Migrant & mobile populations and access to HIV services in gold mining areas in Suriname

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61348 Bad Homburg
Germany

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Submitted by:

Social Solutions
Siriusstraat 14
Paramaribo, Suriname
Tel: (597) 457885

Authors:
Marieke Heemskerk & Celine Duijves
Phone: +597 8910049 +597 8130399
Email: mheemskerk@yahoo.com
Email: celineduijves@hotmail.com

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View or opinions in this report do not necessarily reflect the views or policies of EPOS, GIZ, or other institutions this project is affiliated with. The authors are responsible for all errors in translation and interpretation.

Marieke Heemskerk & Celine Duijves

Social Solutions

Abbreviations and foreign words

ABS	National Bureau of Statistics (*Algemeen Bureau voor de Statistiek*)
AIDS	Acquired Immuno-deficiency Syndrome
ART	Antiretroviral therapy
ARV	Antiretroviral medication
BOG	Bureau for Public Health (*Bureau voor Openbare Gezondheidszorg*)
BSRG	Policy plan Sexual and Reproductive Health (Beleidsplan Seksuele en Reproductieve Gezondheid)
BSS	Behavioural Surveillance Survey
CA	Foundation (*Stichting*) Claudia A
Cabaret	Brothel, here only used to indicate brothels in the gold mining areas (Br.)
CBB	Civil Registry (*Centraal Bureau Burgerzaken*)
CBO	Community Based Organization
CPV	Centre for Prevention and Vaccination (*Centre de Prévention et Vaccination*)
COIN	Centre for Integrated Training and Research (*Centro de Orientacion Integral*)
Curatela	Population centre in a mining area where gold miners and service providers live and work (Br.)
Derma	Department of Dermatology
EBGS	Evangelische Broedergemeente Suriname (Moravian Church)
FBO	Faith Based Organization
FG	French Guiana
GDP	Gross Domestic Product
GIZ	German Organization for International Cooperation (*Deutsche Gesellschaft für Internationale Zusammenarbeit* - GIZ)
GNI	Gross National Income
GTZ	German Technical Cooperation (*Gesellschaft fur Technische Zusammenarbeit*)
HIV	Human Immunodeficiency Virus
Garimpeiro	Gold miner (Br.)
Garimpo	Gold mining area (Br.)
GO	Governmental Organization
GZA	Health Assistant, associated with MZ (*Gezondheidsassistent)*
Ibid.	*Ibidem* (Latin), meaning: aforementioned, in the same place. The term is used to indicate that a citation comes from the same source as the previous.
IMF	International Monetary Fund
MARP	Most At Risk population
MDG	Millennium Development Goal
MSD	Malaria Service Deliverer
MSM	Men having Sex with Men
MZ	Medical Mission (*Medische Zending*) – Primary Health Care Suriname
NAP	National AIDS Programme
NAC	National AIDS Commission (*Nationale AIDS Commissie*)
NBCCS	New Beginnings Consulting and Counseling Services
NGO	Non Governmental Organization
NSP	National Strategic Plan on HIV & AIDS
OAS	Organization of American States
OGS	Regulation Gold Sector (*Ordening Goudsector*), Commission
PAHO	Pan American Health Organization

PANCAP	Pan Caribbean Partnership Against HIV and AIDS
PEP	Post-Exposure Prophylaxis
PMTCT	Preventing Mother-to-Child Transmission (of HIV)
RGD	Regional Health Service (*Regionale Gezondheidsdienst*)
SRH	Sexual and Reproductive Health
STI	Sexually Transmitted Infection
SW	Sex worker
UNAIDS	Joint United Nations Programme on HIV & AIDS
UNFPA	United Nations Population Fund
UNGASS	United Nations General Assembly Special Session
VCT	Voluntary Counselling and Testing

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Summary

Introduction: This report presents the results of a study on the accessibility and quality of HIV prevention, care, and treatment services for migrant and mobile populations in the small-scale gold mining sector in Suriname, South America.
The results will serve to:

- Provide a better understanding of the local dynamics with regards to migration to gold mining areas in Suriname, in order to provide input as to where the project's efforts should be.
- Guide the country's selection with reference to the most suitable organizations that the project should concentrate on for building capacity.
- Provide insight into the best communication strategies to reach migrant and mobile populations in Suriname's small-scale gold mining areas to promote access to services.

Methods: Fieldwork took place in January-February 2012 in 12 gold mining sites distributed over four larger mining regions in the districts of Brokopondo and Sipaliwini in Suriname. Fieldwork focused on migrant and mobile individuals who were working in one of the visited gold mining areas during the study period. Research methods included a quantitative survey, focus groups and group interviews. A quantitative survey was conducted with 296 migrants among whom 118 women and 178 men. Sixty-seven individuals, among whom six women, were Suriname nationals working outside of their area of origin or the area they called "home". Among the 229 international migrants, 112 were female and 117 were male. Two focus groups were conducted with a total of 17 persons (9 and 8 persons) and three qualitative group interviews were held with between two to four persons. The study had several limitations, such as the impossibility of taking a random sample and the travel expenses to and within mining areas. Research procedures adhered to professional ethical standards for anthropological and health research.

Literature review: Existing literature rarely addresses both migrant populations and HIV in Suriname. Suriname is a country with a long history of migrants. Among recent migrants, the largest and most visible groups are the Brazilians and Chinese. In addition, significant numbers of Guyanese, Haitians, and Dominicans move to Suriname short-term, long-term, or permanently. Migration within Suriname often remains unrecorded or is only recorded a few years after the fact. The year 2009 marks a relative decrease in the number of people leaving the interior districts where virtually all gold mining takes place. It is possible, yet not proven, that the high price of gold has motivated internal migration to the small-scale gold mining sector and the surrounding service economy. Concerning HIV, Suriname has a generalized epidemic and HIV is prevalent in all layers and groups of society. Various studies demonstrate that gender and ethnicity/culture play a role in sexual risk behaviour, exposure to HIV, and access to HIV services. A recent study among 101 sex workers and 93 clients of sex workers in the gold mining areas found 1% of sex workers and none of the clients HIV+. This study suggested that knowledge of HIV transmission is sub optional and that many inhabitants of mining areas do not know where to go for HIV services including testing, treatment and care.

Results fieldwork: The research areas are situated on varying distances from the capital city of Paramaribo. The nearest are is Brokopondo north of the lake. in this area Visited mining areas were all located within 15-30 minutes travel distance (by car) from the main village. The largest share of the gold miners in this area are Maroons from nearby villages. The Brokopondo south of the lake area is much more isolated and consists mainly of Brazilian migrants who live both scattered through the forest in their mining camps and in the *curatelas* that have sprouted throughout the region. The Benzdorp area hosts an estimated 2500-3,000 gold miners and mining service providers, mainly Brazilians, one of the largest concentrations of small-scale gold miners in Suriname. This area is located close to the Lawa river, with across the border French Guiana, an overseas department of France. The Nassau mining area can be reached in about four to five hours from Paramaribo. The majority of miners working in this area are Brazilian. In all areas but Benzdorp, the most nearby medical post is one of the 57 Medical Mission (MZ) primary health care clinics in the nearest Maroon village. The MZ clinics are all VCT sites. Close to the Benzdorp area, on the French site of the border in Maripasoela, health services are provided in the Maripasoela hospital (Centre de Santé) and the *Centre de Prevention et Vaccination* (CPV) aligned to the hospital.

The consultant identified various organizations who provide services to migrants in Suriname. Most important for the Brazilian community, which dominates the gold mining population in Suriname, are Brazilian churches. These churches form the most extensive social support network for Brazilians in Suriname, both in the urban areas and in the interior of the country. The church communities form an extensive social network for Brazilians and may help out in case of l or medical emergencies. The other organization is related to the Brazilian ministry of foreign affairs.

A Surinam governmental organization active in the mining area is the Commission Regulation Gold Mining sector which focuses on bringing illegal/informal activities and situations back to the legal sphere. In addition, the Malaria Programme provides malaria prevention and treatment services to small-scale gold miners who work in the interior of Suriname. There are various governmental, private and non-profit organizations and NGO's that provide services in the area of HIV & AIDS.

The survey results reveal that the youngest migrant interviewed was 23 years of age, and the oldest 75. Interviewed migrants were on average 36 years old; the median age was 34. More than half of the migrants in our sample (60.1%) were male. The sample population of female and male migrants was dominated by Brazilians (resp. 85.0% and 34.4%). Slightly more than a third of the male migrants (34.4%) had the Surinamese nationality, but did not come from the area where he resides/works now. Surveyed men worked mostly as a gold miner (39.0%) or a transport provider (19.8%). A quarter of women worked in sales (25.4%) was a housewife (16.9%) or worked in hospitality business (16.9%).

In terms of educational achievement, 27 migrants (9.1%) had not received any education. Almost half of all migrants had some years of primary education and 11.5 percent had entered secondary education but failed to complete. More women than men had finished high school (resp. 14.4%, N_{total}=118 versus 4.5%, N_{total}=178). Migrants were slightly better educated than Surinamese nationals. Most Brazilians only spoke Portuguese and hardly any other language. Approximately half of the Surinamese and

Guyanese miners indicated that they spoke Portuguese. They had been living among Brazilians for years and had learned the language through the regular contact with those migrants.

A quarter of migrants were affiliated with a church in the mining area, mostly the local Brazilian Assemblea church. Most migrants indicated that they had never felt discriminated in or outside the mining area and they had never felt discriminated by medical service providers in Suriname because of their nationality, ethnicity, profession or gender.

Almost three out of every four respondents (72.3%) knew where to find the nearest health post but 42.2 percent of the migrants had never visited this nearest located health post. Of those who had visited the nearest health post, 86.0 percent had experienced excellent and good service and care. For minor illnesses the largest group of respondents would go to a health post in French Guiana, which is mostly Maripasoela. When falling seriously ill in the mining area, most people would seek help in French Guiana as well, or in Paramaribo. Most migrants cannot rely on insurance to cover their medical expenses, and have to pay them out of pocket (63.0%). Others have insurance in their home country or would go to French Guiana where medical care is free.

A total of 46 percent of respondents reported that they had had casual sex in the year prior to the interview. Among those with a steady partner, 35.3 percent responded that they had had sex with at least one other person in the year prior to the interview. In the small-scale gold mining areas, free condoms may be obtained at the various Medical Mission (MZ) clinics in interior villages. The Malaria Programme distributes condoms in the mining area as a secondary activity. Additional distribution points do not exist. In the mining areas the only places to get condoms are supermarkets and Brazilian pharmacies where condoms are sold at inflated prices.

Three-quarters of migrants reported that they had always used a condom during commercial or non-commercial sexual encounters in the past month. When having sex with a steady partner, condoms are rarely used. Even though the use of condoms is widely accepted and fairly common when people have casual sex, many persons do not know how to put on the condom correctly. One third of respondents reported that they had never received information about how to correctly put on a condom. Yet more than half of respondents were convinced that they were not at risk for HIV infection. It was found that only two fifth of the surveyed migrants and mobile individuals had optimal knowledge of HIV transmission. Suriname nationals and men had, on average, better knowledge of HIV transmission and prevention than migrants and women.

International migrants in Suriname's mining areas typically live and work far away and isolated from Paramaribo, where health services are concentrated. As a result they often have inadequate knowledge of health services including HIV services in their host country or region. Furthermore, because international migrants are the majority population in the mining areas, they feel little need to learn the local language, thus further reducing their access to health/HIV services. 71.3 Percent of respondents reported that they had not received any information about HIV in the past 12 months. Those who had obtained information about HIV & AIDS had mostly been informed by the media (10.6%) N_{total}=293.

Migrant respondents also were asked where they would bring an HIV+ friend for medical support or social care. Almost one quarter of survey participants responded that they had no idea where someone with HIV could get support. A considerable 15.3 percent of respondents did not know where one can do an HIV test. 40.7 percent of respondents reported that they had conducted an HIV test in the year preceding the interview, with Suriname nationals being more likely than international migrants to have performed an HIV test. People who had been tested for HIV in the year prior to the interview had not experienced major difficulties communicating with the health worker who performed the test.

Most lacking in the *garimpos* are general health clinics in the areas. Observations of the mobile VCT site in the mining areas suggest that there is an enormous demand for VCT services among migrant and mobile populations in these locations. The gold mining areas are characterized by particular conditions that place specific demands on health services including VCT services that would be provided locally. Migrants identified as the most important qualities of a VCT site in the mining areas that the care would be good (45.6%) and that the health provider would speak their language.

Discussion and conclusions: The researchers conclude that the migrant population in small-scale gold mining areas is incredibly diverse in term of nationality, profession, gender, family relations, age and education. Identified factors that increase vulnerability to HIV infection include: Large number of people without a steady partner nearby; frequent casual sexual relationships; relatively high propensity to engage in commercial sex; high price of condoms in the mining areas; inconsistent condom use; incorrect condom use; distorted risk perceptions, and Insufficient knowledge of HIV transmission. In addition, issues related to access to HIV/Health services elevate the vulnerability to HIV infections among migrants in the mining areas. Suriname's public health services are concentrated in the capital city of Paramaribo and urban organizations that offer HIV and SRH services generally do not provide services in the interior. MZ clinics in interior communities offer VCT services but migrants hardly visit these posts, in part because few local health workers speak Portuguese. The malaria programme is the only health program offering services in the mining areas in the migrant's languages. Migrants in the mining areas are most likely to consult the health posts in French Guiana when they need medical help.

Recommendations: The researchers argue that HIV intervention efforts are direly needed in small-scale mining areas. Recommendations were organised in four sections; quick wins, services, cooperation and policy. Quick wins include the distribution of posters and leaflets about HIV transmission, the production of a short documentary film, and the delivery of HIV services in mining areas and in locations in Paramaribo were migrants tend to hang out. Recommendations with a focus on services suggest ways to bring HIV & AIDS services to the small-scale gold mining areas, such as working with mobile HIV service providers. In terms of cooperation, it is recommended that delivery of HIV & AIDS services occurs in cooperation with the Malaria Programme, Commission OGS, MZ clinics, Department of Dermatology and foreign NGO's. Policy recommendations include the consideration of migrants as one of the main vulnerable groups in the national HIV strategic plans and in future proposals for international funding. Furthermore, it is recommended that migrant representatives provide input in the design of policy interventions focused on health provision in small-scale gold mining areas.

1. Introduction

1.1 This study

This report presents data on the accessibility and quality of HIV prevention, care, and treatment services for migrant populations in the small-scale gold mining sector in Suriname. The study is the outcome of a technical assistance grant that was awarded by the Federal Republic of Germany to the Pan Caribbean Partnership Against HIV and AIDS (PANCAP). The grant is executed by the German Technical Cooperation (GTZ), which works in partnership with the PANCAP Coordination Unit of the CARICOM Secretariat, to implement the grant activities.

The PANCAP/GTZ technical assistance project for Suriname encompasses 4 components. The present study will focus on component 3: country multi-level mapping. This mapping will serve to:

1. Provide a better understanding of the local dynamics with regard to migration to gold mining areas in Suriname, in order to provide input as to where the project's efforts should be.

2. Guide the country's selection with reference to the most suitable organizations that the project should concentrate on for building capacity.

3. Provide insight into the best communication strategies to reach migrant and mobile populations in Suriname's small-scale gold mining areas to promote access to services.

1.2 Background to Suriname

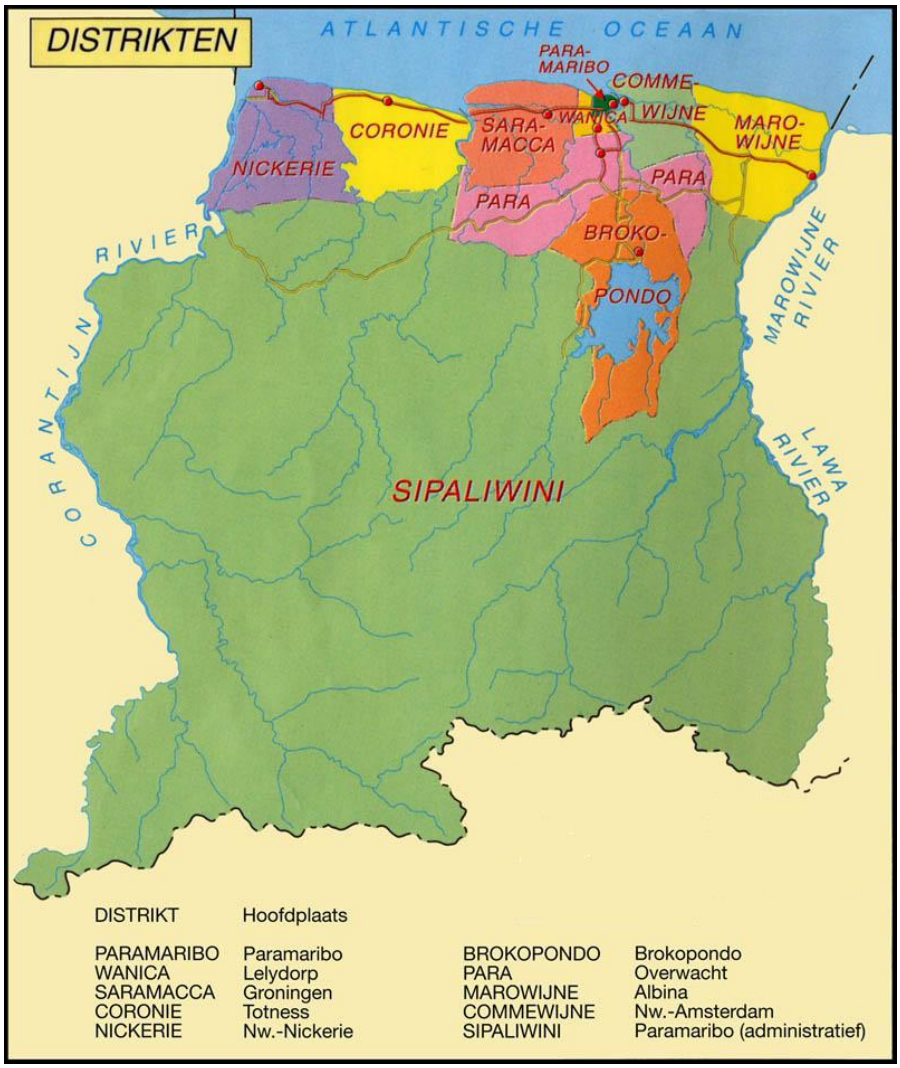
Suriname is situated on the northern shores of the South American continent, bordering Brazil, Guyana, and French Guiana. Geographically the country is divided in ten administrative districts (Figure 1). The present study was conducted in the interior districts of Brokopondo (7,364 km^2) and Sipaliwini (130,567 km^2), which together represent 84.2 percent of the total surface of Suriname (163,820 km^2). It is noteworthy that the immense district of Sipaliwini does not have a district capital. Instead affairs concerning the district are managed either by the central government or from the district commissioner's office in Paramaribo, far removed from the local people. The target districts are largely covered with dense, minimally impacted tropical rainforest. These districts also hold the lion's share of Suriname's gold reserves, which are part of the mineral rich Guiana Shield area.

The Suriname population counts an estimated 531.170 individuals (ABS 2011). About 85 percent of Surinamers live on the 30-km wide Northern coastal plains and two thirds (66.7%) live in the greater Paramaribo urban area (districts of Paramaribo and Wanica). The study districts of Sipaliwini and Brokopondo very sparsely populated with respectively 0.3 and 1.9 persons/km^2 (ABS 2011). Together these districts hold 9.8 percent of the total population of Suriname.

Suriname's population is ethnically diverse, consisting of Hindustani (35%), Creoles (people of mixed African heritage, 30%), Javanese (14%), Maroons (tribal people of African descent, 13%), Chinese (4%), Indigenous peoples (3-4%), Brazilians (3%), and smaller groups of Lebanese, Whites, and others. The

traditional inhabitants of the target districts of Sipaliwini and Brokopondo are Amerindians (est. 10,000 people) and Maroons (est. 50,000 people) who are tribal people of African descent (ABS 2005). They live in small villages along the major rivers that meander through the rainforest. Suriname's national language is Dutch but more than 16 other languages are spoken, including Sranantongo (the national Creole language) and languages pertaining to indigenous, tribal, and migrant groups.

Figure 1. Districts of Suriname, with the names and locations of their district capitals



Suriname's interior is rather isolated from the urban zones and in many ways the most marginalized area of the country. Many interior families do not have easy access to clean drinking water, electricity, decent education, quality health care, and other public services.

With a per capita Gross National Income (GNI) of US$ 5.249[1], Suriname may be considered a middle income country (ABS 2010). For the past few decades, mining has been the cornerstone of Suriname's economy. The export of minerals—bauxite, oil, and gold—represents more than 50 percent of the Gross Domestic Product (GDP)(IMF 2007). Large-scale mining for gold only took off in the 1990s. In 2009, Suriname produced 28.6 tons of gold; 57.7 percent of which was produced by informal, small-scale gold miners. The percentage of the population in the urban areas living below the national poverty line was 66 percent in 2000 and there are no more recent national estimates (ABS 2001). In the interior, this figure is much higher.

Since the early 1990s, small-scale gold mining has boomed in Suriname. At present, an estimated 20,000 persons are working as small-scale gold miners. At least a similar number are earning an income in the surrounding service economy as cooks, vendors, shopkeepers, sex workers, and many other professions. Between 65 and 75 percent of all persons working in the small-scale gold mining areas are migrants, mostly Brazilians[2]. Suriname nationals working in the gold fields are mostly men and women of Maroon ethnic descent.

1.3 Study relevance

Estimated adult (15-49 yr) seroprevalence in Suriname is 1.1% (Ministry of Health 2010). This figure is higher among Most At Risk populations (MARPs). MARPs are subgroups of the population whose specific occupation, behaviour and/or conditions place them at increased risk of HIV infection. The Ministry of Health has identified various MARP's, including: Men having Sex with Men (MSM), male and female sex workers, clients of sex workers, prisoners, and gold miners. Suriname has recognized the need and made a commitment to implement intensive surveillance on these MARPs. The present study responds to these efforts.

Behavioral Surveillance Surveys (BSS) and other HIV-risk studies have been conducted among various MARPs in Suriname, including sex workers and MSM. In 2012, a BSS was conducted among sex workers and clients in small-scale mining areas, many of whom were migrants. However, the general population of migrants and mobile persons in the gold mining areas have so far not been included. For the purpose of this study, we define as migrant and mobile populations in gold mining areas all individuals, regardless of nationality, who are working and/or living in the gold mining areas but were not born and/or raised in these areas. These migrants can be international migrants, such as Brazilian *garimpeiros* (small-scale gold miners) or Suriname nationals from the city or other places in the interior who have travelled to the gold fields for work.

[1] National income per capita formal and informal sector. ABS 2010, data from 2009.

[2] By March 2012, the Commission Regulation Gold sector (OGS), which is making an effort to register gold miners, had registered 3,827 Suriname nationals and 10,849 foreigners who either were working as laborers in the gold mining areas or owned mining equipment. The Commission OGS estimates that 40,000 persons are working in the gold mining areas, but it has not specified whether this number refers only to gold miners or also to people providing auxiliary services.

A series of factors may heighten the HIV risk of the aforementioned mobile and migrant populations such as:

- A male dominated work force (10 men: 1 woman) and related blooming sex work industry in small-scale gold mining areas.
- High mobility: gold miners move around between and within countries to mine the richest deposits. As a result, they are relatively less likely to live in a stable family context.
- Precarious living conditions and living in duress.
- Macho environment with increased pressures to take risks.
- Loneliness and increased alcohol consumption.

As compared to the Suriname population at large, the migrant and mobile groups in the gold mining areas have relatively poor access to health services in general, and to HIV outreach services in particular. Their poor access to Suriname health and HIV prevention services is associated with:

- Unfamiliarity with the Suriname health care system. Gold miners and mining service providers spend months in a row in the forest, and only rarely travel to the capital city where most health facilities are concentrated.
- A language barrier and an illegal or semi-legal status may prevent individuals from seeking health services when they need them.
- The extensive geographic spread and isolated nature of some gold mining areas makes it very expensive and time consuming to travel to a health post.
- The interior regions where gold mining takes place are characterized by a low density of health care services and absence of hospitals.

1.4 Study Aims

The overall goal of the present study is to enhance both the accessibility and the quality of HIV prevention, care, and treatment services for migrant and mobile populations in gold mining areas in Suriname, in keeping with one of PANCAP's strategic objectives of providing universal access to migrant populations. The specific objective for the country multilevel mapping (component 3) is to collect data on:

1- Geographical distribution, numbers, gender, socio-cultural and vulnerability aspects of gold mining populations and people working in the gold mining service economy (e.g. cooks, vendors of food and drinks, sex workers) within Suriname

2- Organizations that work with populations that earn a living in the small-scale gold mining areas (these may be registered or unregistered in country)

3- Location, numbers, specificities of HIV/health services prominently used by migrants in the small-scale gold mining areas, with a special emphasis on sex workers.

These mappings will precisely identify, describe and document key data/information in order to establish a baseline on;

- The specific locations of groups of persons from the target population in Suriname. The analysis will specifically capture the diversity of the different migrant groups and demonstrate their respective characteristics (cultural, language, type of work, vulnerabilities, and other specificities of the target population), the different push, and pull factors, etc.
- The organizations established in Suriname. These organizations may be public, private, NGO's, FBO's, grass roots, unregistered/underground organizations and may also be organizations representing the interests of Most at Risk Populations such as Sex Workers, MSM, among others, as well as those representing the interests of migrant and mobile populations which may be specific to country, ethnic groupings or cultural aspects or a union of workers in the formal sector among others. The consultancy will document the type of activities/support/services that are provided by these organizations.
- Existing HIV prevention, testing, treatment, care and support services offered by public, private, non-governmental, faith based and other entities in Suriname which are used by the target group. The consultancy will also identify primary gaps in the provision of services.

1.5 Outline

In subsequent sections we will proceed as follows:

Chapter 2 offers a review of the literature on mobile and migrant populations in Suriname, and their access to HIV services. The chapter describes historic and more recent waves of migration; HIV & AIDS in Suriname; and existing information on knowledge on, and access to, HIV services.

Chapter 3 presents the methods used for data collection and analysis. This chapter also describes the study population and the survey sample.

Chapter 4 describes study locations and available local health services in and near small-scale mining areas in further detail.

Chapter 5 provides an overview of the various Governmental Organizations (GOs), Non-Governmental Organizations (NGOs), and Faith-Based Organizations (FBOs) that offer HIV & AIDS services including prevention, testing, care, treatment and support. The information in this chapter is largely based on qualitative interviews with members of these organizations.

Chapter 6 contains the demographic and social profile of the study population; working conditions; buying and getting condoms; consistency of condom use; correct condom use; condom failure; knowledge of HIV & AIDS; sexual and reproductive health; and access to medical services, particularly those related to HIV & AIDS.

In **chapter 7**, the consultant interprets and discusses the results in more detail guided by the main study objectives and places the findings in a broader context of findings from other studies on access to HIV services in Suriname and in the Caribbean. The study conclusions are also part of this chapter.

Recommendations are listed in **chapter 8**. They are organized thematically in the sections; quick wins, services, cooperation and policy. This chapter concludes with a discussion of the main factors that either obstruct or facilitate migrants access to health services. This chapter focuses on the diversity of the migrant population, vulnerability aspects, the access to and use of health services and the role of migrant organizations and other organizations working with migrants in mining areas.

The survey forms are attached in the annexes.

2. Literature Review

Not much research has been carried out on migrant and mobile populations and HIV in Suriname. Existing literature often covers one of these two thematic areas, but rarely addresses both. Moreover, the studies that contain information about migrant and mobile populations and HIV tend to focus on sex workers and hence do not provide an accurate picture of knowledge about HIV, access to HIV services, sexual risk behaviour, and seroprevalence among migrant and mobile populations at large.

Below we discuss relevant literature including research papers, essays, reports, newspaper articles, and available statistics on migrants, HIV, and gold mining.

2.1 Migration to Suriname

The large majority of Suriname's population of consists of (the descendents of) forced and voluntary migrants, who arrived in the past quincentenary, including:

- Creoles; the descendents of African slaves,
- Hindustani, Javanese, and Chinese; the descendents of indentured labourers from, respectively, East-India, the island of Java of Indonesia, and China,
- Maroons; the descendants of run-away African slaves who established independent communities in the rainforest
- Lebanese; the descendants of Lebanese merchants and businessmen,
- Dutch boeroes; the descendants of poor Dutch farmers who tried to establish farms in the new World,
- And others, including migrants from the Caribbean

The present study focuses on migrants who came to Suriname after the reestablishment of democracy and peace in 1992. In 2007, the Central Bureau of Citizen's Affairs in Suriname registered 2,484 migrants who had come to reside in Suriname, a slight decrease from the year before (CBB 2010). Men dominated the migrant population in that year, but not by much (54.4% male) (ibid.). Most migrants, however, do not appear in national statistics. Brazilians, for example, do not need a visa to enter Suriname as long as their stay does not exceed three month. Upon entry, however, the authorities do not track where people go and many people disappear from the records. This does not always occur intentionally. Many migrants would like to formally apply for (temporary) residency but the application procedures are lengthy, bureaucratic, confusing, and all in Dutch. For foreigners working in the interior of the country where the gold mines are, it is difficult and costly into travel to town various times to follow through on these procedures. Moreover, given the absence of government presence in the interior, registration does not appear as a pressing issue.

As compared to the Suriname Civil Registry (CBB), the United Nations (UN) Department of Economic and Social Affairs, Population Division (2009) provides much higher figures of the numbers of international migrants who have entered Suriname in the past years (Table 1). The UN data on trends in the international migrant stock in Suriname show a growing estimated number of female and male migrants

coming to Suriname. According to these estimates, migration into Suriname may have more than doubled in the past 20 years. Information about the background of these migrants and their reason for their move to Suriname is not described though. Moreover, we do not know whether these data present formal national figures on registered migration, or if they also take unregistered migration into account.

Table 1. Trends in International Migrant Stock for Suriname 1990-2010.

Indicator	1990	1995	2000	2005	2010
Estimated number of international migrants at mid-year	18 031	22 271	27 507	33 976	39 474
Estimated number of refugees at mid-year	0	20	0	0	1
Population at mid-year (thousands)	407	436	467	500	524
Estimated number of female migrants at mid-year	8 326	10 240	12 592	15 486	17 914
Estimated number of male migrants at mid-year	9 705	12 031	14 915	18 490	21 560
International migrants as a percentage of the population	4.4	5.1	5.9	6.8	7.5
Female migrants as percentage of all international migrants	46.2	46.0	45.8	45.6	45.4
Refugees as a percentage of international migrants	0.0	0.1	0.0	0.0	0.0
Indicator	**1990-1995**	**1995-2000**	**2000-2005**	**2005-2010**	
Annual rate of change of the migrant stock (%)	4.2	4.2	4.2	3.0	

Source: http://esa.un.org/migration/p2k0data.asp

Among recent migrants, the largest and most visible groups are the Brazilians and Chinese. In addition, significant numbers of Guyanese, Haitians, and Dominicans move to Suriname short-term, long-term, or permanently. We briefly discuss these groups below.

In the past two decades, thousands of **Brazilians** have crossed the porous borders of Suriname either walking, or by boat or plane. They went to work in the small-scale gold mining business, bringing advanced knowledge of gold mining techniques and management with them (De Theije and Heemskerk 2009). Following the footsteps of these garimpeiros are other Brazilians such as shop- and bar-owners, operators of gold buying houses and sex workers who enter Suriname hoping to earn something from the booming small-scale mining industry. De Theije and Heemskerk (2009), De Theije and Bal (2010), and Hoogbergen and Kruijt (2004) have described the Brazilian migrant community in Suriname. These studies convey that there are no reliable estimates of the number of Brazilians in Suriname, as people move into and out of the country to neighbouring Brazil, Guyana, and French Guiana. Most common estimates range between 20,000 and 40,000 people, which would represent about 4 to 8 percent of the Suriname population! (De Theije 2007).

With regard to the new **Chinese** migrants, the New York Times reports in April 2011;

> *".....Estimates vary over the numbers of Chinese now in Suriname, but China's embassy puts the figure at about 40,000, or nearly 10 percent of the population, including legal and illegal migrants. Others, citing scandals over illegally obtained residence permits, say the numbers could be higher. Chinese emigration to Suriname is nothing new as mentioned earlier. The first Chinese contract labourers arrived in the mid-19th century, and many Chinese in later*

> *generations intermarried with mixed-race Creoles. But the recent influx of thousands more has been more notable, in part, because many of the new arrivals are visibly involved in commerce, standing in contrast to Brazilians, Suriname's other fast-growing immigrant group, who work largely at remote gold mines in the interior* (Abhelakh, 2011).

The Suriname sinologist and anthropologist Tjon Sie Fat recently published an ethnography about the "Chinese migrants in Surinam" (2009). He argues that starting in the 1990s, renewed immigration from China changed the dynamics of the Surinamese Chinese community, which developed from a Hakka enclave to a culturally and linguistically diverse, modern Chinese migrant group. In his thesis, Tjon Sie Fat observes increasing anti-immigrant sentiments in Suriname society vis-à-vis the new Chinese.

In addition to these two large migrant groups, Suriname has been receiving increasing numbers of migrants from other Caribbean countries in the past two decades (2005 Expert Group meeting on International Migration and Development in Latin America and the Caribbean). Deteriorating economic and social conditions, high unemployment particularly for younger people and little hope for improvements in the foreseeable future constitute the main push factors for those desperate to leave (ibid). Caribbean migrants who travel either temporarily or permanently to Suriname for work mostly originate from Guyana, the Dominican Republic, and Haiti. These countries are within the Caribbean and worldwide among those that benefit most from the remittances received from nationals working abroad (ibid.; see also Thomas-Hope 2012)

Guyanese migrants are often working as temporary labour migrants in the fisheries sector (men) and the sex industry (women, men, and transvestites). Two studies commissioned by the national oil company Staatsolie describe the Guyanese dominated fishers' communities in Suriname (Heemskerk 2010; Heemskerk & Duijves, 2011). The number of Guyanese fishers and family members in Suriname fluctuates with the fishing seasons. The village of Nieuw Nickerie provides the access way for Guyanese to enter Suriname, and vice versa. The majority of passengers who cross the border at this location bypass the Suriname immigration services. A 2009 Behavioural Surveillance Survey among sex workers in Suriname (Heemskerk and Uiterloo 2009) and a UNFPA study on condom use among sex workers in Suriname (Heemskerk, Duijves, and Uiterloo 2011) report that street-based sex work is dominated by Guyanese women, men and transvestites (ibid).

The recent studies among sex workers in Suriname clubs and bars suggest an increase in the number of Dominican women who have come to work in Suriname clubs and bars in the capital city of Paramaribo and in the coastal town of Albina (Heemskerk, Duijves & Uiterloo 2011, 2012; Heemskerk and Uiterloo 2009; Sodireitos 2008).

