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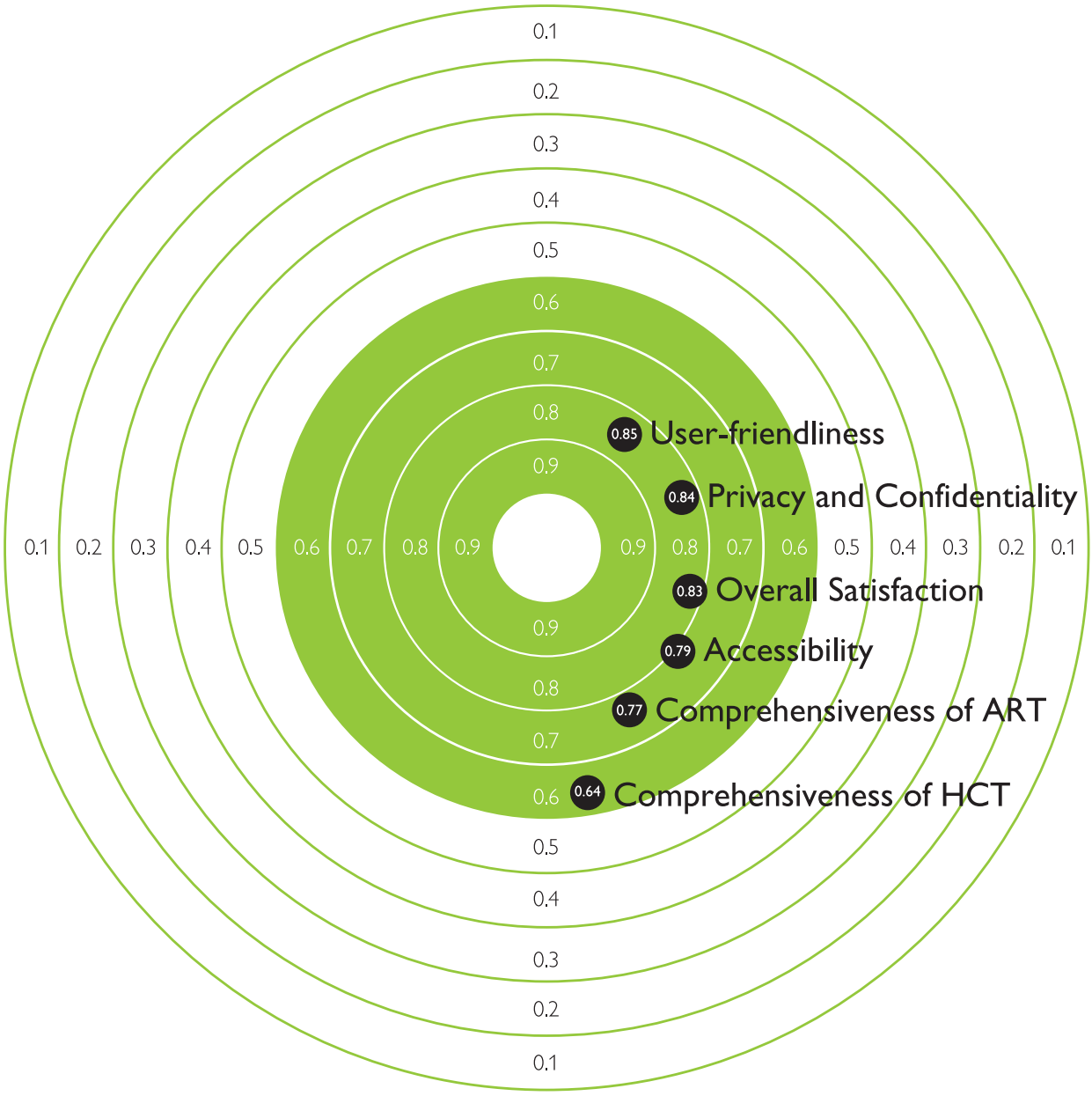

PERCEIVED QUALITY OF HIV CARE ACROSS DIFFERENT SERVICE PROVIDERS: UNDERSTANDING WHAT DRIVES CLIENT SATISFACTION WITH HIV/AIDS SERVICES IN THREE OBLASTS OF UKRAINE

2017

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LIST OF ACRONYMS

AIDS	Acquired Immune Deficiency Syndrome
ART	Antiretroviral Therapy
ARV	Antiretroviral (drug)
CFA	Confirmatory Factor Analysis
CFI	Comparative Fit Index
CT	Counselling and Testing
EECA	Eastern Europe and Central Asia
ELISA	The Enzyme-linked Immunosorbent Assay
FSW	Female Sex Worker
GP	General Practitioner
HCT	HIV Counselling and Testing
HIV	Human Councelling Virus
MD	Medical Doctor
MoH	Ministry of Health
MSM	Men who Have Sex with Men
NGO	Non-Governmental Organization
NSP	Needle & Syringe Program
OST	Opioid Substitution Therapy
PhD	Doctor of Philosophy
PLWH	People Living with HIV/AIDS
PMTCT	Prevention of Mother-to-Child Transmission
PWID	People Who Inject Drugs
RMSEA	The Root Mean Square Error of Approximation
SEM	Structural Equation Modelling
SRMR	Standardized Root Mean Residual
STI	Sexually Transmitted Infection
TB	Tuberculosis
TLI	Tucker-Lewis index
UAH	Ukrainian Hryvnia
UCDC	Ukrainian Center for Disease Control
UNAIDS	Joint United Nations Program on HIV/AIDS
VL	Viral Load

EXECUTIVE SUMMARY

Ukraine is faced with the challenge of scaling HIV prevention and providing treatment and care services to a larger number of people living with HIV than ever before. With the anticipated reduction in Global Fund financing for HIV in Ukraine, the Government of Ukraine is evaluating the cost-effectiveness of different HIV interventions in an effort to direct its increasingly limited resources to those interventions that are demonstrably more cost-effective. The Government of Ukraine and national stakeholders commissioned Deloitte Consulting LLP (Deloitte) to conduct a costing study to produce empirical evidence for the unit cost of different HIV services and to analyze the technical efficiency of different HIV services. Given the body of evidence noting the role that quality of services has in influencing both cost and effectiveness of health services, our team added an evaluation of perceived quality of HIV services as a component of the larger Investment Case Phase II study. **This report focuses on an evaluation of the perceived quality of HIV services as measured through a client satisfaction survey and provider interviews.**

The evaluation of perceived quality of HIV services is intended to provide insights on the level of quality across different types of health facilities and identify the key determinants of HIV service quality. A mixed-methods, cross-sectional design was used, which includes a quantitative client satisfaction survey and qualitative provider interviews. The study examined quality of HIV services along six dimensions: (1) accessibility of services, (2) user-friendliness, (3) level of stigma and discrimination, (4) confidentiality and privacy, (5) comprehensiveness of HIV testing and ARV treatment services, and (6) overall client satisfaction.

Data from the client satisfaction survey were used to calculate scores for each quality dimension, normalized on a 0-1 scale. Multivariate regression analyses were then conducted to determine the influence of each quality dimension on overall client satisfaction, when accounting for various factors.

A total of 649 HIV service clients participated in the client satisfaction survey from across 47 health facilities in the three study regions (Poltava, Mykolayiv and Zhytomyr oblasts), and forty-seven health providers were interviewed from a sub-sample of health facilities (n=22).

Accessibility. Respondents noted that accessibility of the facility and services was not a significant problem. In general, the facilities' operating hours (particularly that of Narcological dispensaries) and wait times to receive services (primarily at AIDS Centers) were two indicators that seemed to pose a minor problem for respondents in accessing HIV services. Providers also acknowledged that their operating hours often coincide with typical working hours, presenting impediments for clients that are working and not able to take time off to seek health services. Though providers did not directly acknowledge wait times, they did commonly highlight their excessive workloads and the high volume of clients they see, which impacted wait times for clients.

User-friendliness. Across all health facilities, about 75% of respondents reported being listened to attentively, felt comfortable asking questions and getting adequate answers, and being engaged in decisions about their health care. Though opinions on user-friendliness were similar across different facility types, a significantly higher proportion of Hospital clients reported more positively for a range of indicators, compared to clients from other facility types ($p<0.05$).

