FORSS

IMPACT OF THE COVID-19 HEALTH CRISIS ON ACCESS TO HIV SERVICES

IN EGYPT, MOROCCO, MAURITANIA AND TUNISIA.

ITPC
INTERNATIONAL TREATMENT PREPAREDNESS COALITION
MENA

Impact of the COVID-19 health crisis on access to HIV services in Egypt, Morocco, Mauritania and Tunisia.

Étude réalisée en partenariat avec

et avec l'appui de L'INITIATIVE sida, tuberculose, paludisme

TABLE OF CONTENTS

LIST OF ACRONYMS

Acronym	
AFE	Arab Federation for Freedoms and Equality
AIDS	Acquired Immune Deficiency Syndrome
ANC	Antenatal Care
ART	Antiretroviral therapy
ATP	Association Tunisienne de Prevention Positive
CNLS	The National Committee for Combating AIDs (Le comité National de Lutte contre le Sida)
COVID19-	Coronavirus Disease 2019
CSO	Civil Society Organization
ELISA	Enzyme-Linked Immunosorbent Assay
EMRO	Eastern Mediterranean Regional Office
FORSS	FORmer, Suivre, Soutenir: Mobilisation communautaire pour lutter contre le VIH en région MENA
FSW	Female Sex Workers
HIV	Human Immunodeficiency Virus
IDU	Injecting Drug User
IEC	Information, Education and Communication
IOM	International Organisation on Migration
ITPC	International Treatment Preparedness Coalition
KP	Key Populations
LHIV	Living with HIV
MENA	Middle East and North Africa
MOHP	Ministry of Health and Population
MSM	Men who have Sex with Men
NAP	National AIDS Program

NGO	**Non-Governmental Organization**
PCR	**Polymerase chain reaction**
PID	**Persons Injecting Drugs**
PLHIV	**People Living with HIV/AIDS**
PNLS/IST	**Programme National de Lutte contre le Sida et les Infections Sexuellement Transmissibles**
RDR	**(Réduction des risques auprès des usagers de drogues)**
SRH	**Sexual and Reproductive Health**
STI	**Sexually Transmitted Infections**
SW	**Sex Worker**
TB	**Tuberculosis**
UN	**United Nations**
UNAIDS	**Joint United Nations Programme on HIV/AIDS**
UNDP	**United Nations Development Program**
VCT	**Voluntary Counselling and Testing**
VT	**Vertical Transmission**
WHO	**World Health Organization**

LIST OF TABLES

LIST OF FIGURES

EXECUTIVE SUMMARY

HIV/AIDS continues to be one of the most widespread and deadliest pandemics worldwide causing serious health implications for many areas across the world. On 31st December 2019, a cluster of individuals infected with pneumonia of unknown origin was reported in Wuhan City, in the People's Republic of China. By the 11th March 2020, the Emergency Committee of the World Health Organization (WHO) officially declared the illness known as Coronavirus Disease 2019 (COVID-19) a pandemic. Across the world, lockdowns and other containment measures were adopted to curtail the spread of the virus. These measures have restricted livelihood options as well as access to a range of social, educational and health services. COVID-19 challenged health systems across the world including those in countries across the MENA region especially those who were already weak and overcrowded. The first wave of the pandemic had a significant impact on public hospitals and their personnel. The WHO conducted a survey in eight countries in the Eastern Mediterranean Region in April 2020 and despite the fact that the pandemic was still in its early days all countries reported a disruption of various HIV services, including prevention, testing, treatment and viral load testing. Furthermore, the number people on ART appears to be flattening and newly initiated patients have been declining in numerous countries.

Egypt

Official statistics in Egypt report a less than 1% percent rate of HIV infection among the general population still making it a low-prevalence country. However, between 2006 and 2011, prevalence rates rose nearly tenfold. Egypt has also recorded some of the highest numbers of COVID-19 cases in the African continent since the start of the COVID-19 pandemic.

For the first few months of the COVID-19 pandemic HIV testing through government laboratories was severely disrupted due to the focus on COVID

After a brief period of closure and limited activity most NGOs resumed service provision including testing within community based VCT centers. This ensured availability of open VCT sites during peaks of the pandemic and helped divert people away from overstretched overcrowded health services. It also enabled NGOs to support long term follow up of HIV patients. Only 38% of MSM and sex workers reported getting a sexual and reproductive health examinations and essential harm reduction interventions were profoundly impacted due to lockdowns, curfews and social distancing measures. This encouraged the NAP to rely more on NGOs to step up community outreach programs and distribution of condoms and single use syringes to KPs and PLHIV. A further 13 treatment sites were opened during this period bringing the total to 27 sites nationwide limiting the need for patients to travel long distances and taking pressure off central facilities. The NAP also introduced multi-month dispensing options which although useful to the patients led to a risk of stock outs particularly with irregular shipping and importing conditions. Patients who reported difficulty accessing ART increased from 57.1% before the pandemic to 71.4% during the pandemic. A majority (80%) of patients reported difficulty accessing required medical services. Patients who experienced difficulty accessing treatment for opportunistic infections increased from 62.9% before the pandemic to 68.6% during the pandemic and CD4 and viral load testing were significantly delayed particularly during the early stages of the pandemic.

The NAP accelerated its prevention of VT program to include it as part of its essential package of antenatal services. Despite this, only 27.3% (3) of the women from KPs who were pregnant during the pandemic accessed antenatal care and only 2 of them were tested for HIV.

Nearly 50% of respondents reported an increased need for psychosocial support services This was reported by PLHIV more than KPs (60% versus 48.2%), however, both groups reported having difficulty accessing this service

during the pandemic (77.1% of PLHIV and 44.5% of KPs). The pandemic also had significant economic impacts on PLHIV and KPs with 84.7% of the survey sample reporting that their income had either completely stopped or was markedly reduced. Some NGOs provided food baskets, vouchers and meals in addition to financial support for people who had/were going to be evicted from their homes due to defaulting on their rent. It was observed that nearly half of PLHIV reported that they perceived an increased sense of stigma and/or discrimination in health care facilities during the pandemic compared to only 18% of KPs.

The most common reasons for limited access to most services included fear of going to the service sites because of the likelihood of catching coronavirus either there or en-route as well as economic difficulties which limited their ability to pay for transportation costs to reach the dispensing/treatment sites.

Morocco

Morocco has been identified as one of the best countries within the MENA region in dealing with the HIV epidemic based on their research capabilities, surveillance systems, evidence-based and informed responses. It has managed to keep HIV prevalence low among the general population and increase national ART coverage from 16% in 2010 to over 75% in 2020. HIV prevalence however remains high among KPs especially IDUs (7.9%) FSWs (1.3%) and migrants (3%).

KPs who participated in the quantitative survey reported that they had difficulty accessing testing services during the pandemic. This was partly due to a large stock out of testing kits that lasted nearly a year and caused a huge delay in testing services. However well-coordinated efforts between MoH and local NGOs included distribution of three month stocks of single use syringes and methadone replacement to clients in hard-to-reach areas. In addition 3 month stocks of medication were delivered to PLHIV at home, either through a courier, or through NGOs. On the other hand results

of the quantitative survey with PLHIV on the other hand revealed that the percent of PLHIV who reported difficulty accessing ART before the pandemic doubled during the pandemic. Similar to PLHIV in Egypt, a large percentage of respondents also reported difficulties in getting their CD4 and viral loads tested. Nearly 91% of PLHIV who needed medical services during the pandemic were unable to access them due to fear of contracting coronavirus whereby nearly 53% reported that the facilities were closed or had not been providing the services they needed during that time.

Psychosocial group sessions were offered through different online platforms like zoom as well as one to one sessions over the phone from a number of NGOs. This was embraced by the target beneficiaries in Morocco and unlike their contemporaries in Egypt, they found this to be an easy, accessible and safe method of communication and support. This was particularly useful because a significant number respondents (28%)were unable to access certain services because they did not have enough money for transportation.

Key informants from NGOs reported that civil society in Morocco played an important role in responding to the socio-economic impacts of the pandemic on the target population through conducting a rapid needs assessment which revealed a strong need for economic support during the pandemic. Once identified, NGOs worked on the provision of cash and in-kind assistance for the target population. The proportion of PLHIV who reported receiving this support was markedly higher than KPs (61.1% versus 43.2%).

Since the start of the pandemic, 43.5% of the figure who had experienced stigma in the pre pandemic period reported an increase in stigma and discrimination at health care facilities. This was found to be more common among PLHIV than KPs (58.3% versus 40.9%).

Tunisia

Similar to other countries in the region, the epidemic remains concentrated among KPs. The number of respondents among KPs who reported having access to testing services was significantly reduced from 64.9% before the pandemic to 43.6% after it. IDUs who reported that they could not access substitution therapy increased from 60.7% before the pandemic to 71.4% during the pandemic and inability to access single use syringes increased remarkably from 17.8% before the pandemic to 60.7% during the pandemic. The main reasons given were the fear of catching infection and the scarcity of supplies.

Despite the fact that 3 month supplies of ART were dispensed to PLHIV, much of the feedback also highlighted shortages of medications due to stock depletions. The percent of PLHIV who reported having difficulty accessing ART increased from 37.8% before the pandemic to 51.4% during the pandemic. The prevention of VT reached 100% of the respondents to the survey with access to antenatal services, receiving their ART supplies regularly prophylactic care before and during labour.

The pandemic obviously added to the economic vulnerability of PLHIV and KPs as 71% of respondents reported that their income was either significantly reduced or completely stopped during the pandemic. Furthermore, 24.5% of KPs and 32.4% of PLHIV reported that their need for psychosocial support services had increased during the pandemic. In line with this, the support given to PLHIV was considerably more than that provided to KPs. While 51.4% of respondents LHIV reported they received support from non-governmental organizations, only 12.8% of KPs reported receiving such support. On the other hand, 59.6% of KPs and 27% of PLHIV reported that they experienced stigma and discrimination at health care facilities before the pandemic. Only 10.7% of the respondents reported that stigma and discrimination was increased during the pandemic.

Tunisia

The HIV epidemic in Mauritania is concentrated in cities and among KPs. HIV prevalence among adults is around 0.3% but is a staggering 9% among sex workers and 23% among gay men and other MSM.

Nearly 89% of KPs reported that they had difficulty accessing HIV testing services during the pandemic. The majority similar to their counterparts in the other countries where worried about becoming infected with COVID (71%), or did not have enough money for transportation (6%). Nearly one quarter of these respondents (23%) also reported that the sites were not providing HIV testing services during that period.

Only 45.5% of MSM and FSW reported that they had access to condoms and lubricants before the pandemic, and 73.6% reported that they had difficulty in accessing them during the pandemic. Similar to figures and circumstances observed in the other countries 55% of respondents identified that they had trouble accessing ARTs before the pandemic. This number went up to 74% during the pandemic. Over 8% of the participants also claimed that they were not receiving the same quantities of ARV they had been receiving previously. Nearly all respondents to the survey reported that they needed to perform a CD4 test, viral load or both during the pandemic, however, 85.5% of the respondents reported being unable to access this service, 55% due to the sites not providing the service. Whereby 86.5% were also unable to access psychosocial support services as well.

Conclusion

- The pandemic had serious economic impacts on the KPs and PLHIV in all four study countries through loss of jobs and reduced income causing indirect impact on the accessibility to HIV related services

- Although different approaches to ensuring access to ART such as multi-month dispensing was done, access to ART was markedly impaired during the pandemic.

- Access to CD4, viral load testing and medical services unrelated to HIV was markedly impacted due to unwillingness of PLHIV to expose themselves to the risk of infection or discontinuation of services.

- VCT for KP were generally affected by the pandemic as well as access to condoms, lubricants, single use syringes and methadone replacement (where available).

- The need for psychosocial support services was increased during the pandemic by both KPs and PLHIV, however accessibility to the service was markedly impaired in all four study countries.

Recommendations

Disaster Preparedness

- National programs and CSOs working in the delivery of services to PLHIV and KPs need to develop a disaster preparedness plan.

- Contingency plans of CSOs should ensure the continuity of outreach activities during crisis situations.

Coordinating with National Programs

- CSOs must have memoranda of agreements with national programs to ensure the ability to deliver medications and harm reduction materials to target populations.

- CSOs need to ensure governmental cooperation to ensure they can have freedom of mobility in times of crises to be able to deliver outreach activities.

Networking

- Civil society organizations need to develop national networks to expand their geographic reach and be able to reach the hard-to-reach populations and provide a continuum of services both under non-emergency and emergency conditions.

- Establishment of a strong and efficient referral network between civil society organizations and governmental organizations might ensure the continuity of services to PLHIV and KPs through prompt referral to sites which are still providing services based on the updates of the network database even in cases of crisis or disasters.

Using social media and online platforms

- CSOs need to make use of online platforms or develop their own platforms for delivering effective and efficient online psychosocial support services to PLHIV and KPs.

- CSOs must utilise social media platforms for communicating with beneficiaries particularly during crisis and emergency situations.

Advocacy

- Advocacy efforts should be directed to ensure the governmental service provision sites have dedicated full time staff to ensure the continuity of service even during crisis and emergency situations.

Economic empowerment for PLHIV and KPs

- Economic empowerment components should be included in the context of all programs addressing PLHIV and KPs given the economic vulnerability of this population.

BACKGROUND

HIV/AIDS continues to be one of the most widespread and deadliest pandemics worldwide causing serious health implications for many areas across the world. It affects people in the prime of their lives and continues to transfer from at-risk populations to the broader cross-sections of society. There are over 47 million adults and children that have been infected since the start of the epidemic, and more than 18.8 million people have died. Over 95% of the global total of all AIDS cases are in the developing world, with an overwhelming majority of all infections acquired through unprotected sexual intercourse, with at least 70% resulting from heterosexual intercourse. Large numbers of AIDS cases are also reported among men who have sex with men (MSM) however, racial and ethnic minorities, women, and youth are also becoming infected in increasing proportions[1] . In the Middle East and North Africa, an estimated 240,000 people are infected, 92,000 of which were accessing ART[2] . New HIV infections rose by 7% between 2010 and 2020. While this is a seemingly small number compared with figures from across the world, the MENA region is still only one of two regions where new HIV infections are rising[3] .

On 31st December 2019, a cluster of individuals infected with pneumonia of unknown origin was reported in Wuhan City, in the People's Republic of China. By the 11th March 2020, the Emergency Committee of the World Health Organization (WHO) officially declared the illness known as Coronavirus Disease 2019 (COVID-19) a pandemic. As of 18th February 2022, more than 418 million cases and nearly six million deaths have been

[1] Gayle H. An overview of the global HIV/AIDS epidemic, with a focus on the United States. AIDS (London, England). 2000 Sep;14 Suppl 2:S8-17. PMID: 11061637.
[2] Joint United Nations Programme on HIV/AIDS (UNAIDS). Fact Sheet-World AIDS Day 2020 Available at Fact sheet - Latest global and regional statistics on the status of the AIDS epidemic. (unaids.org).
[3] UNAIDS Data 2021, Geneva: Joint United Nations Programme on HIV/AIDS; [2021]. Licence: CC BY-NC-SA 3.0 IGO

reported worldwide[4] . COVID-19 was detected in the Middle East and North Africa (MENA) region early in the pandemic. The first cases were recorded in Iran in February 2020. This was rapidly followed by the further spread of cases to neighbouring Gulf countries via business contacts and religious tourism and soon after, all MENA countries had reported cases. By early August 2021 the World Health Organization's Regional Office for the Eastern Mediterranean (EMRO), incorporating the majority of MENA states, had reported 12.6 million cases and 236,000 deaths., with an overall vaccination rate of less than 6.0%[5]. Throughout the period of the pandemic, data from the MENA region continued to be scarce and inconsistent. It is unclear if this was truly an accurate estimate of the scale of the pandemic across the region. There is however an assumption that factors such as an unequal distribution of wealth, socio-political instability compounded with high numbers of undetected and under-reported cases in many countries of the region have contributed significantly in the wide-ranging incidences of COVID-19 related morbidity and mortality[6] .

Across the world, lockdowns and other containment measures were adopted to curtail the spread of the virus. These measures have restricted livelihood options as well as access to a range of social, educational and health services. The MENA countries made significant efforts to address the COVID-19 crisis early on. The limited capacity of health systems to handle a large-scale outbreak drove governments to attempt to adopt strict containment measures. Immediately following the announcement of the outbreak, most of the countries declared a "state of national emergency" including strict containment measures, travel restrictions, mandatory self-isolation and curfews. In Tunisia, thermal cameras for fever screening were installed in airports and at border crossings with neighbouring countries even before the first cases were confir-

[4] WHO COVID19- Situation Dashboard accessed on 20th February 2022
[5] Fawcett, L. The Middle East and COVID19-: time for collective action. Global Health 133 ,17 2021)). https://doi.org/10.1186/s1-00786-021-12992
[6] Younis NK, Rahm M, Bitar F, Arabi M. COVID19- in the MENA Region: Facts and Findings. J Infect Dev Ctries. 2021 Mar 349-342:(3)15;31. doi: 10.3855/jidc.14005. PMID: 33839707.

med. Strict precautionary rules such as face masks were made mandatory in all public settings in most MENA countries, with countries like Morocco imposing heavy penalties including up to three months of jail if violated[7] . However, while these measures contributed initially to limit the number of CO-VID-19 infections and deaths in the first few months of the pandemic, the pro-gressive de-confinement resulted in a rapid rise in cases that put a huge strain on the economy and health systems of MENA countries. It is believed that much of this was caused by customary regular religious gatherings, wedding celebra-tions and other social events where adequate control measures were not suffi-ciently adopted[8] .

COVID-19 challenged health systems across the world including those in countries across the MENA region especially those who were already weak and overcrowded. Developing MENA economies continue to struggle from low health expenditures (per capita expenditure is significantly below averages for countries in similar income categories) compounded with shortages in qualified healthcare staff. The recorded number of doctors per 1,000 population is far below the WHO recommended threshold of 4.45 doctors, nurses, and midwives per 1,000 population, and as low as 0.72 and 0.79 in Morocco and Egypt respectively[9] .

The first wave of the pandemic had a significant impact on public hospitals and their personnel. Health structures in Lebanon, Morocco and Tunisia were not only left severely exhausted but also suffered the back lash of public trust on the credibility of the government system and its ability to manage the crisis (Figure 1).

[7]OECD, «COVID19- Crisis Response in MENA Countries,» http://www.oecd.org/coronavi-rus/policy-responses/covid-19-crisis-response-in-mena-countries4-b366396, accessed May ,3 2022.

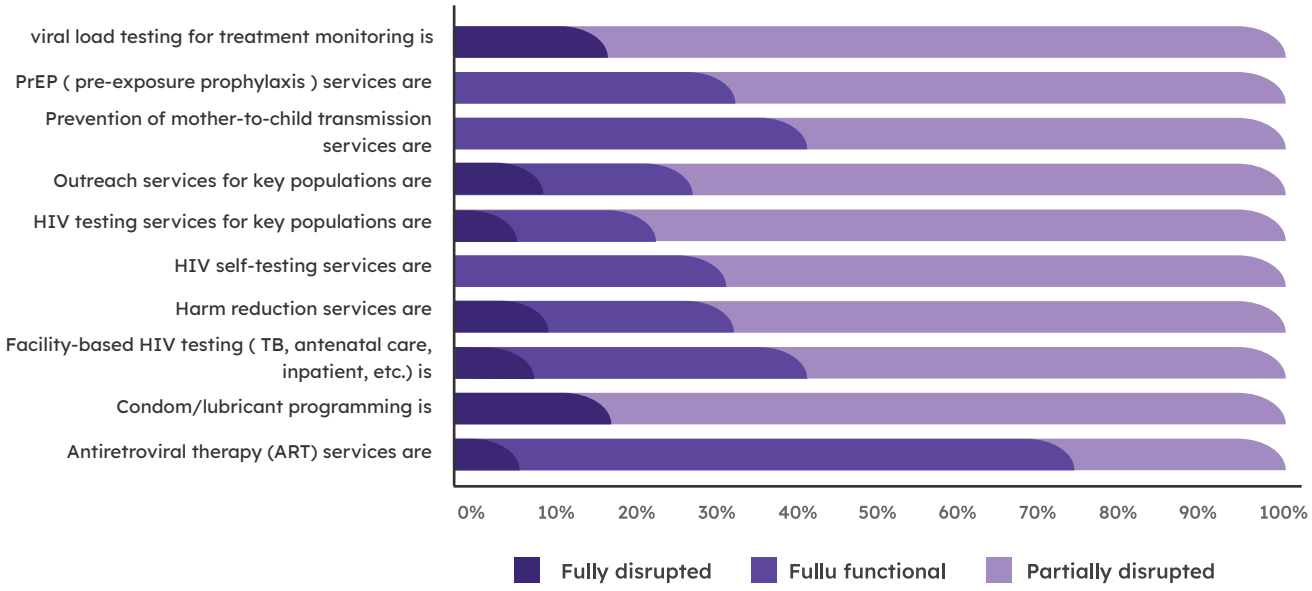
[8]World Health Organisation EMRO, “Statement by WHO›s Regional Director on an upsurge in the number of COVID19- cases in the Eastern Mediterranean Region”, 3/09/2020

[9]OECD, «COVID19- Crisis Response in MENA Countries,» http://www.oecd.org/coronavi-rus/policy-responses/covid-19-crisis-response-in-mena-countries4-b366396, accessed May ,3 2022.

”8World Health Organisation EMRO, “Statement by WHO›s Regional Director on an upsurge in the number of COVID19- cases in the Eastern Mediterranean Region”, 3/09/2020

On the other hand however, several countries such as Jordan and the UAE were quick to adopt decisive, innovative measures rapidly enough to contain the virus. These challenges have led to the disruption to health services in a number of ways. Efforts to limit the transmission of COVID-19 led to inhibiting access to preventative interventions and services. Disruptions of services for many diseases such as HIV, TB and malaria in situations of low- and middle-income countries have lead to additional loss of life. For HIV the greatest impact experienced was a noticeable interruption to testing, prevention services and initiation of treatment[10]. As the pandemic evolved emerging data identified the clearly disruptive impact of COVID-19 on the HIV response in countries across the world particularly on testing and treatment measures.

The WHO conducted a survey in eight countries in the Eastern Mediterranean Region in April 2020 and despite the fact that the pandemic was still in its early days all countries reported a disruption of various HIV services, including prevention, testing, treatment and viral load testing (See Fig. 2)[11].



[10]Fight for what Counts- Investment Case Seventh Replenishment 2022.The Global Fund 2022 https://www.theglobalfund.org/media/11798/publication_seventh-replenishment-investment-case_report_en.pdf

[11]Resilience of HIV services during the COVID-19 pandemic Voices of people living with HIV [website]. Cairo: WHO Regional Office for the Eastern Mediterranean; 2020 https://applications.emro.who.int/docs/WHOEMSTD207E-eng.pdf?ua=1

Figure 1 Disruption to HIV Services During COVID 19

Participants reported that this was predominately due to limitations on movement due to various restrictions and social distancing measures as well as the redirection of facilities and resources to respond to COVID-19. Moreover, four countries also reported a complete stockout or low stocks of antiretroviral medicines (ARTs)[12] . Lower rates of testing and the spread of the Delta and Omicron variants as the pandemic progressed suggested that infections far outnumbered confirmed cases.

