Linkages across the Continuum of HIV Services for Key Populations Affected by HIV (LINKAGES) Project

Cooperative Agreement No. AID-OAA-A-14-00045

DEMOCRATIC REPUBLIC OF THE CONGO PLACE REPORT

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PEPFAR U.S. President's Emergency Plan for AIDS Relief

LINKAGES Across the Continuum of HIV Services for Key Populations

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- Haut-Katanga:
    - Lubumbashi (World Production)
    - Sakania (Bak Congo)

- Lualaba:
    - Kolwezi (Faradja)
    - Fungurume (Lamuka)

Report authors were from the University of North Carolina: Jean Lambert Chalachala, Sharon Weir, and Becky Wilkes.

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Executive Summary

Background

Based on a request from the U.S. Agency for International Development (USAID), the Priorities for Local AIDS Control Efforts (PLACE) method was implemented in 13 health zones in the Democratic Republic of the Congo that are a focus for PEPFAR programming.

Methods

The PLACE method was modified for use in the 13 health zones. There were four steps:

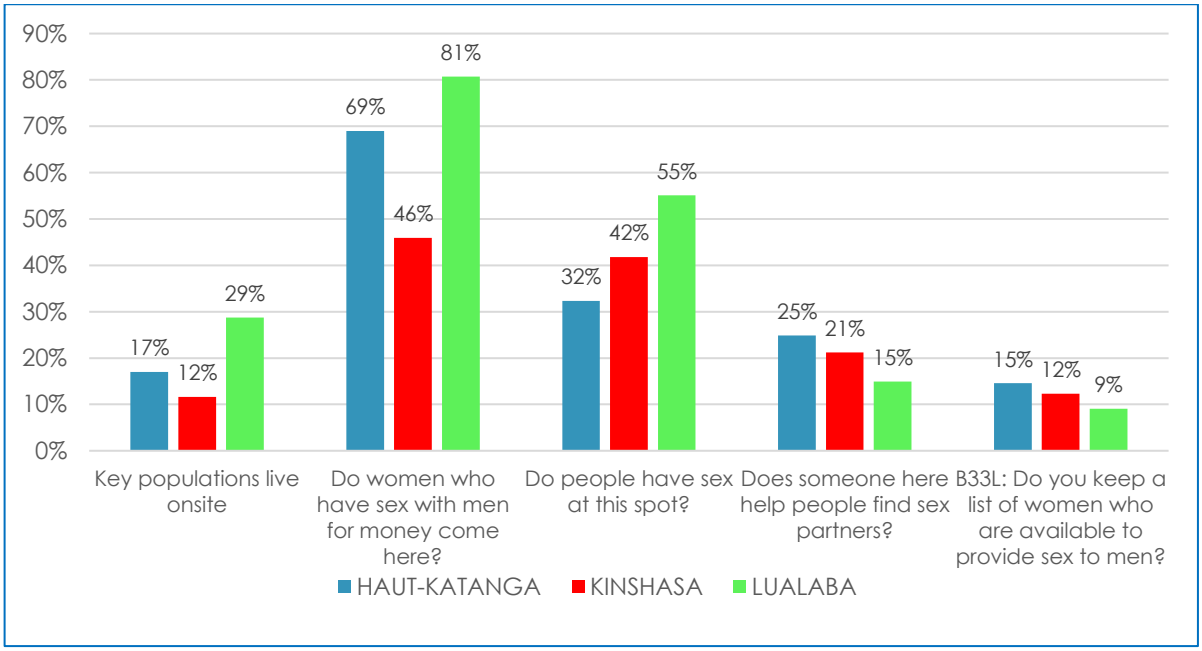
1. Preparation
2. Community informant interviews to identify sites
3. Site visits to validate sites, including an interview conducted with a general site informant such as a bar manager, as well as with one to two female sex workers (FSWs) and/or men who have sex with men (MSM) who were available at the time of the site visit and willing to be interviewed
4. Data preparation, analysis, and use

Results

The main findings include:

- **Number of sites:** Community informants named 1,300 sites. Of these, 951 were previously unknown by nongovernmental organizations (NGOs) working in the area. Of the 1,300 sites identified, 935 were operational, and on-site interviews were conducted at all operational sites. Sites were located in residential areas, commercial centers, and outdoors in the street.
- **Key populations at sites:** Site visits were made to all 935 operational sites in the 13 health zones that were part of the PLACE activity. Of the 935 sites, 788 sites were visited by FSWs, 302 by MSM, and 294 by both FSWs and MSM.
- **Size estimate:** Based on the information from the general site informants, we estimated that 5,400 FSWs are reachable at these sites, as well as 1,200 men who have sex with men.
- **Evidence of sex work:** Based on observations from the interviewers and reports from the general site informants, there was substantial evidence of sex work at the sites, including reports that key populations live at the site, that women who have sex with men visit the site, that people have sex on site, that there is someone who helps people find sex partners on site, and a list of women who sell sex is kept at the site. See Figure E1.

Figure E1. Sex work at sites: percentage of site informants reporting "yes"



Note: The total number of sites in Haut-Katanga is 535, in Kinshasa is 146, and in Lualaba is 254.The percentages use the total number of sites as the denominator.

- **Availability of condoms and lubricant:** Condoms were sometimes available at the sites, but lubricant was rarely available. Condoms were never available at almost half of the sites. Lubricant was never available at over 80 percent of sites.
- **Limited prevention activities at sites with FSWs:**
    - In Haut-Katanga, 44 percent of sites reported never having prevention activities at the site, along with 53 percent in Kinshasa and 28 percent in Lualaba never having prevention activities.
    - More than half of the sites had no HIV prevention at the site during the previous six months, and over one-third had never had any outreach.
    - Over a third of the sites had never had male condoms on site; over 60 percent had never had female condoms. At 60 percent of sites, the site informant could not show a condom from the site to the interviewer.
    - On-site HIV testing was more common in Lualaba and Haut-Katanga, but in Kinshasa 84 percent of sites had never had on-site HIV testing.
    - Peer education had reached only about a third of sites with FSWs. Approximately half had never had any outreach by peer educators.
- **Limited prevention activities at sites with MSM:** The PLACE method identified 302 sites with MSM, as reported by the general site informant:

  Specific indicators of concern were the following:
    - Fewer than half the MSM sites had had free distribution of condoms in the previous six months.
    - Ninety-five percent of the sites did not have lubricant available in the previous six months.
    - Only seven percent of sites had on-site MSM peer education.

Limitations

A few months elapsed between identifying the sites and visiting the sites, and new sites may have arisen that were not visited. We did not interview a representative sample of FSWs and MSM, so adjustment of the size estimates was based on a non-representative sample. The effect of these limitations on the size estimate is unknown but is likely to result in underestimates. Interpretation of size estimates should take into account the relatively small areas that were included; the size estimates are only for these areas.

PLACE Report

BACKGROUND

Based on a request from the U.S. Agency for International Development (USAID), the Priorities for Local AIDS Control Efforts (PLACE) method was implemented in 13 health zones in the Democratic Republic of the Congo that are a focus for PEPFAR programming. There were four objectives:

1. To conduct programmatic mapping of sites where key populations can be reached in the 13 health zones
2. To estimate the size of key populations
3. To identify gaps in service delivery
4. To use the results for action planning to improve services for key populations

See Appendix 1 for the rationale for the PLACE method. See Appendix 2 for the profile of the HIV Epidemic in the DRC.

METHODS

The PLACE method was modified for use in the 13 health zones. There were four steps:

1. Preparation (August–December 2015)

- Scoping visit and desk review of the HIV epidemic in the DRC
- A mapping readiness assessment to assess the acceptability of mapping among key populations and to prepare for implementation
- Protocol development and institutional review board (IRB) review and approval (University of North Carolina [UNC] and Kinshasa School of Public Health)

2. Community informant interviews to identify sites (January–March 2016)

- Interviews with peer educators from nongovernmental organizations (NGOs) working with key populations to identify sites already known to local programs
- Additional interviews with more community informants (such as taxi drivers) in each health zone to systematically develop an exhaustive list of all sites in the 13 target areas
- Sites were defined as physical places or events where people meet new sexual partners. Private sites were noted but excluded from a visit. Internet sites were not included.

3. Site visits to validate sites (June–September 2016)

- Visits to each public site by a trained interviewer and a social mobilizer (either an FSW or an MSM who could facilitate introductions to key populations at each site). The objectives were to:
    - Determine whether the site could be located and if it was operational
    - Obtain the characteristics of each operational site based on observation
    - Obtain additional information based on an interview with someone knowledgeable at the site, such as a bar manager
    - Obtain additional information with available MSM or FSWs at the site at the time of the site visit (target one to two per site, maximum) to estimate population size
    - Obtain Global Positioning System (GPS) coordinates of the site

See Appendix 3 for more information on the methods used for site identification and site validation.

4. Data preparation, analysis, and use (October 2016–January 2017)

- Double data entry of site visit data
- Data quality review
- ArcView for creation of maps
- Size estimation
- Provision of data and results to FHI 360

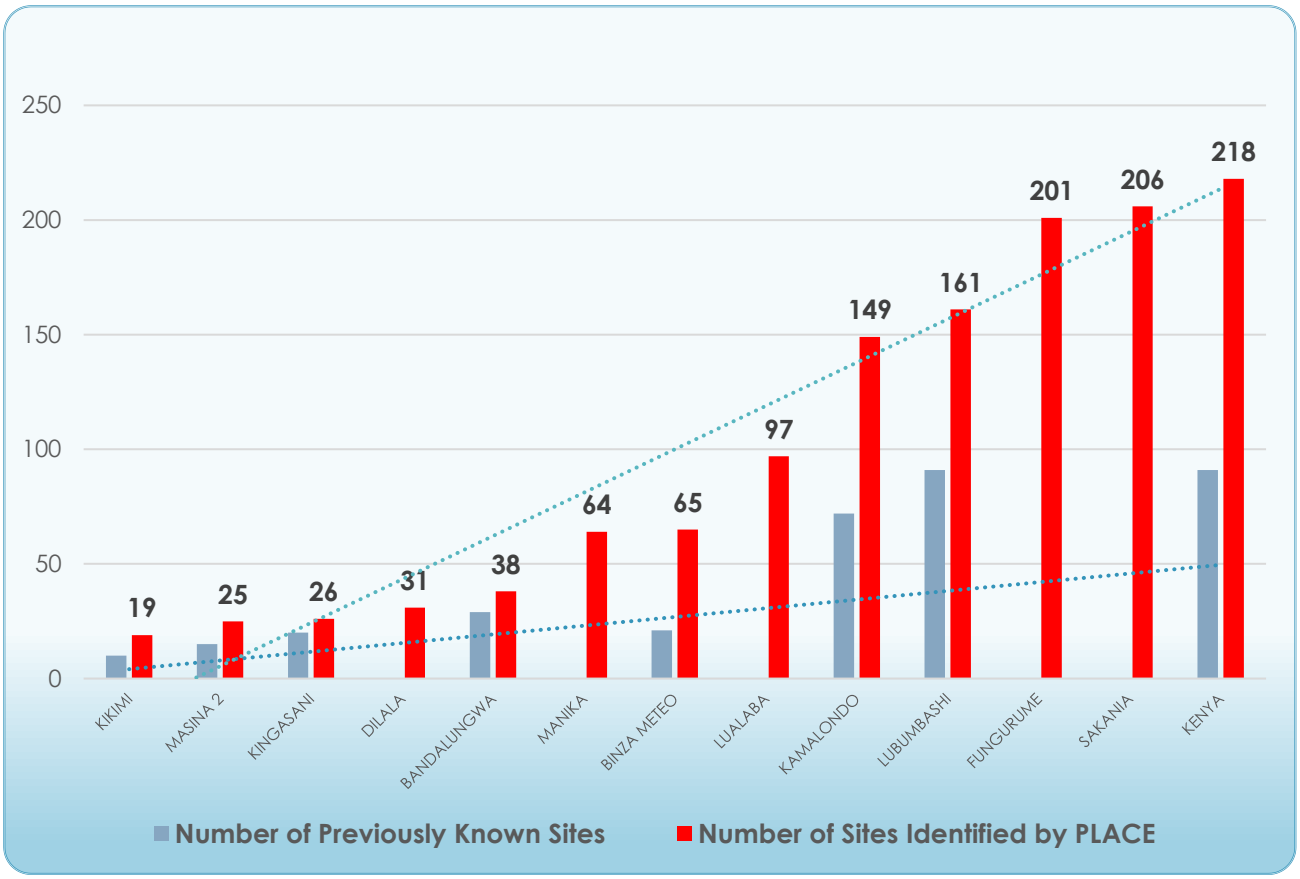
See Appendix 4 for more details on how the size estimates were calculated.

RESULTS

1. An initial 1,300 sites were named by community informants, 951 of which were previously unknown.

Interviews with peer educators working with NGOs in the study areas revealed 349 sites known by peer educators where people meet new sexual partners. Using this list as a starting point, the PLACE team asked additional community informants to identify other places where people meet new sexual partners. The most common types of community informants were bar maids, bar owners, and FSWs. These informants identified an additional 951 sites. The updated list of 1,300 sites was provided to the local FHI 360 LINKAGES office in March 2016 for use in improving access to services. See Appendix 5 for more detailed results from community informant interviews.

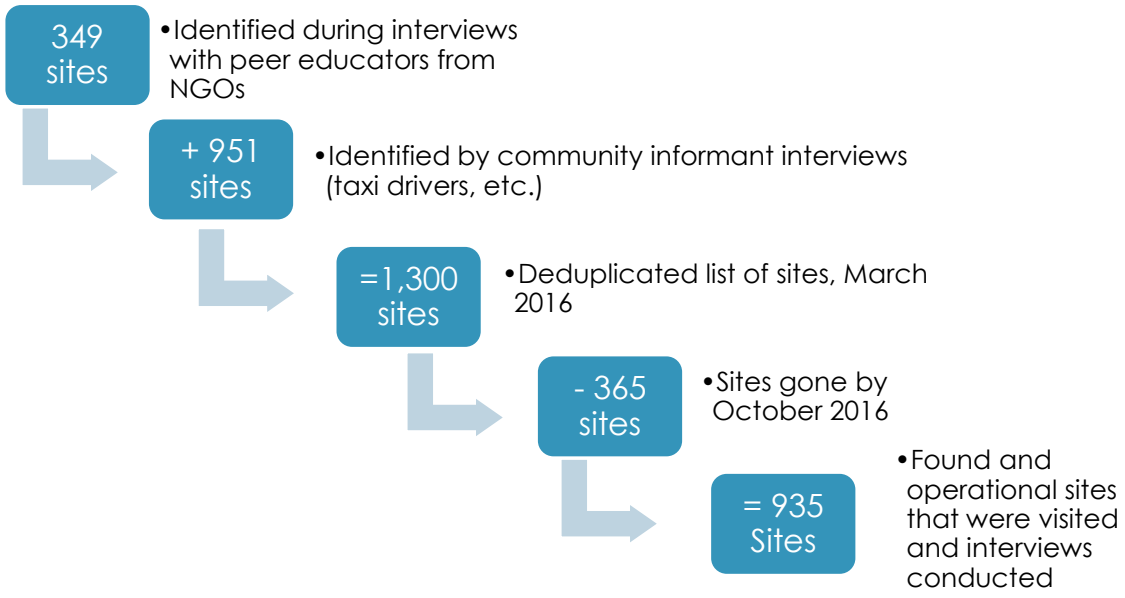
Figure 1. Community informants identified sites in every health zone that were previously unknown to peer educators



2. Of the 1,300 sites identified, 935 were operational, and on-site interviews were conducted.

Of the 1,300 initial sites listed, 365 could not be found when interviewers tried to validate the sites. A few sites were duplicate sites, but most of the 365 sites without an on-site interview had closed between March 2016, when the initial list was developed, and June-September 2016, when the site visits were made. Two sites refused the interview. (See Figure 2.)

Figure 2. Identification of 935 found and validated sites

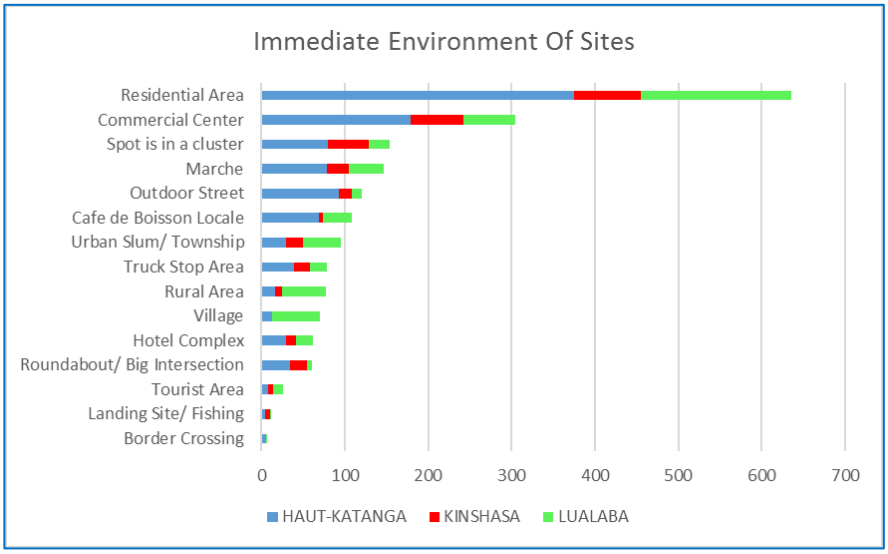


See Appendix 5 for more detailed results from community informant interviews .

3. Sites were located in residential areas, commercial centers, and outdoors in the street.

Many of the 935 sites were located in residential areas, but there were differences by area, with a higher proportion of sites in villages and rural areas in Lualaba. Many sites were clustered together, suggesting that they could be reached by the same team of peer educators. Categories are not mutually exclusive.

See Appendix 6 for more detailed results from site visits.



4. A total of 788 sites were visited by FSWs, 302 by MSM, and 294 by both FSWs and MSM.

Of the 935 site informants, 691 directly reported that FSWs visited the site and 281 directly reported MSM. When asked additional questions about the number of FSWs or MSM who typically visit on Saturday nights, the number of site informants reporting FSWs visiting the site increased to 788; the number reporting MSM increased to 302 (Table 1). Almost all of the MSM sites (except for eight) were also FSW sites.

Table 1. Number of sites by key population

Area	**HAUT-KATANGA**	**KINSHASA**	**LUALABA**	**Total**
Total Number of Sites	535	146	254	935
Number of Sites with Key Populations:				
FSWs	473	83	232	788
MSM	199	50	53	302
Either FSWs or MSM	475	87	234	796
Overlap Between FSW and MSM Sites				
Both FSWs and MSM	197	46	51	294
MSM only (no FSWs)	2	4	2	8
FSWs only (no MSM)	276	37	181	494
Neither FSWs or MSM	60	59	20	139
Other Key Populations				
Transgender (trans) people	80	21	10	111
Women who inject drugs	33	5	11	49
Men who inject drugs	50	9	16	75
Any Key Populations (FSWs, People Who Inject Drugs [PWID], trans, MSM)	477	90	234	801

5. Size estimates found 5,400 FSWs reachable at FSW sites and 1,220 MSM at MSM sites.

See Appendix 9 for more details on calculation of size estimates. The size estimates are for the number reachable at the physical sites in the 13 health zones:

1. Kinshasa (five health zones: Bandalungwa, Binza météo, Kikimi, Kingasani, and Masina II):
    - 1,600 FSWs (mid-point 1,627; low 1,522; high 1,702)
    - 350 MSM (mid-point 353; low 350; high 355)

2. Lualaba (four health zones: Manika, Dilala, Lualaba, and Fungurume):
    - 1,800 FSWs (mid-point 1,793; low 1,661; high 1,915)
    - 70 MSM (no range given because no MSM available to interview at sites)

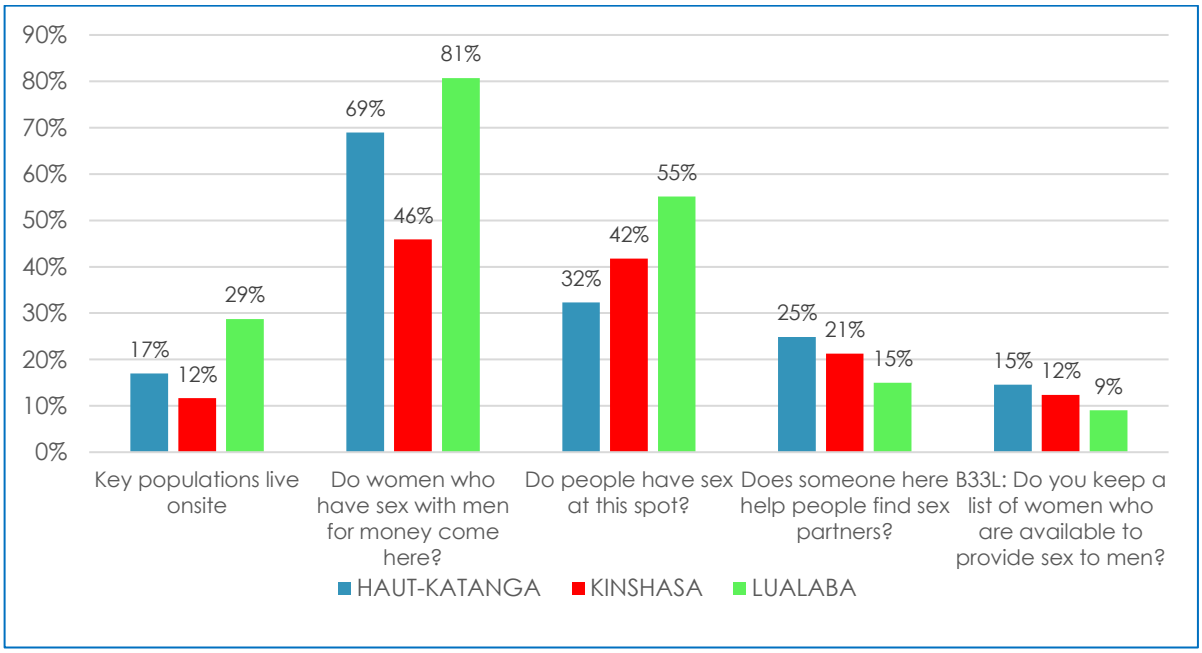
3. In Haut-Katanga (four health zones: Kenya, Lubumbashi, Kamalondo, and Sakania)
    - 2,000 FSWs (mid-point 1,988; low 3,711; high 4,257)
    - 800 MSM (mid-point 761; low 708; high 814)

6. Some FSWs live at the site, and sex often occurs on site.

Based on observations from the interviewers and reports from the general site informants, there was substantial evidence of sex work at the sites, including reports that key populations live at the site, that

women who have sex with men visit the site, that people have sex on site, that there is someone who helps people find sex partners on site, and that a list of women who sell sex is kept at the site (Figure 3).

Figure 3. Sex work at sites: Percentage of site informants reporting "yes"



Note: The total number of sites in Haut-Katanga is 535; in Kinshasa is 146; in Lualaba is 254.The percentages use the total number of sites in the area as the denominator.

7. Condoms were sometimes available at the site, but lubricant was rarely available.

Condoms were never available at almost half of the sites. Lubricant was never available at over 80 percent of sites (Figure 4).