Not much is known about the Haitians in Suriname. In 2011, the Foundation Development Aid Haiti in Suriname (Stichting Ontwikkelingshulp Haiti in Suriname -SOHS) estimated that more than a thousand Haitians are living and working in Suriname. Most appear to work in agriculture, notable at the banana plantation Stichting Behoud Bananensector Suriname (Suriname news 2010). Many of them have come to Suriname with false documents. For this reason they typically do not react to calls from the Suriname

authorities for registration of undocumented aliens. Many Haitians have been enticed to come to Suriname under false pretences.

Existing studies on trans-Caribbean migration suggest that:

> "with the exception of a few naturalized citizens, most [Caribbean] immigrants remain temporary workers for their entire stay and this holds even for those 'temporary' migrants, who have lived in the host country over extended periods of time (sometimes 15 years and longer). Being 'temporary' implies being subject to deportation at any given time and to have no access to basic health-care services and education for children." (source: Expert group meeting on international migration and development in Latin America and the Caribbean 2005).

2.2 Internal Migration

As the present study concerns migrant and mobile populations, we not only focus on international migrants, but also on internal migrants, that is, people who move around within Suriname. Migration within Suriname often remains unrecorded or is only recorded a few years after the fact. Existing data suggest that in the past couple of years, the capital city of Paramaribo has had a negative migration balance (Table 2). People from Paramaribo mostly leave the crowded urban area for the coastal districts near the city where housing is cheaper, such as Para and Commewijne (Figure 1)

Many people continue to leave the marginalized interior region of Suriname, which is characterized by poverty, unemployment, and poor access to public services. The year 2009 marks a relative decrease in the number of people leaving the interior districts of Marowijne, Brokopondo, and Sipaliwini (Table 2). Virtually all gold mining takes place in the mentioned districts. It is possible, yet not proven, that the high price of gold has motivated particularly young people from the interior to stay and make a living in the small-scale gold mining sector or the surrounding service economy.

Table 2. Data on internal migration between the urban zone Paramaribo/Wanica, the coastal area, and the interior districts, 2004-2009

Year	Leaving urban area (Paramaribo/Wanica)		Leaving the interior (Marowijne, Brokopondo, Sipaliwini)	
	moving to the coastal area	moving to the interior	moving to the urban areas	moving to the coastal area
2004	1907	726	1317	225
2005	2195	959	1585	312
2006	1597	810	1360	155
2007	1825	964	1498	243
2008	2002	882	1489	337
2009	1909	783	1195	211

Source: ABS 2011

2.3 Migrants in the sex industry

As may be distilled from the above, the Suriname sex workers industry is dominated by migrants. In the context of this study on access to HIV services, the sex industry is a particularly important industry to consider.

Sex workers in the Suriname sex industry are from Brazil, the Dominican Republic, Colombia, Suriname, Guyana, Venezuela, and occasionally the Netherlands, Jamaica, or other countries (Heemskerk and Uiterloo 2009; Heemskerk, Duijves, and Uiterloo 2011, 2012; Nieuwendam 2010; Heemskerk & Duijves 2012). The Department of Immigration, which is responsible for the distribution of work permits to foreign sex workers, has recorded 16 clubs in Paramaribo and Wanica districts (Mahabier 2009). Meanwhile Stichting Maxi Linder Association (SMLA)[3] has recorded 151 unregistered locations where sexual services are being sold in Paramaribo and Nieuw Nickerie (SMLA 2007 data, in: Essed Fernandes and Rijsdijk 2008). In these various Suriname streets and indoors sites, an estimated 2,000 commercial sex workers may be active, mostly in Paramaribo and other urban centres.

Brazilian and other Latina women working in registered clubs tend to earn most money and have best access to HIV services. Suriname, Brazilian, Dominican, Guyanese and other women working in the many unregistered clubs, bars and salons form a middle class among the sex workers. Street workers are most marginalized. The majority of them are Guyanese Creoles, in addition to men and women from Suriname and other countries. They typically get paid the least and work under unhygienic and often dangerous conditions (CAREC/PAHO and SMLA 2005).

Two studies have recently been performed among sex workers in Suriname mining areas. The most recent (2012) study, which at present only exists in draft form, consists of a behavioural surveillance survey and seroprevalence study among 112 sex workers and 107 clients of sex workers in small-scale gold mining areas. In addition, in 2010 Nieuwendam conducted a survey among 192 sex workers in seven small-scale gold mining areas in Suriname in 2010.

In both studies, the youngest CSW interviewed was 14 years old. Nieuwendam argues that CSW of age 15 till 17 are common in the gold mining camps. This finding contrasts the findings of Heemskerk & Duijves, who report that

> "…it is not very common to find under-18 sex workers in the mining areas. … It is likely that the number of young Suriname sex workers in mining areas increases during school holidays, but based on our findings we do not believe that legal minors compose a significant proportion of the sex workers' population in the Suriname mining areas." (2012b: 50)

Both the 2010 study among sex workers in Suriname mining areas and the 2012 BSS among the same group report that the majority CSW are Brazilians and women. Other nationalities among sex workers in mining areas were, in order of importance, Dominican, Guyanese, Surinamese, and occasional others

[3] Nowadays known as Rachab foundation

(Colombian, Dutch, Jamaican) (Social Solution 2012b). Among the Suriname women, most are of Maroon ethnic descent, but there also are Creole, Javanese, Hindustani, and other women selling sex in mining areas (ibid.). These Suriname women can be considered as mobile populations because they mostly come from the city, and even if they originate from the interior they typically do not work in their own area of residency where they risk running into family members.

Although most sex workers are women, both studies also encountered male sex workers in mining areas. All male sex workers that were encountered in mining areas were Brazilian (Nieuwendam 2010; Heemskerk & Duijves 2012).

2.4 Migrants in the mining area

Suriname's gold deposits are part of the Guiana Shield, a geological greenstone formation that covers 415,000 square km of Venezuela, the Guyana's, and Brazil. In Suriname, this geological formation surfaces in the Eastern and Central part of the country. Small-scale gold mining takes place in these regions (Figure 2 and Figure 39). A more detailed map with all GPS recorded interview locations is provided in Figure 4 to Figure 7.

In her report of small scale mining in Suriname, Heemskerk (2009) distinguishes between internal migrants and international migrants in the mining areas. A large part of the Maroon gold miners does not come from the interior but from the marginalized neighbourhoods of Paramaribo. For the men and sometimes women from the city, their background and family relationships facilitate their entrance into the gold fields, even though they have previously never lived in the interior. Often low trained and unemployed in the city, they grab the booming gold sector as an opportunity to get ahead. They work alongside Maroons from the interior and Brazilians in the various gold mining jobs, including operating the power hoses and removing stones and debris from the mining pits.

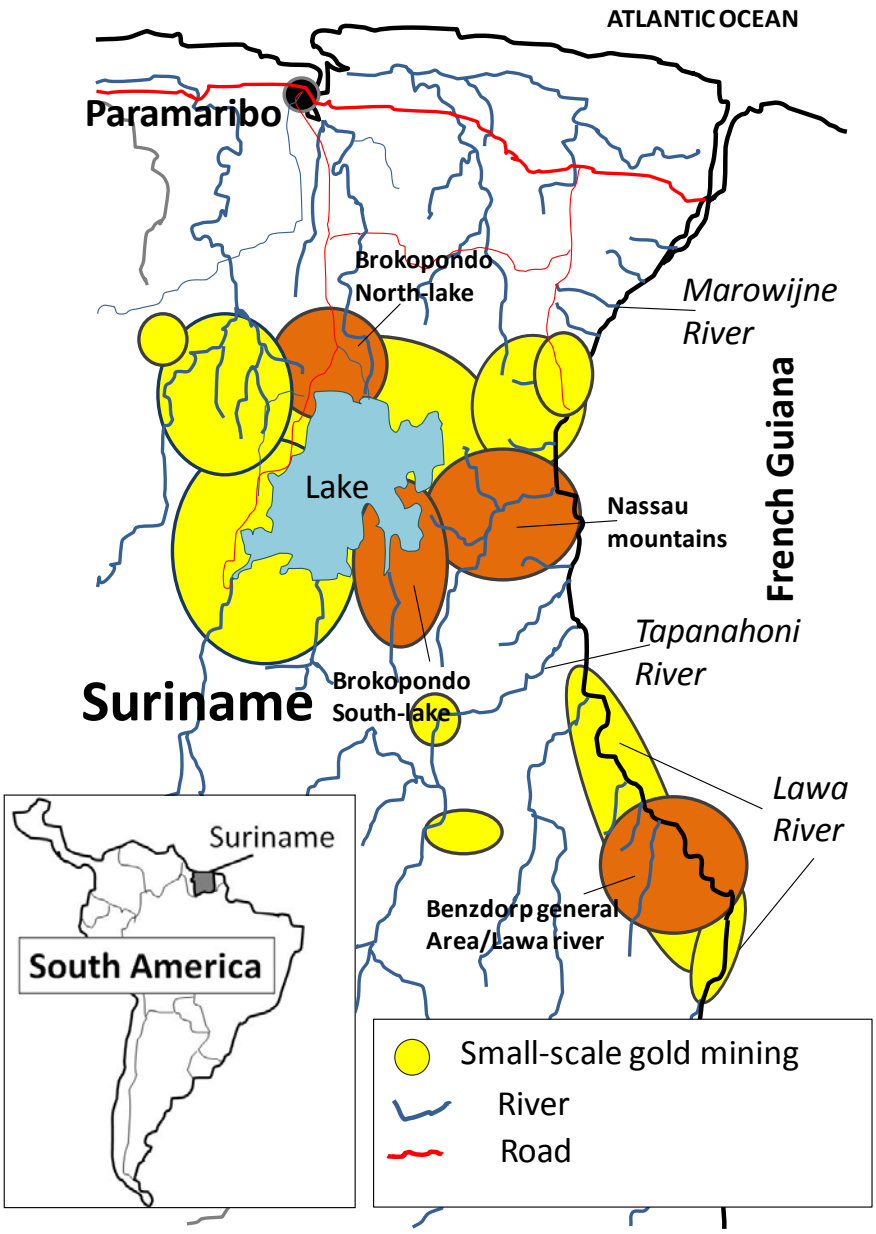
In addition to these gold miners from Maroon ethnic descent, a small number of Surinamers from other population groups are working in the small-scale gold mines. Heemskerk says;

> Approximately 5% of the Surinamese who work in the gold fields are city dwellers of non – Maroon descent. For example, concession holders are almost all from the city and of another ethnic group. Most of the time they come only rarely on their concessions and let their business in the field for foremen and managers. In the bigger companies, these managers are from the city as well. Besides the concession holders and their employees there are others from the city working in the mining area. Hindus and Javanese are primarily rented by the larger mining companies as machine operators (e.g. for the excavator), while Creoles tend rather to work as an independent mechanic or technician. Furthermore urbanites work among others as guards and sex workers (2009 p. 19-20).

Heemskerk describes these migrants as mostly descendents from Paramaribo, the capital city. However the present high price of gold motivates Surinamese from other districts to move around as well. During

their regular field trips to small-scale gold mining areas, the researchers have observed that particularly Maroon men increasingly travel beyond their own district to work in the small-scale gold mining sector (pers. observations Heemskerk and Duijves, 1998-2012).

Figure 2. Suriname with the main gold mining areas (yellow) and the four research areas (orange)



Foreigners in Suriname's gold sector are mainly Brazilians but there are also migrant workers from other countries, such as Chinese, Latinos (Peruvian, Colombian), and persons from other Caribbean countries (Haiti, Dominican Republic, Guyana, Jamaica). Some migrants come for a brief stay, but there are also

those who live in Suriname for five to ten years or even longer. Especially those who have long been living in Suriname, often speak Sranantongo. The immigrants in the gold sector are both working in mining (machine holder, worker) and in the services sector. They provide transport with All Terrain Vehicles (ATVs) or tractors; have shops, pharmacies, and catering establishments (cafes, restaurants, hotels, brothels); provide specific services (e.g. beauty salons, mechanics); and are working as sex workers. The number of Surinam nationals versus internal migrants differs per area.

2.5 HIV & AIDS general data and statistics

In Suriname, prevalence estimates are made primarily on the basis of passive surveillance. That is, information is almost exclusively collected from people who for whatever reason become visible because they visit health posts for an HIV test (Ministry of Health 2009b). This group includes both people who take a voluntary HIV test, and pregnant women who are all tested as part of the prenatal control.

Suriname has a generalized epidemic and HIV is prevalent in all layers and groups of society. The estimated adult (15-49 years) seroprevalence in Suriname is 1 percent (Ministry of Health 2010). The number of infected children (0-14yr) has increased in the past years, but is estimated to remain below the 200 individuals (UNAIDS/WHO Epidemiological Fact Sheets on HIV and AIDS, 2008 Update). HIV-prevalence figures are higher among MARPs; subgroups of the population whose specific behaviour and/or conditions place them at increased risk of HIV infection (Table 3).

Table 3. Seroprevalence data among MARP's in Suriname

Group	Seroprevalence	Year	Source
Sex workers	5.8%	2012	Heemskerk & Duijves
Street-based sex workers	15.7%	2009	Heemskerk and Uiterloo
Sex workers in gold mining areas	1.0%	2012	Heemskerk, Duijves and Uiterloo
MSM	9.2%	2011	Heemskerk and Uiterloo
Military	1.4%	1999?	Min. of Health 2010
Prisoners	2.23%	2009	Protocol, Nov. 2010 (?)
STI-clinic patients	2.8%	2007	Min. of Health 2010

A recent study from the National Anti-Drugs Council (NAR) suggests that in Suriname, HIV-transmission among injection drugs users is negligible. According to the researchers, only 0.3% of the estimated 800 to 1.000 drugs users injects drugs (National Drug Board, undated). The use of injection drugs appears to be rising though, and must be closely followed.

In recent years, both new discovered HIV-infections and the number of HIV deaths have reduced slightly. Male prevalence decreased from 8.55 percent *of tested men* in 2005 to 5.56 percent in 2006 en 2007. Also among women we observe a slight decrease in seroprevalence among those who were tested, from 3.01 percent in 2005 to 2.65 percent in 2007 (Heemskerk and Apapoe 2010). In 1997 HIV & AIDS was rated 10th on the list of most frequent causes of death in Suriname. A few years later, between

2003 and 2005, HIV & AIDS moved to the 5th place. In 2006 and 2007, HIV & AIDS ranked 6th on the list of most frequent causes of death.

2.6 Socio-cultural factors affecting vulnerability to HIV

Various studies demonstrate that gender and ethnicity/culture play a role in sexual risk behaviour, exposure to HIV, and access to HIV services. Since the beginning of the epidemic in the 1980s, HIV & AIDS infection rates have been disproportionally high among Creoles and Maroons and this continues to be the case (Min. Health 2010). Data from Medical Mission Primary Health Care Suriname (MZ), which register new HIV cases in the interior, show a similar pattern (Table 4). These data suggest that seroprevalence is higher among Maroons than among Indigenous peoples. In comparison with preceding years, the figures for 2008 show a slight increase in seroprevalency among the Indigenous persons registered with the local Medical Mission health clinics in their interior villages. Among the Maroons, by contrast, we observe a slight decrease in new HIV cases.

Table 4. Prevalence (per 1000 registered) of new HIV cases, per year by ethnic group

	2003	2004	2005	2006	2007	2008
Indigenous	0	0.4	0.2	0.2	0.2	0.5
Maroons	7.1	2.9	4.3	4	2.8	2.1

Source: Medical Mission Primary Health Care Suriname, unpublished data. Pers. Com, 1 Jan. 2010

It is generally acknowledged that poverty elevates vulnerability to HIV-infection, particularly among women, who are historically more likely than men to exchange sex for goods or money as a survival strategy (Min. of Health 2010). Nevertheless, data from Suriname show that among *tested* persons, prevalence is slightly higher among men than among women. Because of the large disparity in the numbers of women and men who get tested, the number of HIV+ tested women is higher than that among men, even though the percentage of HIV+ persons among those who were tested is lower.

The 2011 UNFPA study on condom use among sex workers in Paramaribo and Albina and the 2012 Behavioural Surveillance Survey among sex workers in Paramaribo also suggests a relation between that gender and nationality on the one hand, and sexual behaviour on the other hand. For example, the researchers find that male sex workers are less likely than their female colleagues to consistently use condoms with their clients. On the other hand, female sex workers wee, as compared to males, less likely to consistently use condoms with their stable partner (Heemskerk, Duijves, and Uiterloo 2011, 2012).

These studies also find that Suriname and Guyanese sex workers (as compared to those from Brazil and the Dominican republic) and relatively younger sex workers (30 and younger, as compared to those older than 30) are more likely than others to not always use a condom when having commercial sex (Heemskerk, Duijves, and Uiterloo 2011). We cannot state with certainty though, whether nationality is indeed a determining factor, or whether the differences may be explained other factors such as

age/experience (the Suriname and Guyanese sex workers are, on average, younger). Another mediating factor may be the fact that Suriname and Guyanese sex workers are relatively more likely to walk the streets whereas Brazilians and Dominicans typically work in clubs and bars.

Like the consistency of condom use, also the correct way of condom use is mediated by socio-cultural factors. For example, the researchers found both in the city and in the gold mining areas that Dominican and Guyanese sex workers were much more likely than others to use two condoms on top of one another (Heemskerk, Duijves, and Uiterloo 2012, Heemskerk and Duijves 2012). The use of herbal vaginal steam baths to remain dry and tight, on the other hand, is a custom that is common among the Afro-descent populations[4] in Suriname. The 2012 Behavioural Surveillance Survey among sex workers in the gold mining areas reports that also Brazilian women commonly use vaginal washes to rinse and tighten the vagina. They are not likely to use herbal steam baths, but rather vaginal washes sold in the Brazilian pharmacies. It has been commented that also Dominican sex workers travelling between French Guiana and Paramaribo, use vaginal washes between sex partners to cleanse and tighten the vagina. They reportedly were using Johnson baby shampoo mixed with vinegar rather than steam baths, but the intention and effects were similar (Dr. J. Waters, pers. com. 2 May 2012).

2.7 Local and migrant knowledge about HIV & AIDS

Because HIV & AIDS knowledge has been measured in different ways in different subgroups, it is difficult to obtain a good impression of HIV prevention knowledge in the general population. According to the 2006 Multiple Indicator Cluster Survey (MICS), 39.3 percent of women of reproductive age (15-49) had correct knowledge of HIV & AIDS transmission. This means that during the interview, they were able to name at least two ways to prevent infection with HIV & AIDS and correctly identified at least three misconceptions. This survey found that knowledge is most accurate in urban areas (43.3%) and lowest in the interior (17.3%) (ABS et al. 2009).

A 2012 Behavioural Surveillance Survey (BSS) among 112 sex workers and 107 clients in the gold mining areas found that 40.7 percent of sex workers (N_{total}=108) and 64.8 percent of clients (N_{total}=105) did not believe to be at risk of HIV infection. The main reasons to believe that one does not run a risk to become infected with HIV were that the person always uses a condom and that the person selects his or her sexual partners 'carefully'.

61.7 Percent of sex workers (N_{total}=107) and 32.7 percent of clients (N_{total}=101) in this study had done an HIV test in the year preceding the interview. Among the 66 sex workers who had taken the test, only one person had not obtained the test result (1.5%). Four among 32 clients who had conducted the HIV test reported that they had not obtained their results afterwards (12.5%). The 2012 BSS in the gold mining areas also found that almost half of respondents, who were mostly migrants, did not know where to go for an HIV test in Suriname (44.7 % of total). Consistent with findings from the 2012

[4] Even though vaginal herbal steam baths are primarily popular among Maroon women, they also are used by urban Creole women, and even –though less frequently and less commonly- by women from other ethnic groups, such as Hindustani.

Behavioural Surveillance Survey in Paramaribo, the Department of Dermatology ("Derma"), was the best known VCT site in Suriname. Medilab was the second best known VCT site, and is particularly popular among Brazilians who often refer to this location as "Brahma". These locations are followed by the hospital and the Lobi.

In addition to being the best known VCT site, the Department of Dermatology was the most important organization with respect to reaching people in the mining areas with HIV information. Still, only a small proportion of respondents received information from this state health facility: 7.1 percent of sex workers (N_{total}=112) and 1.9 percent of clients (N_{total}=105). More important sources of HIV & AIDS information were outreach organizations and health facilities in the home countries, and the various media including internet

Heemskerk & Uiterloo (2009) report that most Men Having Sex with Men (MSM) in Paramaribo feel that they are able to receive care without discrimination.

All (100%) facilities that provide antenatal care also provide HIV testing and counselling (UNAIDS/WHO 2008)

2.8 Migrants and access to HIV & AIDS services in the mining areas

The International Organization for Migration (IOM) has pointed out that linkages between population mobility and HIV are related to the conditions and the structure of the migration process, which includes places of origin, transit, destination, and return (IOM 2004, quoted in IOM 2010). As compared to local populations, migrant and mobile populations are both more likely to encounter HIV and less able to protect themselves from the virus. This is also or particularly true for populations working in small-scale gold mining areas (Osborne-Moses 2011).

Heightened vulnerability to HIV among migrants, particularly undocumented ones, is related to discrimination, xenophobia, exploitation and harassment, and limitations to their legal or social protection in the host community (IOM 2010: 13). In addition, migrants often have little or no access to HIV-related information, health services, and means of HIV prevention such as condoms or treatment of sexually transmitted infections (STI). Faced with more immediate challenges of physical survival and financial needs, they may regard HIV infection as a distant risk (IOM 2010; Osborne- Moses 2011).

Hard and lonely working conditions motivate some male migrant workers to seek solace and intimacy through multiple sexual encounters (IOM 2010). This is particularly truth in the mining areas, where physical and social isolation from "normal" family life may motivate foreign and internal migrant men to seek affection and sexual satisfaction through paid sex. The IOM also identifies "the separation from families and partners, and separation from the socio-cultural norms that guide behaviours in more stable communities" as an additional risk factor. (ibid: 11). In the context of small-scale gold mining, excessive drinking and macho behaviour may both increase men's propensity to pay for sex and reduce their willingness to use condoms (see for Guyana: Osborne-Moses 2011).

Population mobility may also increase exposure to HIV among people who themselves do not migrate but who are in contact with migrants. Examples are people who live along major transit corridors or in mining communities, and people –mostly women- whose partner or spouse works in the mines (IOM 2010).

The 2010 IOM desk review on *Migration Health in Guyana: Migrant Miners, HIV and Malaria. A desk review* reports that migrants often have limited access to health services, including health promotion, HIV prevention, voluntary counselling and testing, and HIV care and support. A year earlier, the IOM indicated that access to health and social services for migrants is strongly determined by their legal status, with undocumented migrants having the least access to services (IOM 2009, cited in IOM 2010). Fieldwork conducted as part of the 2010 IOM desk review identified language, cultural differences, transportation, and documentation/legal status as challenges for Brazilian gold miners in accessing health services in Guyana.

The 2012 BSS and seroprevalence study in Suriname mining areas asked sex workers and their clients specifically about their knowledge of HIV services, such as the location of VCT sites in Suriname and organizations that offer medical and/or social support to HIV+ persons. This study confirms the IOM findings in concluding that:

> "… as compared to sex workers in the capital city, sex workers active in the gold mining areas were less likely to have received free condoms from an outreach programme (respectively 80.1 percent and 71.4 percent of surveyed sex workers). In the gold mining areas, the most common place to receive condoms from is MZ/Malaria Programme. In fact, apart from staff from the Ministry of Health Malaria Programme, there are no health workers entering the gold mining areas. As a result, people in the gold mining areas have inadequate access to HIV prevention, testing, care, treatment and support services. This lack of access is reflected in the responses. 41.1 percent of sex workers and 48.6 percent of clients said they did not know where to go for an HIV test in Suriname, and about half of survey respondents could not name any organization that provides medical or social support to persons living with HIV. Only 52.7 percent of sex workers and 30.5 percent of clients in the mining areas had received HIV-related information in the year preceding the surveys.
>
> The research highlights several topic areas in which more information and sensitization is urgently needed. In the first place, we find that knowledge on HIV <u>prevention</u> is generally good. Using a condom has by virtually all respondents –both sex workers and condoms-been identified as the best way to prevent the sexual transmission of HIV & AIDS. However, knowledge of transmission ways, on the other hand is suboptimal. 'Traditional' misconceptions continue to exist and new erroneous ideas have emerged. For example, 30.4 percent of sex workers believed that HIV may be transmitted through a mosquito bite, and another 11.6 were not sure about whether this is possible. 33.9 Percent of sex workers and 27.9 percent of clients believed that one might contract HIV from using the restroom after an HIV+ person, and 19.6 percent of sex workers and 22.1 percent of clients fear that

> sharing a meal with an HIV+ person exposes one to HIV-infection. Furthermore, when asked about additional HIV-transmission ways, considerable numbers of sex workers named manicure/sharing nail clippers or kissing – both of which pose negligible HIV-infection risks.
>
> Secondly, like earlier studies among sex workers (CAREC/PAHO and SMLA 2004; Heemskerk, Duijves and Uiterloo 2011; Social Solutions 2012), we find that sex workers and clients have a distorted perception about their own exposure to HIV & AIDS. Even though most sex workers and clients have experienced that condoms break; know that an HIV+ person cannot be recognized; and understand that HIV can be transferred through unprotected vaginal, oral and anal sex, many do not consider these factors when it comes to judging personal infection risks. 46.3 Percent of sex workers and 73.3 (!) percent of clients were of the opinion that they are not at risk of contracting HIV.
>
> Third, sex workers need to know what to do after condom failure. A wide variety of emergency strategies were reported aimed at reducing the chances of pregnancy and HIV infection. Very few of these strategies are effective ways to protect oneself.
>
> And finally, sex workers in the mining area –most of who are foreigners- are poorly informed about where to go for HIV & AIDS information, testing and counselling, and support for HIV+ people. Providing such information and assistance in access to Suriname HIV & AIDS services may help reduce the number of new HIV infections among sex workers and their clients in the mining areas, and improve the health of HIV+ persons." (Social Solutions 2012: 51-2)

The IOM report (2010) indentifies language as a major obstacle to the use of health and social care services for migrants. In the present study we ask migrants in the mining areas about their language skills, and about the extent to which language has been a problem in accessing health services.

In Guyana the HIV and AIDS Programme has developed specific outreach programmes catering to sex workers and their clients in small-scale gold mining populations (Osborne-Moses 2011). Among others, they have developed awareness material (posters, DVDs) specifically for working with miners and sex workers, focusing on STI – including HIV – knowledge, hygiene promotion, condom promotion, and VCT. Entertainment media is used to reinforce HIV prevention and condom use messages. Furthermore, educational sessions and VCT services are brought to remote mining areas; outreach workers hold skills building and negotiation sessions about condom use with sex workers and clients; and outreach workers hold one-on-one and group discussions at mining camps on Sexual and Reproductive Health, including HIV & AIDS related issues (ibid). In Suriname, the only HIV & AIDS related intervention taking place in mining areas is the distribution of free condoms among sex workers and others in mining areas, by Malaria Programme staff. The 2012 BSS, which offered VCT services as part of its seroprevalence study noted an enormous interest in HIV-testing, not only among sex workers but among all inhabitants of the mining areas, regardless of age, sex, or nationality. The consultant recommended that:

> "The Ministry of Health in collaboration with the Commission Regulation Gold Sector should bring VCT services to the mining areas. This can be done through regular (e.g. bi-annual) and announced visits of VCT service providers to the various mining areas. Alternatively, the Ministry could consider establishing more permanent VCT service sites, possible in collaboration with the Malaria Programme." (source: Heemskerk & Duijves 2012)

Several key HIV-indicators were presented in the 2012 BSS and seroprevalence study among sex workers and clients in the small-scale gold mining areas. These indicators, which mostly concern migrant and mobile populations, are listed in Table 5.

2.9 Seroprevalence among migrants in the gold mining areas

Based on results from the seroprevalence among sex workers and clients in small-scale gold mining areas, most of whom are migrants and mobile populations, the 2012 Social Solutions reports:

> "… the consultant tested 101 sex workers and 93 clients. One sex worker (1.0%) was HIV+, and none of the clients were HIV+. This finding contrasts the popular perception in Paramaribo that due to the high presence of sex work in the mining areas, HIV is rampant in these places. The sex worker who tested HIV+ was a woman of the Suriname nationality." (2012: 49)

An earlier study among gold miners in the Amazon Region found an HIV prevalence rate of 6.5% (Palmer et al. 2002). This study warns that given the endemic nature of malaria in the Amazon Basin, there is a considerable risk of co-infection.

In 2004, the Guyana National HIV Strategy 2007-2011 recorded a HIV prevalence rate of 3.9 among miners in 22 mining camps (IOM 2010). The strategy expresses its concern about increasing movements of people to and within the hinterland as a possible factor to facilitate spread of HIV.

Table 5. HIV indicators for sex workers and their clients in small-scale gold mining areas in Suriname

HIV INDICATORS (Jan-Feb 2012)	Gold mining areas	
	% (N*)	N_{total}**
Seroprevalence among sex workers (% HIV+)	1% (1)	101
Seroprevalence among clients (% HIV+)	0% (0)	93
Percentage of sex workers who reported condom use the last time they had had vaginal sex with a client (only those having vaginal sex)	97.2% (103)	106
Percentage of sex workers who reported condom use the last time they had had anal sex (only those having anal sex)	100% (11)	11
Percentage of sex workers who reported condom use the last time they had had oral sex (only those having oral sex)	73.1% (19)	26
Percentage of clients who reported condom use the last time they had had vaginal sex with a sex workers (only those having vaginal sex)	87.9% (87)	99
Percentage of sex workers who report that they always used condoms with their clients in the month prior to the interview	91.5% (97)	106
Percentage of clients who report that they always used condoms with casual non-commercial sexual contacts in the month prior to interview	75.6% (62)	82
Percentage of sex workers with a steady partner who report that they always used condoms with their this partner in the previous month	54.2% (39)	72
Percentage of clients with a steady partner who report that they always used condoms with their this partner in the previous month	19.1% (13)	68
Percentage of sex workers who correctly identify 'using a condom' as the most effective way to prevent the sexual transmission of HIV	95.5% (107)	112
Percentage of clients who correctly identify 'using a condom' as the most effective way to prevent the sexual transmission of HIV	92.4% (97)	105
Percentage of sex workers who both correctly identify ways of preventing the sexual transmission of HIV[5] and who reject (three) major misconceptions about HIV transmission	38.4% (43)	112
Percentage of clients who both correctly identify ways of preventing the sexual transmission of HIV and who reject (three) major misconceptions about HIV transmission	40.4% (42)	104
Percentage of sex workers who have received free condoms in the year prior to the interview	71.4 (80)	112
Percentage of clients who have received free condoms in the year prior to the interview	61.9% (65)	105
Percentage of sex workers who have received HIV & AIDS information in the year prior to the interview	52.7% (59)	112
Percentage of clients who have received HIV & AIDS information in the year prior to the interview	30.5% (32)	105
Percentage of sex workers who do not believe that they are at risk of becoming infected with HIV	40.7% (44)	108
Percentage of clients who do not believe that they are at risk of becoming infected with HIV	64.8% (68)	105

[5] As correct answers we considered "using a condom" and "abstinence".

2.10 Trafficking in persons to gold mining areas

According to the US State Department (2009),

> "Suriname is a destination and transit country for men, women, and children from the Dominican Republic, Brazil, Guyana, Colombia, Haiti, Indonesia, Vietnam, and China, who are trafficked for the purposes of commercial sexual exploitation and forced labour. Suriname is also a source country for women and children trafficked within the country for sexual exploitation and forced labour, as well as women trafficked transnational for forced labour."

This political body also claims that Guyanese and Brazilian women and girls are trafficked into the sex trade near both legal and illegal gold mining camps in the Amazon jungle. Meanwhile women from urban areas are, according to information from the US State Department, recruited for domestic work at these mining camps and subsequently coerced into sexual servitude. Unfortunately, the US State Department does not cite its sources and its information contradicts information from national field studies among sex workers in the small-scale gold mining areas (see, among others, Heemskerk, Duijves, and Uiterloo 2011; Nieuwendam 2010; Social Solutions 2012a and b), which have not encountered victims of trafficking in the mining areas.

In 2008, the *Sociedade de defesa dos direitos sexuais na Amazônia* (Community for the protection of sexual rights in the Amazon -Sodireitos) coordinated and published a study on trafficking and forced sex work by Brazilian and Dominican in Suriname. This study was conducted in close collaboration with national organizations in the three countries. In our opinion it is problematic that this study depicts every Brazilian or Dominican woman who leaves her country to work in the Suriname sex industry as a victim of trafficking. This projection of women in the sex business does not recognize than many women –whether or not driven by poverty and limited development opportunities at home- consciously chose for a (temporary) job as a sex worker. These women enter the country voluntarily and legally. Even though there are indications that some women have been misled and that forced sex work does occasionally occur, the large majority of sex workers can, in our opinion, not be classified as victims of human trafficking.

In addition, the 2008 Sodireitos report contains false information. For example, it is argued that foreign sex workers in registered clubs, in contrast their Suriname colleagues, have to pay for the bi-weekly health check for STIs (2008: 44). This is not truth. All sex workers in the programme, regardless of their nationality. Pay a minimal fee for their bi-weekly health check: 15 SRD (~Euro 3.46) for the First visit and 10 SRD (~Euro 2.31) for follow-up visits (D. Hordijk, HIV-clinic Department of Dermatology, pers. com. 30 April 2012). This fee compares to the price of one can of Coca Cola in the club where they work. To name yet another example, the 2008 Sodireitos report claims that foreign sex workers who have been found to be HIV-positive are not treated but deported (p. 45). It has indeed occurred that women working in one of the registered clubs were thrown out of the club upon discovery that they were HIV+. Because their residency license was coupled to their work permit and job status they were indeed deported rather than treated. This is, however, not a government policy nor the norm. In fact, all HIV-

positive individuals, regardless of their nationality and of whether they are insured, are entitled to free antiretroviral medication from the Suriname government. People who are not insured may need to pay the general practitioner and some of the general lab tests. But HIV related lab tests, including the CD4 count test, and related medication can be obtained for free (pers. com. D. Stijnberg, Ministry of Health, planning unit, 8 May 2012)

This is not to say that human trafficking into the sex trade does not occur in Suriname. The 2009 BSS in Paramaribo encountered one Chinese woman who might have been a victim of trafficking. Also, in 2011 the Suriname media reported about a 13-year old Maroon girl who had been forced to work as a sex worker in the gold mining areas of Brokopondo (Starnieuws, 28 October 2011). Nevertheless, as stated in the 2012 BSS among sex workers and clients in the gold mining areas:

> "… most women willingly and well-informed work in the mining areas to earn quick money. In Suriname gold fields, the price of a short visit to a sex workers is about 1.5 to 5 grams of gold (~75-250 USD) and an all-night stay costs about 8 to 10 grams of gold (~400-500 USD). Even if sex workers have to pay something to a brothel owner for lodging and food, they earn much more in the gold fields than they would, doing any type of regular job in Brazil, the Dominican Republic, Guyana or Suriname."

3. Methods

3.1 Study period and locations

Field work was conducted in January-February 2012 in 12 gold mining sites in Suriname, distributed over four larger mining regions in the districts of Brokopondo and Sipaliwini (Table 6). Figure 3 shows the study locations in the country. This figure also shows the location of Medical Mission health posts in the interior. These health posts serve as free VCT sites as well. A close-up of the four mining regions is presented in Figure 4 to Figure 7 .