Furthermore, the number people on ART appears to be flattening and newly initiated patients have been declining in numerous countries[13] . Notably, a study done by a modelling group convened by the World Health Organization (WHO) and Joint United Nations Programme on HIV/AIDS (UNAIDS) in May 2020 during the early days of the epidemic which predicted that "if efforts are not made to mitigate and overcome interruptions in health services and supplies during the COVID-19 pandemic, a 6-month disruption of ART could lead to more than 500,000 extra deaths from AIDS-related illnesses, including from tuberculosis (TB) in sub-Saharan Africa in 2020-21"[14] .

In both epidemics, it is clear that the poor, marginalized and criminalized who are most exposed to infection and death are the least able to cope with the impacts of it. Key populations, including sex workers, men who have sex with men (MSM) people who inject drugs (IDUs) as well as migrants, refugees, and populations in humanitarian settings among others, face higher risks of COVID-19 and a range of adverse socioeconomic effects that increase their vulnerability and risk of acquiring HIV[15] . Current data also suggests that men experience

[12]Resilience of HIV services during the COVID-19 pandemic Voices of people living with HIV [website]. Cairo: WHO Regional Office for the Eastern Mediterranean; 2020 https://applications.emro.who.int/docs/WHOEMSTD207E-eng.pdf?ua=1

[13]C19RM monthly update to the board - theglobalfund.org.
Available at: https://www.theglobalfund.org/media/11629/covid19_2021-12-16-board_update_en.pdf.

[14]World Health Organization. The Cost of Inaction: COVID-19-Related Service Disruptions Could Cause Hundreds of Thousands of Extra Deaths from HIV. Available at: https://www.who.int/news-room/detail/11-05-2020-the-cost-of-inaction-covid-19-related-service -disruptions-could-cause-hundreds-of-thousands-of-extra-deaths-from-hivexternal icon.

[15]UNAIDS calls on governments to strengthen HIV-sensitive social protection responses to the COVID-19 pandemic. Geneva, UNAIDS; 2020 (https://www.unaids.org/en/resources/documents/2020/call-to-action-socialprotection-covid19)

higher rates of COVID-19-related deaths[16] . However, due to deep-rooted gender based social and economic disparities, women's roles in the informal economy coupled with unpaid care and domestic workloads, women and girls are the ones bearing a disproportionate burden of the effects of the pandemic[17] . In fact, efforts to minimise the transmission of COVID-19, such as mobility restrictions, lockdowns and curfews as well as pandemic-related stress have led to sharp increases in reported violence against women and girls[18] .

In some contexts, efforts aimed at controlling the spread of COVID-19 penalize people already on the margins of society. Furthermore, stigma and discrimination, punitive laws and practices, lack of appropriate services and limited access to information are some of the elements that also limit access to their basic needs and cause these at-risk populations to be more difficult to reach through official health facility structures[19] .

On a positive note, the pandemic drove several MENA economies to invest in healthcare spending. Some countries managed to upgrade their health-care systems rapidly enough that they were able to respond to the outbreak efficiently, which resulted in fairly low rates of COVID-19 related morbidity and mortality in the early months of the pandemic .

[16]Jin J-M, Bai P, He W, Wu F, Liu X-F, Han D-M et al. Gender differences in patients with COVID-19: focus on severity and mortality. Front Publ Health. 2020;8:152.
[17]Plan International. Halting lives: the impact of COVID-19 on girls. Woking: Plan International; 2020 (https://planinternational.org/publications/halting-lives-impact-covid-19-girls)
[18]Living under lockdown: Girls and COVID-19. Woking: Plan International; 2020 (https://plan-international.org/publications/living-under-lockdown
[19]Global AIDS update—seizing the moment—tackling entrenched inequalities to end epidemics. Geneva; UNAIDS; 2020
(https://www.unaids.org/en/resources/documents/2020/global-aids-report)
[20]OECD, «COVID-19 Crisis Response in MENA Countries,» http://www.oecd.org/coronavi-rus/policy-responses/covid-19-crisis-response-in-mena-countries-4b366396

The Project

Solidarité Sida, in partnership with ITPC-MENA and five partner Non-Governmental Organisations (NGOs) developed the FORSS Program («FORmer, Suivre, Soutenir: Mobilisation communautaire pour lutter contre le VIH en région MENA») in 2018 to establish a community led monitoring system to measure prevention, testing and treatment services. The program is run through five partner NGOs in Egypt (AL SHEHAB), Lebanon (M-COALITION / AFE-MENA), Morocco (RDR-MAROC), Mauritania (AGD) and Tunisia (ATP+). It also works on conducting advocacy activities with the aim of influencing national and international dialogue as well as improve the supply and quality of prevention, care and treatment services in the MENA region for People Living with HIV (PLHIV) and Key Populations (KP).

The partner NGOs have established data collection sites in the 5 countries with the aim of targeting at-risk populations to collect data detailing the challenges/ barriers encountered by PLHIV and key populations as well as identification of stigma or discrimination encountered. They will also support the identification and documentation of availability, access, and quality of prevention, testing and care services to better be able to refine HIV/AIDS strategies in the MENA region. This will be achieved through five objectives;

Objective 1- To Improve the knowledge and practices of community actors in prevention, care and treatment services for PLHIV and key populations.

Objective 2- To generate national and regional data on the quality and accessibility of prevention, treatment and support services for PLHIV and key populations.

Objective3- To influence HIV prevention and care strategies on the national, regional and international levels and their implementation

Objective -4 To sustainably strengthen ITPC-MENA›s positioning as a strong

player in the Middle East and North Africa (MENA) zone, through support for its strategic and organizational development.

Objective 5- In the context of the global health crisis linked to the COVID-19 pandemic, maintain the continuum of community-led prevention, testing and care services for PLHIV and key populations in the 5 intervention countries, in conditions that guarantee the safety of the partner NGOs› teams and beneficiaries.

STUDY GOALS AND OBJECTIVES

General objective

In line with the FORSS program implemented in five MENA countries, namely Egypt, Tunisia, Morocco, Mauritania and Lebanon. This study aimed to assess the impacts of COVID19- on access to HIV services for PLHIV and key populations in the five countries of intervention of the FORSS Program.

Specific objectives

In line with the FORSS program implemented in five MENA countries, namely Egypt, Tunisia, Morocco, Mauritania and Lebanon. This study aimed to assess the impacts of COVID-19 on access to HIV services for PLHIV and key populations in the five countries of intervention of the FORSS Program.

- Identify the balance of the impact of COVID-19 on health systems and the measures implemented by governments.
- Measure the impact of COVID-19, and in particular the policies of lockdown, movements restrictions, closure of numerous associative and state structures (etc.) on:

o Availability and accessibility of services (prevention, testing, ART dispensing, care, biological monitoring, psycho-social monitoring)

o Mental health; Socio-economic situation;

o Stigma and discrimination. for PLHIV and key populations

- Highlight the position adopted by community-led organizations in the continuity of HIV services.

METHODOLOGY

The current study was conducted in 4 countries, Egypt, Morocco, Tunisia and Mauritania and was based on a mix of quantitative and qualitative methods to allow for triangulation in reaching the study objectives. A descriptive approach was adopted in both methods.

Qualitative part

Review of literature

Review of the literature included the review of National strategic HIV plans and reports, published UN agency reports including World Health Organisation (WHO) and the Joint United Nations Programme on HIV/AIDS (UNAIDS) as well as published peer reviewed articles.

Key informant interviews

Interviews were conducted with representatives of Governmental service providers, UNAIDs, as well as lead civil society organizations (CSOs) concerned with the provision of services to PLHIV and Key Populations (Annex 3). A specifically designed interview guide was developed for the purpose of data collection in Arabic and French languages and validated during a meeting with study stakeholders in the 4 countries (Annex 2).

Interviews were conducted using VoIP applications including Zoom and Google Meet, to be able to meet the study deadlines and conduct interviews with stakeholders in the 4 countries. Notes were taken during the interviews and the interview scripts were analysed thematically

Quantitative part

A quantitative survey was conducted with a sample of PLHIV and Key Populations in each target location (Annex 4).

Sampling considerations

Based on the latest data published by WHO on disruption of services provided to PLHIV, 1-40% of PLHIV have experienced disruption of services during the COVID-19 pandemic. Accordingly, the previously calculated sample size which was based on the assumption of maximum uncertainty can now be adjusted in light of currently available guiding data.

Assuming the same level of confidence and precision (95% and 5%) and estimating the prevalence of subjects who suffered a service interruption at 20% (based on results published by WHO), the estimated sample size per country will be 243 to be rounded up to 250.

A minimum sample size of 243 in each country was sufficient to detect at least 20% of subjects who suffered an interruption of the service (WHO estimation) at 95% confidence with 5% precision. Based on a pilot data collection in the 4 countries, it has been found that there is a marked overlap between KP categories (i.e. many MSM are also Injecting Drug Users (IDUs) and sometimes engage in commercial sex, similarly for Sex Workers (SWs) who could also be IDUs) therefore, a quota sample stratified by KP category was not required.

Table 1 Distribution of the study sample by country and HIV status

HIV status	Tunisia		Morocco		Mauritania		Egypt	
	No	%	No	%	No	%	No	%
KP	94	71.8	213	85.5	114	46.5	220	86.3
PLHIV	37	28.2	36	14.5	131	53.5	35	13.7
Total	131	100	249	100	245	100	255	100

Table 2 Distribution of the sample of KPs according to country and risk behaviour

	MSM		SWs		IDUS	
	No	%	No	%	No	%
Tunisia	50	38.2	29	22.1	28	21.4
Morocco	117	47	68	27.3	37	14.9
Mauritania	65	26.5	113	46.1	13	5.3
Egypt	29	11.4	128	50.2	114	44.7

Table 3 Distribution of the study sample by country and gender

	Mauritania		Tunisia		Egypt		Morocco	
	No	%	No	%	No	%	No	%
Other	16	6.5	22	16.8	1	0.4	17	6.8
Woman	157	64.1	43	32.8	163	63.9	85	34.1
Man	72	29.4	66	50.4	91	35.7	147	59
Total	245	100	131	100	255	100	249	100

Data collection tools

A specifically designed questionnaire was developed for data collection in three languages (Arabic, English and French). The questionnaire captured the background characteristics of respondents including age, gender and marital status. The questionnaire also captured respondent's engagement in various risk behaviours including the practice of commercial sex, male sexual activities with males and the use of intravenous drugs. The questionnaire also tried to verify whether the participant was a person living with HIV based on a positive test result. The last part of the questionnaire collected data to assess changes in the needs of respondents and their access to various

HIV, harm reduction and other related health and social services during the COVID19- pandemic. The questionnaire focused mainly on capturing the experience of respondents during the 12 months preceding the survey which started October 2020. Any reference in the report on the pandemic will refer to this specific timeframe. The questionnaire was pilot tested with a group of stakeholders from each country to ensure validity and appropriateness to the local cultural context and language preferences of each country. The questionnaire was back-translated between the 3 languages to ensure the validation of translations.

The questionnaire was then transformed into an electronic form using KOBO toolbox application enabling the user to choose a language for the questionnaire administration from the 3 languages. (See Annex 1).

Data collection method

The link to the electronic questionnaire was shared with the local steering committee of the study in each country. Data collection teams in each country received a brief orientation on the questionnaire to minimise inter-observer biases. The questionnaire was filled by data collection teams during an interview with the participants. The process of data collection started October 2020.

Data Quality Check

A data collection officer supervised the data collection repository to ensure satisfactory quality of data, and a quality random check was conducted on %5 of questionnaires post collection which is the standard amount used for data checking. Collected data was checked for outliers before conducting the data analysis.

Data analysis

Descriptive analysis was conducted for all collected variables to estimate prevalence. Percent was calculated for discrete data, means and standard deviations were calculated for continuous data. Collected data was disaggregated by age, sex, nationality, and geographical distribution

Data Management and Protection

The consultants utilized KOBO toolbox for management of the data. This system enabled collecting data under unfavourable connectivity conditions. The questionnaires were automatically submitted to the company›s assigned server unless there was poor internet connectivity, where the data was backed up until the connectivity was resumed where and the data could be submitted to the server. The system ensured confidentiality and integrity of data: once a questionnaire was submitted ensuring the data collector could not retrieve or edit submitted data.

Only the principal investigator had access to the database on the server and checked the daily progress and quality of data in the repository files. Once the data collection was complete, the database was converted into a spreadsheet file for further quality checking. All identifying information of the participants were removed for the maintenance of confidentiality and anonymity and the database was then converted into an SPSS data file for statistical analysis keeping all the questions as labels for variables and responses as labels for the various levels of the variable.

The original database is kept on the cloud storage for 6 months after the end of the assignment, the excel files and SPSS datafiles are kept on the company›s cloud storage for the same duration.

Ethical considerations

The investigators made all possible measures to ensure the data collection processes was:

- Fair and inclusive:

Through seeking the views of various stakeholders and address potential conflict of interest and unequal power relationships. Special efforts were made to make the research process gender sensitive and inclusive.

- Based on rights and ethics:

The investigators ensured respecting the rights and dignity of participants as well as compliance with relevant ethical standards. The research ensured appropriate, safe, non-discriminatory participation, a process of free and un-coerced consent and withdrawal and confidentiality and anonymity of participants. The informed consent of each person participating in data collection was verbally taken, following an explanation of the purpose of the questionnaire. They were also guided to answer any particular question only if they felt like it, and that they could to stop the interview at any point without consequences.

- Conflict of interest:

The investigators did not have any declarable conflict of interest or potential biases, including bias towards any of the stakeholders, target groups, types of research methodologies or approach, and social, political or religious prejudice.

Limitations

Due to COVID-19 restrictions the data collection phase of the quantitative survey took longer than was planned. Meeting a smaller number of respondents to avoid exposing them to the risk of infection. Due to time limitations, the data collection phase had to be terminated while the minimum required sample size for the survey was not reached in Tunisia. However, for transparency, the collected data from the country has been analysed and presented under the results section.

Data collection did not cover all the territories of the countries covered by the study, which may represent a limitation in the conclusions drawn.

There was an initial plan to conduct virtual focus group discussions with PLHIV and KPs from each country through gathering them in one of the local NGOs to ensure they had internet access, however, due to the COVID-19 restrictions, the NGOs advised against gathering groups of PLHIV and KPs therefore this part

of the qualitative research had to be excluded.

Although it was initially planned to include Lebanon in the study, due to the political unrest that prevailed in the country following the accidental explosion in the capital Beirut, it was not possible to conduct the planned data collection. It was therefore decided to exclude Lebanon from the study.

RESULTS AND KEY FINDINGS

The results of the study are presented in a country specific context and include a compilation of quantitative and qualitative data to synthesise valid results. The results for each country will present an overview of each country's general response to the COVID-19 pandemic, the specific response pertinent to the PLHIV and KP services, the implication of the country's responses on the availability and accessibility of services, the role of the NGOs in maintaining the continuity of services and the impact of the pandemic as well as the country's responses on the needs (economic, psycho-social) of PLHIV and KPs as well as on the stigma and discrimination against them.

Egypt

Official statistics in Egypt report a less than %1 percent rate of HIV infection among the general population, still making it a low-prevalence country. However, between 2006 and 2011, prevalence rates rose nearly tenfold.[21] According to UNAIDS, by 2020 there were about 23,600 estimated HIV cases[22]. Among officially reported cases, heterosexual transmission remains the primary mode of transmission of HIV. However, unsafe behaviours particularly among most-at-risk or key populations (KPs) and limited harm reduction puts Egypt at much higher risk of a broader epidemic[23].

The last Biological-Behavioural Surveillance Survey conducted by the Ministry of Health and Population (MOHP) in 2010 identified an infection rate of %6.9 and %7.7 in MSM and intravenous drug users respectively suggesting that there is a concentrated epidemic among key populations. Deeply ingrained social stigma and lack of reliable and up-to date prevalence data, has further

[21] «UNICEF Egypt - HIV/AIDS - Context». www.unicef.org.
[22]UNAIDS Key Population Atlas https://kpatlas.unaids.org/dashboard
[23]Boutros, S; Skordis, J (March 2010).»HIV/AIDS surveillance in Egypt: current status and future challenges» (PDF).Eastern Mediterranean Health Journal.16(3): 251–258. doi:10.26719/2010.16.3.251.PMID20795437.ProQuest503279561

contributed to this along with a general reluctance from the government to address issues related to KPs such as MSM, Female Sex Workers (FSWs), and IDUs Moreover, the conservative nature of Egyptian society further stigmatizes key populations, making HIV surveillance studies more difficult to conduct[24].

Egypt has recorded some of the highest numbers of COVID-19 cases in the African continent and as of January 11th 2022, 393,808 confirmed cases of COVID-19 and 21, 995 deaths were acknowledged by the Ministry of Health and Population . To limit the spread of the infection, Egypt had imposed various measures since the start of the pandemic including temporary travel restrictions (mandatory Covid-19 test for incoming passengers and mandatory quarantine for positive patients), partial lockdown (night-time curfew) as well as operating certain public spaces at 50% capacity and restricted opening hours. In addition, social distancing measures were imposed and masks were made mandatory in all public venues as well as public and private transportation. Nearly two years since the start of the pandemic, countries across the world including Egypt continue to be impacted by the significant medical and socioeconomic effects of it. It has exposed the inadequacy of health systems and programs and highlighted the profound social and economic inequalities within its society hitting vulnerable and marginalized communities the most. The National AIDS Program (NAP) with the support of international partners such as UNAIDS, The Global Fund through United Nations Development Program (UNDP) , WHO and the International Organisation on Migration (IOM) among others were quick to respond soon after the start of the pandemic and implementation of lockdown and curfew measures. They worked diligently to support the sustainability of HIV services and ensure they were delivered safely and efficiently. Despite the overloaded resources of governmental

[24]Ibid
[25]Covid-19 information US Embassy in Egypt accessed at https://eg.usembassy.gov/u-s-citizen-services/covid-19-information/

health services, the NAP has been striving to mobilise domestic resources to develop and scale up essential HIV and harm reduction services. Moreover, community engagement continues to be one of the essential components of a more effective and equitable HIV response in Egypt particularly among Key populations and marginalised and vulnerable groups.

Services for Key Populations

Testing services

For the first few months of the COVID19- pandemic HIV testing through the central government laboratories was severely disrupted due to laboratories focusing on testing for COVID. After a brief period of closure and limited activity most NGOs and Community Based Organisations resumed service provision including providing testing within community based voluntary counselling and testing (VCT) sites. Currently, they are only able to perform rapid tests for clients and positive results are then referred to the Ministry of Health central laboratory for confirmation with an ELISA test and subsequent treatment. Ensuring the availability of open VCT sites particularly during the peaks of the pandemic helped divert people away from overstretched overcrowded health services to sites they were able to maintain appropriate social distancing and protection measures. It also enabled the NGOs to support long term follow up of patients who tested positive for HIV.

Nearly half the surveyed KPs reported that they have not been tested for HIV during the pandemic period, 37% reported that they have only been tested once and 14% reported being tested more than once during this time. During peak periods of the COVID-19 pandemic, testing centers in government facilities were limited to only testing for coronavirus. This made testing services provided through NGOs particularly valuable to those needing urgent testing.

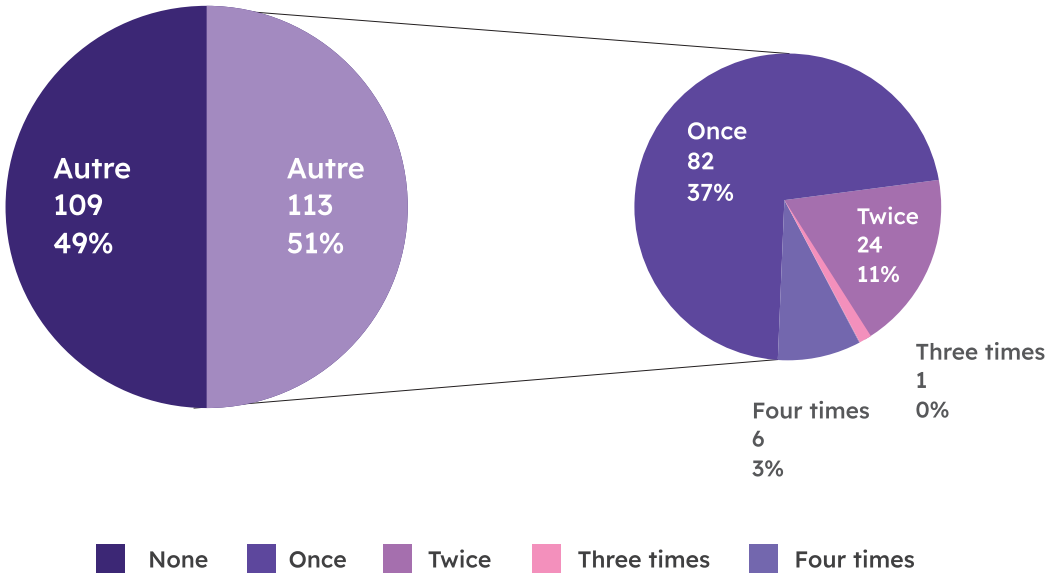


Figure 2 Distribution of surveyed KPs who received a rapid HIV test during the pandemic year

Sexual and Reproductive Health (SRH) and Sexually Transmitted Infection (STI) Testing

Only 38% of MSM and sex workers reported getting a sexual and reproductive health examination and were tested for common STIs during the period of the COVID-19 pandemic. Without figures to compare as no routine surveillance systems for STI monitoring exist in Egypt[26], it is impossible to determine how the COVID-19 pandemic affected this.

Table 4 Distribution of MSM and SW who reported that they have been tested for STIs during the pandemic year

	Frequency	Percent
No	97	61.8
Yes	60	38.2
Total	157	100

[26]Amin TT, Galal YS, Shaheen DS, Salem MR. The Effect of Educational Intervention on Knowledge and Attitudes toward Sexually Transmitted Infections on a Sample of Egyptian Women at Primary Care Level. Open Access Maced J Med Sci. 2021 Feb 12; 9(E):138-144. https://doi.org/10.3889/oamjms.2021.5638

Harm Reduction

Essential harm reduction interventions were profoundly impacted due lockdowns, curfews and social distancing measures. This encouraged the NAP to rely more on NGOs to step up the distribution of condoms and syringes to KPs and PLHIV.

Condoms and Lubricants

It was observed that the proportion of SWs and MSM who were able to access condoms and lubricants was not remarkably reduced during the pandemic. While 60.5% of those population reported that they had access to condoms and lubricants before the pandemic, only 53.5% reported that they had access to condoms and lubricants during the pandemic.

Single Use Syringes

Only 7.5% of IDUs reported that they used to receive single use syringes before the epidemic. 42.9% of those reported that they had difficulty accessing Single use syringes during the pandemic. The reported reasons for this difficulty was their reluctance/inability to go to the NGOs for fear of catching infection as well as the unavailability of money for transportation. Discussions with NGOs and CSOs however indicated that since the start of the pandemic, the NAP has been keen to increase harm reduction activities through community outreach programs provided by these organisations. This includes single use syringes and condom distribution among KPs and high-risk groups.