Figure 4. Condom and lubricant availability at sites during previous six months

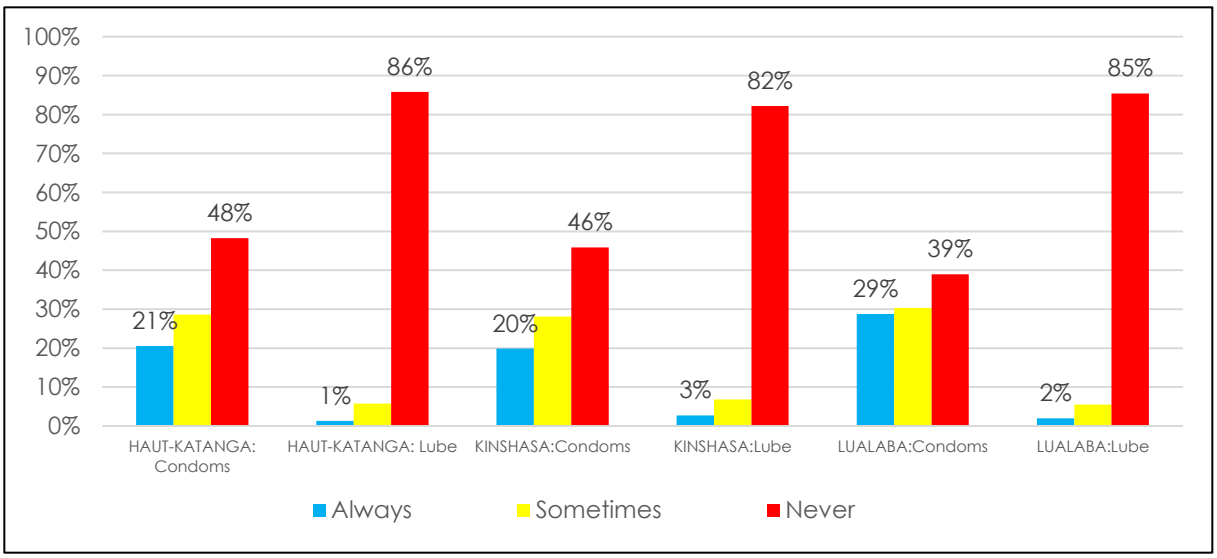
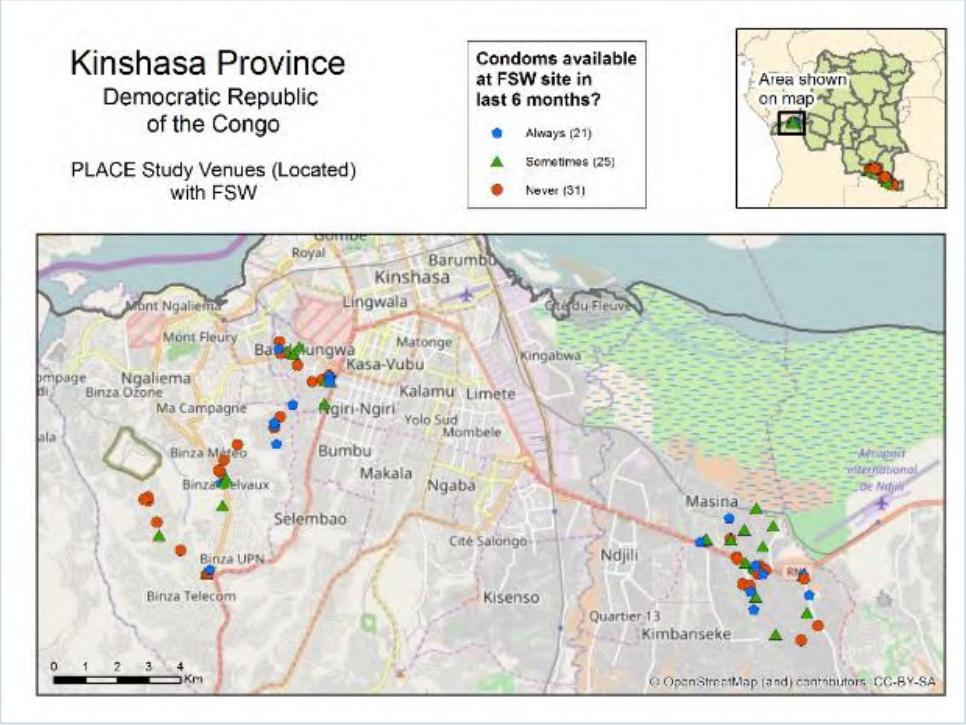


Figure 5. Condom availability at FSW sites in the previous six months

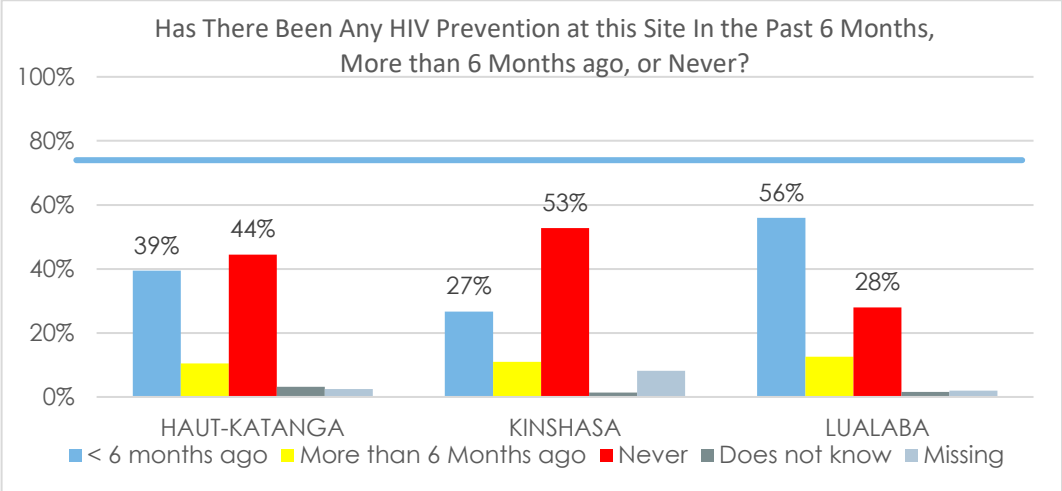


The map in Figure 6 shows the lack of condoms at sites with sex workers in Kinshasa. See Appendix 7 for more maps of condom availability and prevention at sites.

8. Many sites had never had any outreach.

Interviewers asked about several types of outreach at the site. The module started out by asking: *Nous sommes aussi intéressés de savoir si les activités de prévention du VIH ont souvent eu lieu à cet endroit. Pour chaque activité qui a eu lieu dans ce site dans les 6 derniers mois, avant les 6 derniers mois, ou jamais?* This first question asked about any HIV prevention activity at the site. Forty-four percent of sites in Haut-Katanga, 53 percent in Kinshasa, and 28 percent in Lualaba reported never having prevention activities at the site (Figure 6).

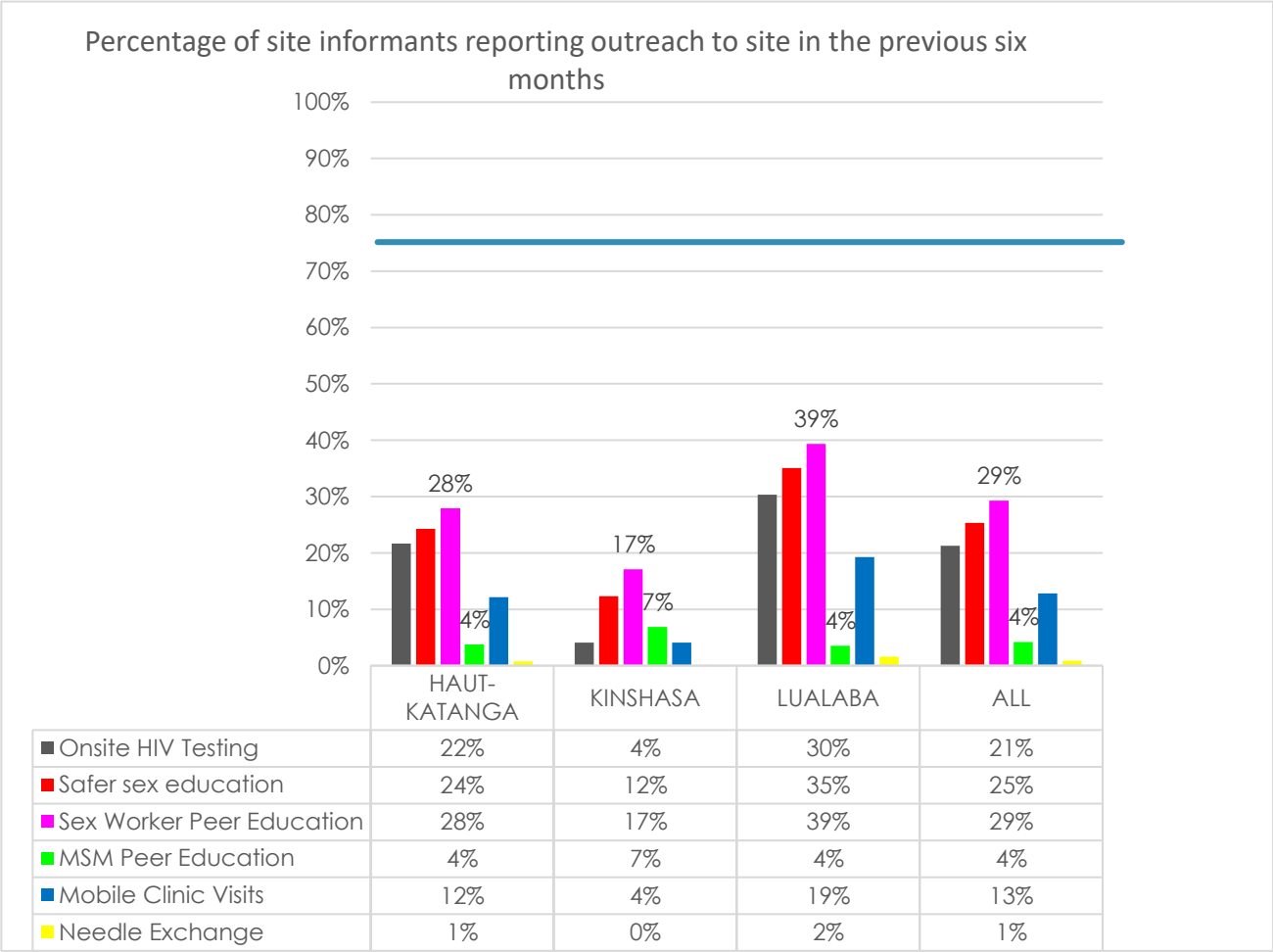
Figure 6. HIV prevention activity at sites



9. Many sites need peer education and on-site testing.

On-site testing, safer sex education, peer education, and mobile clinic visits were not regularly provided at sites (Figure 7).

Figure 7. Percentage of site informants reporting outreach to site in the previous six months



	HAUT-KATANGA	KINSHASA	LUALABA	ALL
Onsite HIV Testing	22%	4%	30%	21%
Safer sex education	24%	12%	35%	25%
Sex Worker Peer Education	28%	17%	39%	29%
MSM Peer Education	4%	7%	4%	4%
Mobile Clinic Visits	12%	4%	19%	13%
Needle Exchange	1%	0%	2%	1%

Here is the wording of the question: Nous sommes aussi intéressés de savoir si les activités de prévention du VIH ont souvent eu lieu à cet endroit. Pour chaque activité qui a eu lieu dans ce site dans les 6 derniers mois, avant les 6 derniers mois ou jamais ?

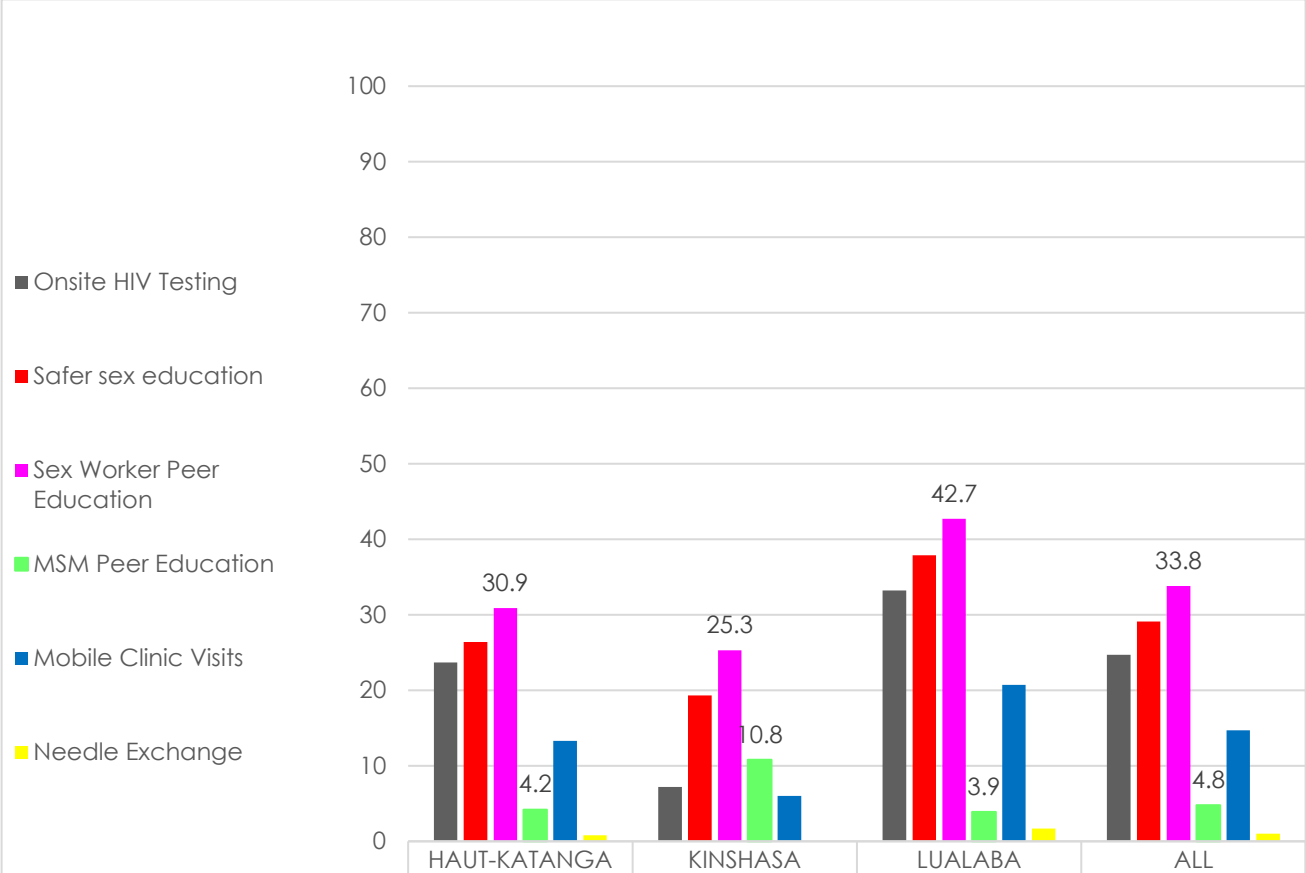
- *A. Une prévention du VIH/SIDA ?*
- *G. Education par des travailleurs de proximité sur les rapports sexuels protégés ?*
- *H. Les visites des pairs éducateurs des professionnels de sexe ?*
- *I. Les visites des pairs éducateurs des MSM?*
- *J. Les visites des cliniques mobiles ?*
- *K. Programme d'échange des seringues ?*

10. Sites with FSWs need more outreach services.

See Appendix 8 for detailed results from FSWs and MSM who were at the sites and interviewed at the time of the site visit. Specific indicators of concern for the FSW sites (Figure 8) were the following:

- More than half of the sites had had no HIV prevention at the site during the previous six months, and over one-third had never had any outreach.
- Over a third of the sites had never had male condoms on site; over 60 percent had never had female condoms. At 60 percent of sites, the site informant could not show a condom from the site to the interviewer.
- On-site HIV testing was more common in Lualaba and Haut-Katanga, but in Kinshasa, 84 percent of sites had never had on-site HIV testing.
- Peer education had reached only about a third of sites with FSWs. Approximately half had never had outreach by peer educators.

Figure 8. Percentage of site informants reporting outreach to FSW sites in the previous six months



	HAUT-KATANGA	KINSHASA	LUALABA	ALL
Onsite HIV Testing	23.7	7.2	33.2	24.7
Safer sex education	26.4	19.3	37.9	29.1
Sex Worker Peer Education	30.9	25.3	42.7	33.8
MSM Peer Education	4.2	10.8	3.9	4.8
Mobile Clinic Visits	13.3	6	20.7	14.7
Needle Exchange	0.8	0	1.7	1

11. Sites with MSM need more outreach services.

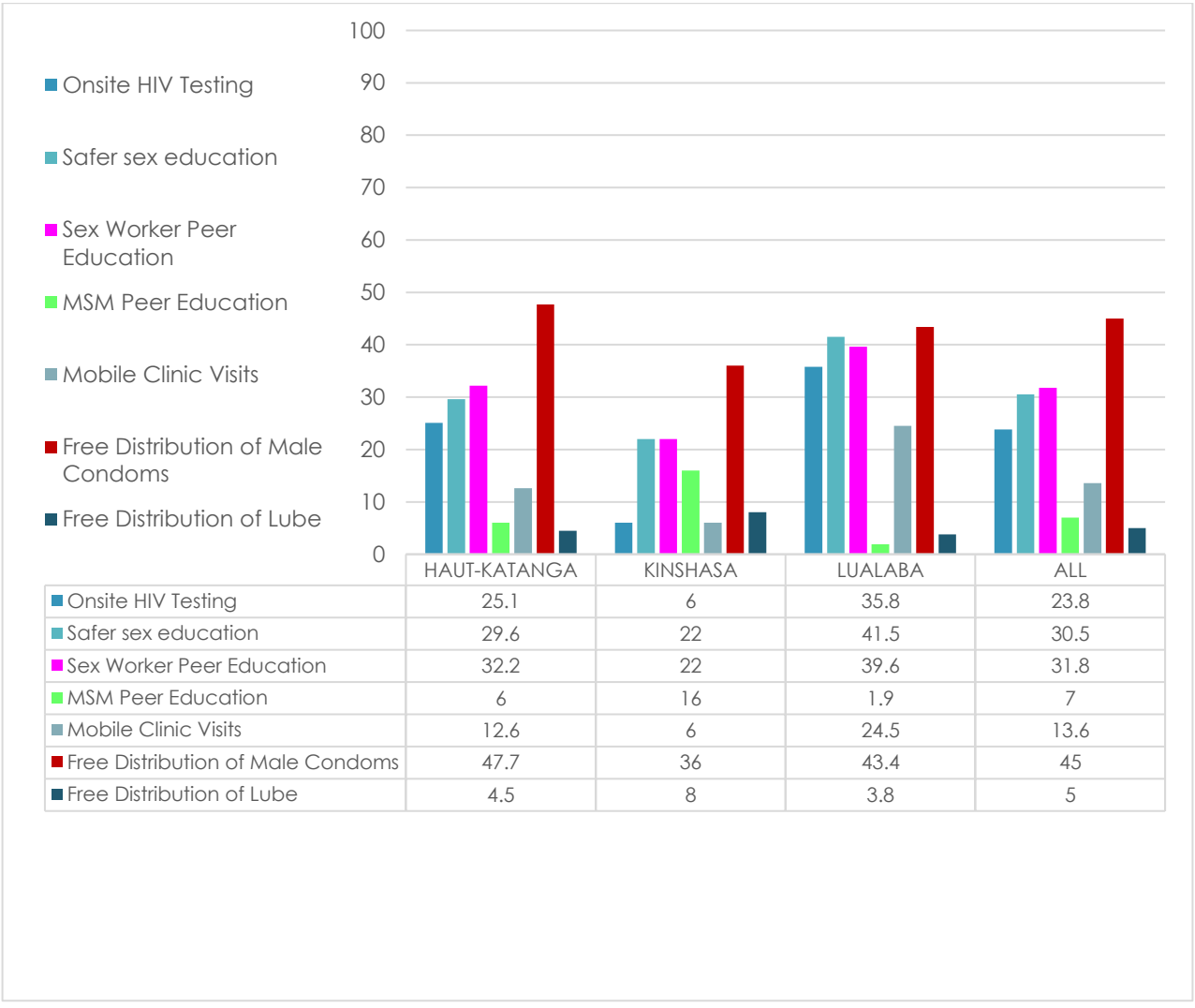
The PLACE method identified 302 sites with MSM, as reported by the general site informant:

- 199 in Haut Katanga
- 50 in Kinshasa
- 53 in Lualaba

Specific indicators of concern for the MSM sites (Figure 9) are the following:

- Fewer than half the MSM sites had free distribution of condoms in the previous six months.
- Ninety-five percent of the sites did not have lubricant available in the previous six months.
- Seven percent of sites had on-site MSM peer education.

Figure 9. Percentage of site informants reporting outreach services to MSM sites in the previous six months

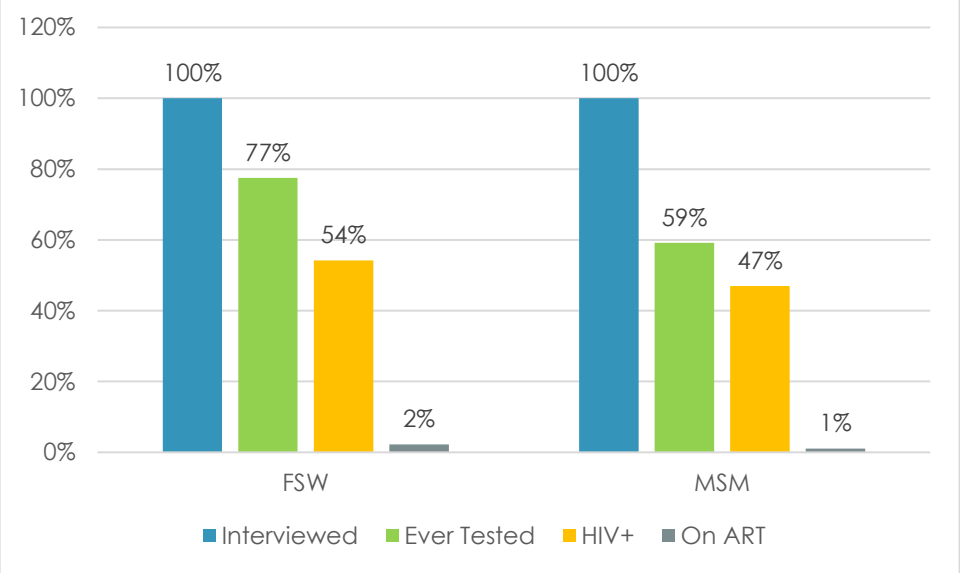


	HAUT-KATANGA	KINSHASA	LUALABA	ALL
Onsite HIV Testing	25.1	6	35.8	23.8
Safer sex education	29.6	22	41.5	30.5
Sex Worker Peer Education	32.2	22	39.6	31.8
MSM Peer Education	6	16	1.9	7
Mobile Clinic Visits	12.6	6	24.5	13.6
Free Distribution of Male Condoms	47.7	36	43.4	45
Free Distribution of Lube	4.5	8	3.8	5

12. Linkage to care is still a concern for MSM and FSWs living with HIV.

Interviewers asked a convenience sample of 98 MSM and 631 FSWs about whether they had been tested, if they had been told by a medical provider that they were infected with HIV, and whether they were currently on treatment. The prevalence of infection was very high, and almost nobody was on treatment (Figure 10).

Figure 10. Percentage of FSWs and MSM reporting ever getting tested for HIV, being HIV positive, and being on antiretroviral therapy



STRENGTHS AND LIMITATIONS

Strengths

1. Data collection was systematic and thorough. Data quality appears excellent.
2. Data were provided on an ongoing basis to the program to facilitate data use.
3. There were only two refusals by site informants.
4. Many sites with FSWs and MSM that were identified had previously been unknown to the peer educators.
5. The size estimates are based on data from site informants, as well as data from FSWs and MSM at sites. The size estimates represent those who can be reached at the sites.
6. The findings reveal actionable gaps in services at sites among key populations.
7. The data reveal the presence of people who inject drugs (PWID) and transgender (trans) in the areas.
8. The surveys were acceptable to the respondents and participation was excellent.
9. New information about how sex work occurs at sites was obtained.

Limitations

1. The size estimates are only for the 13 health zones and only for the population reachable at public sites. If MSM do not go to public sites, they will be further underrepresented.
2. We did not include Form C Surveys of a representative sample of people at the site. That would have allowed further adjustment of the size estimates.
3. We did not implement any outreach testing. Therefore, we do not have prevalence estimates.
4. We did not interview any MSM at any site in Lualaba. The LINKAGES team has also had difficulty reaching MSM in Lualaba.
5. There was a delay between site identification and site visiting which could have resulted in an underestimate of the size of the populations.

Next Steps

1. The size estimates do not appear to be consistent with the number of FSWS and MSM reached in the first quarter of the program. Further analysis should be undertaken.
2. We should conduct a data use workshop to ensure that implementing partners use these findings.

Appendix 1. General Rationale for the PLACE Method

1.1. HIV epidemics are local, so our programming should be based on local data.

The HIV pandemic is global, but the epidemic differs widely by country. Within a country, HIV prevalence differs by region, district, and even community. In fact, no two local HIV epidemics are the same. Local epidemics are driven by sexual and injecting drug use networks in unique local contexts — whether urban, rural, along a major highway, within a fishing village, or along drug trafficking routes. Although the HIV epidemic is global, all transmission is local. To be effective, local responses should be tailored to the local context and drivers of transmission.

The PLACE method focuses on places where new sexual partnerships are formed because the pattern of new partnerships in a community shapes its HIV epidemic. The method can be extended to include places where people who inject drugs can be reached. A place-based approach has programmatic advantages. Approaches based on risk group status, such as being a trucker or sex worker, can be stigmatizing and often inadequate in generalized epidemics. Clinic-based approaches miss most people with high rates of new sexual partner acquisition.

This method was developed at the University of North Carolina and pilot tested in 1999 in Cape Town in collaboration with the University of Cape Town. USAID has supported development of the method through the MEASURE Evaluation Project.

1.2 People who acquire and transmit HIV are often hidden, requiring community outreach.

The PLACE method addresses the challenge of how to identify and tailor prevention programs to local epidemics. Not only are many people asymptomatic, which contributes to a hidden epidemic, but persons occupying central positions in HIV transmission networks are often members of mobile, stigmatized, and hard-to-reach populations. Because many people do not know their HIV status and because many of those who are infected are hidden, there is a need for methods based on sound epidemiologic science that use technology appropriate to the local setting to uncover local transmission networks in a way that leads to effective, ethical, and evidence-based prevention.

The PLACE method increases the understanding of the local HIV epidemic among service delivery providers, community leaders, and other stakeholders so that a response is tailored to the epidemic. The heart of the strategy is to identify where to reach those most likely to acquire and transmit infection, measure gaps in services to these people, and develop action plans to address the gaps.

1.3 Higher-incidence areas can be identified based on contextual information.

PLACE is a tool to help focus resources where they are most cost-effective for preventing the spread of HIV. Epidemiological theory suggests that HIV infections cluster geographically and that identifying these geographic areas where transmission is most likely to occur is a reasonable prevention approach. A barrier to the identification of these priority areas and development of informed sexual network-based interventions within priority areas has been the lack of rapid, reliable, and valid field methods for identifying area with high rates of new sexual partnership formation.

