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Monitoring, Evaluation, and Learning Platform

Access to HIV-AIDS Preventive and Clinical Services for PEPFAR Prioritized Populations in the Dominican Republic

Preliminary report: Stage I

April 23, 2019

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## CONTENTS

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Contents</td>
<td>i</td>
</tr>
<tr>
<td>Acronyms</td>
<td>ii</td>
</tr>
<tr>
<td>Research team</td>
<td>iii</td>
</tr>
<tr>
<td>1. Introduction</td>
<td>4</td>
</tr>
<tr>
<td>2. Methodological aspects</td>
<td>6</td>
</tr>
<tr>
<td>2.1. Study design</td>
<td>6</td>
</tr>
<tr>
<td>2.2. Data sources and tools</td>
<td>7</td>
</tr>
<tr>
<td>2.3. Samples</td>
<td>8</td>
</tr>
<tr>
<td>2.4. Ethical considerations</td>
<td>9</td>
</tr>
<tr>
<td>3. Preliminary findings</td>
<td>10</td>
</tr>
<tr>
<td>3.1. Socio-political environment and public policies</td>
<td>10</td>
</tr>
<tr>
<td>3.1.1 Conceptual remarks</td>
<td>10</td>
</tr>
<tr>
<td>3.1.2 Historical context</td>
<td>10</td>
</tr>
<tr>
<td>3.1.3 Socio-demographic profile of Haitian immigrants</td>
<td>12</td>
</tr>
<tr>
<td>3.1.4 HIV and AIDS epidemic in Haitian migrants: a public health perspective</td>
<td>14</td>
</tr>
<tr>
<td>3.2. Culture and community</td>
<td>17</td>
</tr>
<tr>
<td>3.2.1 Mobility and social inequality</td>
<td>17</td>
</tr>
<tr>
<td>3.2.2 Social networks and “remesas”</td>
<td>18</td>
</tr>
<tr>
<td>3.2.3 Religious beliefs</td>
<td>18</td>
</tr>
<tr>
<td>3.3. HIV epidemic: secondary analysis of the 3rd BSS survey data</td>
<td>19</td>
</tr>
<tr>
<td>3.3.1. HIV and other STI prevalence</td>
<td>19</td>
</tr>
<tr>
<td>3.3.2. Sexual activity, couple communication and condom use</td>
<td>20</td>
</tr>
<tr>
<td>3.3.3. HIV-related knowledge, risk perception and HIV testing</td>
<td>22</td>
</tr>
<tr>
<td>3.3.4. HIV services</td>
<td>23</td>
</tr>
<tr>
<td>3.3.5. HIV / TB co-infection</td>
<td>25</td>
</tr>
<tr>
<td>4. Conclusions and recommendations</td>
<td>26</td>
</tr>
<tr>
<td>5. References</td>
<td>30</td>
</tr>
</tbody>
</table>
ACRONYMS

ARV Antiretroviral
CDC Centers for Disease Control and Prevention
CEPROSH Centro de Promoción y Solidaridad Humana
COIN Centro de Orientación e Investigación Integral
CONAVIHSIDA Consejo Nacional para el VIH y el SIDA
DIGECITSS Dirección General para el Control de las ITS y VIH/SIDA
DR Dominican Republic
FAPPS Formulario de Aplicación a Programas de Políticas Sociales
HHD Haitian and Haitian Descent
HPMS HIV Patient Monitoring System (FAPPS, Spanish acronym)
ITS Infecciones de Transmisión Sexual
KP Key populations
M&E Monitoring and Evaluation
MSP Ministerio de Salud Pública (Public Health Ministry)
PEPFAR The United States President's Emergency Plan for AIDS Relief
PLWHA People Living with HIV or AIDS
PP Prioritized populations
RAP Rapid Assessment Process
SAI Servicios de Atención Integral
SIRENP-VIH Sistema de Registro Nominal de Pruebas de VIH
SNS Servicio Nacional de Salud
UNAIDS The Joint United Nations Programme on HIV/AIDS
USAID United States Agency for International Development
WHO World Health Organization
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1. INTRODUCTION


However, based on concentrated HIV epidemic trends, the estimated HIV prevalence is significantly higher within specific population groups, including transgender women, and men who have sex with men (5.34%), Haitian migrants (3.49%), and female sex workers (2.7%). Likewise, 83.46% of new infections occurred in these population groups in 2016, with the majority (47.83%) of all new infections occurring among Haitian migrants, a trend that is expected to remain stable over the upcoming years (see Figure 1).

**Figure 1.** Distribution of new HIV infections in persons over 15 years of age, by population group. Dominican Republic, 2010-2021

Consequently, the burden of HIV epidemic is particularly high among Haitian migrants, estimated to represent a 30.87% (20,191) of all persons above 15 years of age living with HIV and AIDS in the Dominican Republic in 2016; out of 61,967 adult patients estimated to require antiretroviral treatment (ART), 19,136 were born in Haiti (Dolores & Caballero, 2017). Concurrently, the analysis of DR programmatic data consistently reports poorer rates of the effective link to HIV services, enrollment in treatment, and adherence and viral load suppression among Haitian migrants and persons of Haitian descent diagnosed with HIV in the Dominican Republic, compared to other population groups (PEPFAR, COP 2017). Similarly, out of 2,153 AIDS-related deaths reported in 2016 in the Dominican Republic, 660 (30.7%) are estimated to have occurred among Haitian migrants (Dolores & Caballero, 2017).

This data clearly suggests an unequal impact of HIV epidemic in different population groups living with
HIV in the Dominican Republic. Haitian migrants are affected by a particularly high burden of disease and are faced with the limited capacity of DR health systems to effectively respond to their specific health needs and mitigate the impact of HIV on their health and quality of life. Previous studies indicate several possible determinants of this unequal impact, related to the profile of migrant individuals and communities (low educational level, limited HIV-related knowledge, sexual practices, migrant lifestyle, individual and community-based resilience dynamics, etc.); characteristics of services for detection and treatment of HIV (geographical distribution, resources, current guidelines, quality of care, language barriers, etc.); and general socio-political and cultural context of Haitian migrants in the Dominican Republic (legal and migratory status, stigma and discrimination, structural violence, occupational hazards, etc.).

The U.S. President’s Emergency Plan for AIDS Relief (PEPFAR), in partnership with the DR Government and the National Response, attempts to effectively address these possible determinants of unequal impact and accelerate progress towards control of the HIV and AIDS epidemic in the Dominican Republic. This study will provide additional, complementary, and qualitative information on access of Haitians and Dominicans of Haitian descent to HIV and AIDS preventive and clinical services, as well as to examine the current barriers of this population to accessing these services, as input for future intervention strategies in the country. This report discusses the most important findings of the first stage of this study describing the current national context and major determinants of access and utilization of HIV services in this population. The study used the Rapid Assessment Process methodology (Bbee, 2001) to triangulate information obtained from previous research findings, qualitative data obtained through individual interviews and discussion groups with key stakeholders, and secondary analysis from available data sets, including the most recent Behavioral Surveillance Survey (BSS, 2018).

The information obtained from different sources, was organized following the principles of an ecological model approach (McLaren & Hawe, 2005). The ecological model approach addresses individual, cultural, health system and socio-political dimensions of vulnerability and resilience of migrant populations in response to HIV and AIDS epidemic in the Dominican Republic. These dimensions are a basis for the assessment of site-level determinants of currently available preventive and clinical HIV services in a sub-sample of PEPFAR-funded SAs, to be conducted in the upcoming stages of the study.
2. METHODOLOGICAL ASPECTS

2.1. STUDY DESIGN
This study applies an ecological model (Abraido-Lanza, Armbrister, Flórez, & Aguirre, 2006; McLaren & Hawe, 2005) to describe and analyze current context, i.e., economic and migratory patterns of HIV positive Haitian and Haitian descent (HHD) population in the Dominican Republic, as a framework for collecting and organizing data related to individual, interpersonal, and social dimensions of access and utilization of HIV services for migrant populations (see Figure 2).

