



MOBILE MIGRANT POPULATION STUDY SURINAME

**AN ASSESSMENT OF SIZE, DEMOGRAPHICS,
TURNOVER, MOVEMENT, AND PRIORITY HEALTH NEEDS**



KIT Royal
Tropical
Institute



BACKGROUND

Over the past two decades, Suriname, a country on the northeast coast of South America, has experienced a significant change in malaria transmission risk and incidence. Following a major decline from the highest annual parasite incidence and concentration of *Plasmodium falciparum* cases in the Americas in the early 2000s, Suriname is now moving towards malaria elimination.

An essential part of this effort is the 'Suriname Malaria Program' network of Malaria Service Deliverers (MSDs). MSDs are non-medical people from the target population, who live in malaria risk areas, and who are trained to provide free malaria testing and treatment. Successful implementation of prevention and control interventions by the Ministry of Health's Malaria Program, including its MSD network, supported by the Global Fund, the Pan American Health Organization and other partners, have played a key role in this decline, but challenges remain.

Suriname continues to receive imported malaria cases from other endemic countries

in the region, especially French Guiana. Imported cases are mostly linked to mobile migrant populations who are active in remote artisanal and small-scale gold mining (ASM) areas and travel between Suriname and French Guiana across porous borders. Previous research has found that the vast majority of this mobile migrant population consists of Brazilians working in ASM and the related service economy.

Interventions to achieve malaria elimination in Suriname focus for a large part on these mobile migrant populations who are disproportionately at risk of getting infected, especially in high malaria risk areas across the Surinamese border with French Guiana. Recent interest in this population has increased in the context of the Covid-19 pandemic, as the Ministry of Health of Suriname is formulating a national response to the pandemic. In this response, migrant mobile populations in the interior are of importance given their frequent movement, minimal use of protective measures, limited access to accurate information, and reduced access to health services.

PURPOSE & OBJECTIVES

This document summarizes the findings from the mobile migrant study which was conducted at the request of Suriname's Malaria Program and looked into the ASM population's demography, movements, health perceptions, and healthcare seeking behaviours ([the full report can be accessed here](#)). The study's main objective was to characterize and quantify the population of artisanal small-scale gold miners and their social system in Suriname and French Guiana.

The specific objectives were to:

- 1 Determine mobile migrant population characteristics
- 2 Determine and visualize mobile migrant population mobility including cross-border movement of the population
- 3 Analyse health concerns and health care seeking behaviour of the mobile migrant population.

METHODOLOGY

The study used a mixed-methods approach, combining quantitative (analysis of official and proxy data related to the target population) methods and qualitative

(sociological and anthropological) research methods. Field data collection took place between November 2020 and January 2021.



FINDINGS

POPULATION SIZE

Estimates from our study show convergence as they are strikingly similar across the different methods used. For Suriname, the mean figures suggest an ASM population of approximately 20,000 persons, whereas, for French Guiana, the estimates are around 11,000 persons. These figures represent both the population of gold miners and those providing services, giving a total of nearly 31,000 individuals who are currently active in the ASM sector across French Guiana and Suriname (see map page 6). The data suggest a population turnover of approximately 10,9%, of which 95%, or some 3,000 people each year are newcomers to the sector in Suriname and French Guiana.