Privacy and confidentiality. Privacy and confidentiality of services were measured by how

comfortable clients felt with the level of privacy during their interaction with health providers and how confident they felt with the level of confidentiality. Overall, respondents were more comfortable with the levels of privacy than with the level of confidentiality during their interaction with health providers. Clients from the AIDS Centers (17%) more frequently indicated that they were *not* comfortable with the level of privacy at the facility than clients from Narcological/TB dispensaries and Hospital facilities ($p<0.05$). On the other hand, a higher proportion of AIDS Center clients noted more comfort with the level of confidentiality compared to clients from other facilities, though differences were not statistically significant. Providers highlighted the location, as well as the reputation, of the facility as being key determinants of perceptions of privacy and confidentiality.

Stigma and discrimination. Overall, only 3.7% of respondents felt that they were treated poorly at the facility they visited on the day of the interview, citing their drug use as being the main reason they believe they were being mistreated. Service providers highlighted more concerns about stigma and discrimination than did clients, frequently noting the stigma towards HIV held by their colleagues from other areas of specialization.

As there was only one survey question on stigma and discrimination, this dimension was not included in further analysis.

Comprehensiveness of services. Overall, scores for comprehensiveness of HIV counseling and testing (HCT) and ART services were the lowest among the six quality dimensions (0.64 and 0.77, respectively, on a scale of 0-1). While NGOs and Narcological/TB dispensaries have lower number of HCT clients, they tend to offer more comprehensive pre-test and post-test counseling services, as per the views of the clients interviewed. AIDS Centers and Hospitals, on the other hand, have the highest number of HCT clients, but were reported not to offer comprehensive pre- or post-test counseling, resulting in the lowest HCT comprehensives scores (0.58 and 0.55, respectively).

Hospitals had a relatively higher score for comprehensiveness of ART services (0.83), indicating they provide more complete information to their patients during and about the treatment regimen. Primary Healthcare Centers and Narcological/TB dispensaries had the lowest scores for comprehensiveness of ART services (0.5 and 0.7, respectively).

Providers commonly referred to their excessive workloads that impede their ability to spend extended time with an individual patient, sometimes compromising the scope and quality of services they provide.

Overall satisfaction. Respondents were asked to rate their overall satisfaction with the services received on the day of the interview using a scale of 0-10, with 10 representing "best service". Respondents from NGOs expressed the highest level of satisfaction (mean satisfaction level of 9.4), while those from AIDS Centers were least satisfied (mean satisfaction level of 7.9).

Multivariate analysis indicates that user-friendliness of services has the strongest influence on overall satisfaction, followed by accessibility of services, after controlling for factors such as demographics, history of drug use as well as type of facility in which services was received.

Nevertheless, type of facility appears to be important predictor in perception of service quality and service satisfaction. Adjusting for controls, average scores on satisfaction were higher among clients who received services at Primary Healthcare Centers (both direct and indirect effects), patients of Narcological/TB dispensaries (both direct and indirect effects) and hospitals (indirect effect through user-friendliness and accessibility) compared to AIDS Centers.

Indirect relations between quality dimensions reveal important practical implications. In order to improve satisfaction rate, the most optimal solution is investment in user-friendliness of service, which in turn is mostly determined by the perception of confidentiality and privacy of information shared with medical staff.

Recommendations. Based on the study findings, we present the following recommendations:

- Given that the quality of the interaction between providers and clients is a key determinant of client satisfaction, it is important that HIV service providers ensure high levels of attentiveness, respect, and engagement when interacting with clients. Such behaviors may be enhanced through training, task-shifting, and to the extent possible through augmenting the HIV staff.
- Expanding the availability of HIV testing across other health facilities beyond AIDS Centers and hospitals can help to ease the burden on AIDS Centers, thereby reducing wait times for all services at these facilities. Availability of testing services at other facilities would also improve the accessibility of HIV/AIDS services, improving both reach of services as well as reducing the risk of loss to follow up.
- The low comprehensiveness scores for HIV services, particularly for HCT services, indicate a need to focus on staff training as well as monitoring of performance to enhance better adherence to HCT protocols.

INTRODUCTION

1. INTRODUCTION

As with other HIV programs around the world, Ukraine is faced with the challenge of scaling HIV prevention and providing treatment and care services to a larger number of people living with HIV (PLWH) than ever before. With the anticipated reduction in Global Fund financing for HIV in Ukraine, the government is evaluating the cost-effectiveness of different interventions in an effort to direct its increasingly limited resources to those interventions that are demonstrably more cost-effective. Evidence to support the optimal allocation of resources will help the national HIV response address the growing need for HIV services within the constraints of its dwindling financial resources, allowing it to do more with less.

The Government of Ukraine and national stakeholders commissioned Deloitte Consulting LLP (Deloitte) to conduct a costing study to produce empirical evidence for the unit cost of different HIV services and to analyze the technical efficiency of different HIV services. Given the body of evidence noting the role that quality of services has in influencing both cost and effectiveness of health services, our team added an evaluation of perceived quality of HIV services as a component of the larger Investment Case Phase II study. **This report focuses on an evaluation of the perceived quality of HIV services as measured through a client satisfaction survey and provider interviews.** The results from the larger Investment Case Phase II study are presented in a separate report.[1]

1 Investment Case Phase II Study, Synthesis report, forthcoming.

BACKGROUND

2. BACKGROUND

2.1. HIV Epidemic in Ukraine

The HIV epidemic in Ukraine is the second largest among the Eastern European and Central Asian (EECA) countries and is concentrated in key populations. Approximately 19% of a total number of PLWH within the EECA region live in Ukraine. Also, Ukraine accounts for 25% of AIDS-related deaths of all AIDS-related deaths estimated for the EECA countries. In accordance with the recent estimates, at the beginning of 2017, approximately 237,000 PLWH were living in Ukraine.[2] The HIV prevalence rate among those aged 15-49 years totaled 0.95%. As of January 1, 2017, 132,945 HIV positive persons were under medical supervision, of whom 74,780[3] (36%) were receiving ART.

About half of PLWH being registered in Ukraine are late testers who present with Stage 3 AIDS diagnoses, resulting in delayed treatment initiation. Delayed linkage to care and late detection of AIDS and TB/HIV co-infection cause high mortality rates. For example, 55% of all AIDS-related deaths are registered among people living with HIV and TB co-infection. In 2016, over 2.3 million people were screened for HIV, with 23,714 people testing positive and resulting in 0.99% HIV prevalence rate among those tested.

A number of registered HIV infections continues to grow in Ukraine. Over the past three decades, between 1987 and the beginning of 2017, 297,422 cases of HIV infection have been officially registered,[4] including 92,886 cases of AIDS, and 41,706 deaths due to AIDS-related illnesses. As of 01.01.2017, there were 132,945 HIV-infected Ukrainian nationals registered with HIV and under medical supervision (313.3 persons per 100,000 population), including 38,730 persons with AIDS (91.3 persons per 100,000 population).

In 2016, 17,066 persons were newly registered with HIV by the Ukraine's health care system. The biggest increments in HIV cases were detecting in Donetsk, Zakarpattya, Zaporizhzhya, Kyiv, Luhansk, Mykolayiv, Ternopil, Kharkiv, and Kherson oblasts and Kyiv city. Among HIV cases newly registered in 2016, 57.5% were among males and 42.5% were among females.

The main mode of transmission remains sexual, which attributed to 73.3% of all newly registered HIV cases. The growing sexual transmission of HIV has a significant impact on the epidemiological trends in key populations, bridge groups and general population. HIV prevalence among men having sex with men (MSM) is growing in 60 percent of the regions of the country. Of the total number of HIV positive cases among MSM registered in Ukraine by 2017, as many as 24% were registered in 2016.

The HIV epidemic in Ukraine differs dramatically between various regions. The southern regions of Ukraine, as well as Dnipropetrovsk, Donetsk, Chernihiv, Kyiv oblasts, and the city of Kyiv continue to show high HIV prevalence, while HIV prevalence in the western regions continues to remain low.

A recent study on key risk population size estimation concluded that there were estimated 80,100 female sex workers (FSWs), 181,500 MSM and 346,900 people who inject drugs (PWID) in Ukraine as of beginning of 2017. Based on the recent integrated bio-behavioral survey findings (2015), PWID are the most vulnerable risk group nationally. HIV prevalence among PWID remains high, rising from 19.7% in 2013 to 21.9% in 2015.[5] HIV prevalence among MSM is also increasing, from 5.9% in 2013 to 8.5%

2 Ukraine Global AIDS Monitoring 2017 Report. Unpublished draft.

3 Without data from Crimea and territories affected by the armed conflict.

4 Ministry of Health of Ukraine, National Public Health Center, & Institute of Epidemiology and Infectious Diseases named after L. V. Gromashevsky at the National Academy of Medical Sciences of Ukraine. *HIV Infection in Ukraine. Informational Bulletin No. 47*. Unpublished draft.