Figure 2. Ecological model for analysis of determinants involved in access and utilization of HIV preventive and clinical services by Haitian migrants and Dominicans of Haitian descent

This document exposes the most relevant findings of the first stage of the study, which analyzes the current context and major determinants for utilization of HIV services for Haitians and Dominicans of Haitian descent on national level, using the Rapid Assessment Process (RAP) methodology (Beebee, 2001). As a part of this methodology, qualitative and quantitative data will be collected and analyzed, triangulating:

- Previous research findings and literature available on different dimensions of ecological model.
- Secondary analysis of data collected by 3rd Behavioral Surveillance Survey (BSS) in 2018 (Haitian migrants & People Living with HIV modules).
- Qualitative interviews and discussion groups with key stakeholders, including representatives of DR government, international agencies, civil society and site-level providers of HIV-related services.
These findings will also serve as a basis for design and implementation of the assessment of site-level determinants of currently available preventive and clinical HIV services in a sub-sample of PEPFAR-funded SAIs, to be conducted in the second stage of the study, as presented in Figure 3.

Figure 3. Study stages and data triangulation approach

2.2. DATA SOURCES AND TOOLS

Table 1 presents techniques and tools that were employed in data collection for different sources of information and study components, previously depicted in Figure 3, specifying the input extracted from each technique for final research findings and overall study process.

Table 1. Research techniques and data collection tools

<table>
<thead>
<tr>
<th>Stage I Study aim</th>
<th>Source / technique</th>
<th>Data to be collected / analyzed</th>
<th>Tools</th>
<th>Procedures &amp; other comments</th>
</tr>
</thead>
</table>
| A                 | A1. Literature revision and systematization | • Epidemiological data & country reports  
• National projections  
• Previous research findings on Haitian migrants in health and HIV services | Ecological model framework dimensions (see Figure 2) | • Extensive literature search was conducted, with more than 60 references identified as related to the research objectives.  
• Preliminary A1 findings were used to sustain... |
### Stage I

**Study aim**

HHD population in the Dominican Republic, focusing on potential drivers of HIV epidemic in this population group.

<table>
<thead>
<tr>
<th>Source / technique</th>
<th>Data to be collected / analyzed</th>
<th>Tools</th>
<th>Procedures &amp; other comments</th>
</tr>
</thead>
</table>
| A2. Secondary analysis of 3rd BSS survey database (2018) | • Migratory patterns before and after HIV diagnosis  
• Demographic and socio-economic characteristics of the HIV positive HHD population  
• Knowledge, attitudes and practices underlying health-seeking behaviors and barriers to treatment in HDD population | Secondary analysis of Haitian migrants & People Living with HIV modules of 2018 BSS survey | the final protocol and study tools adjustments |
| A3. Qualitative interviews and discussion groups with key stakeholders | • Input for ecological model analysis from key-stakeholders’ perspective (national level):  
  o Barriers for Haitian Migrant access to HIV services (community, SAI, other)  
  o Resilience factors at different levels  
  o Suggestions for Roadmap proposal | Qualitative interview and discussion group guides | One discussion group and 10 qualitative interviews.  
All contents were voice recorded and partially transcribed for processing. |

### 2.3. SAMPLING

Primary qualitative data was collected in order to complement and triangulate with evidence obtained through literature revision and secondary analysis of survey data. A discussion group was conducted with the participation of nine previously identified key stakeholders, including representatives of:

- National HIV Response (CONAVIHSIDA and DIGECITSS)
- National TB Program
- PEPFAR-funded NGO implementing partner
- Local NGO working with migrant populations
- NGO HIV clinic
- Governmental HIV clinic

The inputs obtained in the discussion group were amplified and complemented through 10 qualitative face-to-face interviews with additional key-stakeholders, whose profile is presented in Table 2. In order to protect the confidentiality of the information provided, their names are not included and all quotes presented in this report are labeled using the ID number specified in this table.
Table 2. Profile of key stakeholders interviewed in the qualitative component

<table>
<thead>
<tr>
<th>ID</th>
<th>Gender</th>
<th>Institutional affiliation</th>
</tr>
</thead>
<tbody>
<tr>
<td>P01</td>
<td>M</td>
<td>Haitian immigrant (construction worker)</td>
</tr>
<tr>
<td>P02</td>
<td>M</td>
<td>Construction business owner (employer of Haitian immigrants)</td>
</tr>
<tr>
<td>P03</td>
<td>F</td>
<td>Public HIV clinic, healthcare provider</td>
</tr>
<tr>
<td>P04</td>
<td>F</td>
<td>NGO HIV clinic, healthcare provider</td>
</tr>
<tr>
<td>P05</td>
<td>M</td>
<td>Local NGO working with community HIV testing in migrants</td>
</tr>
<tr>
<td>P06</td>
<td>M</td>
<td>Local NGO working with migrants (North Cibao Region)</td>
</tr>
<tr>
<td>P07</td>
<td>M</td>
<td>Local NGO working with migrants (Metropolitan Region)</td>
</tr>
<tr>
<td>P08</td>
<td>F</td>
<td>International NGO working with migrants (PEPFAR-funded)</td>
</tr>
<tr>
<td>P09</td>
<td>F</td>
<td>International NGO working with migrants (PEPFAR-funded)</td>
</tr>
<tr>
<td>P10</td>
<td>F</td>
<td>International agency involved in National Response to HIV</td>
</tr>
</tbody>
</table>

Primary data collection process was detained only after the research team members agreed that the saturation point was fully reached.

2.4. ETHICAL CONSIDERATIONS

Study protocol and its implementation was approved and is being monitored by the Institutional Review Board (IRB), operating at O&M Medical School (O&Med), ensuring its compliance with local and international ethical regulations, including the Declaration of Helsinki.

Confidentiality of collected information will be guaranteed to all participants, with potentially identifiable information deleted from data bases and other data processing formats, including qualitative interviews’ and discussion groups’ partial transcriptions, before initiating the analysis. All data was processed, analyzed, and reported as a group, with no identification or referral to individual participants’ responses.

All primary data collection was conditioned by previously individually conducted informed consent process, stating, among other aspects, the option of rejecting study participation or interrupting data collection process, with no consequences for participants’ current or future reception or delivery of health services in the country.
3. PRELIMINARY FINDINGS

3.1. SOCIO-POLITICAL ENVIRONMENT AND PUBLIC POLICIES

3.1.1 Conceptual remarks
Migrants and mobile populations are particularly vulnerable to HIV epidemics at different levels of the HIV treatment cascade, posing singular challenges to the UNAIDS 90-90-90 strategy and individual health systems, at local, national, and global level. Evidence collected in different settings suggests that migrants are more likely to enter late in the healthcare system and are less likely to be retained in it. Migrants are exposed to a wide range of social, economic, and political factors that further increase their vulnerability to HIV and other health conditions, and should be accurately identified to provide actionable knowledge of the health requirements of migrant populations in specific cultural contexts (Tanser, Bärnighausen, Vandormael, & Dobra, 2015).

However, the mere concept of “migrant” is still subject to discussion, including the criteria used to distinguish this term from the related concepts of migrant descendants or national minorities, which could vary significantly in each case (Ferguson, 2003). Beyond the theoretical and legal effects of this distinction, and from an operational standpoint, there are numerous potential implications for the health and HIV-related public policies and programming. Hence, as pointed out by the participants in the discussion group, national policies and health information systems in the Dominican Republic define Haitian migrants exclusively based on their place of birth (i.e. persons born in Haiti who currently reside on Dominican territory), although it is widely acknowledged that vulnerability factors impacting this population, including extreme poverty, structural violence, and frequent mobility, usually extend to the first and second generation of their descendants as well (Discussion Group Key Stakeholders).

While this situation could lead to imprecision in size estimates of this population group as well as the establishment and monitoring of programmatic targets in the HIV-related public health interventions, this study, consistent with the operational definitions used by the National HIV Program, will define Haitian migrants as persons born in Haitian territory and residing in the Dominican Republic, and Haitian migrant descendants as persons born in Dominican territory to one or both Haitian parents, independently of their current documentation or immigration status in the country. It is important to note, however, that this definition does not necessarily consider or reflect persons’ national identity or self-perception as being of a specific nationality or belonging to a specific ethnic group.

