staffed with 5 microscopist
 - Quarterly Active Case Detection Campaign
- Malaria Service Deliverers (MSD)
 - 23 active MSD
 - Perform RDT
 - For every RDT performed a blood smear is taken

Distribution of Malaria Notification Points in Gold mining areas and Tourtonne lab.



MoH Malaria Program Quality Control/Assurance

- The Tourtonne Laboratory reads all the smears taken by the MSDs
- Quarterly the microscopists re-read all the smears from the previous 3 months taken at the TL (blinded)
- Annually participate in a refreshment course offered by the Bureau of Public Health in cooperation with the University of Amsterdam



Performance of MSD system

- 4489 RDT results compared with microscopy results
- Overall Sensitivity of 83.3% (81.2 – 85.2%)
- Overall specificity 91.8% (90.8 – 92.7%)
- Positive Predictive Value of 80.8%



Performance of MSD system *cont.*

Performance regarding *P. falciparum* diagnosis

- Sensitivity of 83.1%,
- Specificity of 94.2% and
- PPV of 62.6%
- Further research on factors influencing RDT performance e.g. parasitaemia level, storing conditions, reader variability is needed.





Thank you!