The Priorities for Local AIDS Control Efforts (PLACE) method is a monitoring tool to identify priority areas and specific locations within these areas where HIV prevention programs should be focused. Population-based sero-surveys to empirically identify areas with high HIV incidence are rarely conducted due to cost, feasibility, loss to follow-up, and ethical concerns. Contextual factors often associated with areas with high HIV incidence include:

- High population density
- Poverty and unemployment
- Lack of health care services
- Alcohol consumption
- High population mobility
- Urbanization and rapid growth
- Male and female sex work
- Drug injection
- High male-to-female ratio

1.4 The PLACE method is systematic.

PLACE includes the following components:

Preparation:

- Engagement with key population communities, stakeholders, and service delivery providers to ensure that the results are used to improve the delivery of services
- Systematic review of available data and information to identify areas in the country where HIV transmission may be greatest and where treatment and prevention needs are most acute
- Development of a pragmatic typology of key populations in these areas so that services can be effectively tailored

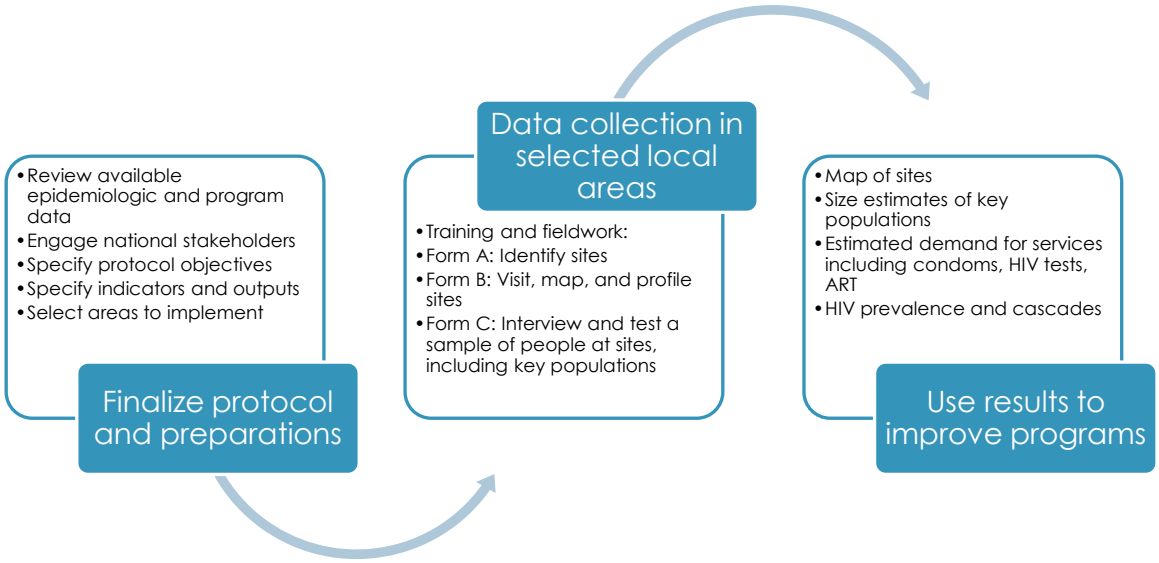
Data collection:

- Identification of the public places and locations where key populations congregate and could be reached with services
- Interviews with site informants about the characteristics of people who visit the site, when it is busy, and the extent of HIV prevention outreach to people at the site
- Interviews and testing of people at the site in order to construct the 90-90-90 treatment and prevention cascades (this was not included in the DRC)

Analysis:

- Estimation of the size of each key population that could be reached at the site
- Analysis of the findings to make concrete plans to improve program coverage

Figure 1.1. Components of the PLACE method



If implemented according to the protocol, the PLACE method is rigorous and systematic and provides results that can be replicated. The method includes a preparatory phase, a data collection phase, and an analysis phase. The first step in the PLACE method is to consult with stakeholders to tailor the protocol appropriately. Desk reviews and consultations use available epidemiological and contextual information to identify areas likely to have a higher incidence of HIV infection.

Subsequent steps use rapid field methods to identify sites (Step 2) and describe and map sites (Step 3) within these areas where people with many new sexual partners can be reached for prevention interventions. Characteristics of people socializing at sites are also obtained, as well as information on the number of key populations visiting the sites. In some settings, a survey of people socializing at the sites is conducted along with HIV testing. These data provide additional information about gaps in programs. Finally, the information is used to inform interventions in the area (Step 5).

Appendix 2. HIV Epidemic Profile of the Democratic Republic of the Congo

The following epidemic profile of the Democratic Republic of the Congo (DRC) was prepared in the first year of the LINKAGES project by UNC using core funding and is included here as background relevant to the planning of the PLACE study in the DRC.

Democratic Republic of Congo: HIV Epidemiologic Country Profile

Geography and Demography

- Located in Central Africa, with 26 provinces and **1** city province[1]
- Total population is **67.5** million people (2013 estimate)[2]

Surveillance: Countrywide

- In 2014, the country-wide HIV prevalence rate was **1.2 percent** with regional variations (**0.2 percent** in Bas Congo to **4.0 percent** in Maniema).[3]
- HIV prevalence is higher among women (**1.6 percent**) than men (**0.6 percent**) and in urban populations.[3]
- HIV prevalence is highest in the **30–44 years** age group in women and the **35–39 years** and **45–49 years** age groups in men.
- A total of **380,000** adults ages **15 years** and above are living with HIV.[4]
- There are **34,000** new HIV infections annually.[4]
- A total of **66,000** children ages **0–14 years** are living with HIV.[4]
- Annual AIDS mortality is **30,000** people.[4]
- In 2012, **220,000** individuals were eligible for antiretroviral therapy (ART), but only **64,219** individuals received ART.[5]

Surveillance: Key Populations

- A total of **41,667** commercial sex workers (CSWs) were reached with individual or small-group interventions by PEPFAR in 2013.[7]
- There were **21,567** CSWs (male and female) across **1,300** sites in Kinshasa, Bas Congo, Orientale, and Katanga provinces.[6]
- Overall HIV prevalence among FSWs was **6.9 percent** in 2012, ranging from **4.3 percent** in Mbandaka, Equateur province to **14.6 percent** in Mbuji-Mayi, Kasai Oriental province.[6,7]
- HIV prevalence increases with age among FSWs.
- Syphilis prevalence among FSWs was **11.9 percent** in 2012, and herpes simplex prevalence was **58.5 percent** in 2002.[6,8]
- **868** MSM were supported by USAID's ProVic program.[6]
- **821** MSM were reached with individual or small-group interventions by PEPFAR in 2013.[7]
- HIV prevalence rate among MSM was **13.8 percent** in 2012.[6]
- No data exist on people who inject drugs and transgender populations.

Democratic Republic of Congo: HIV Epidemiologic Country Profile (continued)

Interventions

- Package of services for key populations not yet defined

HIV Cascade Indicators among Key Populations in DRC

Reached	Tested	Enrolled in Care	Initiated on ART	Sustained on ART	Suppressed Viral Load
•FSWs: 41,667 •MSM: 868	•FSWs: 2,875 •MSM: 20				

Health System

- The National Health System is organized in four tiers[1]:
  - Central, including the Public Health Ministry and the General Secretariat
  - Provincial, including the Health Provincial Inspection
  - District with three divisions (General, Medical, and Hygiene Services)
  - Local, which corresponds to the health area (zone de santé) headed by a Provincial Medical Officer
- The National response to the HIV epidemic is coordinated through the National Multisectoral Program for the Fight against AIDS
- PEPFAR currently works in three provinces—Katanga, Kinshasa, and Orientale (where HIV prevalence rates are **1.5 percent, 1.6 percent,** and **2.3 percent**)[6]
- ART coverage in 2012 was 29 percent[5]
- **25,742** people living with HIV/AIDS reached with a minimum package of interventions
- Currently existing key population programs: ROADS II, ProVic

Biobehavioral Factors

- Approximately half of the women in the general population knew that condom use reduces the risk of HIV transmission; this was lowest in Kasai Orientale.
- Condoms were used by 79 percent of CSWs at last sexual intercourse.
- More than three in four CSWs had paid sex with at least two partners in one week preceding a behavioral survey.
- No data exist on biobehavioral factors among people who inject drugs, MSM, and transgender people

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Appendix 3. PLACE in DRC: Methods for Site Identification and Site Visiting

3.1 Overview of Methods

The table below shows the five steps of the PLACE method and key features of its implementation in the selected areas. This appendix describes the PLACE method as it was implemented in the DRC.

Table 3.1. Steps in the PLACE protocol: overview

Step	PLACE Objective	DRC Implementation
1	To consult with stakeholders, prepare the PLACE strategy and protocol and identify areas	USAID selected where PLACE would be implemented.
2	Within selected areas, to identify locations where people meet new sexual partners and where people who inject drugs can be reached	Implemented in all priority zones. The focus was on identifying sites where MSM and FSWs could be reached.
3	To visit, map, and characterize these locations in each selected area	This was implemented in all priority zones. In addition, the team attempted to interview one to two key population members at each site visited.
4	To describe the characteristics of people at these locations including HIV prevalence, the HIV prevention and treatment cascades, access to services, and gaps in services	Not included as part of PLACE in the DRC
5	To use findings to inform interventions	Important for all selected areas

3.2 Preparation

The preparation phase included the following:

- Discussions with members of the FHI 360 LINKAGES team and any other available implementing partners to obtain input on future use of programmatic mapping and findings
- Field testing of data collection instruments and recruitment strategies
- Division of areas into sub-areas for mapping and managing logistics
- Operationalization of terms such as "key population," “site,” and “access to services”
- Discussions with groups to identify sub-groups of key populations and operational definitions for each sub-group
- Strategy for recruitment and payment of interviewers

- Development of typology of sites where people meet new sexual partners
- Development of a logistics plan for transportation
- Pilot testing of forms and review of all translations
- Interviewer training materials
- Development of system to uniquely identify sites that can be used by programs

The Mapping Readiness Assessment (MRA) protocol was developed in collaboration with UNAIDS, The Global Fund, and the University of Manitoba. The objective of the aim of the MRA is to:

- Identify key community partners for programmatic mapping
- Define and describe key populations (KPs) to be mapped
- Assess the legal environment for KPs and mapping
- Assess data safety and security considerations and capabilities
- Gather perspectives from relevant stakeholders
- Gather perspectives from KPs about mapping
- Gather perspectives from service and health care providers about mapping and using the information for program development
- Gather perspectives from programmatic mapping team to assess preparedness
- Summarize decision about the risks of programmatic mapping
- Use the information to create a comprehensive list of the risks of programmatic mapping in your setting and identify strategies to reduce or eliminate each risk

The ultimate aim is, together with key stakeholders and representatives of the community, to consider the information gathered in these activities to make a decision about whether to move forward with programmatic mapping and, if the decision is made to move forward, to create a step-by-step plan to address each risk identified.

The PLACE protocol was adapted to local needs and circumstances. Interviewer selection was guided by interviewing experience, the sensitivity of the study questions on sexuality, fluency in local languages, flexibility regarding working hours, and ability to communicate well with a wide range of respondents.

3.3 Site Identification: Why identify sites? What is a site?

The PLACE method defines a site as a place or event in a district where people with high rates of partner acquisition meet to form new sexual partnerships or where people who inject drugs can be reached. A site could be a bar, a brothel, an all-night party, or a marketplace. Sites may include youth sites, clandestine sites, small sites, popular sites, sites where men who have sex with men meet partners, and sites where sex workers solicit clients. Events and websites are also included. In rural areas, sites may cluster around taxi stops or places that sell beer or alcohol. New partnerships are an important focus because individuals with high rates of new partner acquisition are more likely to transmit infection and because individuals with newly acquired infections are more infectious. Identification of all sites in an area, not just traditional “hot spots,” is encouraged. Along with well-selected monitoring and evaluation indicators, a map of these sites can help program planners focus intervention efforts at sites where the opportunity for HIV transmission is likely to be greatest. Specifically, the following are included as sites:

- Public buildings such as bars, brothels, restaurants, train stations
- Public outdoor locations such as streets, parks, bus stops
- Public events such as markets and street dances
- Public websites such as Facebook

The following sites are not included:

- Private homes
- Private parties
- Jails and prisons, unless permissions are obtained

Some people use the term "hot spot," to refer to a site where key populations congregate and could be reached with services. We prefer terms such as "site," "location," or "place," as these terms are less stigmatizing. Other people use the term "hot spot" to refer to an entire area such as a fishing village or transportation corridor where HIV risk may be high.

3.4 Method to Identify Sites in the DRC

The method included the following steps:

(1) Ask peer educators to list known sites and compile these sites into a list.
(2) Select and train counselors and peer educators to conduct field interviews with community informants by using Form A.
(3) Conduct the interviews with community informants starting with an update of sites represented in the existing lists, then complete the lists with the new sites identified by using the principle of "saturation."
(4) Continue until no new sites are named.

3.5 Selection of Community Informants

Community informants are people knowledgeable about the movement and behavior of people in an area. The types of people likely to be the most knowledgeable were identified during the mapping readiness assessment. These included members of key populations, bar managers, taxi drivers, police, security guards, janitors/housekeepers, street cleaners, market sellers, sex workers, health workers, truckers, and street sellers.

Community informant interviewing is the primary method used by PLACE to identify all sites where residents of the area meet new sexual partners. Community informant interviews are a rapid method for obtaining sensitive data not otherwise available and are especially useful for obtaining data such as a list of sites that can be verified by other sources. By developing a list of sites from many community informants, the bias from any individual informant is reduced. In addition, self-presentation bias is minimized by not asking about an individual's own sexual behavior.

To be eligible to participate as a community informant in the DRC, the person had to be:

- Identified by the interviewers as someone likely to be knowledgeable about the community
- 18 years of age or older
- Willing to participate after being informed about the project

3.6 Training for Form A

Interviewers were trained to identify community informants and ask them to identify sites where people, including members of key populations, meet new sexual partners. In addition, the training covered issues

regarding stigma and discrimination against key populations, safety, how to obtain informed consent, and how to use Form A in different languages. Interviewers are also trained in interviewing techniques, privacy and confidentiality, and being a good member of the team.

Summary of topics covered in training:

- Who is a community informant?
- How to ask questions
- How to approach community informants and request informed consent
- Having a nonjudgmental attitude
- Working together as a team
- How to ensure data quality
- Review each questionnaire item by item
- Role play interviews
- Interviewer safety
- Contingency planning

3.7 Content of the PLACE Form A Interview

Each interview of a community informant takes between 10 and 20 minutes. The informant is asked to name sites in the area where people meet new sexual partners and then to indicate the location, nearest landmark, approximate size (based on number of patrons at a busy time), and typology of each site named, the busiest day and time at the site, whether sex occurs on site, and whether the following people come to the site:

- Women who sell sex for money
- Women who trade sex for goods
- People who inject drugs
- MSM

3.8 Method to Compile Reports into a List of Unique Sites and Assess Completeness

After data collection, site identification forms were collated by zone. A site could be named many times. This list of site reports was subsequently collapsed into a list of unique sites with a variable added to indicate how many informants named the site.

Several methods are available to gain insight into the completeness of the lists at the end of fieldwork for Step 2. These include:

(1) An assessment of whether the target number of community informants were interviewed
(2) A comparison of the number of sites named per population
(3) An assessment of the number of sites named by only one person. If more than 50 percent of sites were only named by one person, this could be an indication of incompleteness.
(4) Qualitative reports from interviewing teams about the level of completeness

Methods used to assess completeness of the lists after completing the rest of the field work include:

(1) Reclassification of some sites named by only one person as duplicate sites based on information obtained during the site visit.
(2) Comparison of the list of sites named during a site visit in answer to the question: "Where else do people go to meet new sexual partners?" with the full list of sites obtained from community informant interviews. New sites are continuously emerging, but we expect that no more than 15 percent of sites named by a site informant will be new sites that were not previously on the list.
(3) Interviews with patrons and workers at a site during Form C may identify new sites where sex workers are soliciting clients. Form C was not used in the DRC, so this option is not possible.

Due to the political unrest and poor communication between Kinshasa and UNC in mid-December, we delayed these assessments. Since care was taken during fieldwork to identify sites until no new sites were named, it is likely that the lists are fairly complete.

3.9 Overview of Site Visits and Mapping and Rationale

In this phase of the fieldwork, interviewers visited each site to verify its existence and location and to interview a person knowledgeable about the site (such as a bar manager or owner) in order to obtain characteristics of the site important for AIDS prevention. Where someone was not available for interview on the first visit, an appointment was requested for a re-visit. Verbal consent for an anonymous interview was obtained for each completed interview. Respondents were asked about the following:

- Name of the site and number of years in operation
- Types of activities occurring in the site
- Estimated number of people visiting at peak times
- Whether MSM and FSWs visit the site
- Patron characteristics, including residence, employment status, age, and gender
- Whether people meet new and previous sexual partners at the site
- Extent of HIV/STI prevention activities on-site, including condoms and posters
- Willingness to sell condoms

Programmatic mapping has been used in epidemiology for both communicable and noncommunicable diseases for many years. Over the past 10 to 15 years, the method has been improved and implemented on a large scale to help focus HIV prevention efforts. Donors including the Global Fund, USAID, and the World Bank have recognized the value of programmatic mapping for improving programs for key populations. Key populations are defined by the Joint United Nations Programme on HIV/AIDS (UNAIDS) as groups who, by nature of their high-risk behaviors, are at increased risk of HIV acquisition irrespective of the local context. This protocol focuses on key populations in PEPFAR priority zones in the DRC and includes the standard components of programmatic mapping.

In the context of the HIV epidemic, programmatic mapping documents where key populations can be reached, whether services are available and accessible to key populations in these locations, and where there are gaps in services. Programmatic mapping reflects a renewed focus on the need for an informed local response to local epidemics. According to recent UNAIDS guidance:

> *"*Addressing the specific issues within local epidemics is crucial to a greatly improved HIV response. Focusing on the areas where the HIV epidemic is highly concentrated, identifying the places where services are lacking or not reaching the people in need of prevention services, testing, treatment and support are the first steps towards achieving more efficient and effective programs*."*

Programmatic mapping can improve program planning and service delivery. Some of the reasons to map sites include:

- Programmatic mapping reveals geographic pockets of a city or district with key populations that have been missed at clinic or program centers.

- Mapping identifies specific sites unknown to service delivery providers where key populations can be reached. Outreach to key populations at sites in these areas can increase access to services.

- Mapping identifies where condoms, lubricant, and safe injecting equipment should be accessible. A visual map can identify where supplies are needed.

- Mapping is a form of "ground-truthing" that gives incontrovertible evidence of risk environments that need services with evidence that cannot be denied or ignored by funders.

- Mapping is a locally implemented exercise that can be collaborative and build working relationships between key populations and health delivery providers.

- Mapping can be used to uncover human rights abuses, such as police harassment, discrimination, rape, child trafficking, coercion by third parties, and forced migration, and to improve relationships with the judicial and police systems.

- Mapping provides concrete information that can be used to assess program coverage and improve the reach of services.

- Systematic mapping also offers an opportunity for estimating the number of members of a key population who visit these sites. Initial estimates obtained from counting the number of each key population at sites are usually adjusted based on information obtained on frequency of site attendance, frequency of visiting more than one site, length of time spent in the locality, and duration of membership in the key population.

- Mapping can improve collaboration between key population groups and program planners. During programmatic mapping, key populations and service delivery providers work together to identify opportunities for extending coverage.

- Programmatic mapping is often part of program planning, monitoring, and evaluation rather than an external research activity.

3.10 What is a site profile?

When the PLACE team visits a site, it interviews a general site informant and one to two key population members who are at the site at the time of the visit. The information obtained provides a profile of the site: its physical characteristics, the characteristics of the patrons and workers at the site, how many people visit the sites, its busy times, and the extent to which HIV prevention services are available at the site. The profile is a summary of the information that is needed by an outreach program to begin planning outreach visits to the site.

3.11 Recruitment of Site Informants in the DRC

In the DRC, there were three types of site informants:

(1) **General site informant**: This is a person age 18 or older who is knowledgeable about the site and is willing to participate in the survey. Bar managers, site staff, and regular patrons often serve as a general site informant.
(2) **FSW**: This is a female age 18 or older at the site at the time of the PLACE team visit who is willing to answer a few questions about the site and describe how many FSWs come to the site and her access to and use of health services.
(3) **MSM**: This is an MSM age 18 or older who is at the site and who is willing to answer a few questions about the site, how many MSM come to the site, and his access to and use of health services.

To be eligible to participate as a general site informant, an FSW site informant, or an MSM site informant, the person must have been:

- Identified by the interviewers as someone likely to be knowledgeable about the site
- 18 years of age or older
- Willing to participate after being informed about the project
- Willing to participate in the interview after providing informed consent

Each person was provided information about the PLACE study and asked to voluntarily participate. There was no financial or other incentive provided.

How General Site Informants are Recruited in the PLACE Method

When the interviewers arrive at the site, they use their judgment to ask people at the site to identify a potential general site informant. At each site that is selected for a visit, trained interviewers seek one person, such as a manager, owner, or regular customer, who can answer questions about activities that occur on-site and the people that visit the site. Each interview takes between 20 and 30 minutes. After requesting participation, the interviewer asks the first respondent a few brief questions about the site (e.g., how long it has operated, busy times), activities that take place (e.g., alcohol consumption, dancing, sex on site), and HIV prevention activities on site (i.e., condom availability, outreach education, HIV testing). Responses will be collected.

The interviewer also records observations about the site, such as its physical nature and whether there are any visible HIV/AIDS prevention materials or condoms. The site informant will also be asked whether members of key populations visit the site. Geographic coordinates of each site will also be recorded for mapping purposes. Data are collected using Form B.

How FSW and MSM Site Informants Are Recruited in the PLACE Method

At sites where FSWs or MSM are expected to be present, the interviewer, in consultation with social mobilizers from each key population expected at the site, seeks one or two members of each key population at the site to answer a short set of questions about the number of members of that key population that comes to the site. If possible, the interviewer requests the participation of a second and third member of a key population to confirm the numbers reported. This information on the number of key population members visiting the site will be used to estimate the numbers of key population members on site at busy times, due to potential biases from any one respondent concerning this information. Data will be collected using Form B.

If a key population member is not available during the first visit, the interviewer-social mobilizer pair can return to the site up to a total of three visits. Note that if the site was not reported to have key

populations, a social mobilizer may not accompany the interviewer. The interviewer may ask to speak with key population members at the site if there are any available.

3.12 Training for Form B

Interviewers were trained by Jean Lambert Chalachala. Training materials already developed by the University of North Carolina at Chapel Hill were adapted to the DRC setting, and new materials were created as needed. Training covered how to be a good interviewer, how to ask probing questions, how to maintain confidentiality, how to approach a potential respondent, and how to request informed consent. Each question was reviewed and practiced.

3.13 Content of the Form B Interview

During the meetings with stakeholders, we asked for input into the content of the interviews with the general site informant and with the key population site informants, as well as for input into the content of the interviewer site observation module. The following information was included in the interview and observation module (list is not exhaustive):

Information by observation:

- Name of site
- Type of site (note that the typology of sites was developed during preparation phase)
- Physical address
- Prevention visible at site: whether condoms, lubricant visible or not
- Outcome of site visit (Select 1): Site Found and Interviews Conducted, Site Not Found, Duplicate Site, Site Closed, Site Found but Informant Refused to Participate, Other Reason (Specify)
- Characteristics of area around site: trading center, truck stop, fishing village, tea estate, urban slum, etc.
- Physical characteristics of site: electricity, indoor toilet, video, alcohol sales, residence for sex workers

Information from General Site Informant:

- Type of informant interviewed at site
- Type of key populations at site
- Number of each type of key population at site at the peak time and during a standard time such as Saturday night
- Number of female workers at the site at a busy time
- Number of male and female patrons at the site at a busy time
- Busiest times at the site during week
- Hours of operation
- Prevention activities at site (condom distribution, outreach testing, and peer education) and when (now, in previous 12 months, or never)

Information to Obtain from Key Population Members at a Site:

- How often do you come here?
- Do you work here?

- When are the peak times at the site for key populations?
- How many key populations are at site at peak times?
- How many key population members are at the site at a standard time such as Saturday night from 9 p.m. until midnight?
- How many other sites do key population members visit during the standard time period?
- What services did you receive in the past month (yes or no): condoms, treatment for STI, HIV testing, lubricant, HIV treatment
- Where did you access services?

This protocol does not map locations where key populations obtain services. We ask people at sites if they have accessed services and where they have accessed services. Gaps in services can be determined from this information.

3.14 Selection of Sites for A Site Visit

All sites that were identified were scheduled for a visit. There was no sampling.

Appendix 4. PLACE in DRC: Methods for Size Estimation

4.1 What is the interpretation of the size estimates?

Size estimates based on site data from site visits are the estimates of the number of FSWs/MSM who can be reached at public sites identified as places where people meet new sexual partners. The estimate does not include people who do not visit these sites.

The estimates that are based only on data collected during site visits does not include people who are not known to be FSWs (or MSM) to the informants who are asked the question about how many FSWs (or MSM) visit the site. Consequently, the size estimates from PLACE are underestimates of the total number of key population members in an area.

Venue-based size estimates may significantly underestimate the total number of MSM in an area. They do not include people who do not go to venues. The estimate should be interpreted as the number of MSM who could be reached at venues. Some people argue that a venue-based size estimate is not useful to programs because recruitment of MSM is more efficient using networks than using outreach to venues. Both approaches have their merit. Network recruitment of MSM into MSM programs is reasonable and recommended but it may have some limitations in some contexts that make the venue-based estimate useful. For example, network recruitment may be limited to subgroups that do not reach MSM who go to sites or network recruitment may be in its initial phase and have limited information on MSM sites in certain parts of a district or city. Network recruitment may have limited success in recruiting bisexual men or men who self-identify as heterosexual, or who present themselves as heterosexual but engage in sex with other men. Some MSM are reluctant to associate with a network of MSM, at least initially when there is fear of association.

In the DRC, we did not implement any additional interviews with a sample of patrons and workers at a site (Step 4 in PLACE); thus, we cannot adjust the size estimates.