3.1.2 Historical context
According to the most recent immigrant survey (ENI-2017), there are 497,825 Haitian immigrants living in the Dominican Republic, presenting a 9.2% increase compared to the 2012 data. Haitians represent 87.2% of total immigrant population, and 4.9% of total population of the Dominican Republic. There are also 252,349 Haitian migrant descendants, summing up a total of 750,174 persons of Haitian origin currently living in the Dominican Republic.

Relations between Haiti and the Dominican Republic have always been characterized by racial and political tensions which have risen into deep anti-Haitian sentiment in the Dominican Republic. A series of conflicts that originated in the independence wars of the nineteenth century, culminating with the
massacre of thousands of Haitians in the Dominican Republic in the twentieth century, generated tensions that still partially characterize relations between the two nations. Since the 1980’s, these tensions have principally focused on the use of Haitian labor in the Dominican sugar cane industry, with the seasonal migration of low-wage Haitian cane cutters, which began in the early 1900s, gradually leaving a large population of Haitians and Dominicans of Haitian descent in Dominican agricultural zones and major cities (Perez-Then, 2009).

Being strongly related with the sugar cane industry and seasonal work required to sustain it, Haitian immigration, by the end of the 20th century, was largely concentrated around Bateyes, marginalized communities located in rural areas, populated by “permanent and seasonal Haitians, along with Dominicans of Haitian descent, persons of mixed Dominican-Haitian ancestry, and poor Dominicans.” (Brewer et al., 1998).

However, as shown in Table 2, even though the Dominican Republic and Haiti geographically share the same island, and despite the extreme poverty conditions affecting Bateyes, there are significant disparities related to social development indicators between the two countries, with Haiti being more significantly affected by poverty, lack of sanitation, and illiteracy rates (Becerra, Canales & Armas, 2011).

Table 2. Social Development Indicators in Haiti and Dominican Republic, 2004

<table>
<thead>
<tr>
<th></th>
<th>Dominican Republic</th>
<th>Haiti</th>
</tr>
</thead>
<tbody>
<tr>
<td>Illiteracy</td>
<td>12.3%</td>
<td>48.1%</td>
</tr>
<tr>
<td>In-house water plumbing</td>
<td>95.0%</td>
<td>54.0%</td>
</tr>
<tr>
<td>In-house sanitary services</td>
<td>78.0%</td>
<td>30.0%</td>
</tr>
<tr>
<td>Educational level</td>
<td></td>
<td></td>
</tr>
<tr>
<td>No formal education</td>
<td>14.4%</td>
<td>26.9%</td>
</tr>
<tr>
<td>Primary (1st-8th grade)</td>
<td>52.9%</td>
<td>53.2%</td>
</tr>
<tr>
<td>Middle (9th – 12th grade)</td>
<td>21.8%</td>
<td>18.3%</td>
</tr>
<tr>
<td>Higher education</td>
<td>10.9%</td>
<td>1.6%</td>
</tr>
<tr>
<td>Population in poverty</td>
<td>44.9%</td>
<td>75.0%</td>
</tr>
<tr>
<td>Population in extreme poverty</td>
<td>20.3%</td>
<td>ND</td>
</tr>
<tr>
<td>GDP (USD)</td>
<td>$3,500</td>
<td>$392</td>
</tr>
</tbody>
</table>

Source: Becerra, Canales, & Armas, 2011

While poverty and harsh living conditions constitute a major motive in Haitian migration towards the Dominican Republic (Ferguson, 2003), searching for available and better-paying job opportunities represents an important determinant of their settlement in specific regions and cities within the country (ENI-2017). Hence, the decline of the sugar cane industry by the end of the 20th century, and the gradual shift towards service industries and tourism-based economy in the Dominican Republic over recent decades, has impacted the dynamics of Haitian immigration, including the routes and migration patterns within the country (Aristy-Escuder, 2010; Wooding, Moseley-Williams, Arregui, & Paiewonsky, 2004). The devastating earthquake in Haiti in January 2010 further accentuated the disparities between the two countries, stimulating cross-border migration to the Dominican Republic, with greater participation of women and children between 2010 and 2012 (Wooding, 2018).

This changing dynamics of Haitian immigration in the 21st century has led to a diversification of Haitian presence in the labor market and increased their social visibility in the formal and informal sectors, including predominantly tourism and construction, as well as agricultural rubrics beyond sugar cane, characterized by low-qualified and low-paid work. Based on ENI-2017 results, 56.2% of Haitian immigrants were employed in the private sector, 32.7% worked independently in low-qualified
occupations, and 4.8% worked in domestic services. Only 2.1% and 1.6% were business owners or independent professionals, respectively.

The increased visibility of Haitian immigration has also led to increased negative public opinion and xenophobic attitudes in conservative sectors of the Dominican Republic, constructed around the denominated “pacific invasion”, in midst of mostly inconsistent migratory regulations in the Dominican Republic and difficulties with the implementation of the 2004 General Migration Law No. 285-04. In December 2013 the National Regularization Plan for Foreigners with Irregular Migration Status (PNRE) was decreed, as initiative to regularize the migration status of hundreds of thousands of irregular immigrants in the country, documented by the national surveys of immigrants conducted in 2012 and 2017 (ENI-2012, ENI-2017).

However, by denying the right to nationality of the descendants of irregular migrants born in the Dominican Republic, PNRE leaves unsolved the migratory situation of many Haitian and Haitian descent families already living on the Dominican territory (Wooding, 2018), making them formally invisible for social protection policies, and constituting them into a particularly hard-to-reach population for public health services. Based on the results from the last immigrant survey (ENI-2017), 95.0% of Haitian immigrants and 80.9% of their descendants lack any type of health insurance, a percentage that is slightly higher than the one observed in ENI-2012. Hence, as stated by the interviewed key informants, poverty and social exclusion, that which originally motivate Haitians to immigrate to the Dominican Republic, remain a barrier to their access to services in the country:

“The issue with Haitian migrants is a poverty-based issue, including all related stigma, discrimination, and lack of services. It is, basically, a historically rooted discrimination issue” (P07, PEPFAR-funded local NGO)

3.1.3 Socio-demographic profile of Haitian immigrants

According to a 2017 immigrant survey (ENI-2017) results, although 66.4% of Haitians living in the Dominican Republic resides in urban areas, they represent 97.3% of the total immigrant population in rural zones, which is coherent with their frequent involvement in agricultural activities.

As stated by key informants, even though the entry points for Haitian immigrants are the border provinces of the Dominican Republic, including south provinces of Pedernales and Independencia, the limited industrial activities in these zones, and more intense migratory police activity motivate them to move to other destinations within the Dominican Republic, including mostly industrial and touristic areas. This is clearly reflected in the ENI-2017 results, with 33.8% of Haitian immigrants living in the Metropolitan Region (Santo Domingo and National District), followed by 16.8% in North Cibao (Espaillat, Santiago and Puerto Plata), 11.8% in Occidental Cibao (Dajabón, Monte Cristi, Santiago Rodriguez and Valverde) and 10.0% in Yuma (El Seibo, Hato Mayor, La Altagracia, La Romana, and San Pedro de Macorís).

Despite the slight increase in female immigration after the 2010 earthquake, men still represent the majority (62.9%) of Haitian immigrants in the Dominican Republic. As depicted in Figure 4, there is a marked difference in the demographic profile of Haitian immigrants compared to those from other
countries, as it is clearly concentrated in productive age groups, initiating in adolescence and ceasing around 50 years of age, for both genders (ENI-2017), possibly responding to their involvement in the Dominican formal or informal job market.