Table 5 Frequency of MSM and SW who were able to access condoms and lubricants before and during the pandemic

	Before		During	
	Frequency	Percent	Frequency	Percent
No	62	39.4	73	46.5
Yes	95	60.5	84	53.5
Total	157	100	157	100.0

Services for PLHIV

Anti-Retroviral Therapy (ART)

Patients diagnosed with HIV previously had to get their medication dispensed every month from one of the allocated 14 government facilities that were operating prior to the start of the pandemic. These were not available in each city or governorate requiring individuals to have to travel sometimes long distances to get their ARTs, and get blood drawn to be sent to the central labs for testing. Since the start of the pandemic, the NAP has established a further 13 treatment sites bringing the total to 27 sites nationwide. This has been extremely beneficial to patients receiving treatment but even more so during the pandemic as it has also limited the need for patients to travel long distances. Furthermore, it has taken the pressure off central facilities and avoided patient overcrowding, both crucial measures to limit the spread of COVID-19. Based on WHO guidelines, the NAP also introduced multi-month dispensing options allowing patients to receive two or three month supplies at a time during the peak periods of the pandemic. While also extremely beneficial to patients, this system was not efficiently organised initially and it is not clear what criteria was used for selection of whether patients received one-, two- or three-month supplies. This also led to a risk of stock outs particularly with irregular shipping and importing conditions. In line with relying more on government funding and local resources, both line 1 and 2 ARTs are now manufactured by local pharmaceutical companies.

Table 6 Distribution of respondents (PLHIV) who had difficulty accessing ART before and during the pandemic

	Before the Pandemic		During the Pandemic	
	Frequency	Percent	Frequency	Percent
No	15	42.9	10	28.6
Yes	20	57.1	25	71.4
Total	35	100	35	100

When they were asked whether they had difficulties accessing their anti-retroviral medications, the percent of PLHIV who answered yes increased from %57.1 before the pandemic to %71.4 during the pandemic.

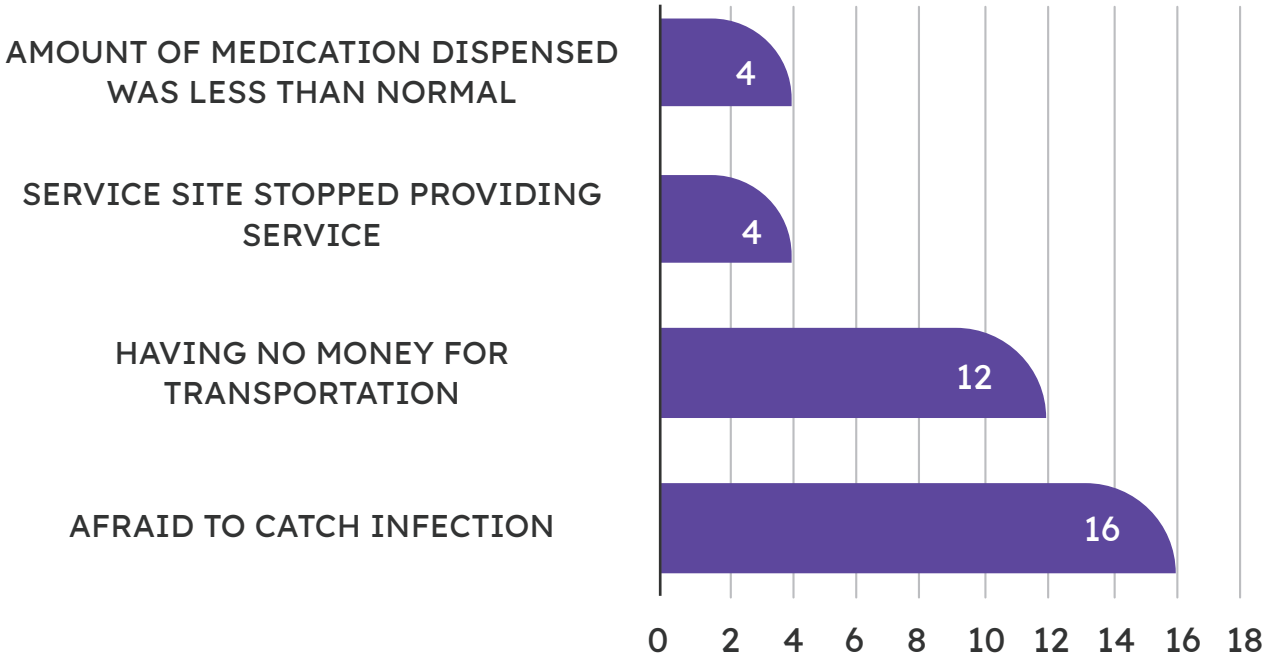


Figure 3 Reasons for difficulty accessing ART during the Pandemic

While dispensing sites had increased considerably and individuals were being offered multi-month dispensing solutions, large numbers of people were still not receiving their medication in an easy and consistent way. The most common reason given by the study participants for their troubles in accessing the ART was their fear of going to the service sites because of the likelihood of catching coronavirus either there or en-route. The second most common reason given was the economic difficulties imposed by the pandemic which limited their ability to pay for transportation costs to reach the dispensing sites.

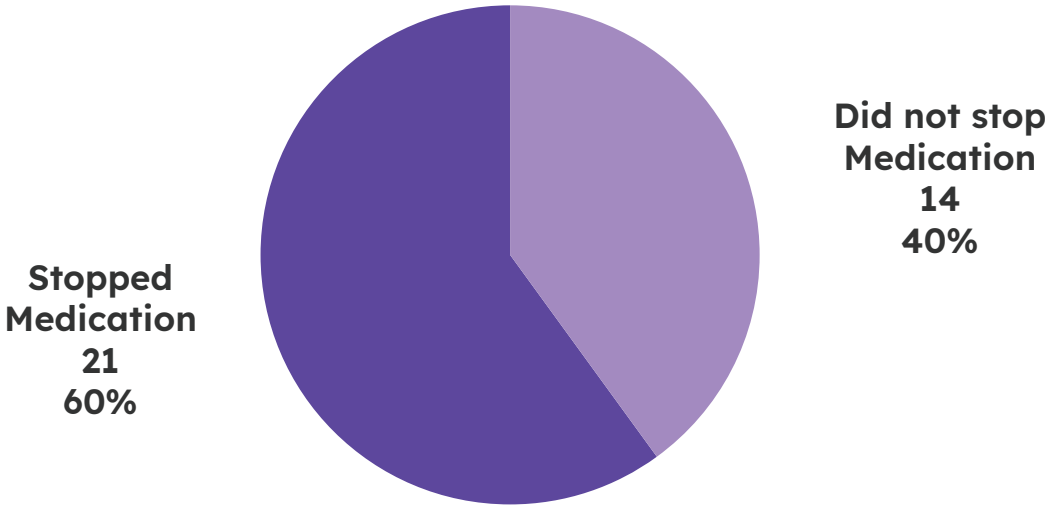


Figure 4 Proportion of respondents LHIV who reported that they had to stop ART during the pandemic

60% of participants to the survey reported that due to difficulties associated with accessing ART they had to stop the medication for various periods during the pandemic. In an attempt to limit the effects of this, a peer support initiative to support treatment adherence was adopted by several NGOs with the support of UNAIDS through phone and face to face follow up of patients to ensure that patients were taking their medication regularly and correctly.

Single Use Syringes

Similar to ART, the proportion of participants reporting difficulty accessing treatment for opportunistic infections increased from 62.9% before the pandemic to 68.6% during the pandemic.

Table 7 Distribution of respondents LHIV according to difficulty accessing treatment of anti-opportunistic infections before and during the pandemic

	Before the pandemic		During the Pandemic	
	Frequency	Percent	Frequency	Percent
	1	2.9	1	2.9
No	12	34.3	10	28.6
Yes	22	62.9	24	68.6
Total	35	100	35	100

CD4 and Viral Load

The NGOs interviewed identified that CD4 and viral load testing were one of the interventions that were delayed particularly during the early stages of the pandemic when the Ministry of Health was struggling to cope with over-crowded testing sites and COVID testing. Furthermore, similar to initial testing procedures, many PLHIV were afraid to visit testing sites due to the risk of catching COVID especially in their immunocompromised state.

66% of the respondents reported that they needed to perform both CD4 and viral load during the pandemic. 14% reported that they needed to perform CD4 test and 16% or the respondents reported that they needed to perform a viral load during the pandemic.

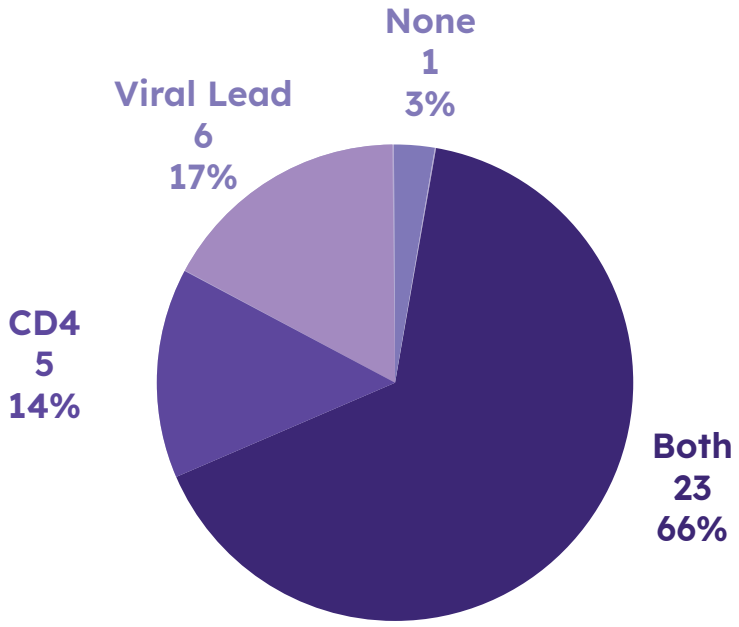


Figure 5 Proportion of respondents LHIV who needed and didn't have access to CD4 and/or Viral load during the pandemic

Medical services

While 83% of the participants reported that they needed some form of medical service unrelated to HIV during the pandemic, the majority (80% of respondents) reported that they encountered difficulty accessing the required medical services.

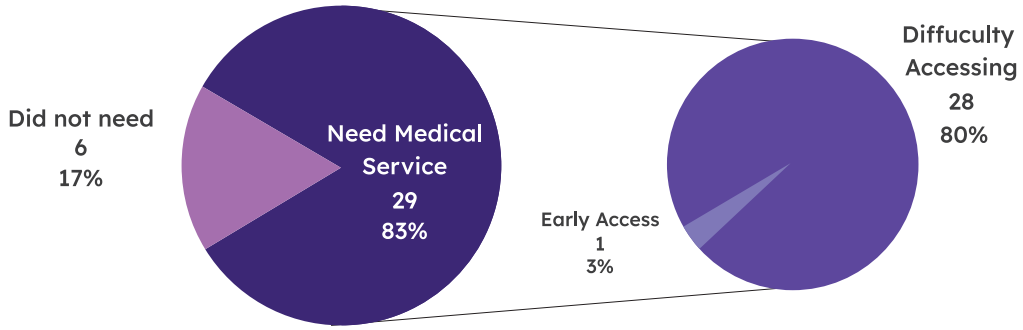


Figure 6 Proportion of respondents LHIV who reported that they needed non-HIV related medical services and those who had difficulty accessing it.

NGOs working with PLHIV and KPs identified that the majority of patients were not aware of what, current services were being provided, causing a significant delay among patients in access to health care or medical services or considerable overcrowding at certain clinic sites. They also reported that many PLHIV were having difficulty getting access to medical services particularly in nonemergency situations. When receiving their ARTs from the dispensing sites, they were being given their prescriptions and sent home without information or support.

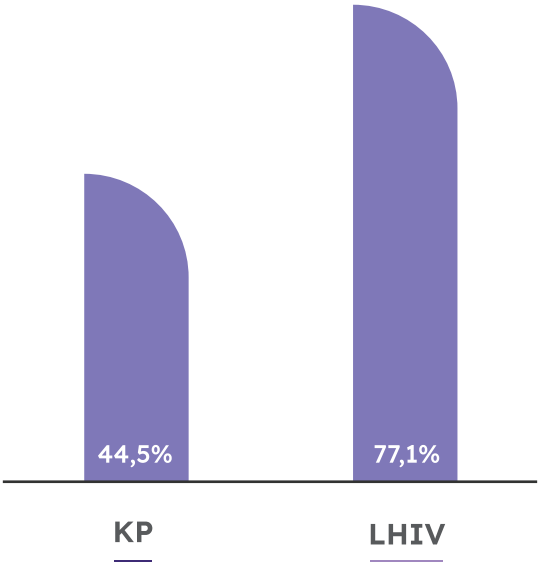
Prevention of Vertical Transmission (VT)

During the period of the pandemic the NAP accelerated its prevention of VT program to include it as part of its essential package of antenatal services. Despite this, the quantitative survey identified that 11 of the women from the KPs group who responded were either pregnant or had become pregnant during the pandemic year. None had tested positive for HIV. Among them, only 3 (27.3%) went to an antenatal health care service provision facility and only 2 (18.2%) were tested for HIV during the antenatal care.

Psychosocial support services

An overall of 49.8% of respondents reported that their need for psychosocial support services had increased during the pandemic. This was attributed to the stress and anxiety caused by the fear of getting infected with coronavirus as well as the added burden of their worsening economic conditions particularly during periods of lockdown and night time curfews. The increased need for psychosocial support was reported by a higher percentage of PLHIV than KPs (60% versus 48.2%), however, both groups reported having difficulty accessing this service during the pandemic (77.1% of PLHIV and 44.5% of KPs)

Figure 7 Percent of respondents who reported having difficulty accessing psychosocial support services during the pandemic by HIV status



Although it was evident that the need for psychosocial support services had increased during the pandemic, the percentage of respondents reporting having difficulty accessing those services was remarkably high. The percentage of PLHIV reporting difficulty accessing psychosocial support services was remarkably higher than that of KPs (77.1% versus 44.5%). The most common reasons for the difficulty in accessing service reported by the respondents were their fear of getting infected when visiting the service provision site (32.5%) and the inability to afford the cost of transportation to get there (32.2%).

Key informants from NGOs providing psychosocial support services to KP and PLHIV confirmed the fact that clients were reluctant to attend the service provision site to access the service particularly support groups because they were afraid to catch the infection.

We tried to provide psychosocial support remotely either through zoom or phone but we faced many challenges including bad connectivity and the fact that some clients have no access to internet.

NGO Staff Member

The same informant explained that they modified the mode of service provision through organizing smaller support groups in open spaces with providing protective equipment to reassure the clients.

Impact on needs of target population

Economic hardships

Rapidly changing socio-economic needs identified during the pandemic period may further drive people to take drastic measures that may put themselves or others at risk.

Based on the responses of the quantitative survey, 74.1% of the surveyed sample reported that before the COVID-19 pandemic, their income was not sufficient to meet their families' expenses. The situation was worse for PLHIV than for KPs where 94.3% of PLHIV reported that their income was not sufficient to meet their needs compared to only 70.9% of KPs.

Table 8 Sufficiency of income among respondents prior to the pandemic

		KP	LHIV	Total
Insufficient and have to borrow	Count	156	33	189
	%	%70.90	%94.30	%74.10
Sufficient	Count	55	2	57
	%	%25.00	%5.70	%22.40
Sufficient and can save money	Count	9	0	9
	%	%4.10	%0.00	%3.50
Total	Count	220	35	255
	%	%100.00	%100.00	%100.00

It was evident that the COVID-19 pandemic had significant economic impacts on PLHIV and KPs. An overall of 84.7% of the survey sample reported that their income had either completely stopped or was markedly reduced as a result of the pandemic. It was also evident that the economic impacts were more evident among PLHIV than KPs where 94.3% of PLHIV reported a cessation or markedly reduced income during the pandemic compared to 83.2% of KPs.

Table 9 Distribution of respondents who reported that their income was reduced or stopped during the pandemic and HIV status

		KP	LHIV	Total
Completely stopped	Count	48	16	64
	%	%21.8	%45.7	%25.1
Markedly reduced	Count	135	17	152
	%	%61.4	%48.6	%59.6
Total	Count	183	33	216
	%	%83.2	%94.3	%84.7

When comparing the economic effects of the pandemic on the various types of key populations it was evident that MSM suffered most from the economic impacts of the pandemic, where 96.6% reported that their income had completely stopped or was markedly reduced, followed closely by sex workers, where 94.6% reported a marked reduction or complete loss of income. IDUs suffered the least with only 77.2% reporting a marked reduction or complete loss of income due to the pandemic.

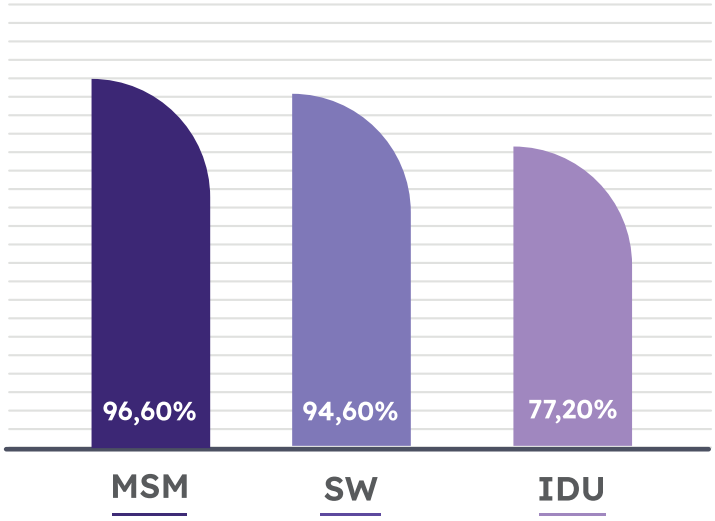


Figure 8 Distribution of KPs who reported that their income was markedly reduced or stopped completely by type of risk behaviour

With the harsh economic impact of the pandemic, governmental support was minimal where only 3.5% of the survey sample reported that they had received a form of economic support from the government. More PLHIV received economic support from the State (through the Ministry of Social Solidarity) than KPs (5.7% compared to 3.2%). Only two respondents reported that the governmental support was received in the form of cash assistance and seven respondents reported that the assistance received was in the form of food baskets.

Table 10 Distribution of respondents by HIV status and whether they received government support during the pandemic

		KP	LHIV	Total
No	Count	213	33	246
	%	%96.80	%94.30	%96.50
Yes	Count	7	2	9
	%	%3.20	%5.70	%3.50
Total	Count	220	35	255
	%	%100.00	%100.00	%100.00

Non-medical support was provided through NGOs including assistance to register for social services and financial support packages provided through the Ministry of Social Solidarity (MoSS) mentioned above. Some of the NGOs provided food baskets, vouchers and meals in addition to financial support for people who had/were going to be evicted from their homes due to defaulting on their rent. Efforts were also made to deliver supplies to their homes if they were sick or struggling to make the journey.

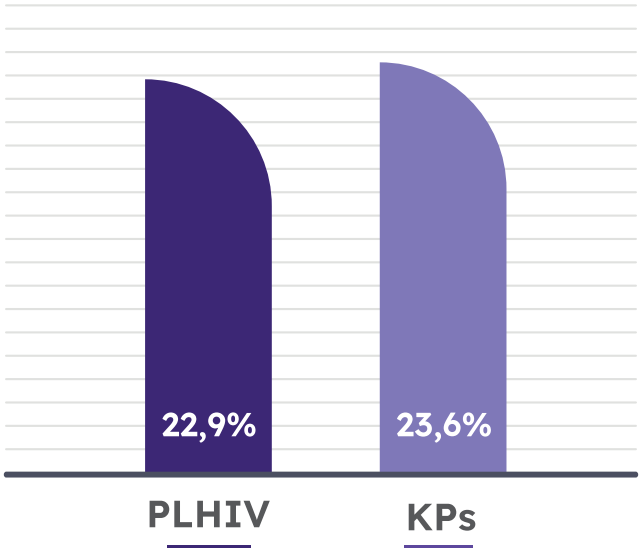


Figure 9 Proportion of surveyed KPs and PLHIV who reported receiving support from NGOs during the pandemic

Nearly one quarter of the surveyed sample reported that they received some form of service from an NGO. The proportion of KPs vs PLHIV reporting receipt of support services from NGOs was not remarkably different.

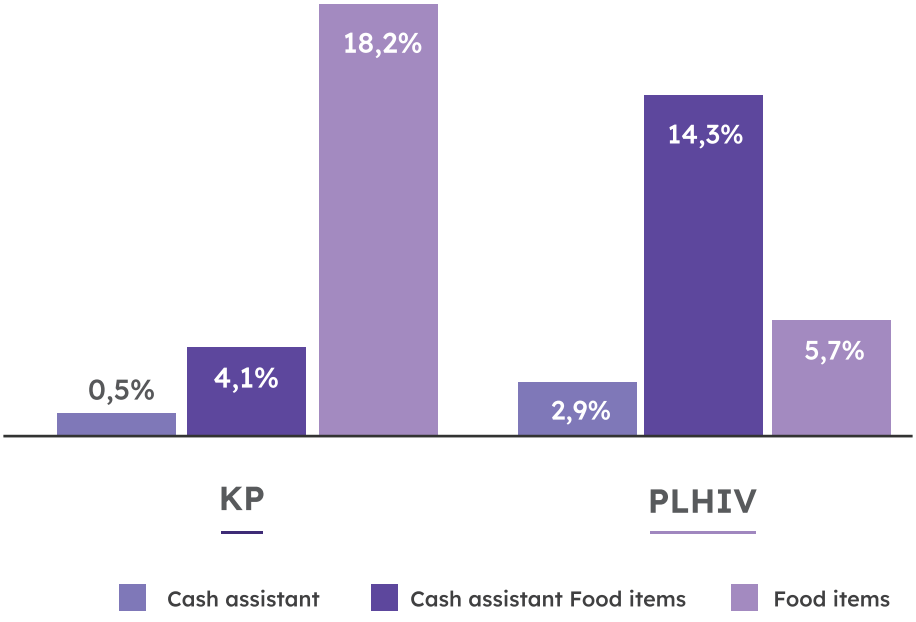


Figure 10 Distribution of types of support received by participants from NGOs and HIV status

Cash assistance to PLHIV and KPs represented an important form of support provided by NGOs during the pandemic. While 17.2% of PLHIV received cash assistance from NGOs only 4.6% of KPs received similar assistance. Food boxes/baskets were provided by NGOs to 22.3% of KPs and 20% of PLHIV that have responded to the questionnaire for this study.

Stigma and discrimination

An overall of 22.4% of participants reported that they experienced stigma and discrimination at health care facilities during the pandemic. Stratifying this finding by PLHIV and KPs, it was observed that nearly half of PLHIV reported that they perceived an increased sense of stigma and/or discrimination in health care facilities during the pandemic compared to only 18% of KPs.