Data analysis and report writing took place in March 2012.

Table 6. List of fieldwork locations.

District & general region	Name of site	Nationality of surveyed gold miners and service providers
Brokopondo, north of the hydropower lake	Kriki Neygi	Suriname, Brazilian, Guyanese
	Irene vallen	Suriname, Brazilian, Guyanese
	Afobaka (boat landing)	Suriname, Brazilian
	Gwangoe	Suriname, Brazilian
	Grankreek	Suriname, Brazilian, Guyanese, Dominican
Brokopondo, south of the hydropower lake	Tjilipasi	Suriname, Brazilian, Guyanese, Dominican
	Alimoni (boat landing)	Suriname, Brazilian, Guyanese
Sipaliwini, Lawa river region	Kabanavo	Suriname, Brazilian, Guyanese, Chinese
	Benzdorp	Suriname, Brazilian, Guyanese, Dominican, Chinese
	Peruano	Suriname, Brazilian, Guyanese, Chinese
	Tabiki (airstrip)	Suriname
	Antonio do Brinco	Suriname, Brazilian, Guyanese, Chinese
Sipaliwini, Nassau mountains area	Tumatu	Suriname, Brazilian
	Nason	Suriname, Brazilian, Dominican

Figure 3. Suriname with the research locations in Brokopondo and Sipaliwini

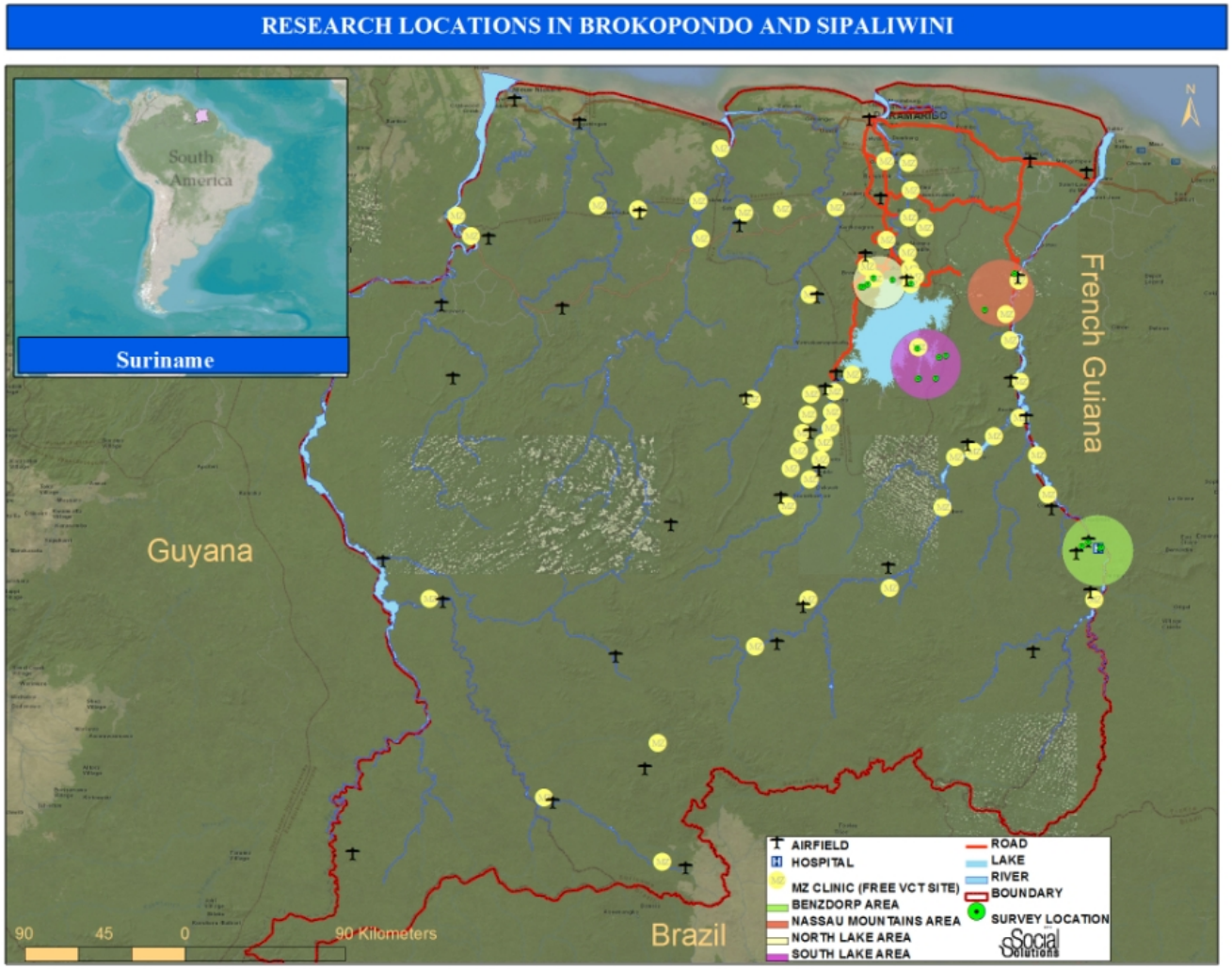


Figure 4. The research locations in the Brokopondo North lake area.

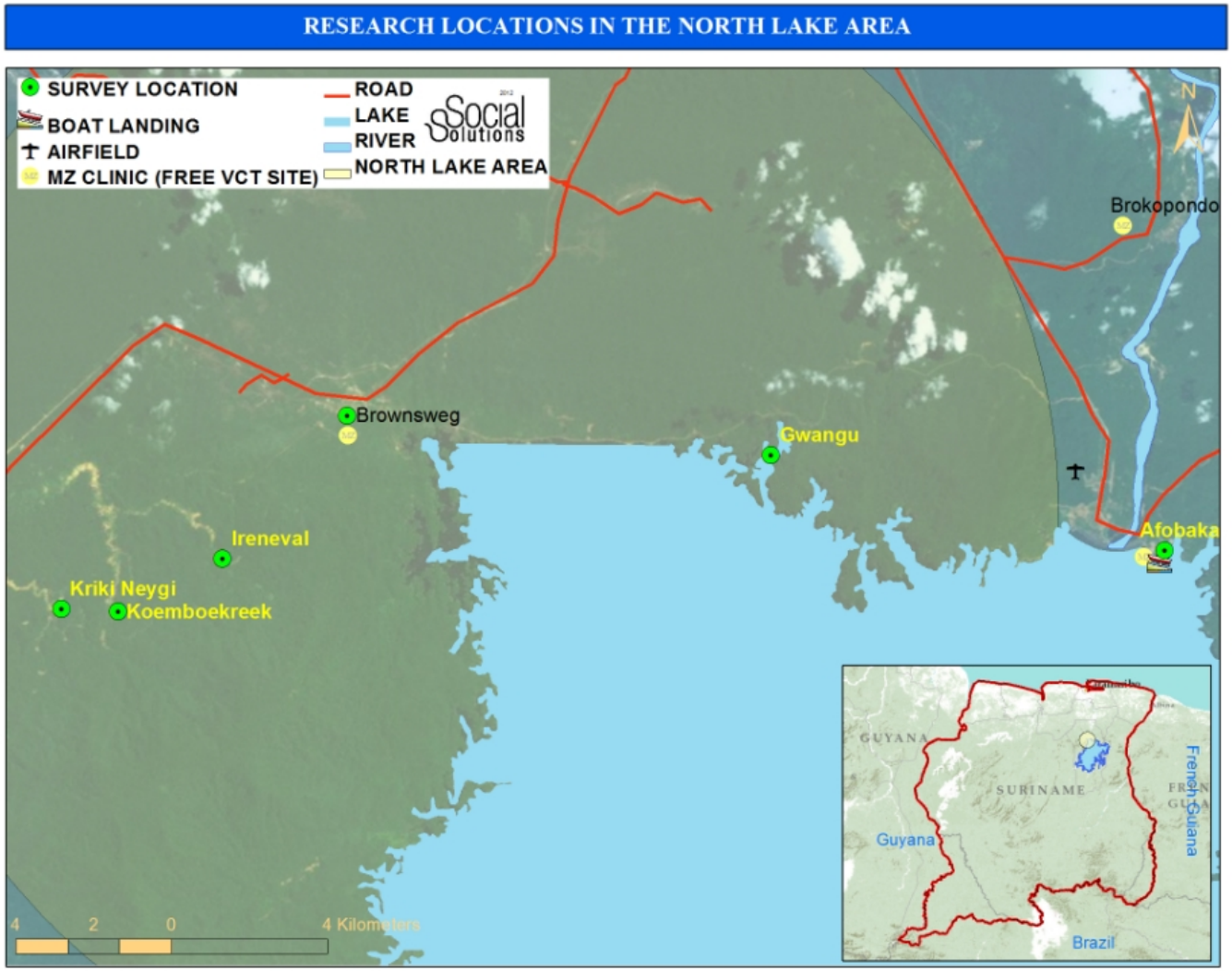


Figure 5. The research locations in the Brokopondo South lake area.

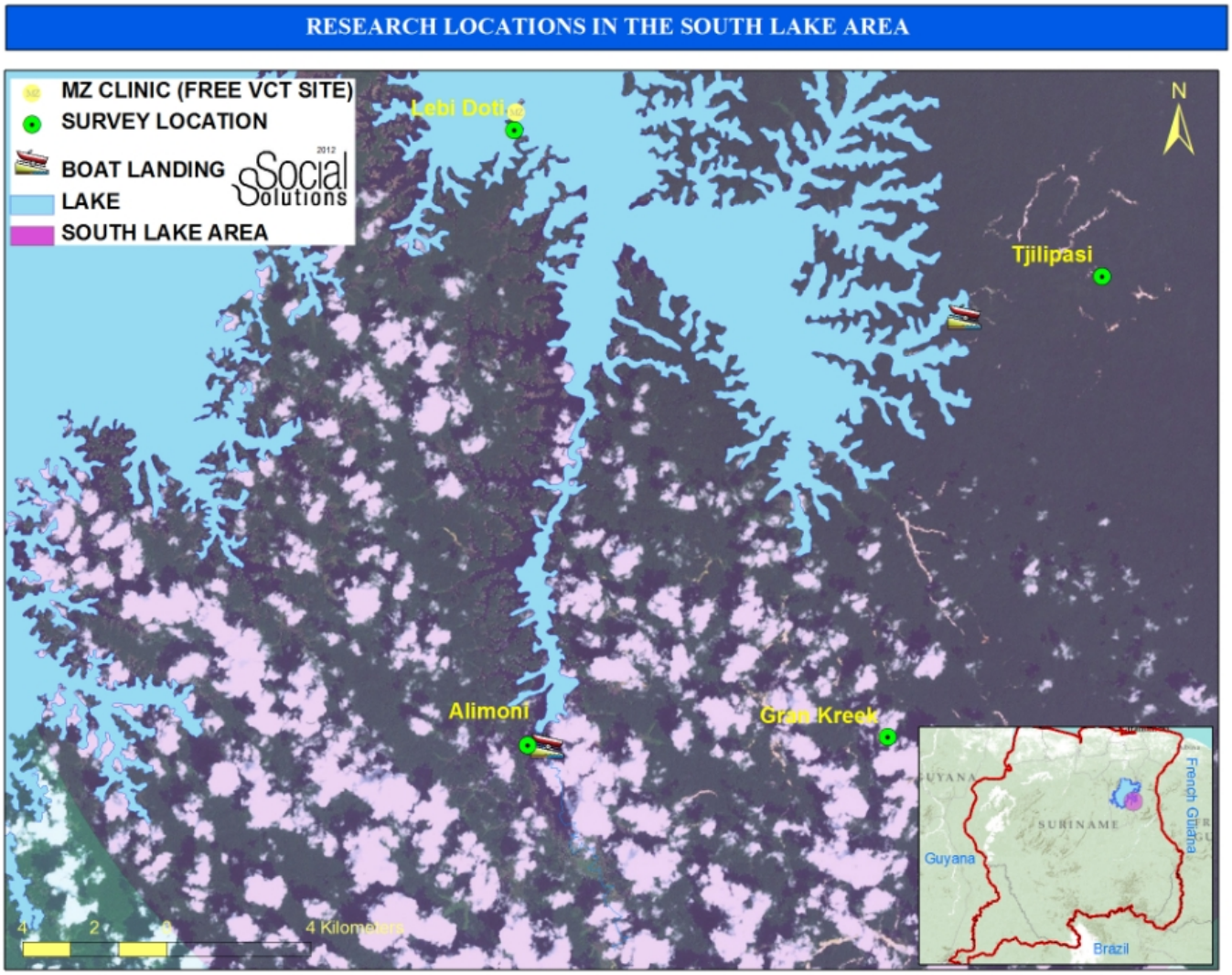


Figure 6. The research locations in the Benzdorp area (Lawa river region).

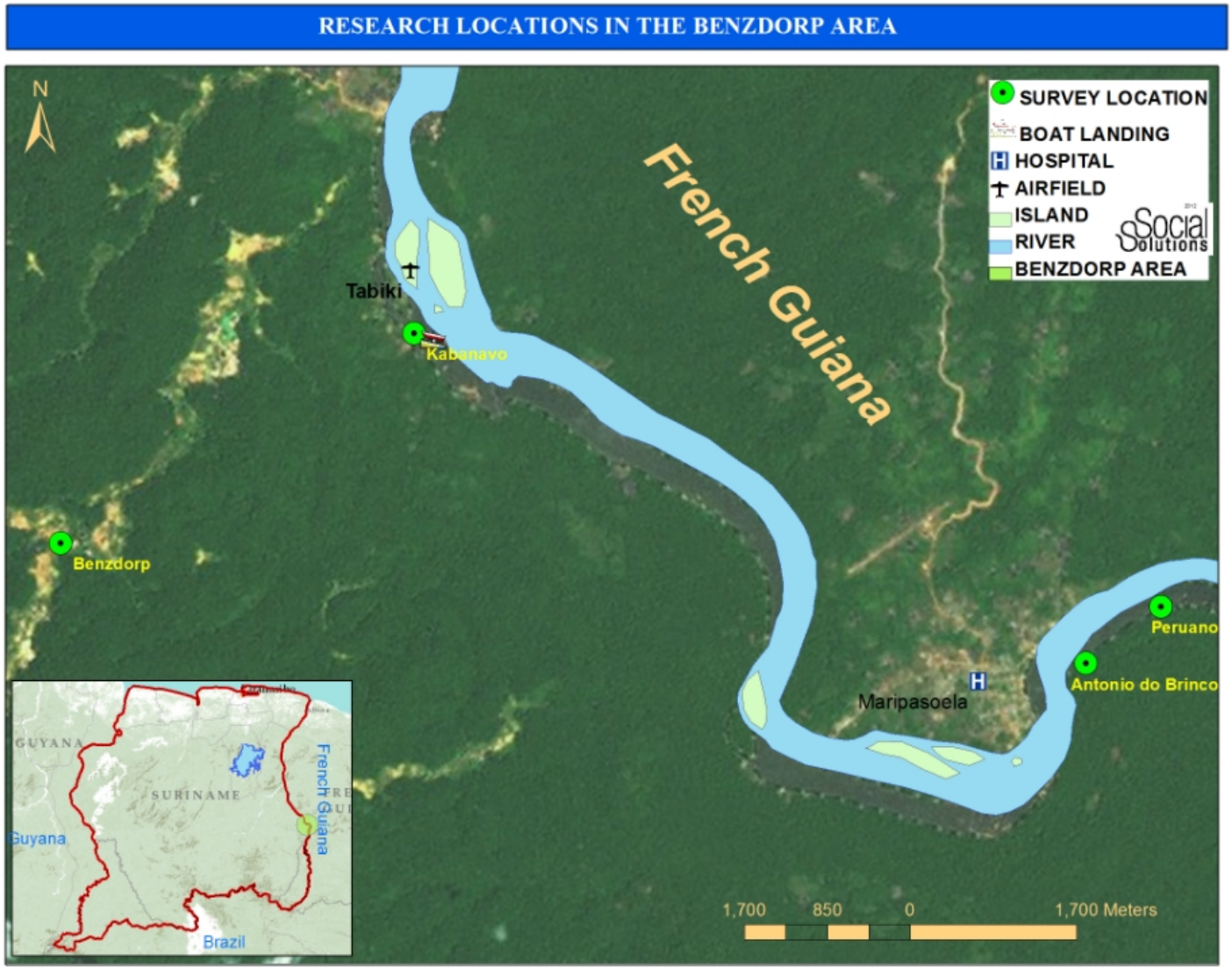
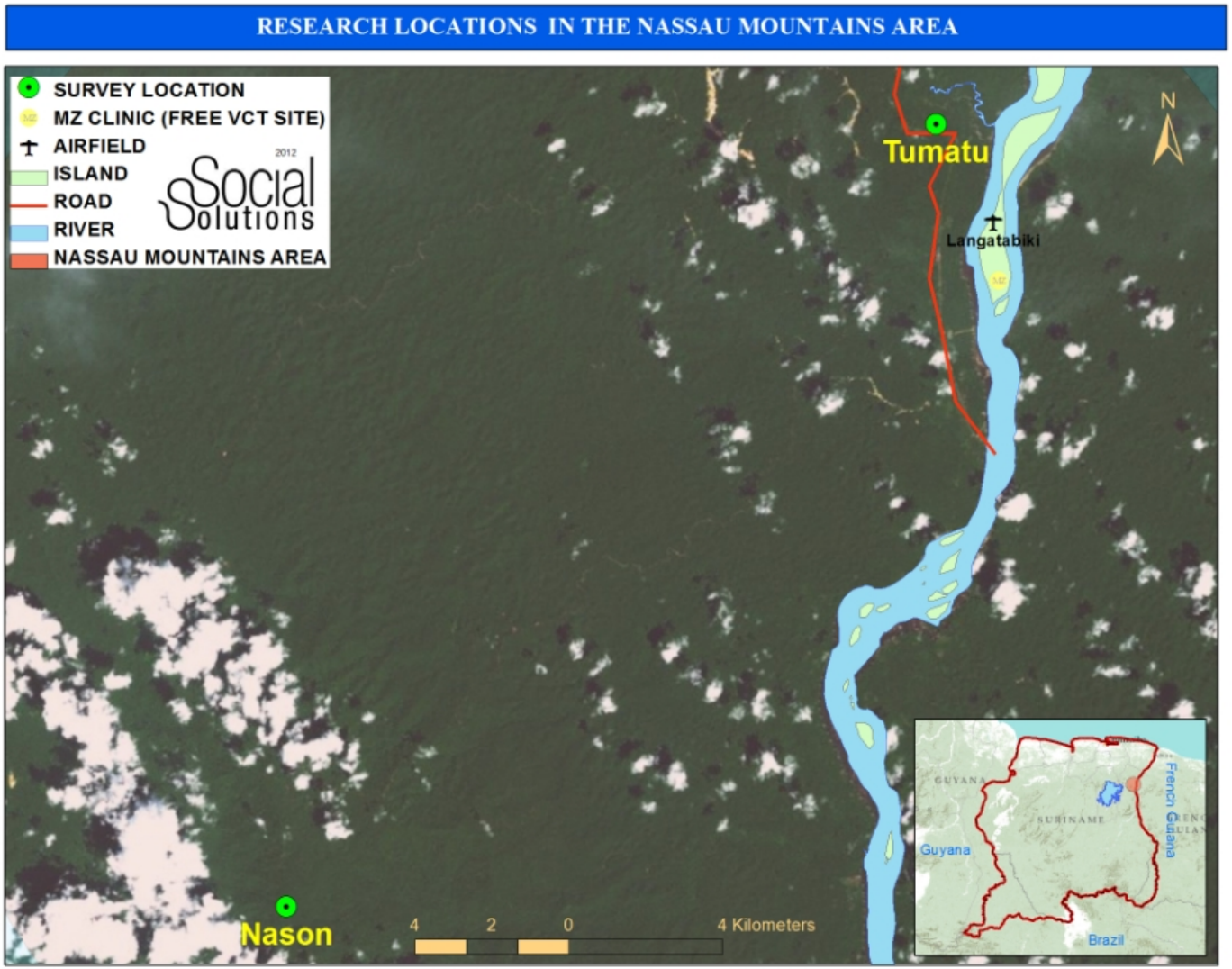


Figure 7. The research locations in the Sipaliwini, Nassau mountains area.



3.2 Study population

The study population consisted of all migrant and mobile individuals who were working in one of the visited gold mining areas during the study period. At the international level, no universally accepted definition of migrant exists (IOM 2004). For this study, we use the International Organization of Migration definition of migrants/mobile populations, as persons who are "moving to another country or region to better their material or social conditions and improve the prospect for themselves or their family" (ibid.). The United Nations defines migrant as an individual who has resided in a foreign country for more than one year irrespective of the causes, voluntary or involuntary, and the means, regular or irregular, used to migrate. Under this definition, those travelling for shorter periods (e.g. 6-month intervals) to the mining areas for work would not be considered migrants. Because many people in the mining sector move around between mining areas and between mining areas and the capital city, we prefer the more inclusive IOM definition.

The total number of persons working in the Suriname gold mining regions is not known, but has been estimated by the Commission Regulation Gold Sector (OGS) at 40,000 individuals (De Ware Tijd, 3 March 2012). About 65-75 percent of these people may be international migrants. Foreign gold miners are mostly Brazilians, in addition to some Guyanese and others. Migrants in the gold mining service sector include Chinese who run supermarkets, Brazilians who take care of transportation services, and Dominican, Brazilian, and Guyanese women work in cabarets (*brothels*). The largest share of the remaining third of the population working and living in mining areas are Suriname persons working outside of their area of origin. They mine for gold, sell goods, run cantinas, offer transportation, and perform sex work.

3.3 Sampling strategy and sample

Taking a random sample of persons working and living in the gold mining areas is nearly impossible because there is no public registry of gold miners with their working location and their work is typically informal. Moreover, gold miners and those providing auxiliary services to them travel around within the mining area between their working location, the miners' camp where they sleep, and the miners' village (*curatela*) where they buy goods and seek entertainment. Furthermore, gold miners and service providers move around between mining areas when the prospects for finding gold are better elsewhere.

Theoretically it would be possible to introduce randomness by travelling throughout the mining areas, going from miners' camp to miners' camp, and interview one or two persons at each camp, store, bar, or brothel that is encountered. However, this method would require a considerable amount of travel within and between mining areas, which is expensive. For example, the rental of an All Terrain Vehicle (ATV), which seats two passengers as most, costs about 500 USD (~Euro 375) per day. Incorporating the time it takes to introduce oneself/the research and interview a person, and considering the sometimes large distances between camps, one might be able to visit just four or five camps a day. Such an approach would simply be too expensive.

Selecting research representative locations was challenging. The places where gold miners and mining service providers stay are dispersed throughout the country's interior, difficult accessible, and often

expensive to reach. Hence a limited number of mining sites were selected for research. Selection criteria included: anticipated number of migrants, travel expense and time, and ease of access. In addition, we made an effort to select mining areas that were distributed across the country, to capture differences caused by access to the capital city, costs in time and expenses to reach the nearest health post, distance to hospitals and health posts in French Guiana, and composition of the mining population.

In the selected mining areas (see 3.1), the surveyors walked around in the various population enclaves where gold miners and gold mining service providers live and work together (*curatela*). In these *curatelas* the surveyors solicited the participation of all migrants (national and international) that fulfilled the inclusion criteria (Figure 8 through Figure 12). Simultaneous with the present study, the researchers also conducted a BSS and seroprevalence study in the gold mining areas. Combining the two studies gave us the opportunity to conduct research in more different mining locations. As a result, the survey sample is more representative of the population in the small scale mining areas then it would have been by nearly visiting two sites. Separate survey forms were used in these studies, though occasionally an interviewee participated in both surveys. Because the BSS and seroprevalence study primarily focussed on sex workers, sex workers are underrepresented in the present study.

Figure 8. Surveyor speaks with a Suriname ATV-driver

A total of 296 migrants were surveyed (Table 7); 118 women (39.9%) and 178 men (60.1%). Sixty-seven individuals, among whom seven women, were Suriname nationals working outside of their area of origin or the area they called "home". Among the 229 international migrants, 112 were female and 117 were male. Table 7 displays the distribution of interviewees over the different mining areas.

Most persons who participated in the survey were working in gold mining sites in the district of Sipaliwini at the time of the study (Table 7), primarily in the Benzdorp general area. 65.5 Percent of all surveys (N_{total}=296) were conducted in this ancient mining area in the far south of Suriname.

Table 7. Numbers of migrants who were surveyed in the various research locations

Location	International migrant			National migrants		
	Men	Women	Total	Men	Women	Total
Brokopondo North lake	2	4	6	8	1	10
Brokopondo South lake	26	20	46	25	3	28
Sipaliwini, Benzdorp/ Lawa region	87	79	166	26	2	28
Sipaliwini, Nassau mountains area	2	9	11	1	0	1
Total	117	112	229	61	6	67

Figure 9. Surveyor conducts an interview with a Brazilian migrant in a bar in Alimoni (South lake area). In the background young Brazilian men are playing snooker.

3.4 Survey

The design of the draft survey form was based on the 2012 Behavioural Surveillance Survey (BSS) in gold mining areas, and adapted to capture the particular experiences of migrants. The draft survey was further modified with input from the PANCAP/GIZ/EPOS team leader and PANCAP advisers. This survey contained questions about general demographics, sexual behaviour and condom use, knowledge of HIV, knowledge of and access to health services, experience with health service providers, and knowledge of and access to HIV services including VCT locations.

The draft survey was tested with five persons in Brokopondo North lake. Based on the test, the survey questions were adjusted, some questions were deleted and others were added. The final survey form is attached as Annex 1. Each survey participant received a US$ 5 mobile phone recharge card as compensation for his or her time.

Figure 10. Surveyor during an interview in a cabaret in Kabanavo, Benzdorp general area

3.5 Focus groups

In order to discuss issues of sexual and reproductive health, and people's access to health services –in particularly those related to HIV prevention and care- the consultant conducted focus groups and group interviews in the mining areas. Two focus groups were conducted with a total of 17 persons (9 and 8 persons). The focus group participants were mostly Brazilians, with in addition Surinamese, Guyanese, and one Dutch woman. The focus groups were conducted by one of the lead researchers, who were assisted by a Brazilian assistant. The language of discussion was mostly Brazilian Portuguese, but both

the participants and the facilitators moved back and forth between languages, reflecting the reality in the mining camps.

The focus group discussion started by asking people if they could tell what is HIV and how one might get it. Next, the discussion turned to HIV prevention, condom use, and *correct* condom use. At this moment, we asked one of the participants to demonstrate how one puts on a condom and asked the other participants to comment on it. In the final part of the focus group, we asked about the types of health services people knew about and used, and their experience with these services. The focus group discussions lasted for about one hour each.

In addition to the focus groups, the lead researchers held three qualitative group interviews with between two to four persons. These group interviews had a more informal character, and focussed on the same questions as the focus group interviews.

3.6 Protection of Human Subjects and Ethical Review

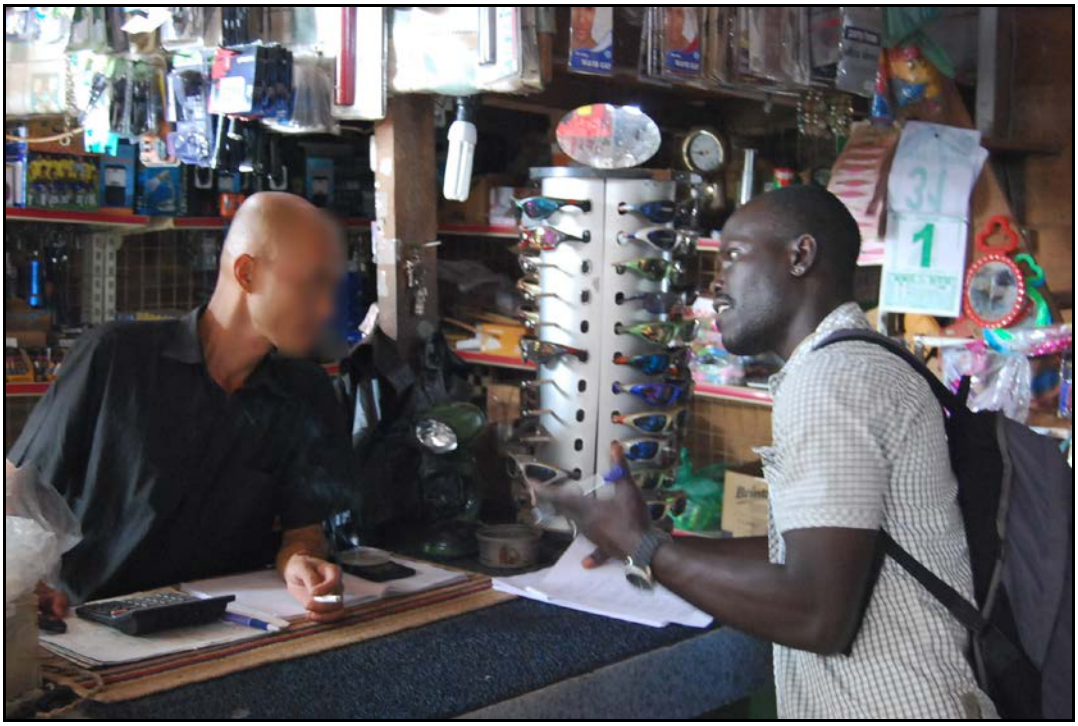
Research procedures adhered to professional ethical standards for anthropological and health research. Prior to conducting a survey interview, the interviewee was approached in an unobtrusive manner. The surveyor introduced him or herself and explained the purpose of the research. The interviewee was also explained that participation in the research was voluntary and anonymous, and that the person would be compensated for his or her time with a mobile phone recharge card.

Names of study participants have not been recorded. The answers have been processed using a coding system that guarantees respondent anonymity. Information provided to the survey team by the migrants, both national and international, has been treated confidentially and is not revealed in a way that can be linked to their person. All data have been presented in an aggravated manner.

3.7 Data analysis

Survey data were entered in the statistical software package SPSS. The data were cleaned and cross-checked prior to and during the analysis. Five cases were removed because they were incomplete. Summary statistics and multivariate statistics have been used to present the data. In the data representation, the denominators for the various results are reported as N_{total}.

Figure 11. Surveyor conducting an interview with a Chinese shop owner in Kabanavo, Benzdorp general mining area.



3.8 Research team

The research team was headed by two anthropologists. The lead researchers jointly designed the work plan and had final responsibility for execution of the research. Together the researchers were fluent in Dutch, English, Spanish, Portuguese, and Sranantongo.

During the field research, the lead researchers relied on the assistance of survey assistants, who were selected on the basis of their previous experiences with similar survey work; their language skills; and/or their familiarity with the research localities. The survey assistants formed sub-groups to visit the various survey sites, based on their knowledge of these locations and their language skills. At every field visit, at least one of the lead researches went along to supervise the survey work. A data entry assistant was hired for entry of the survey data. A GIS mapping specialist composed the maps of research sites.

3.9 Limitations and assumptions

Fieldwork was conducted under certain limitations

- **Sampling.** It was not possible to take a random sample of migrants who work in the mining areas. Migrant workers in the mines are not registered in a public place and they are mobile; moving both within Suriname between mining areas and the city, and between Suriname and other countries. Furthermore, many migrants in mining areas work irregularly, based on needs of money, holidays

and other circumstances. Because migrants were interviewed 'upon encounter' in target locations, the results cannot be extrapolated to the population at large.

- **Travel expenses to and within mining areas**. Travel to and within the mining areas is extremely expensive, as are lodging and food. For example, a trip to Grankreek costs about US$ 500 per person for travel and lodging for 2 days. Hence it was impossible to visit all small-scale gold mining areas and the team had to select a limited number of locations. By selecting sites dispersed throughout the interior, we are confident that our selection is representative of the research population at large.
- **Assessment of NGOs providing HIV services**. The NGO service provision assessment is limited to an auto-evaluation of services. There was no verification of the information provided

In collecting data and interpreting the results, we rely on various assumptions.

- **Representativeness.** The researchers assume that by targeting migrants of different subgroups in terms of nationality, gender, and profession, the study provides a fairly accurate representation of the migrant population, their habits, their opinions and their attitudes.
- **Reliability**. We also assume that interviewees answered to the questions to their best ability and in a truthful manner.

Figure 12. Travel by boat and ATV to remote mining areas

4. Mining areas and nearby health services

4.1 Characterization of visited mining areas

This section briefly characterizes living and working conditions in the various visited mining areas to provide the broader context for the personal information provided by de migrants. Table 8 summarizes data for each of the visited mining regions. Figure 13 shows impressions of living and working conditions for migrants in the gold mining areas.

The research areas are situated on varying distances from the capital city of Paramaribo. Nearest, cheapest and easiest to reach is **Brokopondo North lake**. This area can be reached by car and road conditions are reasonable, though some sand tracks to the mining sites are poorly navigable in the rainy season. The main village in this area is Brownsweg (Est. pop: 3,000), which is a cluster of six resettlement[6] villages. In Brownsweg village, drinking water is obtained by collecting rain water. Water for washing dishes and clothes, and for bathing and cooking is piped to the village from the hydropower lake. The village has recently been connected to the public electricity net. There is a public school, a Catholic school, and a Protestant (Evangelische Broedergemeente Suriname-EBGS) school. Health care is provided through the local MZ clinic, which has one medical doctor, eight health workers and three assistants.

The visited mining areas were all located within 15-30 minutes travel distance (by car) from the village of Brownsweg. In order to obtain electricity, each mining camp or structure (store, *cabaret*) has its own generator. Rain is collected to provide drinking water, and in some locations miners have dug wells. There are no decent sanitary facilities; some places have simple outhouses but most often miners use the surrounding forest. The largest share of the gold miners (~ 75-90%) working in the mining areas surrounding Brownsweg (incl. Kriki Neygi, Koemboekreek, and Ireneval) are Maroons from nearby villages. They do not want too many (gold mining) migrants in "their" areas because they are of the opinion that the gold should benefit their own people. Because of the proximity of the home communities and the low number of Brazilians, there are in this area no typical Brazilian population conglomerates where miners and mining service providers live together (*curatela*).

From the north-side of the hydropower lake at Afobaka, one can take a boat across the lake to the **South lake area**. This is a historic mining area, where small-scale manual gold miners and mechanized mining companies already extracted gold in the late 19th century. At present there are various small-scale gold mining areas in this region, of which the selected sites of Grankreek and Tjilipasi are typical. The grand majority of the mining population in this region (75-90%) consists of Brazilian migrants. They live both scattered through the forest in their mining camps and in the *curatelas* that have sprouted throughout the region. Three evangelical Brazilian churches were active in the visited *curatelas.*

[6] In the 1960s, several Saramaka Maroon villages were involuntary relocated to make place for a hydropower lake. Brownsweg is one of the governmental resettlement population enclaves, where the inhabitants of six traditional villages were placed together.