**Figure 4. Population pyramids for immigrants born in Haiti and immigrants born in other countries (ENI-2017)**

As reported by ENI-2017, only 39.2% of Haitian immigrants have a carnet or other type of ID document issued by the Dominican migratory authorities, and 2.9% has a national ID card, while approximately one-third of them have a Haitian passport, either with a valid Dominican visa (18.6%) or without it (12.7%). On the other hand, even though a majority of Haitian-born immigrants reported having some kind of ID document issued by the Haitian government, usually birth certificates (92.7%) and, in lesser proportion, Haitian ID cards (60.1%), qualitative data provided by the interviewed key informants suggests that they are frequently reluctant to present these documents or even report their real name in interactions with Dominican individuals and institutions, unless they are certain their ID information will not be used against them, for migratory purposes or potential deportations. This significantly limits their access to public health services in the Dominican Republic, as well as formal education beyond the 8th grade of the primary school, among other social protection services and opportunities accessible to immigrants from other countries:

“Haitian migrants or their descendants who have access to documentation are less vulnerable than the rest of them, because they have access to SENASA [public health insurance] and receive support from different social programs. The major issue we have is with those who are migrant and undocumented“ (P06, local NGO)

Based on the ENI-2017 results, almost one-third (27.7%) of Haitian immigrants are illiterate, and only 32.0% of them speaks and understands Spanish well or very well, which is consistent with the numbers
observed in the 2012 survey. The 3rd BSS survey data secondary analysis also suggests limited familiarity with Spanish language among Haitian immigrants: 34.8% out of 2,193 persons interviewed in Santo Domingo, Santiago, Puerto Plata, Barahona, and Altagracia provinces affirmed they did not speak Spanish, with this percentage being particularly high (51.1%) in Santiago province. Likewise, 13.8% of the total sample stated they were never enrolled in a school, with 24.2% of participants with no formal education in the Barahona province.

Although ENI-2017 reports a particularly high participation rate (76.8%) among Haitian immigrants in the Dominican job market, which increases up to 91.2% among men, this participation, as stated previously, is characterized mostly by low-qualified and low-paid work, concentrated in agriculture (33.8%), construction (26.3%), and commercial activities (16.3%). This information is consistent with the data obtained in the 3rd BSS survey, which reports 84.8% of Haitian men and 41.2% women as working at the time of the interview.

While 64.9% of men and 24.6% of women receive a salary in the private sector, their income and employment conditions tend to be significantly inferior compared to immigrants from other countries, with only marginal access to basic social benefits: 5.0% has employment protection, 7.0% health insurance, and 3.6% has an established retirement plan. This situation is slightly better among Haitian immigrant descendants, although it remains below the benefits observed among immigrants from other countries, whose employment conditions approach those of Dominican citizens (ENI-2017).

3.1.4 HIV and AIDS epidemic in Haitian migrants: a public health perspective

The last DHS survey (DHS, 2013) estimated HIV prevalence in Haitian immigrants in the Dominican Republic at 3.83%, which is significantly higher than the general prevalence in adult population in Haiti, estimated at 1.9% in 2017 (UNAIDS Country Factsheet Haiti, 2017). This, as pointed out by previous studies, (Brewer et al., 1998; López-Severino & De Moya, 2007) suggests that the majority of new HIV infections in this population group takes place after immigrating to the Dominican Republic, probably due to a new set of determinants, partially discussed in previous sections of this report.

While additional data is required to identify and describe these determinants, and better define the current dynamics and interaction of HIV epidemics in Haiti and the Dominican Republic, Haitian immigrants and their descendants clearly constitute a highly vulnerable population group, based on active exposure to structural violence (Castro & Farmer, 2005; Farmer, 1996) both in their original communities in Haiti and their social circumstances in the Dominican Republic:

“Generally speaking, our migrant patients are people with very low income, very low educational level, people in risk of being deported back to Haiti, usually with no close family members here in the country... they are frequently facing their health issues by themselves” (P03, public HIV clinic)

The migratory status and the lack of documentation represent a major bottleneck for the access of Haitian population to health services, in general, and particularly to HIV clinics, affecting not only their enrollment in these services, but also their follow up visits, viral load monitoring, and adherence.
Without a valid ID, you will not be able to access health services, particularly not in the border area. There are [migratory police] checking points in each community, and Haitian patients fear to leave their communities, because fear being identified and deported back to Haiti. (P08, international NGO)

However, from a public health point of view, this group is far from being one homogeneous population. There are multiple segments and sub-segments of Haitian immigrants, whose profiles and vulnerability factors could vary greatly depending on their specific lifestyle, income level and, in particular, productive activity. In the case of HIV and AIDS epidemic, as pointed out by several key informants, accurate identification and characterization of these segments constitute a crucial step towards the design and implementation of culturally appropriate and effective public health interventions.

“In my understanding, we have not studied sufficiently the HIV epidemic in migrant population here in the Dominican Republic. There is an obvious segmentation of this population, and there are several different social groups within it. We have migrants everywhere, in all economic activities, but also in different geographical zones, and they probably have different needs in HIV prevention and treatment. We cannot approach all of them with a one-size solution.” (P09, international NGO)

This segmentation is further complicated by migration patterns within the Dominican Republic, and seasonal work opportunities in different production areas:

“The mobility issue is quite complicated. It is not purely geographical, it is also a job mobility – people who work in construction today, tomorrow might work in agriculture, and the other day as street seller. It is the same Haitian migrant, in three very different settings and lifestyles” (Discussion Group Key Stakeholders)

Secondary analysis of the 3rd BSS survey data (2018) also suggest different work environments and, consequently, different vulnerability factors among Haitian immigrants interviewed in different provinces. As depicted in Figure 5, while Barahona residents tend to work more frequently in fields and on the streets, Haitian immigrants in Santiago, Puerto Plata, and La Altagracia report more frequently construction sites as their work environment. Santo Domingo residents, on the other hand, seem to be more frequently located in offices, workshops, and other type of establishments.
This distribution also varies by gender, with 53.5% of working men in the total sample (n=1,408) reporting construction sites as their current work environment, while women reported more frequently working in offices, workshops, or establishments (31.1%), on the streets (25.4%), or in other people's homes (21.1%). Additionally, 1.7% of the unweighted sample reported sex work as their main source of income, with this percentage being particularly high in the touristic province of La Altagracia (6.3%), which highlights the need of combined key population and priority population oriented strategies in some segments of Haitian immigrant population in the Dominican Republic.

The variation of work environment and related lifestyles by geographic zone and gender, supports the need of adjusting interventions and services to reduce and mitigate HIV epidemic in Haitian migrants in the Dominican Republic based on the specific profiles predominant in each region or province. While more data is needed in order to better define these profiles, the information collected and analyzed in the first stage of this study suggests that the following sub-segments should be delimited and differentially addressed, considering their specific vulnerability factors and other determinants of the HIV epidemic:

- Agriculture workers and batey residents
- Construction workers
- Workers in tourism sector and related services
- Street vendors
- Domestic helpers
- Formal and informal sex workers

Gender differences and dynamics should also be considered as determinants of the HIV epidemic within each one of these groups, with women being more represented among domestic helpers, street vendors, and sex workers.
3.2. CULTURE AND COMMUNITY

3.2.1 Mobility and social inequality

As stated in previous sections of this report, job opportunities and increased income constitute a major motivational factor of Haitian immigration to the Dominican Republic. It is also one of the underlying determinants of the mobility of Haitian immigrants both inside the Dominican Republic and between Haiti, as reported by previous literature on this topic (Taylor, 2018; Horst & Taylor, 2018). This mobility has also been repeatedly identified by the interviewed key stakeholders as one of the major challenges in addressing the needs of this population in HIV detection and treatment services, although the migration patterns could vary among different sub-groups of Haitian immigrants:

“Migrants working in agriculture – for instance in Monte Cristi, Dajabon, all that area – these are people who are easier to retain... They work there in the fields, and the only mobility they have is when decide to go back to Haiti. It’s quite different with construction workers, who move much more frequently” (P06, Local NGO)

Secondary analysis of the 3rd BSS survey is also consistent with frequent mobility of Haitian immigrants, affirming 20.5% of all participants (n=2,193) that they have spent at least one month out of the province where they currently reside, during the 12 months before the interview. This percentage increases to 29.7% in Barahona and 29.2% in Santiago and is much lower in the Santo Domingo Province (7.1%). Out of 449 persons in this group, 72.4% (n=325) affirmed they have traveled to Haiti, and 26.9% (n=121) to other provinces within the Dominican Republic. This percentage, however, follows an inverse pattern in the Santo Domingo province, with majority of participants reporting mobilizations within the Dominican Republic (68.4%) and less persons travelling to Haiti (26.3%).