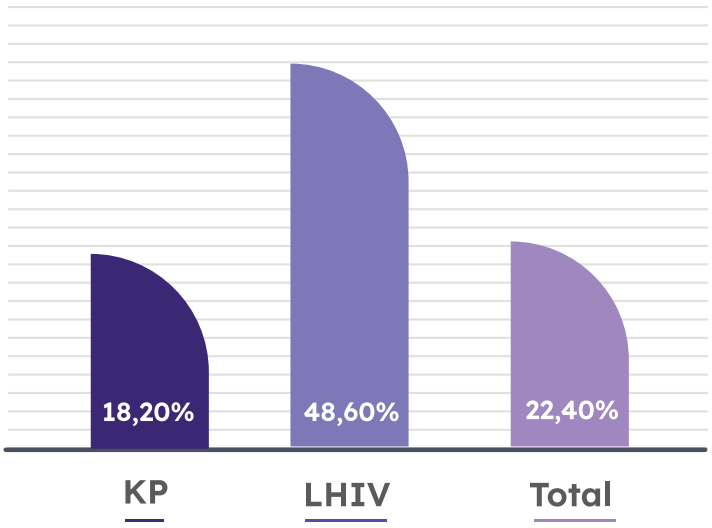


Figure 11 Proportion of surveyed KPs and PLHIV who reported an increase in stigma and discrimination in health care facilities during the pandemic

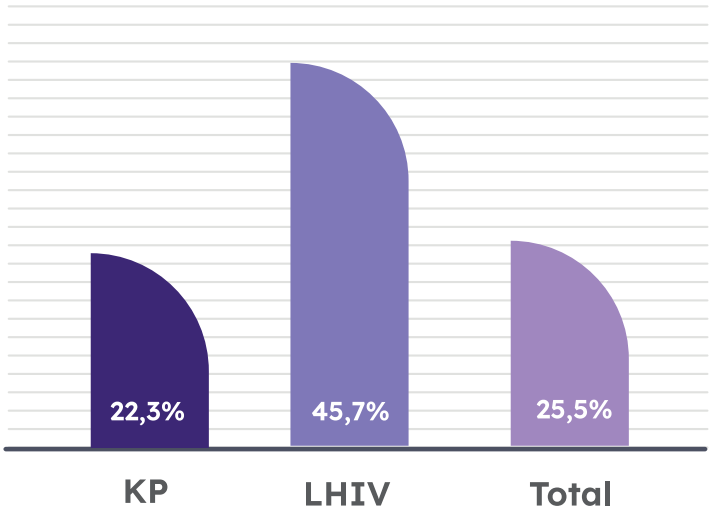


Figure 12 Proportion of surveyed PLHIV and KPs who reported an increased exposure to violence in general outside health care during the pandemic

Similarly, although 25.5% of surveyed sample reported an increased exposure to violence during the pandemic, the proportion of PLHIV who reported an increased exposure to violence during the pandemic was double that of KPs (45.7% versus 22.3%)

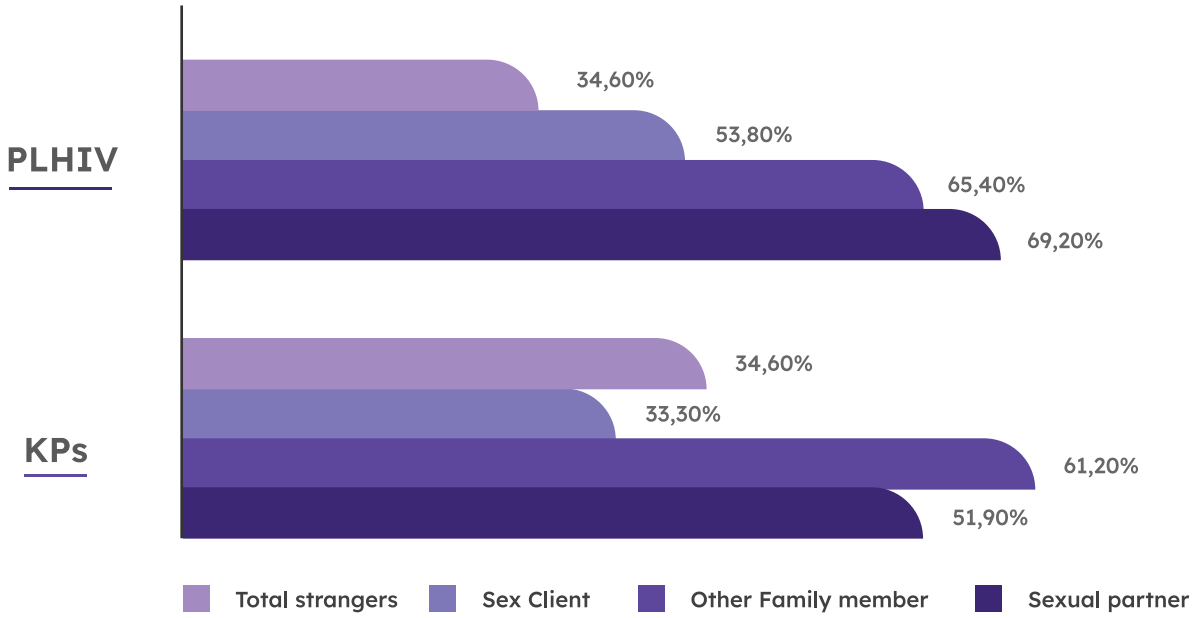


Figure 13 The perpetrator in increased cases of violence reported by PLHIV and KPs

About 24.7% of respondents reported that they experienced more violence from police and other authorities during the pandemic. The proportion of PLHIV reporting increased violence from the authorities was nearly double

that of KPs (42.9% and 21.8% respectively)

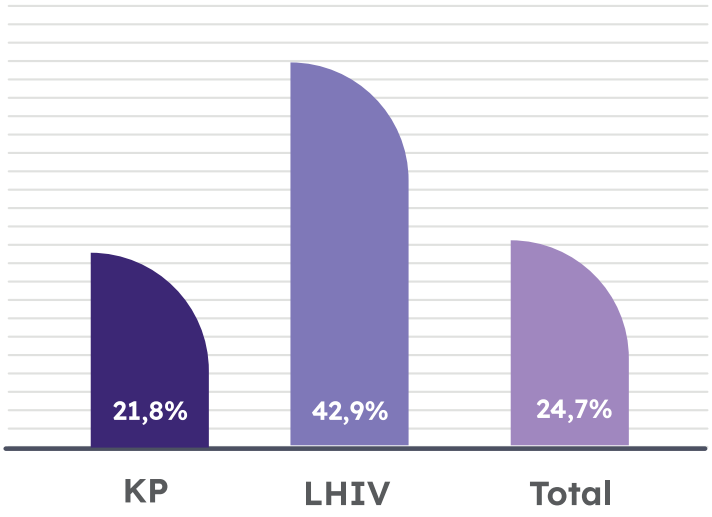


Figure 14 Proportion of respondents LHIV and KPs who reported experiencing an increased level of violence from police and other authorities during the pandemic

Morocco

Morocco has been identified as one of the best countries within the MENA region in dealing with the HIV epidemic based on their research capabilities, surveillance systems, evidence-based and informed responses[27]. Of the nearly 37 million population in Morocco, a 2020 estimate suggested around 22,000 people are currently living with HIV[28] . Morocco, similar to other countries in the region, has managed to keep HIV prevalence low among the general population at 0.14%[29] . Intensive efforts spanning over 30 years since the start of the HIV program have resulted in a 42% reduction in new HIV infections. Since 2010, this figure is substantially higher than the 4% decline that has happened across the MENA countries[30] . In addition, national ART coverage also increased from 16% in 2010 to over 75% in 2020[31] . However, there are areas of serious concern, data continues to show that HIV prevalence is high among

[27]A 30-year response to HIV in Morocco. (2018). Retrieved 3 May 2022, from https://www.unaids.org/en/keywords/morocco#:~:text=A%2030%2Dyear%20response%20to%20HIV%20in%20Morocco&text=much%20to%20celebrate.-,Morocco%20marks%2030%20years%20of%20its%20response%20to%20HIV%20in,North%20Africa%20of%20just%204%25.

[28]UNAIDS Key Population Atlas https://kpatlas.unaids.org/dashboard

[29]Loukid, M., Abadie, A., Henry, E., Hilali, M. K., Fugon, L., Rafif, N., ... & Préau, M. (2014). Factors associated with HIV status disclosure to one's steady sexual partner in PLHIV in Morocco. Journal of Community Health, 39(1), 50-59.

[30]UNAIDS, A 30-year response to HIV in Morocco 19 January 2018.

[31]UNAIDS Key Population Atlas

key populations such as female sex workers (1.3%), injecting drug users (7.9%) and migrants (3%). This has clearly identified the need to scale up HIV services among key populations through combined prevention programmes, substitution treatment for people who use drugs and increasing HIV testing[32] . In line with these pockets of concentrated epidemic, commercial heterosexual relations comprise nearly half of all HIV incidence in Morocco whereby a quarter occurs among men who have sex with men. Geographic hot spots such as the Souss-Massa-Drâa region, account for one-third of all new HIV infections occur in of Morocco, four times the national average[33] . Despite this, HIV/AIDS knowledge appears to be relatively high for the general population and large declines in HIV incidence are feasible with expansion of already existing intervention programs[34].

The National Strategic Plan 2017-2021 for Combating AIDS (extended to 2023) , represents the national framework for action in terms of fight against AIDS and the essential tool for harmonizing of the response and the alignment of the interventions of all the partners.

From the early stages of the COVID-19 outbreak, Morocco was quick to adopt drastic measures to try to contain the epidemic. On March 20th with a total of 77 cases, a state of emergency was officially authorized. All public events were banned, movement was limited between cities and international travel was suspended. The World Health Organisation (WHO) supported governmental and key partners in developing their preparedness plans and provided the neces-sary assistance for data collection, testing guidelines, and treatment protocols. Among other reasons, the strict measures imposed early on were driven by the health system's limited capacity to manage a potential wide contamination

[32]UNAIDS, A 30-year response to HIV in Morocco 19 January 2018

[33]Silva P. Kouyoumjian, Houssine El Rhilani, Amina Latifi, Amina El Kettani, Hiam Chemaitelly, Kamal Alami, Aziza Bennani, Laith J. Abu-Raddad, Mapping of new HIV infections in Morocco and impact of select interventions, International Journal of Infectious Diseases,Volume 68,2018,Pages 4-12,ISSN 1201-9712,
(https://www.sciencedirect.com/science/article/pii/S1201971217303259).

[34]Kouyoumjian, SP., Mumtaz, GR., Hilmi, N., Zidouh, A., El Rhilani, H., Alami, K., Bennani, A., Gouws, E., Ghys, PD., & Abu-Raddad, LJ. (2013). The epidemiology of HIV infection in Morocco: systematic review and data synthesis. International Journal of STD & AIDS. 24, 507-516.

wave. Despite multiple constraints on the Ministry of Health's limited resources it has shown tremendous resilience by deploying an emergency response, developing a number of medical protocols for COVID-19 patients, and equipping hospitals across the country with medical supplies and personal protective materials. Active surveillance systems were created based on an electronic information system updated with real-time epidemiologic reporting and informing evidence-based decision-making. These measures have led to low fatality and high recovery rates[35].

Services for Key populations

Testing services

Although information from key informants claimed that both governmental and non-governmental systems were resilient to ensure the continuity of voluntary counselling and testing services for Key Populations, those who responded to the quantitative survey reported that they had difficulty accessing the testing services during the pandemic. In addition to challenges similar to the ones experienced by the beneficiaries in Egypt, Morocco experienced a large stock out of testing kits that lasted nearly a year and caused a huge delay in testing services.

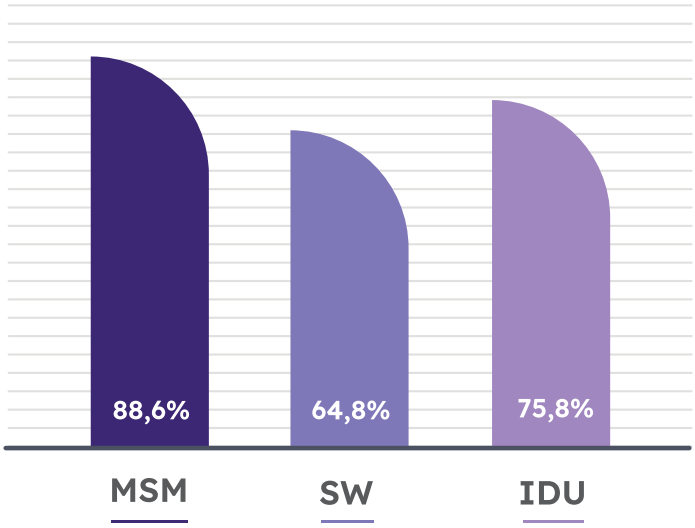


Figure 15 Percent of respondents who reported having difficulty accessing testing services during the pandemic

[35]Morocco: Stepping Up to the COVID-19 Pandemic Outbreak. (2020). Retrieved 2 February 2022, from https://www.worldbank.org/en/news/feature/2020/06/16/morocco-stepping-up-to-the-covid-19-pandemic-outbreak

Disaggregating data by type of key population revealed that MSM were the most affected group by the pandemic where 88.6% reported difficulty accessing testing services. Those were followed by IDUs, while the least affected group was sex workers where only 64.8% reported having difficulty accessing voluntary counselling and testing services.

Harm Reduction

According to feedback from key informants, well-coordinated efforts between the Ministry of Health and local non-governmental organisations working to support PLHIV and KPs occurred to ensure continuity of access to harm reduction among injecting drug users. The coordination included distribution of single use syringes and methadone replacement through NGOs who were able to access even those who were in hard-to-reach areas. Similarly, it was decided to dispense -3month stocks of single use syringes and methadone replacement to beneficiaries to ensure that they had adequate protection and were not unnecessarily exposed to the risk of infection during the pandemic.

We were considering the risks of dispensing three-month stocks of replacement therapy and the potential misuse by beneficiaries and trading it on the black market particularly during periods of lockdown when illicit drugs were unavailable, but the benefits of protecting the at-risk population from HIV far outweighed the risks.

Ministry of Health Official

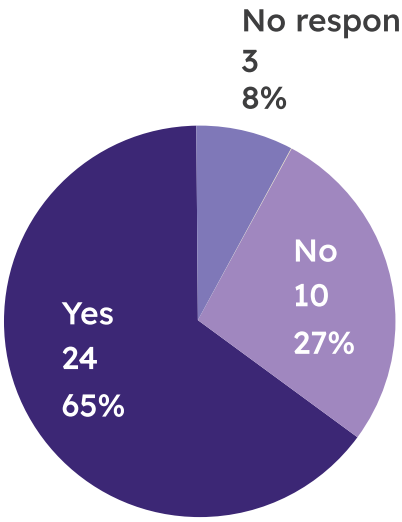


Figure 16 IDUs who reported accessing Replacement Therapy before the pandemic

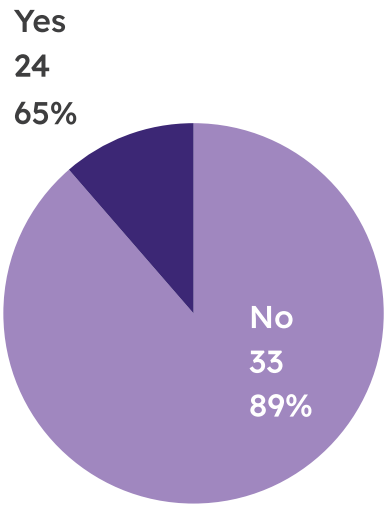


Figure 17 IDUs who reported difficulty accessing Replacement Therapy during the pandemic

Results from the quantitative survey with PLHIV and KPs confirmed the information obtained from key informants. It was evident that access to replacement therapy was not markedly affected by the COVID-19 pandemic. While 65% of the IDU respondents (37) reported that they had access to replacement therapy before the pandemic, only 4 respondents reported that they had difficulty accessing replacement therapy during the pandemic.

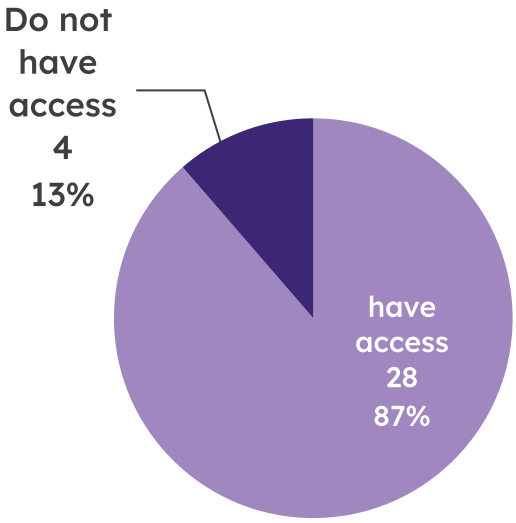


Figure 18 Access to Single Use Syringes before COVID 19-Pandemic

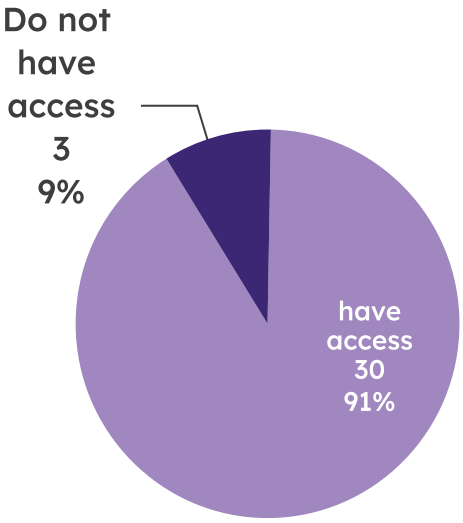


Figure 19 Access to single Use syringes during the COVID19-Pandemic

Similarly, access to single use syringes among IDU respondents was not noticeably affected by the pandemic

Condoms and lubricants

On the other hand, access to condoms and lubricants was significantly affected by the COVID -19 pandemic as the percent of MSM and SWs (n=185) who reported having access to these items fell from 94.6% before the pandemic to only 35.7% during it.

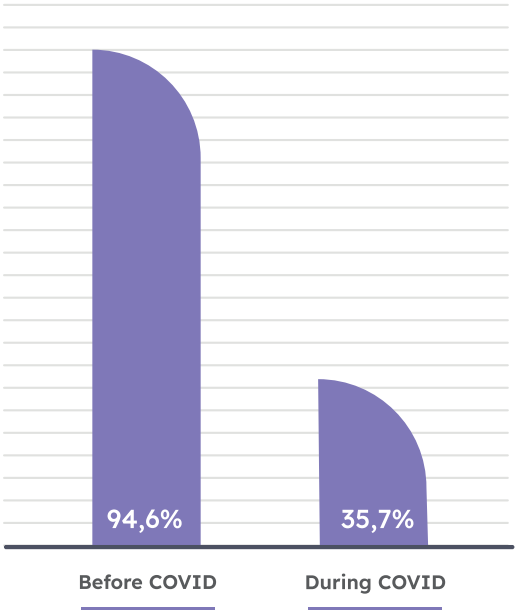


Figure 20 Access to condoms and lubricants among MSM and FSWs before and during the COVID19- pandemic

While the majority attributed this drop to lack of access of the distribution sites due to fear of infection, nearly 40% of those that responded also reported that the distribution sites were not providing the service particularly during the early period of the pandemic. A smaller percentage (7%) also stated that smaller quantities of condoms and lubricants were available for distribution during this period.

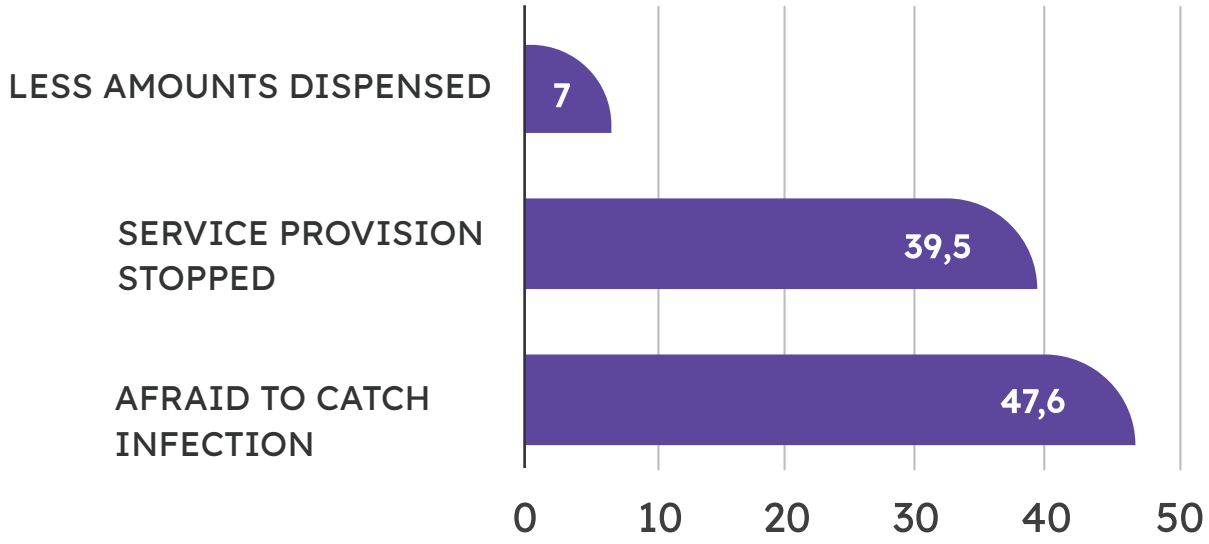


Figure 21 Reasons given for inaccessibility to condoms and lubricants

Services for PLHIV

ART

Based on feedback from key informants, adequate national stocks of ART were secured during the pandemic period.

Fortunately, the shipment of ART stocks arrived at the ports immediately before pandemic restrictions were imposed, so we had no problems with stocks and we even shared some of the stock with nearby countries

Ministry of Health Official

Similarly, key informants also reported that a well-coordinated response was established between governmental and civil society organisations to ensure PLHIV had access to ART. This included delivery of 3 months stocks to PLHIV at home, either through a courier, or through NGOs. The municipalities in all districts even shared in the process of delivering the medication directly to the beneficiaries

Even during the confinement and curfew periods, the vehicles of the NGOs who were working on delivery of medications were authorised by the government to travel on the streets of the country to deliver the medications.

NGO Representative

The results of the quantitative survey with PLHIV on the other hand revealed that the percent of PLHIV who reported difficulty accessing ART before the pandemic was doubled during the pandemic. 27.8% of respondents living with HIV also reported that they had to discontinue ART for various durations during the pandemic.

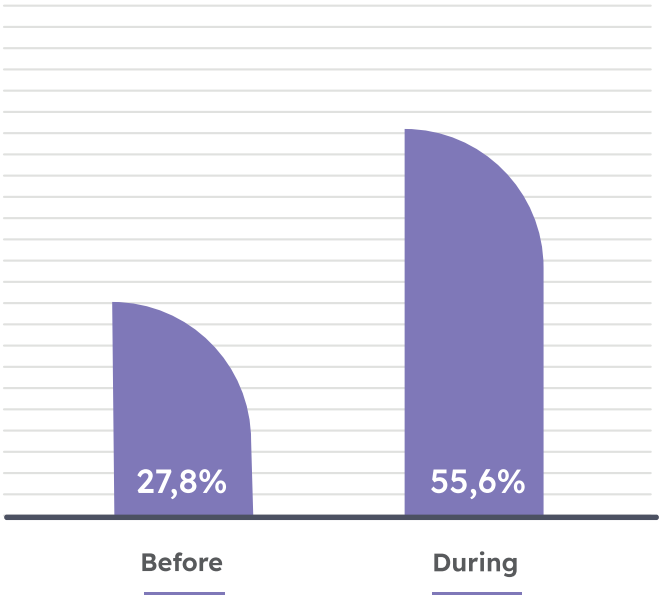


Figure 22 : Percent of PLHIV reporting difficulty in accessing ART before and during the Pandemic

CD4 and Viral Load

Similar to PLHIV in Egypt, a large percentage of respondents also reported difficulties in getting their CD4 and Viral loads tested. From the sample surveyed, 31 PLHIV reported that they needed to do CD4 and/or viral load during the pandemic. 65% of those reported that they had difficulty accessing testing services.