Figure 13. Impressions of living and working conditions for migrants in the gold mining areas

Subscripts with images Figure 13

1. *Small-scale gold miners' working site with miners' huts, Brokopondo North lake*
2. *Brazilian ATV driver transports a barrel of oil, Benzdorp*
3. *Small-scale gold miner in mining pit*
4. *In the transit place of Antonio do Brinco, miners and mining service providers stay for a few days before moving on to gold mines in French Guiana and Suriname, Benzdorp area*
5. *Announcement in Portuguese for a Bingo drive with an ATV as first prize. "Beautiful ladies" will be present. The price of one bingo-card is 3 gram of gold (~ Euro 115), South lake area*
6. *Tough working and living conditions and loneliness contribute to high alcohol consumption rates, Brokopondo South lake*
7. *Small aircrafts transport miners and mining service providers, as well as smaller machinery and ATVs, to the mining areas, Tabiki airstrip, Benzdorp area*

Electricity is obtained from private generators, though some places share one generator. Rain, wells, and bottled water provide drinking water. Inhabitants and visitors to the *curatela* rely on private and common latrines but not all mining camps in the forest have such facilities, in which case the miners relieve themselves in the forest. The nearest village is Lebidoti, but from Grankreek and Tjilipasi it is quite expensive to get there: 5 gram of gold (~Euro 190) per ATV to the boat landing and some more to reach the village by boat. The village has a MZ medical post and a school.

The **Benzdorp area** is another ancient mining area, and continues to host one of the largest concentrations of small-scale gold miners in Suriname. An estimated 2500-3,000 gold miners and mining service providers are living in this area. The main population enclaves are the Benzdorp *curatela* somewhat land inward and three locations along the river (Kabanavo, Peruano, and Antonio do Brinco). Mining service providers in these waterfront places also cater to mining areas in French Guiana, an overseas department of France, just across the Lawa river. However, because of much stricter French immigration policies and control on the other side of the river, they mostly live on the Suriname side of the border.

The Benzdorp *curatela* is one of the longest established *curatelas* in Suriname and contains businesses that offer a wide range of services, including supermarkets, ATV repair shops, brothels, hair and beauty salons, carpenters, mechanics, and so forth. There are two Brazilian churches in Benzdorp and in addition each of the riverside places also has its own Brazilian church.

The nearest village to this area is Maripasoela (FG), a large urban centre on the French side of the Lawa River. This town is not connected by road to the coastal area and French Guiana's capital city Cayenne. Nevertheless, this village features paved roads with cars, several schools for different educational stages, public housing, a police station, a post office, fire fighters, a garbage collection service, a small but well-equipped hospital, a modern pharmacy, and a prevention and vaccination centre.

Tumatu is situated along the Patamaca road in the **Nassau area.** From Paramaribo this small *curatela* can be reached by car in about three to four hours, depending on road conditions. To reach the more isolated Nason mining area takes another hour or more driving over poorly maintained dirt tracks through the forest. These places do not offer the same variety of services that can be found in Benzdorp; brothels and bars are the main businesses. The majority of miners working in this area are Brazilian migrants, but there also are some migrants of other nationalities and Suriname gold miners (~25-40%). Private generators are used for electricity and drinking water is obtained from the rain or hand- or machine-dug wells.

The nearest village is the Maroon village of Langatabiki in the Marowijne river. The village features a public school and an MZ clinic. Migrants from the mining areas rarely visit this village.

4.2 Local health provisions

In all areas but Benzdorp, the nearest medical post is a Medical Mission (MZ) primary health care clinic in the nearest Maroon village (Table 9). MZ clinics (57) are private health centres that are subsidized by national and international donors including the Suriname Ministry of Health and only operate in Maroon and Indigenous villages in the interior. They are manned by one or more "health assistants" (gezondheidsassistent, GZA). The GZA is usually a person from the same village, or someone familiar with the language and culture from the specific Indigenous or Maroon group living in that area. The GZAs follow a 4-year training, which is partly theoretical but largely on-the-job. Theoretical modules for this training are provided at the Medical Scientific Institute (MWI). The complete training contains all basic health skills such as wound treatment including stitching, vaccination, malaria testing and treatment, delivery, pre-and post natal care. In addition, GZA are trained in VCT procedures. The entry requirement for this training is some years of junior high school[7].

The GZA may be assisted by a local person with brief on-the-job training. In addition, a regional doctor is responsible for monitoring and control of health care in a couple of clinics in his or her resort. The regional doctor resides in one of the villages and visits all clinics every so often. The MZ headquarters in Paramaribo have a medical room where a medical doctor is available 24 h/day for advice to the interior clinics. In complicated cases, the GZA can make a phone call to or make radio contact with the serving doctor in the MZ medical room in Paramaribo for advice; this facility is open 24h/day. Registered MZ Patients who need acute care that cannot be offered in the interior are flown to the city at the expense of the MZ.

Consultation at the MZ clinic is free of charge for interior inhabitants who are registered with MZ. Registration with the MZ is also free, and typically newborns in the village are automatically registered. Outsiders, regardless of their nationality or area of residency, pay a fee of SRD 75- (~Euro 17.50) for medical consultation. This fee includes medication. One of the local MZ health workers in Brokopondo added that if a person is not able to pay this fee, they will help him anyway. Only persons who are

[7] More specifically, one must have a diploma of Lower Vocational Education (LBGO) or proof of successful completion of grade 3 of More Extended Lower Education (MULO).

registered with the Bureau of Civil Affairs (CBB) as living in an interior village can be registered with MZ. This means that migrants in mining areas (outside the villages) and mobile populations with another formal residency cannot become registered MZ patients, regardless of whether they have the Suriname or another nationality.

The MZ clinics are all VCT sites (Table 9). The GZA test every pregnant woman for HIV and in addition every person who asks to be tested. The policy is to provide free possibilities for voluntary HIV-testing and counselling for everyone with a need, regardless of registration with MZ or immigrant status. Hence also migrants can obtain VCT services free of charge. The local MZ health provider (GZA) in Lebidoti indicated that she tested all pregnant women but preferred not to test many others as she was afraid to run out of test material. In Brownsweg the GZA explained that they were willing to test everyone who wanted to get tested, and that there were enough tests to do so. Representatives from the MZ HIV-committee and the medical room indicated that there is an abundance of HIV tests and local clinics are allowed to test everyone who wishes a test. However, the MZ does not want to start a large HIV campaign or encourage people to use the VCT services. The reasons are that they fear stigmatization and that care for HIV+ persons in the interior is complicated the complicated. Condoms are freely available in the MZ clinics but MZ health workers rarely pro-actively distribute condoms in the village, for example during village parties.

If someone is tested HIV+ in the interior, this person needs to travel to the city for the first screening (blood tests), on his or her own expense. Anti Retroviral Treatment (ART) for those who need it is sent to the interior. As the National AIDS Programme covers the costs of ART, this therapy is free for both the patient and MZ. The patient can obtain medication for a maximum of one month at one. Because of the high travel expenses, HIV+ patients who work in the gold mining areas do not return regularly to their home village and therefore often take their medication haphazardly.

The GZA's speak the local village languages, as well as Dutch and Sranantongo, and often a little bit of English. They are not likely to speak Portuguese or Spanish. Though at present three Cuban doctors are working as regional doctors with MZ. This facilitates communication with Brazilian and Spanish speaking migrants. Information and awareness materials are available in Dutch, Sranantongo, and local languages.

A consulted team of MZ doctors indicated that traditional cultural beliefs continue to affect both safe sexual behaviour and attitudes towards HIV & AIDS. For example, among Saramaka Maroons it is tradition that a woman whose husband passes away sleeps with her deceased husband's brother in order to terminate the mourning period and be purified. A condom cannot be used as it would not allow for complete purification. This custom is still practised in some of the more traditional villages in the upper Suriname region. Furthermore, there are still traditional healers who argue that they can cure HIV & AIDS. The research team experienced this first hand in a discussion with local Maroon men who were convinced that a Maroon healer in the Marowijne River area can cure HIV.

Furthermore, with regard to health services the researchers learned that in Grankreek there is a Brazilian woman who used to be a nurse in Brazil. She provides first aid in the case of emergencies. She

also helps out when people are ill and has a basic supply of medications. She refers more complicated cases to the city or the local MZ health clinic in Lebidoti. Additional details about health facilities including VCT services in the mining areas are summarized in Table 9.

In Maripasoela, health services are provided in the Maripasoela hospital (*Centre de Santé*) and the *Centre de Prevention et Vaccination* (CPV) affiliated to the hospital. All health services in both *Centres* are free of charge for both French nationals and foreigners, regardless of their legal status in the country. Non-residents need to pay for medication though. Moreover, if undocumented migrants are caught by the French gendarme on their way to the hospital they may face expulsion, arrest and/or confiscation or destruction of their possessions.

VCT services are provided for free at the *Centre de Prevention et Vaccination* (CPV). This centre provides services in the areas of maternity, pre-and post natal care, gynaecology, and STIs including HIV & AIDS. As part of its maternity services, all pregnant women are HIV-tested. The centre also distributes free condoms and holds information sessions on sexuality at the local college. In addition, the CPV organizes outreach activities and awareness campaigns in the village during festivities and special events (e.g. international AIDS day). The *Centre de Prevention et Vaccination* focuses on women and on couples; men coming alone for HIV services have to go to the hospital.

Other than the Suriname VCT sites the CPV does not yet provide the rapid test. At present, HIV test material is sent to Cayenne for analysis and as a result, tested patients have to wait a week for their results. In the next door *Centre de Santé* the result is only available after a month. The consulted health worker at the CPV observed that as a consequence of this long interval, many non-residents of Maripasoela do not come for their results. This may change soon though. At present, the French NGO AIDES, which has an office in Saint Laurent du Maroni, is already offering HIV raid tests in selected locations along the Marowijne (SUR)/Maroni (FG) river. The hospital in Maripasoela provides free HIV treatment and also al laboratory tests are free.

The consulted French health worker identified the activities of traditional healers who claim that they can cure HIV as one of the main obstacles in effective HIV prevention and care. Furthermore, a recent study among college students in Maripasoela demonstrated that misperceptions about HIV transmission continue to exist. Also stigma and discrimination continue to be a problem.

A large proportion of the patients at the hospital and the CPV are international migrants; mostly Brazilians and some Suriname nationals. According to a consulted nurse, migrants could represent as much as half of the persons who come for medical consults. More than half of these migrants do not speak any French. The French health workers speak French and some also speak (some) Portuguese and/or English. In addition, local health assistants speak the local language(s). There are migrants who come with a translator. However, particularly for HIV services patients often prefer their privacy and in these cases communication can be problematic.

Migrants receive the same care as locals, but a problem can arise when patients have a serious medical condition that cannot be treated in Maripasoela. In that case the patient is flown for free to the capital city of Cayenne to be treated in the larger hospital. In Cayenne, the patient is first treated and later

asked to pay. A Brazilian migrant in Suriname reported that if the (Brazilian) patient cannot pay, the bill is sent to the Brazilian embassy but we have not been able to confirm this account. After treatment in Cayenne, the patient has to pay his own return trip to the interior.

Table 8. Characterization of the visited mining areas

Area	Brokopondo North lake	Brokopondo South lake	Benzdorp/Lawa	Nassau Mountains
Distance from Paramaribo (as the crow flies), in km	120 km	150 km	300 km	150 km
Est. number of inhabitants in visited mine sites	500-1000 (Kriki Neygi, Koemboe-kreek, Irene vallen)	2500-3000 (Grankreek, Tjilipasi, Alimoni)	2,500-3000 (A. do Brinco, Peruano, Benzdorp, Kabanavo)	500-1000 (Tumatu, Nason)
Estimated % of migrants	10-25%	75-90%	75-85%	60-75%
Type of electricity used by site inhabitants	private generators	private generators	private generators, communal generators	private generators
Sanitary facilities	forest; private latrines	forest; private latrines, communal latrines.	forest; private latrines; indoor flush toilet; communal latrines	forest; private latrines; communal latrines
Access to drinking water	covered well; rain water	covered well, rain water, bottled water	covered well, rain water, bottled water	covered well, rain water, bottled water
Police station or military basis on less than 1 hr distance	Yes, police station in Brokopondo Centrum	No	Sur. militaries and military police stationed on Tabiki, they patrol in mining areas; French Gendarme and army in Maripasoela (FG)	No
Phone access (land line)	No	No	No	No
Phone access (mobile network)	Yes	Yes	Yes	Yes
Presence of churches in the mining areas/*curatela*	None	Brazilian protestant (Evangelical) denominations	Brazilian protestant (Pentecostal and Evangelical) denom.	Brazilian protestant (Evangelical) denomination
Number of schools within 30 min. travel distance	1 public school and two Christian schools in Brownsweg	From Alimoni boat landing one can reach Lebidoti school in ± 30 min. by boat	Various levels of French schools in Maripasoela (FG) and Wakapou	Public school in Langatabiki

Table 9. Access to health facilities including VCT services in the visited mining locations.

Area	Brokopondo, North lake	Brokopondo, South lake	Benzdorp area/Lawa	Nassau Mountains
Nearest health facility	MZ clinic in Brownsweg	MZ clinic in Lebidoti	Hospital in Maripasoela (FG)	MZ clinic Langatabiki
Distance to nearest health facility in km (as the crow flies)	5-12 km	5-25 km	100m – 20 km	1-10 km
Distance to nearest health facility in money	20 SRD (~US$ 6.15)	US$ 250	US$ 0-150, depending on the precise location	US$ 10-50, depending on the precise location
Distance to nearest health facility in time	30 minutes	1 hr	10 min-1 hr.	20 min-1 hr
Provision of services to (undocumented) migrants	Yes	Yes	Yes	Yes
Cost of medical treatment for locals	Free when registered with MZ	Free when registered with MZ	Free	Free when registered with MZ
Cost of medical treatment for outsiders (Suriname nationals or international migrants)	SRD 75- (~US$ 23.08)	SRD 75- (~US$ 23.08)	Free, but medication has to be paid	SRD 75- (~US$ 23.08)
Number of health workers	8 MZ-certified health workers (GZA), 3 assistant, one medical doctor.	2 MZ-certified health workers (GZA), 1 assistant, one visiting doctor (once monthly)	In CPV; 1 medical doctor, 2 nurses, 1 assistant nurse, 1 administrative ass.	1 MZ-certified health workers (GZA), 1 assistant, one visiting doctor (once monthly)
Languages spoken by local health workers	Dutch, Sranantongo, local Maroon languages, some English	Dutch, Sranantongo, local Maroon languages, some English	French, Portuguese, some English	Dutch, Sranantongo, local Maroon languages, some English
Additional health services	MZ malaria and HIV test site in Afobaka; Traditional healers in Maroon communities	Former Brazilian nurse provides first aid and other assistance	Traditional healers in Maroon communities	MZ malaria and HIV test site in Afobaka; Traditional healers in Maroon communities

Continuation Table 9. Access to health facilities including VCT services *in the visited mining locations.*

Area	Brokopondo, North lake	Brokopondo, South lake	Benzdorp area/Lawa	Nassau Mountains
Nearest Malaria Service Deliverer stationed	Krabudoin	Grankreek, Tjilipasi	Benzdorp	Snesi Kondre
Nearest VCT site	MZ clinic in Brownsweg	MZ clinic in Lebidoti	Hospital in Maripasoela (FG)	MZ clinic Langatabiki/MZ clinic in Afobaka
Location of nearest hospital	Paramaribo	Paramaribo	Centre de Santé in Maripasoela (FG)	Paramaribo/St. Laurent (FG)
Distance to nearest hospital in km	120 km	150 km	0.5-10 km	150 km
Distance to nearest hospital in money	US$ 30	US$ 350	US$ 0-150, depending on the precise location	US$ 200
Distance to nearest hospital in time	2 hr 30 min	5 hr	10 min-1 hr.	3-5 hr, depending on location and road conditions
Health facility features VCT service?	Yes	Yes	Yes	Yes
VCT service provides rapid-test?	Yes	Yes	No (is in process to be changed)	Yes
VCT service is free of charge	Yes	Yes	Yes	Yes
HIV information has been provided in the area in 2011?	No	Yes, by MZ	No	No
Free condoms have been distributed in the area in 2011?	Yes, by Malaria Programme	Yes, by Malaria Programme	Yes, by Malaria Programme	Yes, by Malaria Programme
HIV posters or other awareness materials visible in mining area	No	No	No	No

5. Relevant organizations

This chapter provides information about the relevant organizations that are working with migrants and/or providing HIV & AIDS services. Many of these organizations are named by migrants as places that distribute free condoms, where they have conducted an HIV tests, or places that are known for the provision of care (see Chapter 6). Summary information about these organizations is provided in Table 10 to Table 12.

5.1 Organizations working with migrants

5.1.1 Stichting Ontwikkelingshulp Haiti in Suriname

The main goal of the Foundation Development AID Haiti (*Stichting Ontwikkelingshulp Haiti*) in Suriname (SOHS) is to help the Haitian community in Suriname, particularly those staying illegally in the country. According to the founder and director of this NGO, Ms. Van L'Ilse, more than a thousand Haitians may be staying illegally in Suriname.

5.1.2 Chinese organizations

Soon after their earliest arrivals in Suriname, Chinese migrants have been supported by Chinese associations, the first one of which (*Kong Ngie Tong*) was formed in 1880 (Tjon Sie Fat 2009). The Chinese associations in Suriname were and are established as mutual assistance associations that provide services that the State does not provide to ethnic Chinese who do not have Surinamese passports or are not fully assimilated into Surinamese society. At present, there are more than ten Chinese associations active in Suriname, which serve as gatekeepers between Chinese migrants and their host societies and between the Chinese State and the Overseas Chinese.

The earliest Chinese migrants and their associations were dominated by Hakka Chinese but more recent Chinese migration waves from other districts have diversified the membership of modern Chinese organizations. The purpose of these associations has remained unchanged though. Like the ancient Chinese associations, the modern Chinese associations are patriarchal organizations whose activities are economical (protecting and advancing the commercial interest of their shopkeeper constituencies), political (forging links to the Surinamese authorities while settling problems and conflicts out of sight of the same authorities), cultural (e.g. maintaining two Chinese language newspapers and a Chinese school), and social (organizing entertainment). In addition, among the most obvious activities of the New Chinese organizations is offering financial assistance to affiliates, either through fundraising drives or by providing a platform, trust and financial backing for informal micro-financing and rotating credit schemes named ROSCA (ibid.)

5.1.3 Brazilian Churches

Brazilian churches form the most extensive social support network for Brazilians in Suriname, both in the urban areas and in the interior of the country. There are various mostly evangelical congregations active in the Suriname gold mining areas, including the *Assembléia de Deus*[8] *na lingua Portuguesa,* which has 12 churches in the *garimpos*, and *Assembléia da Fé*, also active in the gold mining areas.

The Pentacostal churches *Deus é Amor* (in two *garimpos)* and *Ministério da Congregação Cristã* also are active in Suriname but the latter is not (yet) established in the gold mining areas. The Brazilian denomination of the Seven Days Adventists also is active in Suriname. Even though this denomination has not established distinguishable churches in the interior, its membership includes gold miners and the *garimpos* are included in evangelization work. In addition, the *Milagro de Cristo* church, which was established by a Suriname national and a Brazilian, is mostly active among the indigenous peoples.

All Brazilian churches have stated in their statutes that they do philanthropic work, but the way in which this is executed differs from church to church. The first task of the churches and their workers (missionaries) is to talk about God. However, when something happens in the *garimpo* the churches are the first places people go to for help, partly because of their facilities. For example, if someone is severely ill or had an accident, the church can help out by placing their vehicle or ATV to the patient's disposal. Church leaders also mediate when there are problems with the police. For example, at the time of Suriname 'clean sweep' actions when Brazilians were expelled from mining areas in the interior, the church helped people to get their paperwork in order and obtain legal residency. A missionary joked: "as soon as there are problems with the [Suriname] police all of the sudden everyone is a believer. They run from the cabaret straight into the church." She added that also many pregnant women start to attend church. Next they will hold a baby shower for the church attendees in order to collect gifts.

The church does not provide substantial information about HIV. The missionaries only warn that those leading a life in sin and those prostituting themselves may be punished with AIDS. The only just way to prevent becoming infected with HIV is to be faithful to one marital partner. Condoms are not part of this discourse. Nevertheless, HIV+ persons can count on support from the church. One of interviewed missionaries recalled one case of an HIV+ Brazilian woman. All church members put money together to send her back to Brazil. Generally, when someone is very ill, they will first pray and then see how the church community can help out. Most often the person is sent to St. Laurent (French Guiana) or Brazil for treatment. Also drugs addicts may be sent back to a faith

[8] This church has different sub-divisions, such as the *Assembléia de Deus Pioneira Suriname* (evangelical) and the *Assembléia de Deus Betel*.

based rehabilitation centre in Brazil. The Assembléia is still researching the possibilities to establish a drugs addicts' rehabilitation centre in Suriname. The Assembléia de Deus also works with prisoners; the missionaries regularly visit the various detention centres in Suriname to offer moral support to imprisoned Brazilians.

5.1.4 BRASU

The organization for Brazilians in Suriname BRASU is the Suriname chapter of the Brazilian umbrella organization "Brasileiros no Mundo". According to Brazilian informants[9], BRASU helps Brazilians in Suriname with socio-political and financial matters. For example, the organization helps Brazilians to get their residency papers and assists in cases of specific financial needs (e.g. someone urgently needs medication). In this latter case, the Brazilian community (shop owners, gold machine owners) is approached for financial contributions. In addition, BRASU works in collaboration with the Brazilian Ministry of foreign Affairs as a mediator when prisoners are extradited to Brazil. BRASU is not formally affiliated with one of the churches but members of the Assembléia de Deus are part of its directorate.

Table 10. Organizations that provide services to migrants in Suriname

Organization, Service or Programme	Type of organization	Target group	Assistance
Stichting Ontwikkelingshulp Haiti in Suriname	NGO	Haitian community in Suriname	Assistance for those staying illegally in the country
Chinese organizations	Patriarchal	Chinese migrants	Mainly financial assistance. As well; economical, political, cultural, social
Brazilian Churches	Faith based	Brazilians	Religious and social support
BRASU	Government related	Brazilians	Socio-political, financial

[9] The researchers did not speak directly with the director of BRASU but with Brazilians in close contact with the organization.

5.1.5 Commission Regulation Gold Mining Sector

The organization of the gold mining sector is one of the most important government interventions when the 2010 government Bouterse-Ameerali was elected. The main mission of the governmental organization Regulation Gold Sector (*Ordening goudsector, OGS*) is to "bring illegal/informal activities and situations back to the legal sphere" (OGS home page 2012)[10]

More concretely, the Commission has among its goals:

- Recuperation of government authority and control;
- Increase government income through tax collection;
- Safety of citizens and communities;
- Efficiency in gold mining activities through sustainable extraction and production ;
- Environmental protection (soils, forests, rivers and creeks, waste, etc) and mine rehabilitation;
- Health care

January 2010 the commission started with mapping of the mining areas. All people employed or directly benefiting from the work (i.e. service providers) were called to register.

For the second phase the commission plans to place permanent mining service centres, which will serve as one-stop windows for numerous services to miners including information about mining rights and titles, clean mining techniques, and mining equipment. In addition, it is foreseen that these Mining Service Centres will provide general public services including civil registration and alien registration. The Commission has stated its intention is to collaborate with the Department for Aliens Affairs (*vreemdelingendienst*) in this regard. Furthermore, it is foreseen that the Mining Service Centres will provide basic health services, but the exact content and format of these services has not been specified. People registered with the OGS can access the services. It is unclear whether undocumented migrants are among these registered nor whether the services would be extended to them as well.

Earlier research (Heemskerk & Duijves 2011/2012[11]) has indicated that miners in a number of regions are suspicious concerning the activities of the commission. This is mainly due to evictions of small scale miners from different mining regions that occurred upon instructions from the commission.

[10] http://www.gov.sr/sr/kabinet-van-de-president/werkgroepen/ordening-goudsector.aspx
[11] Unpublished paper for GOMIAM project; www.gomiam.com

5.2 Governmental organizations providing HIV & AIDS services

Governmental organizations that provide services in the area of HIV & AIDS include the National AIDS programme, Regional Health Service clinics, and the Department of Dermatology and Libi (Table 11, Table 12).

5.2.1 National AIDS Programme (NAP)

The national AIDS Programme in Suriname resides under the Ministry of Health and has a two-tier policy. One focal area of NAP is its treatment programme, which focuses on the improvement of all aspects of treatment of people living with HIV and AIDS. These aspects include improving the quality of health care and training of family doctors and nurses in HIV testing and care. A second focal area is the prevention programme, which has as its aim to better inform society about HIV and AIDS, to more openly discuss sexuality, and to combat the stigmatization of people living with HIV. The NAP is not an implementing organization but coordinates all HIV related activities carried out by other organizations. NAP officers conveyed that Antiretroviral therapy (ART) is available at no costs to migrants, regardless of their migrant status. This policy, however, is not written down. Neither has NAP been able to provide figures on how many documented and undocumented migrants are currently using governmental financial ART.

5.2.2 Foundation Regional Health Service (RGD)

The Regional Health Service is a parastatal organization subsidized by the government for the provision of primary health care services to the coastal population of Suriname. Its services are in the first place directed to the approximately 120,000 poor and very poor (*on- en minvermogenden*) who are registered with the Ministry of Social Affairs. These registered poor are issued a medical assistance card, which they use to obtain free medical attendance at one of the RGD clinics or associated hospitals. Some 25,000 others who are covered by the State Health Insurance Fund (SZF) choose RGD doctors as their primary physicians. In addition, individuals with private health insurance sometimes choose RGD doctors as their health care providers as well.

In 2003 an RGD HIV & AIDS Commission (RHAC) was installed. Its establishment has resulted in the preparation of an RGD HIV & AIDS Strategic Plan (RHASP). The basis of this Strategic Plan is to ensure that every clinic has staff with HIV expertise and two HIV health workers. At the moment six RGD clinics are VCT sites. Two RGD VCT sites are located in Paramaribo, and the other VCT sites can be found in Lelydorp, Para, Albina and Nickerie.

5.2.3 Department of Dermatology

The Department of Dermatology of 's Lands Hospital (popularly known as “derma”) falls directly under the Ministry of Health. The department has a free VCT service and in the health clinic free tests for other sexually transmitted infections (STI) can be done. Medications for the treatment of

STI's are available against payment but the Department of Dermatology does not extend HIV medication. After being diagnosed with HIV, the patient is redirected to a general practitioner.

The Department of Dermatology does not organize HIV & AIDS information sessions on its own initiative, but this can be arranged on request. Condoms are free for everybody. Sex workers from registered clubs, mostly migrants, come by every two weeks for their obliged STI test. At this moment, only one club is registered, and only the -mostly Brazilian- sex workers from this club take part in the health programme. These sex workers generally get twenty condoms when they visit the Department of Dermatology. Other sex workers can, like any other person, on their own account visit the Department of Dermatology for a free HIV and/or STI test. No doctor's prescription is required.

The Department of Dermatology is not active in the mining areas and has no intention to become more active in these isolated regions. The head of the VCT service, who is able to do coaching and counselling, speaks Portuguese and Spanish. Brochures are in Dutch and English.

5.2.4 Libi

Libi is a central information centre for health promotion and HIV prevention. The centre is government affiliated and linked to the National AIDS Programme (NAP). The Ministry of Health perceives Libi as a bridge between the Ministry and the public. Libi's main task is to refer persons to other services. Libi designs and prints brochures and pamphlets with information about HIV & AIDS, which can be used by other organizations. Its purpose in doing so is that HIV & AIDS information provided to the public is consistent, and that not every organization has to make its own outreach material. In addition, Libi helps other organizations with the provision of information/education and distributes condoms. Individuals can get a maximum of 45 condoms, but people who travel to the interior can get a couple of boxes if needed.

Outreach is no part of the work of Libi. This is done by other organizations; often with Libi material. Nevertheless, if desired, a Libi trainer can provide an HIV & AIDS training or information session for schools or organizations. HIV awareness material is adjusted every now and then or replaced based on feedback from the target groups. A migrant status does not constitute a barrier to access Libi services. Libi is now working on a contract to translate its HIV awareness material in Spanish and Portuguese.

5.2.5 Global Fund Malaria Programme

The Malaria Programme (2009-2014), supported by a Global Fund grant, provides malaria prevention and treatment services to small-scale gold miners who work in the interior of Suriname. This population is at high risk of malaria transmission and in the past had poor access to such services. The programme executes malaria control by using community-based distribution schemes to issue long-lasting insecticidal nets, rapid diagnostic test kits, and artemisinin based combination therapy for falciparum malaria. Furthermore, the programme implements vector

control activities based on quick surveillance and prompt response to outbreaks. Since its inception in 2010 until now (March 2012), the Malaria Programme has distributed 14800 insecticidal nets.

In every mining area, the Malaria Programme has trained area residents as Malaria Service Deliverers (MSDs). These MSDs perform the malaria rapid-test with anyone who suspects to be ill with malaria. When someone is tested positive, the MSD provides the correct medication for the specific type of malaria. This service is free for anyone in the mining areas, regardless of their nationality or residency status. As well, as a secondary activity, the Malaria Programme distributed 74880 condoms during this period.

5.3 Private, non profit organizations and NGO's

5.3.1 Medical Mission (MZ)

The Medical Mission Primary Health Care Suriname (MZ) is a private, non-profit organization that acts as an umbrella organization for three religious organizations that have undertaken to provide medical services to the population of the interior. Besides the RGD, the MZ is the other key component in the national primary healthcare system. The districts under the administration of MZ are sparsely populated but cover about 80% of the landmass of the country and possess some of the poorest infrastructure in the country. Altogether the MZ services approximately 60.000 interior inhabitants through 57 health posts (Figure 3), these health posts also serve as free VCT sites. Access to the private Diakonessen Hospital (where is it based) is part of the provisions offered through MZ.

Health care is provided by health workers, GZA, who are specifically trained by MZ to serve in the interior. The majority of these GZA originate from local communities. These GZA diploma is recognised by the Ministry of Health and falls under the inspection of nursing and caring professions. HIV counselling is part of their curriculum and regular refreshment courses take place.

5.3.2 Foundation Rachab (formerly: Maxi Linder Association)

Stichting Maxi Linder Association (SMLA) was formed in October 1994 as a result of a National AIDS Programme Needs Assessment among 67 street workers aged 15-64. The organization was named after Suriname's most famous sex worker, Maxi Linder (born 1902), who was known for her social work and empowerment among all sex workers. In 2011 the name of the foundation was changed into Rachab foundation.

Rachab's overall goal is to optimise the social, economic, mental and physical health and wellbeing of sex workers, as well as of all those affected by HIV & AIDS. This is goal is pursued through education, information and skills training; support and advice on social, legal and health matters; raising social awareness and encouraging a positive self-image and solidarity; and offering protection against violence and abuse.

Although originally founded to meet the needs of female sex workers, services have been extended to include male sex workers, transvestites, students and the general public. The foundation is a VCT site and besides this, Rachab hosts a bimonthly support group organised and conducted by HIV positive clients Rachab also founded the first AIDS Hotline in Suriname.

Through its Condom Outreach Programme, Rachab gathers information about the attitudes, beliefs and perceptions that impede condom use, with the aim of confronting the myths and misperceptions. The programme targets sex workers, pimps and their clients but includes all sexually active people.

5.3.3 Lobi Foundation

Lobi Foundation was founded in 1968 and has then been working in the field of sexual and reproductive health. Its main focus is family planning and contraceptives including research into cervical cancer, breast examination, pregnancy tests and the prevention of HIV & AIDS. The foundation has clinics in Paramaribo, Lelydorp, Moengo and Nickerie. The first two clinics are VCT sites, where testing is possible at a fee of 70 Srd (~Euro 16.14).

Lobi Foundation also delivers HIV information. Information for young people is provided by YAM (Youth Advocacy Movement), a youth part of Lobi. The organization does not pro-actively travel to the interior for outreach and/or medical services but when invited, health workers from the organization also travel outside of their regular service areas. The organization has a mobile unit for counselling and testing outside of the regular VCT locations. Lobi Foundation has an oral agreement with MZ, arranging that Lobi will not focus on activities in the MZ areas. There is no focus on migrants in particular but the NGO is planning to increase its services to sex workers.

Lobi Foundation sells male condoms and distributes female condoms for free. In 2011, 46,878 male condoms were sold and 3,095 female condoms were given out. Lobi Foundation employs Spanish-speaking staff, but no health workers who speak Portuguese. Brochures are printed only in Dutch and English.

5.3.4 Foundation Double Positive

The foundation Double Positive was founded in 2009. The main activity of the foundation is to provide (psycho-social) assistance, care and guidance, to women and young girls living with HIV & AIDS, and their environment. That guidance is provided by buddies, peer counsellors and social workers.

5.3.5 Foundation Liefdevolle Handen

Liefdevolle Handen (Loving Hands) was founded in 2009 and is connected to the Evangelical/Gospel church (Volle Evangelie). This Faith Based Organization (FBO) provides guidance to women with psychosocial problems in general and to sex workers and drug addicts in particular.

Condom distribution and information provision are among the strategies employed in the area of HIV prevention. Four times a week in the morning and once a month by night the employees go into the streets to deliver these services in Paramaribo. Every now and then they provide condoms and information in Nieuw Amsterdam, outside Paramaribo, as well. Women are the primary target group. Men are included but not actively targeted. Per month, the organization distributes about 200 male condoms, and 50 female condoms, including lubricant. The group of migrants they have most contact with are Guyanese women. The FBO has various brochures focussed on addictions, alcohol, domestic violence, and HIV & AIDS, all of which are in Dutch or English. The employees speak no Spanish of Portuguese.

5.3.6 New Beginnings Consulting and Counseling Services

Established in 2007, the consultancy firm New Beginnings Consulting and Counseling Services (NBCCS) is specialized in the design of health programmes and the provision of technical assistance as a partner of the Ministry of Health. In addition NBCCS supports companies, schools and organizations in health coaching and counselling. Its main goal is reducing stigma and discrimination.

NBCCS also provides Christian health and family life education and faith based counselling. The outreach in Paramaribo and Albina distributes approximately 2000 condoms per month. NBCCS performs outreach services for NAP and Lobi. Because this company often does not come forward as NBCCS in its outreach work, it was hardly mentioned by migrants.

There is a contract with the Ministry of Health to go to the mining areas to perform outreach activities but this has not yet occurred. The fieldworkers have different nationalities and are familiar with the culture and languages of the target group.

5.3.7 Claudia A

In 1999 Foundation Claudia A started as a walk-in centre for people who were HIV-infected. During the years the walk-in centre has become a care and welfare organization for HIV-infected orphans, orphans from HIV infected mothers, and children of HIV infected mothers (with or without HIV) who can't take care of them. In addition, there is space for five HIV infected women. The Foundation's aim is to eventually place children back with their parents or relatives. Concerning men, the organization can listen, lower barriers and help them in the right direction but there is no possibility to offer them a stay. The organization gets some funding from the Ministry of Social Affairs and furthermore relies on donations.