The majority (48.2%) of persons who have stayed out of their current province of residence for more than a month during the past year, reported as the main reason of their travel: to be with their family, work (20.5%) and, less frequently, a health condition or illness (4.7%). Characteristically, participants in Santo Domingo reported an inverse distribution, with 51.4% travelling due to work, and less frequently (29.7%) to be with their family, which could suggest different migratory patterns for immigrants living in the metropolitan area.

More than half (59.8%) of participants in the Haitian Migrant module of the BSS survey affirmed they have travelled back to Haiti at least once since they originally entered the Dominican Republic, with that percentage increasing to 66.7% in Barahona, possibly due to its proximity to the border with Haiti. Out of those who have travelled, 39.8% have remained there for at least one month, clearly indicating the strength of relationships Haitian immigrants tend to maintain with their families of origin.

The migration patterns reflected by this data, including regular visits to Haiti, have important implications for HIV prevention, detection and treatment services frequently interfering with follow up and adherence to ARV treatment in Dominican services. Currently there are no formal strategies for referral and counter-referral of patients on ARV treatment between Dominican and Haitian HIV services. There are individual efforts of some health providers to track their patients and establish direct communication with their health care providers in Haiti, but bi-national strategies in HIV services are basically inexistent. However, several key stakeholders interviewed in the qualitative component of this study have pointed out successful bi-national collaboration and shared strategies developed between the
Haitian and Dominican TB Program, including the provision of same treatment schemes to patients who cross the border, and have proposed to expand the accumulated experience and lessons learned through these efforts to the HIV program.

3.2.2 Social networks and “remesas”
As reported in the previous section, relationships of Haitian immigrants in the Dominican Republic with their families in Haiti tend to remain strong, and are manifested both through periodic travel to Haiti, and money they frequently send to their family members to support household expenses (“remesas”). The results of ENI-2017 report that 44.7% of Haitian immigrants send money to their relatives in Haiti, most frequently to their parents (66.6%), with this percentage being even higher among persons who work (56.7%).

Qualitative data provided by key stakeholders suggests the existence of organized transportation services, both for remesas and transportation of goods acquired in the Dominican Republic to family members in Haiti, as well as for transportation of persons. Crossing the border with Haiti back and forth is reported as possible independently of persons’ migratory status. However, the costs are much higher for undocumented Haitians, since additional payments need to be made at different migration police check points. Consequently, undocumented persons are more inclined to cross the borders in the unsupervised rural regions, which, although physically more challenging, tends to be more affordable.

The importance of relationships with families of origin, and the impact of family beliefs on practices and decisions made by Haitian immigrants living in the Dominican Republic should not be underestimated, as it has been identified by key stakeholders as one of the determinants of persons’ reaction to HIV diagnosis and different treatment options. Faced with HIV diagnosis, still considered to be a terminal illness, some patients are instructed to go back to Haiti, with the hope of being cured by alternative medicine or trusted shamans through religious rites:

“We have had cases of parents asking the patients to go back to Haiti, where they could solve all their health issues through witchcraft and voodoo rites. They promised them healing and complete recovery from HIV.” (P03, Public HIV clinic)

3.2.3 Religious beliefs
While 45.5% of participants in the Haitian Migrant module of the 3rd BSS survey reported belonging to some type of protestant religion and 21.3% self-identified as Catholic, interviewed key stakeholders repeatedly reported beliefs and practices related to popular religious cults, including voodoo as one of the major determinants in health-related decision making of Haitian immigrants in the Dominican Republic. Hence, HIV diagnosis, still perceived as a death sentence in Haitian communities, tends to be interpreted and addressed from that perspective:

“There is this belief in voodoo magic, and bottles that can heal you, so they [Haitian immigrants] frequently tell you they are going to Haiti to be healed. Not all of them,
As stated by some of the key stakeholders, these core beliefs go far beyond the factual knowledge related to HIV, and are very difficult to shift through traditional educational activities:

“We have patients who do not have a slightest notion of what HIV means – for them [Haitian immigrants] it simply does not exist. It is not just education-related issue, because we do explain these things to all our patients. But they just refuse to believe in it – for me, that is one crucial cultural issue with Haitian immigrants” (P03, public HIV clinic)

Previous research on this topic dating from the early stages of the HIV epidemic in the Dominican Republic described this issue (De Moya et al., 1998). While this type of popular religious beliefs proves to be very resistant to change through provision of factual information, some successful strategies were implemented over the past decades (Pérez-Then, 2009) to involve shamans as important community leaders for Haitian immigrant communities, and work with them in promoting the detection and enrollment of HIV positive individuals in health services, while still acknowledging rites and remedies involved in their regular practices. This type of strategies should be revisited and expanded, in order to develop effective and culturally appropriate communication channels with Haitian immigrants and their health needs.

3.3. HIV EPIDEMIC: SECONDARY ANALYSIS OF THE 3RD BSS SURVEY DATA

3.3.1. HIV and other STI prevalence

As shown in Table 3, the prevalence of HIV and other STI differs by province of residence. In the case of HIV, it ranges between 2.6% in Barahona and 5.0% in Puerto Plata. Syphilis, however, is more prevalent in Barahona (8.5%) and Santiago (7.8%) with the lowest prevalence in Santo Domingo (4.4%). These differences support qualitative data and previous research findings on heterogeneous dynamics of HIV epidemic and Haitian immigrants’ profile in different provinces of the Dominican Republic (see section 4.1.), possibly determined by the predominant lifestyles and productive activities in each one of them.

Table 3. HIV and other STI pint prevalence and confidence intervals (CI) in Haitian Immigrants, by province of residence

<table>
<thead>
<tr>
<th>Condition</th>
<th>Santo Domingo</th>
<th>Santiago</th>
<th>Puerto Plata</th>
<th>Barahona</th>
<th>La Altagracia</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>n=534</td>
<td>n=534</td>
<td>n=405</td>
<td>n=306</td>
<td>n=413</td>
</tr>
<tr>
<td>%</td>
<td>CI 95%</td>
<td>%</td>
<td>CI 95%</td>
<td>%</td>
<td>CI 95%</td>
</tr>
<tr>
<td>HIV</td>
<td>4.1 1.3 7.0</td>
<td>4.2 1.0 7.5</td>
<td>5.0 1.2 8.8</td>
<td>2.6 -0.5 5.7</td>
<td>4.1 1.9 6.4</td>
</tr>
<tr>
<td>Syphilis</td>
<td>4.4 1.8 7.0</td>
<td>7.8 4.5 11.2</td>
<td>5.5 2.8 8.2</td>
<td>8.5 3.8 13.2</td>
<td>6.3 2.5 10.0</td>
</tr>
<tr>
<td>Hepatitis B</td>
<td>4.2 2.2 6.1</td>
<td>4.9 2.5 7.4</td>
<td>4.4 1.8 7.0</td>
<td>3.3 0.6 6.0</td>
<td>3.3 0.2 6.4</td>
</tr>
<tr>
<td>Hepatitis C</td>
<td>0.2 .01 0.5</td>
<td>-</td>
<td>-</td>
<td>0.6 0.0 1.3</td>
<td>0.1 0.0 0.3</td>
</tr>
</tbody>
</table>


On the other hand, while Hepatitis C, closely related to shared needles and intravenous drug use, does not seem to be very prevalent among Haitian immigrants in the provinces included in the 3rd BSS
survey, the prevalence of Hepatitis B ranges between 3.3% in Barahona and La Altagracia, and 4.9% in Santiago. These numbers are significantly higher from those observed in other key populations included in the survey, possibly due to its link to a lower vaccination coverage in Haiti as compared to children born in the Dominican Republic.

3.3.2. Sexual activity, couple communication and condom use
Consistent with previous studies on this topic, a significant percentage of Haitian immigrants interviewed in the 3rd BSS survey reported having their first sexual intercourse before 15 years of age, oscillating between 28.6% in Puerto Plata and 45.9% in Barahona. The percentage of persons with a stable partner in the 6 months before the survey also varied, between 95.6% in Puerto Plata, and 74.0% in Barahona.