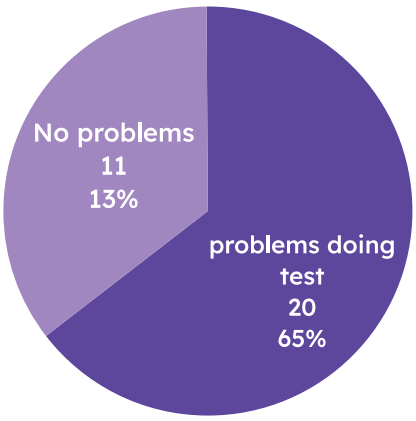


Figure 23 Proportion of respondents who needed to do CD4 and/or viral load and reported difficulty accessing the test

Medical services

Similarly, 32 of the respondents living with HIV reported that they needed a medical service (unrelated to HIV) during the COVID-19 pandemic. 29 (90.6%) reported that they had difficulty in accessing medical services. While the majority of the respondents (61%) identified that this was because they were too afraid of becoming infected with coronavirus to access the clinics/services, a significant percentage (nearly 53%) reported that the facilities were closed or had not been providing the services they needed during that time. In addition, nearly 28% of the respondents were unable to go because they did not have enough money for transportation costs.

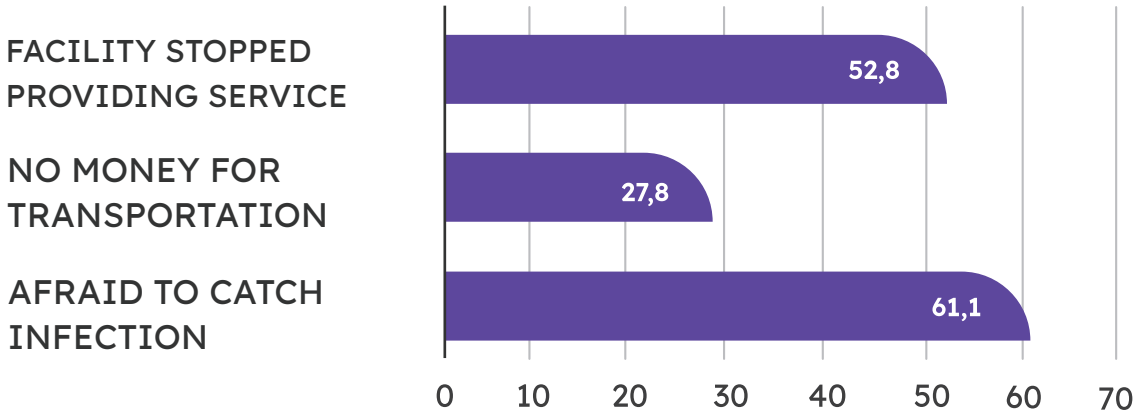


Figure 24 Obstacles to accessing Medical Services during the pandemic

Prevention of Vertical Transmission (VT)

Eight of the female respondents reported that they became pregnant during the COVID -19 pandemic two of whom were LHIV and six from the Key populations group. Seven of the eight pregnant women reported that they had received antenatal care. Moreover, four of the six women from the KPs group reported that they were had also been tested for HIV during the routine antenatal care they received. One of the two women living with HIV also stated that she had regularly received her ART during the pregnancy and both women admitted that they had also received the required prophylactic care for the newborn during/after delivery.

Psychosocial support services

Similar to experiences from Egypt, key informants from Morocco revealed that especially at the beginning of the pandemic, NGOs used online communication to provideinformation to key populations and PLHIV as well as provide them with psychosocial support. They tried various options including one to one sessions and support group sessions using zoom application, as well as one to one sessions over the phone. This was embraced by the target beneficiaries in Morocco and unlike their contemporaries in Egypt, they found this to be an easy, accessible and safe method of communication and support. Once lockdown and social distancing measures were relaxed normal communication methods and in person support was resumed.

Everybody nowadays has at least a smartphone, we were able to communicate with the target beneficiaries through different platforms and even created WhatsApp groups to ensure better two-way communication.

NGO Representative

Use of virtual communication methods particularly in the early days of the pandemic was extremely crucial as it was the only available method of receiving psychosocial support and accessing information. This proved to be very efficient in the provision of psychosocial support where nearly half the respondents reported that their need for psychological support services increased during the pandemic, and a total of 177 respondents (71.1%) also stated that they had difficulty accessing the psychological support services during the pandemic particularly KPs.

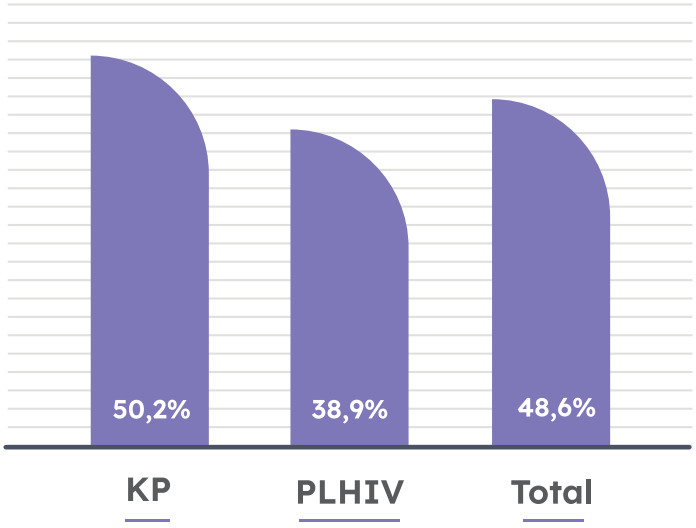


Figure 25 Respondents who reported an increased need for psychological support services during the pandemic

This was found however to be among people who preferred to access in person or on-site services. The barriers to access again included fear of getting infected with coronavirus, their regular service provider was not able to provide services and they did not have enough money to get there.

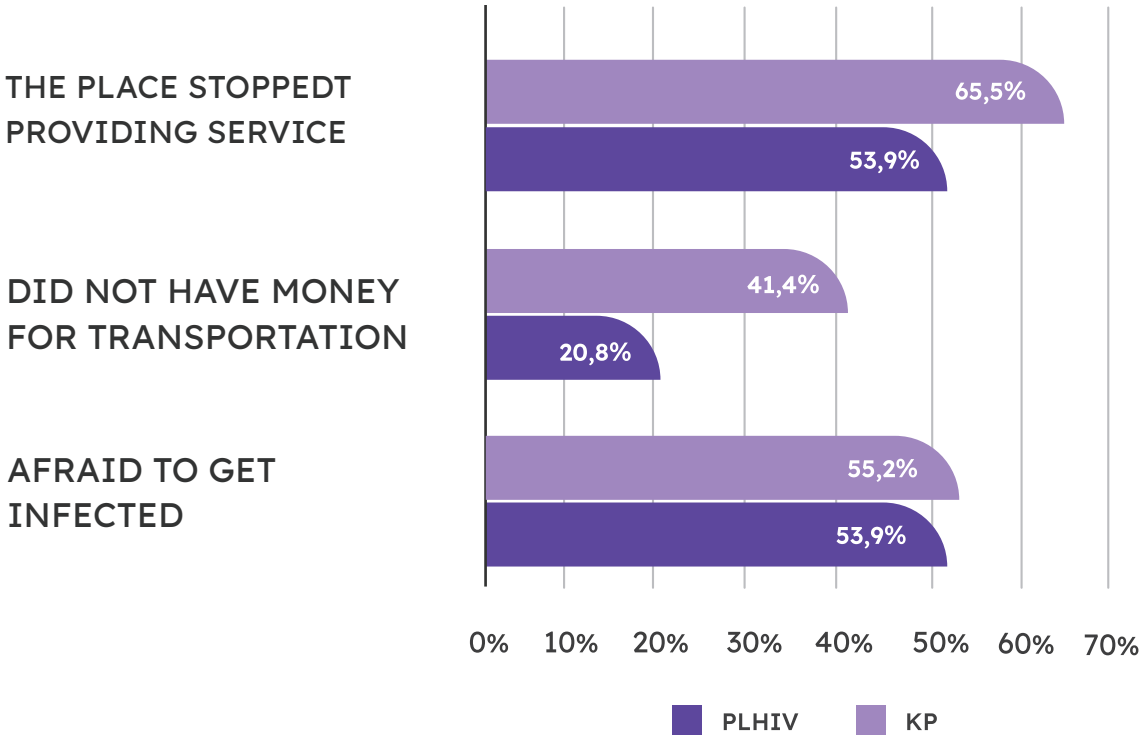


Figure 26 Challenges to accessing psychological support services during the pandemic

Socio-economic impact and support

74% of the respondents reported that their income was not sufficient to meet their family needs before the COVID-19 pandemic.

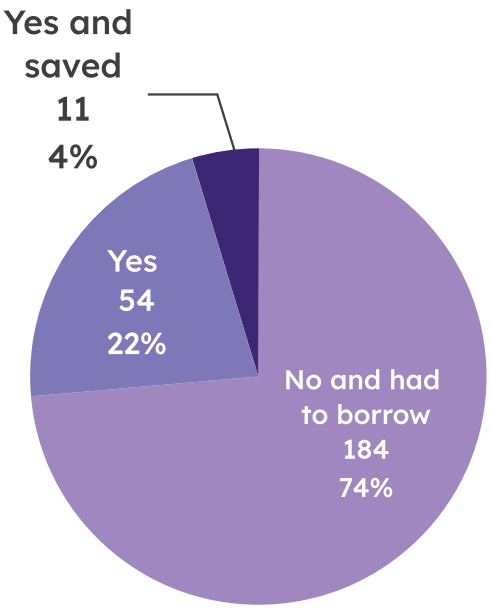


Figure 27 Distribution of Respondents according to sufficiency of Income before the pandemic

Table 11 Distribution of respondents according to income affection by COVID19- pandemic

How income was affected	Frequency	Percent
Did not respond	9	3.6
Significantly increased	3	1.2
Completely Stopped	110	44.2
Did not change	12	4.8
Slightly increased	2	0.8
Significantly reduced	113	45.4
Total	249	100

Key informants from NGOs reported that the civil society in Morocco played an important role in responding to the socio-economic impacts of the pandemic on the target population through conducting a rapid needs assessment which revealed a strong need for economic support during the

pandemic. Once identified, NGOs worked on the provision of cash and in-kind assistance for the target population.

A rapid needs assessment was conducted, and cash and in-kind support were provided to the target populations

NGO Representative

Results of the quantitative survey conducted with PLHIV and KPs supports the information provided by key informants where 45.8% of the respondents reported that they received support from NGOs during the pandemic. The proportion of PLHIV who reported receiving this support was markedly higher than KPs (61.1% versus 43.2%)

Table 12 Respondents who reported receiving support from NGOs during the pandemic

		KP	PLHIV	Total
Did not respond	Count	6	3	9
	%	%2.80	%8.30	%3.60
No	Count	115	11	126
	%	%54.00	%30.60	%50.60
Yes	Count	92	22	114
	%	%43.20	%61.10	%45.80
Total	Count	213	36	249
	%	%100.00	%100.00	%100.00

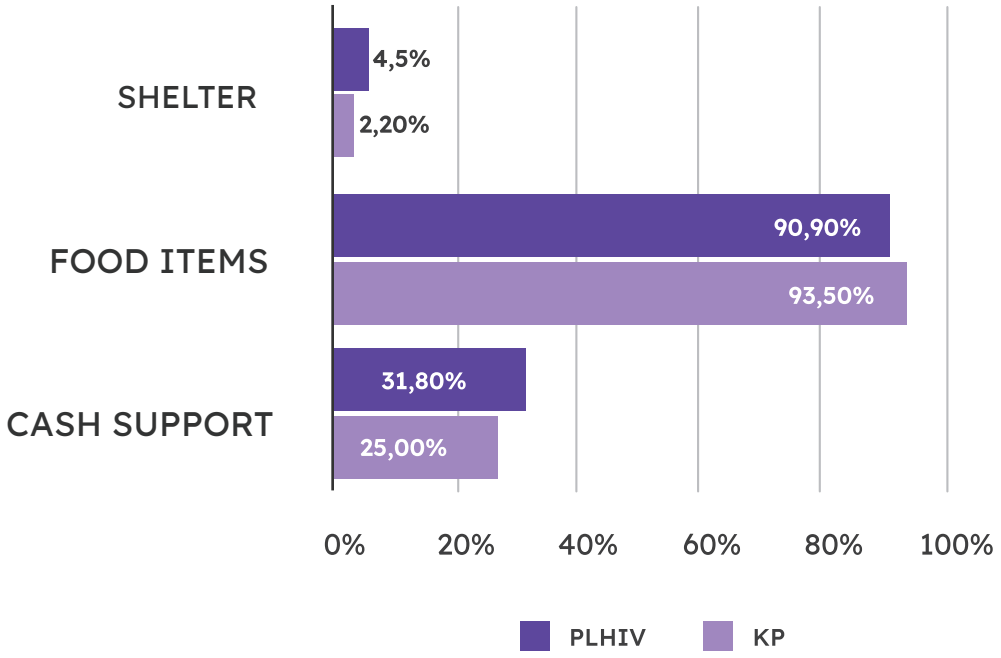


Figure 28 Forms of support provided by NGOs to KPs and PLHIV during the pandemic

The majority of the support provided (over 90% for both PLHIV and KPs) was mainly in the form of food items, some were provided with cash assistance and a small portion with alternative forms of shelter. Although the survey did not go into the details of the cash assistance provided to PLHIV and KPs, feedback from key informants revealed that the cash support was transient and provided for durations varying between 3-6 months depending on the funding available for each NGO.

Stigma and discrimination

Nearly 65% of the surveyed sample reported that they had experienced some form of stigma and discrimination at a health care facilities before the COVID-19 pandemic. There was no remarkable difference between KPs and PLHIV.

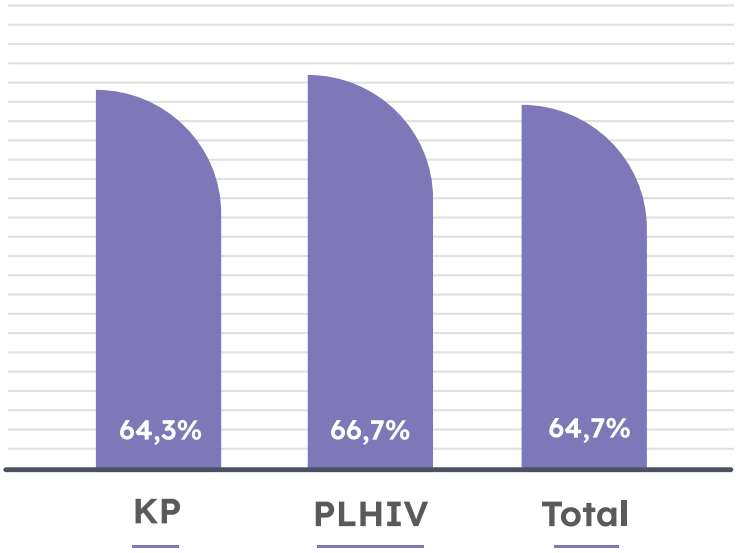


Figure 29 Experiencing stigma and discrimination at health care facility before the pandemic

Since the start of the pandemic, 43.5% of the figure who had experienced stigma in the pre pandemic period reported an increase in stigma and discrimination at health care facilities. This was found to be more common among PLHIV than KPs (58.3% versus 40.9%).

Table 13 Perception of change in stigma and discrimination in health care facilities among participants who reported stigma before the pandemic

		KP	PLHIV	Total
Did not want to answer	Count	2	0	2
	%	%1.50	%0.00	%1.20
Increased	Count	56	14	70
	%	%40.90	%58.30	%43.50
Decreased	Count	12	4	16
	%	%8.80	%16.70	%9.90
Did not change	Count	67	6	73
	%	%48.90	%25.00	%45.30
Total	Count	137	24	161
	%	%100.00	%100.00	%100.00

Furthermore, 70.3% of participants reported that they experienced violence before the COVID-19 pandemic. The proportion of persons from KPs who reported experiencing violence before the pandemic was larger than that of PLHIV (71.4% and 63.9% respectively)

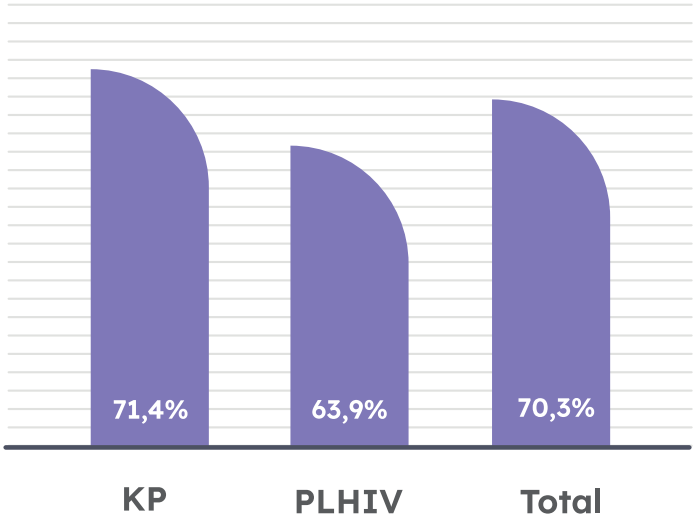


Figure 30 Exposure to violence before the pandemic

An overall of 38.3% of participants who reported that they had experienced violence before the pandemic confirmed that acts of violence towards them had increased since the start of the pandemic. This perception of increased exposure to violence was found to be more among PLHIV than among KPs

(%43.5 and %37.5 respectively)

Table 14 Distribution of participants who experienced violence before the epidemic according to their HIV status and their perception of the change in exposure to violence

		KP	PLHIV	Total
Did not want to answer	Count	2	0	2
	%	%1.30	%0.00	%1.10
Increased	Count	57	10	67
	%	%37.50	%43.50	%38.30
Decreased	Count	16	5	21
	%	%10.50	%21.70	%12.00
Did not change	Count	77	8	85
	%	%50.70	%34.80	%48.60
Total	Count	152	23	175
	%	%100.00	%100.00	%100.00

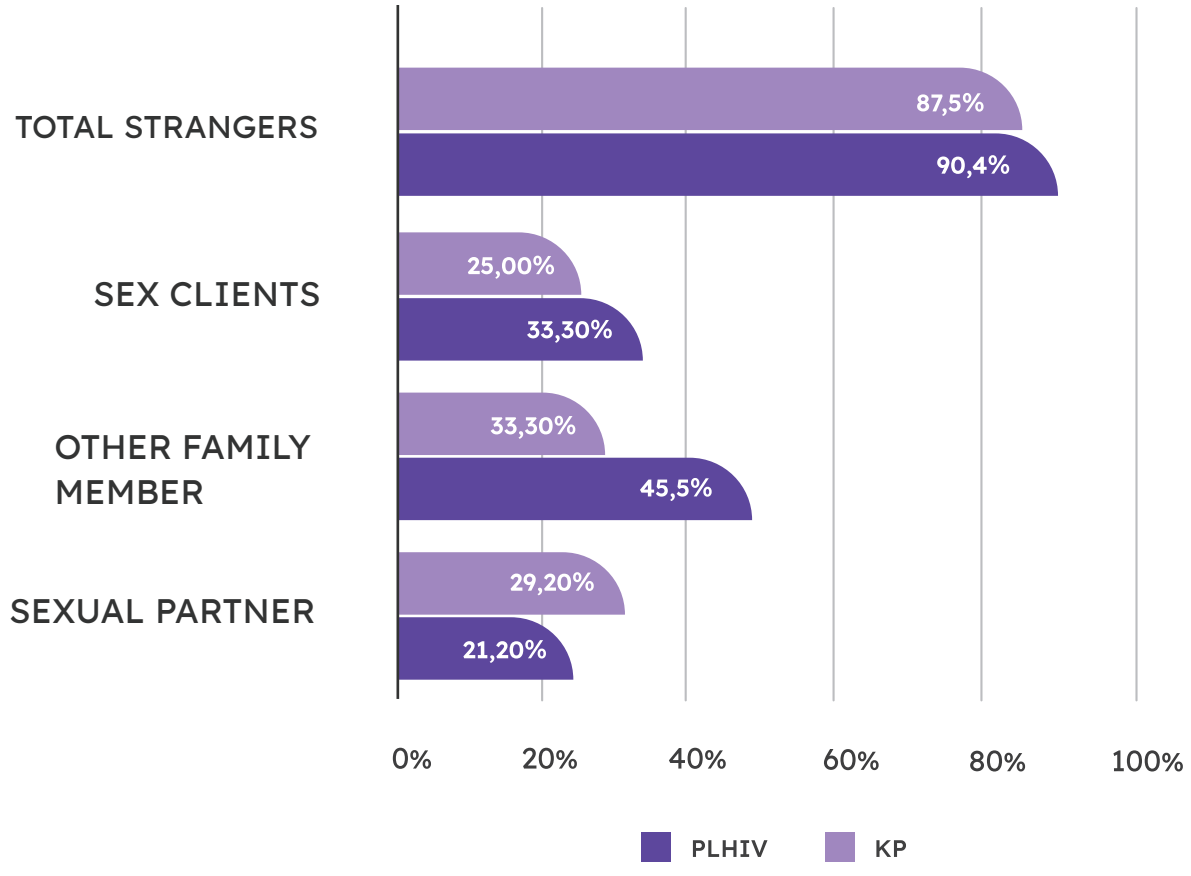


Figure 31 Reported perpetrator of violence during the pandemic

Over 90% of KPs and 87% PLHIV had been subjected to acts of violence by complete strangers and over 45% and 33% of KPs had been committed by a family member or sex client respectively.

Table 15 Respondents who reported increased violence from law enforcement and other governmental authorities during the pandemic

		KP	PLHIV	Total
Did not want to answer	Count	95	14	109
	%	%44.60	%38.90	%43.80
No	Count	22	11	33
	%	%10.30	%30.60	%13.30
Yes	Count	96	11	107
	%	%45.10	%30.60	%43.00
Total	Count	213	36	249
	%	%100.00	%100.00	%100.00

Given the fact that many of the PLHIV and KPs are in often in conflict with the law either as IDUs, commercial sex workers or MSM, it is understandable that 43% of respondents reported that they experienced an increased level of violence from law enforcement authorities and other governmental authorities during the pandemic period because they had to break the curfew to reach out to their customers/partners which made them more liable to confrontations with the law enforcenment authorities both for illegal practices (MSM or commercial sex) as well as breaking the curefew Key populations also reported a distinctly higher level of violence during this period than PLHIV (45.1% and 30.6% respectively)

Tunisia

The prevalence of HIV/AIDS among the general population (15-49 years) of Tunisia is still less than 0.1%. By 2020 the latest estimated HIV figures recorded were around 4,500 people[36] . Similar to other countries in the region, the epidemic remains concentrated among key populations, namely Sex

Workers (SWs), Men who have Sex with Men (MSMs) and Persons Injecting Drugs (PIDs). In-depth knowledge about modes of transmission and prevention is still found to be very low particularly among adolescents and youth and risky sexual practices are observed in relatively worrying rates across different groups of young people including multiple sex partners combined with low condom use rate as well as sex work among MSM and PID[37] .