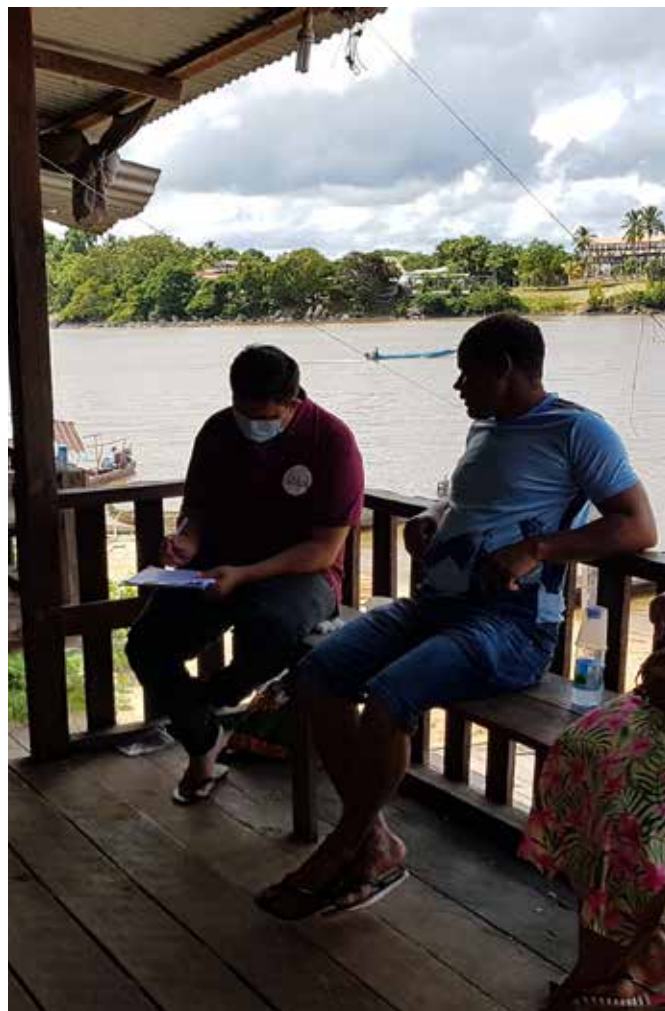
DEMOGRAPHICS

A review of the literature and further investigation identified other mobile and migrant populations with frequent cross-border movements and who have been found to have an elevated risk of malaria transmission. These include formerly enslaved Afro-descendent Maroons who frequently cross the border with French Guiana (total estimated population 50,000-100,000), Highland indigenous people who cross the border with French Guiana and Brazil (7,000), Lowland indigenous peoples living near the border with French Guiana, and up to around 1,000 Asian and a few Brazilian workers active in the logging industry.

The ASM population is dominated by adult men, but a significant number of women are also present in ASM areas. Our findings suggest that 25% of the ASM population in Suriname, and 20% of the ASM population in French Guiana, are women. In terms of age, we find negligible differences between women and men. Women were, on average, 41 years of age, with a range from 22 to 68 years, while the average age for men was 42, with a range from 16 to 70 years of age. Women primarily work in the mining service economy and occasionally as operation owners, while men are mostly mine workers

and are also involved in virtually every other (service) job apart from sex work.

Our observations and survey data suggest that there are children younger than 18 present in the garimpos (ASM areas) and related currutelas (gold miners' villages) and service areas. We estimate that there are about 4 to 5 children under the age of 6 per 1,000 adults in French Guiana. This figure is threefold more in Suriname, where about 15 babies, toddlers or pre-schoolers were reported for every 1,000 individuals. There were no reports or observations of young children working in the mining areas, young children tend to remain with their mothers and play. Fewer primary school-age children (6-15 years old) were reported in French Guiana (2.6 per 1000 adults); this number was higher in Suriname (11.4), possibly because this figure includes the Ronaldo/Antonio do Brinco service area from



which some primary school-age children attend school in nearby Maripasoela (French Guiana). Some schoolteachers from Maroon villages near mining areas reported that when schools closed during the Covid-19 pandemic, significant numbers of schoolboys had left to work in the mines. One third of respondents reported that they had worked and/or lived with family in ASM areas in 2020.