4.2 Size Estimates Based on Data from the General Site Informant

Two crude estimates can be calculated. The first crude size estimate (CSE) is:

- Crude Size Estimate 1 also known as the "Site Informant -Busy Time Estimate" = The number of FSWs (or MSM) at a site at a busy time as estimated by the general site informant during the site visit interview is summed up across all visited sites and adjusted (increased) to take into account any sites that were reported but not visited. In the DRC, no weighting was required because all sites were visited.
- Questions used for FSW from Form B were b47h and b45b; for MSM, they were b45a and b46i.

A second crude size estimate (CSE 2) is:

- Crude Size Estimate 2 also known as the "Site Informant-Saturday Night Estimate" = The number of FSWs (or MSM) estimated by the general site informant on a Saturday night between 11 p.m. and 2 a.m. (Based on questions in Form B: B48 for FSWs/B51 for MSM) summed for all of the sites.

The strengths of these crude estimates include:

- They provide a specific estimate for every site visited based on data from the site.
- They do not require interviews with key population informants at the site, thus reducing the time required for data collection.
- CSE1 is a reasonable estimate for the number of key populations who can be reached at the site during the busy time at the site. Even if people visit multiple sites, the number estimated for a particular site has value for programs in terms of the number who can be reached at the site.
- CSE 2 (the Saturday night estimate) has the advantage that it focuses on a particular time period, which reduces the number of sites that a person could visit during the time period, and hence reduces the bias of counting the same person at multiple sites.

The weaknesses of the crude estimates include:

- The estimate relies on the validity of a site informant's characterization of another person as a member of a key population.
- General site informants may be reluctant to report the number of MSM or FSs at the site.
- The definition of the key population is difficult to communicate and makes the numbers provided difficult to interpret. The definition of a transgender person is often difficult to communicate.
- Even if the respondent is willing to communicate the number, he or she may not know how many key populations visit the site because they may not be apparently a member of a key population, or the site is so large or dark or its boundaries are so amorphous that it is difficult to count people reliably.
- CSE 1 does not adjust for people who may be counted at two sites. A person may be counted at one site at its busy time on Friday and at another site at its busy time on Saturday. If people move frequently from site to site, the size estimate can overestimate the number of unique people visiting the site.

4.3 Size Estimates Based on Data from FSWs and MSM Who Are Recruited as Key Population Site Informants at the Time of the Site Visit

We also calculated the size of the FSW and MSM population for each province based on information obtained from the FSWs and MSM interviewed at sites during the site visit. Interviewers were asked to interview up to three FSWs at sites that were identified by community informants as sites with FSWs and similarly up to three MSM at sites identified by community informants as having MSM.

One CSE can be calculated and two adjusted estimates:

- Crude Size Estimate 3 also known as the "KP Busy Time Estimate": The mid-point of the "low" estimate provided by KP members at the site and the "high" estimate provided by KP members at the same site for the number who visit the site at a busy time, summed up across all sites where at least one KP member was interviewed.
- Crude Size Estimate 3 extrapolated to all sites where the SI reports there are KP members. If not all sites reported to have KP members were successful in having a member of a KP interviewed, then we extrapolated from sites with KP data to those that did not have KP data. We assume that the sites where KP members were not interviewed had the same mean number of KP members as sites where KP members were interviewed. (If the general site manager said there were no FSWs (or MSM) at the site and did not report any at a busy time or during the Saturday night window and the interviewers did not find any KP to interview during the visit, then we estimated there to be zero KP at the site at a busy time.)

- Crude Size Estimate 3 reduced to adjust for double counting people at different sites. The “low” and “high” means were further adjusted using information about the number of sites that KP visit during a busy time and how many sites are visited. The size was decreased based on the proportion who visit other sites and the number of other sites they visit. People can be doubly counted at a site if these adjustments are not made. For example, if the” high” estimate is 4,000 persons and 25 percent of them visit an average of two other sites, the adjusted “high” estimate would be (75 percent * 4,000) + (25 percent * 4,000 / 2) = 3,000 + 500 = 3,500. Some people will report visiting many sites during a three-hour busy time period. The interviewers should have probed when hearing implausible answers. All responses of greater than three were trimmed to three. It is not reasonable to visit more than three sites in a three-hour period and to stay at the site long enough to be known and remembered at the site. People can visit 20 sites per night, but they would stay at a site for such a short period that they are unlikely to be included in the original estimate from the respondent. The size estimate is cut significantly and unreasonably if the number of other sites visited is high.
- Estimates from those who reported that they did not know how many KP members were at the site at the time were considered missing in estimating the mean number reported at the site in the district and thus did not pull down the size estimate.

The strengths of these estimates include:

- They are based on information from FSWs and MSM who are at the site and hence may have more face validity than estimates from a general site informant.
- They adjust for the number of people visiting other sites during the busy time and how many sites they visit during that time.
- They use the information from visited sites to estimate the number at the sites not visited.

The weaknesses of this estimate include:

- The people providing estimates may not be representative of the MSM or FSWs at the site or knowledgeable about the number of KP members at the site, particularly if there are subgroups of FSWs or MSM not known to those responding to the questions.
- The estimate assumes that the number of KP members at other sites is similar to sites where KP members were interviewed. This is unlikely. Consequently, the estimate may overestimate the actual number of KP members who visit venues in the district.
- Note that the estimate is not an estimate of all KP members in the district, as it excludes those who do not go to sites.
- In Africa generally, there is substantial stigma regarding male-with-male sex. There are few clearly identified gay bars. Socializing and meeting new sexual partners may occur at public sites identified as places where people meet new sexual partners, but it also occurs at private locations. The PLACE method does not map private locations for reasons of confidentiality and because the focus is on improving outreach to public places. Thus, the estimate for MSM is likely to be an underestimate.

Appendix 5. Detailed Results from Community Informant Interviews

5.1 When were community informant interviews conducted?

From January to March 2016, we conducted site identification. This occurred prior to the beginning of LINKAGES activities by the implementing partners. With the support of the implementing partners' (IPs') technical team, we were able to realize this activity, starting by Kinshasa in January and February and ending by Haut-Katanga and Lualaba in March.

5.2 What information was available prior to conducting community informant interviews?

With the support from the technical team of the LINKAGES DRC offices in Kinshasa and Lubumbashi, we worked with the monitoring and evaluation (M&E) teams of the IPs to ask peer educators about known sex work sites. The purpose was to use these existing lists as the starting point of site identification. The field work consisted of verifying if those sites were still active or not. After that, we focused on identifying new sites.

5.3 How many sites were identified by community informants?

We identified new sites and conducted waves of community informant interviews until the health zones were saturated and no new sites were identified. In every health zone, the community informant interviews identified many additional sites that were unknown to the program. In comparison with the former lists wherever it was possible, we found a general increase of 201 percent in the number of sexual network sites.

At the end of the process, we were able to identify, visit, and realize interviews with community informants for a total of ***1,300 sites in 13 health zones***. Data are summarized in Table 5.1.

Table 5.1. Total number of sexual network sites identified in PEPFAR-priority health zones

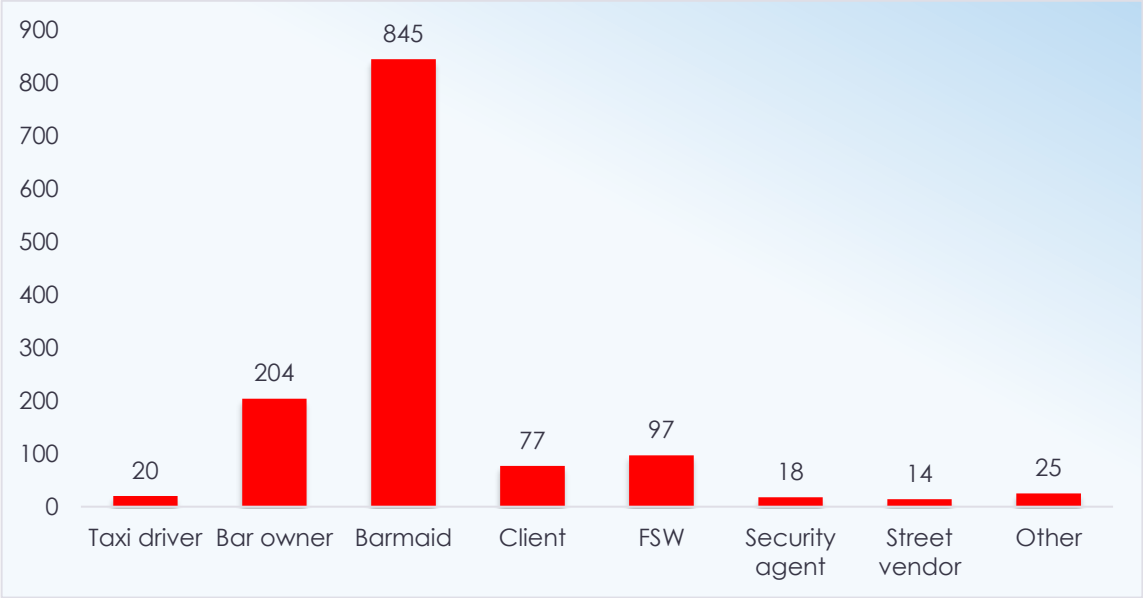
Province	Health Zone	Previous Number of Sites	Updated Number of Sites	Percentage Increase
Kinshasa	MASINA 2	15	25	**167%**
Kinshasa	KINGASANI	20	26	**130%**
Kinshasa	KIKIMI	10	19	**190%**
Kinshasa	BANDALUNGWA	29	38	**131%**
Kinshasa	BINZA METEO	21	65	**310%**
Total Kinshasa		**95**	**173**	**182%**
Haut-Katanga	SAKANIA	N/A	206	**N/A**
Haut-Katanga	LUBUMBASHI	91	161	**177%**
Haut-Katanga	KENYA	91	218	**240%**
Haut-Katanga	KAMALONDO	72	149	**207%**
Total Haut-Katanga		**254**	**734**	**230%**

Province	Health Zone	Previous Number of Sites	Updated Number of Sites	Percentage Increase
Lualaba	MANIKA	N/A	64	**N/A**
Lualaba	DILALA	N/A	31	**N/A**
Lualaba	LUALABA	N/A	97	**N/A**
Lualaba	FUNGURUME	N/A	201	**N/A**
Total Lualaba		**N/A**	**393**	**N/A**
GENERAL TOTAL			**1,300**	**201%**

The complete and updated list of sexual network sites was provided to the FHI 360 LINKAGES office.

5.4 Who was interviewed as a community informant?

Figure 5.1. Sexual network site identification by type of community informant

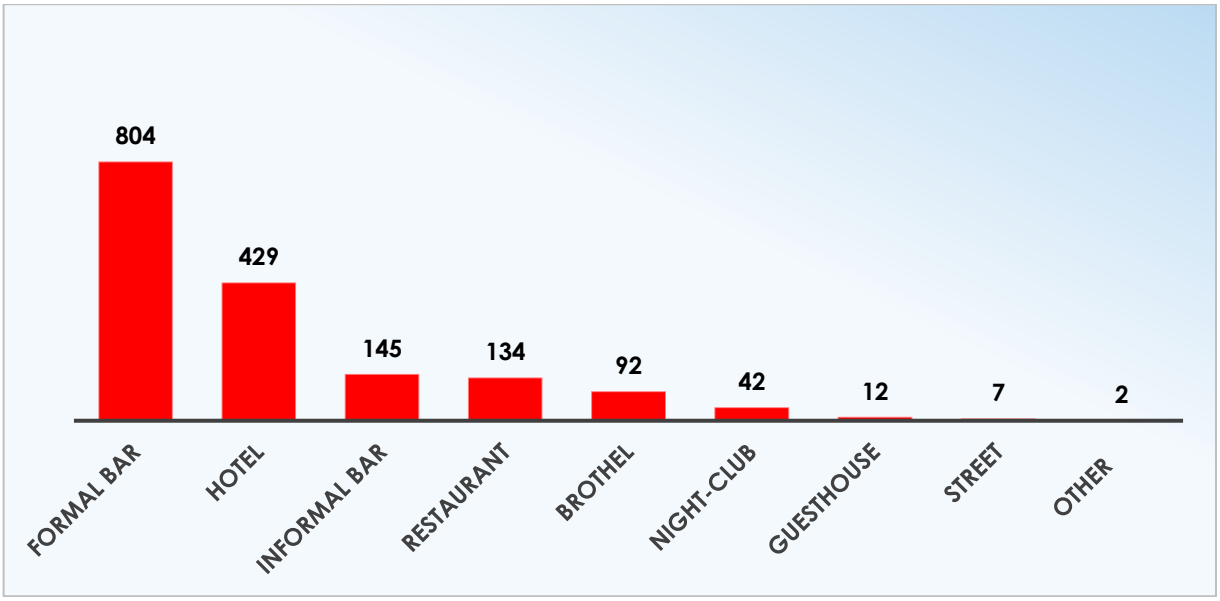


Barmaids were the most common type of community informant. From the 1,300 sites identified, information was provided by a barmaid for 845 sites (65 percent), followed by bar owner for 204 sites (16 percent), and FSWs for 97 sites (8 percent).

5.5 What types of sites were reported by community informants?

Sixty-two percent of identified sites were formal bars, while 33 percent were hotels. Twenty-six percent of sites combined more than one type, with the majority of bars and hotels in the same site (Figure 5.2). Note that these are not verified sites.

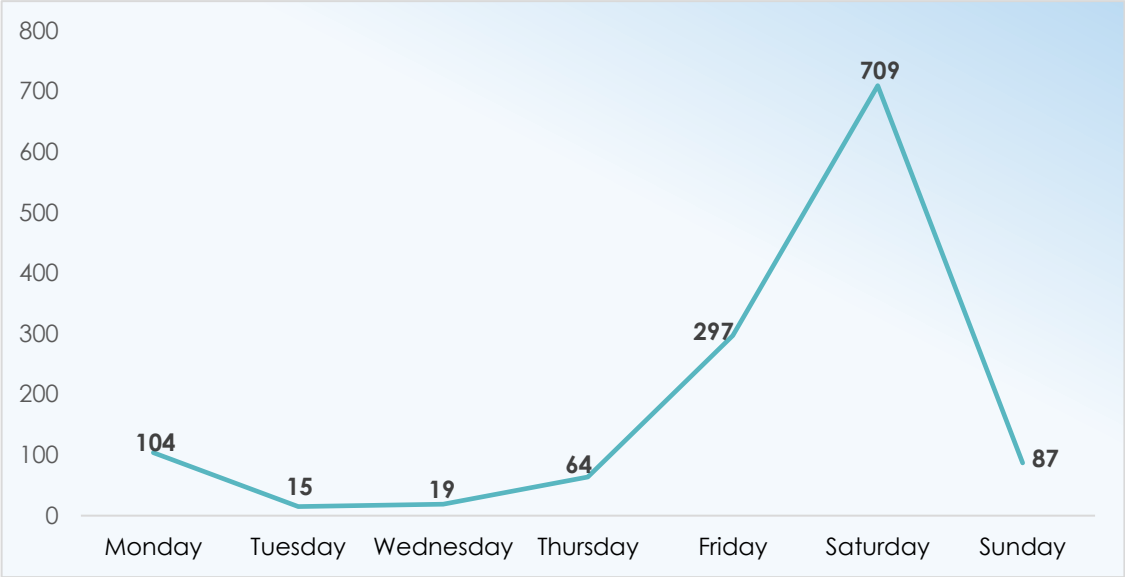
Figure 5.2. Sexual network site identification by type of site



5.6 What are the busiest days and times at the site, according to the community informants?

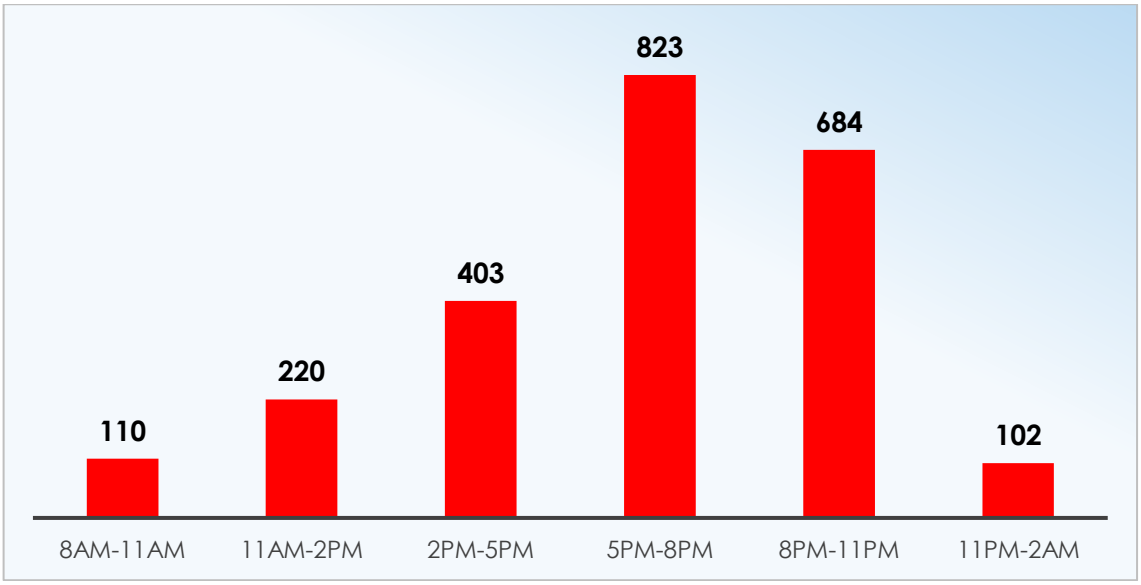
The sites are highly active during the weekend, with a peak on Saturday (Figure 5.3).

Figure 5.3. Sexual network site identification by day of the week



Sites became increasingly busy from 2:00 p.m. on, with the peak times between 5:00 p.m. to 8:00 p.m., followed by the interval of time between 8:00 p.m. to 11:00 p.m. (Figure 5.4).

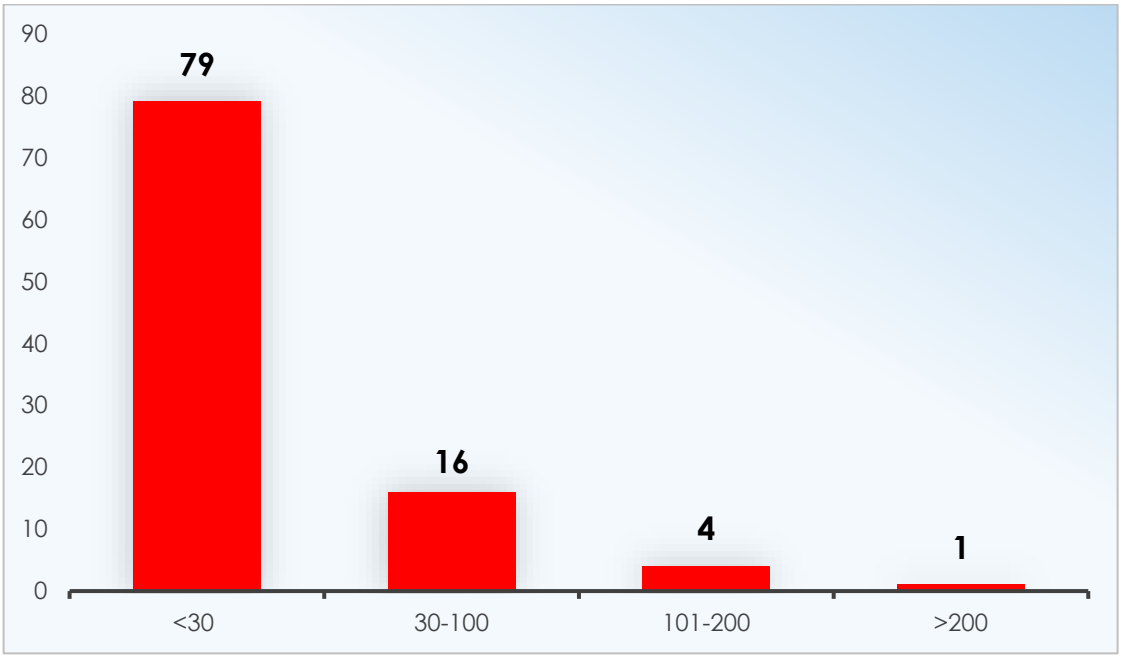
Figure 5.4. Sexual network site identification by peak times



5.7 How many people are at the site at a busy time?

In the majority of cases (79 percent), attendance during the peak times was less than 30 people (Figure 5.5).

Figure 5.5. Percentage of sites with <30, 30–100, 100–200, and >200 people at site during peak times



5.8 Do FSWs and MSM visit the site? Does sex occur on site?

During this process of sexual network site identification, we were also able to collect the following information about the site characteristics:

- In 76.6 percent of identified sites, the presence of FSWs who exchange sex for money was reported.
- In 21.5 percent of sites, the presence of FSWs who exchange sex for goods was reported.
- Only 0.6 percent of sites reported the presence of people who inject drugs.
- In 41.2 of sites, sexual intercourse happens on site.

5.9 How complete was the list of 1,300 sites?

More sites were identified than had been previously known, and an effort was made to saturate each area, suggesting that the lists are likely complete. We will more formally assess the completeness of the lists in discussion with stakeholders and after we obtain adequate information on the population by health zone and have an opportunity to discuss with the interviewing teams.

Appendix 6. Detailed Results from Site Visits in the DRC

A total of 1,300 sites were identified by community informants. There was a gap in time between site identification and the site visits. In planning for the site visits, the team determined that 64 sites were closed or could not be located due to an insufficient address. Visits were attempted to all of the remaining 1,236 sites. These 1,236 sites were in the health zones and had enough information to attempt to locate them.

The following tables present the results of the site visits. The tables present descriptive characteristics of sites by district, including site type and location, amenities, activities and prevention services, busy days and times, and characteristics of site patrons and indicators of prevention outreach at sites.

Key population size estimates are presented in Appendix 8.

6.1 Outcome of Site Visits

Of the 1,236 sites identified by community informants, about 15 percent were closed either temporarily or permanently when the staff visited. Few (2 percent) were duplicate sites. Interviewers identified a willing site informant at almost all sites (more than 99 percent of the operational sites). The number of sites is somewhat difficult to interpret without a population size estimate for the area that would allow an estimate of the number of sites per 1,000 population. We are trying to identify a source for the population size (adult population ages 18–49) for each catchment area. (An Excel spreadsheet provided to FHI 360 indicated that 919 sites were operational, rather than the 935 presented here. The Excel spreadsheet reflected the best information available at the time it was provided. Some of the spots on the Excel spreadsheet that were listed as temporarily closed, for example, were eventually successfully visited.)

Table 6.1. Outcome of site visits to 1,236 sites as reported by interviewers based on attempts to visit the site

	Haut-Katanga: Kenya, Lubumbashi, Kamalondo, Sakania	**Kinshasa:** Bandalungwa, Binza météo, Kikimi, **Kingasa**	**Lualaba:** Manika, Dilala, Lualaba, Fungurume	**All**
Number of sites attempted to visit (N)	706	163	367	1236
Outcome of Site Visit	7.1	4.9	7.1	6.8
Site not found				
Site found and operational	76.5	89.6	69.5	76.1
Site closed temporarily	5.7	3.1	3.5	4.7
Site closed permanently	7.5	1.8	17.4	9.7
Duplicate site	2.5	0.6	1.9	2.1
Other	0.7	0.0	0.5	0.6

6.2 Characteristics of the Environment Where Sites Are Located

Figure 6.1 Characteristics of the environment of the site

Interviewers described the environment in which each site was located. Most sites were in residential settings. About a third were in a commercial center. The table below shows the distribution of locations by area. Figure 6.1 shows the number of sites by type of location.

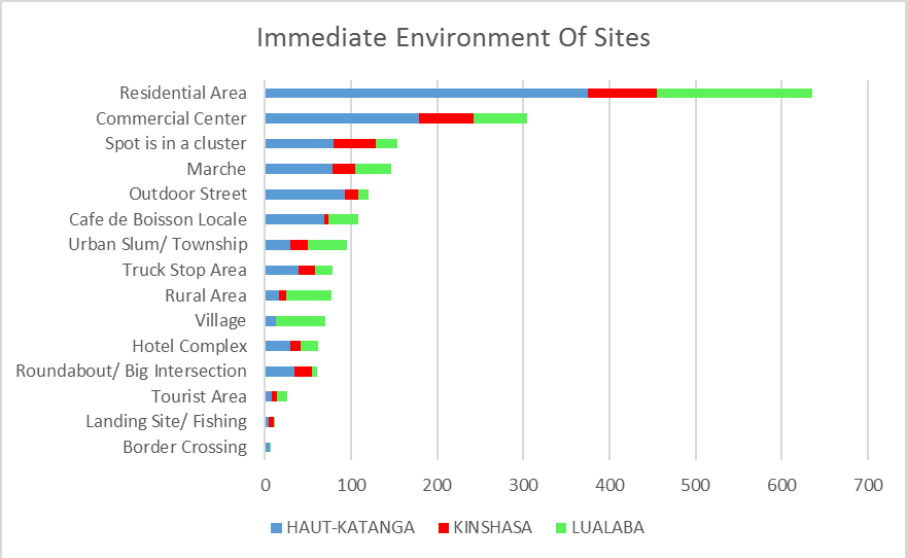


Table 6.2 Immediate local environment of sites

	HAUT-KATANGA	KINSHASA	LUALABA	ALL
Number of sites found and operational with willing respondent(N)	535	146	254	935
B24A: Commercial center	33.5	43.4	24.2	31.8
B24B: Urban slum/township	5.5	14.3	17.7	10.7
B24C: Truck stop area	7.2	13.8	8.0	8.3
B24D: Rural area	3.0	6.3	20.6	9.4
B24E: Tourist area	1.5	4.4	4.4	2.9
B24F: Landing site/fishing	0.8	3.8	0.4	1.0
B24G: Residential area	70.0	55.3	71.1	68.4
B24H: Outdoor street	17.4	10.7	4.5	12.3
B24I: Village	2.3	0.0	22.8	9.1
B24J: Café de boisson locale	12.8	3.8	13.3	12.0
B24K: Marche	14.7	18.1	16.4	15.7
B24L: Roundabout/big intersection	6.5	13.9	2.0	5.8
B24M: Spot is in a cluster	15.0	33.3	10.0	15.6
B24N: Hotel complex	5.5	8.5	7.7	6.6
B24O: Border crossing	1.0	0.0	0.4	0.7

6.3 Types of Sites

Table 6.3 presents the distribution of sites by type and years of operation. The most common type of site is a bar. There were relatively few nightclubs, discos, and brothels. Over 20 percent of sites were hotels. Sites were quite stable, with approximately two-thirds operational for more than two years.