Two of the six employees who work with the children and women are trained counsellors. They counsel children starting at an age of four. Children are taught, for example, that they are not allowed to bite one another and should not touch blood. The policy concerning migrants is that there is no room for migrants without a residency status. The organization can help these people in finding their way, but a stay in Claudia A is only allowed when the migrant is legally in the country. In an extreme crisis situation an exception may be made; in such cases an undocumented alien can be accommodated for one night only. With regard to migrant guests, there is one Guyanese woman with her son living at Claudia A at this moment.

Claudia A is not involved in outreach services but there are free condoms and leaflets provided by NAP. There is a good cooperation with the Academic Hospital and 's Lands Hospital with regard to referring patients and clients.

Table 11. Organizations, services and programs that provide HIV services in Suriname, with the types of services provided

Organization, Service or Programme	VCT Service	Free Condoms	Information on HIV & AIDS	Active outreach to migrants	Active in mining areas
Government related					
National Aids Programme	No	No	Yes	No	No
Regional Health Service (RGD)	Yes (only 6)	Yes	Yes	No	No
Department of Dermatology	Yes	Yes	Yes	No	No
Libi	No	Yes	Yes	No, only through others	No, only through others
Global Fund Malaria Programme	No	Yes	No	Yes	Yes
Private, non profit organizations and NGO's					
Medical Mission (MZ)	Yes	Yes	Yes	No	No
Foundation Rachab	Yes	Yes	Yes	Yes	No
Lobi Foundation	Yes	Only female condoms	Yes	No	No
Double positive	No	Yes	Yes	No	No
Foundation Liefdevolle handen	No	Yes	Yes	Yes	No
New Beginnings Consulting and Counseling Services	No	Yes	Yes	Yes	No
Claudia A	No	Yes	Yes	No	No

Table 12. Organizations, services and programs that provide HIV services in Suriname, with their target group(s) and service languages

Organization, Service or Programme	Type of organization	Target group	Languages spoken by staff	Languages awareness material
Government				
National Aids Programme	Government related	Organization that works on HIV & AIDS	Sr, Dutch, Eng.	Dutch, Eng, Sr
Regional Health Service	Government related	The coastal population	Sr, Dutch, Eng	
Department of Dermatology	Government related	Public in general	Sr, Dutch, Eng, Sp, Por	Dutch, Eng, Sr
Libi	Government related	Public in general	Sr, Dutch, Eng	Dutch, Eng, Sr
Global Fund Malaria Programme	Government related	Small-scale gold miners who work in the interior of Suriname	Sr, Dutch, Engl, Sp, Por	Sr, Dutch, Eng, Por (only Malaria related)
Private, non profit organizations and NGO's				
Medical Mission	Non profit	Population of the interior	Sr, Dutch, Eng, local languages	Dutch, Eng
Stichting Rachab	NGO	Sex workers		
Lobi Foundation	NGO	Public in general	Sr, Dutch, Eng, Sp	Dutch, Eng
Double positive	NGO	Women and young girls living with HIV & AIDS	Sr, Dutch, Eng.	
Foundation Liefdevolle handen	NGO	Women in general, sex workers, drugs addicts	Sr, Dutch, Eng, Sp, Por	Dutch, Eng
New Beginnings Consulting and Counseling Services	Consulting	Sex workers	Sr, Dutch, Eng	Dutch, Eng
Claudia A	Care and welfare organization	Persons living with HIV & AIDS	Sr, Dutch, Eng, local languages	Dutch, Eng

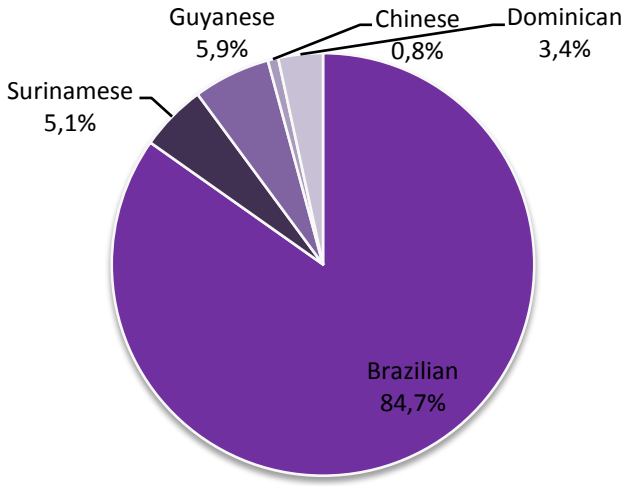
6. Survey Results

6.1 Demographic and social profile

The sample included migrants in a wide range of ages. Based on year of birth we found that the youngest migrant interviewed was 23 years of age, and the oldest 75. Interviewed migrants were on average 36 years old; the median age was 34 (N_{total}=289). More than half of the migrants in our sample (60.1%) were male, 39.9 percent were a female (N_{total}=296).

The sample population of female migrants is dominated by Brazilians (85.0%), the remainder consists of Guyanese (5.9%), Surinamese (5.1%), Dominicans (3.4%), and one Chinese woman (0.8%) (N_{total}=118) (Figure 14).

Figure 14. Percentage of female migrants by nationality (N_{total}=118)



Most male interviewees were Brazilians (59.6, Figure 15). Slightly more than a third of the male migrants (34.4%) had the Surinamese nationality, but did not come from the area where he resided/worked at the time of the interview. Other male migrants were Guyanese (4.5%) or Chinese (1.7%)(N_{total}=178).

Surinamese nationals came mostly from the district of Paramaribo, the district were the capital city is located (Table 13). More than half of the migrants in the Brokopondo area came from Marowijne. Some migrants resided in the same district as were they were originally from, but not in the same area. Because of the large surface of district as Brokopondo and Sipaliwini, we still considered them as migrants[12].

[12] See methods for further details.

Figure 15. Percentage of male migrants by nationality (N_{total}=178)

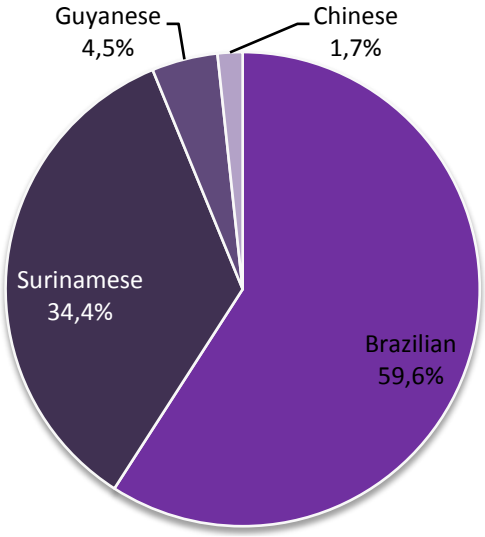


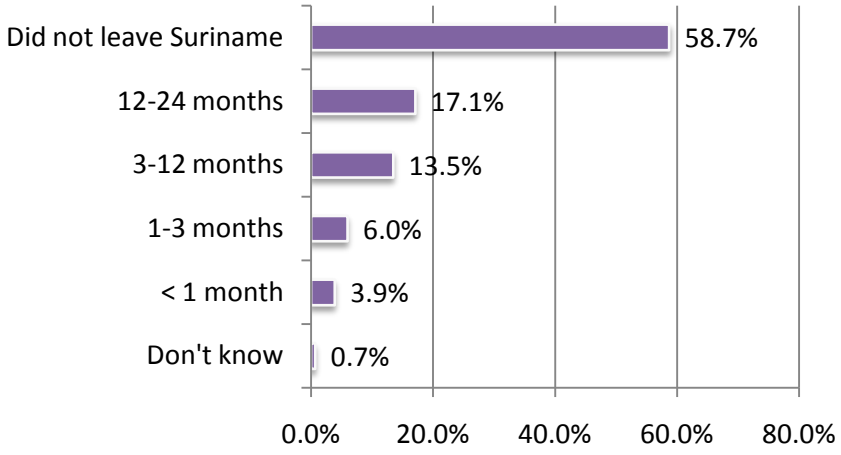
Table 13. Districts the Suriname nationals come from in percentage per mining area

	Brokopondo North lake (N_{total}=7)	Brokopondo South lake (N_{total}=27)	Benzdorp area (N_{total}=168)	Nassau area (N_{total}=12)
Paramaribo	28,6%	37,0%	84,6%	100,0%
Marowijne	57,1%	7,4%	7,7%	0,0%
Sipaliwini	14,3%	18,5%	7,7%	0,0%
Brokopondo	0,0%	25,9%	0,0%	0,0%
Wanica	0,0%	7,4%	0,0%	0,0%
Para	0,0%	3,7%	0,0%	0,0%

Many migrants had left Suriname for a brief or longer time during their stay in this country.

More than half of the migrants had not left Suriname in the past two years (58.7%, Figure 16). 17.1 Percent had stayed between one year and two years in the country, and 13.5 percent between three and twelve months. 3.9 Percent of migrants said that they had been less than one month in the country in the two years preceding the interview. One reason could be that they just arrived in Suriname (N_{total}=281).

Figure 16. Time migrants have spend in Suriname in the past two years preceding the interview (N_{total}=281)



Among the migrants who had spent between one year and two years in Suriname, 50 percent had left Suriname for 1-2 months in a row in the past year. 17.9 Percent had gone away for 3-6 months in a row (17.9%). One third of respondents had left the country for more than six months in a row (32.1%) and (N_{total}=28). Migrants who had spent between three and twelve months in Suriname had left the country for 1-2 months (30.0%), 3-6 months (50.0%), or more than six months (20.0%)(N_{total}=20).

Figure 17. Professions of female and male migrants (resp. N_{total}=118 and N_{total}=177)

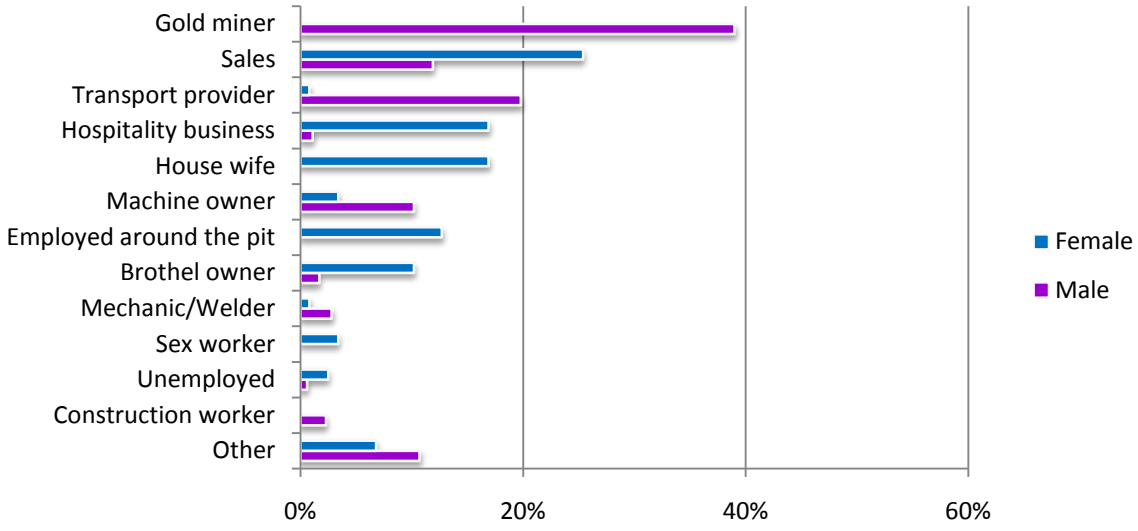


Figure 18. Professions observed in the mining areas

1. Brazilian man working in his hair salon

2. Chinese man in front of his shop

3. Impression of different small enterprises such as a beauty salon, jewellery shop and a restaurant.

Picture 4. Brazilian transport provider

Picture 5. Two Surinamese miners

Surveyed men worked as a gold miner (39.0%), a transport provider (19.8%), in sales (11.9%), were a machine owner (10.2%) or had another job such as security, farmer or logger (10.7%) or (N_{total}=177). A quarter of women worked in sales (25.4%), what may involve the sale of different things such as groceries, clothing, drinks. 16.9 Percent was a full time housewife and another 16.9 percent worked in hospitality business which means they prepared food in the mining camps or *curatela* or were hotel, bar or restaurant owner or employee. Fifteen females (12.7%) who indicated that they worked in the mining camps, mostly as a cook or selling popsicles, food or drinks (N_{total}=118)(Figure 17).

Surinamese (N_{total}=67) and Brazilian migrants (N_{total}=205) primarily worked as a gold miner (resp. 46.3% and 23.4%), in sales (resp. 13.4% and 18,0%) or as a transport provider (resp. 11.9% and 13.7%). Guyanese were mostly active in mining as well, as mine worker (26.7%) or machine owner (20.0%). 20 Percent of Guyanese migrants were housewives (N_{total}=15). Of the four interviewed Dominicans, one was a miner, one worked in sales (both 25%) and two migrants owned a brothel (50%)(N_{total}=4). All four Chinese migrants were in sales as owner or employer of a supermarket.

When looking at educational achievement, we found that 27 migrants (9.1%) had not received any education (N_{total}=296). Almost half of all migrants, 45.3 percent, had only some years of primary education and 6.8 percent had completed primary school. 11.5 Percent had entered secondary education -the Suriname LBGO/MULO or a foreign equivalent- but failed to complete it, 6.1% of migrants had completed this secondary school. 8.4 Percent of migrants graduated from college (HAVO/Athenaeum). Only one respondent graduated from university. Very few people had followed special or technical education (2.7%).

There is some difference in educational achievement between women and men in the sample (Figure 19 and Figure 20). Almost twice as many men as women had no education at all (resp. 5.9%, N_{total}=118 versus 11.2%, N_{total}=178). Another significant difference is the number of women versus men who had finished high school (resp. 14.4%, N_{total}=118 versus 4.5%, N_{total}=178).

Figure 19. Level of education among female migrants (N_{total}=118)

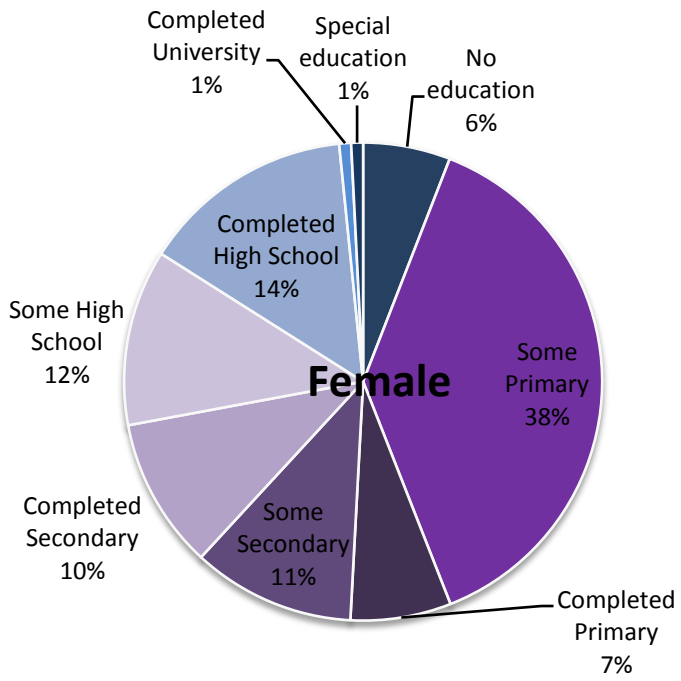
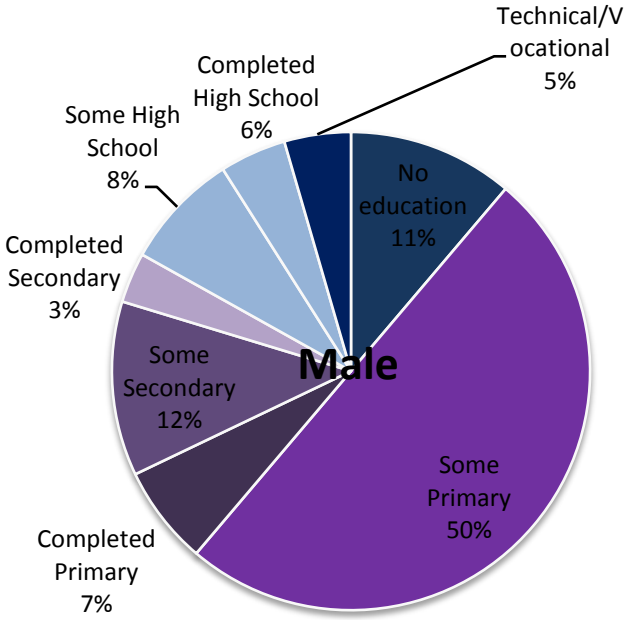


Figure 20. Level of education among male migrants (N_{total}=178)



The data suggest that migrants are slightly better educated than Surinamese nationals. 7.5 Percent of the foreign migrants had completed primary school (versus 4.5% of the Surinamese), and 10.3 percent had completed high school (N_{total}=228), as compared to 1.5 percent of the Surinamese nationals (N_{total}=67).

77.6 Percent of the Surinamese nationals speak Dutch fluently (N_{total}=67). Of the Brazilians, 93.2 percent speak no Dutch at all (N_{total}=205), for Dominicans this is 75.0 percent (N_{total}=4) and for the Guyanese 26.7 percent (N_{total}=15,Table 14). Sranantongo, the lingua franca of Suriname, is fluently spoken by 98.5 percent of Surinamese nationals (N_{total}=67) and by 40.0 percent of Guyanese migrants (N_{total}=15). On the other hand 64.0 percent of the Brazilians speak no Sranantongo at all. English is for half of the Surinamese nationals a language that they can use to make themselves understood (49.3%, N_{total}=67).Most Brazilians (91.2%) speak no English at all (Table 14).

It is noteworthy that 59.7 percent of the Surinamese (N_{total}=67) and 46.7 percent of the Guyanese (N_{total}=15) indicate to speak Portuguese (Table 14). Most respondents have been living among Brazilians for years and have been learning the language through the regular contact with those migrants.

Table 14. Nationality of migrants and fluency in languages spoken by health service providers in Suriname

Language	**Dutch**			**Sranantongo**			**English**		
Nationality	Fluently	Just a little	Not at all	Fluently	Just a little	Not at all	Fluently	Just a little	Not at all
Suriname (N_{total}67)	77,6%	18,0%	4,5%	98,5%	1,5%	NA	16,4%	56,8%	26,9%
Brazilian (N_{total}216)	1,5%	4,4%	94,4%	3,9%	32,0%	64,0%	0,0%	7,4%	91,2%
Guyanese (N_{total}15)	6,7%	66,6%	26,7%	40,0%	46,7%	13,3%	100,0%	NA	NA

Continuation Table 14. Nationality of migrants and fluency in languages spoken by health service providers in Suriname

	Other languages				
Nationality	Portuguese	Spanish	Mandarin	French	Local language
Surinamese (N_{total}67)	59,7%	10,4%	1,5%	10,4%	9,0%
Brazilian (N_{total}216)	96,1%	3,4%	0,0%	1,9%	0,0%
Guyanese (N_{total}15)	46,7%	13,3%	0,0%	6,7%	6,7%

A lot of people, 46.3 percent, had come alone to the mining area. Others had come with family members (23.3%), with a friend or colleague (20.3%) or with their partner (6.1%)(N_{total}=296). Most migrants (73.3%) responded that they did not belong to any social or professional group (N_{total}=292). 25.7 Percent of the migrants were affiliated to a church in the mining area (N_{total}=292). Most of them, 80.0% percent were member of a Brazilian Assemblea church, such as for example the Igreja Assembléia da fé, Ministério de Anápolis, or the Assembléia de Deus na lingua Portuguesa (N_{total}=75, Figure 21). 91.7 Percent of these members were migrants with the Brazilian nationality (N_{total}=60). Only eight migrants, of different nationalities were a member of the Moravian church (10.7%) and two migrants said to join a Catholic church (2.7%)(N_{total}=75). One migrant was a Jehovah Witness.

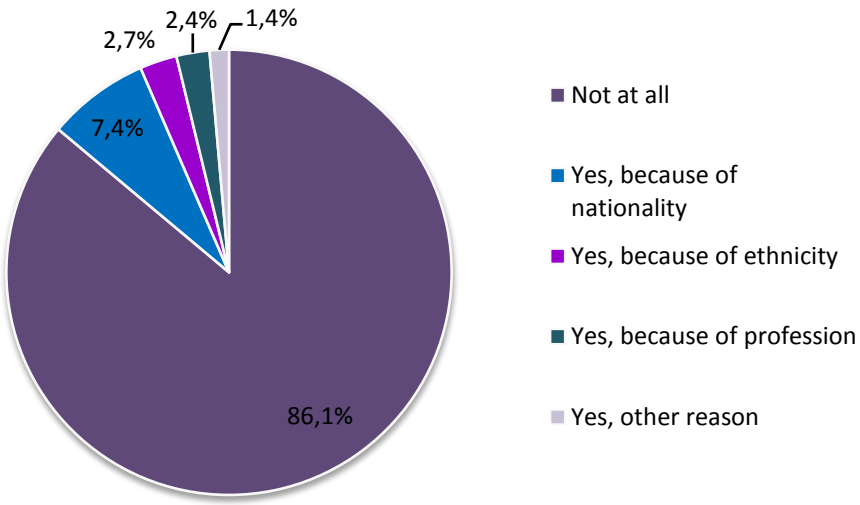
Three miners indicated that they were part of a gold miners' cooperative (1.0%, N_{total}296). No one belonged to any other professional or social organization. Most migrants (72.2%, N_{total}=295) worked and socialized with everybody in the mining area, without regard for ethnic or national background. This is true for 80.3 percent of Surinamese nationals (N_{total}=66) and for 68.9 percent for Brazilian migrants (N_{total}=206). Other migrants in general said that they worked and socialized mostly with foreigners (10.8%), only with foreigners (8.5%) mostly with Surinam people (5.1%), or only with Surinam people (3.4%)(N_{total}=295).

Figure 21. Pentecostal church 'Deus é amor' in the Benzdorp mining area and Igreja Assembléia da fé in Tjilipasi, South lake mining area.

6.2 Discrimination

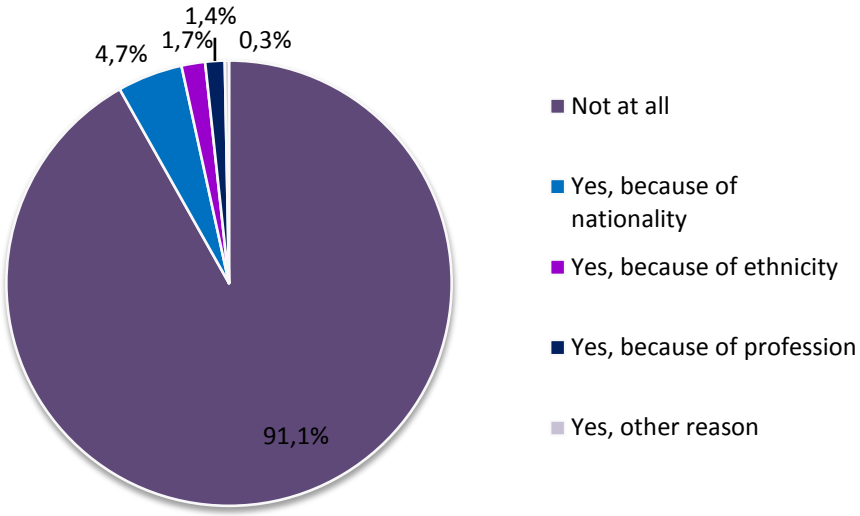
86.1 Percent of all migrants indicated that they had never felt discriminated in the mining area because of their nationality, ethnic background, gender or profession (N_{total}=296). Twenty-two respondents had felt discriminated because of their nationality (7.4%), their ethnicity (2.4%) or of their profession (2.4%)(N_{total}=296)(Figure 22).

Figure 22. Percentage of migrants who feel discriminated in the mining area and for what reason (N_{total}=296).



Of the migrants who had experienced discrimination in the mining area, Brazilians mentioned that they mostly felt discriminated because of their nationality (57%,N_{total}=26), Surinamese nationals more because of their ethnicity (55.6%,N_{total}=9). Even less migrants (8.1%, N_{total}=295), had experienced discrimination in Paramaribo or elsewhere outside the mining area. Among migrants who had felt discriminated, fourteen people said they had felt discriminated in these locations because of their nationality (58.3%), their ethnicity (20.8%), or their profession (16.7%)(N_{total}=24)(Figure 23).

Figure 23. Percentage of migrants who feel discriminated in Paramaribo or elsewhere outside the mining area and for what reason (N_{total}=295).



Most migrants who had experience with medical service providers in Suriname had never felt discriminated or treated different because of their nationality, ethnicity, profession or gender (96.1%, N_{total}=257). Those who had a negative experience indicated that they had felt discriminated because of the language they spoke (0.3%), their nationality (0.3%) or their profession (0.3%). Seven respondents did not specify an answer (2.4%)(N_{total}=296).

6.3 Health posts

Almost three out of every four respondents (72.3%) know where to find the nearest health post (N_{total}=296). In the Brokopondo North lake area, most people (50.0%) point out Brownsweg as the closest village were a health post can be found, followed by Afobaka (25.0%)(N_{total}=12). In the South lake mining area, people indicate Lebidoti as the nearest health post (65.9%) followed by Afobaka (17.1%)(N_{total}=41). Maripasoela (FG), on the French side of the border with French Guiana is mentioned by 85.7 percent of the migrants in the Benzdorp area as the closest health post (N_{total}=154). Migrants in the Nassau area typify health posts in Paramaribo (57.1%) and Langatabiki (42.9%) as closest (N_{total}=7). The mention of Paramaribo is curious because there are several closer locations to find medical help. Out of all migrants, fourteen people reported that they do not know where to find the nearest health post (27.7%, N_{total}=296).

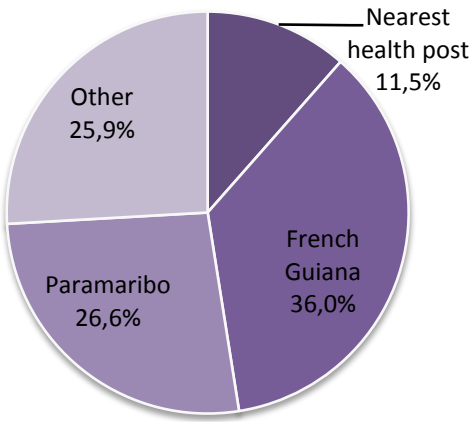
42.2 Percent of the migrants had never visited this nearest located health post. Others had done so, but more than a year ago (16.0%). Yet others had been to this health provider 6-12 months ago (4.7%), in the six months preceding the interview (8.4%), between a week and a month ago (2.9%) or in the past week (7.3%)(N_{total}=275). Especially a large number of migrants in the Brokopondo North lake area (64.3%, N_{total}=14), the Nassau area (58.3%,N_{total}=12) and in the Brokopondo South lake area (57.8%, N_{total}=64) indicate that they never have visited the most nearby health post. This finding may in part be explained by the fact that these medical service providers in the MZ clinics do not speak foreign languages. The Maripasoela hospital offers more extensive care options and some of its staff speak Portuguese and/or Spanish.

Of those who had visited the nearest health post, 86.0 percent had experienced excellent and good service and care (N_{total}=136). This was indicated by statements like, 'they spoke my language', 'I was served quickly and well'. 8.8 Percent of respondents thought the service was reasonable. The main reasons for this opinion included the fact that employees did not speak the language of the migrant and that the visit had taken a lot of time. Seven migrants (5.1%, N_{total}=136) had a poor experience with visiting the nearest health post (N_{total}=136). These respondents explained that their opinion was based on the limited care options, long waiting time, inexperienced health professionals and their lack of confidence in the service. For community members confidentiality is a concern when they visit the nearest health post for SRH issues. Health workers and other staff are often locals from the village and in some cases even family members.

For minor illnesses the largest group of respondents (36.0%) would go to a health post in French Guiana (N_{total}=278), which is mostly Maripasoela (FG) (69.7%, N_{total}=69, Figure 24) or a not specified location in French Guiana (28.3%, N_{total}=28). This finding may in part be explained by the fact that the largest share of survey respondents had been interviewed in the Benzdorp area, where Maripasoela hosts the nearest health post. Others would turn to Paramaribo where they would visit a general practitioner. (12.6%), a hospital (3.2%) or somewhere else (10.8%). Yet others would turn to the nearest health post in the area (11.5%) (N_{total}=278). 26.2 Percent of migrants answered that in the case of a non serious sickness (e.g. a cold, the flu) they did not visit any health provider. They would buy medication at a pharmacy or make their own home medicine.

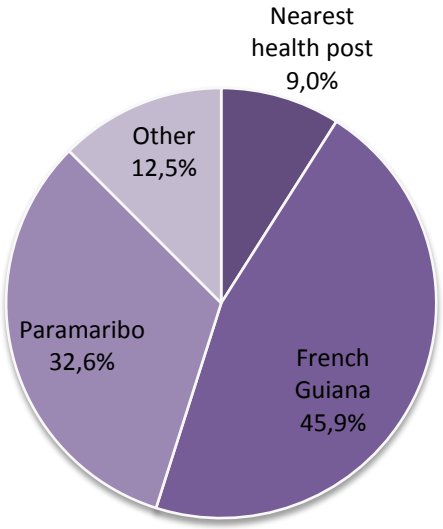
For minor illnesses we see, distinguished by mining areas, that in the Brokopondo North lake area most people would go the nearest health post (46.7%, N_{total}=15). 40.0 Percent of the migrants in this area would go to Paramaribo (N_{total}=15). In the Brokopondo South lake area most people would go to Paramaribo for medical help (61.6%). Only 16.4 percent would go to the nearest health post in the area (N_{total}=73). Migrants in the Benzdorp area prefer to go to French Guiana (55.1%, N_{total}=178), among whom Maripasoela (FG) is named as specific location to go to (71.1%, N_{total}=97). In the Nassau area, 16.7 percent would go to the nearest health post. 41.7 Percent of the migrants would go to Paramaribo to obtain medical help (N_{total}=12).

Figure 24. Locations where migrants go when they fall ill in the mining area (minor illnesses)



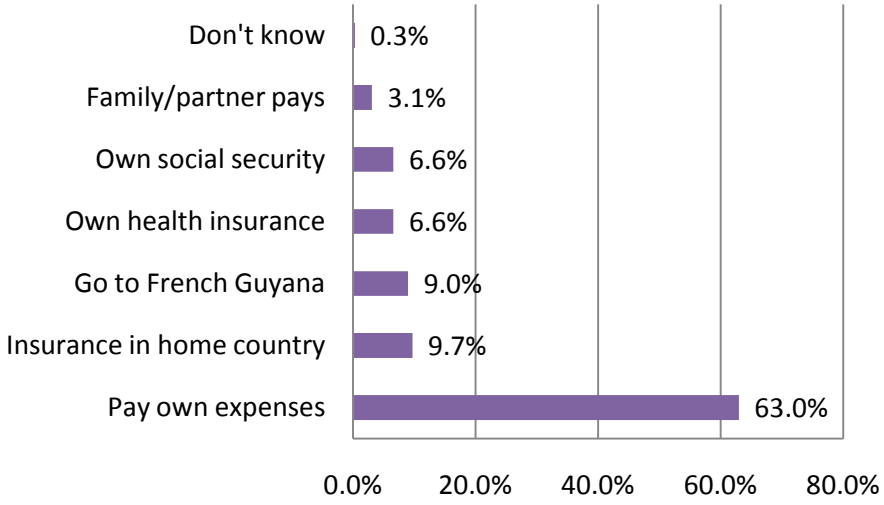
When falling seriously ill in the mining area, most people would seek help in French Guiana (45.9%) or in Paramaribo (32.6%)(N_{total}=279, Figure 25). Most people in Brokopondo North lake (60.0%, N_{total}=15), Brokopondo South lake area (60.8%, N_{total}=74) and Nassau area (58.3, N_{total}=12) would select Paramaribo. French Guiana is the preferred place to obtain medical care for migrants from the Benzdorp area (68.0%, N_{total}=178).

Figure 25. Locations where migrants go when they fall ill in the mining area (serious sickness)



Respondents would select these location because of the good medical care (42.9%), the good price (16.3%) or for other reasons such as recommendations of others (5.6%), friendly staff (5.2%), the staff speaks the language of the migrant (4.4%) or the fact that the staff is friendly to foreigners (2.4%)(N_{total}=252). If they fall ill, most migrants cannot rely on insurance to cover their medical expenses, and have to pay them out of pocket (63.0%). 9.7 Percent of the migrants told us they had insurance in their home country and 9.0 percent responded they would go to French Guiana where medical care is free (N_{total}=289, Figure 26).

Figure 26. Way of covering medical expenses in percentage (N_{total}=289).



More than half of the Surinamese nationals (52.3%) had no insurance and needed to pay for their own medical expenses. A quarter (24.6%) had a social security, care which is a service of the Ministry of Social Affairs (N_{total}=65). Persons who because of their social circumstances are classified as 'poor' or 'very poor', are eligible for free medical assistance. The social welfare-related medical assistance card is only issued to Suriname nationals for medical aid in Suriname. Out of humanitarian considerations, exceptions may be made for documented or undocumented migrants (see Component 1 report). The supply package of free medical assistance is specified. Medical assistance card holders, like any other person not registered with MZ, have to pay when visiting an MZ health post in the interior.

Although migrants often have to pay for their own medical expenses, and transport to the doctor is expensive and time consuming, more than two thirds of migrants indicated that they would 'just go' when they needed to see a doctor. Others (17.9%) indicated that the costs in time and money associated with a visit to a health post was a reason to refrain from seeing a doctor or postpone a consult. Other reasons to either not go or postpone a medical consult were the expenses (6.3%) and the time (5.3%). Some responded that the health post was nearby and to get a consult was cheap (1.8%) so there was no reason not to go (N_{total}=285).

6.4 Sexual partners

One third of respondents reported that they did not have a steady partner (30.8%, N_{total}=292, Figure 27). Of those who did have a partner, one third reported that they had been in this relationship for more than five years (32.5%) and another 22.3 percent had been with this partner between one and five years. Smaller shares of people had only recently found their partner; less than 6 months ago (8.9%) or between six months and a year ago (5.5%). We did not find significant differences between women and men, or between Suriname nationals and international migrants, in their relationship status.

Among the 206 migrants who reported that they had a steady partner, 199 individuals provided information about the whereabouts of this partner. Two-thirds of them had a partner in the same mining area (67.8%) and another 5 percent of respondents had a steady relationship with someone who could be reached within one hour. One out of every ten respondents had a partner in a foreign country (10.1%), 16.1 percent had a partner at a distance that required more than one hour travelling, and two persons reported that their steady partner was living and working in another mining area (N_{total}=199).

Persons who were involved in a longer term relationship were relatively more likely than those with relationships of shorter duration to have a partner in a foreign country. Ten out of the 20 persons with a partner abroad had been in a steady relationship with this person for more than five years, and another eight persons for between one and five years. Among those with a long-term relationship (> 1 year), 65.8 percent stayed in the same mining area with this partner (N_{total}=158). The data suggest that as compared to Suriname nationals, international migrants are relatively more likely to have a partner in the same mining area (Respectively 40.0% versus 76.0%; Figure 28). On the other hand, Surinamers were relatively more likely to have a steady partner in

Suriname but at some distance from the mining location where they were working, usually in Paramaribo (respectively 40.0% versus 9.1%).