La Altagracia province presented the highest percentage of persons reporting having sex in exchange for money (41.4%) in contrast with Santiago, where 15.8% affirmed this type of relationships. It is important to note, however, that, based on the qualitative information provided by the key stakeholders, the definition of sex work among Haitian immigrants, particularly women in rural zones, should be expanded to include more informal and occasional exchanges of sex for money and other benefits, that could be tolerated or even promoted by the stable couples as additional source of income, without being self-defined as sex work:

*There is a difference between female sex workers in urban zones, who will usually identify themselves as such, in contrast to women who exchange sex for money or other benefits in rural zones... A woman who is living with a partner could travel once or twice per month to other sites, usually on paydays, and have sex with men who might be able to compensate them directly or indirectly, as a way of obtaining additional income or food for their families, usually with the consent of their stable partner. It is culturally accepted and is not perceived to be sex work. (Discussion Group Key Stakeholders)*

Figure 6 depicts consistent communication on HIV and other STIs with stable, occasional and commercial partners among Haitian immigrants in the 6 months before the survey, with clear pattern of more frequent communications among couples in La Altagracia province. In contrast, couples in Santo Domingo and Santiago report less consistency in communication on these topics.
**Figure 6.** Percentage of Haitian immigrants who reported conversations on HIV and other STI with all their partners during the 6 months before the survey, by relationship type and province of residence

<table>
<thead>
<tr>
<th>Province</th>
<th>Stable partners</th>
<th>Occasional partners</th>
<th>Commercial partners</th>
</tr>
</thead>
<tbody>
<tr>
<td>Santo Domingo</td>
<td>17.2</td>
<td>9.0</td>
<td>16.1</td>
</tr>
<tr>
<td>Santiago</td>
<td>24.6</td>
<td>22.9</td>
<td>8.5</td>
</tr>
<tr>
<td>Puerto Plata</td>
<td>30.6</td>
<td>30.6</td>
<td>19.1</td>
</tr>
<tr>
<td>Barahona</td>
<td>28.5</td>
<td>24.0</td>
<td>16.1</td>
</tr>
<tr>
<td>La Altagracia</td>
<td>66.1</td>
<td>39.9</td>
<td>34.1</td>
</tr>
</tbody>
</table>


On the other hand, as shown in **Figure 7**, Haitian immigrants report very low frequency of consistent condom use in the month before the interview, as compared to key populations included in the 3rd BSS survey.

**Figure 7.** Consistent condom use (with all partners) in the month before the survey, by population and province of residence

<table>
<thead>
<tr>
<th>Population</th>
<th>Santo Domingo</th>
<th>Santiago</th>
<th>Puerto Plata</th>
<th>Barahona</th>
<th>La Altagracia</th>
</tr>
</thead>
<tbody>
<tr>
<td>MSM</td>
<td>33.6</td>
<td>37.6</td>
<td>16.5</td>
<td>16.9</td>
<td>32.1</td>
</tr>
<tr>
<td>FSW</td>
<td>56.0</td>
<td>65.5</td>
<td>56.5</td>
<td>26.9</td>
<td>75.4</td>
</tr>
<tr>
<td>Haitian immigrants</td>
<td>11.1</td>
<td>10.8</td>
<td>17.3</td>
<td>7.8</td>
<td>11.3</td>
</tr>
<tr>
<td>PLWHA</td>
<td>41.4</td>
<td>43.6</td>
<td>49.1</td>
<td>33.5</td>
<td>28.8</td>
</tr>
</tbody>
</table>


The consistent condom use tends to be particularly low in Barahona (7.8%), and somewhat higher in Puerto Plata (17.3%), which could potentially be explained by more sustained services and HIV prevention-related efforts in Puerto Plata, through local NGOs. Qualitative data collected from key stakeholders also suggests limited condom use in migrant populations, attributed mostly to cultural beliefs and barriers.
3.3.3. HIV-related knowledge, risk perception and HIV testing

As depicted in Figure 8, comprehensive HIV-related knowledge tends to be lower in Haitian immigrants as compared to key populations included in the 3rd BSS survey, particularly in Santiago province.

Figure 8. Comprehensive knowledge about HIV, by population group and province of residence

This is consistent with qualitative data collected through interviews with key stakeholders, which highlights the low educational level of this population, combined with religious and spiritual beliefs that, on occasions, interfere with direct discussion of HIV as a health condition:

“Migrants are a difficult population for discussing HIV-related topics. We offer a general STI intervention package, but we do not talk directly about HIV, because if you try to propose HIV testing in a straightforward manner, you will get a “no” as an answer. You need to know how to negotiate it and proposed it in a way that will be acceptable to them” (P04, NGO Clinic healthcare provider)

The percentage of Haitian immigrants who perceived themselves to be at risk of contracting HIV also differed by province of residence, ranging between 17.2% in Puerto Plata and 35.3% in La Altagracia province. The most frequent reason for considering themselves to be at risk was having unprotected sex, reported by 89.9% of participants in Puerto Plata, which could suggest a correct identification of consistent condom use as a form of protecting themselves from HIV. This percentage, however, was much lower in La Altagracia (47.7%).

A 68.2% of Haitian immigrants included in the 3rd BSS survey reported they were tested for HIV at some point in their life, with this percentage being significantly higher among women (80.9%), possibly due to their access to the national PMTCT program. As showed in Table 4, the percentage of migrants tested for HIV was slightly higher in La Altagracia (74.6%) and Puerto Plata (72.9%), in contrast with Barahona, with only 58.8% of tested participants. In all provinces, more than 95.0% of tested participants affirmed they were familiar with the results of their HIV test.
Table 4. HIV test among Haitian immigrants, by province of residence

<table>
<thead>
<tr>
<th>Variables</th>
<th>Santo Domingo</th>
<th>Santiago</th>
<th>Puerto Plata</th>
<th>Barahona</th>
<th>La Altagracia</th>
</tr>
</thead>
<tbody>
<tr>
<td>Was tested for HIV at some point</td>
<td>n=532</td>
<td>n=524</td>
<td>n=402</td>
<td>n=292</td>
<td>n=411</td>
</tr>
<tr>
<td></td>
<td>% 61.2</td>
<td>% 56.1</td>
<td>% 67.8</td>
<td>% 58.8</td>
<td>% 64.2</td>
</tr>
<tr>
<td></td>
<td>IC 95% 56.1</td>
<td>IC 95% 56.1</td>
<td>IC 95% 72.6</td>
<td>IC 95% 65.9</td>
<td>IC 95% 69.9</td>
</tr>
<tr>
<td>Main reason for being tested for HIV</td>
<td>n=340</td>
<td>n=345</td>
<td>n=293</td>
<td>n=185</td>
<td>n=309</td>
</tr>
<tr>
<td>Voluntary</td>
<td>% 64.7</td>
<td>% 59.0</td>
<td>% 71.5</td>
<td>% 88.8</td>
<td>% 44.7</td>
</tr>
<tr>
<td></td>
<td>IC 95% 59.0</td>
<td>IC 95% 70.4</td>
<td>IC 95% 66.9</td>
<td>IC 95% 74.9</td>
<td>IC 95% 35.0</td>
</tr>
<tr>
<td>Medical prescription</td>
<td>% 32.2</td>
<td>% 26.9</td>
<td>% 25.8</td>
<td>% 51.5</td>
<td>% 54.3</td>
</tr>
<tr>
<td></td>
<td>IC 95% 26.9</td>
<td>IC 95% 37.6</td>
<td>IC 95% 21.6</td>
<td>IC 95% 54.3</td>
<td>IC 95% 54.3</td>
</tr>
<tr>
<td>Work requirement</td>
<td>% 1.7</td>
<td>% 0.7</td>
<td>% 0.8</td>
<td>% 1.4</td>
<td>% 2.1</td>
</tr>
<tr>
<td></td>
<td>IC 95% 0.7</td>
<td>IC 95% 2.6</td>
<td>IC 95% -0.2</td>
<td>IC 95% 14.9</td>
<td>IC 95% 2.1</td>
</tr>
<tr>
<td>Other</td>
<td>% 1.3</td>
<td>% -4.4</td>
<td>% 1.9</td>
<td>% 0.1</td>
<td>% 1.6</td>
</tr>
<tr>
<td></td>
<td>IC 95% -4.4</td>
<td>IC 95% 6.7</td>
<td>IC 95% -3.4</td>
<td>IC 95% 0.1</td>
<td>IC 95% 1.6</td>
</tr>
<tr>
<td>Knows the results of their last HIV test</td>
<td>n=342</td>
<td>n=344</td>
<td>n=293</td>
<td>n=185</td>
<td>n=309</td>
</tr>
<tr>
<td></td>
<td>% 95.7</td>
<td>% 89.3</td>
<td>% 97.2</td>
<td>% 96.5</td>
<td>% 89.0</td>
</tr>
<tr>
<td></td>
<td>IC 95% 89.3</td>
<td>IC 95% 102.2</td>
<td>IC 95% 97.2</td>
<td>IC 95% 101.2</td>
<td>IC 95% 102.2</td>
</tr>
</tbody>
</table>