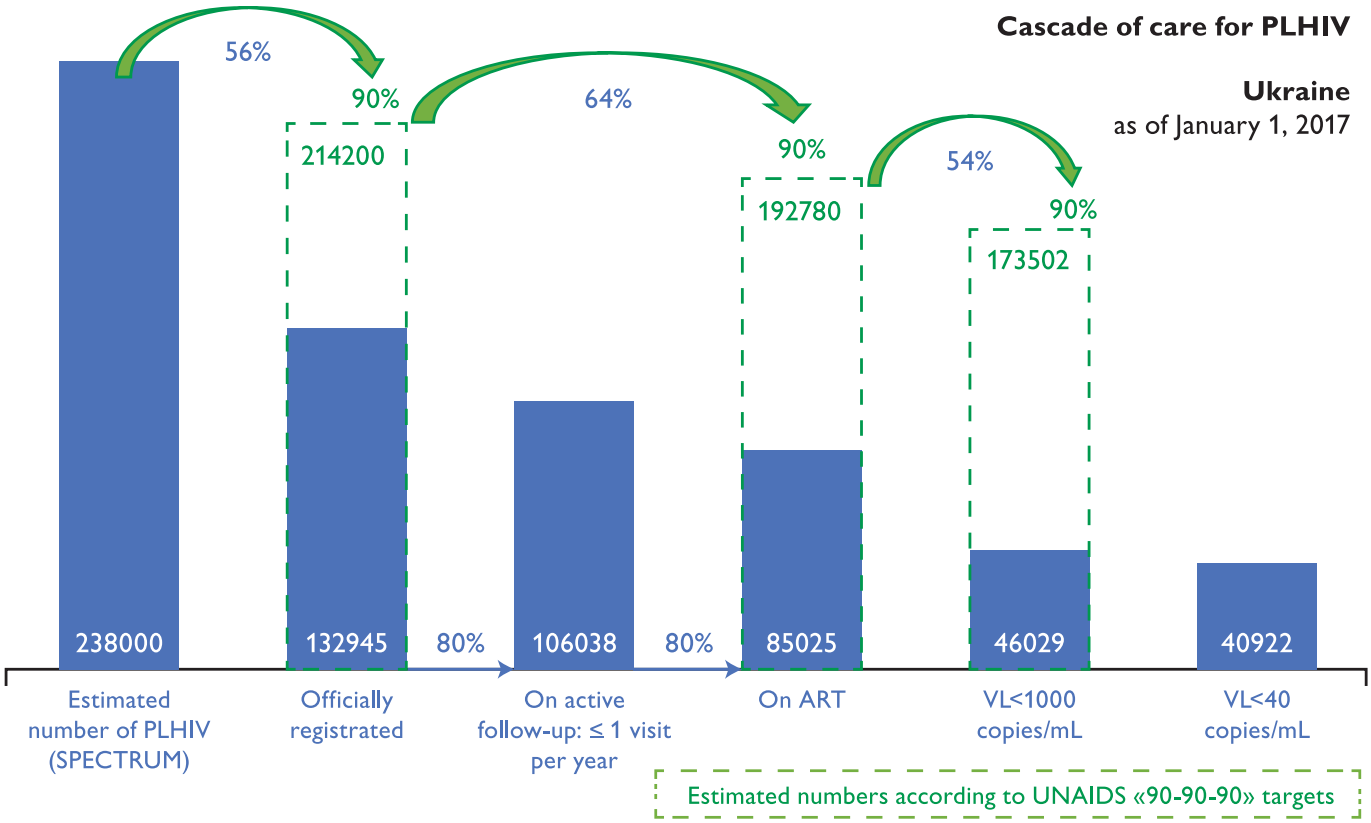
5 Barska, Yu., & Sazonova, Ya. (2016). *Monitoring of behavior and HIV prevalence among people who inject drugs and their sexual partners*. Kyiv: Alliance for Public Health International Charitable Foundation. Retrieved on February 21, 2017 from: http://aph.org.ua/wp-content/uploads/2015/09/Monitoryng-povedinky-SIN_PROEKT.pdf

in 2015. HIV prevalence among FSW remained relatively constant, with 7% in 2015 and 7.3% in 2013.

To address these trends, Ukraine's efforts are focused on continuous scale-up of critical HIV prevention and treatment services. During the past 10-year period between 2006 and 2016, there was a 28-fold increase in ART coverage, from 3,057 persons up to 85,025 persons. ART retention rate (12 months after ART initiation) in 2016 was 85.9%. As of January 1, 2017, 9,214 PWIDs were receiving opioid substitution therapy (OST) at 174 sites (based at state-run healthcare facilities) in 25 regions of Ukraine.[6] Two types of drugs are used for OST in Ukraine – methadone and buprenorphine, with liquid form of methadone also available at select sites starting from 2015.

Nevertheless, the most recent (as of January 1, 2017) Ukrainian HIV care cascade (Figure 1) demonstrated that significant gaps in achieving the 90–90–90 targets persist. To reach the first 90% target of the UNAIDS strategy by 2020, it is necessary that additional 81,255 PLWH be identified and registered with health care services. In order to reach the second target of the 90-90-90 targets by 2020, it is necessary to enroll additional 107,755 PLWH in ART – and this is considerably more than about 85 thousand PLWH who already receive ART. Finally, while more than 50% of PLWH currently on ART have an undetectable viral load, the achievement of the third ambitious 90% target requires significant and extensive programmatic improvements in Ukraine to improve adherence and retention in care in the nearest future. Without a major scale-up in coverage and addressing such issues as inadequate scope of services and poor referral system, low uptake of services, clients' drop-outs, and non-adherence to service provision guidelines and protocols, the country's commitments to achieve the targets can be compromised.

Figure 1. **The cascade of services for people living with HIV in Ukraine (as of January 2017)**[7]



6 OST program data. Retrieved on April 7, 2017 from: http://phc.org.ua/pages/diseases/opioid_addiction/stat-docs

7 National Public Health Center of the Ministry of Health of Ukraine & USAID RESPOND Project.

2.2. Objectives and scope for the evaluation of perceived quality

The evaluation of perceived quality of HIV services is intended to provide insights on the level of quality across different types of health facilities and HIV services. Ultimately, evidence from this evaluation of quality will be used to independently analyze factors impacting the cost of services.

Objectives. The specific objectives for this study were to:

1. Examine the level of quality of key HIV services
2. Determine if there is a difference in the level of quality of services across different facility types and across different service packages
3. Identify the key determinants of HIV service quality

Scope. The evaluation of quality focused on two key HIV interventions that are central to the Ukrainian HIV response: (1) HIV counseling and testing (HCT), and (2) Antiretroviral therapy (ART). Though opioid substitution therapy (OST) is also a key element of the HIV response in Ukraine, it was not a focus of this study as there have been prior studies that have focused on OST.[8]

Measures of Quality. The evaluation looked at the perceived quality of HIV services along six dimensions, which have been used in prior studies to examine quality of health service delivery. These quality dimensions were measured using a set of survey and interviews questions, as discussed below.[9, 10]

Six Quality Dimensions:

1. Accessibility of services
2. User-friendliness
3. Level of stigma/discrimination
4. Confidentiality and privacy
5. Comprehensiveness of HIV testing and ARV treatment services
6. Overall client satisfaction

8 The World Bank. (2014). *Ukraine HIV Efficiency Study: Can Ukraine Improve Value for Money in HIV Service Delivery?* Washington DC: World Bank.

9 Tancred T., Schellenberg J., Marchant T. (2016). Using mixed methods to evaluate perceived quality of care in southern Tanzania. *International Journal for Quality in Health Care*, 28(2), 233–239.

10 Bautista-Arredondo, S., Sosa-Rubi, S., Opuni, M., Kwan, A., Chaumont, C., Coetzee, J., et al. (2014). Assessing cost and technical efficiency of HIV prevention interventions in sub-Saharan Africa: The ORPHEA study design and methods. *BMC Health Services Research* 14:599. doi: 10.1186/s12913-014-0599-9.

EVALUATION METHODS

3. EVALUATION METHODS

The evaluation study was conducted using a mixed-methods, cross-sectional design which included a quantitative client satisfaction survey and qualitative provider interviews. This design allowed for the assessment of quality from the perspective of the service recipient as well as the service provider.