INCOME

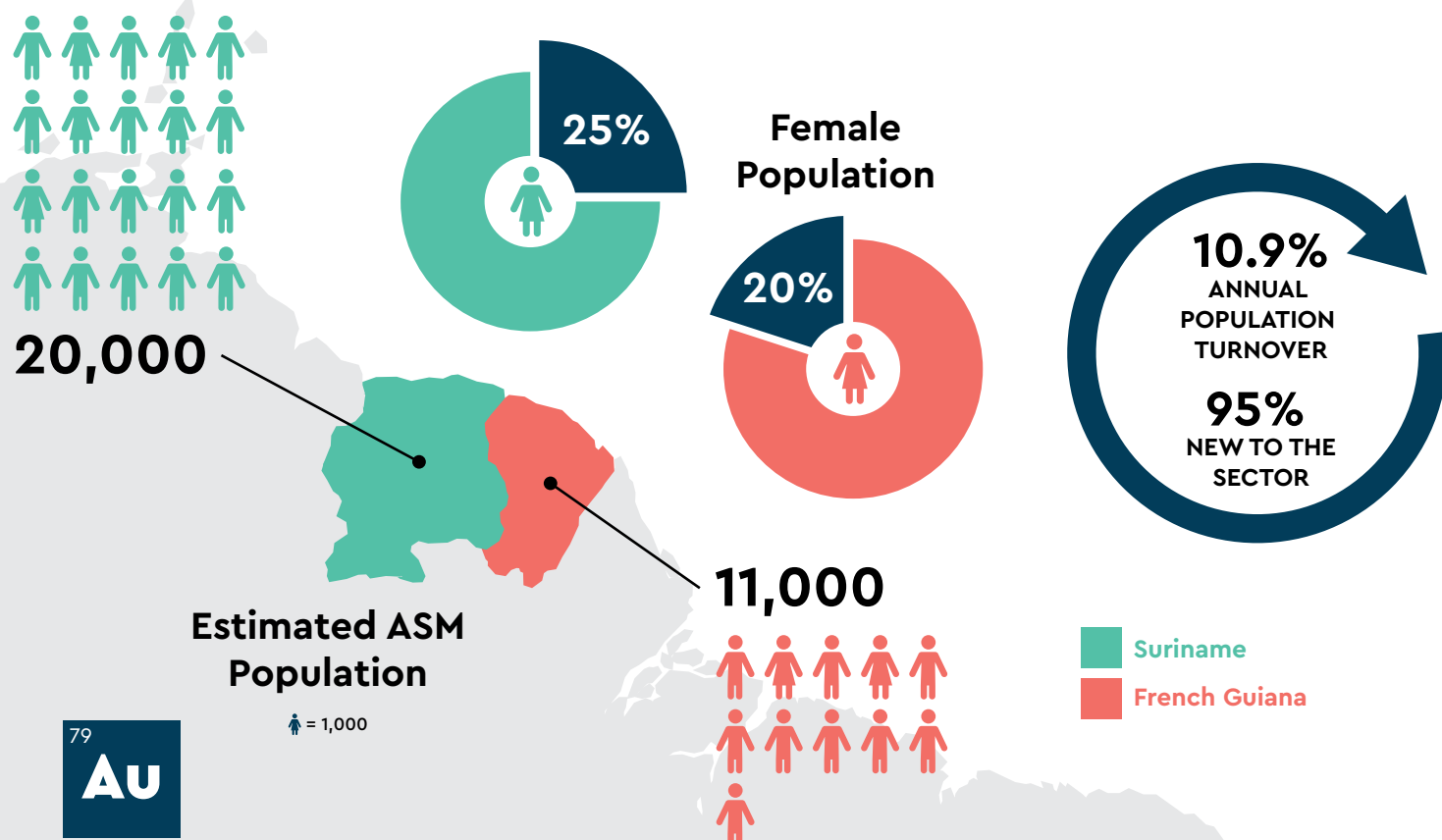
The study found that the earnings of garimpeiros (workers) in French Guiana (300 g Au/year; ~ USD 14,000) are about 50 per cent higher than those of gold miners in Suriname (194g Au/year; ~ USD 9,000). These average ASM earnings compare favourably to the minimum wages in Brazil (USD 2,190/year) and Suriname (USD 1,250/year). The economic opportunity provided by ASM explains why this population travels to remote locations in Suriname to engage in the ASM economy. At the time of writing, the price of gold remains high, at around 54 USD per gram.