Table 6.3. Type of site as observed by interviewers during the site visit

	HAUT-KATANGA	KINSHASA	LUALABA	ALL
Number of sites found and operational with willing respondent (N)	535	146	254	935
Type of site	3.7	1.4	2.8	3.1
Brothel				
Street	0.2	0.0	0.0	0.1
Bar—sex on site	16.1	32.2	20.1	19.7
Bar and restaurant	0.0	0.0	0.4	0.1
Bar and hotel	0.0	0.0	1.2	0.3
Bar—not sex on site	44.1	39.0	24.0	37.9
Hotel	17.0	18.5	33.1	21.6
Guesthouse	2.2	3.4	5.1	3.2
Nightclub/disco	3.4	2.1	0.8	2.5
Taxi rank	0.0	0.7	0.0	0.1
Restaurant fast food	6.5	0.0	4.7	5.0
Restaurant & bar	0.0	0.0	0.4	0.1
Funerals	0.2	0.0	0.0	0.1
Local alcohol spot	2.2	0.0	4.3	2.5
Other	4.3	2.7	3.1	3.7
Years site in operation	0.0	0.7	0.0	0.1
0				
< 1 Year	15.1	5.5	13.0	13.0
1–2 years	22.2	8.2	24.4	20.6
> 2 years	60.0	82.2	59.8	63.4

6.4 Observable Characteristics of Sites: Physical Characteristics and On-Site HIV Prevention

The interviewers observed what was available at the site in terms of physical characteristics and on-site HIV prevention. Sixteen percent of the sites did not have functional electricity, although this was higher in Lualaba (23 percent). Most of the sites in Kinshasa had tap water, but fewer than half in Lualaba had running water. Almost half had beds on site and 20 percent had evidence that FSWs lived at the site. Less than 10 percent had condoms visible on site. Peer educators were present at 12 percent of sites, least often in Kinshasa (6.3 percent).

Table 6.4. Characteristic of sites as observed by interviewers during site visits: functional electricity, alcohol, condom visibility and more

	HAUT-KATANGA	KINSHASA	LUALABA	ALL
Number of sites found and operational	535	146	254	935
Characteristics of the site environment				
B22A: Functional electricity	84.9	94.5	76.8	84.2
B22B: TV	70.4	61.8	43.4	61.6
B22C: Tap water available	45.6	80.6	22.2	44.7
B22D: Bar for alcohol sales	79.0	89.9	63.3	76.4
B22E: Walls and ceiling	71.8	80.1	43.7	65.4
B22F: Tables for visitors	80.6	81.2	61.5	75.4
B22G: Inside toilet	47.3	76.6	22.4	45.0
B22H: Used needles lying around	1.4	2.9	0.4	1.3
B22I: Beds on site	33.3	50.7	60.2	43.4
B22J: Spot includes outdoor area	46.4	41.7	24.6	39.6
B22K: Video capability	5.2	7.5	3.2	5.0
B22L: Key populations live at the place	17.6	13.1	29.2	20.2
Evidence of on-site HIV programs				
B23A: HIV/AIDS poster displayed	5.6	0.0	3.2	4.1
B23B: Needle exchange visible	0.6	0.0	0.8	0.6
B23C: Condom promotion posters	7.4	0.7	4.0	5.4
B23D: Peer educators present	13.1	6.3	14.8	12.5
B23E: Condoms visible	11.6	8.4	5.3	9.4
B23F: Supportive spot manager	29.2	57.1	26.8	32.9
B23G: Sexual lubricant packets visible	1.9	2.8	1.2	1.9
B23H: Workplace safety notices	15.7	35.3	3.3	15.3

6.5 Characteristics of General Site Informants

Table 6.5 shows characteristics of the general site informants interviewed. Most were men who worked at the site. The average age was 32 years. Almost everyone completed the interview.

Table 6.5. Characteristics of site informants (N=935)

	HAUT-KATANGA	KINSHASA	LUALABA	ALL
Number of sites found and operational with willing site informant (N)	535	146	254	935
Willingness of site informants	100.0	100.0	100.0	100.0
Willing to answer questions				
Mean age site informant	32.2	33.2	32.6	32.5
Percentage with completed interview	98.7	99.2	100.0	99.2
Sex of site informant	0.9	4.1	1.6	1.6
Missing				
Male	70.5	83.6	59.4	69.5
Female	28.6	12.3	39.0	28.9
B30: Do you work here?	3.4	4.8	7.5	4.7
Missing				
Yes	90.8	88.4	84.3	88.7
No	5.8	6.8	8.3	6.6

6.6 Characteristics of Site Patrons According to Site Informants

General site informants were directly asked who comes to the site. Table 6.6 presents characteristics of site patrons, including key populations and other groups of interest.

Table 6.6. Percentage of sites with key populations and other subgroups, as reported by general site informants who agreed to participate (N=935)

	HAUT-KATANGA	KINSHASA	LUALABA	ALL
Percentage of site informants when directly asked reporting visitors include:	535	146	254	935
FSWs	74.6	48.6	87.0	73.9
Women who inject drugs	6.2	3.4	4.3	5.2
Girls ages 15–17	13.5	16.4	16.1	14.7
Girls ages 12–14	8.4	9.6	7.9	8.4
Women living within a 20-minute walk	61.5	76.0	77.2	68.0
Women from outside the commune	72.7	73.3	74.0	73.2
Women who visit daily	67.7	76.0	71.7	70.1
Transgender people	15.0	14.4	3.9	11.9
MSM	33.8	33.6	20.1	30.1
Men who sell sex	61.1	41.1	75.2	61.8
Men who buy sex	58.7	39.0	76.8	60.5
Men who inject drugs	9.3	6.2	6.3	8.0
Men living within a 20-minute walk	62.2	80.1	76.0	68.8
Men from outside the commune	78.3	78.1	79.9	78.7
Men who visit daily	76.3	80.1	75.6	76.7
Boys ages 15–17	15.0	17.8	15.7	15.6

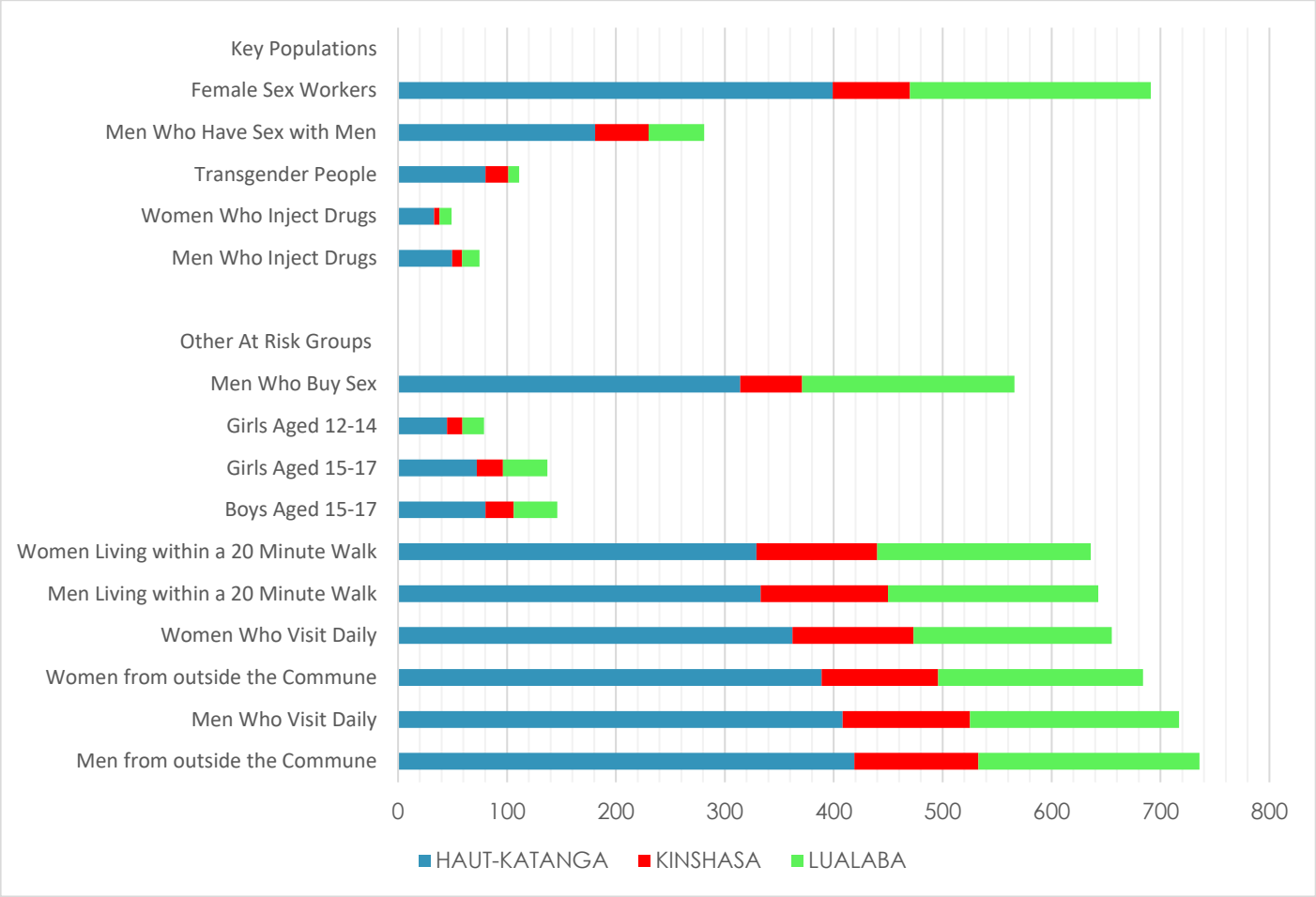
Of the 935 site informants, 691 directly reported that FSWs visited the site and 281 directly reported MSM. When asked additional questions about the number of FSWs or MSM who visited on Saturday night, the number of site informants reporting FSWs visiting the site increased to 788; the number of MSM reported increased to 302. See Table 6.7. Almost all of the MSM sites (except eight) were FSW sites.

Table 6.7. Sites with key populations

Area	**HAUT-KATANGA**	**KINSHASA**	**LUALABA**	**Total**
Total number of sites	535	146	254	935
Number of sites with key populations:				
FSWs	473	83	232	788
MSM	199	50	53	302
Either FSWs or MSM	475	87	234	796
Overlap between FSW and MSM Sites				
Both FSWs and MSM	197	46	51	294
MSM only (no FSWs)	2	4	2	8
FSWs only (no MSM)	276	37	181	494
Neither FSWs nor MSM	60	59	20	139
Other key populations				
Transgender people	80	21	10	111
Women who inject drugs	33	5	11	49
Men who inject drugs	50	9	16	75
Any key populations (FSWs, people who inject drugs, transgender people, MSM)	477	90	234	801

The graph on the next page shows that 691 sites across the three areas were reported to have FSWs at the site, while 281 were places where MSM visited. Over 100 sites were identified as places where transgender women visit. These sites should be visited to confirm this information. It is sometimes difficult for general site informants to understand questions about transgender people. Of great concern is that 49 sites reported that women who inject drugs visited the site; 75 site informants reported that men who inject drugs visited the site.

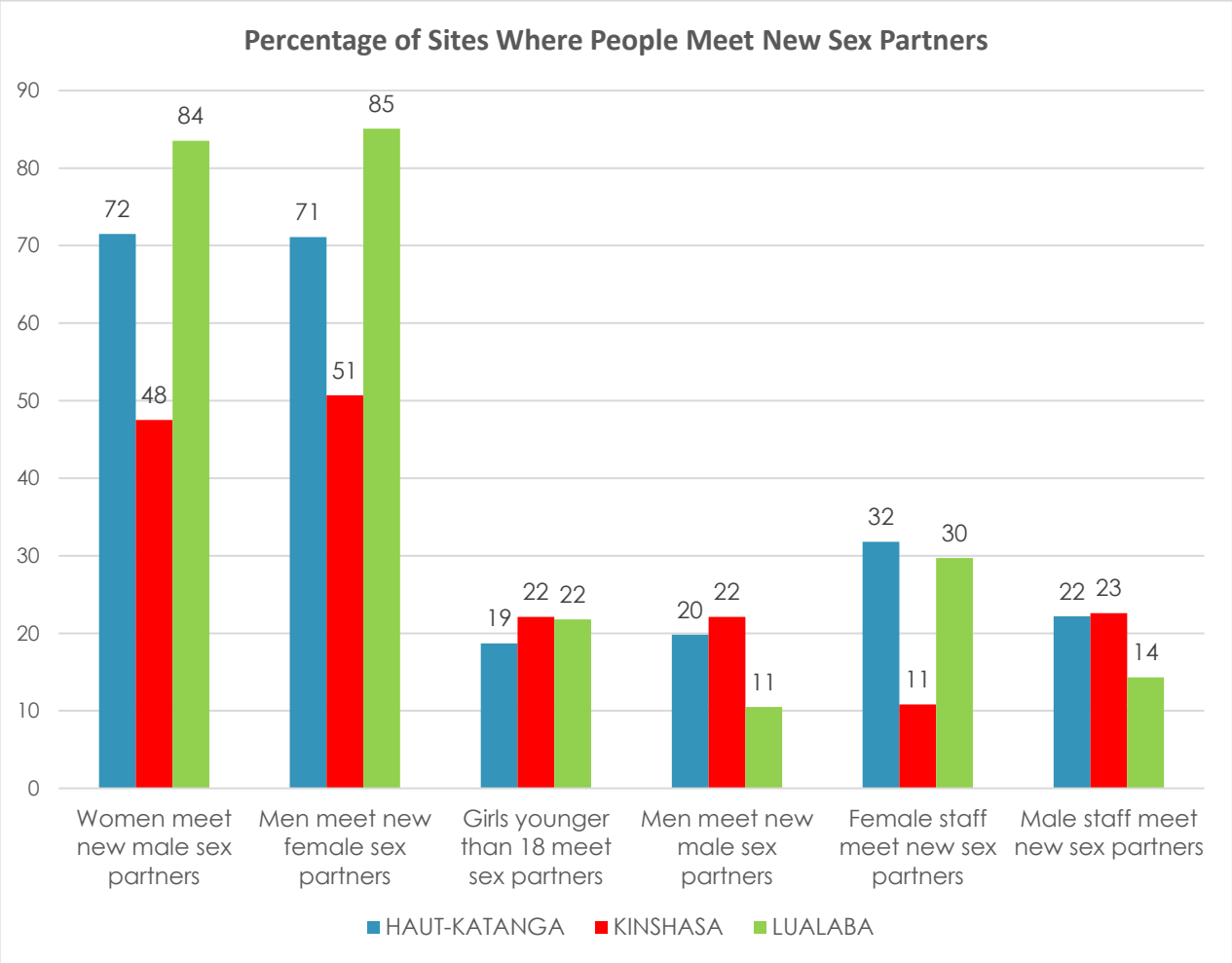
Figure 6.2. Number of sites with key populations and other risk groups, selected health zones in Haut-Katanga, Kinshasa, and Lualaba



6.7 Who Meets Sexual Partners at the Site?

Figure 6.3 further describes who comes to sites to meet new sexual partners there. Most sites reported heterosexual sex-seeking behavior. About 17 percent of sites were reported as places where men meet new male sexual partners. Female staff were reported to meet new male sexual partners at 22 percent of sites. At 20 percent of sites, girls younger than 18 met new sex partners at the site.

Figure 6.3. Who meets new sexual partners at the site, as reported by general site informants



6.8 Indicators of Sex Work at Site and How Sites Facilitate Sex Work

Table 6.8 reports the actual numbers of sites where key populations live, where FSWs meet clients, where people have sex, and other indicators of female sex work. Key populations lived at 181 of the sites, and people had sex on site at 374 sites. A total of 202 sites reported that someone at the site helped people meet new sexual partners and 119 sites kept a list of women who provided sex. Many sites actively supported sex work, either by providing beds on site for sex, having a list of women available for sex, allowing female staff to exchange sex for money, and/or providing space for sex workers to live on site.

Table 6.8. Sites with female sex work, as reported by general site informants (N=935)

	HAUT-KATANGA	KINSHASA	LUALABA	ALL
Number of sites reporting (N)	535	146	254	935
B22L: Key populations live at the place				
Don't know/missing	19	16	4	39
No	425	113	177	715
Yes	91	17	73	181
B33C: Do women who have sex with men for money come here?				
Don't know/missing	11	8	5	24
No	155	71	44	270
Yes	369	67	205	641
B33I: Do people have sex at this spot?				
Don't know/missing	11	7	8	26
No	351	78	106	535
Yes	173	61	140	374
B33K: Does someone here help people find sex partners?				
Don't know/missing	14	7	7	28
No	388	108	209	705
Yes	133	31	38	202
B33L: Do you keep a list of women who are available to provide sex to men?				
Don't know/Missing	32	8	26	66
No	425	120	205	750
Yes	78	18	23	119
Mean Number of Women on the List	6.8	11.1	6.1	7.1

	HAUT-KATANGA	KINSHASA	LUALABA	ALL
Number of sites reporting (N)	535	146	254	935
B46G: What proportion of men at the site are looking for a woman they would pay for sex?				
Missing	14	15	8	37
None	122	47	27	196
Less than half	194	45	114	353
Half or more	79	9	57	145
Almost all or all	41	3	24	68
Does not know	85	27	24	136
B47H: What proportion of women at the site are looking for a man who would pay money for sex?				
Missing	19	13	8	40
None	163	60	72	295
Less than half	141	32	76	249
Half or more	60	5	34	99
Almost all or all	68	7	32	107
Does not know	84	29	32	145
B47I: What proportion of women at the site are staff who exchange sex for money with customers?				
Missing	21	13	7	41
None	314	103	171	588
Less than half	93	7	44	144
Half or more	19	2	10	31
Almost all or all	29	2	3	34
Does not know	59	19	19	97

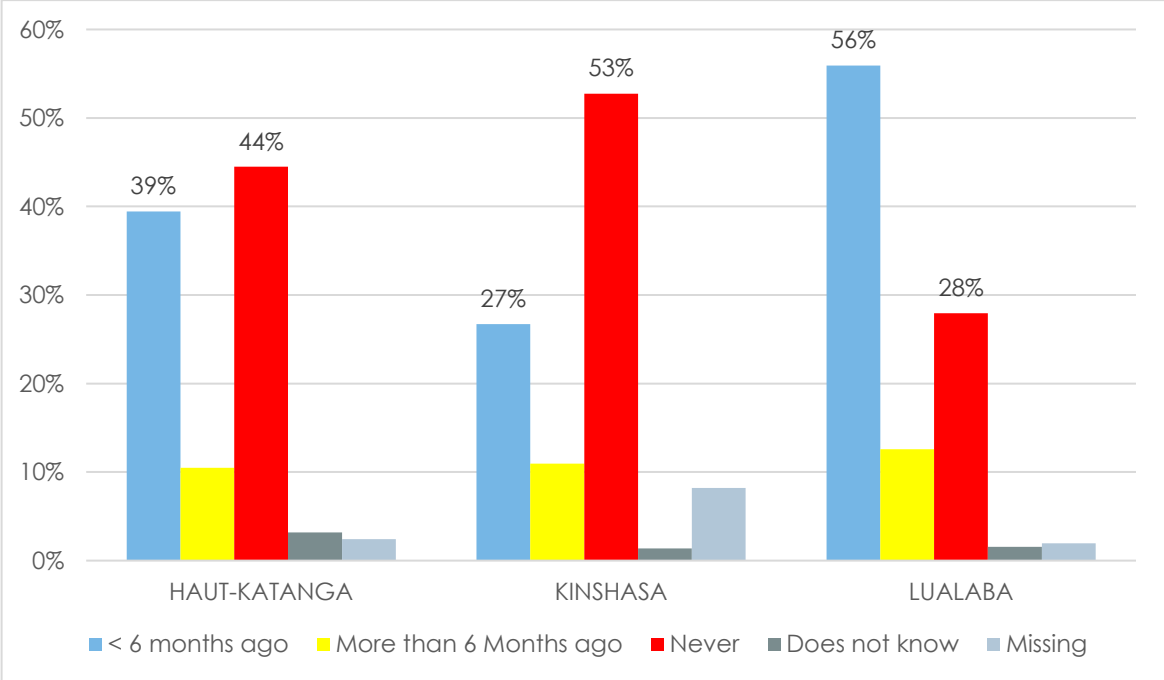
6.9 Availability of HIV Prevention Outreach at Sites

Table 6.9a indicates the number of sites with any prevention services available on site, as reported by site informants. Twenty-two percent of sites had some type of HIV/AIDS prevention service available within the past six months. About half of the sites had never had any HIV prevention. Lualaba had the highest percentage of sites with any HIV prevention in the previous six months.

Table 6.9a. HIV prevention at sites, as reported by general site informants who agreed to participate

		HAUT-KATANGA	KINSHASA	LUALABA	ALL
Number of sites reporting (N)		535	146	254	935
On-site HIV programs: Any HIV/AIDS prevention?					
< 6 months ago	*N*	211	39	142	392
> 6 months ago	*N*	56	16	32	104
Never	*N*	238	77	71	386
Does not know	*N*	17	2	4	23
Missing	*N*	13	12	5	30

Figure 6.9a. Percentage of sites with any HIV prevention



Condoms were often not available (See Table 6.9b). Lubricants were rarely available on site. Only 102 of the 935 sites had condoms for sale on site within the past six months. A total of 695 had never had condoms for sale at the site. This represents an opportunity for increased access to condoms for those who are most in need of condoms.

Table 6.9b. HIV prevention at sites: condom and lubricant availability on site

		HAUT-KATANGA	KINSHASA	LUALABA	ALL
Number of sites reporting (N)		535	146	254	935
On-site HIV programs: In the past 6 months how often have male condoms been available here?					
Always	N	110	29	73	212
Sometimes	N	153	41	77	271
Never	N	258	67	99	424
Does not know	N	0.0	1	0.0	1
Missing	N	14	8	5	27
On-site HIV programs: In the past 6 months, how often has sexual lubricant been available here?					
Always	N	7	4	5	16
Sometimes	N	31	10	14	55
Never	N	459	120	217	796
Missing	N	38	12	18	68
On-site HIV programs: Free distribution of male condoms?					
< 6 months ago	*N*	209	39	125	373
> 6 months ago	*N*	58	17	39	114
Never	*N*	239	80	81	400
Does not know	*N*	13	2	4	19
Missing	*N*	16	8	5	29
On-site HIV programs: Free distribution of female condoms?					
< 6 months ago	*N*	107	23	44	174
> 6 months ago	*N*	46	14	38	98
Never	*N*	347	101	160	608
Does not know	*N*	22	1	7	30
Missing	*N*	13	7	5	25
On-site HIV programs: Free distribution of lubricant?					
< 6 months ago	*N*	21	11	8	40
> 6 months ago	*N*	43	6	32	81
Never	*N*	425	117	198	740
Does not know	*N*	31	3	11	45

		HAUT-KATANGA	KINSHASA	LUALABA	ALL
Number of sites reporting (N)		535	146	254	935
Missing	*N*	15	9	5	29
On-site HIV programs: Condoms for sale at spot?					
< 6 months ago	*N*	63	29	10	102
> 6 months ago	*N*	39	5	34	78
Never	*N*	392	103	200	695
Does not know	*N*	22	2	3	27
Missing	*N*	19	7	7	33

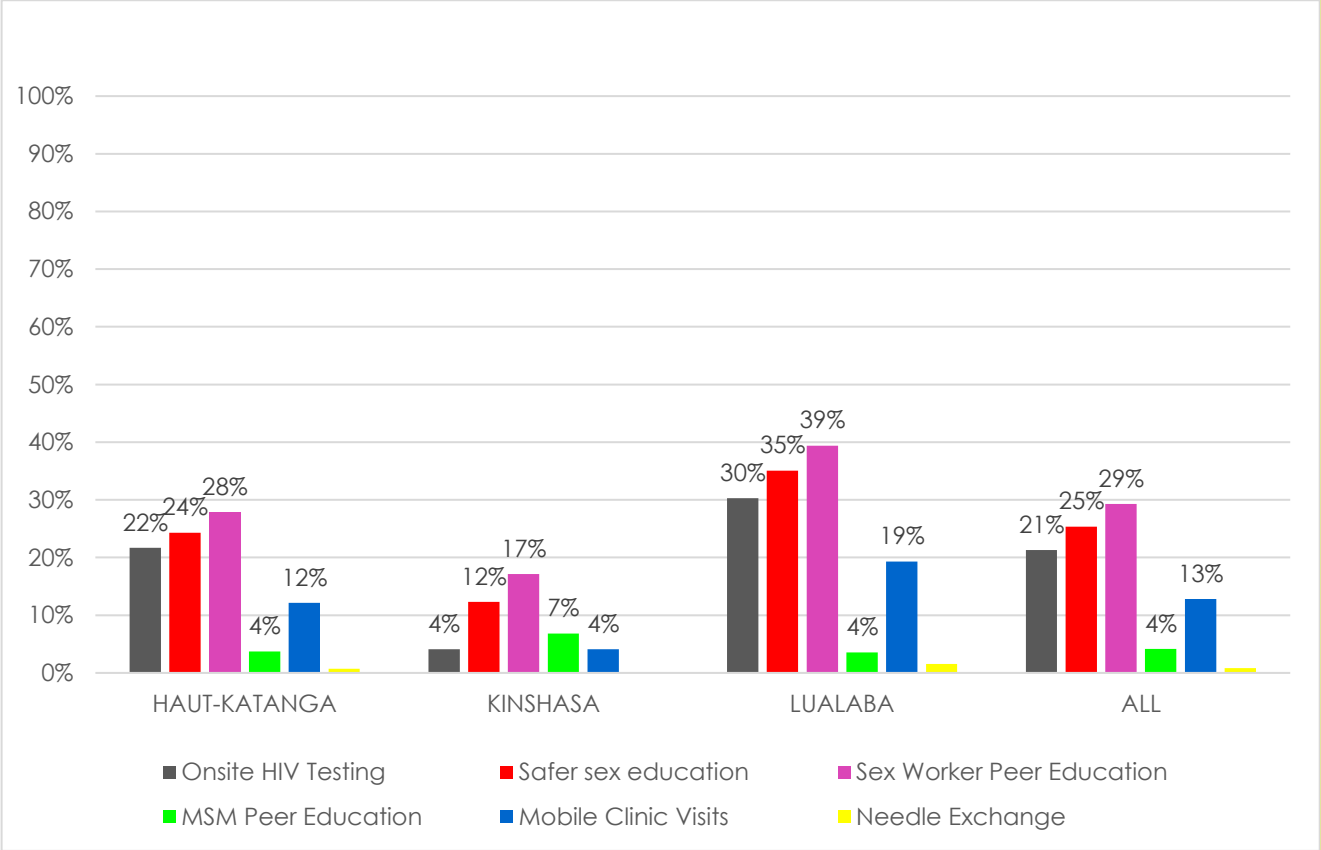
Few programs had evidence of on-site HIV testing, peer education, or visits by a mobile clinic. Table 6.9c below indicates the number of sites with each components of on-site outreach.