The National Tunisian response to HIV and STI is managed by the National program for combating AIDS and STIs (Programme National de Lutte contre le Sida et les Infections Sexuellement Transmissibles - PNLS/IST). This is managed by the Ministry of Public Health in Tunisia and the Directorate of Primary Health Care. A national strategy is being implemented for the prevention of HIV in high incidence communities of new infections especially among young girls and women and their male partners. This includes activities such as community-based outreach, youth-friendly health services, school-based HIV prevention campaigns and harm reduction services. Young people are able to access SRH services on their own without parental consent however those younger than 18 years, need parental consent to undergo HIV testing and treatment. Youth are given an opportunity to play an active role in the development of policies, guidelines and strategies relevant to their health including HIV/AIDS. Moreover, NGOs and CSOs have always played a crucial role in combined prevention efforts offered to key and vulnerable populations.

The CNLS – the National Committee for Combating AIDs (Le comité National de Lutte contre le Sida) is a national body which coordinates the efforts of governmental and non-governmental stakeholders in the response to HIV. Sub-committees emanating from this National Committee have been created, including the sub-committee for medical and psychosocial care of people

[36]UNAIDS Key Population Atlas https://kpatlas.unaids.org/dashboard
[37]HIV/AIDS Infographics - Tunisia country profile https://arabstates.unfpa.org/en/publications/hivaids-infographics-tunisia-country-profile

living with HIV and the IEC committee. In 2004 the National Coordinating Mechanism (le CCM -Tunisie) was established to manage the Global Fund's grants to support the National Program to Combat AIDs and implement the National Strategic Response Plans to HIV and STDs, in which public authorities, civil society including NGOs and the United Nations System are represented.

In Tunisia, the first case of coronavirus disease-19 (COVID-19) was diagnosed on 2nd March 2020 . The spread of infection in the country was somewhat controlled by the strict measures that were imposed by the government. These included a full lockdown (March-May) followed afterwards in May-June by an imposed night-time curfew. In addition, masks were made mandatory in all public spaces. Thermal cameras for fever screening in airports and at border crossings were installed and mandatory Covid-19 test for incoming passengers as well as strict quarantine measures for 18,000 repatriated Tunisians were imposed along with mandatory self-quarantine for incoming passengers from medium-to high-risk countries.

While these measures had a significant impact on keeping the numbers of cases and deaths down initially, once the borders were reopened the number of both COVID-19 cases and related deaths increased dramatically, causing two COVID-19 waves: the first in August–December 2020 and the second in January–March 2021 By the 9th May 2022, there have been 1,040,712 confirmed cases and 28,566 deaths, reported to WHO .

Cherif I, Kharroubi G, Chaabane S, et al. COVID19- in Tunisia (North Africa): Seroprevalence of SARS-CoV2- in the General Population of the Capital City Tunis. Diagnostics (Basel). 971:(4)12;2022. Published 2022 Apr 13. doi:10.3390/diagnostics12040971
National Observatory of New and Emerging Diseases Bulletin de Veille COVID19- a la Date du 12 Décembre 2021. Available online:
https://www.onmne.tn/?p=15695.
WHO Health Emergency Dashboard https://covid19.who.int/region/emro/country/tn

Services for Key populations

Testing services

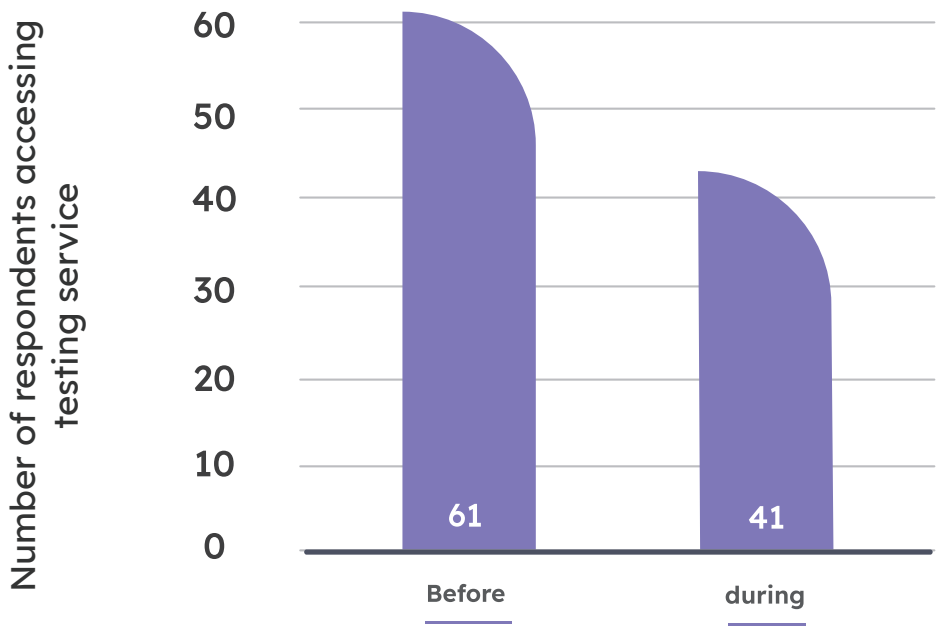


Figure 32 Number of respondents from KP who had access to testing services before and during the pandemic

The number of respondents among the key populations who reported having access to testing services was significantly reduced from 64.9% before the pandemic to 43.6% after it. The most common reasons given by the respondents for not accessing the testing service was fear of catching the infection.

Harm Reduction

Condoms and Lubricants

While only 17.7% of MSM and FSWs reported having difficulty accessing condoms and lubricants before the pandemic, this percentage increased to 45.6% during the pandemic

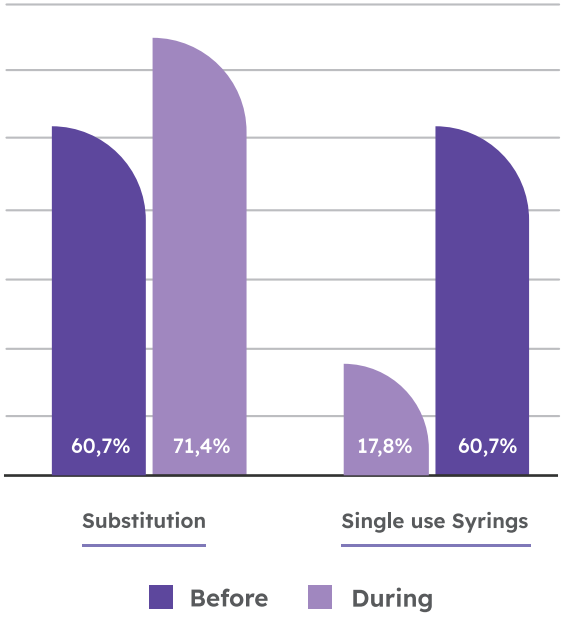


Figure 33 Percent of IDUs who reported inability to access harm reduction measures before and during the pandemic

The percent of IDUs who reported that they could not access substitution therapy increased from 60.7% before the pandemic to 71.4% during the pandemic. On the other hand, the percent of those who reported that they could not access single use syringes increased remarkably from 17.8% before the pandemic to 60.7% during the pandemic. The main reasons given were the fear of catching infection and the scarcity of supplies.

Services for PLHIV

ART

Although feedback from key informants from Tunisian NGOs confirmed that the National Program for Combating AIDS and STIs response to the COVID-19 pandemic was to ensure that sufficient medications are dispensed to PLHIV and dispensing 3 months supply of medications, the feedback also highlighted shortages of ART due to stock depletions which led to inaccessibility to medications by some PLHIV.

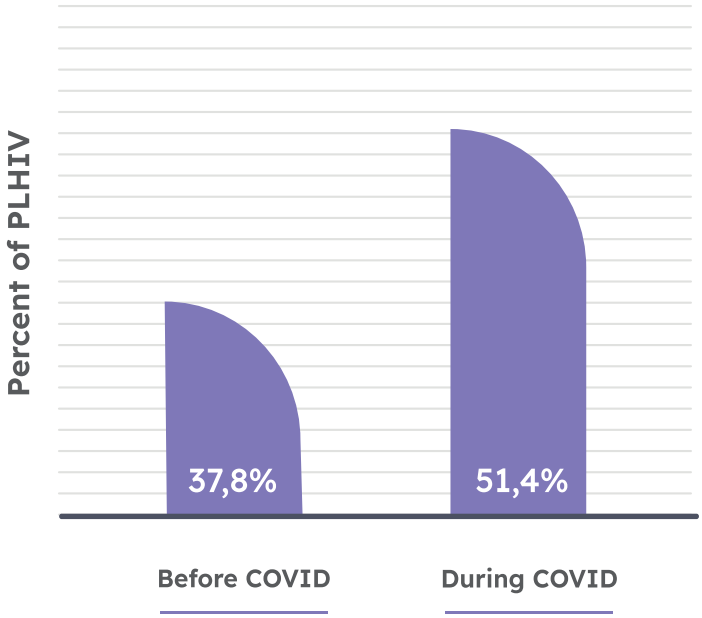


Figure 34 Percent of respondents LHIV who reported inability to access ART before and during the pandemic

The percent of PLHIV who reported having difficulty accessing ART increased from 37.8% before the pandemic to 51.4% during the pandemic. The main reasons cited for this were similar to that reported from both Egypt and Morocco including their fear of catching coronavirus and not being able to afford transportation to access the services.

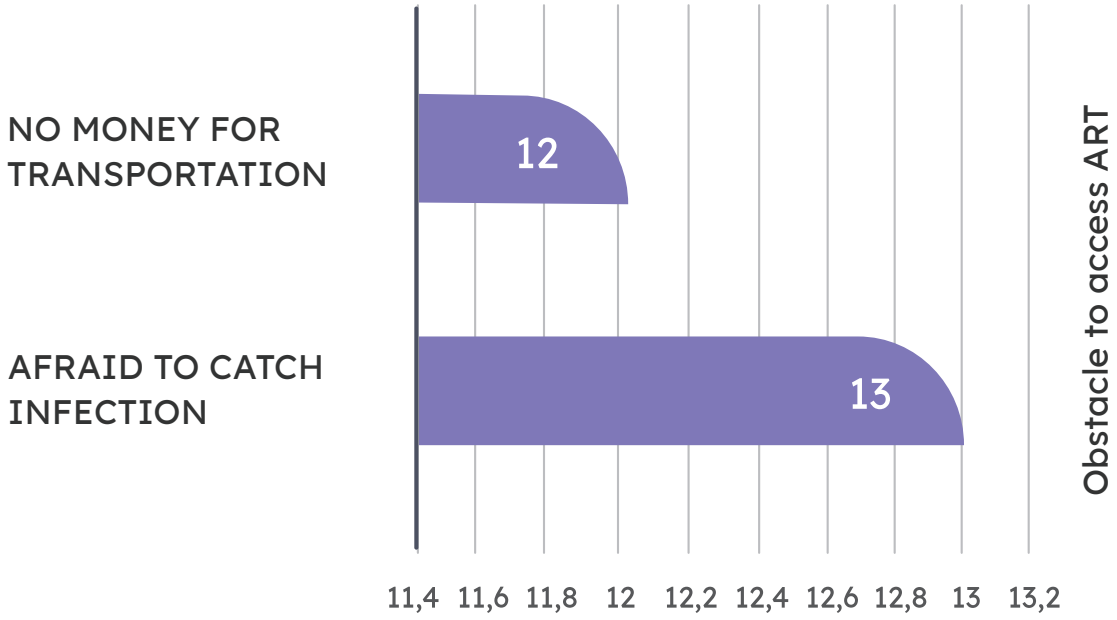


Figure 35 Reasons for inability to access ART during the pandemic reported by respondents Living with HIV

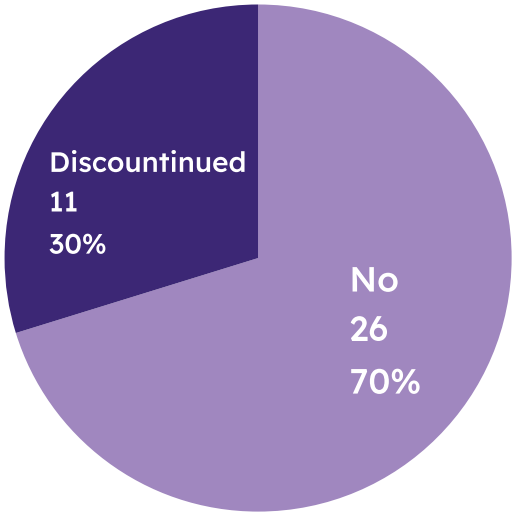


Figure 36 Percent of respondents living with HIV who reported having to discontinue ART during the pandemic

Eleven respondents or 30% living with HIV reported that they had to discontinue the ART during the pandemic despite the fact that NGOs participated in the delivery of ART to beneficiaries at their homes.

Medications for opportunistic infections

Sixteen respondents living with HIV reported that they needed medications for opportunistic infections. Of those 16 respondents 8 reported that they were having difficulty accessing the medications during the pandemic either because they did not want to expose themselves to a risk of infection by COVID or due to their inability to afford transportation.

CD4 and Viral Load

Eight respondents living with HIV reported that they had difficulty accessing CD4 and viral load testing services during the pandemic. Two of them reported that the service provision site stopped providing the service, four reported that they were afraid of catching coronavirus and a further two reported that they could not afford to pay for transportation to get to the testing centre.

Medical services

A total of 18 respondents living with HIV reported that they required medical services unrelated to HIV during the pandemic, of whom 16 reported that they had difficulty in accessing services.

Prevention of Vertical Transmission (VT)

Only three respondents reported that they became pregnant during the pandemic. All three participants had access to antenatal services, received their ART regularly during pregnancy and all of them received prophylactic care for their new-borns during labour.

Psychosocial support services

Table 16 Reported change in the need of Psychosocial support during the pandemic

		KP	LHIV	Total
Did not need	Count	11	7	18
	%	%11.70	%18.90	%13.70
Increased need	Count	23	12	35
	%	%24.50	%32.40	%26.70
Decreased	Count	23	9	32
	%	%24.50	%24.30	%24.40
Did not Change	Count	37	9	46
	%	%39.40	%24.30	%35.10
Total	Count	94	37	131
	%	%100.00	%100.00	%100.00

While 88.3% of KPs and 81.1% of PLHIV reported that they needed psychosocial support services before the epidemic, 24.5% of KPs and 32.4% of PLHIV reported that their need for psychosocial support services had increased during the pandemic.

Table 17 Respondents reporting difficulty accessing psychosocial support services during the pandemic by HIV status

Difficulty accessing Psycho-social support	KP	PLHIV	Total
No	43	21	64
	%45.70	%56.70	%48.90
Yes	51	16	67
	%54.30	%43.20	%51.10
Total	94	37	131
	%100.00	%100.00	%100.00

While 88.3% of KPs and 81.1% of PLHIV reported that they needed psychosocial support services before the epidemic, 24.5% of KPs and 32.4% of PLHIV reported that their need for psychosocial support services had increased during the pandemic.

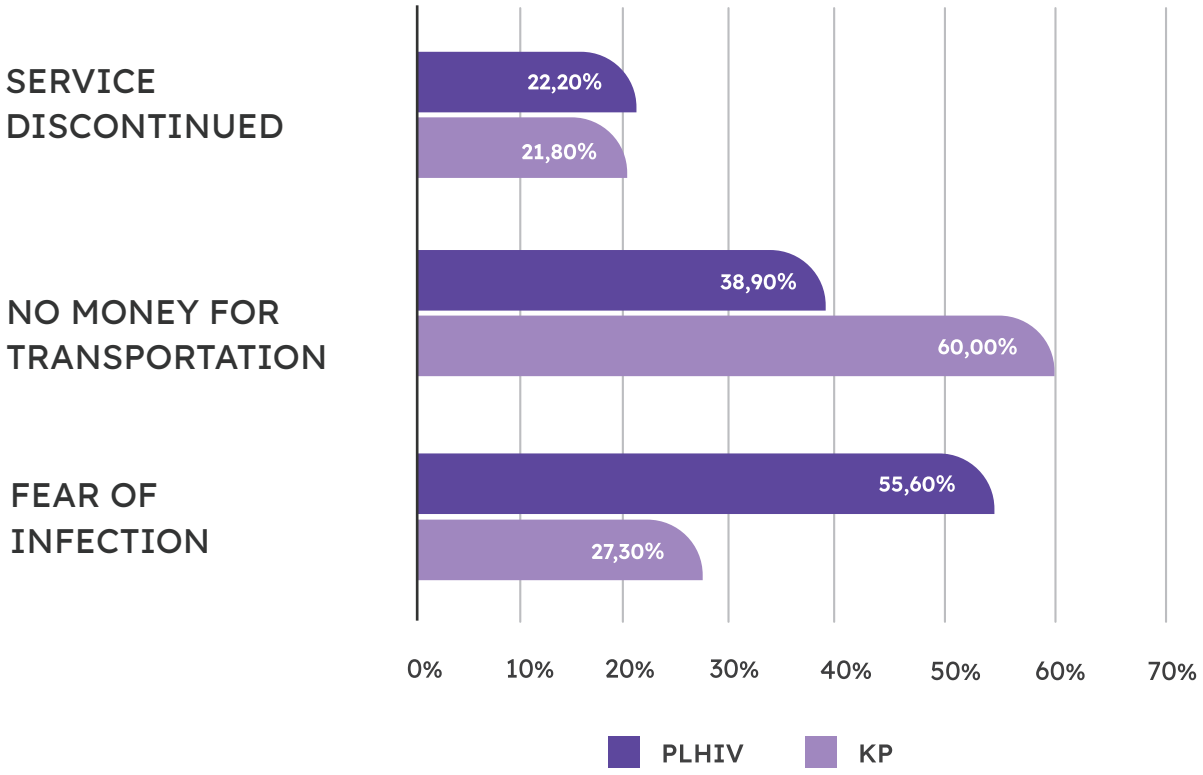


Figure 37 Reported barriers to accessing psychosocial support service

Impact on needs of target population

Feedback from key informants working in NGOs who provide direct services to PLHIV and KPs revealed that the economic impacts of the COVID19-pandemic had the highest impact on PLHIV and KPs who are originally economically vulnerable populations.

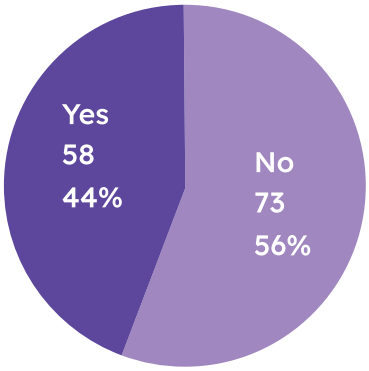


Figure 38 Percent of respondents who reported having a regular job before the pandemic

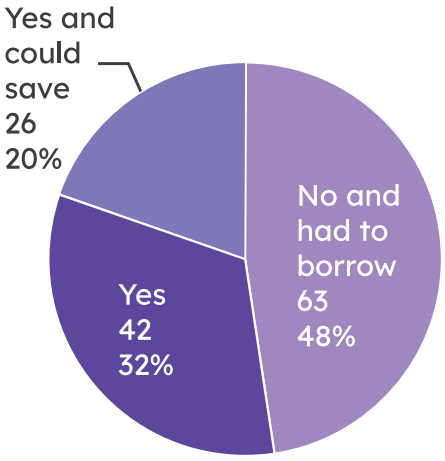


Figure 39 Distribution of respondents according to whether their income was sufficient to meet the needs of their families before the pandemic

The quantitative survey confirmed the information gathered from stakeholders. 56% of respondents reported that they did not have a regular job before the pandemic, and 48% reported that their income was not originally sufficient to meet the needs of their families and they had to borrow.

Table 18 Distribution of participants according to how their income was affected during the pandemic

Income change during pandemic	Frequency	Percent
Do not want to answer	24	18.3
increased significantly	5	3.8
completely stopped	43	32.8
unchanged	7	5.3
increased	2	1.5
significantly reduced	50	38.2
Total	131	100

The pandemic obviously added to the economic vulnerability of PLHIV and KPs as 71% of respondents reported that their income was either significantly reduced or completely stopped during the pandemic.

Socio-economic support services

Feedback from key informants suggested that civil society organisations had more resilience than governmental organisations particularly in responding to the socio-economic needs of the vulnerable populations. This information was supported by the information provided by the quantitative survey with respondents from KPs and PLHIV,where a higher proportion reported receiving socio-economic support form NGOs than governmental support (23.7% versus 17.6%)

Table 19 Distribution of Participants according to receipt of support from NGOs and HIV status

Received Support from NGO	KPs	PLHIV	Total
No	82	18	100
	%87.30	%48.60	%76.30
Yes	12	19	31
	%12.80	%51.40	%23.70
Total	94	37	131
	%100.00	%100.00	%100.00

It was evident from the feedback of participants that the support given to PLHIV was considerably more than that provided to KPs. While 51.4% of respondents LHIV reported they received support from non-governmental organizations, only 12.8% of KPs reported receiving such support.

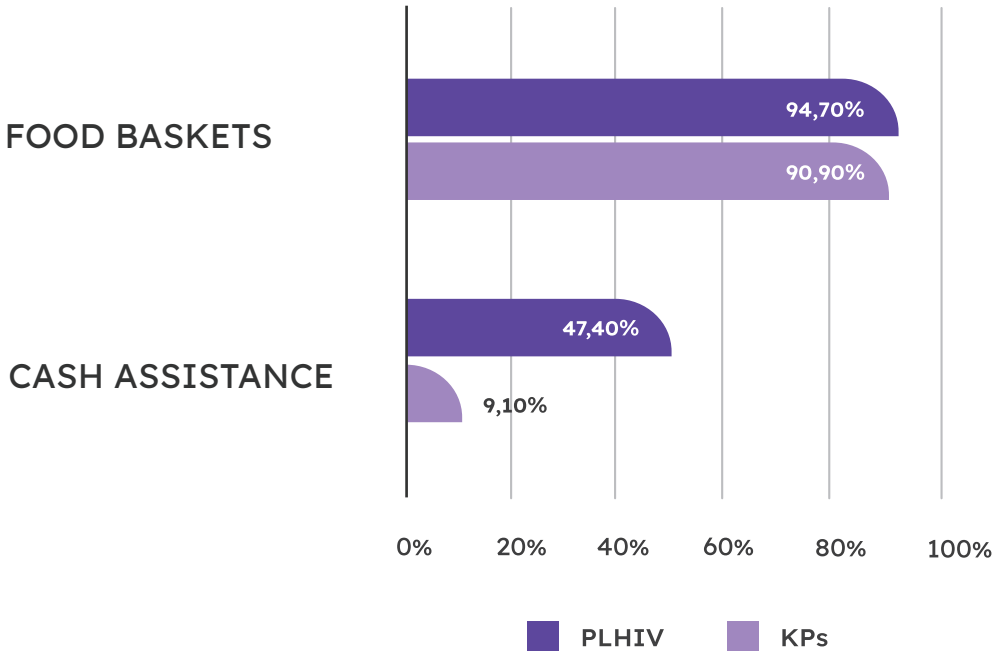


Figure 40 Types of reported non-Governmental socio-economic support received by KPs and PLHIV

Table 20 Distribution of Participants According to receipt of Governmental support and HIV status

Received Governmental Support	KPs	PLHIV	Total
No	84	24	108
	%89.30	%64.90	%82.40
Yes	10	13	23
	%10.60	%35.10	%17.60
Total	94	37	131
	%100.00	%100.00	%100.00

Similar to NGOs support, governmental support reached more PLHIV than KPs. While 35.1% of PLHIV reported that they received governmental support, only 10.6% of KPs reported that they received governmental support.