3.1. Sampling approach

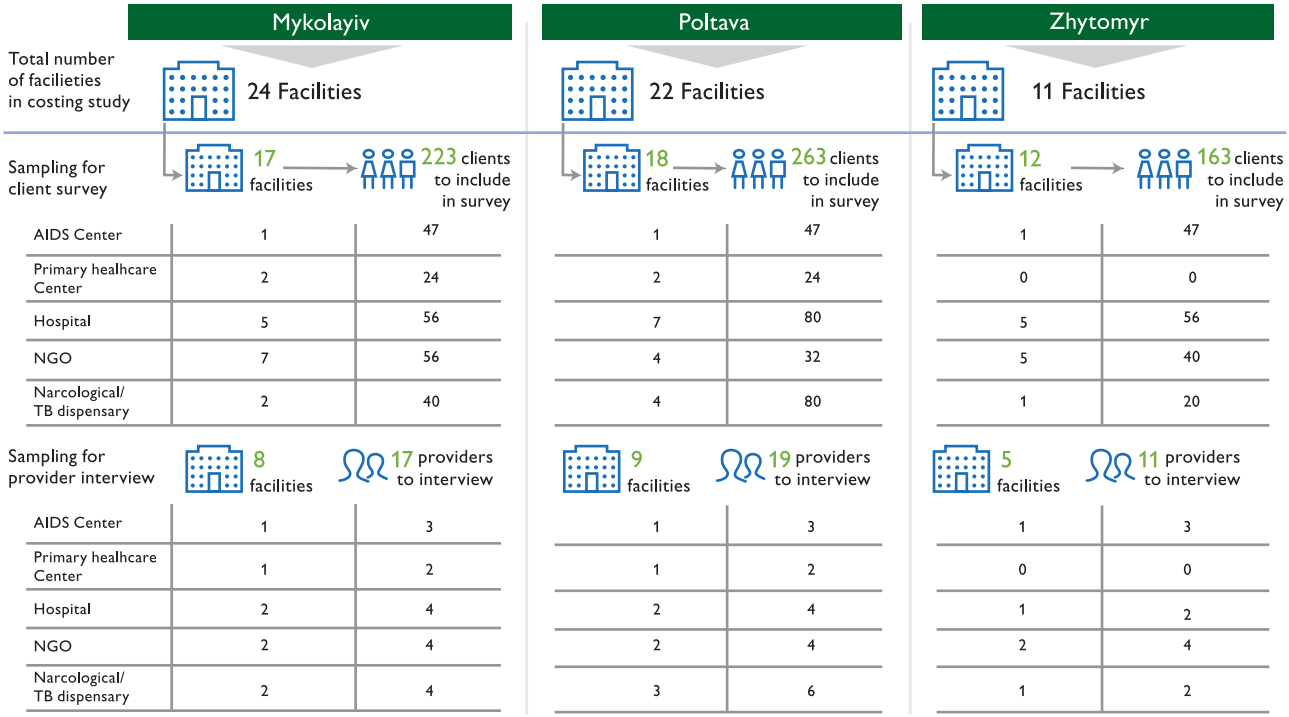
The client satisfaction survey and provider interviews were conducted within a subset of the facilities included in the larger cost study, which used a multistage sampling approach to select the study regions, facilities, and individuals (Figure 2).

Selection of the study regions

The three study regions (Poltava, Mykolayiv and Zhytomyr oblasts) were selected based on (1) HIV prevalence rates and (2) coverage of HIV/AIDS interventions. Regions (oblasts) were selected to represent low, medium, and high HIV prevalence and service coverage using the methodology proposed by the Ukrainian Center for Disease Control (UCDC). Regions were ranked into low, medium, high prevalence/service categories according to HIV prevalence rates in different risk groups, according to coverage of services, including HIV testing of risk groups and timeliness of taking HIV positive patients under medical care and referring them to services, and according to select outcome indicators.[11]

Autonomous Republic of Crimea, Sevastopol City, Luhansk and Donetsk regions were excluded from selection due to the inability of the research team to collect data in those territorial units. Zhytomyr, Poltava and Mykolayiv were randomly selected from the three groups. Zhytomyr represents low HIV prevalence and a relatively low level of prevention and control efforts. Poltava represents medium prevalence rates and Mykolayiv is a region with relatively high HIV prevalence.

Figure 2. **Multistage sampling approach to select facilities, clients and service providers**



11 Ministry of Health of Ukraine, Ukrainian Center for Disease Control, & Institute of Epidemiology and Infectious Diseases named after L. V. Gromashevsky at the National Academy of Medical Sciences of Ukraine. (2014). *HIV Infection in Ukraine. Informational Bulletin No. 41*. Kyiv: UCDC.

Selection of facilities

For each study region, we constructed a sampling frame to identify all government facilities and non-governmental organizations (NGOs) that provide HIV prevention, treatment, or and/or care services. We identified a total of 146 HIV service providers which we validated with UCDC. The facilities were then grouped into eight distinct categories by type of facility and further characterized by the HIV-related services offered at each facility. Sexually Transmitted Infections (STI) dispensaries were excluded because these only provide CT services and treatment for STI infections other than HIV, which was out of the scope for this study. We also excluded all blood centers as they do not have direct interaction with clients.

The final study sample for the overall costing study includes a total of 57 facilities. A subset of 47 facilities was purposively selected for inclusion in the client satisfaction survey, with 22 facilities from this subset also selected for provider interviews. Given the high number of hospitals within the sample compared to other types of facilities, only about two thirds of the hospitals in the overall study sample were included for the client satisfaction survey.

Sampling of clients for satisfaction survey

One objective of the client satisfaction survey is to identify similarities and differences in level of quality within, as well as between, different facility types. Client sample sizes were therefore calculated separately for the different types of facilities. Initial sample size calculations estimated the minimal number of client interviews needed to achieve a confidence level of 90% with a margin of error of +/- 5%. An initial estimate of the average number of HIV service clients per day for each type of facility was made based on existing knowledge and preliminary information obtained by the study team from some facilities. This population size was then used to calculate the sample size. The initial sample size estimates were then adjusted down for logistical reasons, resulting in a sample size of 649 clients to be included in the survey (Table 1).

Table 1. **Sample size for client satisfaction survey**

Facility type	Number of facilities in sample	Average number of HIV service clients per day	Total number of clients	Number of clients to interview per facility	Sample size
AIDS Center	3	240	720	47	141
NGO	16	41	656	8	128
Primary Healthcare Center	4	20	80	12	48
Hospital (Central District or Central Municipal Hospital)	17	20	340	11 /12 clients were interviewed at 5 hospitals/	192
Narcological/TB Dispensary	7	130	910	20	140
Total	47	–	2706	–	649

Sampling of service providers for in-depth interviews

A convenience sample of 22 facilities was selected for implementation of the provider surveys. Overall, 47 service providers were included in the service provider interviews sample, including 10 providers operating at the Central District/Central Municipal Hospitals,

12 operating at NGOs, 12 operating at Narcological/ TB dispensaries, four operating at primary healthcare centers, and nine operating at AIDS Centers. Within each selected facility, interviews were conducted with two to three staff members, depending on the size of the facility and availability of staff. Service providers invited to participate in the interviews included:

- Facility Director or Person in-charge of HIV/AIDS Services at the facility
- Person most knowledgeable about different HIV services (e.g. HIV Counseling and Testing, ART treatment, Laboratory monitoring, Care and Support) - this may be a Unit/Department Manager, Physician-in-charge, etc.
- Staff members who provide any kind of HIV service – staff members who work within the facility to provide any kind of HIV service directly to clients

3.2. Ethical clearance

Ukrainian Institute on Public Health Policy's Institutional Review Board approval of the study protocol, informed consent forms and data collection tools (approval # 46) was obtained before the data collection phase started.

3.3. Data collection

All data collection was conducted in Ukrainian and/or Russian by trained data collectors from the Ukrainian Institute on Public Health Policy, using structured tools. Data collection took place between May 3 and July 1, 2016.

Client satisfaction survey. A survey was conducted with HIV service clients upon exit from point of care for a specific HIV-related service. The survey was administered face-to-face by trained data collectors using a structured, modular questionnaire. Using the sampling protocol, data collectors approached clients at the targeted facilities and completed the survey with those that met the eligibility criteria (Table 2) until the target number of respondents for that facility was met. Survey data collection for a given facility was completed over a period of 1 - 2 days, with each interview taking approximately 20 minutes to complete. Respondents were offered an incentive of UAH 230 to complete the survey.

Table 2. **Survey eligibility criteria**

- **18 years or older**
- **fluent in Ukrainian or Russian language**
- **received at least one HIV prevention, treatment, or care service at facility on the day of the survey**
- **consent to participate in survey**

In addition to socio-demographic questions and questions about accessing the facility, wait time to see a health care provider, and overall perspectives about the treatment and reception they received at the facility, survey respondents were asked questions about the specific HIV service(s) they received on the day of the interview.