Table 6.9c. On-site HIV outreach at sites: peer education, on-site testing, mobile clinic visits

		HAUT-KATANGA	KINSHASA	LUALABA	ALL
Number of sites reporting (N)		535	146	254	935
On-site HIV programs: Persons tested on site for HIV?					
< 6 months ago	*N*	116	6	77	199
> 6 months ago	*N*	41	5	32	78
Never	*N*	329	122	124	575
Does not know	*N*	36	4	16	56
Missing	*N*	13	9	5	27
On-site HIV programs: Safer sex education by outreach workers?					
< 6 months ago	*N*	130	18	89	237
> 6 months ago	*N*	45	3	35	83
Never	*N*	307	113	113	533
Does not know	*N*	35	3	11	49
Missing	*N*	18	9	6	33
On-site HIV programs: Visits by sex worker peer educators?					
< 6 months ago	*N*	149	25	100	274
> 6 months ago	*N*	32	6	32	70
Never	*N*	311	104	102	517
Does not know	*N*	28	4	13	45
Missing	*N*	15	7	7	29
On-site HIV programs: Visits by MSM peer educators?					
< 6 months ago	*N*	20	10	9	39

		HAUT-KATANGA	KINSHASA	LUALABA	ALL
Number of sites reporting (N)		535	146	254	935
> 6 months ago	*N*	31	2	20	53
Never	*N*	423	122	202	747
Does not know	*N*	40	5	16	61
Missing	*N*	21	7	7	35
On-site HIV programs: Visits by a mobile clinic?					
< 6 months ago	*N*	65	6	49	120
> 6 months ago	*N*	44	3	18	65
Never	*N*	369	126	164	659
5	*N*	1	0.0	0.0	1
Does not know	*N*	38	3	18	59
Missing	*N*	18	8	5	31
On-site HIV programs: Needle exchange program?					
< 6 months ago	*N*	4	0.0	4	8
> 6 months ago	*N*	22	3	21	46
Never	*N*	457	132	214	803
Does not know	*N*	38	3	8	49
Missing	*N*	14	8	7	29
Can you show me a condom that is available for someone free or to buy?					
Yes	*N*	161	47	90	298
No	*N*	352	86	155	593
Missing	*N*	22	13	9	44

Figure 6.9b Percentage of site informants reporting outreach to site in the previous six months



6.10 Availability of HIV Prevention Outreach at FSW Sites

Table 6.10 shows the extent to which sites with sex workers have been reached according to the general site informant. Just under half (47 percent) of sites with FSWs had been reached with any HIV prevention in the previous six months. Half of the sites in Kinshasa with FSWs had never been reached with any HIV prevention. Specific indicators of concern are the following:

- More than half of the sites had no HIV prevention at the site during the previous six months and over a third had never had any outreach.
- Over a third of the sites had never had male condoms on site; over 60 percent never had female condoms. At 60 percent of sites, the site informant could not show a condom from the site to the interviewer.
- On-site HIV testing was more common in Lualaba and Haut-Katanga, but in Kinshasa 84 percent of sites had never had on-site HIV testing.
- Peer education had reached only about a third of sites with FSWs. Approximately half had never had outreach by peer educators.

Table 6.10 HIV Prevention Activities at Sites Where FSW Visit

	HAUT-KATANGA	KINSHASA	LUALABA	ALL
Number of sites where site informant reported sex workers visit (N)	473	83	232	788
On-site HIV programs: Any HIV/AIDS prevention?				
< 6 months ago	43.1	34.9	59.9	47.2
> 6 months ago	10.4	12.0	11.6	10.9
Never	42.1	50.6	26.3	38.3
Does not know	3.4	1.2	1.3	2.5
Missing	1.1	1.2	0.9	1.0
On-site HIV programs: Free distribution of male condoms?				
< 6 months ago	42.7	39.8	52.6	45.3
> 6 months ago	11.8	12.0	13.8	12.4
Never	41.2	45.8	31.5	38.8
Does not know	2.3	1.2	1.3	1.9
Missing	1.9	1.2	0.9	1.5
On-site HIV programs: Free distribution of female condoms?				
< 6 months ago	21.8	24.1	19.0	21.2
> 6 months ago	9.1	10.8	15.9	11.3
Never	63.6	63.9	61.6	63.1
Does not know	4.2	0.0	2.6	3.3
Missing	1.3	1.2	0.9	1.1
On-site HIV programs: Free distribution of lubricant?				
< 6 months ago	4.2	12.0	3.4	4.8
> 6 months ago	8.9	6.0	13.4	9.9
Never	79.3	75.9	78.0	78.6
Does not know	6.1	2.4	4.3	5.2
Missing	1.5	3.6	0.9	1.5
On-site HIV programs: Condoms for sale at spot?				
< 6 months ago	12.7	26.5	4.3	11.7
> 6 months ago	8.0	3.6	14.2	9.4
Never	72.3	67.5	79.3	73.9
Does not know	4.4	1.2	0.9	3.0
Missing	2.5	1.2	1.3	2.0

	HAUT-KATANGA	KINSHASA	LUALABA	ALL
Number of sites where site informant reported sex workers visit (N)	473	83	232	788
On-site HIV programs: Persons tested on site for HIV?	23.7	7.2	33.2	24.7
< 6 months ago				
> 6 months ago	8.2	3.6	12.1	8.9
Never	60.7	84.3	47.4	59.3
Does not know	6.1	2.4	6.5	5.8
Missing	1.3	2.4	0.9	1.3
On-site HIV programs: Safer sex education by outreach workers?	26.4	19.3	37.9	29.1
< 6 months ago				
> 6 months ago	9.1	3.6	12.9	9.6
Never	55.8	72.3	43.5	53.9
Does not know	6.6	2.4	4.3	5.5
Missing	2.1	2.4	1.3	1.9
On-site HIV programs: Visits by sex worker peer educators?	30.9	25.3	42.7	33.8
< 6 months ago				
> 6 months ago	6.6	4.8	12.1	8.0
Never	55.8	65.1	38.4	51.6
Does not know	5.1	3.6	5.2	4.9
Missing	1.7	1.2	1.7	1.6
On-site HIV programs: Visits by MSM peer educators?	4.2	10.8	3.9	4.8
< 6 months ago				
> 6 months ago	6.3	2.4	8.6	6.6
Never	78.9	80.7	80.2	79.4
Does not know	8.0	4.8	6.0	7.1
Missing	2.5	1.2	1.3	2.0
On-site HIV programs: Visits by a mobile clinic?	13.3	6.0	20.7	14.7
< 6 months ago				
> 6 months ago	8.7	3.6	7.8	7.9
Never	68.5	85.5	63.8	68.9
Does not know	7.0	2.4	6.9	6.5
Missing	2.3	2.4	0.9	1.9

	HAUT-KATANGA	KINSHASA	LUALABA	ALL
Number of sites where site informant reported sex workers visit (N)	473	83	232	788
On-site HIV programs: Needle exchange program?	0.8	0.0	1.7	1.0
< 6 months ago				
> 6 months ago	4.4	3.6	9.1	5.7
Never	85.6	91.6	84.9	86.0
Does not know	7.6	2.4	2.6	5.6
Missing	1.5	2.4	1.7	1.6
On-site HIV programs: In the past 6 months how often have male condoms been available here?				
Always	22.6	26.5	29.7	25.1
Sometimes	30.9	31.3	31.9	31.2
Never	45.0	39.8	37.5	42.3
Missing	1.5	2.4	0.9	1.4
On-site HIV programs: In the past 6 months, how often has sexual lubricant been available here?				
Always	1.3	4.8	2.2	1.9
Sometimes	6.3	10.8	5.6	6.6
Never	86.7	78.3	86.2	85.7
Missing	5.7	6.0	6.0	5.8
On-site HIV programs: Can you show me a condom that is available for someone free or to buy?				
Yes	32.1	37.3	37.1	34.1
No	65.1	56.6	60.3	62.8
Missing	2.7	6.0	2.6	3.0

6.11 Availability of HIV Prevention at 302 Sites with MSM

Table 6.11 shows the extent to which sites with MSM have been reached according to the general site informant. Just under half (43 percent) of sites with MSM had been reached with any HIV prevention in the previous six months. Half of the sites in Kinshasa with MSM had never been reached with any HIV prevention. Specific indicators of concern are the following:

- More than half of the sites had no HIV prevention at the site during the previous six months and over a third had never had any outreach.
- Forty-two percent of the sites had never had male condoms on site. At 60 percent of sites, the site informant could not show a condom from the site to the interviewer.
- About 30 percent of sites had FSW peer educators visit but 76 percent had never had an MSM peer educator visit the site.
- Overall, even though there are fewer MSM sites, it was a bit more likely that FSW sites had been reached than MSM sites, according to data from the site informant.

Table 6.11. HIV prevention activities at sites with MSM

	HAUT-KATANGA	KINSHASA	LUALABA	ALL
Sites where site informant reported MSM visit (N)	199	50	53	302
On-site HIV programs: Any HIV/AIDS prevention?				
< 6 months ago	45.2	34.0	43.4	43.0
> 6 months ago	11.1	8.0	17.0	11.6
Never	40.2	54.0	37.7	42.1
Does not know	3.0	2.0	1.9	2.6
Missing	0.5	2.0	0.0	0.7
On-site HIV programs: Free distribution of male condoms?				
< 6 months ago	47.7	36.0	43.4	45.0
> 6 months ago	10.6	12.0	17.0	11.9
Never	38.2	50.0	39.6	40.4
Does not know	2.5	2.0	0.0	2.0
Missing	1.0	0.0	0.0	0.7
On-site HIV programs: Free distribution of female condoms?				
< 6 months ago	21.1	20.0	17.0	20.2
> 6 months ago	13.1	10.0	17.0	13.2
Never	60.3	70.0	66.0	62.9
Does not know	4.5	0.0	0.0	3.0
Missing	1.0	0.0	0.0	0.7
On-site HIV Programs: Free distribution of lubricant?				
< 6 months ago	4.5	8.0	3.8	5.0
> 6 months ago	14.6	4.0	9.4	11.9

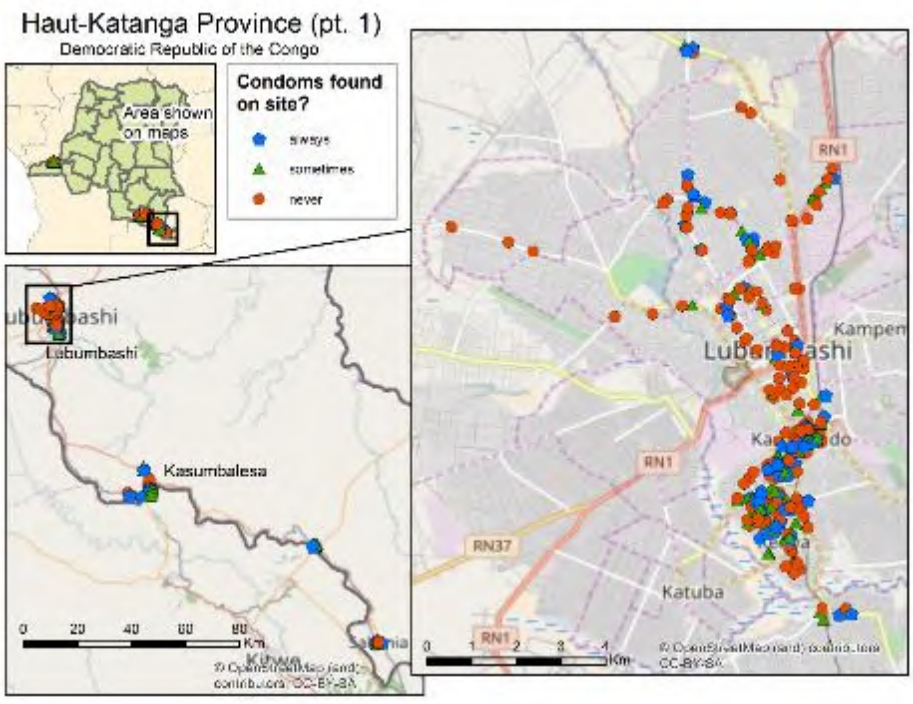
	HAUT-KATANGA	KINSHASA	LUALABA	ALL
Sites where site informant reported MSM visit (N)	199	50	53	302
Never	70.9	84.0	84.9	75.5
Does not know	9.0	4.0	1.9	7.0
Missing	1.0	0.0	0.0	0.7
On-site HIV programs: Condoms for sale at spot?				
< 6 months ago	15.6	24.0	5.7	15.2
> 6 months ago	10.1	2.0	11.3	8.9
Never	65.3	72.0	83.0	69.5
Does not know	5.0	2.0	0.0	3.6
Missing	4.0	0.0	0.0	2.6
On-site HIV programs: Persons tested on site for HIV?				
< 6 months ago	25.1	6.0	35.8	23.8
> 6 months ago	14.1	0.0	11.3	11.3
Never	54.8	88.0	47.2	58.9
Does not know	5.0	4.0	5.7	5.0
Missing	1.0	2.0	0.0	1.0
On-site: Safer sex education by outreach workers?				
< 6 months ago	29.6	22.0	41.5	30.5
> 6 months ago	13.6	4.0	9.4	11.3
Never	50.3	70.0	43.4	52.3
Does not know	5.5	4.0	3.8	5.0
Missing	1.0	0.0	1.9	1.0
On-site HIV programs: Visits by sex worker peer educators?				
< 6 months ago	32.2	22.0	39.6	31.8
> 6 months ago	10.1	4.0	9.4	8.9
Never	50.8	68.0	41.5	52.0
Does not know	5.5	6.0	7.5	6.0
Missing	1.5	0.0	1.9	1.3
On-site HIV programs: Visits by MSM peer educators?				
< 6 months ago	6.0	16.0	1.9	7.0
> 6 months ago	11.1	2.0	3.8	8.3
Never	72.4	78.0	88.7	76.2
Does not know	8.5	4.0	3.8	7.0
Missing	2.0	0.0	1.9	1.7

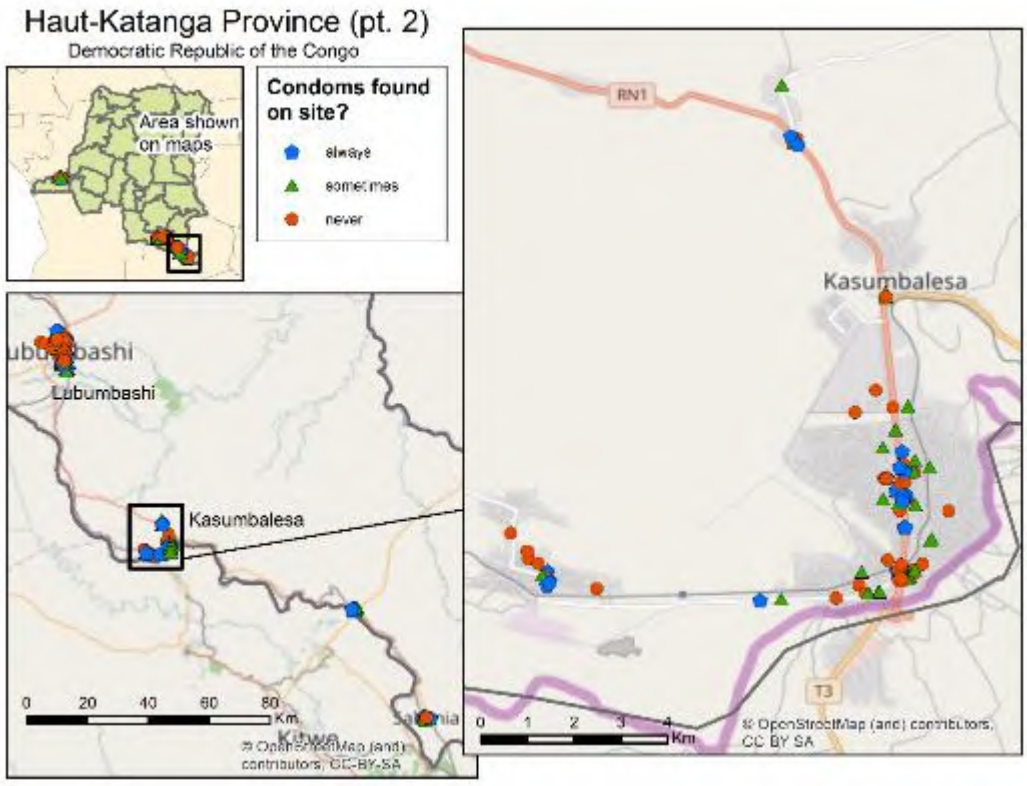
	HAUT-KATANGA	KINSHASA	LUALABA	ALL
Sites where site informant reported MSM visit (N)	199	50	53	302
On-site HIV programs: Visits by a mobile clinic?				
< 6 months ago	12.6	6.0	24.5	13.6
> 6 months ago	12.1	4.0	1.9	8.9
Never	64.8	84.0	67.9	68.5
Does not know	8.0	4.0	5.7	7.0
Missing	2.5	2.0	0.0	2.0
On-site HIV programs: Needle exchange program?				
< 6 months ago	1.0	0.0	1.9	1.0
> 6 months ago	6.0	4.0	3.8	5.3
Never	82.4	90.0	92.5	85.4
Does not know	9.0	4.0	1.9	7.0
Missing	1.5	2.0	0.0	1.3
On-site HIV programs: In the past 6 months how often have male condoms been available here?				
Always	25.1	24.0	20.8	24.2
Sometimes	31.7	26.0	45.3	33.1
Never	42.2	50.0	34.0	42.1
Missing	1.0	0.0	0.0	0.7
On-site HIV programs: In the past 6 months, how often has sexual lubricant been available here?				
Always	1.0	6.0	0.0	1.7
Sometimes	8.0	6.0	3.8	7.0
Never	86.4	82.0	90.6	86.4
Missing	4.5	6.0	5.7	5.0
On-site HIV programs: Can you show me a condom that is available for someone free or to buy?				
Yes	34.2	38.0	32.1	34.4
No	63.3	54.0	67.9	62.6
Missing	2.5	8.0	0.0	3.0

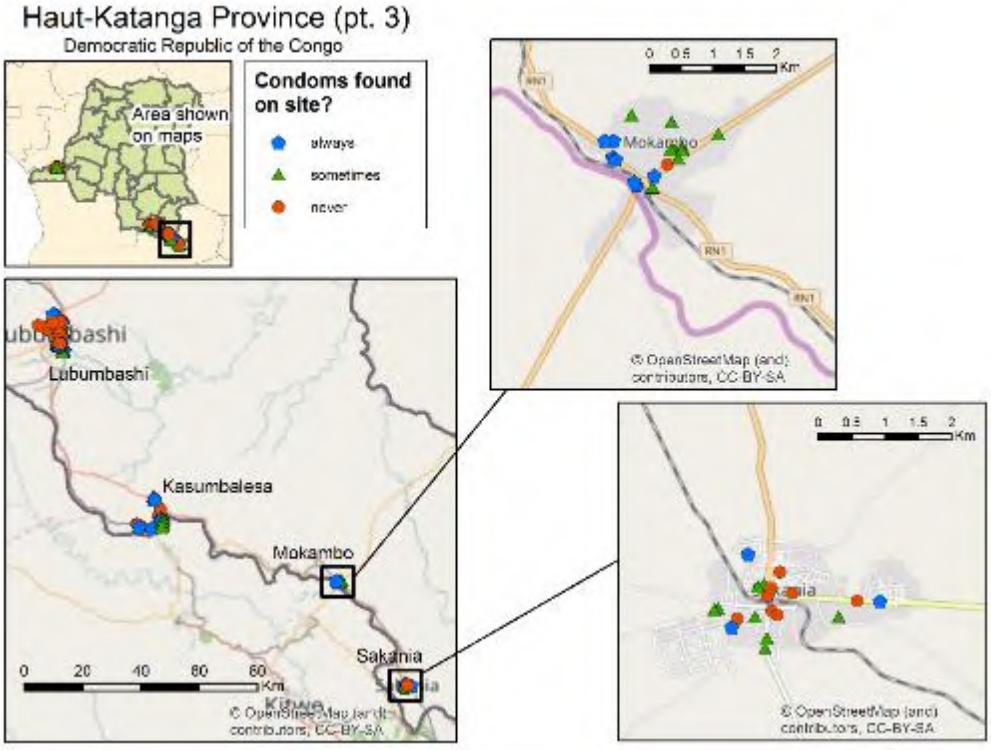
Appendix 7. Maps

Maps are very sensitive. Effort has been taken to mask the exact locations of FSW and MSM sites.