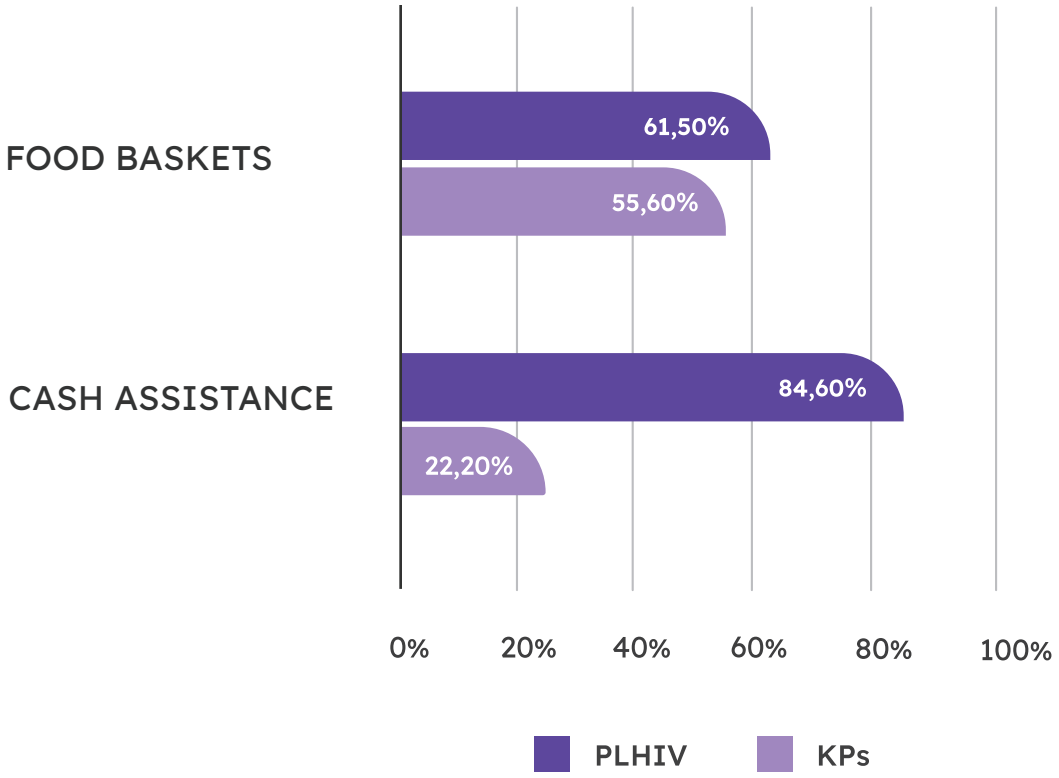


Figure 41 Forms of reported governmental Socio-economic support received by PLHIV and KPs

Stigma and discrimination

Feedback from key informants highlighted the stigma and discrimination to which KPs were exposed to (particularly SWs and MSM), including the stigma and discrimination at health care facilities. Feedback revealed that MSM and transgender persons faced the highest level of stigma and discrimination.

When a transgender woman goes to the health care facility with an ID carrying a man's name, they usually refuse to dispense medications of provide service. The person also can be subject to legal charges on the basis of practicing homosexuality which is prohibited by law in Tunisia

Tunisian NGO Representative

Table 21 Perception of respondents of the change in stigma and discrimination in health care facilities during the pandemic by HIV status

		KP	LHIV	Total
No Discrimination	Count	38	27	65
	%	%40.40	%73.00	%49.60
Increased	Count	12	2	14
	%	%12.80	%5.40	%10.70
Decreased	Count	10	2	12
	%	%10.60	%5.40	%9.20
Did not change	Count	34	6	40
	%	%36.20	%16.20	%30.50
Total	Count	94	37	131
	%	%100.00	%100.00	%100.00

An overall of 49.6% of respondents reported that they did not experience stigma and discrimination at the health care facilities before or during the pandemic. On the other hand, 59.6% of key populations and 27% of PLHIV reported that they experienced stigma and discrimination at health care facilities before the pandemic. Only 10.7% of the respondents reported that stigma and discrimination was increased during the pandemic. Giving the priority to COVID-19 Cases in many health facilities and inablitity to provide services for PLHIV during this critical period could have been mistakenly perceived as a form of discrimination by PLHIV.

Table 22 Distribution of respondents according to their perception of the change in level of violence to which they are exposed to during the pandemic

		KP	LHIV	Total
No Violence	Count	31	26	57
	%	%33.00	%70.30	%43.50
Increased	Count	9	1	10
	%	%9.60	%2.70	%7.60
Decreased	Count	15	3	18
	%	%16.00	%8.10	%13.70
Did not change	Count	39	7	46
	%	%41.50	%18.90	%35.10
Total	Count	94	37	131
	%	%100.00	%100.00	%100.00

An overall of 43.5% of the respondents reported that they were not exposed to any kind of violence before or during the pandemic. On the other hand, 67% of KPs versus only 29.7% of PLHIV reported that they were exposed to a kind of verbal, physical or sexual violence before the pandemic. Only 9.6% of the KPs and 2.7% of PLHIV reported that they experienced violence before the pandemic and perceived that this violence was increased during the pandemic

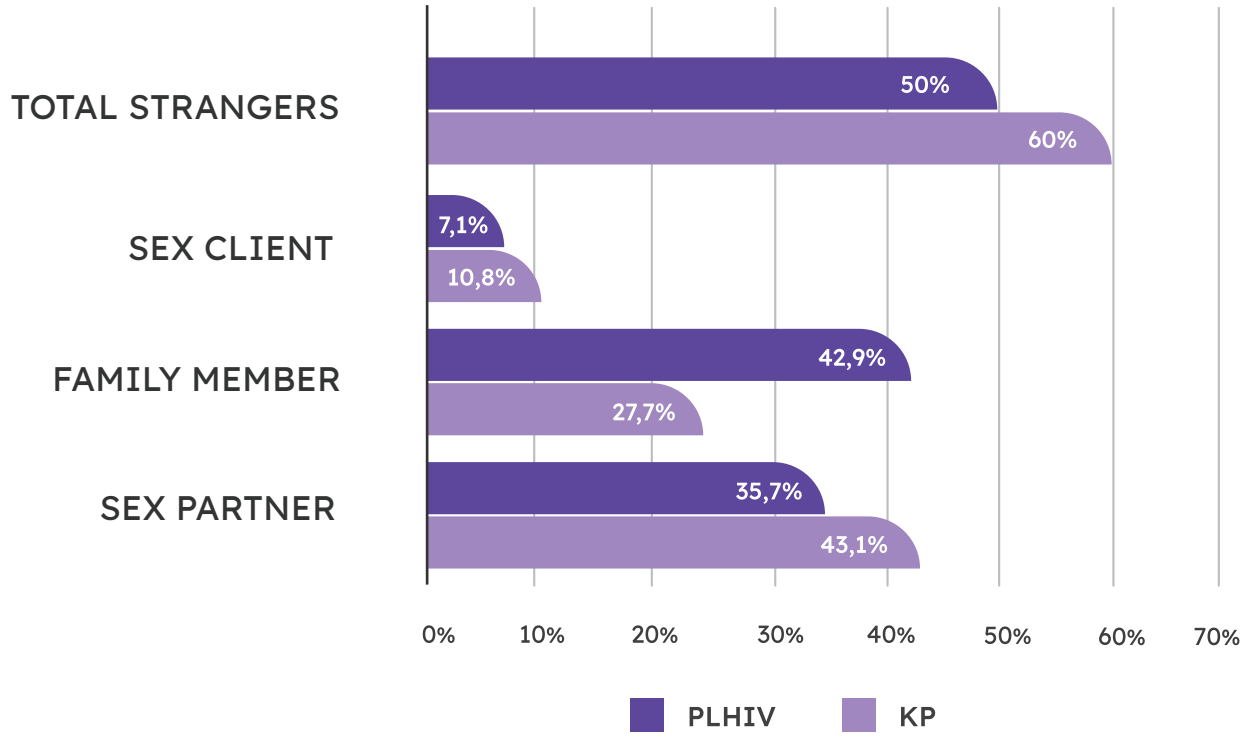


Figure 42 reported perpetrators of Sexual, verbal or Physical violence by KPs and PLHIV

Key informants provided information on the friction between law enforcement forces and KPs particularly commercial sex workers during the pandemic. Like the situation in Morocco certain behaviours/practices of PLHIV and KPs puts them at risk with law enforcement bodies. In countries where things like homosexuality and injecting drug use are considered a crime individuals who are caught engaging in these acts may be subject to severe prosecution. One common example is the engagement of commercial sex outside the designated licensed areas of practice may subject women to being questioned and detained.

Due to the economic crisis, women licensed to practice commercial sex were affected by the confinement and closure of licensed workhouses they had to break the curfew for work which put them in confrontation with the law enforcement. Similarly, more women were obliged to practice commercial sex without having a license which also put them at the risk of being arrested and charged for illegal practice of commercial sex.

Tunisian NGO Representative

Similar to patterns seen in the other countries KPs reported being subjected to violence from authorities and law enforcement officers significantly more that PLHIV (23.4% vs 8.1%)

Mauritania

The HIV epidemic in Mauritania is concentrated in cities and among key populations. HIV prevalence among adults is around 0.3% but is a staggering 9% among sex workers and 23% among gay men and other men who have sex with men[41].Moreover, knowledge about the modes of transmission and preventive measures was found to be low among both the general population as well as the key population groups. The latter showed a marked decline in knowledge between 2007 and 2014. Level of education and socio-economic status were key factors in determining knowledge which was measured around %6 among

UNAIDS. (2021, November 25). Community outreach fills the gap in Mauritania. UNAIDS Mauritania. Retrieved May 8, 2022. https://www.unaids.org/en/keywords/mauritania#:~:text=The%20HIV%20epidemic%20in%20Mauritania,so%20people%20tend%20to%20hide.

women with no education and 16% among women with secondary or higher education. Same variation was observed in men where the prevalence of knowledge was 4% among men with no education and 15% among women with secondary or higher education[42].

Screening for HIV has been identified as a key intervention in the National Response to HIV and as an entry point to the system of care. Screening targets key populations and pregnant women. The screening was intended to be made accessible to the target population through health centers, as well as during national campaigns[43] on the occasion of World AIDS Day.

In Mauritania, from the 3rd January 2020 to the, 9 May 2022, there have been a total of 58,743 confirmed cases of COVID-19 with 982 reported deaths[44]. Since 2021, Mauritania has gone through two major COVID-19 waves, one in January and the second in June. By September 2021, the number of confirmed cases had stabilised. These intense and successive waves drove the authorities to impose a number of restrictive measures throughout the year including curfews and school closures till October 2021. Although Nouakchott-Oumtounsy International Airport remained open to limited domestic and international passenger flights, travellers to Mauritania were subjected to temperature screening and required to present a negative PCR test on arrival and departure.

Domestic restrictions included mandatory social distancing measures at local markets as well as the use of facemasks and bans on large gatherings[45].

Mauritania is one of the leading countries in Africa to champion the COVID-19 vaccination strategy with over 40% of the adult population already fully vaccinated. Initially, priority was given to at-risk and vulnerable individuals but eventually this extended to include the entire adult population[46] .

[42]Plan Strategique National de Lutte Contre le VIH/SIDA et les IST 2018-202 Comite Nationale de Lutte contre IST/VIH/SIDA, Republique Islamique De Mauritanie
[43]Ibid
[44]WHO Health Emergency Dashboard
[45]Crisis24. (2021, October 29). Mauritania: Authorities maintain limited covid-19-related restrictions as of Oct. 29 /update 26. Crisis24. Retrieved May 8, 2022, from https://crisis24.garda.com/alerts/2021/10/mauritania-authorities-maintain-limited-covid-19-related-restrictions-as-of-oct-29-update-26
[46]UNICEF (Ed.). (2021, December). Mauritania COVID-19 Situation Report No. 05. Retrieved from https://reliefweb.int/sites/reliefweb.int/files/resources/UNICEF%20Mauritania%20COVID-19%20Situation%20Report%20-01%20January%20-%2031%20December%20%202021.pdf

Services for Key populations

Testing services

A total of 104 respondents (%91.2 of the Key Population sample interviewed) reported that they used to get tested regularly for HIV before the pandemic. 92 respondents (%80.7) reported that they were tested at least every six months before the pandemic.

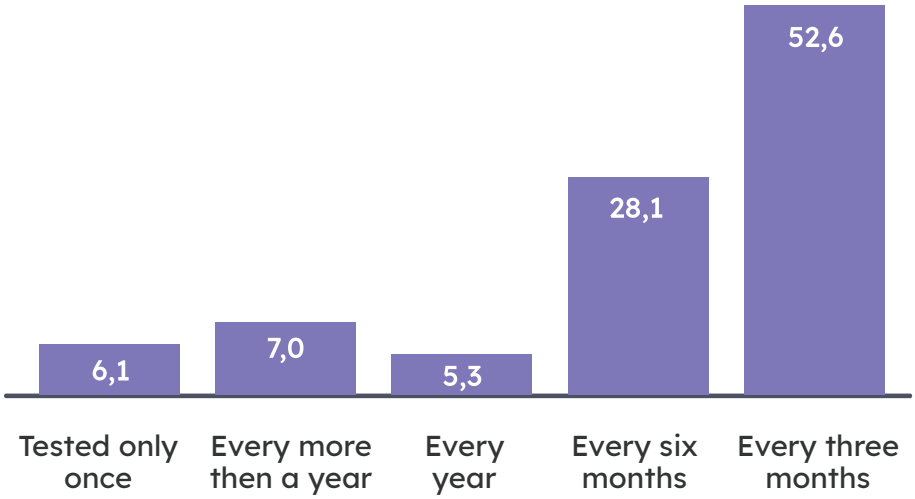


Figure 43 Reported frequency of testing for HIV before the epidemic

Nearly 89% of KPs (101 respondents) reported that they had difficulty accessing HIV testing services during the pandemic. The majority similar to their counterparts in the other countries where worried about becoming infected with COVID (71%), or did not have enough money for transportation to the testing sites (6%). Nearly one quarter of these respondents (23%) also reported that the sites were not providing HIV testing services during that period.

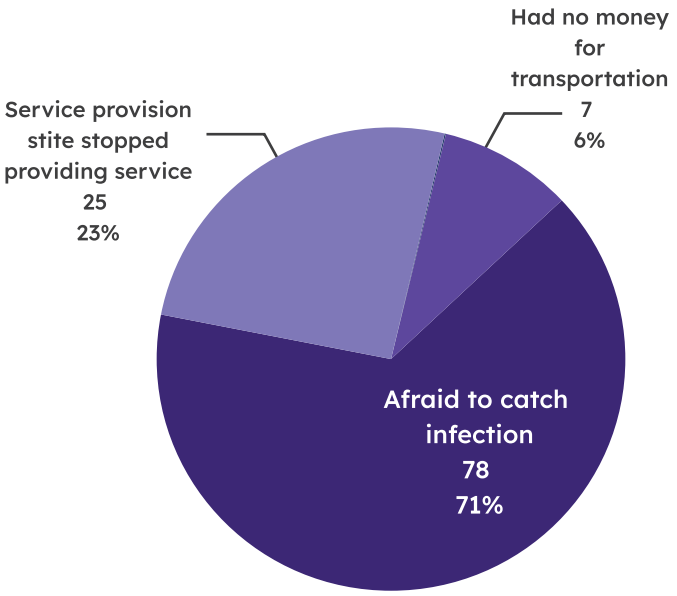


Figure 44 Reported Challenges to getting tested for HIV during the pandemic

Information about HIV

Condoms and Lubricants

Only 45.5% of MSM and Female sex workers who responded to the survey (n=178) reported that they had access to condoms and lubricants before the pandemic, and 73.6% reported that they had difficulty in accessing condoms and lubricants during the pandemic. The main reasons cited included; that the sites were not providing routine services at that time (71%). Almost 15% were afraid of catching COVID and approximately 14% claimed that they were not being provided with the same quantities of condoms and lubricants they had previously been receiving.

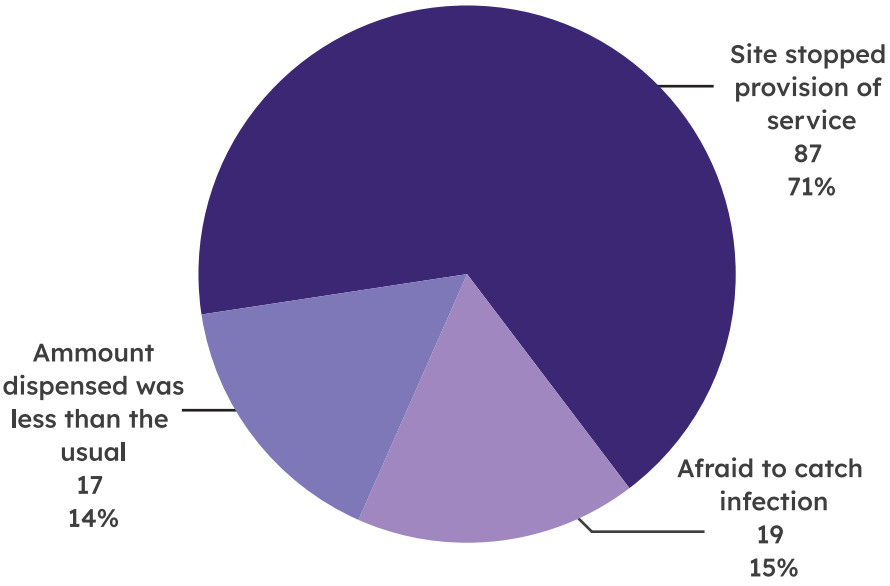


Figure 45 Reported obstacles to accessing condoms and lubricants during the pandemic

Harm Reduction

Among the 13 respondents who confirmed being IDUs, only five reported that they had access to single use syringes and none reported having difficulty accessing them during the pandemic. Three respondents reported that they also had access to methadone replacement therapy before the pandemic and none reported having difficulty accessing it during the pandemic.

Services for PLHIV

ART

Similar to figures and circumstances observed in previous countries %55 of respondents identified that they had trouble accessing ARTs before the pandemic. This number went up to %74 during the pandemic

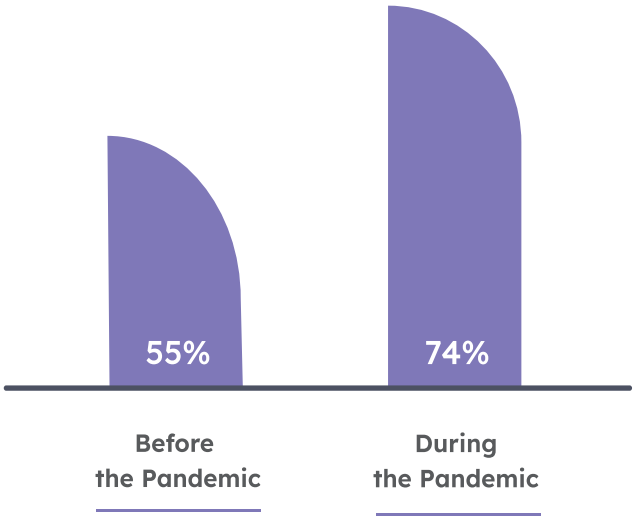


Figure 46 Percentage of Respondents LHIV reporting having difficulty accessing ART before and during the pandemic

Similar to the underlying causes observed for testing services and access to condoms and lubricants the participants also reported that nearly 47% were afraid to become infected with COVID, while over 15% identified that the routine services they needed were not currently being provided at the regular sites. Furthermore, over 8% of the participants also claimed that

they were not receiving the same quantities of ARV they had been receiving previously.

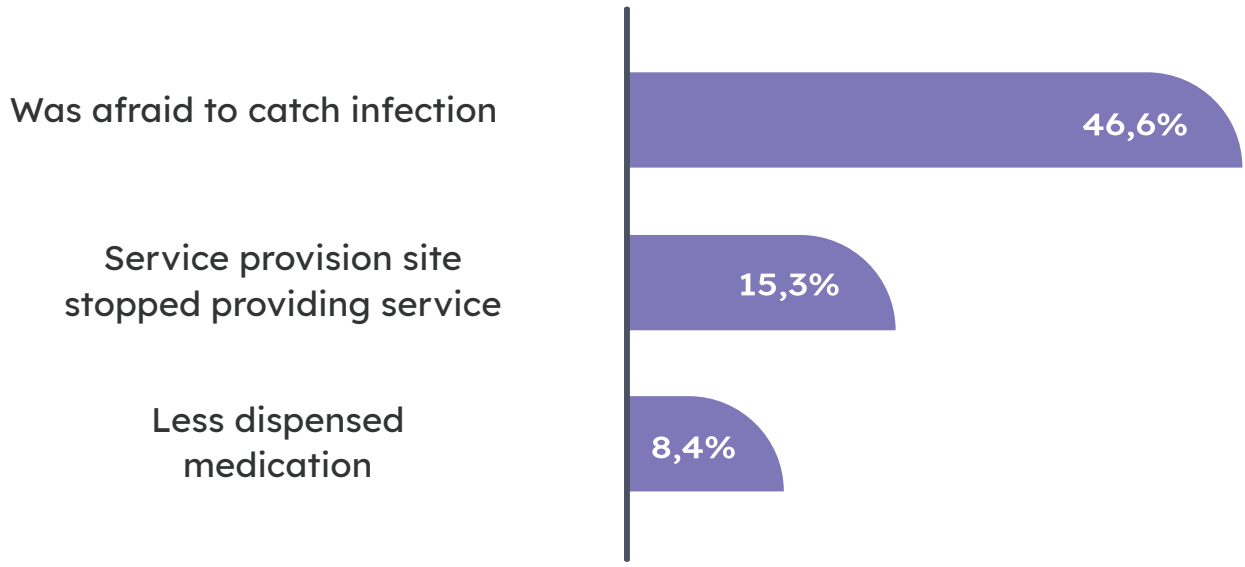


Figure 47 Frequency of reported challenges to accessing ART during the pandemic

CD4 and Viral Load

Nearly all respondents to the survey reported that they needed to perform a CD4 test, viral load or both during the pandemic. however, 85.5% of the respondents reported being unable to access the service. The reasons provided included that the site stopped providing the service (55% of respondents)

Medical services

A total of125 respondents LHIV reported that they needed some kind of medical service during the pandemic and 91.6% of all respondents LHIV (120) claimed that that they had difficulty accessing the service. The main reasons provided were that most of the health facilities stopped providing services for non-COVID related conditions (23.7%) and the fear of catching the infection (24.4%).