A pilot test of the survey questionnaire was conducted with six HIV service clients from two health care facilities in Kyiv. These facilities were intentionally selected from outside the sampling frame so as not to deduct from the respondent universe. Though outside of the targeted study regions, these facilities are similar in size and types of services offered by comparable facilities within the study sample.

Survey questionnaire pilot sites:

1. Kyiv Municipal Narcological Clinic "Sociotherapy" – 3 clients
2. Kyiv Municipal AIDS Center – Clinic #5 – 3 clients

The pilot of the survey questionnaire helped to refine its content and ensured that the questions were acceptable and appropriate.

Service provider interviews. Interviews were conducted with service providers, using a semi-structured interview guide. The interview guide was developed to complement the programmatic data collection tools developed for the larger cost study and provide more in-depth information around some internal and external dynamics that influence provision of HIV services.

The provider interviews were all conducted in Ukrainian or Russian and explored providers' perceptions on the ability of the facility to meet the demands for HIV services, accessibility of services in the community, challenges in providing HIV services, overall perceptions of quality of services provided, and thoughts on how any quality gaps can be improved. As with clients included in the satisfaction survey, providers were offered an incentive of UAH 230 to participate in the interviews.

Table 3. **Overview of data collection tools**

Data Collection Method	Target audience/data source	Data components
Client satisfaction survey	Clients who received at least one HIV service at the selected facility	– Demographics – Reasons for visit – Type of service received – Accessibility of facility – HIV counselling and testing services received – ART, VL and CD4 testing services – Condoms distribution services – NSP services – OST services – Referrals to other services – Perception of service quality – Stigma and discrimination – Overall satisfaction
Service provider interviews	HIV service providers, or managers/directors of HIV services	– Demographics – Services provided – Training relevant to services – Perception on quality of services – Challenges in service implementation – Perceptions of service demand and workforce issues

3.4. Data analysis

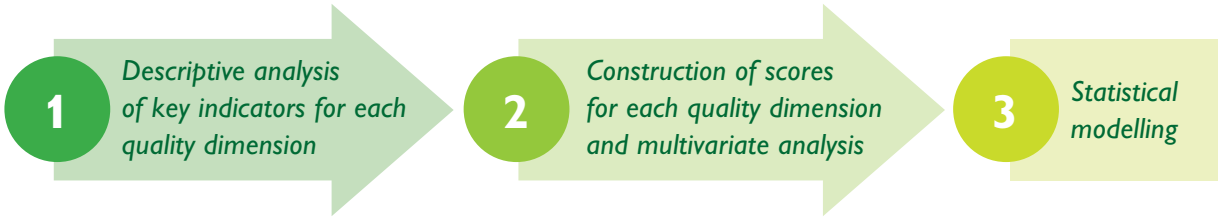
Data from the client satisfaction survey and provider interviews were analyzed separately using quantitative and qualitative analysis methods, respectively, as described below. Findings from the two data collection methods were then triangulated to corroborate key conclusions.

Analysis of client satisfaction data

Data from the client satisfaction survey were collected using paper-based forms. Survey data were manually entered into SPSS, version 20. Prior to data analysis, data were checked for mistakes and disparities, and cleaned using SPSS software. None of records were removed or omitted from the dataset. Descriptive and bivariate

statistical analysis was performed in SPSS. R (Package "lavaan") was used for confirmatory factor analysis (CFA) and Structural equation modelling (SEM). Prior to CFA and SEM, SPSS dataset was imported into R for missing data imputation by Package "MICE".

Client satisfaction survey data were analyzed in three stages:



Stage 1 analysis: Descriptive analysis of key indicators for each quality dimension. For the first stage of analysis, frequencies were calculated for the key quality indicators specified in Table 4. The analysis was stratified by type of facility. Chi-square was used to identify differences in frequencies among key indicators across the different types of facilities. For small sample sizes the non-parametric equivalent Fisher's exact test was used for distributions with expected frequencies less than five. For continuous variables, T-tests were used to measure differences in means for variables with normal distributions. For non-normally distributed variables the equivalent Kruskal-Wallis H test was used to measure differences.

Stage 2 analysis: Construction of scores for each quality dimension. Confirmatory factor analysis (CFA) was performed for the indicators of each quality dimension to measure factor validity of constructs. Diagonally weighted least squares and polychoric correlations were used to estimate parameters of CFA considering nominal and ordinal scales of the indicators. Factor loadings from CFA were used as weights to calculate scores for each quality dimension.

These quality dimension scores (as well as the overall satisfaction score) were standardized on a scale of 0-1 using the following formula: (V - min V)/(max V - min V), where V represents the value of the variable in the original data set. This method allows variables to have differing means and standard deviations but equal ranges. In this case, there is at least one observed value at the 0 and 1 end points.

An overall quality score was calculated as an average of the *accessibility*, *user-friendliness* and *confidentiality & privacy* scores. Comprehensiveness of services was not included in the overall quality measure as indicators for these dimensions were measured only among a small subset of respondents.

As with the individual quality indicators, appropriate tests of significance were used to measure any differences in each dimension score across the different types of facilities.

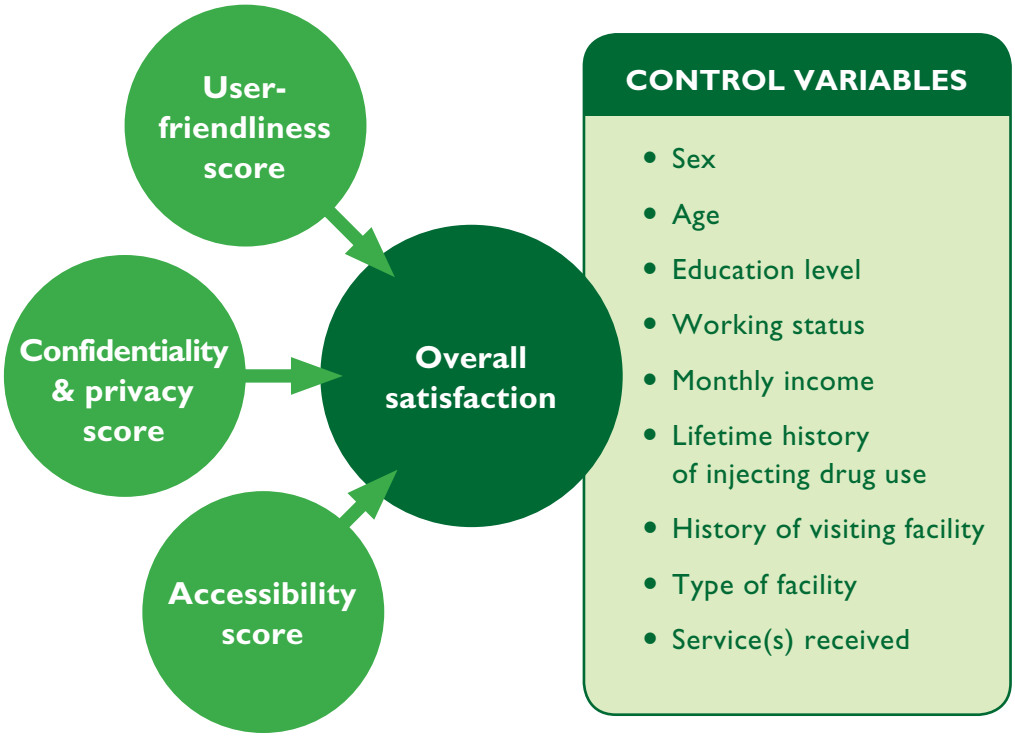
Table 4. **Indicators for the quality dimensions**

Quality Dimension	Indicators	Indicators gathered from:
Accessibility	Extent to which client expressed concern with: • Facility's operating hours • Getting to the facility • Amount of time waiting to receive service • Ability to receive medications at the facility • Cost of services at the facility	Indicators were measured among participants who received services at state-run medical facilities, including AIDS Centers, primary healthcare centers, Narcological/ TB dispensaries or hospitals (N=521)*
User-friendliness	Perceptions on: • Respectfulness of staff • Staff's attentiveness during interaction with client • Client's comfort level in asking questions • How well staff explained things • Extent to which staff involved client in decision-making	Indicators were measured among participants who received services at state-run medical facilities, including AIDS Centers, primary healthcare centers, Narcological/ TB dispensaries or hospitals (N=521)*
Level of stigma & discrimination[12]	Perception on whether client was treated poorly at facility	All survey respondents (N=649)
Confidentiality & privacy	Perceptions on: • Level of confidentiality • Level of privacy	Indicators were measured among participants who received services at state-run medical facilities, including AIDS Centers, primary healthcare centers, Narcological/ TB dispensaries or hospitals (N=521)*
Comprehensiveness of services – HIV counseling and testing	• Receipt of information prior to getting an HIV test • Receipt of information on reducing HIV risks • Option to refuse/accept HIV test • Receipt of counseling after receiving HIV test result [for those who received HIV test result on the day of the survey]	Indicators were measured among participants who received a HIV test and/ or HIV test results on the day of the survey (N=63)
Comprehensiveness of services – ARV treatment	• Receipt of information about taking pills on schedule • Receipt of information on adherence • Receipt of information on nutrition • Receipt of information on emotional issues • Receipt of information on side effects	Indicators were measured among participants that received ARV medications on the day of survey (N=135)
Overall satisfaction	• Clients' overall satisfaction with service received at facility on the day of the survey	The indicator was measured among all study participants (N=649)

* These indicators were not measured among clients from NGOs.