7.1 Maps of Condom Availability at Sites in Haut-Katanga




Haut-Katanga Province (pt. 2)
Democratic Republic of the Congo
Area shown on maps
Condoms found on site?
always
sometimes
never
Lubumbashi
Kasumbalesa
RN1
T3
0 20 40 60 80 Km
0 1 2 3 4 Km
© OpenStreetMap (and) contributors, CC BY SA


Haut-Katanga Province (pt. 3)
Democratic Republic of the Congo
Area shown on maps
Condoms found on site?
always
sometimes
never
Lubumbashi
Kasumbalesa
Mokambo
Sakania
RN1
0 20 40 60 80 Km
0 0.5 1 1.5 2 Km
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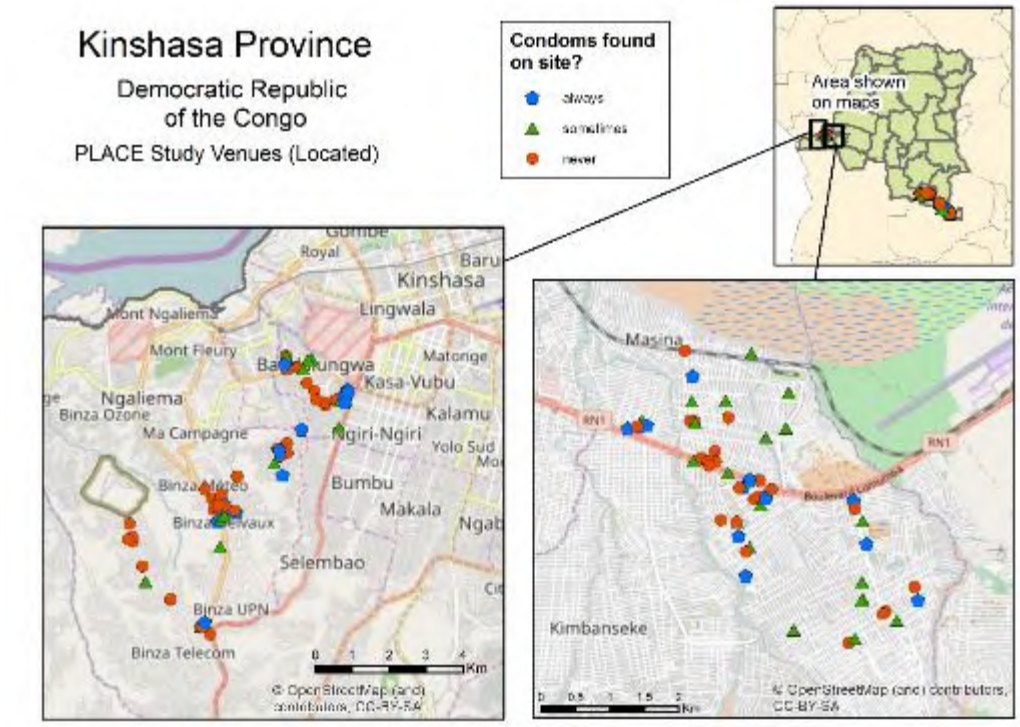
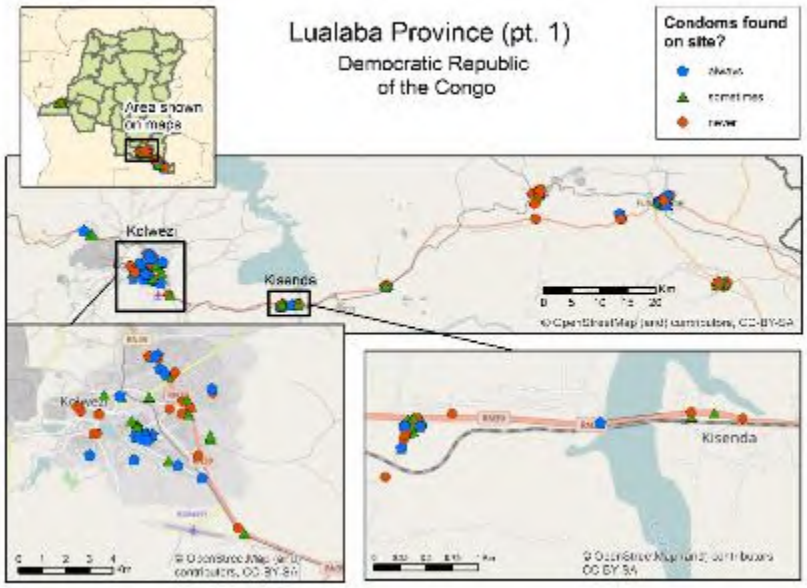
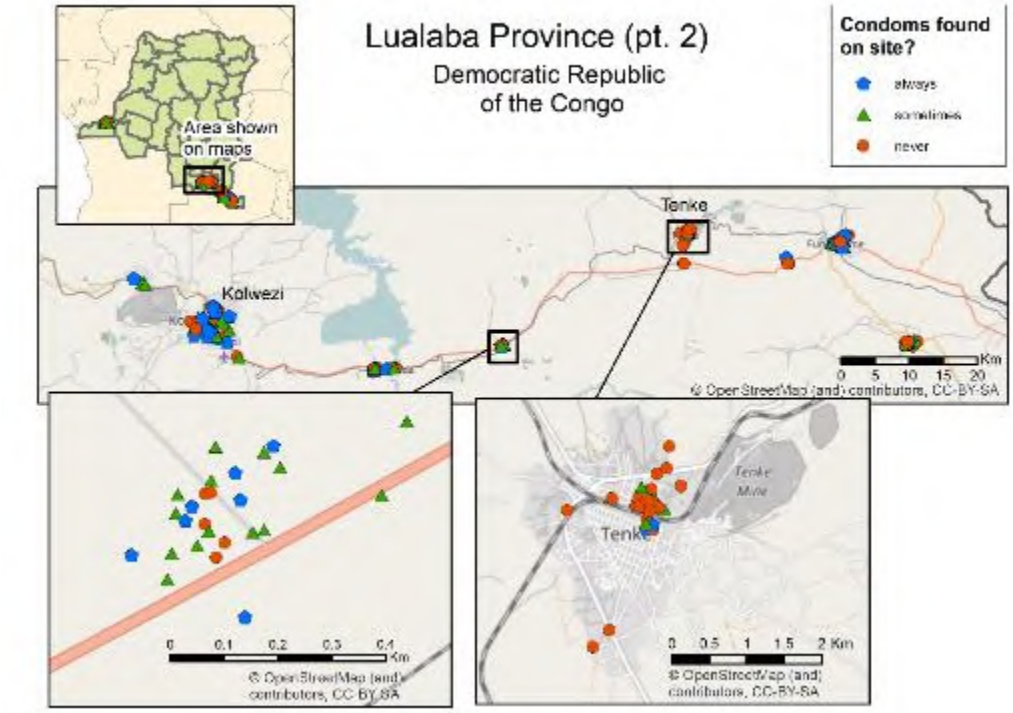
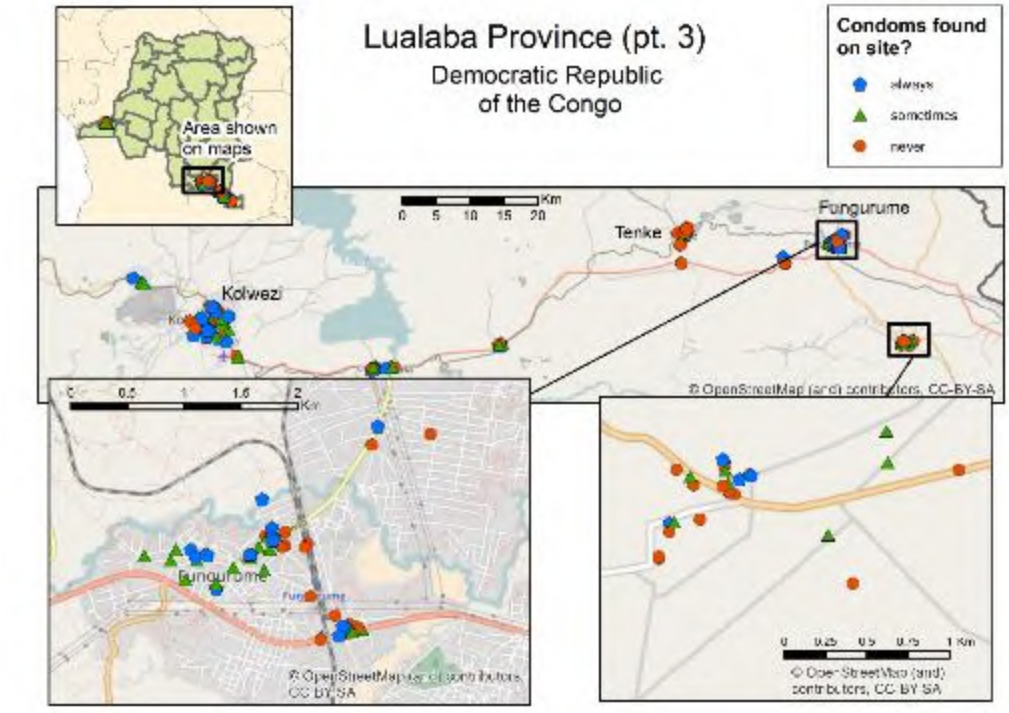
7.2 Maps of Condom Availability at Sites in Kinshasa



7.3 Maps of Condom Availability at Sites in Lualaba




Lualaba Province (pt. 2)
Democratic Republic
of the Congo
Condoms found
on site?
always
sometimes
never
Area shown
on maps
Tenke
Kolwezi
Km
0 5 10 15 20
© OpenStreetMap (and) contributors, CC-BY-SA
Tenke
Mine
Tenke
0 0.1 0.2 0.3 0.4 Km
© OpenStreetMap (and)
contributors, CC-BY-SA
0 0.5 1 1.5 2 Km
© OpenStreetMap (and)
contributors, CC-BY-SA


Lualaba Province (pt. 3)
Democratic Republic
of the Congo
Condoms found
on site?
always
sometimes
never
Area shown
on maps
Km
0 5 10 15 20
Tenke
Fungurume
Kolwezi
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Fungurume
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contributors, CC-BY-SA
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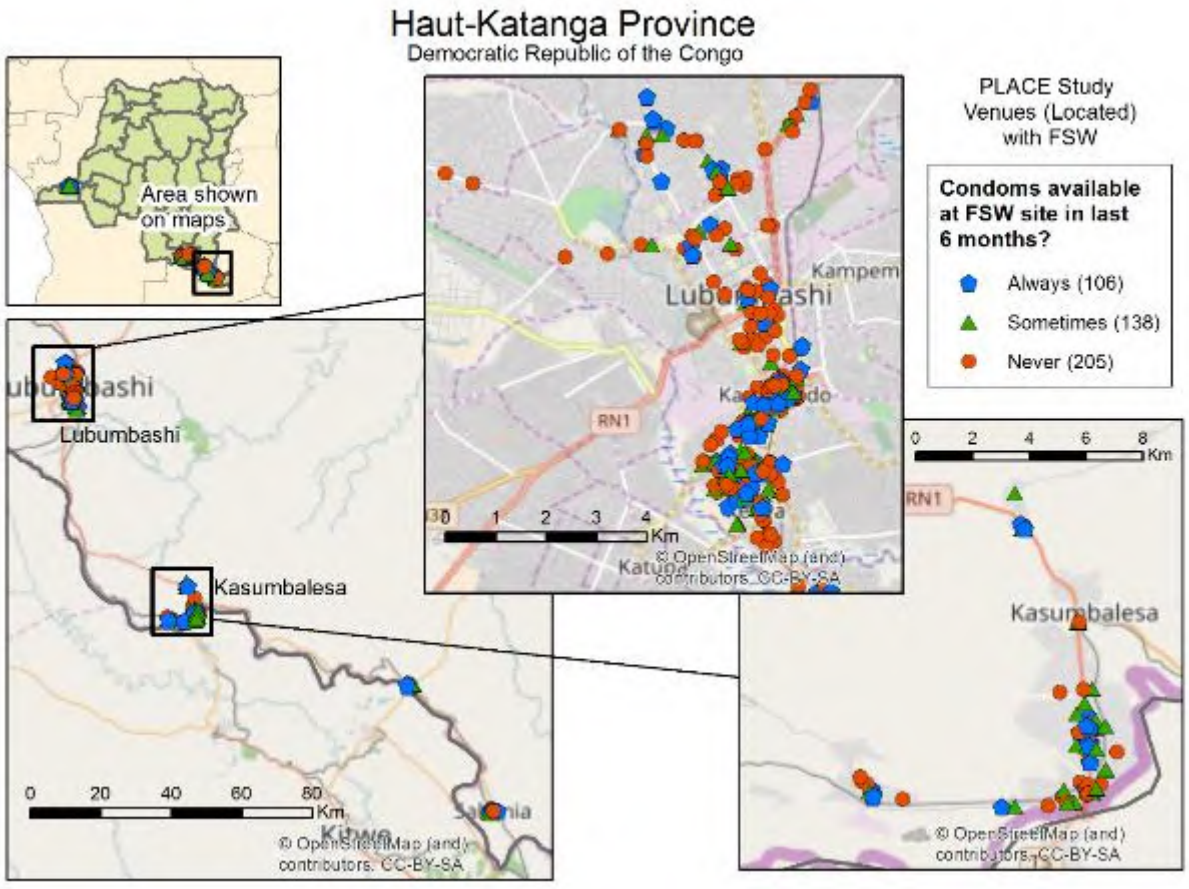
7.4 Maps of Condom Availability at FSW Sites: Pockets without Condoms

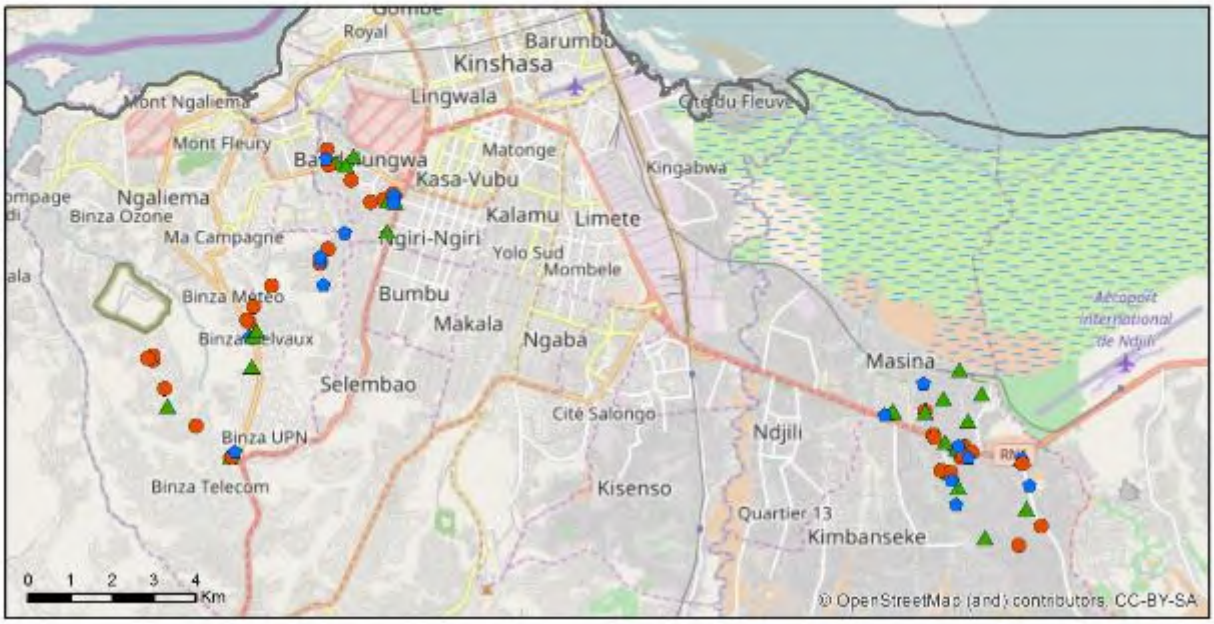
The maps show that there is clustering of condom distribution, with some areas never receiving condoms. For example, northern Lubumbashi sites have fewer condoms than in the south. In Lualaba, Kolwezi is more likely to have condoms than Tenke.



Kinshasa Province

Democratic Republic of the Congo

PLACE Study Venues (Located) with FSW

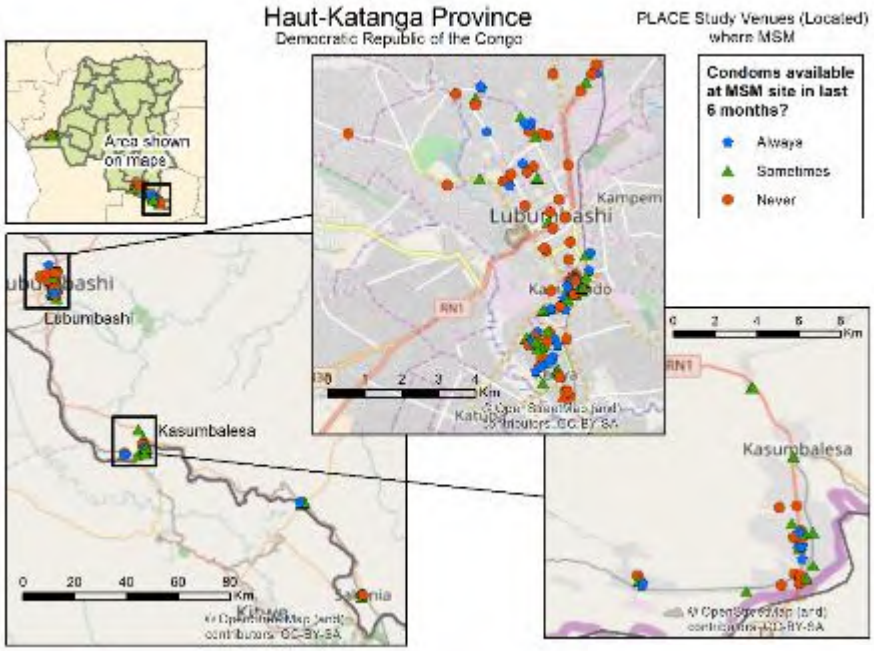


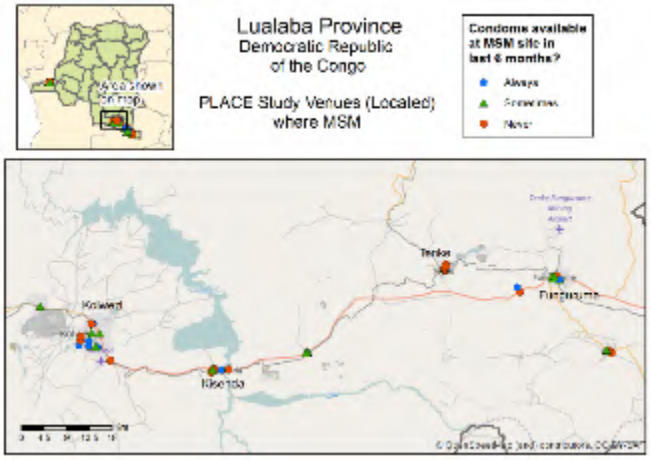
Lualaba Province

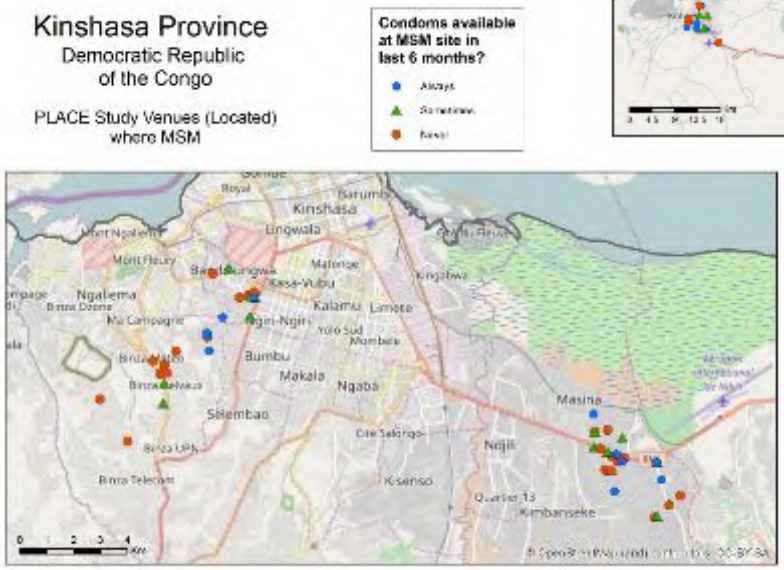
Democratic Republic of the Congo

PLACE Study Venues (Located) with FSW

7.5 Availability of HIV Prevention at 302 Sites with MSM







Appendix 8. Detailed Results from Interviews with FSWs and MSM at the Site During the Site Visit

FSWs and MSM who were at the site at the time of the site visit were approached by the social mobilizer or interviewer and asked to participate in a brief survey. The purpose of the questionnaire was to obtain their estimates of the number of MSM and FSWs at the site and also to estimate their access to services. The people interviewed are not a representative sample. Many lived at the site. They should be knowledgeable about who visits the site. Those identified by social mobilizers are probably more well-known to the program. Their access to services is probably higher than the access of a representative sample of FSWs or MSM. They are an extremely informative group. If they lack services, others lack services.

8.1 Results from FSW Site Informants: Site Visiting

Almost one-third of the FSW site informants reported that they lived on site, indicating that they were very knowledgeable about the site. Over half either lived on site or visited daily. About 30 percent reported that they worked at the site.

Table 8.1. Results from FSW interviewed during the site sisit

	Haut-Katanga	Kinshasa	Lualaba	ALL
Number of FSW site respondents (N)	393	19	219	631
F9: How frequently do you come to this spot?				
Missing	6.6	5.3	4.6	5.9
Live at spot	23.2	26.3	47.0	31.5
Daily	31.0	31.6	24.7	28.8
4–6 times per week	15.3	21.1	10.5	13.8
2–3 times per week	16.3	15.8	11.9	14.7
Weekly	4.8	0.0	0.9	3.3
2–3 times per month	1.5	0.0	0.0	1.0
Monthly	0.8	0.0	0.5	0.6
Less than once a month	0.3	0.0	0.0	0.2
This is my first time here	0.3	0.0	0.0	0.2
Do you work here?				
Missing	1.8	5.3	1.4	1.7
Yes	36.6	21.1	17.4	29.5
No	61.6	73.7	81.3	68.8

8.2 Reported Sex Work, Anal Sex, Injecting Drug Use, and Forced Sex

All of the women reported exchanging sex for money in the previous three months. Over 40 percent reported anal sex with a man in the previous year. Almost 10 percent reported injecting drug use in the previous year. This was highest in Kinshasa (16 percent). Over 30 percent reported being forced to have sex in the previous year.

Table 8.2. Reported sex work, anal sex, injection drug use, and forced sex

	Haut-Katanga	Kinshasa	Lualaba	ALL
Number of FSW site respondents (N)	393	19	219	631
Have you exchanged sex for money in the past 3 months?				
Yes	100.0	100.0	100.0	100.0
Have you had anal sex with a man in the past 12 months?				
Missing	0.5	0.0	0.9	0.6
Yes	43.3	47.4	39.3	42.0
No	56.2	52.6	59.8	57.4
Have you injected a non-prescription drug in the past 12 months?				
Missing	3.1	0.0	4.1	3.3
Yes	12.5	15.8	3.7	9.5
No	84.5	84.2	92.2	87.2
F34: Have you been forced to have sex against your will in the past 12 months?				
Missing	2.5	0.0	1.4	2.1
Yes	29.8	31.6	35.6	31.9
No	67.7	68.4	63.0	66.1

8.3 Results from FSW Site Informants: Mean Number of FSWs, MSM, Women, Transgender Women at Site at a Busy Time

Table 8.3. Results from FSW site informants: mean number of FSWs, MSM, women, transgender women at site at a busy time

	Haut-Katanga	Kinshasa	Lualaba	ALL
Number of FSW site respondents (N)	393	19	219	631
Mean number of FSWs at site at a busy time	8.5	16.8	8.5	8.8
Mean number of women at a busy time	8.6	22.6	9.0	9.2
Mean number of MSM at site at a busy time	0.9	2.5	0.0	0.6
Mean number of transgender people at site at a busy time	0.6	0.7	0.0	0.4

8.4 Reported Access to Services among FSWs Interviewed at the Sites

About 40 percent of FSWs interviewed reported that they had received information from a health worker at the site. Those who had were more likely to report that they had been tested. Fewer than 10 percent reported visiting a drop-in center for female sex workers. Almost half reported that they had been tested for HIV in the previous six months and over half reported that they had been told by a medical provider that they had tested positive for HIV. Very few of those reporting a positive HIV test were on treatment. (See cascade.)

Table 8.4. Reported access to services among FSW interviewed at sites

	Haut-Katanga	Kinshasa	Lualaba	ALL
Number of FSW site respondents (N)	393	19	219	631
F35: Have you visited a health care provider in the past 12 months?				
Missing	3.1	0.0	1.8	2.5
Yes	45.0	57.9	47.5	46.3
No	51.9	42.1	50.7	51.2
In the past 12 months, have you received information from an outreach worker at this site?				
Missing	2.0	0.0	0.5	1.4
Yes	39.2	26.3	45.2	40.9
No	58.8	73.7	54.3	57.7
Have you been to a drop-in center created for female sex workers?				
Missing	1.0	0.0	1.4	1.1
Yes	12.5	15.8	0.9	8.6
No	86.5	84.2	97.7	90.3
F28a: Have you accessed condoms for free in the past 6 months?				
Missing	3.8	0.0	0.9	2.7
Yes	74.8	47.4	76.3	74.5
No	21.4	52.6	22.8	22.8
F29: Have you accessed lubricant for free in the past 6 months?				
Missing	4.1	0.0	1.8	3.2
Yes	15.0	5.3	2.7	10.5
No	80.9	94.7	95.4	86.4
F30: Have you bought condoms in the past 6 months?				
Missing	2.8	0.0	0.9	2.1
Yes	64.6	73.7	50.7	60.1
No	32.6	26.3	48.4	37.9
F31: Have you bought lubricant in the past 6 months?				
Missing	100.0	100.0	100.0	100.0
F31B: When were you most recently tested for HIV, if ever?				
Missing	13.7	0.0	15.1	13.8
Past 6 months	42.0	36.8	55.7	46.6
7–11 months ago	10.7	10.5	7.3	9.5
1–5 years ago	8.1	0.0	2.7	6.0
Over 5 years ago	1.3	15.8	0.9	1.6
Never	24.2	36.8	18.3	22.5
F32: Has a medical provider ever told you that you were infected with HIV, based on a HIV test result?				
Missing	4.1	0.0	5.9	4.6
Yes	56.5	52.6	50.2	54.2
No	22.6	15.8	31.1	25.4
Never tested	16.8	31.6	12.8	15.8

	Haut-Katanga	Kinshasa	Lualaba	ALL
Number of FSW site respondents (N)	393	19	219	631
F33A: Have you ever taken medicine for an HIV infection?				
Missing	26.2	31.6	20.1	24.2
Yes	6.1	0.0	2.3	4.6
No	67.7	68.4	77.6	71.2
F33B: Are you currently taking antiretroviral (ARV) drugs to treat an infection?				
Missing	61.6	36.8	67.1	62.8
Yes	3.1	5.3	0.9	2.4
No	35.4	57.9	32.0	34.9
F33C: In the past 7 days, did you miss taking the medicine 3 days or more?				
Missing	66.4	36.8	75.3	68.6
Yes	0.8	10.5	0.9	1.1
No	32.8	52.6	23.7	30.3

8.5 Results from MSM Site Informants: Site Visiting

Table 8.5. Results from MSM interviewed at the site during the site visit

	Haut-Katanga	Kinshasa	ALL
Number of MSM site respondents (N)	85	13	98
F9: How frequently do you come to this spot?			
Missing	16.5	15.4	16.3
Daily	30.6	30.8	30.6
4–6 times per week	14.1	7.7	13.3
2–3 times per week	25.9	23.1	25.5
Weekly	10.6	0.0	9.2
2–3 times per month	0.0	15.4	2.0
Monthly	0.0	7.7	1.0
This is my first time here	2.4	0.0	2.0
Do you work here?			
Missing	5.9	7.7	6.1
Yes	23.5	7.7	21.4
No	70.6	84.6	72.4

8.6 From MSM Site Informants: Reported Sex Work, Anal Sex, Injecting Drug Use, and Forced Sex

Table 8.6. Reports of sex work, anal sex, drug injection and forced sex reported by MSM