Maternal And Child Care Services

Overall, 13 women who responded to the survey reported that they became pregnant during the 12 months prior to the study. Of those, two were among the Key Population group and 11 were women living with HIV. The two women who belonged to the Key population reported that they both received antenatal care (ANC) services during pregnancy and that they were both tested during the pregnancy for HIV. Among the 11 women who were living with HIV, only nine reported that they received ANC, ten reported that they received their ART regularly during pregnancy and the three who delivered before the survey reported that they all received prophylactic care for the baby during labour and after delivery.

Psychosocial support services

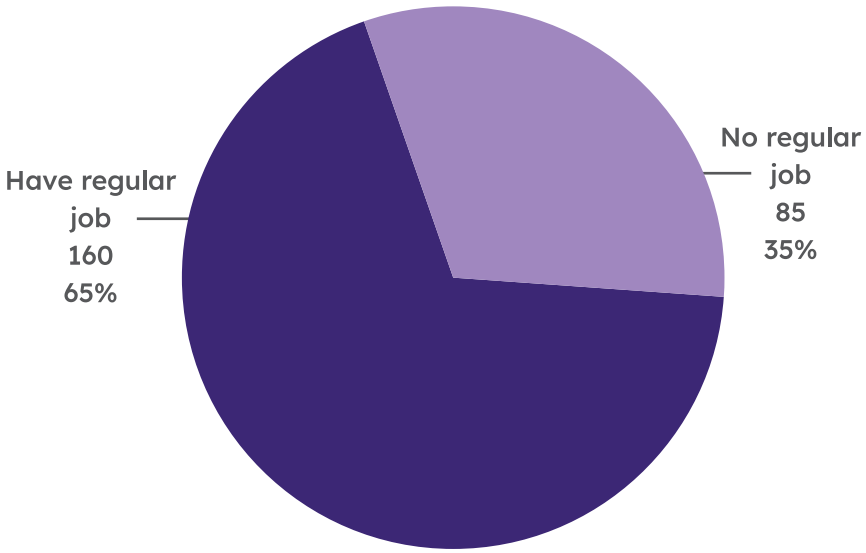


Figure 48 Percent of respondents who had regular employment before the pandemic

DISCUSSION OF FINDINGS

Challenges to accessing services for PLHIV

Access to ART

It was evident from the quantitative survey conducted with PLHIV in the four study countries that access to ART was markedly affected during the pandemic period (During the periods of lockdown and enforcement of social distancing measures)

In Mauritania access to ART was significantly reduced during the pandemic as evidenced by 74% of respondents reporting not having access during the pandemic compared to only 55% before the pandemic. the main reason for reduced access to ART was the fear of catching infection when going to receive the medication from the management centers.

In Egypt, the percent of PLHIV who reported having difficulty accessing ART increased from 57.1% before the pandemic to 71.4% during the pandemic. the most common reasons given by the participants were fear of catching COV‡

ID infection when receiving the medication from the distribution sites located in health care facilities and the inability to provide money for the transportation to reach the distribution sites.

In Morocco, although the key informants reported a high coordination between the governmental service provision sites and non-governmental organizations to ensure the delivery of the medication to PLHIV at their residence, feedback from the conducted survey revealed that the percent of PLHIV who reported difficulty accessing ART before the pandemic (27.8%) was doubled during the pandemic. (55.6%)

In Tunisia, although feedback from key informants from Tunisian NGOs confirmed that the National Program for Combating AIDS and STIs response to the COVID-19 pandemic was to ensure that sufficient medications are dispensed to PLHIV and dispensing 3 months' supply of medications, the feedback also highlighted shortages of ART due to stock depletions which led to inaccessibility to medications by some PLHIV. The percent of PLHIV who reported having difficulty accessing ART increased from 37.8% before the pandemic to 51.4% during the pandemic. The main reasons cited for this was similar to that reported from both Egypt and Morocco including their fear of catching coronavirus and not having money for transportation to access the services.

CD4 and Viral Load

In Egypt, CD4 and viral load testing were one of the interventions that were affected particularly during the early stages of the pandemic when the Ministry of Health was struggling to cope with overcrowded testing sites and COVID testing. Furthermore, similar to initial testing procedures, many PLHIV were afraid to visit testing sites due to the risk of catching COVID especially in their immunocompromised state. 66% of the respondents reported that they needed to perform both CD4 and viral load during the pandemic. 14% reported that they needed to perform CD4 test and 16% or the respondents

reported that they needed to perform a viral load during the pandemic.

Similar to PLHIV in Egypt, a large percentage of respondents From Morocco also reported difficulties in getting their CD4 and viral loads tested. From the sample surveyed, 31 PLHIV reported that they needed to do CD4 and/or viral load during the pandemic. 65% of those reported that they had difficulty accessing testing services.

In Tunisia, eight respondents living with HIV reported that they had difficulty accessing CD4 and viral load testing services during the pandemic. Two of them reported that the service provision site stopped providing the service, four reported that they were afraid of catching coronavirus and a further two reported that they could not afford to pay for transportation to get to the testing centre

In Mauritania, access to testing was also severely affected by the pandemic where 85% of PLHIV who needed to do the test were unable to access it. The two reasons provided by respondents were that the site stopped providing the service and that they were afraid to catch the infection if they go to do the test.

Medical services

Access to medical services unrelated to HIV was a common challenge among PLHIV in all 4 studied countries. The challenges were centered around more or less the same reasons, where the health systems were overwhelmed by the COVID -19 response leading to impairment of the services provided to the non- urgent cases and the overcrowding of the health facilities which imposed more risk of catching infection among PLHIV making them less willing to seek services.

While 83% of the participants from Egypt reported that they needed some form of medical service unrelated to HIV during the pandemic, the majority

(80% of respondents) reported that they encountered difficulty accessing the required medical services. Considerable overcrowding of service sites, delay in provision of non-emergency services related to COVID by service providers were the most important reasons.

In Morocco, 32 of the respondents living with HIV reported that they needed a medical service (unrelated to HIV) during the COVID-19 pandemic. 29 (90.6%) reported that they had difficulty in accessing medical services. While the majority of the respondents (61%) identified that this was because they were too afraid to of becoming infected with coronavirus to access the clinics/services, a significant percentage (nearly 53%) reported that the facilities were closed or had not been providing the services they needed during that time. In addition, nearly 28% of the respondents were unable to go because they did not have enough money for transportation costs.

In Tunisia, A total of 18 respondents living with HIV reported that they required medical services unrelated to HIV during the pandemic, of whom 16 reported that they were unable to access the needed service.

In Mauritania, 125 respondents LHIV reported that they needed some form of medical service during the pandemic and 120 (91.6% of all respondents LHIV) reported that they had difficulty accessing the service. The main reasons provided were that most of the health facilities stopped providing services for non-COVID cases (23.7%) and the fear of catching the infection (24.4%).

Prevention of Vertical Transmission

There was a variation of continuity of the preventive services for vertical transmission among the studied countries. The situation was worse in Egypt although the NAP accelerated its prevention of vertical transmission program During the period of the pandemic to include it as part of its essential package of antenatal services. Despite this, the quantitative survey identified that among 11 of the women who were pregnant or had become pregnant during the pandemic year, only 3 (27.3%) went to an antenatal health care service provision facility and only 2 (18.2%) were tested for HIV during the antenatal care.

The situation was better in Mauritania where 13 women who responded to the survey reported that they became pregnant during the 12 months preceding the survey. Of those, two were among the Key Populations and 11 were women living with HIV. The two women who belonged to the Key population reported that they both received antenatal care services during pregnancy and that they were both tested during ANC for HIV. Among the 11 women who were living with HIV, only nine reported that they received ANC, ten reported that they received their ART regularly during pregnancy and the three who delivered before the survey reported that they all received prophylactic care for the baby during labor and after delivery.

In Morocco, access to antenatal care services was also generally better where seven out of eight of the female respondents who reported that they became pregnant during the COVID -19 pandemic reported that they had received antenatal care. Moreover, four of the six women from the KPs group reported that they were had also been tested for HIV during the routine antenatal care they received. One of the two women living with HIV also stated that she had regularly received her ART during the pregnancy and both women received the required prophylactic care for the newborn during/after delivery.

In Tunisia, prevention of vertical transmission seemed to be going without

interruptions during the pandemic where the three women who reported being pregnant during the pandemic had access to antenatal services, received their ART regularly during pregnancy and all of them received prophylactic care for their newborns during delivery.

Challenges to accessing services for KPs

Testing services

Testing services were generally affected by the pandemic in the four study countries. Respondents from the four countries reported having difficulty accessing the testing service.

Egypt Nearly half the surveyed KPs reported that they have not been tested for HIV during the pandemic period, 37% reported that they have only been tested once and 14% reported being tested more than once during this time.

Morocco Although information from key informants claimed that both governmental and non-governmental systems were resilient to ensure the continuity of voluntary counselling and testing services for Key Populations, MSM were the most affected group by the pandemic where 88.6% reported difficulty accessing testing services. Those were followed by IDUs, while the least affected group was sex workers where only 64.8% reported having difficulty accessing voluntary counselling and testing services.

In Tunisia. The number of respondents among the key populations who reported having access to testing services was significantly reduced from 64.9% before the pandemic to 43.6% after it

In Mauritania 101 respondents (88.6% of KPs) reported that they had difficulty accessing HIV testing services during the pandemic. The most common reason was fear of getting infected while visiting the service provision site, discontinuation of service and financial problems hindering transportation to reach the service provision site.

Condoms and lubricants

In Egypt, the NAP has been keen to increase harm reduction activities through community outreach programs provided by NGOs. Apparently, this was a useful intervention since It was observed that the proportion of SWs and MSM who were able to access condoms and lubricants was not remarkably reduced during the pandemic. (60.5% versus 53.5% during the pandemic).

In Morocco, On the other hand, access to condoms and lubricants was significantly affected by the COVID -19 pandemic as the percent of MSM and SWs (n=185) who reported having access to these items fell from 94.6% before the pandemic to only 35.7% during it. While the majority attributed this drop to lack of access to the distribution sites due to fear of infection, nearly 40% of those that responded also reported that the distribution sites were not providing the service particularly during the early period of the pandemic. A smaller percentage (7%) also stated that smaller quantities of condoms and lubricants were available for distribution during this period.

In Tunisia, access to condoms and lubricants was also remarkably affected by the pandemic. While only 17.7% of MSM and FSWs reported having difficulty accessing condoms and lubricants before the pandemic, this percentage increased to 45.6% during the pandemic.

In Mauritania, access to condoms and lubricants was also remarkably affected. Only 45.5% of MSM and Female sex workers who responded to the survey (n=178) reported that they had access to condoms and lubricants before the pandemic, and 73.6% reported that they had difficulty in accessing condoms and lubricants during the pandemic. the most common reason provided by the respondents was the discontinuation of service by the service provider, and provision of a smaller number of provisions than usual.

Harm reduction

In Egypt where Methadone replacement therapy has not yet been adopted by the NAP, only 7.5% of IDUs reported that they used to receive single use syringes before the epidemic. 42.9% of those reported that they had difficulty accessing Single use syringes during the pandemic. The reported reasons for this difficulty were their reluctance/inability to go to the NGOs for fear of catching infection as well as the unavailability of money for transportation.

In Morocco, well-coordinated cooperation between the governmental and non-governmental organizations to ensure continuity of access to harm reduction among injecting drug users through distribution of single use syringes and methadone replacement by NGOs and dispensing 3-month stocks of single use syringes and methadone replacement to beneficiaries was successful in ensuring continuity of access to harm reduction during the pandemic. only 4 respondents among IDUs reported that they were unable to access the replacement therapy during the pandemic.

In Tunisia, access to harm reduction was also affected remarkably. The percent of IDUs who reported that they could not access substitution therapy increased from 60.7% before the pandemic to 71.4% during the pandemic. On the other hand, the percent of those who reported that they could not access single use syringes increased remarkably from 17.8% before the pandemic to 60.7% during the pandemic.

In Mauritania, apparently, access to harm reduction was not significantly affected by the pandemic. Among the 13 respondents who confirmed being IDUs, only five reported that they had access to single use syringes before the pandemic and none reported having difficulty accessing them during the pandemic. 3 respondents reported that they had access to methadone replacement therapy before the pandemic and none reported having difficulty accessing it during the pandemic.

Challenges in accessing psychosocial services

In Egypt, although it was evident that the need for psychosocial support services had increased during the pandemic, the percentage of respondents reporting having difficulty accessing those services was remarkably high. The percentage of PLHIV reporting difficulty in accessing Psychosocial support services was remarkably higher than that of KPs (77.1% versus 44.5%). The most common reasons for the difficulty in accessing service reported by the respondents were their fear of getting infected when visiting the service provision site (32.5%) and the inability to provide the cost of transportation to the service provision site (32.2%).

In Morocco, while NGOs used online communication to providing psychosocial support., nearly half the respondents reported that their need for psychological support services increased during the pandemic, 177 respondents (71.1%) also reported that they had problems accessing psychological support services during the pandemic particularly KPs.

Similarly, In Tunisia, access to psychological support services was impaired. more than half the respondents reported that they had difficulty accessing psychosocial support services during the pandemic. The most common reasons cited included affording transportation costs, fear of becoming infected with coronavirus or disruption of the service.

In Mauritania, access to psychosocial services was markedly affected during the pandemic. 86.5% of all respondents to the survey reported that they could not access the service during the pandemic. The most common reason provided by respondents was their fear to catch COVID infection during the provision of service. And discontinuation of the service.

CONCLUSION

- The pandemic had serious economic impacts on the KPs and PLHIV in all four study countries through losing jobs and reduced income. This had an indirect impact on the accessibility to HIV related services through reducing the ability of the target population to pay for transportation to reach service delivery sites.
- Although countries tried different approaches to ensuring access to ART including dispensing two or even three months supplies for PLHIV, and co-ordinating with NGOs to deliver ART to PLHIV at their residence, access to ART was markedly impaired during the COVID-19 pandemic era.
- Access to CD4 and viral load testing was markedly impaired during the pandemic due to unwillingness of PLHIV to expose themselves to the risk of infection in service provision sites or the discontinuation of service due to overloading of the health systems.
- Access to medical services unrelated to HIV was also markedly impaired during the pandemic for the same reasons.
- There was a variation of continuity of the preventive services for vertical transmission among the studied countries during the pandemic. in Egypt, access to maternal care services in general was impaired while in the other three countries access to preventive services for vertical transmission was more accessible including testing of key populations for HIV, continuation of ART and preventive measures for child for women LHIV.
- Voluntary Counselling and Testing services for Key Populations were generally affected by the pandemic in the four study countries. Respondents from the four countries reported having difficulty accessing the testing service. The most common reason was fear of getting infected while visiting the service provision site, discontinuation of service and financial problems hindering transportation to reach the service provision site.
- Access to condoms and lubricants was also remarkably reduced during the pandemic in the four study countries despite the coordination between national programs and NGOs for distribution to the key populations.

- Access to single use syringes and methadone replacement Therapy was not significantly affected in Morocco where a coordination between the National program and NGOs was done to ensure distribution to KPs of 3 months supplies. Access was also not significantly affected in Mauritania. In Egypt, where Methadone replacement therapy has not been yet adopted by the national program access to single use syringes was markedly affected despite the coordination with NGOs for distribution. In Tunisia, access to both MRT and single use syringes was remarkably affected.
- The need for psychosocial support services was increased during the pandemic by both KPs and PLHIV, however accessibility to the service was markedly impaired in all four study countries. Although Morocco resorted to providing information about COVID19- and HIV as well as psychosocial support through social media and over the phone, only the information giving was successful.

RECOMMENDATIONS

Disaster Preparedness

- The national programs and the civil society organizations working in the delivery of services to PLHIV and KPs need to develop a disaster preparedness plan. This will ensure a prompter response that will avoid the potential delays in the services.
- Contingency plans of civil society organizations should ensure the Continuity of outreach activities during crisis situations as this might be a crucial cornerstone for continuity of service provision to PLHIV and KPs including the distribution of ART for PLHIV and Harm reduction, condoms and lubricants for KPs in cases where they are unable to access the management centers.

Coordinating with National Programs

- Civil society organizations must have memoranda of agreements with the national programs to ensure the ability to deliver medications and harm reduction materials to target populations at home, this would generally improve the reach and accessibility of the services.
- Civil society organizations need to develop governmental recognition and cooperation to ensure they can have freedom of mobility in times of crises to be able to deliver outreach activities without discontinuity

Networking

- Civil society organizations need to develop national networks to expand their geographic reach and be able to reach the hard-to-reach populations and provide a continuum of services both under non-emergency and emergency conditions.
- Establishment of a strong and efficient referral network between civil society organizations and governmental organizations might ensure the continuity of services to PLHIV and KPs through prompt referral to sites which are still providing services based on the updates of the network database even in cases of crisis or disasters.

Capacity building

- Through coordination with the national programs, the civil society organizations must develop the capacities and resources to provide voluntary counselling and testing for key populations as part of the outreach activities to ensure continuity of service even in cases of crisis or emergency situations.

Capacity building

Using social media and online platforms

- With the booming of E-medicine during the pandemic and the establishment of several online platforms that provide psychosocial support services online, civil society organizations need to make use of the experience of those platforms to develop their own platforms for delivering effective and efficient online psychosocial support services to PLHIV and KPs. These platforms would be very valuable in cases of crisis and disasters.

- Civil society organizations must ensure the establishment of social media platforms for communicating with beneficiaries as it was proved to be an efficient and effective method of communicating information with KPs and PLHIV particularly during crisis and emergency situations and providing them with the crisis updates and important information about the sites that still provide services, their timing and locations.

Advocacy

- Advocacy efforts should be directed to ensure the governmental service provision sites particularly those that are exclusively provided by governmental facilities e.g. CD4 testing and viral loads have dedicated full time staff to ensure the continuity of service even during crisis and emergency situations.

Economic empowerment for PLHIV and KPs

- Economic empowerment components should be included in the context of all programs addressing PLHIV and KPs given the economic vulnerability of this population which

ANNEXES

Annex 1

Questionnaire (English)

Questionnaire (French)

Questionnaire (Arabic)

Annex 2

Key Informant Interview Guide (French)

Guide d'entretiens

Entretien avec un Informateur clé - ONG

Bonjour, je suis _____ Je mène cette interview de la part de Solidarité Sida et ITPC Mena que vous connaissez tous et avec qui vous avez déjà travaillé. Ils mènent une étude informant sur la situation des services VIH qui ont été fournis / non disponibles pendant la période COVID-19 et comment les besoins des PVVIH et du Population Clés ont changé pendant cette période ainsi que votre perception des services fournis.

Acceptez-vous de poursuivre cet entretien?Sinon, pourquoi?

• Quels sont les services VIH qui ont changé / ont été perturbés pendant la crise de Covid-19 (en particulier au début de la pandémie)? Y a-t-il encore des dérangements ou est-ce-que les services ont- repris normalement? (Cette question est liée aux services nationaux d'après les informations qu'ils ont reçus des bénéficiaires)

• Pensez-vous que certains services fonctionnent maintenant mieux ou sont mieux fournis? Si oui, pouvez-vous partager des exemples (Cette question concerne les services nationaux)

• Nous sommes conscients qu'il y avait des vulnérabilités structurelles dans les systèmes médicaux et sociaux déjà existants avant la pandémie de Covid-19, mais quelles vulnérabilités supplémentaires, le cas échéant, sont devenues plus apparentes?

• Selon vous, quel (s) élément (s) de la cible 90-90-90 a (ont) été le plus touché (s) au cours de la dernière année?

• Quels services / activités sont fournis par votre ONG pour Populations clés ou PVVIH?

• Y a-t-il des services que vous fournissez aux PVVIH et / ou au Populations clés que vous n'avez pas pu offrir / fournir au début de la pandémie de COVID? Si oui, ont-ils repris? Y avait-il des obstacles que vous deviez surmonter?

• Si les activités / services ont repris, quelles mesures / protocoles de sécurité sont pris pour protéger les bénéficiaires? Ces mesures sont-elles suffisantes? Que faire d'autre si quelque chose peut être fait.

• Avez-vous commencé à utiliser des approches différentes telles que les plateformes virtuelles / médias sociaux pour atteindre les bénéficiaires depuis la crise de Covid-19? Si oui, est-ce que l'un d'entre eux s'est avéré efficace?

• Avez-vous élaboré ou travaillez-vous sur un plan d'urgence pour faire face aux futures vagues de COVID ou à toute autre crise potentielle?

Key Informant Interview Guide (Arabic)

Annex -3 List of Key Informants

Annex 4 List of cities where study was conducted

Egypt

Governorate	Frequency	Percent
Cairo	135	52.9
Alexandria	120	47.1
Total	255	100

Morocco

Region	Frequency	Percent
Missing	5	2
Béni Mellal-Khénifra	18	7.2
Casablanca-Settat	22	8.8
Drâa-Tafilalet	4	1.6
Fès-Meknès	33	13.3
L'Oriental	18	7.2
Marrakech-Safi	27	10.8
Rabat-Salé-Kénitra	27	10.8
Souss-Massa	19	7.6
Tanger-Tétouan-Al Hoceïma	76	30.5
Total	249	100

Tunisia

Region	Frequency	Percent
Missing	2	1.5
Gouvernorat de Baja	1	0.8
Gouvernorat de Ben Arous	12	9.2
Gouvernorat de Binzerte	15	11.5
Gouvernorat de GabÃ¨s	4	3.1
Gouvernorat de Gafsa	3	2.3
Gouvernorat de Jendouba	1	0.8
Gouvernorat de Kabili	6	4.6
Gouvernorat de Kasserine	1	0.8
Gouvernorat de l'Ariana	1	0.8
Gouvernorat de la Manouba	3	2.3
Gouvernorat de MÃdenine	5	3.8
Gouvernorat de Mahdia	2	1.5
Gouvernorat de Monastir	8	6.1
Gouvernorat de Nabeul	6	4.6
Gouvernorat de Sfax	26	19.8
Gouvernorat de Sousse	16	12.2
Gouvernorat de Tataouine	3	2.3
Gouvernorat de Tunis	16	12.2
Total	131	100

Mauritania

Region	Frequency	Percent
Missing	5	2
Assaba	2	0.8
Brakna	1	0.4
Dakhlet Nouadhibou	126	51.4
Gorgol	2	0.8
Guidimaka	1	0.4
Hodh Ech Chargui	1	0.4
Nouakchott-Nord	10	4.1
Nouakchott-Ouest	13	5.3
Nouakchott-Sud	13	5.3
Tiris Zemmour	1	0.4
Trarza	70	28.6
Total	245	100


ITPC
INTERNATIONAL TREATMENT PREPAREDNESS COALITION
MENA

Solidarité SIDA
Des Jeunes contre le Sida

AGD
التنمية الاجتماعية ، حياتنا اليومية !
Le développement social, notre quotidien !

RdR-MAROC
Association Nationale de Réduction des Risques des Drogues

ATP+
Association Tunisienne de Prévention Positive

Al Shehab Foundation For Comprehensive Development