Figure 27. Percentages of respondents with a steady partner, with the duration of that relation

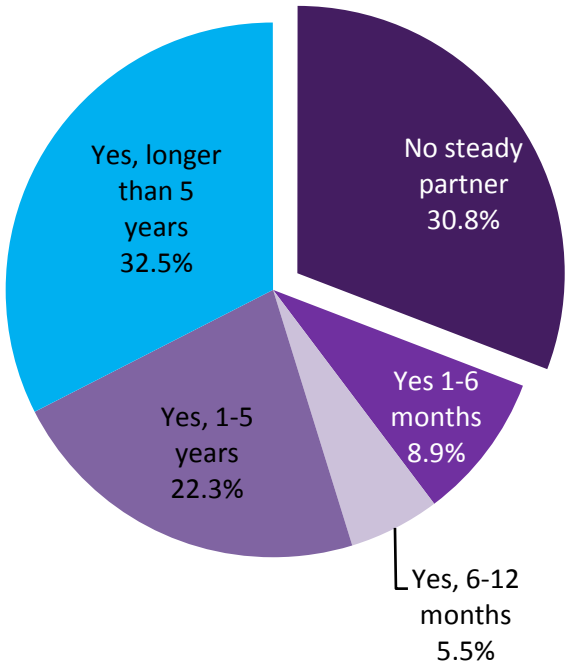
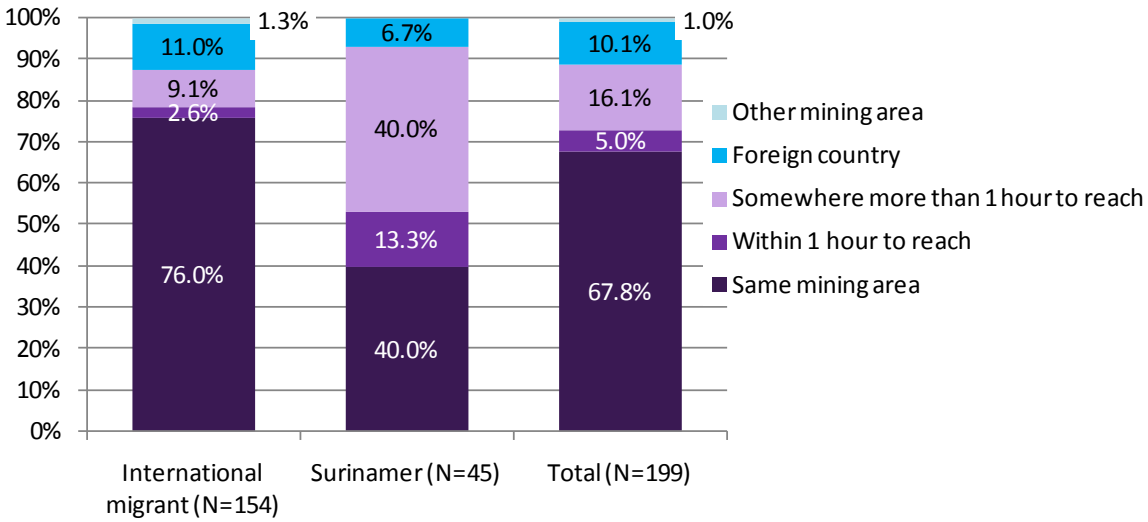


Figure 28. Location of the steady partner among International migrants (N=145) and Suriname nationals (N=45), among those with a steady partner



Migrants also were asked whether they had had sexual encounters with persons other than a possible steady partner in the year prior to the interview. Forty-six percent of respondents answered affirmatively, while 54.0 percent denied that they had had casual sex in the year prior to the interview (N_{total}=289). With regard to the responses to this question, we suspect some underreporting of casual sexual relationships, especially where the partner or spouse was nearby at the time of the interview. We suspect underreporting particularly among women because of social norms that give women who have multiple or casual sexual partners a poor reputation, while the same behaviour is acceptable or even cool for men.

Among those with a steady partner, 35.3 percent responded that they had had sex with at least one other person in the year prior to the interview (N_{total}=201). This occurred regardless of the length of the relationship. For example, 38.5 percent of individuals in recent relationships (1-6 months $N_{total=}$26)and 31.2 percent of persons in long-term relationships (>5 years N_{total}=94) had had sex with others in the past year. The whereabouts of the steady partner plays a role in decisions about engagement in casual or occasional sexual contacts. Individuals whose partner does not work and/or live in the same area (N_{total}=64) are relatively more likely to engage in occasional sex than those with a nearby partner (N_{total}=139) (respectively 52.3% versus 27.3%). Nevertheless, still over a quarter of respondents with a steady partner in the same mining area reported that they had had sexual contacts with others in the year preceding the survey.

We find a considerable difference between women and men with regard to their self-reported involvement in non-relational sexual relationships. 24.1 Percent of women (N_{total}=116) versus 60.7 percent of men (N_{total}=173) affirmed that they had had sex with someone who was not a steady partner in the past year. Nationality also plays a role in the propensity to engage in casual sexual relations. 62.1 Percent of Suriname nationals (N_{total}=66) versus 43.3 percent of Brazilians (N_{total}=201) and 21.4 percent of Guyanese (N_{total}=14) in the survey sample reported involvement in casual sex In the 12 months prior to the interview.

Casual sexual encounters may be the outcome of (sexual) attraction without any commercial interests. In other occasions though, sex has to be paid for. Small-scale gold mining areas are a hotspot for sex work because they are characterized by:

- A male dominated work force (10 men: 1 woman)
- High mobility
- Extensive geographic spread, relative isolation, and loneliness.
- Macho environment and high alcohol consumption
- A general lack of forms of entertainment in the isolated locations where mining takes place

Migrant respondents were asked whether, in the 12 months prior to the survey, they had bought and/or sold sex. 16.8 Percent of female respondents had sold sex in the past year (N_{total}=113). One had done so daily, five (4.3%) every week, nine (7.6%) occasionally, and another four women (3.4%) only rarely (N_{total}=115). Even though there are men who sell sex in the mining areas, none were part of our sample. Among the women who sold sex, four were professional sex workers.

Others had different types of primary professions. Most of these women (N=7) either worked as a cook for a mining team or sold food in the *curatela*. Four others were selling merchandise and another four were house wives.

Just over half of male respondents reported that they had bought sex in the year preceding the interview (52.7%; N_{total}=169). Men who buy sex mostly do so occasionally (30.2%) or rarely (18.3%). Just 3.6 percent of men reported that they paid for sex on a weekly basis, and one man reportedly paid to have sex daily (0.6%, N_{total}=169).

6.5 Access to and use of condoms

In Paramaribo, condoms are readily available at no or low costs from numerous distribution points. Free condoms can be obtained at the governmental health education centre Libi, the Department of Dermatology (derma), all Regional Health Service (RGD) clinics, the various pharmacies, and National AIDS programme outdoors condom distribution machines. In addition, several NGOs distribute free condoms to street-based sex workers and most clubs and massage salons provide free condoms to the sex workers in these establishments. Furthermore, condoms can be bought at every Chinese supermarket, pharmacy, or drug store for prices ranging between SRD 0.50-3.50/pc (~Euro 0.11-0.81). Lobi Foundation, an NGO that provides SRH services in Paramaribo, Moengo, Nickerie, and Lelydorp, sells condoms for similar prices (see Chapter 5).

Near small-scale gold mining areas, free condoms may be obtained at the various Medical Mission (MZ) clinics in interior villages. Migrants, however, rarely visit these local health centre. Additional distribution points do not exist. Migrants or others travelling to the mining areas can obtain boxes of free condoms at the Libi centre in Paramaribo. Particularly sex workers and brothel owners are encouraged to take considerable quantities with them; some hundreds at a time. Once in the mining areas, however, the only places to get condoms are Chinese, Suriname, and Brazilian supermarkets and Brazilian pharmacies. At these places condoms are, like all other products, sold at inflated prices. These prices vary depending on the distance to the city and local communities.

In Brownsweg, a Maroon community which is situated at a distance of about 1,5 hours driving by car from the capital city, condoms are priced 1 SRD/pc (~Euro 0.23) at the local store, but can be obtained for free at the MZ clinic. This health clinic is approximately at a 15 minutes distance of the Kriki Neygi and Koemboe Kreek mining areas.

In the Benzdorp general area, the price of condoms ranges from 1 SRD/pc (~Euro 0.23) to 1 Euro/pc at the waterfront locations of Antonio do Brinco, Peruano and Kabanavo. Further land inward at the Benzdorp *curatela*, Chinese supermarkets sell condoms for Euro 0.83/pc to Euro 1.67/pc. In the nearby French village of Maripasoela (FG), condoms are sold at the local pharmacy at Euro 0.50/pc but condoms also are distributed for free at the local health centre. The nearby presence of Maripasoela (FG), where condoms are sold at regular (European) prices, may have a moderating effect on the price of condoms in this location.

Figure 29. Brazilian condoms are sold in the mining service centre of Alimonie for 0.5 g of gold (~85 Euro) for a 3-pack, and for 2 deci (Euro 7.50) per piece in Tumatu.

In the more isolated gold mining areas south of the Brokopondo lake (Tjilipasi, Grankreek, and Alimoni) the researchers recorded condom prices ranging from 1 deci[13]/pc (~Euro 3.75) to 5 deci (½ gram of gold)/3 pc (~ Euro 6.25/pc) (Figure 29). At the MZ clinic in the nearest village of Lebidoti, condoms could be obtained for free. Because travelling to this village is expensive and the local health workers do not speak Portuguese, few migrants ever visit this health post. In the similarly isolated Nassau mountains region, local Chinese supermarkets sold condoms for between 1 deci/pc (Euro 3.75) in Tumatu to 2 deci/pc (~ Euro 7.50) in the difficult accessible Nason area.

It could be expected that the higher price asked for condoms would deter people from buying condoms in the mining areas. Nevertheless, 42.1 percent of respondents reported that they (also) bought condoms in the mining area, either at the Chinese supermarkets (32.7%) or any store in the *garimpo* (9.4%) (N_{total}=278).

Eighteen percent of respondents said that they did not have sex in the mining area and hence did not need condoms when they were at the mines, and another 9.7 percent reported that they only had sex without a condom in the mining areas (N_{total}=278). All respondents in the latter group had a steady relationship and mostly long-term; between one and five years (33.3%) or more than five years (59.3%; N_{total}=27).

57.9 Percent of respondents reported that they never bought condoms in the mining areas, in part because of the price but also because they doubted the quality of condoms sold in local Chinese supermarkets (N_{total}=278). 14.4 Percent of respondents conveyed that they always brought condoms from Paramaribo. In addition, people who did not buy condoms in the mining areas

[13] 1 deci refers to 1/10 of a gram (one decigram) of gold, which with current gold prices compares to about US$ 5-/Euro 3.74.

named a variety of other places from where they bought or got their condoms, among which most prominent was staff of the MZ/Malaria Programme (Table 15).

Table 15. Answer to the question: "Do you buy condoms in the mining area?" (N=278)

RESPONSE	N	%
Yes, at the Chinese supermarket in the *garimpo*	91	32.7%
Yes, at any store in the *garimpo*	26	9.4%
No, I buy my condoms in Paramaribo	43	15.5%
No, in the mining area I only have sex without a condom	27	9.7%
No, I get free condoms from MZ/Malaria Programme	17	6.1%
No, I get free condoms from Health workers/health post	5	1.8%
No, I buy/get free condoms in Brazil	4	1.4%
No, I get free condoms from friends	4	1.4%
No, I get free condoms from female sex partner(s)	3	1.1%
No, I buy/get my condoms elsewhere (not specified)	3	1.1%
No, I buy/get free condoms in Maripasoela (FG)	2	0.7%
No, I get free condoms from my mother	1	0.4%

Apart from some other individuals in a long-term relationship and those who reportedly did not have sex in the mining areas, all migrant respondents reported that they obtained condoms from one place or another.

Next raises the question: have they consistently use them? The results suggest that condom use during occasional sexual encounters is not optimal. Among those who had had occasional commercial or non-commercial sex, three-quarters reported that they had always used a condom during these encounters in the past month (77.6%, N_{total}=125)(Figure 30). 6.4 Percent of respondents had never used a condom during casual sex in the past month, and respectively 7.2 percent and 7.2 percent had done so almost every time or sometimes. Women were more likely than men to report that they had always used condoms when they had had casual sex in the previous month (88.5% of women versus 74.7% of men). We did not find differences on the basis of nationality.

When having sex with a steady partner, condoms are rarely used. The grand majority (80.2%) of respondents with a steady partner reported that in the past month, they had never used a condom when having sex with this partner (N_{total}=192; *Table 15*).

Figure 30. Reported condom use <u>in the past month</u> with (a) steady or occasional partner(s)

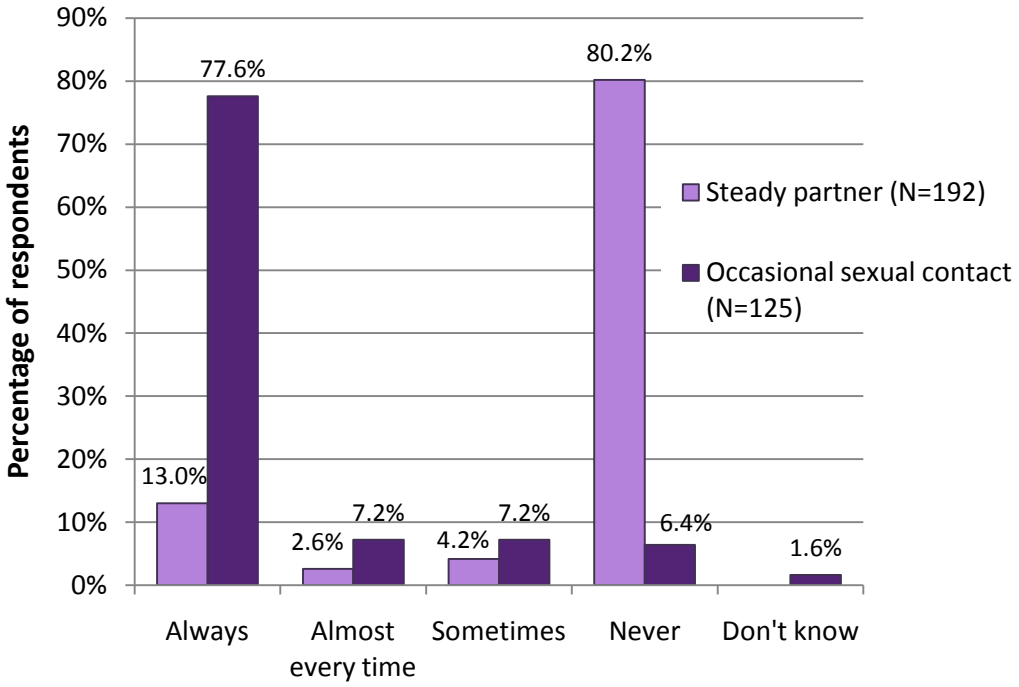


Table 16. Answer to the question: "Do you buy condoms in the mining area?" (N_{total}=278)

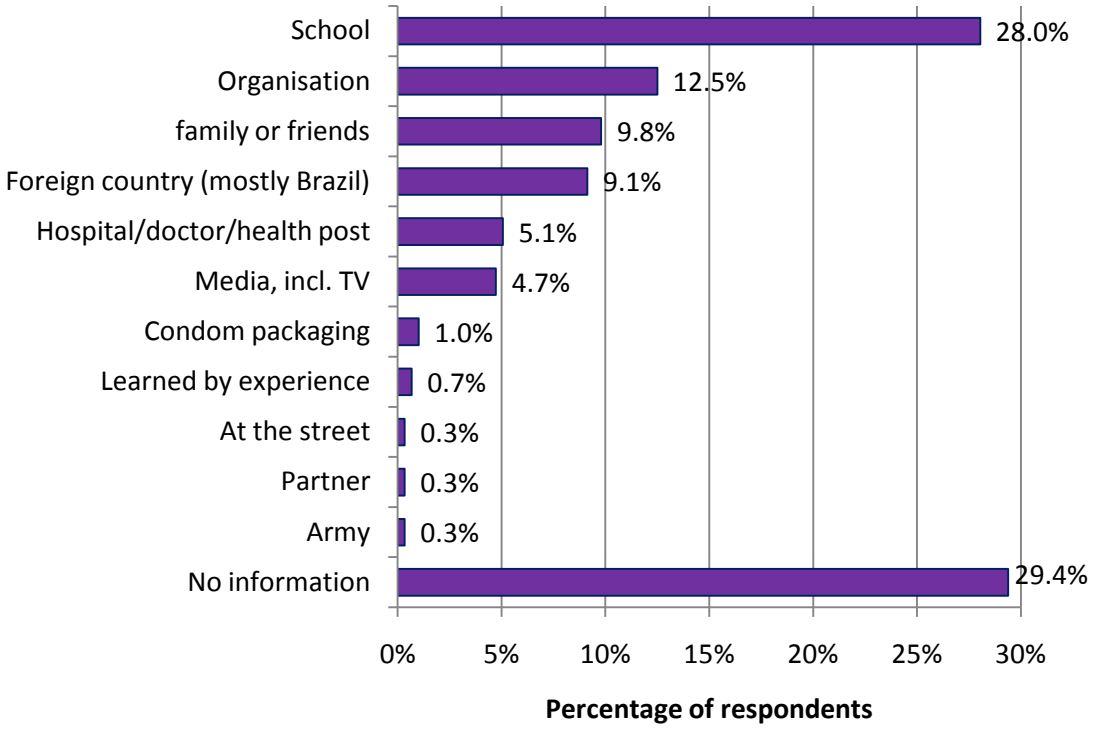
RESPONSE	N	%
Yes, at the Chinese supermarket in the *garimpo*	91	32.7%
Yes, at any store in the *garimpo*	26	9.4%
No, I buy my condoms in Paramaribo	43	15.5%
No, in the mining area I only have sex without a condom	27	9.7%
No, I get free condoms from MZ/Malaria Programme	17	6.1%
No, I get free condoms from Health workers/health post	5	1.8%
No, I buy/get free condoms in Brazil	4	1.4%
No, I get free condoms from friends	4	1.4%
No, I get free condoms from female sex partner(s)	3	1.1%
No, I buy/get my condoms elsewhere (not specified)	3	1.1%
No, I buy/get free condoms in Maripasoela (FG)	2	0.7%
No, I get free condoms from my mother	1	0.4%

Among them were 11 individuals who had known their steady partner for less than half a year (5.7%, N_{total}=192). On the other hand, thirteen percent of respondents reported always using a condom with their steady partner. Half of these respondents had been in a relationship for more than a year (52.0%; N_{total}=13). Others had used a condom with their steady partner "almost every time" (2.6%) or "sometimes" (4.2%) in the past month (N_{total}=192).

During the focus group interviews, it became apparent that even though the use of condoms is widely accepted and fairly common when people have casual sex, many persons do not know how to put on the condom correctly. Generally, female sex workers appeared best informed. Many had attended condom demonstrations and HIV information sessions in their home country. In both focus group sessions, sex workers were able to show the others about the correct way to put on a condom and proved most franc and assertive in talking about condom use. Nevertheless, some sex workers admitted that with certain clients they did not want to roll off the condom because they did not want to touch the penis. Instead, even though they knew better, they stretched the condom widely around the penis, to next let go[14]. Men proved surprisingly poorly informed about correct condom use, in part because many felt it was the woman's job to put it on.

Migrant respondents also were asked whether they had ever received information about correct condom use. 29.4 Percent of respondents reported that they had never received information about how to correctly put on a condom. Others had mostly obtained information at school (28.0%), from an outreach organization (12.5%), or from family and/or friends (9.8%, N_{total}=296)(Figure 31).

Figure 31. Source of information about correct condom use



[14] Similar behaviour was observed by T. Kambel from New Beginnings Consulting and Counseling Services

6.6 Knowledge of HIV and risk perceptions

HIV risk perceptions may play a role in decisions about condom use. Migrants were asked whether, in their opinion, they were at risk to become infected with HIV. A minority among the respondents believed that they might be running a risk to become infected (38.8%; N_{total}=294). Nine individuals (3.1%) said they did not know whether they were at risk, and the remaining 58.1 percent of respondents were convinced that they were not at risk for HIV infection.

The most common reason to feel at risk of HIV infection, named by 15 women and one man, was distrust in the husband or steady partner (named by 16.7% among those believing to be at risk, N_{total}=114). Other common reasons to believe to be exposed to HIV infection were that the person had had unprotected sex (12.3%), that the condom might break (10.5%) , and that everyone who has sex is at risk (9.6%). These and other answers are displayed in Table 17.

The two most common reasons to believe that one is not at risk to become infected with HIV are that the person is monogamous (36.8%) and that he or she always uses condoms with sexual partners (29.8%) (N_{total}=171, counting only those believing not to be at risk). A third motivation for a low risk perception is that the person always selects his or her sexual partners carefully (14.6%). This answer suggests that there is still a considerable number of people who believe that one can recognize an HIV+ person. Table 18 shows these and other answers.

Understanding of HIV prevention mechanisms was tested by asking migrant respondents: “What is the best way to prevent the sexual transmission of HIV when you are having sex?”. “Using a condom” was the most common answer, named by 93.3 percent of respondents (N_{total}=283). Less common answers were being loyal to one partner (2.1%) and being with a sincere partner (1.1%). Six persons responded “not having sex”, but this answer was not valid because the question asked about prevention mechanisms *when you are having sex*.

Survey respondents also were presented with four statements to which they were asked to respond with “agree” or “disagree” (Table 19). The results suggest that a considerable share of people continue to believe in certain misconceptions. The main misconception was that one might contract HIV from a mosquito bite. More than one third of respondents (35.8%; N_{total}=293) believed that a mosquito can transmit HIV. The second most common misconception was that one can become infected with HIV by using the restroom after an infected person. One quarter of respondents (25.8%; N_{total}=291) agreed with this statement.

Table 17. Reasons to believe to be at risk of HIV infection

Reason to believe to be at risk (N=91)	N	%
Do not trust my husband/partner	19	16.7%
Had unprotected sex	14	12.3%
Condom can break	12	10.5%
Everyone who has sex is at risk	11	9.6%
Many people are infected	10	8.8%
You do not know who is infected	8	7.0%
I am a sex worker	3	2.6%
Don't know	3	2.6%
Sex worker can give it to you	3	2.6%
May have gotten it through manicure	3	2.6%
Had a blood transfusion	2	1.8%
Men do not like to use a condom	2	1.8%
There are many ways to be infected, e.g. dentist, doctor	2	1.8%
Could get it from kissing	1	0.9%
Because there is more risk in the *garimpo*	1	0.9%
I drink a lot	1	0.9%
Had blood contact	1	0.9%
Unspecified reason	18	15.8%

Table 18. Reasons to believe that one is not at risk of HIV infection

Reason to believe to be at risk (N=91)	N	%
I only have sex with one partner	63	36.8%
I always use condoms with sexual partners	51	29.8%
I select my sex partner(s) carefully	25	14.6%
I do not have sex	10	5.8%
Not specified	6	3.5%
I do not feel "it"	4	2.3%
I am careful	3	1.8%
I recently/often get tested	3	1.8%
I only have a lesbian relation	1	0.6%
I use condoms when I have casual sex	1	0.6%
I believe in God	1	0.6%
When I worked as a sex worker I always used condoms and now I have a steady relation	1	0.6%

Table 19. Percentages of migrant respondents who reject the most common misconceptions about HIV transmission

DO YOU AGREE OR DISAGREE?	Correct answer	% Correct answer	% Don't know	N_{total}
One can get HIV from a mosquito bite	Disagree	51.9%	12.3%	**293**
You run a risk of being infected with HIV if you share a meal with someone who is infected	Disagree	73.3%	5.5%	**292**
You run a risk of being infected with HIV if you use the toilet after a person who is HIV+	Disagree	68.4%	5.8%	**291**
A healthy-looking person can have HIV	**Agree**	**92.1%**	**2.1%**	**292**

Third among the most common misconceptions about the spread of HIV is that one might become infected by sharing a meal with an HIV+ person (e.g. sharing the same spoon/plate). 21.2 Percent of migrant respondents (N_{total}=292) agreed with this statement. The largest share of respondents (92.1%; N_{total}=292) were aware that a healthy looking person can be HIV+.

An internationally used HIV & AIDS indicator is the percentage of people of most-at-risk populations who both correctly identify ways of preventing the transmission of HIV and reject major misconceptions about HIV transmission (UNAIDS 2009). In the present study this indicator is calculated as the percentage of survey respondents who correctly identify the condom or monogamy[15] as the most effective ways to prevent the sexual transmission of HIV and who reject the three most common misconceptions about HIV, namely that HIV may be transmitted by (a) a mosquito, (b) sharing a meal, and (c) using the restroom.

The results demonstrate that only 40.9 percent of the surveyed migrants and mobile individuals have optimal knowledge of HIV transmission (N_{total}=281). As compared to international migrants, Suriname nationals were twice as likely to correctly answer all HIV questions (Table 20). We also find that men had, on average, better knowledge of HIV transmission and prevention than women; 28.7 percent of women (N_{total}=108) and 48.6 percent of men (N_{total}=173) correctly identified the condom as the most effective way to prevent the sexual transmission of HIV and rejected three major misconceptions about HIV.

In order to further test knowledge of HIV & AIDS, we asked the open question: "Do you know ways to be infected with HIV other than sexual transmission?" 78.4 percent of respondents could name at least one additional form of HIV transmission (N_{total}=291). Women were slightly more likely than men to name other ways of HIV transmission (respectively 84.5%, N_{total}=116; versus 74.3%, N_{total}=175). The data did not show a difference between Suriname nationals and international migrants in this respect.

[15] We define monogamy as the practice or state of having a sexual relationship with only one steady partner at a time.

Table 20. Percentages of migrants and mobile individuals who both correctly identify the condom or monogamy as the most effective ways to prevent the sexual transmission of HIV and who reject three major misconceptions about HIV

	Suriname nationals		International migrants	
	N(%)	N_{total}	N(%)	N_{total}
Named using a condom or monogamy as the most effective ways to prevent the sexual transmission of HIV	63 (95.5%)	66	212 (97.7%)	217
Rejected three major misconceptions	44 (66.7%)	66	84 (37.0%)	227
Correctly identified ways of preventing the transmission of HIV and rejected three major misconceptions about HIV transmission	42 **(63.6%)**	66	73 **(34.0%)**	215

The best known venues of HIV transmission apart from sex are blood contact (mentioned by 32.0%) and sharing used injection (drugs) needles (29.4%, N_{total}=228)(Table 21). The large majority of Suriname respondents referred to blood contact (82.0%, N_{total}=50, only counting those who knew at least one additional transmission way). This form of HIV transmission was named by a smaller share of foreign migrants (18.0%, N_{total}=178).

Among Suriname migrants, blood transfusion (10.0%), needle sharing (4.0%), and kissing (4.0%) were also mentioned. In addition, one person opinionated that *kandu* could be the cause of HIV. *Kandu* may be described as the wrath of an ancestral spirit, which is an element in Maroon traditional religion. It is believed that after someone dies, the family members have to adhere to certain taboo rules. If these rules are disrespected, the spirit of a just deceased person can take revenge on the descendents, kill them or make them ill. Among the traditional rules is that one may not have sex during the mourning period. Individuals who disregard the taboo may be punished with a venereal disease, called “kandu”. This disease can also be HIV. Mother to child transmission or HIV transmission through breastfeeding were not mentioned as venues of HIV transmission[16].

International migrants named a much larger array of transmission ways. Needle sharing and blood transfusion were mentioned by respectively 36.5 percent and 14.9 percent of international migrants (N_{total}=178), among those who named at least one other form of HIV transmission. A considerable share of sex workers believed that one might become infected through a manicure or by sharing nail clippers (19.7%). This is remarkable because it is very unlikely that one becomes HIV-infected by doing nails. The data suggest that this idea is particularly common in Brazil.

[16] In an earlier research among sex workers in Paramaribo, 14 out of 316 respondents mentioned mother to child transmission as venue of HIV transmission (Social Solutions, 2012)

"Tongue" or "French" kissing with an infected person, which was mentioned by 30 respondents in total, incorporates a very small risk of HIV transmission because of possible blood contact. It is not possible to contract HIV from a closed-mouth kiss. Using a dirty toilet seat, saliva, food and bats, all of which were mentioned by international migrants only, are not among the possible ways of HIV transmission (Table 21).

Table 21. Number and percentage of Suriname nationals and international migrants who name HIV transmission venues other than sex, only counting those persons who named at least one additional transmission way

	Suriname nationals (N=50)		**International migrants (N=178)**		**Total (N=228)**	
	N	%	N	%	N	%
Blood-blood contact	41	82.0%	32	18.0%	73	32.0%
Using dirty injection needles	2	4.0%	65	36.5%	67	29.4%
Manicure	0	0.0%	35	19.7%	35	15.4%
Blood transfusion	5	10.0%	29	16.3%	34	14.9%
Kissing (tongue)	2	4.0%	28	15.7%	30	13.2%
Injury/wound	0	-	10	5.6%	10	4.4%
Dentist	0	-	7	3.9%	7	3.1%
unhygienic/unsterilized tools	0	-	4	2.2%	4	1.8%
Dirty toilet seat	0	-	4	2.2%	4	1.8%
Saliva	0	-	2	1.1%	2	0.9%
Food	0	-	2	1.1%	2	0.9%
Bats	0	-	2	1.1%	2	0.9%
Razor blade	0	-	2	1.1%	2	0.9%
Sharp objects	0	-	2	1.1%	2	0.9%
Revenging ancestral spirit (*kandu*)	1	2.0%	0	-	1	0.4%
Tattoo	0	-	1	0.6%	1	0.4%

Finally, respondents were asked two questions to obtain insight in attitudes and prejudice against HIV+ persons. These questions were:

1. Would you eat food from a restaurant if you knew the cook is HIV+?
2. If you knew that a child who shares the classroom as your child/ little sibling is HIV+, would you transfer your child to another school/class?

A majority of respondents (57.4%) conveyed that they would not eat food from a restaurant if they knew the cook was infected (N_{total}=291). Two persons said that it would depend on the conditions, and one more person had no opinion. 41.6 Percent of respondents declared that they had no problems eating food prepared by someone who is HIV+.

One quarter of surveyed migrants and mobile persons admitted they would transfer their child to another class or school if the child had an HIV+ classmate (25.9%, N_{total}=294). Twelve persons said they did not know or could not answer this question. The majority of respondents, however, indicated they would not take their child from school if he or she would share the classroom with an HIV+ child (70.1%, N_{total}=294).

6.7 Knowledge of and access to HIV services

Migrants, particularly international migrants, often have inadequate knowledge of health services including HIV services in their host country or region. This is particularly truth for international migrants in Suriname's mining areas, who typically live and work far away and isolated from Paramaribo, where health services are concentrated. Furthermore, because international migrants are the majority population in the mining areas, they feel little need to learn the local language, thus further reducing their isolation and access to health/HIV services.

Survey participants were asked whether they knew where to go for an HIV test. A considerable 15.3 percent of respondents answered that they did not know where one can do an HIV test (Figure 32). Virtually all persons who gave this answer were international migrants (93.3%, N_{total}=45). Another 6.5 percent of respondents, all international migrants, reported that they would return to their home country to do such a test. This answer indicates that they did not know where to find a VCT site anywhere near their working location.

The best known place to go for an HIV test is any clinic or hospital in French Guiana, which was named by 23.1 percent of respondents (N_{total}=294) (Figure 32). This finding may be explained by the fact that most respondents were from the Benzdorp general area/Lawa region. In this area, the nearest health post is the hospital in Maripasoela (FG), French Guiana. To get to this health post, those working in and around the Suriname gold fields just cross the Lawa river (Figure 6). To visit a doctor or health post in Suriname would cost much more in travel time and money. Moreover, in French Guiana health provisions are free; only medication has to be paid.

Other known places to go for an HIV test were any hospital (18.7%), the Department of Dermatology (12.9%, mostly Suriname nationals), and Medilab or similar health labs (8.1%, N_{total}=294). Only 5.8 percent of respondents referred to the MZ clinics as a place where they would go for HIV testing. Qualitative interviews made clear that the language barrier, the distance and the feeling that these community health clinics are less professional than a hospital were the main reasons for not going to a MZ clinic.

40.7 percent of respondents reported that they had conducted an HIV test in the year preceding the interview, with Suriname nationals (56.3% tested, N_{total}=64) being more likely than international migrants (36.3% tested, N_{total}=226) to have performed an HIV test. Three persons did not know whether they had tested in this past year (1%). As compared to their male colleagues and partners in the mining areas (37.1% tested, N_{total}=175), women (46.1% tested, N_{total}=115) seemed to be more prone to take an HIV test.