12 As there was only 1 indicator (and 1 survey question) associated with this dimension and prevalence of the outcome was low, level of stigma and discrimination was excluded from statistical modelling.

Stage 3 analysis: Statistical modelling. Multivariate analysis was performed to determine links between the *quality dimension scores* and *overall satisfaction* adjusting for various control variables including: demographics, type of facility and service(s) received. Structural equation modelling (SEM) was used to model interdependencies of outcomes. The direct, indirect and total effect of the quality dimensions on *overall satisfaction* were calculated.



To assess the quality of the CFA and SEM models the following indices have been estimated: Minimum Function Chi-square, RMSEA (The Root Mean Square Error of Approximation), SRMR (Standardized Root Mean Residual), CFI (Comparative fit index) and TLI (Tucker-Lewis index). An acceptable model fit was considered SRMR, RMSEA < 0.08; CFI, TLI > 0.95 and $\chi 2$/degrees of freedom<5.

Data analysis of service provider interviews

All semi-structured interviews were conducted by the interviewers in either Ukrainian or Russian language. Interviews were digitally recorded and transcribed verbatim. Interview transcripts were analyzed using thematic content analysis.

A codebook was developed identifying a-priori codes based on the interview guide. Interview transcripts were analyzed using thematic content analysis and coded based on the codebook. Emerging themes were also identified and coded to address the evaluation objectives.[13, 14] Representative quotes that relay the most prominent themes have been translated into English.

13 Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology, 3*(2), 77-101.
14 Miles, M., & Huberman, A. (2007). *Qualitative data analysis: An expanded sourcebook.* Second edition. London: SAGE.

RESULTS

4. RESULTS

4.1. HIV service clients' socio-demographic characteristics

A total of 649 individuals (100% of the target sample size) completed the client satisfaction survey from 47 facilities across the 3 oblasts. The majority of respondents were male (62.4%), had a secondary level education or less (88.0%), were either unemployed, had occasional work, or received disability benefits (59.5%), have an income of UAH 2000 or less (60.2%), and have a history of injecting drug use (68.3%).

Table 5. **Demographic Characteristics of Survey Respondents**

Respondent characteristics		**N**	**%**
Mean age		36 (Std Dev=8)	
Sex*	Female	244	37.6%
	Male	405	62.4%
	Total	649	100%
Education	Secondary (including vocational) or less	571	88.0%
	Higher	74	11.4%
	No answer	4	0.6%
	Total	649	100%
Employment status	Occasional work / unemployed / disability	386	59.5%
	Full time or part-time job	235	36.2%
	No answer	28	4.3%
	Total	649	100%
Income	Less or equal to UAH 2000	391	60.2%
	UAH 2001 and more	200	30.8%
	No answer	58	8.9%
	Total	649	100%
Life history of injecting drugs*	No	202	31.1%
	Yes	443	68.3%
	No answer	4	.6%
	Total	649	100%

* characteristics differ significantly across different facility types (See Table 6)

Respondent characteristics were similar across the different types of facilities with the exception of *sex* and *history of drug use*. The proportion of male respondents from Narcological/ TB dispensaries (77.9%) was significantly higher ($p<0.05$) when compared with other types of facilities.

Given that the majority of clients at Narcological dispensaries are people who inject drugs (PWID), this observation is consistent with general estimated gender proportions of PWID in Ukraine.[15]

15 Barska, Yu., & Ya. Sazonova. (2016). *Monitoring of behavior and HIV prevalence among people who inject drugs and their sexual partners.* Kyiv: Alliance for Public Health International Charitable Foundation. Retrieved on February 21, 2017 from: http://aph.org.ua/wp-content/uploads/2015/09/Monitoryng-povedinky-SIN_PROEKT.pdf

Similarly, the proportion of reported lifetime history of injecting drug use ranged from 54.6% among AIDS Center clients to 94.3% among clients of Narcological/ TB dispensaries, and was significantly higher among the latter, when compared to other facility types ($p<0.05$). Less than half of the respondents (36.2%) had a full-time or part-time job. The proportion of clients with a job was greater among clients of hospitals (50%) and AIDS Centers (39%) and lowest among clients of Narcological/TB dispensaries (22.9%).

Table 6. **Statistically significant differences in respondent characteristics, by facility type**

	AIDS Center		Primary Healthcare Center		NGO		Narcological/ TB dispensary		Hospital	
	n	%	n	%	n	%	n	%	n	%
Respondent sex - male	79a	56.0%	27a	56.3%	75a	58.6%	109b	77.9%	115a	59.9%
Life history of injecting drugs - Yes	77a	54.6%	36a	75.0%	81a	63.3%	132b	94.3%	117a	60.9%
Employment status – full/part time	55a,c	39.0%	14a,b,c	29.2%	38a,b	29.7%	32b	22.9%	96c	50%
Total	141		48		128		140		192	

Note: Values in the same row and sub-table not sharing the same subscript are significantly different at p< .05 in the two-sided test of equality for column proportions or two-sided test of equality for column means. Cells with no subscript are not included in the test. Tests assume equal variances. Tests are adjusted for all pairwise comparisons within a row of each innermost sub-table using the Bonferroni correction.

4.2. HIV service providers' characteristics

A total of 47 HIV service providers were interviewed from across 22 facilities (Table 7). The majority of interview participants were personnel directly providing services to clients (53%), while the remaining participants served in management role (19%) or split their time across both administrative and service provision tasks (28%). A large proportion of interview participants were infectious disease specialists (21.3%) or social workers/ case managers (19%). Other interviewees included narcologists (13%), psychologists (13%), nurses, and other areas of specialization. On average, respondents have been working for a total of 21.2 years, with an average of 6.1 years in their current position.

4.3. Services provided

Service providers reported that they see an average of 27.5 clients on a typical day, and 117.7 clients in a typical week.

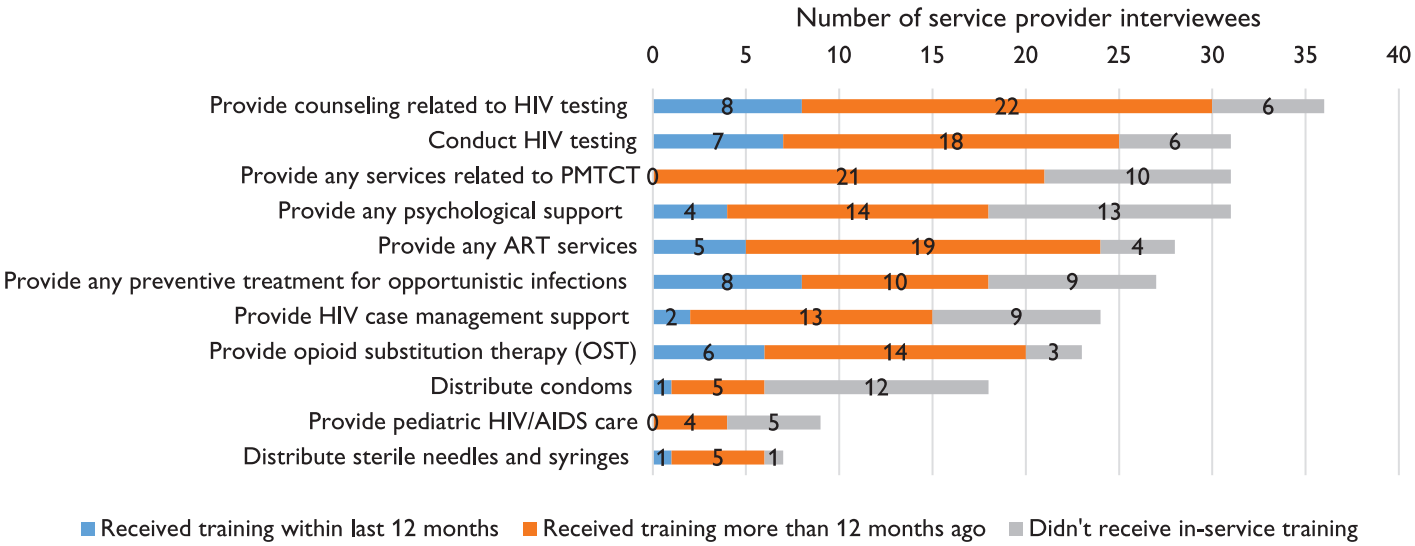
Providers most commonly indicated that they provide counseling services (77%), as well as HIV testing (66%). Other services commonly provided by those interviewed include Prevention of Mother-to-Child Transmission (PMTCT) services (66%), psychological support (66%), ART services (60%), and preventive treatment for opportunistic infections/ HIV-related co-morbidities (57%). While most service providers reported receiving appropriate training for the services they provide, only about one fourth of those who received training indicated they had received in-service training for the services they provide in the last 12 months (preceding the interview). Service providers who provide psychological support, pediatric care and support and those who distribute condoms reported receiving the least amount of in-service training for those services that they provide.