Regarding the main reason for being tested for HIV, participants in Puerto Plata, Santiago and Santo Domingo have referred voluntary testing (88.8%, 71.5% and 64.7%, respectively), while La Altagracia and Barahona residents have reported medical prescription (54.3% and 51.5%, respectively) with more frequency. This, however, varies by gender, voluntary testing being more frequently reported as the main reason for HIV testing by men (79.9% vs. 57.0%) and medical prescription by women (41.6% vs. 13.5%), which is also compatible with greater access to HIV testing through PMTCT program among women.

Likewise, while more women are being tested in public hospitals (54.3% vs. 39.8%), more men reported being tested in specific testing outreach activities (22.8% vs. 10.3%), reflecting the relevance of community and mobile testing for HIV prevention and detection among Haitian men living in the Dominican Republic. However, qualitative data provided by key stakeholders identified some challenges of this type of activities, closely linked to stigma and fear culturally associated with HIV in this population group:

“Stigma and fear are an obstacle for them [Haitian migrants] to approach you and get tested for HIV. Usually they do not want to be seen in these settings. However, these outreach activities function well if you camouflage them with other services, and if you respond to some other need they might have, such as food provisions, condom distribution and even some free primary health care consultations” (P05, Local NGO involved in community testing)

3.3.4. HIV services

Out of 80 individuals who tested positive for HIV in the Haitian migrants’ module of the 3rd BSS survey, 20 (75.0%) affirmed they were not tested for HIV before, 7 of which were residing in Santo Domingo province, followed by 5 in Puerto Plata and 4 in La Altagracia province. Among the 60 HIV positive
individuals who were tested before, two (2) persons in La Altagracia province affirmed they were unfamiliar with their test results at the moment of the survey. While this is self-reported data and should be interpreted with caution, these results strongly suggest limitations of HIV testing services, and failure to detect HIV positive Haitian immigrants through routine testing services, implying a need for innovative targeted testing strategies in order to strengthen the first 90 in the UNAIDS 90-90-90 strategy.

Furthermore, important bottlenecks were reported by key stakeholders in linking HIV positive Haitian migrants identified through community outreach activities to HIV clinical services (Servicios de Atencion Integral, SAI in Spanish), due mostly to fear of stigma and migration policies in access to these services, which strongly interferes with the second 90 goals and targets. NGOs providing HIV testing and community navigators involved in SAI services have searched for strategies to promote enrollment in services among HIV positive migrants, highlighting direct service navigation, including transportation to the SAI, and provision of HIV services in non-working hours, among most effective although costly alternatives:

“We take testing services directly to their communities, and we work until late night hours... Then we pick up positive patients and we take them ourselves in our vehicles, so they can avoid migration police checkpoints, and avoid deportations to Haiti... the only thing that really works is that kind of navigation.” (P08, International NGO)

Since Haitian Migrant data set in the 3rd BSS survey did not include indicators related to HIV services, a secondary analysis of the PLWHA data set was performed in order to assess variables related to 2nd and 3rd 90 targets among Haitian immigrants currently involved in SAI services in comparison with Dominicans involved in those same services. However, since only 139 (7.7%) Haitians were identified in the total of 1798 survey participants, and the inclusion criteria was limited to immigrants who could understand and speak Spanish language, it is important to interpret these preliminary results with caution, since they could be based only on characteristics of less vulnerable or more culturally adapted Haitian immigrants already participating in these services, and fail to include more vulnerable sub-groups of migrants.

### Table 5. Time in SAI, ARV treatment and VL/CD4 testing, by country of birth

<table>
<thead>
<tr>
<th>Variable</th>
<th>Born in DR n</th>
<th>%</th>
<th>Born in Haiti n</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Time in the SAI</td>
<td>1,659</td>
<td>100.0</td>
<td>139</td>
<td>100.0</td>
</tr>
<tr>
<td>Less than 1 year</td>
<td>276</td>
<td>16.6</td>
<td>46</td>
<td>33.1</td>
</tr>
<tr>
<td>1-4 years</td>
<td>565</td>
<td>34.1</td>
<td>62</td>
<td>44.6</td>
</tr>
<tr>
<td>5 years or more</td>
<td>817</td>
<td>49.2</td>
<td>31</td>
<td>22.3</td>
</tr>
<tr>
<td>Receiving ARV treatment</td>
<td>1,659</td>
<td>100.0</td>
<td>139</td>
<td>100.0</td>
</tr>
<tr>
<td>Yes</td>
<td>1,545</td>
<td>93.1</td>
<td>122</td>
<td>87.8</td>
</tr>
<tr>
<td>Time on ARV treatment</td>
<td>1,545</td>
<td>100.0</td>
<td>122</td>
<td>100.0</td>
</tr>
<tr>
<td>Less than 1 year</td>
<td>214</td>
<td>13.9</td>
<td>33</td>
<td>27.0</td>
</tr>
<tr>
<td>1-4 years</td>
<td>547</td>
<td>35.4</td>
<td>55</td>
<td>45.1</td>
</tr>
<tr>
<td>5 years or more</td>
<td>780</td>
<td>50.5</td>
<td>34</td>
<td>27.9</td>
</tr>
<tr>
<td>Ever interrupted ARV treatment</td>
<td>1,659</td>
<td>100.0</td>
<td>139</td>
<td>100.0</td>
</tr>
<tr>
<td>Yes</td>
<td>266</td>
<td>16.0</td>
<td>20</td>
<td>14.4</td>
</tr>
<tr>
<td>Received viral load test in the previous 12 months</td>
<td>1,659</td>
<td>100.0</td>
<td>139</td>
<td>100.0</td>
</tr>
<tr>
<td>Yes</td>
<td>1,459</td>
<td>87.9</td>
<td>111</td>
<td>79.9</td>
</tr>
<tr>
<td>Received CD4 test in the previous 12 months</td>
<td>1,659</td>
<td>100.0</td>
<td>139</td>
<td>100.0</td>
</tr>
<tr>
<td>Yes</td>
<td>1,503</td>
<td>90.6</td>
<td>121</td>
<td>87.7</td>
</tr>
</tbody>
</table>
As depicted in Table 5, the results of the PLWHA module within the 3rd BSS survey do not suggest major differences in the percentage of Haitian immigrants enrolled on ARV or the reported frequency of treatment abandonment, as compared to Dominican nationals. However, more Haitian migrants report less than 1 year in services (33.1% vs. 16.6% among Dominicans), and less than 1 year on ARV treatment (27.0% vs. 13.9% among Dominicans). Likewise, their access to viral load testing seems to be somewhat lower (79.9% vs. 87.9% among Dominicans). These differences and the similarities can both be observed in other treatment related indicators when compared to Dominican nationals. This could be due to the characteristics of the sample included in this survey data set. More reliable HIV service-related indicators will be assessed and analyzed in the second stage of this study, based on programmatic data set analysis (FAPPS and SIRENP-VIH).

3.3.5. HIV / TB co-infection

As explained in the previous section, while the characteristics of the sample recruited in the PLWHA data set of the 3rd BSS survey could imply a selection bias in the assessment of the Haitian immigrant patients involved in SAI services, no major differences were observed between them and Dominican nationals in access to TB and HIV co-infection related services. Hence, 44.6% of Haitians and 44.3% of Dominicans were tested for TB in the 12 months before the interview, out of which 6.5% (n=5) of Haitians and 5.4% (n=40) Dominicans tested positive.