Figure 32. Locations to go for an HIV test named by migrants and mobile persons in the mining areas (N_{total}=294)

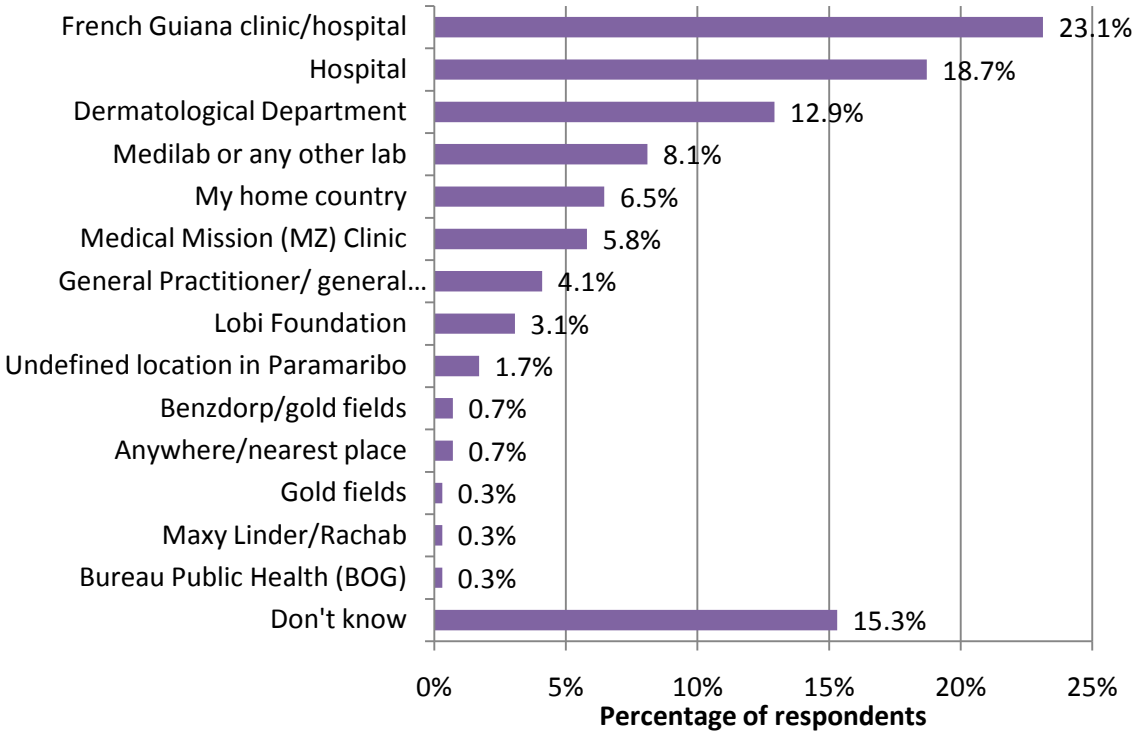
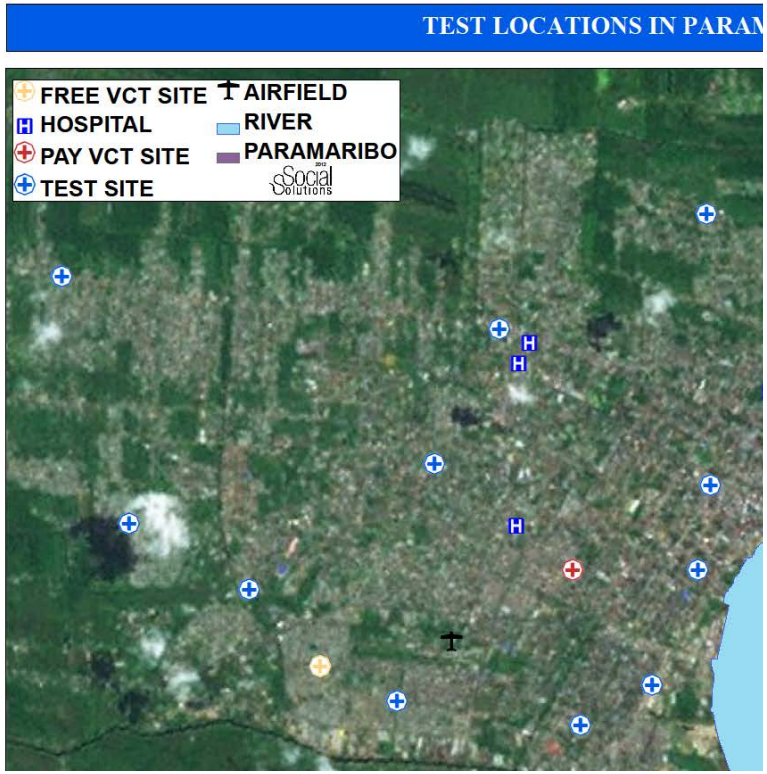


Figure 33. Free and paid VCT sites and other HIV test locations in Paramaribo



We also asked those who had taken an HIV-test (N_{total}=118), where they had done this. The answers are in line with the locations mentioned in Figure 32 (see for locations in Paramaribo Figure 33). Among those who had performed an HIV test in the past year, the largest share of respondents had taken this test in French Guiana (Table 22). Most of these persons had been tested in Maripasoela (FG), but some individuals also mentioned Papaïston and St. Laurent, two other French villages on the border with Suriname. One third of respondents, all migrants, reported that they had been tested in their home country. This finding suggests that at least some migrants travel back and forth between their country of origin and the host country quite regularly. Figure 33 depicts the VCT testing locations in Paramaribo.

Among Suriname nationals, the Department of Dermatology (derma) and Lobi foundation are the most popular places in Suriname for an HIV test. Respectively 25.0 percent and 13.9 percent of surveyed Surinamese had been HIV tested at these places in the past year. International migrants were more likely to have taken an HIV test at Medilab, which is known to have Portuguese speaking personnel, or one of the Medical Mission clinics in the interior.

Table 22. Places where Suriname nationals and migrants had gone for an HIV test in the year preceding the interview (N_{total}=117).

	Suriname nationals (N=36)		International Migrants (N=81)		Total (N=117)	
	N	%	N	%	N	%
French Guiana clinic/hospital	12	33.3%	28	34.6%	40	34.2%
My home country	0	2.8%	27	33.3%	28	23.9%
Department of Dermatology	9	25.0%	4	4.9%	13	11.1%
Medilab	3	8.3%	9	11.1%	12	10.3%
Medical Mission (MZ) Clinic	3	8.4%	6	7.4%	8	6.8%
Lobi Foundation	5	13.9%	0	-	5	4.3%
General Practitioner	2	5.6%	1	1.2%	3	2.6%
Hospital	1	2.8%	2	2.5%	3	2.6%
Somewhere in Paramaribo	0	-	2	2.5%	2	1.7%
BOG	1	2.8%	0	-	1	0.9%
Benzdorp	0	-	1	1.2%	1	0.9%
Maxi Linder/Rachab	0	-	1	1.2%	1	0.9%

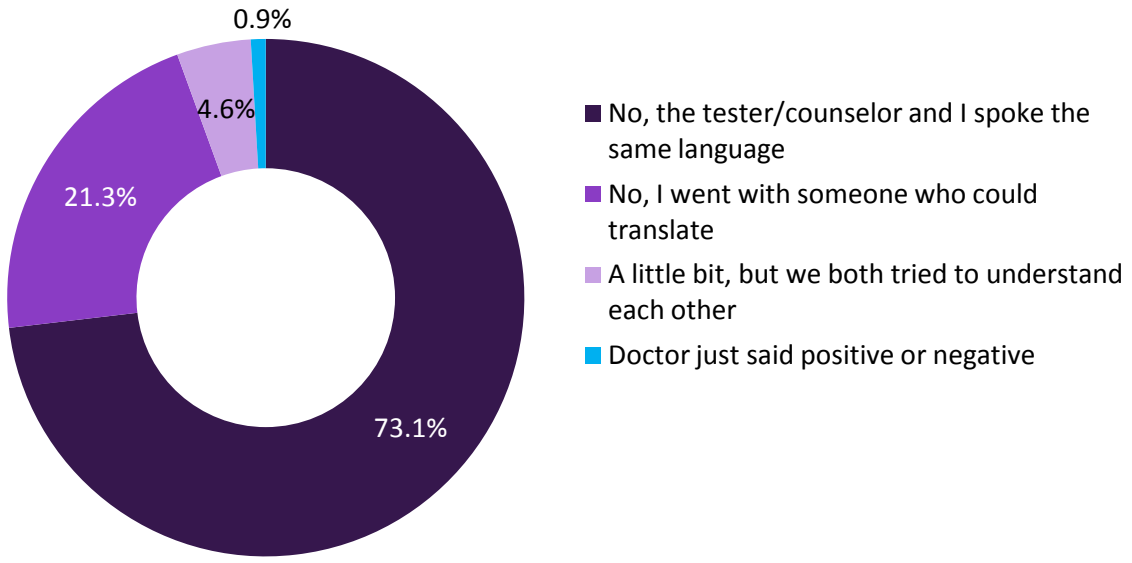
People who had been tested for HIV in the year prior to the interview had not experienced major difficulties communicating with the health worker who performed the test. Almost three-quarters of respondents (73.1%) reported that they and the health worker spoke a common language (N_{total}=108, Figure 34*)*. This group included all but three Suriname nationals. The mother language many Suriname nationals is one of the Maroon languages, but most also speak Sranantongo or Dutch. Virtually all health workers in Suriname also speak Sranantongo, and at the Medical Mission health posts, they also may speak local Maroon languages. Exceptions are the Cuban doctors who

work in Suriname, who speak Spanish and often some English. They generally do not perform the VCT services dough.

Some of the Brazilians who reported that they spoke the same language as the health worker had been tested in Brazil. Others had visited a test location in Suriname where the health workers spoke Portuguese or Spanish, or they themselves were comfortable in Sranantongo.

Other persons had gone to the test location with someone who could translate (21.2%) or had communicated some way or another with the health worker (4.6%, N_{total}=108). No-one had experienced language as a major obstacle when going for an HIV test.

Figure 34. Responses to the question: "In the place where you took the HIV test, did you have difficulty communicating with the health worker?" (N=108)

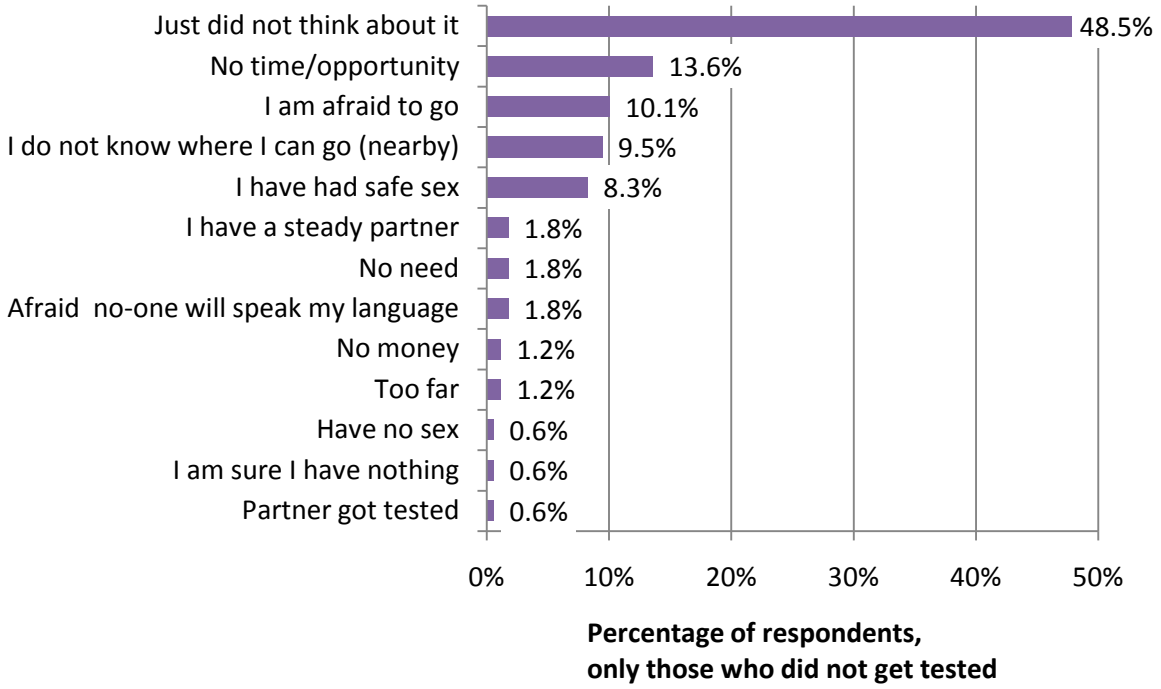


Among those who did not get tested in the year prior to the survey, about half simply had not thought about it (48.5%, N_{total}=169, Figure 34). Another 10.1 percent responded that they were afraid to go. In total 11.3 percent of respondents named reasons that were related to their status of migrants (internal or international); they either did not know where to go (9.5%) or were afraid that they would not encounter health workers who would speak their language (1.8%). In addition, 13.6 percent of respondents mentioned a lack of time or opportunity, referring to the isolated nature of most mining areas and the considerable costs in time and money to visit a health post.

In addition to VCT services, HIV services include information provision, the distribution of free condoms and medical and/or mental support for persons living with HIV & AIDS. Migrants in the mining areas where asked about their experience with these services. When asked about their receipt of HIV information, 71.3 percent of respondents reported that they had not received any information about HIV in the past 12 months (N_{total}=293). Those who had obtained information had mostly been informed by the media (10.6%, N_{total}=293). In virtually all mining areas miners watch satellite television which broadcasts Brazilian channels, performed by the popular station Globo.

Other relevant sources of HIV information were (non-specified) organizations in Paramaribo (5.1%), health posts in French Guiana (4.1%), health posts in the home country (4.1%), and the MZ clinics in the interior (1.4%, N_{total}=293). All other sources of information were mentioned by only one person and included: the general practitioner, the Department of Dermatology, the Malaria Programme, Medilab, friends, New York, posters, and an unspecified organization in the Upper Suriname River area.

Figure 35. Reasons for not taking an HIV test, mentioned by migrants and mobile persons who did not conduct an HIV test in the past year (N_{total}=169)



One of the most widespread HIV outreach services both in the urban regions and in the interior, is the distribution of free condoms. In Suriname, the main distribution centre for free condoms is a public health centre called "LIBI" (meaning: "life"), which operates in a liaison with the National AIDS programme. In 2010, this centre distributed about 20-25 thousand condoms per quarter. Its staff does not proactively travel to the mining areas, but people from the *garimpos* who visit the centre can take free condoms with them. Particularly brothel owners and sex workers are encouraged to take several boxes of condoms with them[17].

Libi also provides free condoms to various other distribution points, including the Medical Mission (MZ) clinics in the interior and to organizations whit outreach programmes for sex workers such as Foundation Rachab (previously: Maxi Linder) and NBCCS. These latter organizations primarily focus on street workers in Paramaribo (and Albina), and have to date not been active in the small-scale

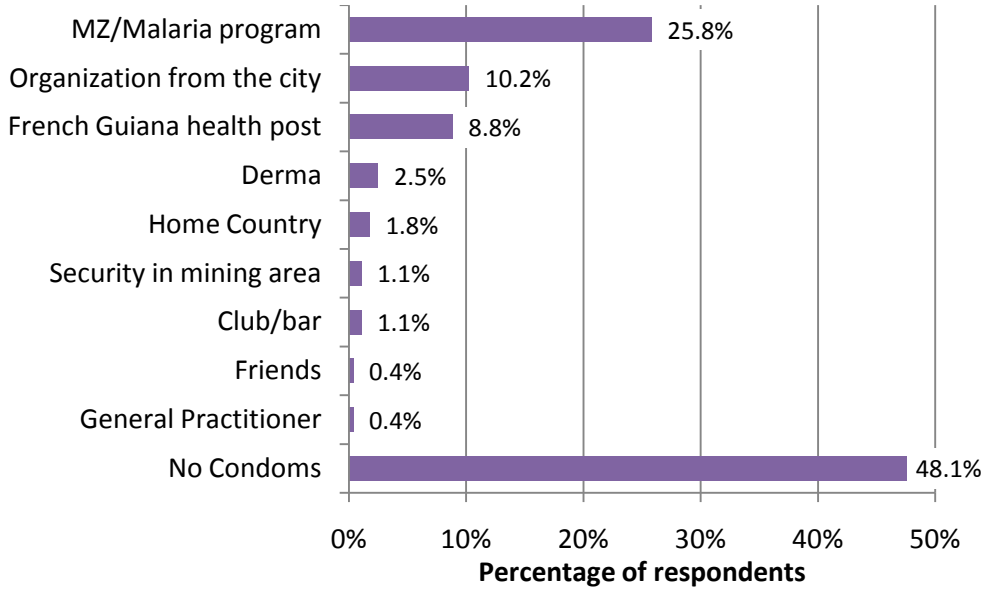
[17] One box holds 143 condoms.

gold mining areas. Furthermore, free condoms are provided at all VCT sites and in many pharmacies in Paramaribo.

In the gold mining areas, the only organization distributing free condoms is the Global Fund funded Malaria Programme. Since the start of the programme in May 2009, the Malaria Programme has distributed 74.880 condoms in gold mining areas.

Despite the wide availability of free condoms, about half of respondents had not obtained free condoms in the year preceding the interview (48.1%, N_{total}=283). Migrants and mobile persons in the gold mining areas who had received free condoms had mostly received them from MZ/Malaria Programme (25.8%, N_{total}=283)(Figure 36). The researchers placed these health services in one category because one of the staff members who is active in the mining areas is a Medical Mission (MZ) health worker, and many gold miners referred to the person rather than the programme. Others had obtained condoms from an organization in Paramaribo of which they could not recall the name (10.2%), or from a medical service provider in French Guiana (8.8%, N_{total}=283). The only Paramaribo-based Suriname organization that that has reached migrant and mobile populations in the mining areas Is the Department of Dermatology. None of the respondents referred any of the other organizations as a source of free condoms.

Figure 36. Share of respondents who had obtained free condoms from various distribution sources (N_{total}=283).

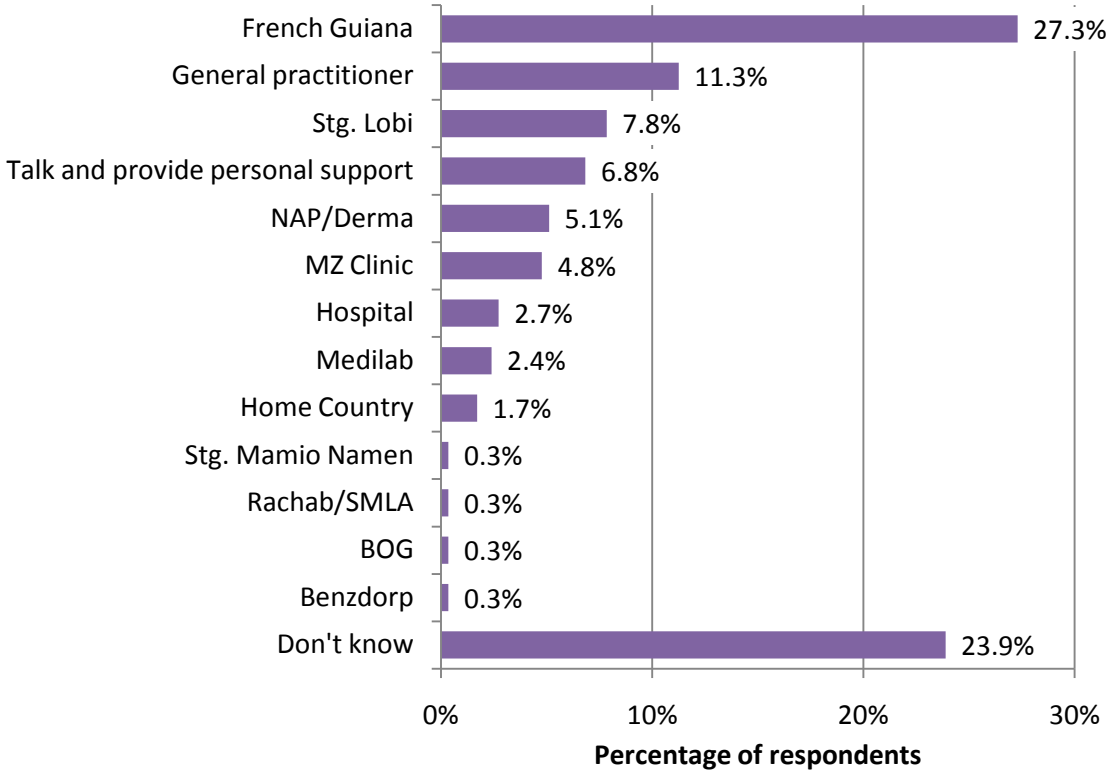


Migrant respondents also were asked where they would bring an HIV+ friend for medical support or social care. Almost one quarter of survey participants responded that they had no idea where someone with HIV could get support (23.9%, N_{total}=293). Five persons said they would bring the person to a place to be treated or helped, whether or not in Paramaribo, but they could not name any place (1.7%) and one person said she would “try to get information” (0.3%). Assuming that

these persons could not give a more specified answer, we conclude that 25.9 percent of respondents did not know where HIV+ persons might obtain support.

Those who did mention a place most often referred to one of the health clinics or hospitals in French Guiana (27.3%, N_{total}=293). As noted above, this result is largely explained by the fact that for people in the Benzdorp mining area, the nearest health post is in French Guiana. The most often mentioned locations for support to HIV+ individuals in Suriname were the general practitioner (11.3%), Lobi Foundation (7.8%), the Department of Dermatology (5.1%), the MZ clinics (4.8%), the hospital (2.7%) and Medilab (2.4%). Five persons would advice the person to return to the home country for support (1.7%). Other answers were given only once. Figure 37 shows these and other answers.

Figure 37. Locations where one would bring an HIV+ friend to obtain medical or mental support (N_{total}=293)



6.8 Health needs in the mining areas

Several questions were asked to assess the needs of migrants and mobile populations in the mining areas with regard to health services, and in particular HIV services. First, respondents were asked to reflect on what health services are most direly needed in the mining area. The large majority of migrants (93.4%) responded that most lacking in the garimpos are general health clinics (Table 23). In addition, various other services were identified, including malaria services (3.5%), a

general practitioner (1.7%), sexual and reproductive health services (1.4%) and dental care (1.0%, N_{total}=287).

Simultaneous with the fieldwork for the present study, the researchers provided VCT services for sex workers and their in the context of a seroprevalence study for the NAP. In order to provide this service, one or two certified testers/counsellors from the Ministry of Health Department of Dermatology travelled with the survey team. Upon arrival in a mining area or *curatela*, a mobile VCT site was established in a cabaret or hotel room that allowed for sufficient privacy (Figure 38).

Table 23. Health services most severely needed in the gold mining areas (N_{total}=287)

Health service	N	%
Health Clinic	268	93.4%
Malaria testing and cure	10	3.5%
General practitioner	5	1.7%
SRH: gynaecologist, VCT services, testing and treatment STIs	4	1.4%
Dental care	3	1.0%
Hospital	2	0.7%
Visiting doctor	2	0.7%
First aid	2	0.7%
Don't know	2	0.7%
Physiotherapist	1	0.3%
TBC testing	1	0.3%
Dengue treatment	1	0.3%

Figure 38. Gold miners' village (curatela) with VCT site established in a cabaret room (see blue structure in the photograph on the left)

Once the VCT site was established, many men and women came for voluntary testing and counselling. The number of persons seeking this service was so high that in every site people had to be turned away because the team had run out of test materials[18]. The inhabitants of mining areas were particularly interested because the test result was obtained within 15 minutes. When taking the test in French Guiana, they must wait one week to a month before obtaining the result. The team was informed that at since six months the French NGO AIDES is using rapid on the Marowijne river. During the research period these rapid test were not yet available in Maripasoela. Individuals who could not be tested on the spot were referred to the Department of Dermatology in Paramaribo, which also provides free VCT services with immediate test results.

Our observations regarding the mobile VCT site in the mining areas suggest that there is an enormous demand for VCT services among migrant and mobile populations in these locations. These observations are confirmed by the survey results. Survey participants were asked: "Do you think that if there would be a place here in the mining areas that delivered HIV services, people would go for information and HIV testing?" 88.5 Percent of respondents answered affirmatively (N_{total}=288). The main reason that this service would be used, according to the informants, is that it would be nearby (27.5%, N_{total}=255)(Table 23). As a result, it would be easier (7.1%) and cheaper (2.7%) than travelling from the mining areas to the capital city or French Guiana. A Brazilian woman said: "People want to know. Some people are ashamed and others are afraid to go, but if there is a post nearby people will find a time that is quiet and go."

Another important reason for interviewed migrants and mobile individuals to want a VCT site is that persons want and/or need to know their health status (14.1%, N_{total}=255, Table 24). A related argument is that people in the mining areas want to be tested out of precaution (3.1%, N_{total}=255). Some respondents were of the opinion that the establishment of a local VCT site would be particularly important because people in the mining areas are relatively likely to involve in unsafe sex (1.6%) and paid sex (1.6%, N_{total}=255). One man added that women should be obliged to go test, but did not specify why. Several other respondents were not very specific in their reasons, and just mentioned that a local VCT site would be good or important (9.0%) and that there is a need or demand (5.9%, N_{total}=255). Five individuals specifically mentioned the need for more information (2.0%, N_{total}=255). These and other arguments in support of the presence of a VCT site are listed in Table 24.

Respondents who believed that inhabitants of the mining areas would not go test (N_{total}=32) mostly justified their opinion by arguing that people are afraid to find out (65.6%). Some respondents pointed at a lack of consciousness and information among the inhabitants of mining areas (6.3%), or said that these people do not care about knowing their status (6.3%). Other reasons were just mentioned by one person and included: people are mobile, they move around; people are ashamed to go test, and people would not visit the VCT site because of prejudice.

[18] The test materials obtained from the National AIDS programme were only meant to test sex workers and their clients, with an emphasis on the sex workers. Hence people from the target group were tested first and if there was sufficient test material, other people could take the test as well.

The gold mining areas are characterized by particular conditions that place specific demands on health services including VCT services that would be provided locally. Migrants identified as the most important qualities of a VCT site in the mining areas that the care would be good (45.6%) and that the health provider would speak their language (41.9%, N_{total}=296). In addition, various interviewees mentioned extended opening hours (26.4%), friendly staff (17.2%), and/or a good price (13.2%) as necessary conditions for a VCT site in the mining areas (N_{total}=296).

One Brazilian woman mentioned that she prefers to get a written proof of her status when she gets HIV-tested. A paper piece of evidence is not provided at the public VCT sites though because the HIV-test is perceived as a snapshot, which *only* provides information about one's status at one point in time. Another Brazilian woman said that it would be very important that privacy is guaranteed; no-one but the tested person and the tester/counsellor must be able to find out about the result. Moreover, she was of the opinion that it would be better if someone from outside would perform VCT services rather than another Brazilian from the same *garimpo*. This would decrease the chances that personal information would spread.

Table 24. Reasons mentioned for why it would be important to have a VCT facility in the mining area, only counting those who were of the opinion that a VCT was needed (N_{total}=255)

Proximity lowers barrier and reduces effort and expenses **It would be nearby/people see it (N=45, 17.6%)** **It would be easier than going to the city/French Guiana (N=18; 7.1%)** **It would be cheaper than travelling to the city/French Guiana (N=7; 2.7%)**	**70**	**27.5%**
People want/need to know their health status	36	14.1%
Would be good/It is important	23	9.0%
There is a need/demand	15	5.9%
People want to be tested for reasons of precaution	8	3.1%
Some people would go but not everyone	6	2.4%
There is a need for more information	5	2.0%
There is a lot of sex work here	4	1.6%
Many people here have unsafe sex	4	1.6%
There are many people here	3	1.2%
People are mobile/Many migrants here	3	1.2%
Mining areas are isolated	2	0.8%
Easier to communicate with health provider	2	0.8%
There are also many pregnant women here, they need to know	1	0.4%
I have no papers for French Guiana	1	0.4%
No reason provided/don't know	72	28.2%

7. Discussion and conclusions

The specific objective for the country multilevel mapping (component 3) was to collect data on:

4- Geographical distribution, numbers, gender, socio-cultural and vulnerability aspects of gold mining populations and people working in the gold mining service economy (e.g. cooks, vendors of food and drinks, sex workers) within Suriname. Specific attention needs to be paid to the diversity of the different migrant groups.

5- Location, numbers, specificities of HIV/health services prominently used by migrants in the small-scale gold mining areas, with a special emphasis on sex workers.

6- Organizations that work with populations that earn a living in the small-scale gold mining areas (these may be registered or unregistered in country)

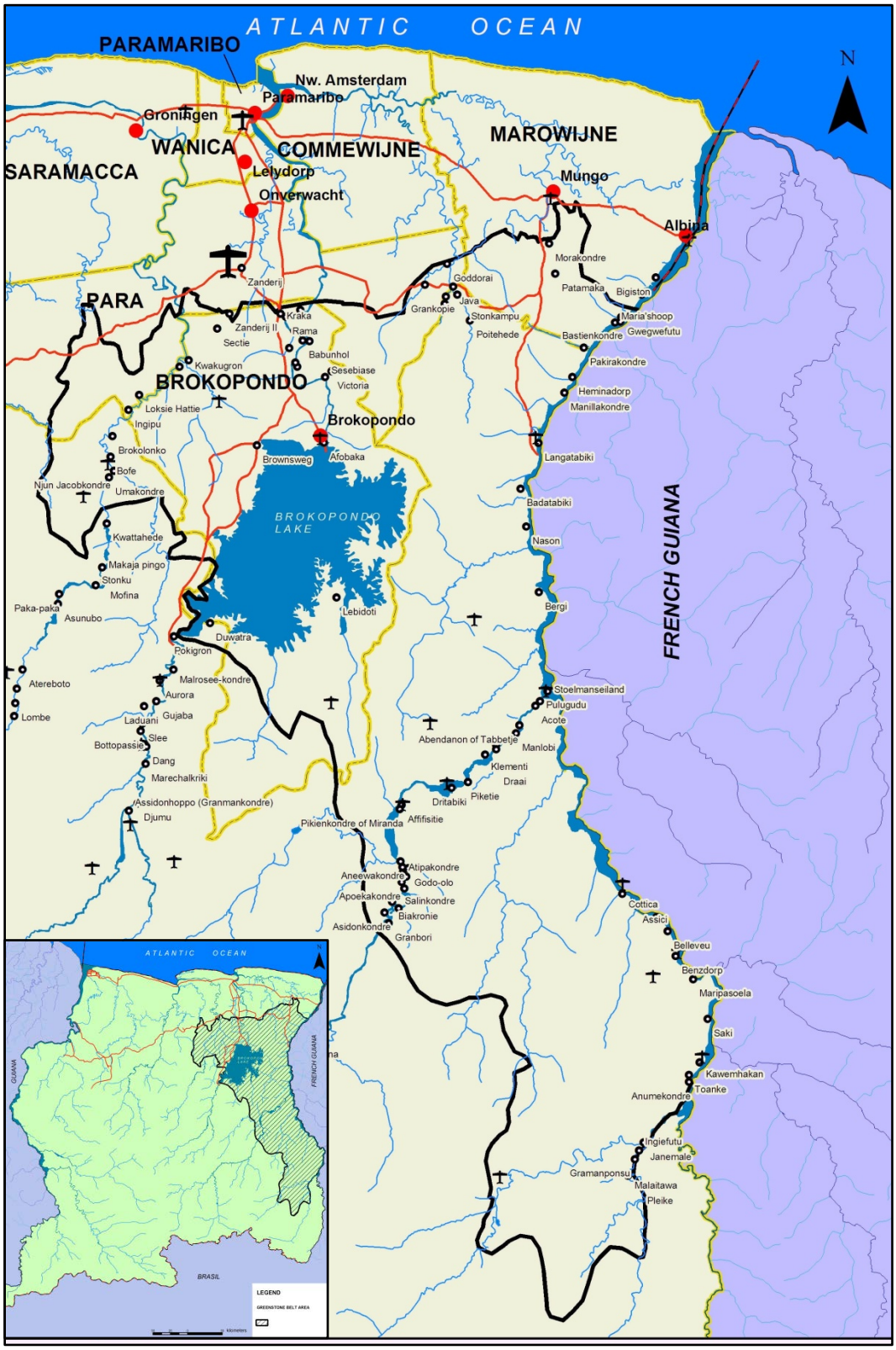
In the following pages we will discuss these points.

7.1 Gold mining populations: geographical distribution, diversity, and vulnerabilities

Suriname's gold deposits are primarily located in the so-called Greenstone Belt area (Figure 39). This geological formation covers, in Suriname, the eastern third share of the country. Within this larger region, small-scale gold miners work in different areas that vary in size between approximately 10 ha to several thousands of ha. These areas are typically named after landscape characteristics, a concession holder, or other area feature. When gold gives out in one site, the gold miners -and in their footsteps the cooks, sex workers, transport providers, and other service deliverers- move to other areas. Sometimes these abandoned gold mining sites are re-established after a while, when new technologies allow miners to mine deeper, to mine untouched deposits, or to mine more efficiently.

More than half of the surveyed migrants had not left Suriname in the past two years (58.7%). They may have moved around between the different sites in the country, but some persons also stay in a specific area for years in a row. Certain older *curatelas*, such as Benzdorp, resemble real villages with churches, supermarkets, nail- and hair studios, mechanics, pharmacies, hotels and restaurants, and so forth. Migrants in such places may live in a well-maintained house or business location, and have established their daily life in this place. However, public services are not provided. There are no schools, health posts, or (in most places) police stations, and the *curatelas* are not connected to the public electricity or drinking water nets. For long, government officials have perceived these areas as peripheral and temporary places, without any relevant electorate and hence not interesting to invest in. The establishment of the Commission Regulation Gold Mining in 2011 has promised to provide several public services, including basic health services, in small-scale gold mining areas.

Figure 39. Greenstone belt area (within the black line) where gold reserves are located



The migrant inhabitants that were interviewed in twelve mine sites displayed an incredible diversity in terms of:

- **Nationality:** Even though the large majority of the mining areas inhabitants were Brazilians (59.6%) and Surinamese (34.4%), we also encountered Chinese, Dominicans, Guyanese, Jamaican, French, Dutch, and Colombian individuals (based on interviews and focus group discussions).
- **Professions:** Particularly in the older and larger mining areas such as Benzdorp and Grankreek, the team encountered migrants performing a wide variety of professions. These professions included: gold miner, mining machine owner, shop owner, ATV-driver, boatman, brothel owner, sex worker, bar owner, cook, missionary/preacher, hairdresser, manicurist, and carpenter. It was observed that individuals from certain nationalities have a propensity to be active in specific professions. For example, the Chinese were mostly shop keepers and the Dominicans were primarily sex workers.
- **Gender:** Both men and women live in small-scale gold mining areas. The small mining camps where the miners from one mining team live together are mostly inhabited by men, and possibly one or two women who are cooks or spouses. Occasionally, women are also mining machine owners, in which case they run the mining operation. In the *curatelas*, women are more numerous, and here they can be found in virtually all above-named professions.
- **Family relations:** Some people are single, but others either came with a spouse to the mining area (23.3% of total) or established a partnership relation in the mining areas. Particularly in the larger *curatelas* with many Brazilians, we also encountered families with small children. When the children reach school-age they typically go to Paramaribo, either with their mother or to stay with another caretaker.
- **Ages and education:** Also in terms of age and education we found large disparities. The ages of persons that were encountered in the mining areas ranged from 0 (zero) to 75 years of age. The interviewees were between 23 and 75 years of age, with a median age of 34. Educational achievement varied from not having been to school at all, to having completed university.

The living conditions and behaviour of migrant populations in the mining areas make these populations particularly vulnerable to HIV-infection. A 2012 seroprevalence study among sex workers and their clients in small-scale gold mining areas found very low HIV-prevalence rates[19]. Nevertheless, the study results revealed various behaviours, knowledge gaps, and perceptions in the target population that increase vulnerability to HIV infection:

1. **Large number of people without a steady partner nearby.** One third of respondents reported that they did not have a steady partner (30.8%). Among those in a steady relationship, 10.1

[19] 1% of tested sex workers (N=101) and none of the clients (N=93) were found HIV+ (Heemskerk and Duijves 2012)

percent had partner abroad and 17.1 percent had a partner at a distance that required more than one hour travelling.

2. **Frequent casual sexual relationships**. A total of 46 percent of respondents reported that they had had casual sex in the year prior to the interview. Among those with a steady partner, 35.3 percent responded that they had had sex with at least one other person in the year prior to the interview. As the researchers suspect underreporting, the real figures may be higher.

3. **Relatively high propensity to engage in commercial sex.** Just over half of male respondents reported that they had bought sex in the year preceding the interview (52.7%). According to their self-reporting, most only did so "occasionally" (30.2%) or "rarely" (18.3%). Just 3.6 percent of men reported that they paid for sex on a weekly basis, and one man reportedly paid to have sex daily (0.6%). Gold mining areas offer a facilitating environment for sex work. Other studies have pointed at the male dominated population (10 men: 1 woman), the macho environment, high alcohol consumption, and loneliness. We would like to add 'boredom' to this list. In the middle of the forest, far removed from the city with its multiple forms of entertainment, there is really not much else to do in the evening but to hang out in a brothel.