COUNTRIES OF ORIGIN

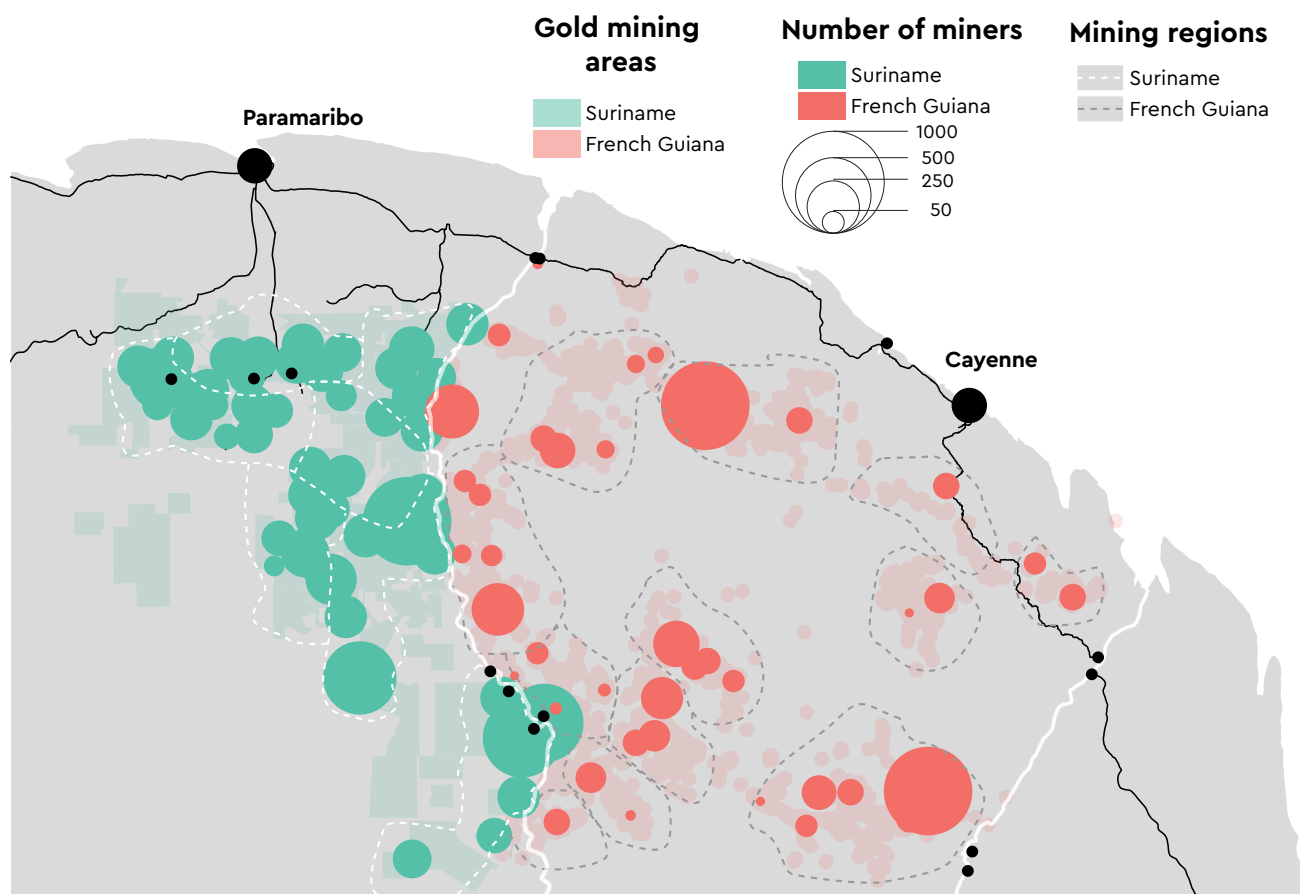
Even though both women and men predominantly originate from Brazil, the population of women is relatively more diverse. There are quite a number, and still growing, of women from the Dominican Republic and Cuba and smaller numbers from China, Guyana, and Venezuela. The Dominican and Cuban women are mostly active as sex workers but also undertake other service jobs.