Table 7. Demographic Characteristics of Service Providers

Respondent characteristics		N	%
Role	Manager	9	19
	Service Provider	25	53
	Manager & service provider	13	28
	Total	47	100
Education	Secondary education	1	2
	Vocational school / college	2	4
	Medical school / college	10	21
	University	6	13
	Higher medical school / Medical university	27	57
	MD+PhD	1	2
	Total	47	100

Respondent characteristics		N	%
Employment status	GP / family doctor	1	2
	Infectious disease physician	10	21
	Narcologist	6	13
	Psychologist	6	13
	Doctor of other specialization	3	6
	Other medical specialist (not a doctor)	1	2
	Nurse	5	11
	Clinical assistant	1	2
	Social worker / Case manager	9	19
	Other	5	11
	Total	47	100
Mean # years working			21.2
Mean # years in current position			6.1

Figure 3. **Proportion of service providers who received in-service training for services provided**



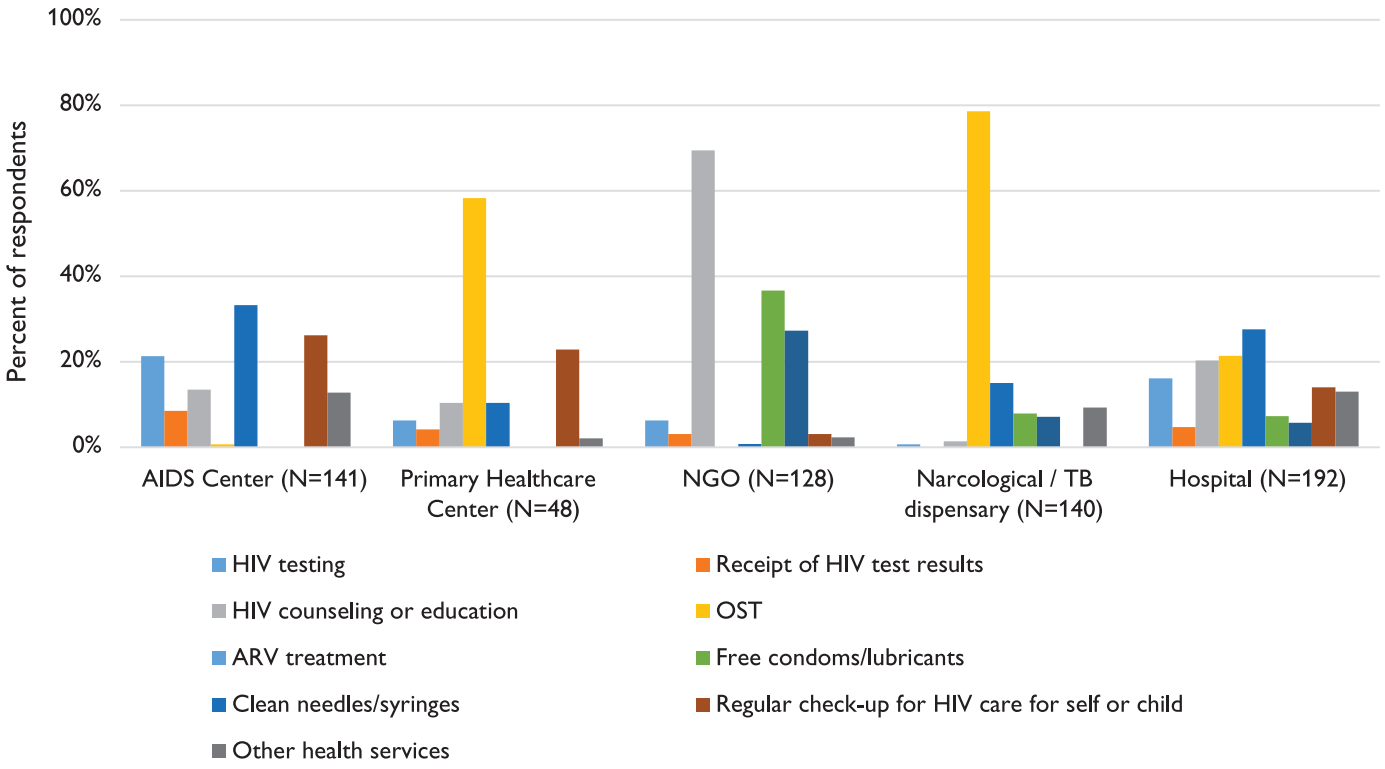
4.4. Services sought

Respondents were asked to specify what services they came for on the day of the interview (Figure 4). For clients across all facilities, the most common services were either OST services (27.7%) or counseling on HIV-related issues (23.7%). As can be expected, 78.6% of clients from Narcological/TB dispensaries were seeking OST, a significantly larger proportion than clients from other facilities ($p<0.05$), even primary healthcare centers where 58.3% of clients also came to receive OST.

The proportion of clients seeking different services was more evenly distributed at the AIDS Centers, with a third of clients seeking ARV treatment, 26.2% coming for regular HIV care, and 21.3% coming for HIV testing. It can be seen that HIV testing services were available at all types of facilities, though clients most commonly sought these services at the AIDS Centers (41.1%) or hospitals (42.5%). Similarly, clients sought ARV treatment from all types of health facilities, including primary healthcare centers and NGOs.[16]

Notably, the majority of NGO clients (69.5%) sought HIV counseling or education. Clients also went to other facilities for HIV counseling or education, with only two clients seeking this service at Narcological/ TB dispensaries. Clients sought condoms/lubricants and needle/syringe services mostly from NGOs; in total 36.7% and 27.3% of NGO clients came to get such services, respectively. People seeking regular check-ups for HIV care mostly went to AIDS Centers or hospitals. It was very rare that clients sought to receive these services at other types of health facilities.

Figure 4. **Percent of clients seeking different HIV services, by facility type**



4.5. Accessibility of services

Accessibility of services within the different facilities is measured by the ease or difficulty for clients to physically visit the facility and receive service once at the facility.

16 NGOs that provided services to PLWH sometimes deliver ARV drugs in areas with limited access to AIDS Centers and to ART sites operating at other types of health facilities.