	Haut-Katanga	Kinshasa	ALL
Number of MSM site respondents (N)	85	13	98
Have you exchanged sex for money in the past 3 months?			
Missing	3.5	7.7	4.1
Yes	85.9	84.6	85.7
No	10.6	7.7	10.2
Have you had anal sex with a man in the past 12 months?			
Missing	3.5	7.7	4.1
Yes	75.3	61.5	73.5
No	21.2	30.8	22.4
Have you injected a non-prescription drug in the past 12 months?			
Missing	5.9	7.7	6.1
Yes	12.9	15.4	13.3
No	81.2	76.9	80.6
F34: Have you been forced to have sex against your will in the past 12 months?			
Missing	4.7	0.0	4.1
Yes	14.1	15.4	14.3
No	81.2	84.6	81.6

8.7 Reported Access to Services Among MSM Interviewed at the Sites

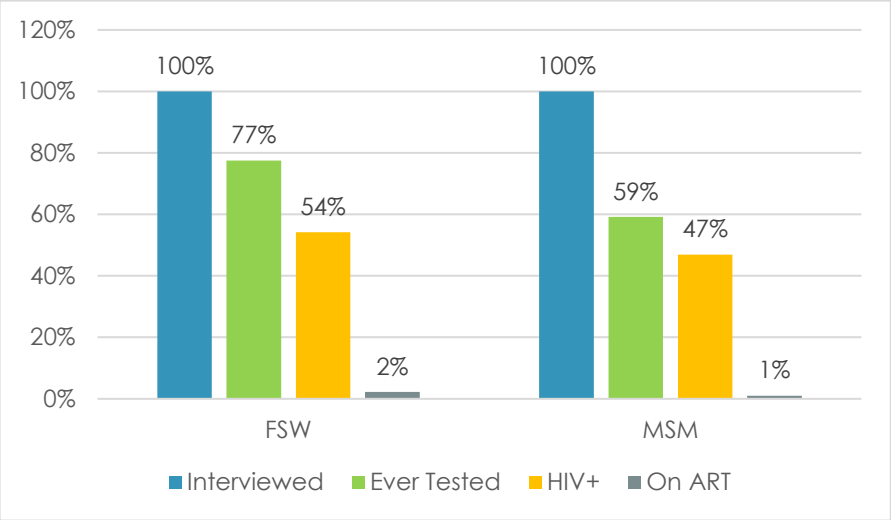
Table 8.7. Reported access to services among MSM

	Haut-Katanga	Kinshasa	ALL
Number of MSM site respondents (N)	85	13	98
Mean number of MSM at site at a busy time	2.5	16.8	4.2
Mean number of transgender people at site at a busy time	1.6	2.5	1.8
F35: Have you visited a health care provider in the past 12 months?			
Missing	5.9	0.0	5.1
Yes	44.7	92.3	51.0
No	49.4	7.7	43.9
In the past 12 months, have you received information from an outreach worker at this site?			
Missing	5.9	0.0	5.1
Yes	37.6	53.8	39.8
No	56.5	46.2	55.1
Have you been to a drop-in center created for female sex workers?			
Missing	3.5	7.7	4.1

	Haut-Katanga	Kinshasa	ALL
Number of MSM site respondents (N)	85	13	98
Yes	11.8	38.5	15.3
No	84.7	53.8	80.6
F28a: Have you accessed condoms for free in the past 6 months?			
Missing	31.8	23.1	30.6
Yes	58.8	46.2	57.1
No	9.4	30.8	12.2
F29: Have you accessed lubricant for free in the past 6 months?			
Yes	50.6	46.2	50.0
No	49.4	53.8	50.0
F30: Have you bought condoms in the past 6 months?			
Yes	38.8	61.5	41.8
No	61.2	38.5	58.2
F31: Have you bought lubricant in the past 6 months?			
Missing	100.0	100.0	100.0
F31B: When were you most recently tested for HIV, if ever?			
Missing	18.8	30.8	20.4
Past 6 months	23.5	38.5	25.5
7–11 months ago	8.2	0.0	7.1
1–5 years ago	4.7	0.0	4.1
Over 5 years ago	2.4	0.0	2.0
Never	42.4	30.8	40.8
F32: Has a medical provider ever told you that you were infected with HIV, based on a HIV test result?			
Missing	2.4	7.7	3.1
Yes	44.7	61.5	46.9
No	22.4	23.1	22.4
Never tested	30.6	7.7	27.6
F33A: Have you ever taken medicine for an HIV infection?			
Missing	35.3	15.4	32.7
Yes	2.4	0.0	2.0
No	62.4	84.6	65.3
F33B: Are you currently taking antiretroviral (ARV) drugs to treat an infection?			
Missing	63.5	61.5	63.3
Yes	1.2	0.0	1.0
No	35.3	38.5	35.7
F33C: In the past 7 days, did you miss taking the medicine 3 days or more?			
Missing	68.2	53.8	66.3
Yes	1.2	0.0	1.0
No	30.6	46.2	32.7

8.8 Self-Reported Cascade for Testing and Treatment among FSW

Figure 8.1. Self-Reported HIV Treatment Cascade for FSW



Appendix 9. Calculation of Size Estimates: Details

9.1 FSW Size Estimates from the General Site Informant

Table 9.1a gives key population size estimates based on site informant estimates of the numbers of key populations at sites at its busiest time. The table shows how the estimates were obtained.

Busy Times Size Estimates for FSWs

- First, the number of sites was determined based on-site identification interviews and site visits.
- At each visited site, a general site informant was asked how many women visit the site at a busy time (ranges provided) and how many of these (none, less than half, half, more than half, almost all/all) are female sex workers.
- The estimate for each site was calculated by multiplying the proportion times the mid-point of the range given of women at the site.
- The average number was calculated for each area. The means ranged from 2.8 to 3.7, which are reasonable but rather low.
- The size estimates were calculated by multiplying the mean by the number of sites and then extrapolating to the sites without a "busy times" size estimate. It is difficult for site informants to estimate the number of people at the site at a busy time and it is common to have missing estimates.
- The value of this estimate is that it is available for every site and is a good beginning point for peer educators. The number can be used as an initial target.
- The calculation is problematic if the respondent has difficulty determining how many women visit the site at busy times and what proportion are sex workers.

Table 9.1a Sex worker busy time size estimates based on information from the general site informant

Crude Size Estimate 1: Number of FSWs at site at busy time (problematic—too low)						
Area	Number of Sites	Number of Sites with Sex Work Reported	Number of Sites with a "Busy Times Size Estimate"	Mean Number of FSWs per Site at Busy Time	Busy Time Size Estimate for Sites with Data	**Estimate Including Extrapolation to Sites with Missing or "Don't Know" Response**
HAUT-KATANGA	536	474	368	3.72	1369	**1763**
KINSHASA	146	83	61	4.56	278	**378**
LUALABA	255	233	197	2.76	543	**643**

Saturday Night Size Estimates for FSWs

The busy time estimate will be biased if sites have different busy times and people visit many sites and are counted at multiple sites. This would cause the estimate to be an overestimate of the total number of FSWs. A strategy to adjust for this problem is to ask how many FSWs visit each site at a standard time, such as three hours on a Saturday night. We expect this estimate to be lower than the busy time estimate, as it should reduce double-counting. In this study in the DRC, the Saturday night estimate was higher.

For the Saturday night estimate:

- First, the number of sites with FSWs was determined from Form B.
- Then, the number of sites where the respondent reported a specific number of FSWs who visited the site during the three-hour period from 11 p.m. until 2 a.m. was determined.
- Finally, the mean number reported at these sites was calculated, and the size estimate was calculated for sites with data and then for sites with missing or don't know responses.

Table 9.1b. Sex worker Saturday night size estimates based on information from the general site informant

Crude Size Estimate 2: Number of FSWs at site on Saturday night 11 p.m. – 2 a.m.						
Area	Number of Sites	Number of Sites with Sex Work Reported	Number of Sites with a "Saturday Night" Estimate	Mean Number of FSW per Site on Saturday Night	Saturday Night Size Estimate for Sites with Data	**Estimate Including Extrapolation to Sites with Missing or Don't Know Response**
HAUT-KATANGA	536	474	442	6.378	2819	**3023**
KINSHASA	146	83	75	9.48	711	**787**
LUALABA	255	233	229	7.97	1825	**1857**

9.2 MSM Size Estimates from the General Site Informant

The MSM size estimates were calculated in exactly the same way and are shown in the tables below. There was not as great a difference in the busy night estimate and the Saturday night estimate for MSM. These estimates are of the number of MSM who can be reached at these sites and should not be interpreted as an estimate of the number of MSM in the entire area. In addition, the estimate is only for sites within the limited number of health zones in each area that are PEPFAR priority areas.

Table 9.2. MSM busy time and Saturday night size estimates based on information from the general site informant

Crude Size Estimate 1: Number of MSM at site at busy time						
Area	Number of Sites	Number of Sites with MSM	Number of Sites with a "Busy Times Size Estimate"	Mean Number of MSM Per Site at Busy Time	Busy Time Size Estimate for Sites with Data	**Estimate Including Extrapolation to Sites with Missing or Don't Know Response**
HAUT-KATANGA	536	200	150	1.55	233	310
KINSHASA	146	50	32	4.2	134	210
LUALABA	255	53	41	1.3	54	69
Crude Size Estimate 2: Number of FSWs at site on Saturday night 11 p.m. – 2 a.m.						
Area	Number of Sites	Number of Sites with Sex Work Reported	Number of Sites with a "Saturday Night" Estimate	Mean Number of MSM Per Site on Saturday Night	Saturday Night Size Estimate for Sites with Data	**Estimate Including Extrapolation to Sites with Missing or Don't Know Response**
HAUT-KATANGA	536	200	190	1.52	288	304

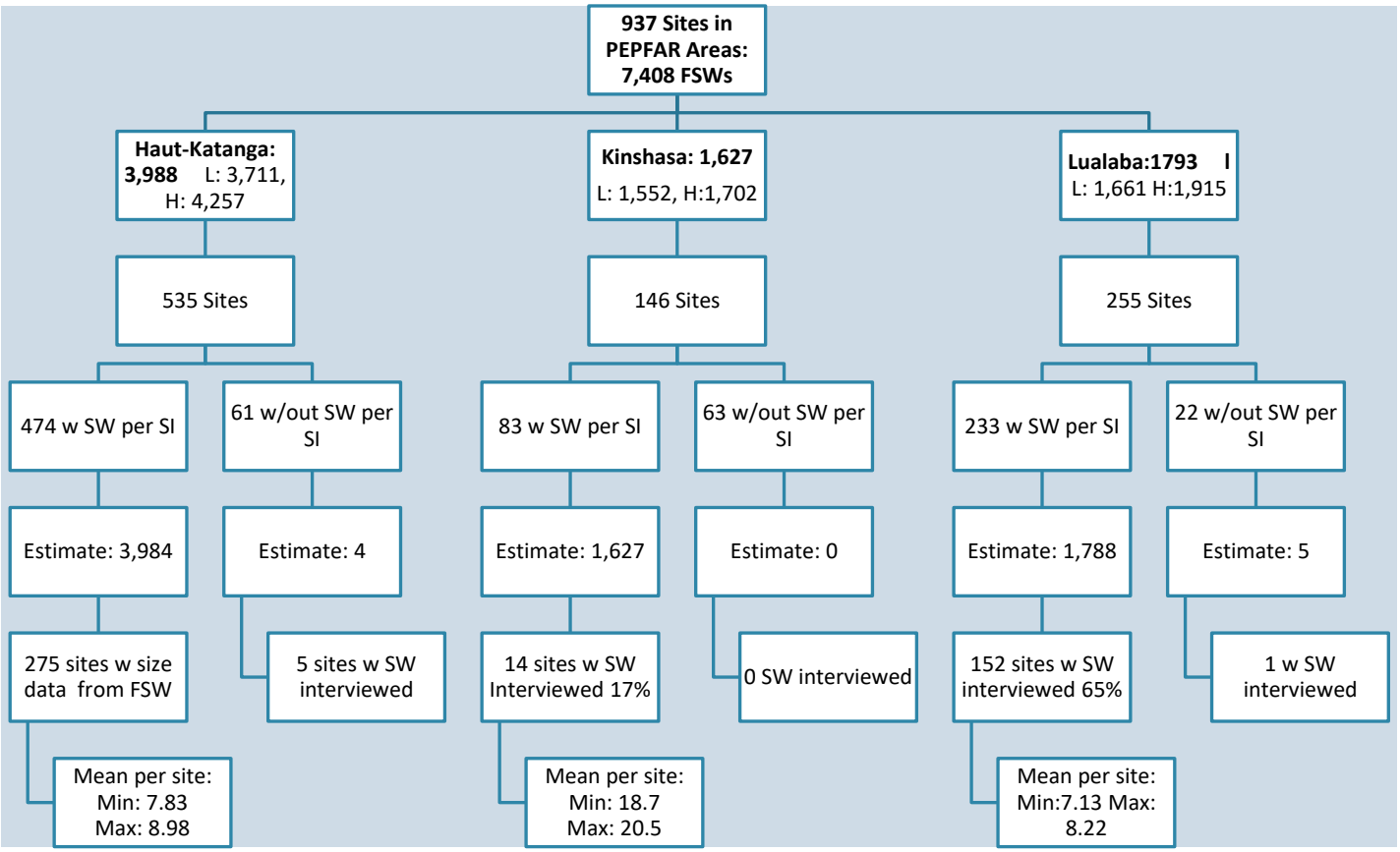
KINSHASA	146	50	44	3.48	153	174
LUALABA	255	53	51	1.31	67	69

9.3 FSW Size Estimates Adjusted with Data from On-site FSWs

We recommend using data from FSWs at the site. The size estimation process followed this process:

- We categorized every site as a site with FSWs according to the general site informant or a site without sex workers according to the general site informant.
- In Haut-Katanga and Lualaba, the vast majority of all sites identified were classified as sex worker sites. For example, in Haut-Katanga, 474 of 535 sites identified were reported to have sex workers by the general site informant.
- Interviewers attempted to interview at least one FSW at each site and were quite successful at FSW sites and had little success at other sites.
- Where they were successful, the FSWs were asked about the number of FSWs who visit the site at a busy time.
- The mean number was calculated for FSW sites with data. We assumed FSW sites without data would have the same number as sites with data. We calculated a low and a high based on multiple respondents per site.
- We assumed that if the site manager said there were no FSWs at the site, and the interviewers could not find any to interview, that there were none at the site.
- **The recommended size estimates, therefore, are:**
    - **Haut-Katanga: 2,000 FSWs (mid-point 1,988; low 3,711; high 4,257)**
    - **Kinshasa: 1,600 FSWs (mid-point 1,627; low 1,522; high 1,702)**
    - **Lualaba: 1,800 FSWs (mid-point 1,793; low 1,661; high 1,915)**

Figure 9.1. FSW size estimates (mid-points plus high and low estimates) of number of FSWs at sites at a busy time, based on information from FSWs interviewed at the sites, unadjusted for visiting other sites during the busy time



Assessing Double Counting

Size estimates can be further adjusted by taking into account the number of people counted during a busy time to visit other sites. This adjustment is often reasonable. We explored this adjustment and present the results below, but we do not recommend this adjustment in this case. There was some confusion in how this question was asked. It is better to use this approach to adjust estimates when there is a representative survey of FSWs and not a convenience sample. We prefer the above unadjusted estimates.

Table 9.3. Exploring whether to adjust size estimates for double counting people who visit other sites: determination that such adjustment not reasonable

Area	Size Estimate Unadjusted for Visiting Other Sites	Percentage of FSWs Who Visit Other Sites During a 3-hour Busy Time	Mean Number of Other Sites Visited (Max Set at 3)	Low Estimate	High Estimate	Mid-point
Haut-Katanga	3,988	0.738	2.5	2,068	2,372	**2,220**
Kinshasa	1,627	0.5544	S2.6	1,023	1,121	**1,072**
Lualaba	1,793	0.7304	2.1	1,026	1,182	**1,104**

Comparison of FSW Size Estimates

Table 9.4. FSW size estimates

	Estimates Based on General Site Informant		Estimates Based on Convenience Sample of FSWs at Sites	
Area	Based on Proportion of Women at Site Who Are Sex Workers According to General Site Informant	Based on Number at Site on Saturday Night	**Size Estimate Unadjusted for Visiting Other Sites (Recommended Estimate)**	Size Estimate Adjusted for Visiting Multiple Sites
Haut-Katanga	1,763	3,023	**3,988**	2,220
Kinshasa	378	787	**1,627**	1,072
Lualaba	643	1,857	**1,793**	1,104

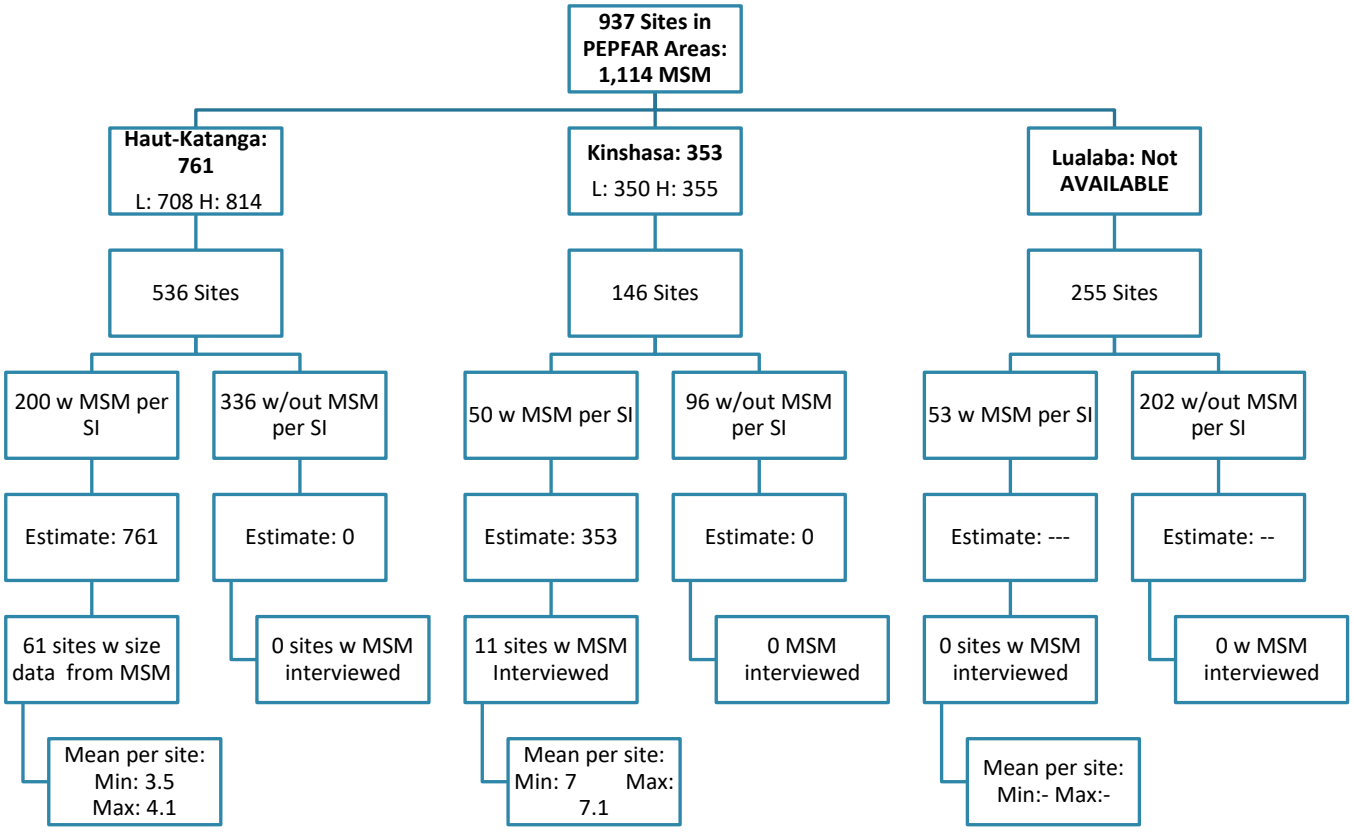
9.4 MSM Size Estimates Adjusted with Data from On-site MSM

The approach used above for FSWs was also used for MSM. In Lualaba, the interviewers were not able to interview any MSM on site. Thus, the estimate for MSM in Lualaba is based solely on information from the general site informant. The estimates should be interpreted with caution. These should be considered high-risk MSM who are visiting sites where people meet new sexual partners. This is not an estimate of the number of MSM in the target health zones.

The recommended size estimates, therefore, are:

- **Haut-Katanga: 800 MSM (mid-point 761; low 708; high 814)**
- **Kinshasa: 350 MSM (mid-point 353; low 350; high 355)**
- **Lualaba: 70**

Figure 9.2. MSM size estimates (mid-points plus high and low estimates) of number of MSM at sites at a busy time based on information from MSM at the site sampled, unadjusted for visiting other sites during the busy time



Assessing Double Counting

Similarly, given that the people interviewed were not a representative sample of MSM, it does not seem reasonable to rely on the estimates below.

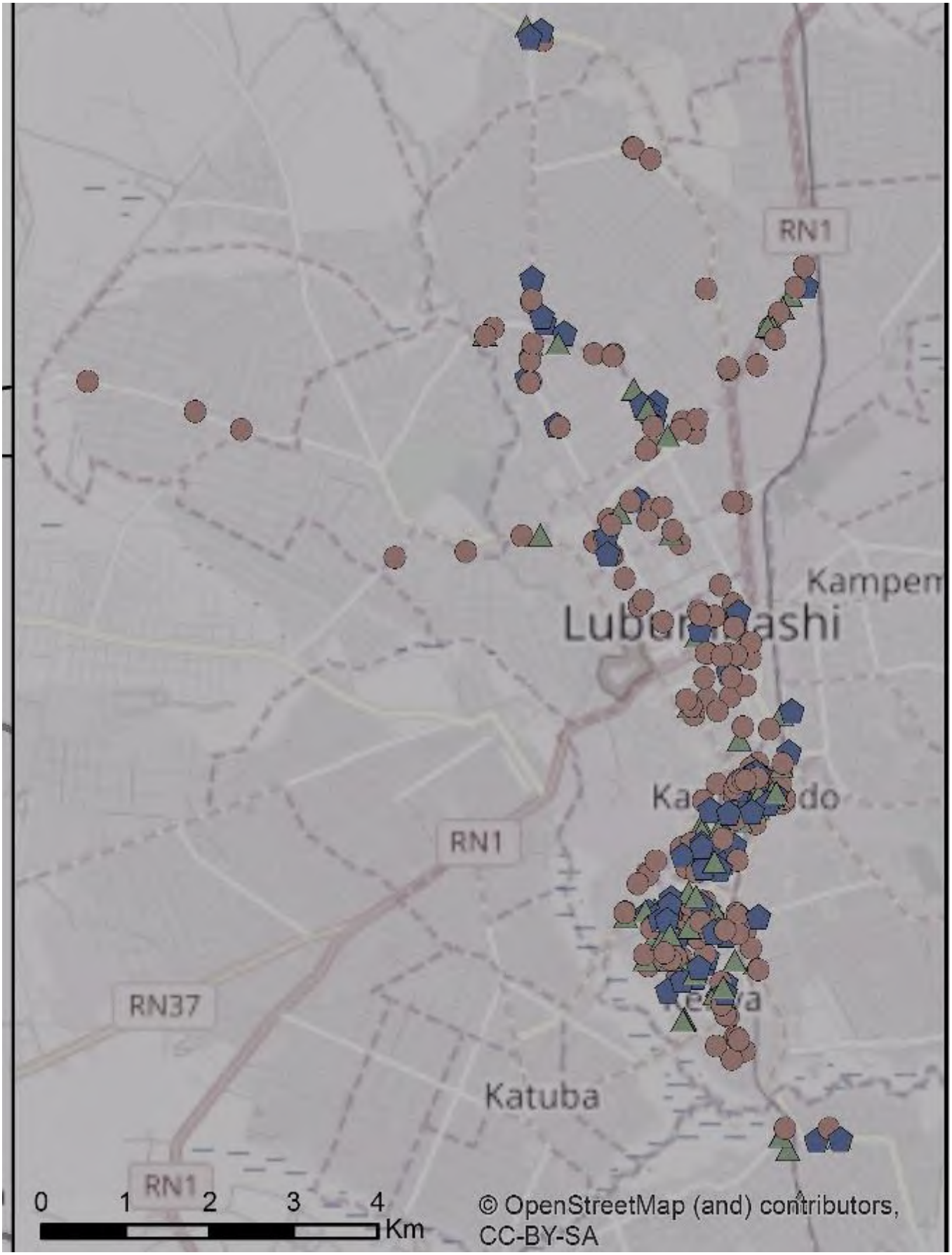
Table 9.5. Size estimates adjusted for double counting people who visit other sites and could be counted twice

Area	Size Estimate Unadjusted for Visiting Other Sites	Percentage of MSM Who Visit Other Sites During a 3-Hour Busy Time	Mean Number of Other Sites Visited (Max Set at 3)	Low Estimate	High Estimate	Mid-point
Haut-Katanga	761	72.6%	2.2	428	492	**460**
Kinshasa	353	68.8%	2.4	209	212	**211**
Lualaba	Not available	Not available	Not available	Not available	Not available	Not available

Comparison of MSM Size Estimates

Table 9.6. MSM Size Estimates

Area	Based on Proportion of Men at Site Who Are MSM According to General Site Informant	Based on Number at Site on Saturday Night	Size Estimate Unadjusted for MSM Reports of Visiting Other Sites	Size Estimate Adjusted for Visiting Other Sites
Haut-Katanga	310	304	761	460
Kinshasa	210	174	353	211
Lualaba	69	69	Not available	Not available


RN1
Kampem
Lubumbashi
RN1
RN37
Katuba
RN1
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