   On the supply side, women and some men may be inclined to sell sex because of the high prices that are offered. In the mining areas, sex worker typically receive 1.5-3 grams of gold (~Euro 58-116) for a brief (20-30 min) service and 8 to 10 grams of gold (~Euro 310-387) for the entire night. 16.8 Percent of female respondents had sold sex in the past year. Among the 11 women who had sold sex, only four were professional sex workers. The remaining seven had different types of primary professions.

4. **High price of condoms in the mining areas.** In the various mining areas, condoms were sold at prices ranging from 1 SRD (Euro 0.23)/pc to 0.5 g/3 pc (~ Euro 6.25/pc). The high prices in some areas may deter some people from buying condoms.

5. **Inconsistent condom use.** 80.2% of those with a steady partner reportedly "never" used a condom when having sex with the partner in the past month. Condom use with casual sexual contacts is much higher. Nevertheless, we still we find that 20.8 percent of those who had one or more casual contacts in the past month, had not "always" used condoms. 6.4 Percent of respondents even reported that they "never" used condoms with their casual sexual contacts. We cannot tell how these rates compare to condom use in the general Suriname population.

6. **Incorrect condom use.** Not every-one knows how to put on the condom correctly. Furthermore, sex workers typically know how to put on the condom correctly, but some may still not apply the condom correctly because of their aversion to touch the client's genitals.

7. **Distorted risk perception**. 58.1 percent of respondents believed that they were not at risk for HIV infection. The low risk estimation may partly be explained by the fact that migrants in the

mining areas are continuously confronted with many immediate risks, such as the risk of expulsion, the risk of a mining accident, the risk of mercury intoxication, the risk of being robbed, and the risk of losing invested money. In this context, the seemingly distant risk of HIV infection may not be among the daily concerns.

8. **Insufficient knowledge of HIV transmission**. The survey results show that people continue to believe in popular misconceptions, such as the idea that one might contract HIV from a mosquito bite. 35.8 Percent of respondents agreed with this false statement. Furthermore, people named various erroneous transmission ways, including manicure, food, saliva, a dirty toilet seat, and bats.

In addition to population characteristics, issues related to access to HIV/Health services elevate the vulnerability to HIV infections among migrants in the mining areas. These factors are discussed further below.

7.2 General health services used by migrants in the small-scale gold mining areas

Traditionally, Suriname's public services are concentrated in the capital city of Paramaribo. In the coastal areas public services tend to be more dispersed and of lesser quality. Meanwhile in the interior, where gold mining takes place, public services are virtually non-existent. This is true for access to electricity, to running water, to decent education, and -which is the focus of this study- to health care.

Urban organizations that offer HIV and SRH services generally have little affinity with the interior and do not travel on their own initiative to interior places. This is not only a matter of money. It also is the result of a deep-rooted prejudice against and fear for the unknown, that is, the interior and interior populations. The grand majority of Paramaribo inhabitants do not travel to the interior; they do not know what the interior looks like, where they could stay, how and where to get food, and whether they will encounter snakes, bush spiders, and other dangers. People in Paramaribo generally have a very negative perception of Maroons, who are regularly portrayed as primitive, thieves and robbers, criminals, violent, and so forth. Fed by sensationalist media reporting, perception of people in gold mining areas is even worse. The mining areas are portrayed as a Wild West, where tough guys live the rough life, where everyone walks around with a gun, where (sexual) morals have deteriorated, and where decent people do not go.

The only organization that presently offers health services in small-scale gold mining areas is the Ministry of Health Malaria Programme. This award programme has succeeded in the pre-elimination of malaria in previously high-risk areas in the Suriname interior. The programme field workers, who speak Portuguese as well as Dutch and local languages, also distribute free condoms.

In the communities in the interior of the country, primary health care services are provided by the Foundation Medical Mission Primary Health Care Suriname, known as MZ. The MZ is a faith-based organization, which is subsidized by the Ministry of Health. Because these means are insufficient to cover the exploitation expenses, the organization also relies on donor funding. A map with the locations of MZ clinics, which also are free VCT sites, was provided in Figure 3.

Even though for many inhabitants of mining areas the MZ health posts are the closest place to obtain medical assistance, few migrants visit the MZ posts when they are ill. For both minor and serious disease events, the first place to seek medical help would be French Guiana and next Paramaribo. For gold miners in the Benzdorp general area, this choice is only logical. The hospital and the Prevention and Vaccination Centre (PVC) in Maripasoela (FG) are closer than the nearest MZ health posts in Cottica or Kawemhakan (SUR). Migrants also expressed their doubts about the quality of health care provided in these community clinics as compared to those in a European hospital. In the Wayana indigenous community of Kawemhakan, a single community health worker treats patients in a small cubicle, which does not always have a steady supply of medication. The care this health worker can offer is not comparable to the opportunities for treatment in a rather modern hospital with physicians trained in Europe and equipment. An additional advantage is that some of the French health workers speak Portuguese and/or Spanish. Furthermore, in French Guiana migrants are treated for free while at the MZ clinic they need to pay a 70 SRD (~ Euro 16.14) fee. The only risk of seeking treatment in French Guiana is that one may be caught by the *gendarmerie*. Yet even then, Brazilian gold miners assured us that this is not something that would deter them because the French gendarmes, are not allowed to beat, mistreat, or shoot. Undocumented persons may be locked up for a day or two or/and their possessions are confiscated. Upon release, they have to promise to leave the country within a couple of days

Of the interviewed migrants in the remaining gold mining areas, half (50%) had never visited the nearest MZ health post and for 11.1 percent it was already more than a year ago that they had done so. Suriname nationals were more likely than foreign migrants to seek medical help at the MZ health posts. In qualitative interviews and focus groups, unfamiliarity with the MZ clinics, the language barrier (for foreign migrants), and a lack of trust in the professional capabilities of the local health workers were mentioned as reasons for not visiting the MZ clinics. In addition, some of the Suriname interviewees felt that they would have more privacy in the city. The health workers in the MZ clinics are typically village inhabitants or at least persons familiar with the language and culture of the particular tribal group. Obviously this strategy has many advantages in health care extension. It also means, however, that Maroon individuals may encounter an aunt or other relative as a health worker in the clinic. Particularly for issues related to SRH, the person may prefer to seek medical assistance elsewhere.

In terms of health needs, the large majority of migrants (93.4%) responded that general health clinics are most severely needed in the gold mining areas. The Commission Regulation Gold Sector has indicated that it plans to facilitate the provision of medical health services in gold mining areas. These services should become part of the Mining Service Centres that, according to the master plan, are to offer a variety of public services including alien registration, technical assistance to

miners, and security. To date there are no official documents that give insight in who should provide health services in these Mining Service Centres, how the medical service provision will be structured, what it will entail, if undocumented migrants will be served as well and when this plan might become reality.

7.3 HIV services used by migrants in the small-scale gold mining areas

The MZ clinics in interior communities offer free HIV testing and distribute condoms for free. The health workers of these clinics, however, do not travel to the mining areas to extend HIV outreach services. Few migrants in the mining areas seem aware of the possibilities to do an HIV test at the nearest MZ clinic. In fact, a considerable share of respondents, mostly international migrants, have no idea where one can do an HIV test in Suriname.

Partly because of the large proportion of respondents from the Benzdorp area, health facilities in French Guiana were most often mentioned as preferred VCT sites (23.1%). Another 6.5 percent of respondents, all international migrants, reported that they would return to their home country to do such a test. Indeed, the largest share of those who had done an HIV test in the past year had been tested abroad, either in French Guiana (34.2%) or in their home country (23.9%). The Department of Dermatology and Medilab (or similar health labs) are the best known and most used VCT sites in Suriname.

Only 5.8 percent of respondents referred to the MZ clinics as a place where they would go for HIV testing. Among the persons who had been tested for HIV, 6.8 percent had actually done so at an MZ clinic, with little difference between foreign migrants and Suriname nationals. The health workers in visited MZ clinics near mining areas confirmed that they rarely perform an HIV test with people from outside the village.

Our analysis of HIV outreach services also shows that 71.3 percent of respondents had not received any information about HIV in the past year. Those who had obtained information had mostly been informed by the media, which in the mining areas is dominated by Brazilian satellite TV. The channel that is most popular in the mining areas is Globo, followed by SBT and Record. Only 5.1 percent of migrants in the mining areas had obtained HIV information from any of the outreach organizations in Paramaribo and 1.4% from an MZ clinic. The MZ health workers did not express any negative sentiments towards toward migrant gold miners. Neither did migrants from the mining areas feel discriminated by MZ health workers. Hence the low level of contact between migrants and MZ health workers can, in our opinion, not be explained by tensions or negative feelings between these parties.

Free condoms are readily available throughout Paramaribo and the largest part of sex workers in the city is reached by condom distribution efforts. In the gold mining areas the situation is radically different: half of respondents had not received free condoms in the year preceding the interview (48.1%). As mentioned above, urban outreach organizations are not active in the interior and only 12.7 percent of respondents had obtained condoms from them. The most mentioned source of

free condoms was the Malaria Programme, which is the only organization that actively distributes free condoms in small-scale gold mining areas[20]. In addition, some *cabaret* owners had obtained boxes of free condoms at LIBI to give out among the sex workers.

Migrants were poorly informed about places that offer support to HIV+ individuals. In Suriname, ART treatment is available free of charge for every individual who needs it, regardless of legal status, nationality, or insurance coverage. An interview with a general practitioner in Paramaribo, who is frequently visited by migrants and uninsured nationals confirms this. This 'policy' not written down in any official document though, conveyed a coordinator of the National AIDS Programme. Also all lab tests related to HIV, such as the CD-4 determination, are free. Only the medical consult with the physician and other (not directly HIV-related) blood tests need to be paid. A medical consult generally costs between 50 to 70 Srd (~Euro 11 to 16). Nevertheless, the mentioned physician indicated that patients who tell him in advance that they are not able to pay will be helped for free. The physician explained that he 'will help with all his heart, in the name of God'. Suriname national who are tested HIV-positive are advised to register with the Ministry of Social Affairs, which provides a medical assistance card for the poor and very poor. With this card, all following care is free. In the physician's experience, HIV+ patients often do not return to the clinic for follow-up care and hence he loses sight of them (pers. com. Drs. A. Voigt, general practitioner, 31 May 2012).

Our formal and informal conversations with persons in the mining areas suggest that virtually no-one is aware of the HIV services. Moreover, a significant share (23.9%) of interviewed migrants had no idea where someone with HIV might obtain support in Suriname. If we add the persons who said that they would bring the person to French Guiana or the home country, and those who said they would personally talk with the person, we may conclude that 59.7 percent of interviewees could not name any place in Suriname where an HIV+ person can obtain assistance.

If HIV outreach services, including VCT sites, would be established in the mining areas, the most important features in the eyes of migrants would be that the care would be good and that the health providers would speak their language

7.4 Organizations working with migrants in the mining areas

The results suggest that migrants in small-scale gold mining areas are poorly organized. Only 1 percent of miners were part of a professional organization. Only the Brazilian churches have managed to bring migrants in the mining areas together, and one quarter of the respondents reported affiliation with one of the denominations. The mostly Evangelical and Pentecostal Brazilian churches offer a large variety of emotional and social support services, including assistance in access to health facilities. For example, churches may arrange transportation to the

[20] Since the start of the programme in May 2009, the Malaria Programme has distributed 74.880 condoms in the gold mining areas

nearest health post in the case of an accident, and even transportation to Brazil for treatment of a serious illness, including HIV.

According to their representatives, the Brazilian churches do not discriminate against HIV+ persons. Nonetheless, they would not be suitable partners in HIV outreach efforts because they will not advocate the use of condoms. In the churches' vision, the only just way to prevent HIV transmission is to be faithful to only one partner.

Suriname governmental organizations working with migrants in the mining areas are the Malaria Programme and the Commission Regulation Gold Sector (OGS). The Malaria Programme has established a broad network of Malaria Service Deliverers (MSDs) in the interior. These persons are not certified health workers, but regular inhabitants of the mining areas who have been trained for this specific task: to administer the malaria rapid-test; collect a blood sample of all positive cases and some negative cases for lab research in the city; provide the correct medication; and record the results for processing by the Malaria Programme. As residents of the mining communities, the MSDs are familiar with the people and the customs and speak the language(s).

The researchers question the applicability of this exact same system for VCT service provision in the mining areas, for two main reasons. In the first place, a person who tests positive with malaria can just be told the test result and be given medication. A person who tests positive with HIV needs more profound counselling and follow-up care. The counselling protocol could divert somewhat from the regular procedures to account for the gold mining environment. For example, a positively tested person may be asked to come back later or meet the counsellor at a quiet time and place. Nevertheless, circumstances in the mining areas may not jeopardize the quality of counselling services. The person needs to know what the consequences might be of his or her sexual behaviour, and what options for treatment and care are available. This is particularly important given the poor knowledge of HIV transmission and services demonstrated by the study results. Providing such information would require more extensive training and personal dedication of the service provider. Secondly, the *curatelas* or miners' villagers resemble any small rural community, in the sense that everyone knows one another and that news and gossip travel fast. Various informants indicated that they would not easily trust someone from the community to treat their test result confidentially.

Finally, since January 2011 the Commission OGS has been active in small-scale gold mining areas. As mentioned before, the Commission has also expressed its intention to facilitate the delivery of health services to gold mining populations. One point of concern for the researchers is that to date, media coverage of the activities of the Commission has mostly reported on evictions of small-scale gold miners from areas where they were not allowed to mine. In the Nassau mountains area, for example, small-scale gold miners had to leave a large-scale gold mining concession. Even though the Commission reported that the miners left voluntarily, the miners themselves told the researchers that they had felt intimidated by heavily armed military. This and similar incidences have not created the relationship of trust and confidence that should be the basis of the delivery of HIV extension services. The chair of the Commission OGS management team informed the

researchers about various support activities form small-scale gold miners the Commission is planning, including assisting undocumented foreigners to obtain legal documentation in the mining areas. Until the Commission is associated with such positive interventions, however, the researchers doubt that this organization would be the most suitable partner organization in providing HIV services to mining areas, including testing, information, treatment and care.

7.5 Factors that either obstruct or facilitate migrant access to HIV services

In conclusion, the researchers identified various factors that obstruct access of migrants in the mining areas to HIV services:

1. **Distance**. None of the HIV outreach organizations or SRH providers from Paramaribo offer services in the small-scale gold mining areas.

2. **Unfamiliarity of HIV service providers with small-scale gold mining areas.** HIV service providers from Paramaribo are not active in the interior and have no experience working in small-scale gold mining areas. The researchers have not heard about intentions to extend services to include the interior.

3. **Language barriers between migrants and HIV service providers**. The largest share of foreign migrants in the mining areas speak no Dutch and no or poor Sranantongo, the national lingua franca. Among the largest group of migrants, the Brazilians, 93.4 percent do not speak any Dutch and two-thirds (64%) do not speak any Sranantongo either. Health care providers in the MZ clinics in the interior, by contrast, typically speak Dutch, Sranantongo, (some) English), and the tribal language spoken in the particular village. They usually do not speak Portuguese and Spanish. Neither do HIV testers and counsellors at the Lobi Foundation or Foundation Rachab speak these Latin languages. The consultancy bureau New Beginnings CCS, which performs outreach activities for Lobi Foundation and the National AIDS Programme, does work with Spanish speaking field workers. At the Department of Dermatology, the head of the testing and counselling service is fluent in Portuguese and Spanish (as well as English, Sranantongo, and Dutch). She regularly performs STI tests with Brazilian and Dominican sex workers who work in the registered club. Brazilians from the city or the interior rarely come for HIV testing. Medilab, the preferred HIV-test location for many Brazilians, does have Portuguese speaking staff. This medical lab, however, only provides the test result but does not offer counselling services

4. **Many migrants do not have medical insurance**. Most migrants can't rely on insurance to cover their medical expenses in Suriname Only 13.2 percent of interviewed migrants was had some form of Suriname health insurance. The remaining 86.8 percent would either have to pay their doctor’s visit out of pocket, rely on the help of others, seek medical care in French Guiana, or

travel to their home country for treatment. This may deter some people from seeking medical assistance.

5. **Costs in time and money to see a doctor**. Apart from the fact that the largest share of migrants in the mining areas is uninsured for medical costs, transport to the doctor is expensive and time consuming. Almost one third of respondents (29.5%) indicated that the costs in time and/or money associated with a visit to a health post were reasons to refrain from seeing a doctor or postpone a consult.

On the other hand, the Suriname health service sector and health policies also are characterized by various features that might facilitate access to HIV services

1. **Little discrimination of foreigners**. Discrimination, which has been mentioned in other studies on migrant access to HIV services, is generally not perceived as a problem. 86.1 percent of all migrants indicated that they had never felt discriminated in the mining area and 91.1 percent had never felt discriminated outside of the mining areas. Furthermore, 96.1 percent of migrants who had experience with medical service providers in Suriname had never felt discriminated or treated different because of their nationality, ethnicity, profession or gender.

2. **Willingness of the Suriname government to provide (free) health services to undocumented aliens.** By means of operation of the Malaria Programme and installation of the Commission OGS, the Suriname government shows that in the interest of public health, it is willing to extend public services in small-scale gold mining areas Suriname. These services target anyone in these areas, regardless of nationality or legal status. This policy contrasts the policy in French Guiana, where the French government is unwilling to implement programs with a focus on the gold mining population because this group exists mainly of undocumented migrants. As a result, virtually all new malaria cases encountered by the Suriname Malaria Programme concern people who came from French Guiana (interview Head of Malaria Program).

3. **Extensive network of MZ clinics**
   The MZ has an extensive network of clinics with qualified health workers. In many places, these health workers are nearest to the mining areas. Anyone can be treated in an MZ clinic against a small fee, and VCT services are free of charge. More familiarity of migrant populations of the services provided by MZ could improve their access to health care.

4. **Experience of the Malaria Programme**
   In the past three years of working with migrant population in small-scale gold mining areas the Malaria Programme has obtained valuable experience in designing and delivering health services to this vulnerable group.

8. Recommendations

Considering:

1. That the indicator of the project for component 3 is: Increase the number of regional and national bodies/committees which are relevant for HIV & AIDS, and in which persons representing migrants are heard.
2. That the general aims of this study are to enhance the quality of organizations that represent the interests of the migrant and mobile population and to increase the migrant and mobile population accessibility to prevention, treatment and support for HIV services.
3. The data collected in the framework of this consultancy and our key findings reported here above

We provide the following recommendations:

HIV intervention efforts are direly needed in small-scale gold mining areas. These recommendations serve to provide input about:

- Desirable focal points of project's efforts,
- The most suitable organizations that the project should concentrate on for building capacity, and
- The best communication strategies to reach migrant and mobile populations in Suriname's small-scale gold mining areas.

We organized our recommendations in four sections; quick wins, services, cooperation and policy. "Quick wins" are a list of specific activities that are viewed as something that can be done with little effort and can normally be done in a short period of time. "Services" refers to recommendations aimed at improving migrant and mobile population access to prevention, treatment and support for HIV services. Cooperation focuses on ways in which various migrant and HIV services organizations can both build capacity within the development and implementation of policy.

Based on our study results we recommend the following **quick wins**;

1. Informational yet attractive posters and leaflets about HIV transmission and the location of various HIV services should be distributed in the mining areas. Malaria Programme workers could assist in these efforts. During the researchers' fieldwork no single HIV awareness poster was encountered in the mining areas.

2. Knowledge of correct condom use and HIV transmission must be improved. TVs and video players are available throughout most mining areas. A short documentary film (15 min.) specifically developed for the mining areas, addressing the specific populations and situations in the mining areas, could help raise knowledge and awareness. This film should be available in

Portuguese and Sranantongo and could be broadcasted by Globo, the most popular channel in the mining areas. For Globo it may not be very interesting to broadcast a documentary specifically focussed on the Suriname mining areas, because only a very small part of its viewers are the Brazilians in Suriname

3. Free condoms may be distributed in small-scale gold mining areas by providing condoms on flights to the interior. These condoms should be accompanied by a small informational leaflet.

4. The owners of cabarets and others who spend time with sex workers, for example manicures or hairdressers, could be approached to assist in information delivery among sex workers, among women who potentially sell sex, and among clients of sex workers. They also should be encouraged to obtain and distribute free condoms from LIBI.

5. All persons living and working in small-scale gold mining areas come to Paramaribo to rest, buy supplies, and visit family and friends. Particularly foreign migrants tend to hang out in a select number of places prior to returning to the mining fields, such as the hotel/bar Perola and various places along the Tourtonnenlaan. Information about available HIV services in Paramaribo could be provided on leaflets in these places.

6. Use best practice experiences from countries with similar issues, such as Guyana, French Guiana, and Brazil. The Brazilian Ministry of Health or Brazilian HIV organizations that work in the north of Brazil may have useful experiences to share. It also could be envisioned that a Brazilian government or a Brazilian HIV organization supports a mobile HIV service unit for the gold mining areas?

Services

The researchers identified a strong need for HIV testing and counselling services, as well as accurate information about HIV & AIDS. These services should be brought to the small-scale gold mining areas. This can be done in different ways and on different levels.

7. Trust is another key word in the provision of HIV testing and counselling. For this reason it seems most suitable that someone from outside the mining community itself would perform such services. This person is suggested to be a member of the migrant community, but not a member of the mining community.

8. Small-scale gold mining populations are mobile. External factors including gold prices, government policies, and gold discoveries may rapidly change where miners go. For these reasons, mobility is crucial in the provision of HIV services to migrant populations in small-scale gold mining areas. We recommend the development of mobile HIV service units that visit specific areas every six months. These mobile HIV service units should deliver different services, including HIV testing and counselling, information provision, and condom distribution. To start, a mobile unit could just consist of two health workers with their HIV

testing and information materials in a plastic box. Because of the geographic spread of the mining areas and the large intervals between visits, we do not think it would be efficient that the unit owns an ATV and/or motorized canoe.

9. The suggested mobile HIV testing and counselling units could be operated from an organization with experience in HIV service delivery in Paramaribo, such as the Department of Dermatology. It also would be possible to work through MZ staff members in communities near the mining areas. In both cases, the service providers should have conversational skills in Portuguese and Sranantongo.

10. HIV services must be delivered by health workers who speak the languages spoken in the mining areas, mostly Portuguese and Sranantongo.

11. Develop health economic mechanisms to reduce the out of pocket contribution of non-insured migrants mainly for transportation of sick migrants.

12. Secure for the future the universal access to HIV services by official texts clearly stating that HIV services should be accessible to migrants regardless of their legal status

Cooperation

13. The Malaria Programme has an extensive network and incredible experience in working with, and gaining trust from, the target group. It is essential that this programme and/or its managers at least serve as an advisory board for HIV service interventions in the small-scale gold mining areas. Other organization that should have a representative in such an advisory board are MZ and OGS.

14. Once the Commission OGS has established Mining Service Centres in the interior, possible collaboration with this organization should be assessed. Foreseen forms of collaboration could include transportation sharing (flights/rides), temporary accommodation of the mobile VCT site, and announcements in the areas prior to arrival of the mobile HIV service team.

15. Once identified, HIV+ persons in the mining areas should be guided in their access to treatment and care services. The MZ clinics are well established to assist in the administration of ARV medication to Suriname and Guyana nationals. Foreign migrants should be guided by the Department of Dermatology, which has Portuguese/Spanish speaking staff.

16. Work with foreign NGOs that represent the interests of sex workers such as the Guyanese sex workers association and the *Centro de Orientacion Integral* (Centre for Integrated Training and Research-COIN) in the Dominican Republic, in order to support foreign sex workers in Suriname.

Policy

17. Human rights and respect for all persons regardless of nationality, age, sex/gender, migration status should become part of the regular training and education of OGS agents, militaries and government officials. These groups of officials are much in contact with migrants and in the field cases of abuse of the vulnerability position of migrants were reported. Enhanced awareness of human rights must be the first step to ensure protection of vulnerable groups.

18. Considered migrants as one of the main vulnerable groups in the national HIV strategic plans and in future proposals for any funding international agency.

19. Governmental and non governmental institutions that develop policy interventions focused on health provision in small-scale gold mining areas or other places where migrant populations form a significant part of the population, need to invite the input of migrant representatives. These representatives will advocate for the access of migrants to HIV/Health services in general and mainly in the small scale gold mining areas.

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Annex 1. Questionnaire (English)

Date: _____

Location: _____

GPS: N: _____ W: _____

1. Gender : 0 = Female 1 = Male

2. Year of birth _____

3. Profession in the mining area
   1. Gold miner (worker)
   2. Gold miner (machine owner)
   3. Sex worker
   4. Brothel owner
   5. Shop employee
   6. Transport provider
   7. House wife
   8. Other: _____

4. What is your nationality/ what country do you come from originally?
   1. Suriname
   2. Brazilian
   3. Guyanese
   4. Dominican
   5. French
   6. Chinese
   7. Other: ……
   8. Other Latin: ……

5. In the past two years, how much time have you spent in Suriname?
   1. <1 month
   2. 1-3 months
   3. 3-12 months
   4. 12-24 months
   5. No answer
   6. Don't know

6. Within this period, did you leave Suriname for more than a month in a row? If so, how long have you been away? 1. 1-2 months 2. 3-6 months 3. > 6 months

7. What is the highest level of formal education you completed?
   1. None
   2. …… Class of Primary school (GLO)
   3. Completed Primary school
   4. ….Class of Secondary school (VOJ)
   5. Completed Secondary school
   6. ……..Class of High school (VOS)
   7. Completed High school
   8. University
   9. Special education
   10. Technical/vocational
   11. Other: _____

8. Do you speak Dutch? (test)
   1. Yes, fluently
   2. Yes, I can make myself be understood
   3. Only a tiny bit
   4. Not at all
   5. Don't know

9. Do you speak Sranantongo? (test)
   1. Yes, fluently
   2. Yes, I can make myself be understood
   3. Only a tiny bit
   4. Not at all
   5. Don't know

10. Do you speak English? (test)
   1. Yes, fluently
   2. Yes, I can make myself be understood
   3. Only a tiny bit
   4. Not at all
   5. Don't know

11. What other languages do you speak?

1. Portuguese	3. Mandarin	5. Other: _____
2. Spanish	4. French	6. No other languages

12. When you came here in the mining area, did you come with other people or alone?

1. Alone	3. With children	5. With other family member
2. With spouse/partner	4. With a friend/colleague	6. other:_____

13. Are you a member or do you belong to any social or church organization **in the mining area**?

1. Member of the _____ church
2. Belong to a gold miners' cooperative/organization: _____
3. Other type of social group: _____

14. With whom do you work and socialize here in the mining area?

1. Only Suriname people	3. Mostly foreigners
2. Mostly Suriname people, and some foreign migrants	4. Only with foreigners

15. Do you feel discriminated against here in the mining area because of your nationality, ethnic background, gender, or profession? (Multiple answers possible)

1. No, not at all	4. Because of my gender
2. Yes, because of my nationality	5. Yes, because of my profession
3. Yes, because of my ethnicity	6. Yes, because: _____

16. Do you feel discriminated against in Paramaribo or elsewhere outside the mining area because of your nationality, ethnic background, gender, or profession? (Multiple answers possible)

1. No, not at all	4. Because of my gender
2. Yes, because of my nationality	5. Yes, because of my profession
3. Yes, because of my ethnicity	6. Yes, because: _____

17. How frequently do you feel discriminated against?

1. Every day	3. Sometimes	5. No, not at all
2. Regularly	4. Very rarely	6. Don't know

18. Do you know where to find the nearest health post to you?

1. No, don't know 2. Yes: _____

19. What is the last time you visited this health post?

1. This past week	4. 3-6 months ago	7. Never visited this post
2. Between a week and a month ago	5. 6-12 months ago	8. Don't know
3. 1-3 months ago	6. > 1 year ago	

20. If you visited this nearest health post, how has been your experience?

1. Excellent, good service and care
2. Reasonable, because: _____
3. Poor, because: _____

21. When you fall ill **(a non serious sickness)** in the mining area, where do you -or would you- seek medical help?
    1. At the nearest Suriname health post in _____(village name)
    2. In French Guiana, in the city/village: _____
    3. In Paramaribo at a general practitioner
    4. In Paramaribo: _____ (specify location)
    5. Other:-_____(specify location)

22. When you fall ill **(a serious sickness)** in the mining area, where do you -or would you- seek medical help?
    1. At the nearest Suriname health post in _____(village name)
    2. In French Guiana, in the city/village: _____
    3. In Paramaribo at a general practitioner
    4. In Paramaribo: _____ (specify location)
    5. Other:-_____(specify location)

23. Why do you select this location? (circle all that apply)
    1. Friendly staff 3.Recommendations of others 5. Speak my language
    2. Good medical care 4. Good price/Free 6. Friendly to foreigners
    Other: _____

24. What does it cost you to travel to this health post and obtain consultation
    1. Transportation (return): _____ USD / SRD / Euro / gram gold
    2. Consultation: _____USD / SRD / Euro / gram gold
    3. Possible lodging and other expenses: _____ USD / SRD / Euro / gram gold
    4. Other (specify): _____USD / SRD / Euro / gram gold
    5. Total visit: _____ hours / days

25. Is the cost in time or money a reason to refrain from seeing a doctor or postpone a consult?
    1. Yes, visiting a health post is too expensive
    2. Yes, it takes too much time to see a doctor
    3. Yes, visiting a health post is both expensive and time consuming
    4. No, when I need to see a doctor I just go
    5. Other: _____

26. Have you ever felt discriminated or treated different by medical service providers in Suriname because of your nationality, ethnicity, profession, or gender? Can you tell me what happened?
    _____
    _____

27. Do you have a spouse, girlfriend/boyfriend, or steady partner here in the gold mining area or in a nearby community (within an hour to reach)? If yes, for how long have you been together?
    1. No steady partner 3. Yes, 6-12 months 5. Yes, longer than 5 years
    2. yes, 1-6 months 4. Yes, 1-5 years 6. No answer

28. In the past month, have you always used condoms with your spouse, girlfriend/boyfriend, or partner here in the gold mining area?
    1. Always 3. Almost every time 5. Sometimes
    2. Never 4. Don't know 6. No answer

29. In the past 12 months, have you had sex with someone who is not a steady partner?

30. In the past 12 months, have you sold sex here in the gold mining area?
    1. Yes, daily
    2. Yes, every week
    3. Occasionally; once or twice a month
    4. Rarely
    5. Not at all
    6. No answer

31. In the past 12 months, have you bought sex here in the gold mining area?
    1. Yes, daily
    2. Yes, every week
    3. Occasionally; once or twice a month
    4. Rarely
    5. Not at all
    6. No answer

32. In the past month, have you always used condoms when you were having casual sexual contact with/as a sex worker or with occasional partners in the gold mining area?
    1. Always
    2. Never
    3. Almost every time
    4. Don't know
    5. Sometimes
    6. No answer

33. Do you buy condoms in the gold mining area?
    1. Yes, at the Chinese supermarket in the garimpo
    2. Yes, at any store in the garimpo
    3. No, I buy my condoms in Paramaribo
    4. No I buy my condoms in: _____
    5. No, in the mining area I only have sex without a condom
    6. No, I do not have sex here and no need for condoms

34. Did you ever receive information on how to properly use a condom?
    a. No b. Yes at school c. Yes from family or friends d. Yes from an organization
    e. Other_____

35. Do you think you are at risk for HIV infection?
    1. Yes, because: _____
    2. No, because I always use condoms with sexual partners
    3. No, because I select my sex partner(s) carefully
    4. No because I only have sex with one partner
    5. No, because: _____
    6. Don't know

36. In the past 12 months, have you received information about HIV and AIDS? If yes, from who?
    1. No information
    2. General Practitioner
    3. French Guiana medical service providers
    4. Derma
    5. Media
    6. MZ clinic
    7. Home country
    8. An organization in the city: _____ (name)
    9. Other: _____

37. In the last 12 months, have you received free condoms from an outreach programme, activity, employer or clinic? If yes, from which one?

1. No condoms
2. General Practitioner
3. Derma
4. Club/bar
5. MZ clinic
6. Home country
7. French Guiana medical service providers
8. An organization in the city: _____ (name)
9. Other: __

38. What is the best way of preventing the sexual transmission of HIV when you are having sex?
Answer:_____

Do you agree or disagree?	Agree	Disagree	Don't know
39. One can get HIV from a mosquito bite			
40. You run a risk of being infected with HIV if you share a meal with someone who is infected			
41. You run a risk of being infected with HIV if you use the toilet after a person who is HIV+			
42. A healthy-looking person can have HIV			

43. Do you know ways to be infected with HIV other than sexual transmission?
0. No 1. Yes , _____

44. Would you eat food from a restaurant if you knew the cook is HIV+?
0. No 1. Yes

45. If you knew that a child who shares the classroom as your child/ little sibling is HIV+, would you transfer your child to another school/class?
0. No 1. Yes

46. If you would want to get an HIV test, where would you go?

1. MZ clinic
2. Derma
3. Medilab
4. French Guiana clinic/hospital
5. General Practitioner
6. My home country (migrants)
7. Hospital
8. Other: _____
9. Don't know where to go

47. In the past year, have you tested for HIV?
1. Yes 2. No – go to 44 3. Don't know 4. No answer

48. If you did do an HIV test, where did you go?

1. MZ clinic
2. Derma
3. Medilab
4. French Guiana clinic/hospital
5. General Practitioner
6. My home country (migrants)
7. Hospital
8. Other:_____
9. Was not tested for HIV

49. In the site where you went to take the HIV test, did you have difficulty communicating with the health worker?

1. No, the tester/counsellor spoke my language
2. No, I went with someone who could translate
3. A little bit, but we both tried to understand one another
4. Yes, I did not understand the health worker and she made no effort to communicate with me
5. Other: _____

50. If you did not do an HIV test this past year, why not?

1. Just did not think about it
2. I have had safe sex
3. I am afraid to go
4. I do not know where to go near to here
5. I am afraid there will be no-one who speaks my language
6. Other: _____

51. If a friend of yours would turn out to be HIV+, where would you send him or her to obtain social or medical support?

1. French Guiana
2. MZ clinic
3. Stg. Lobi
4. Home country
5. NAP
6. General Practitioner
7. Don't know where one HIV+ people can get support
8. Other, _____

52. If you were to fall ill, how will your medical expenses be covered?

a. I have health insurance
b. I have a social security (*sociale zaken*)
c. I have to pay for my own medical expenses
d. other:_____
e. I go to French Guiana where care is free
f. I have insurance in my home country

53. What type of medical service is most severely needed in this area?

1. A health clinic
2. Other: _____

54. Do you think that if there would be a place here in the mining areas that delivered HIV services, people would go for information and HIV testing?

1. Yes, because: _____
2. No, because: _____

55. If the government would establish a centre which will provide HIV services, what features would be important to you?

1. Extended opening hours
2. Health providers speaking your language
3. Friendly staff
4. Good medical care
5. Good price
6. Other:_____

THANK YOU FOR YOUR PARTICIPATION IN THIS SURVEY