Out of 44 persons who tested positive to TB, a 100% of Haitians and 97.5% of Dominicans affirmed they have received TB treatment, suggesting effective interventions developed by the TB program independently of patients’ nationality and migratory status.

At the same time, while approximately one third of patients who tested negative for TB affirmed they have received Isoniazid as preventive therapy, this percentage was similar in Haitians (29.8%, n=17) and Dominicans (29.5%, n=190). These findings, however, contrast with higher vulnerability of HIV positive Haitian immigrants to HIV/TB co-infection reported by key stakeholders in qualitative interviews, implying the need for further analysis of these variables in the second stage of this study, based on programmatic data base exploration and quantitative surveys in REDCap conducted in SAI patients, by also enrolling Haitian patients who do not speak Spanish.
4. CONCLUSIONS AND RECOMMENDATIONS

The Table 6 presents a synthesis of the most relevant conclusions and recommendations derived from preliminary findings of the first stage of the study on access to HIV preventive and clinical services for Prioritized Populations in the Dominican Republic, focused on the current context and major determinants of these services at national level. These findings, based on the triangulation of the information obtained through literature revision, qualitative interviews and secondary analysis of the 3rd BSS survey (CONAVIHSIDA, 2018), are organized around the service cascade goals of the 90-90-90 strategy proposed by UNAIDS, serving as a general framework for the development of tools and procedures required for the second stage of this study.

Table 6. HIV test among Haitian immigrants, by province of residence

<table>
<thead>
<tr>
<th>Strategy / activity</th>
<th>Findings / bottlenecks</th>
<th>Recommendations</th>
</tr>
</thead>
</table>
| Prevention activities | • Language barriers  
• Low educational level / high poverty and illiteracy rates  
• Low levels of comprehensive knowledge and condom use in HM  
• Limited familiarity and respect of cultural and religious beliefs of HM  
• Lack of targeted prevention activities for KP segments of HM | • Creole speaking personnel involved in culturally appropriate prevention and health education activities  
• Adjusted prevention strategies for KPs in HM population, considering specific social determinants in each context  
• Systematic promotion of condom use, with emphasis on occasional and commercial partners |
| HIV testing | • Stigma associated with HIV / fear of testing  
• High cost of targeted community testing strategies  
• Low testing rates among HM men  
• Need to adjust HIV testing strategies to specific local context and HM dynamics  
• Lack of ID documents / difficulties locating and tracking individual tested patients | • Strategies in creole, aimed to make HIV more visible as a chronic health condition  
• Targeted community testing activities, with emphasis on male HM population (index-testing, social network testing, etc.)  
• Extended HIV testing service hours (night testing)  
• Expansion of nominal HIV testing monitoring systems (SIRENP-VIH), using biometric data as unique identifier. |
| Link-to care | • Lack of ID documents / difficulties locating and tracking individual tested patients  
• Migratory policies and deportations  
• Distance and transportation costs  
• Late working hours / financial implications of assisting to SAIs  
• Limited family support  
• Religious beliefs and practices opposed to health services | • Expansion of SIRENP-VIH and biometric data, as input for automatic referral and follow up of link-to-care rates within IS.  
• Intensive follow up and navigation to HIV services, including transportation to SAIs.  
• Extended service hours in HIV clinics to accommodate working HM (5-9 pm)  
• Recruitment of religious leaders and family members as allies in health promotion and link-to-care, using |
<table>
<thead>
<tr>
<th>Strategy / activity</th>
<th>Findings / bottlenecks</th>
<th>Recommendations</th>
</tr>
</thead>
</table>
| Enrollment in treatment | • Language barriers  
  • Religious beliefs and practices  
    opposed to health services and ARV treatment  
  • Side effects of ARV treatment  
  • Insufficient food / inadequate nutrition | • Creole speaking personnel and peer counselors involved in SAI activities.  
  • Recruitment of religious leaders and family members as allies in ARV enrollment.  
  • Facilitate access of eligible HM population to social support services, including provision of food rations and nutritional supplements. |
| TB/HIV co-infection | • Limited coverage of TB screening in HIV services  
  • Limited coverage of preventive treatment for TB negative patients | • Increase interaction between National HIV and TB programs at local level  
  • Increase coverage of TB screening in HIV services.  
  • Increase coverage of preventive treatment for TB negative patients, as established in national protocols. |
| Community component | • High cost of community navigators and follow-up strategies  
  • Community navigators not included in public SAI org chart  
  • Lack of valid ID / difficulties in follow up and home visits  
  • Mobility (inside DR and in Haiti) | • Involvement of civil society and creole-speaking community organizations in navigation and follow up to HIV treatment among HM.  
  • Involvement of primary health care units in follow up activities at the community level.  
  • Structured training activities for newly recruited peer navigators.  
  • Expansion of biometric data ID systems, to follow up on home visits, and improve referral and counter-referral strategies between SAIs.  
  • Development of bi-national follow up strategies, expanding successful experiences and lessons learned by the national TB program. |
| Viral load monitoring | • Limited days and hours available for VL testing  
  • Distance and transportation costs | • Inclusion of additional days for VL testing, including extended hours schedule.  
  • Evaluate feasibility of community and home based VL sample taking, for those HM who cannot access the SAI. |
| Adherence and retention in services | • Language barriers  
  • Mobility  
  • Lack of valid ID / difficulties in follow up and home visits  
  • High cost of community navigators and follow up strategies  
  • Absence of formal interaction with Haiti public health system and services | • Creole speaking personnel and peer counselors involved in SAI and community follow-up activities.  
  • Expansion of biometric data ID systems, to follow up on home visits, and improve referral and counter-referral strategies between SAIs.  
  • Involvement of primary health care units in follow up activities at the community level. |
The conclusions and recommendations presented in the Table 6, based on the triangulation of currently available sources of information, provide a general framework for different interventions related to specific areas of the 90-90-90 strategy. However, there are some limitations related to these sources of information that should be considered when interpreting and applying these findings:

- Haitian migrant data set in the 3rd BSS survey only includes persons born in Haiti, which does not allow for comparisons with other population groups, including Haitian descendants and Dominican nationals.
- Since Haitian migrant data set in the BSS did not include indicators related to HIV services, the assessment of variables related to 2nd and 3rd 90 targets among Haitian immigrants was limited to a small sub-sample of persons born in Haiti (n=139) included in the PLWHA data set, allowing for certain comparisons with Dominican nationals in these services. However, since the inclusion criteria for this sub-sample was limited to immigrants who could understand and speak Spanish, the results obtained could be limited to less vulnerable or more culturally adapted Haitian immigrants already participating in HIV services and fail to include more vulnerable groups of migrants.
- Only limited qualitative data is currently available on the dynamics and interaction between the HIV epidemics in Haiti and the Dominican Republic, as no bi-national studies on this topic have been conducted over the last decades. Hence, although the available evidence suggests that the majority of new HIV infections among Haitian immigrants could take place in the Dominican Republic, probably due to a set of social determinants related to structural violence, additional data is required to identify and fully describe these determinants and the most feasible ways to address them.
- While multiple socio-cultural determinants of vulnerability of Haitian immigrants as PEPFAR prioritized population in the Dominican Republic have been repeatedly reported and described, the compensatory factors related to their resilience and coping strategies regarding the HIV epidemic have not been frequently addressed. These factors, however, might provide important input for strategies aimed at reducing and mitigating the impact of HIV epidemic in this and other migrant populations, using asset-based approached to community empowerment and development.

The second stage of this research project (Component B), to be developed over the upcoming months, will collect and analyze primary data aimed to fill these gaps, complementing the currently available evidence on access of PEPFAR prioritized populations to HIV and AIDS preventive and clinical services in the Dominican Republic.
5. REFERENCES

17. CONAVIHSIDA (2012). Segunda Encuesta de vigilancia de comportamiento con vinculación serológica en poblaciones claves: Gays, Trans y otros hombres que tienen sexo con hombres, trabajadoras sexuales, usuarios de drogas. Santo Domingo.