MIGRATION

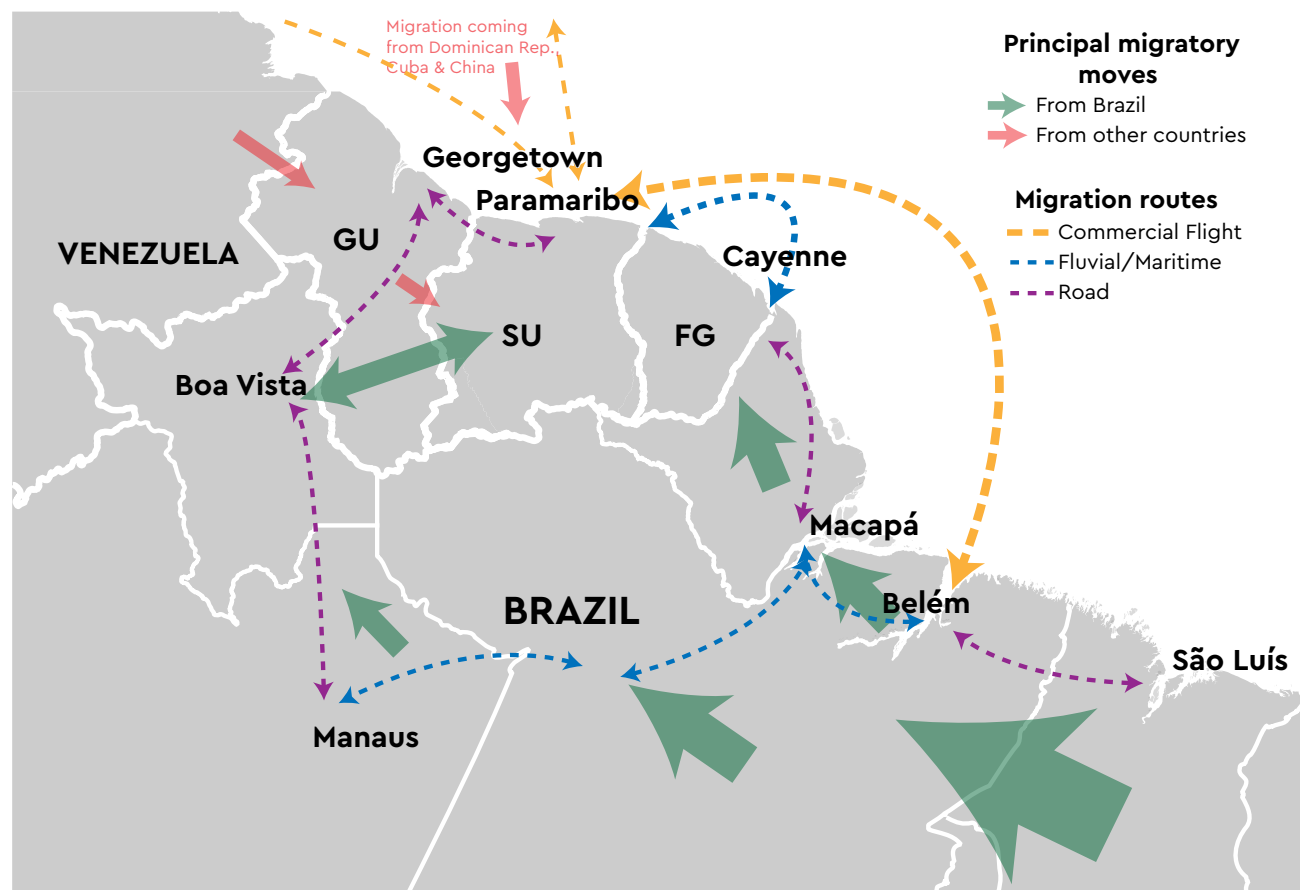
Another important set of findings relates to the flux in this ASM population (see map page 6). Contrary to previous reports and popular perception, the vast majority of the ASM population working in Suriname reports not crossing the border to French Guiana, and almost half of the population reports not having changed their place of work in the past two years. This is a bit different for the ASM workers we interviewed in Suriname, but that are principally based in French Guiana, who tend to cross the border with Suriname more frequently. These results are likely biased by the fact that the



POPULATION



MIGRATION



research team could not conduct interviews in French Guiana, so our sample may not be representative of the whole population working in the ASM sector in French Guiana. Contrary to expectations, and despite continuous pressure from the French authorities to control illegal mining, 35 per cent of the ASM respondents in French Guiana reported not changing their place of work in the past two years. A small but important segment of this ASM population, especially those working in French Guiana, reports very frequent border-crossings and changes in workplace.

COVID-19

The findings suggest that most ASM workers are not too concerned about Covid-19 or other diseases and health problems and rely on a vast array of home remedies and over-the-counter medication for protection. In the total population, the main health concerns were malaria and leishmaniasis. Gender, occupation and nationality shape health concerns and behaviour. Male respondents were most concerned about injuries, and female respondents with Covid-19 and

sexual and reproductive health. Chinese shopkeepers were most worried about violence and robberies. Another key finding is that virtually no respondent reported any effect from the Covid-19 pandemic on their income. In fact, it seems that ASM workers have been able to earn a relatively steady income compared to urban businesses such as cafés, restaurants, gyms and daycare. Among ASM workers and service providers, we documented a highly prevalent perception that there is no Covid-19 in the remote jungle areas where they operate. A significant number of individuals believed that only –or primarily– travel to, and being in, Paramaribo exposes one to Covid-19 risk. This attitude towards Covid-19 characterizes the ASM population's attitudes towards (new) disease: one cannot do much to prevent or treat infection, one can only continue to work hard and pray.

The findings are not only relevant for malaria intervention strategies but are also useful in the design of targeted and relevant health interventions in the context of other (infectious) diseases such as Covid-19.



DISCUSSION

The findings from this study reveal some remarkable new insights into the mobile migrant ASM community in Suriname and French Guiana. The ASM population size and its proportion of women appear larger than previously reported in the literature. Furthermore, our findings suggest a departure from the more conventionally held

stereotypes of ASM workers as male lone wolves chasing gold in the remote jungle. Rather, a picture emerges of a tightly knit social structure of migrant workers with limited mobility and flux, who work hard in often precarious conditions to build a better life for themselves and their families – both in Suriname and in their home country.

CONCLUSION

The novel insights into the mobile migrant ASM population can give a new impulse to efforts by the Ministry of Health, its Malaria Program and other related organizations,

including the Global Fund, seeking to further reduce the burden of infectious disease in this population, and ultimately in the Surinamese population.

RECOMMENDATIONS

The recommendations centre around:

- 1 Increasing the monitoring of the size and movement of this population using the techniques validated in the full report based on readily available data on gold production and deforestation
- 2 Targeting subgroups that are most in flux and thus most at risk of contracting and transmitting infectious diseases
- 3 Increasing efforts to communicate risks, preventive measures and treatment options to the ASM population by leveraging the social networks using trusted community channels
- 4 Continuing to explore opportunities to scale up support to ASM workers by increasing service delivery through the MSDs network, specifically for most at-risk subgroups to implement prevention and treatment options for malaria control and elimination
- 5 Exploring opportunities to create political will, advocate for and support diagnosis and treatment of malaria in mining areas in French Guiana.



AUTHORS

Dr. Marieke Heemskerk
Dr. Eelco Jacobs
Dr. Pierre Pratley

PHOTOS

Dr. Marieke Heemskerk
Bram Ebus

MAPS

François-Michel Le Tourneau

LAYOUT & GRAPHICS

Tristan Bayly

CONTACT

www.kit.nl



KIT Royal
Tropical
Institute