Key indicators of accessibility

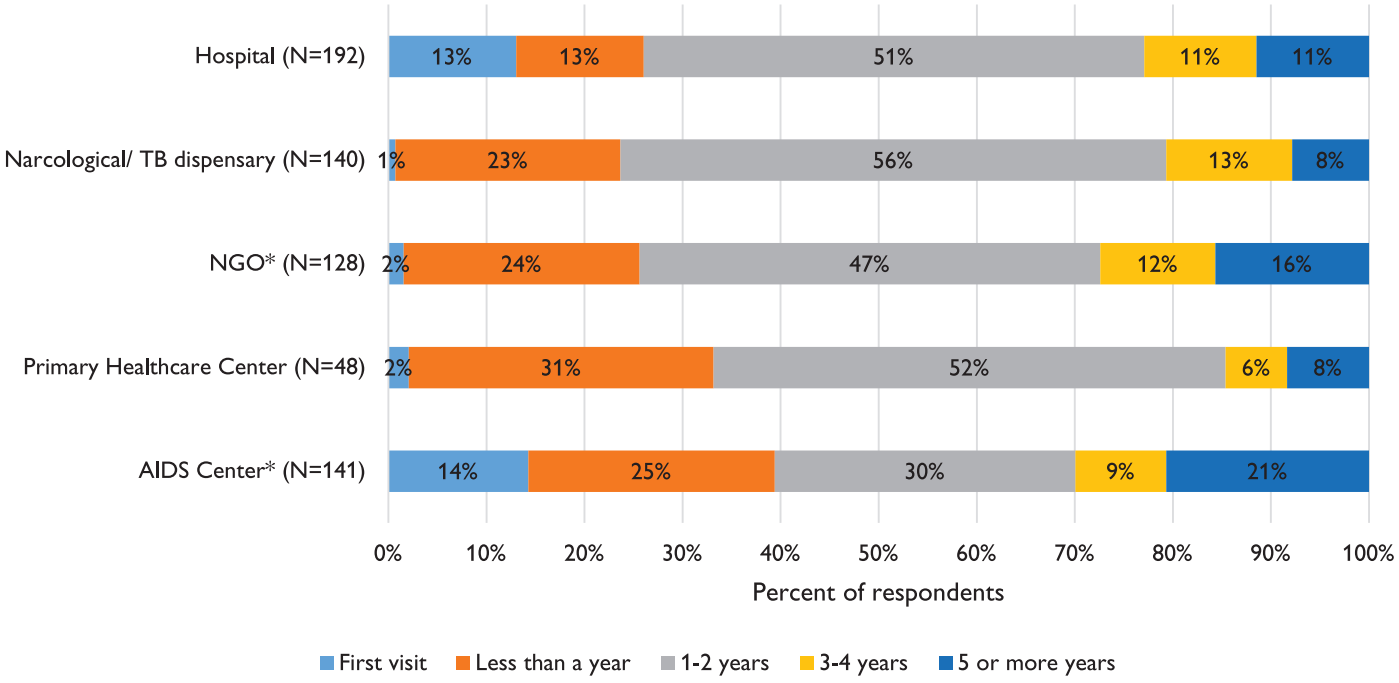
Perceptions around:

- Facility's operating hours
- Getting to the facility
- Amount of time waiting to receive service
- Ability to receive medications at the facility
- Cost of services at the facility

History of facility use

Overall, 46.8% of respondents have been visiting the health facility where the interview took place for 1-2 years (Figure 5). Interestingly, respondents from AIDS Centers were more likely to be first time visitors (14%) as well as have the longest history of visiting the facility, with 21% reporting having visited the AIDS Center for 5 or more years. Close to three quarters of the respondents that have previously visited the facility did so within the same month, and 96% (n=435) reported having visited that facility at least once within the past 6 months.

Figure 5. **History of visiting the facility, by the type of facility**



Across all facilities, the majority of clients (88.8%) came for services without any external referral, correlating with the fact that 92.1% of clients have previously visited this facility. AIDS Center and hospital clients were more often referred to the facility than other clients.

Operating hours

All facilities are open for outpatient visits for about 6-8 hours a day, starting from 8 or 9am until 5 or 6pm. Some facilities open earlier (e.g. 7:30am) or stay open later on a specific day each week to provide more options for their clients.

Overall, 87.2% of respondents were satisfied with the operating hours of the visited facility. NGO clients tended to be most satisfied (96.9%), while clients of Narcological/ TB dispensaries (who often came to receive OST) were least satisfied (72.9%).

Although the majority of clients did not express concerns with the facility operating hours, several service providers raised this as a potential challenge for their clients, particularly for Narcological dispensaries. Providers noted that longer or more flexible operating hours would allow more clients to access their services.

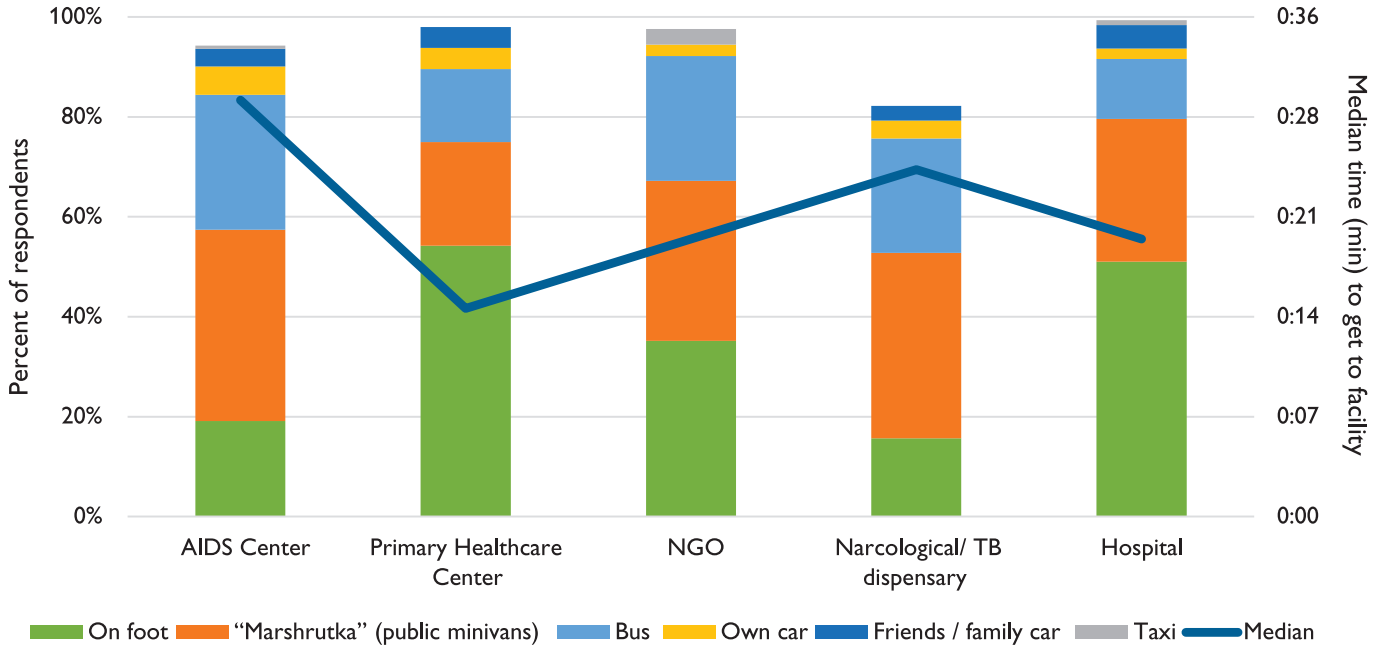
> *"The main obstacle is that many people can't work because our OST site is open from eight in the morning. They cannot find time because they must be at work at 8:00 am, so they can't come. This is the major obstacle."*
> *– Nurse at Oblast Narcological dispensary*

"For [residents of] the city, our operating hours are satisfactory. However, for distant districts of the region, maybe it would be more convenient if the Center worked up to 6 PM, in two shifts. It's wrong that the staff goes home at 4 pm, and some patients can come only at five o'clock. Those patients who work have to request permission to be absent from work, in order to fetch the pills"
– Pediatrician at Oblast AIDS Center

Getting to the facility

The most common method of getting to the facility was walking (33.6%) or taking the *"marshrutka"* (public minivan) (32.7% of respondents). The amount of time to get to the facility ranged greatly from 1 minute to 3.5 hours, with the median time being 25 minutes. As can be expected, it took AIDS Center respondents longer to arrive at the facility than respondents visiting other facilities. AIDS Centers are typically located in the regional capitals and serve a larger catchment area, and some clients have to travel from very remote locations to access services at these facilities. These clients tend to take the *"marshrutka"* (public minivan) to get to the AIDS Centers, similar to clients of Narcological/TB dispensaries who also most frequently took the *"marshrutka"*. Respondents visiting the primary healthcare center reported the shortest time to get to the hospital (median of 15 minutes) and over half of these respondents (54.2%) arrived to the facility on foot. Clients of hospitals (51.0%) and NGOs (35.2%) also most commonly reported walking to the facility.

Figure 6. **Means of transportation and median time to get to facility, by facility type**



Providers noted that the decentralization of some services, particularly provided by highly-specialized AIDS Centers, would decrease the cost and level of effort for clients to go to these facilities. The issue of transportation costs was not explored in the client satisfaction survey. However, this issue was commonly raised by providers as a factor that affects clients' ability to access services.

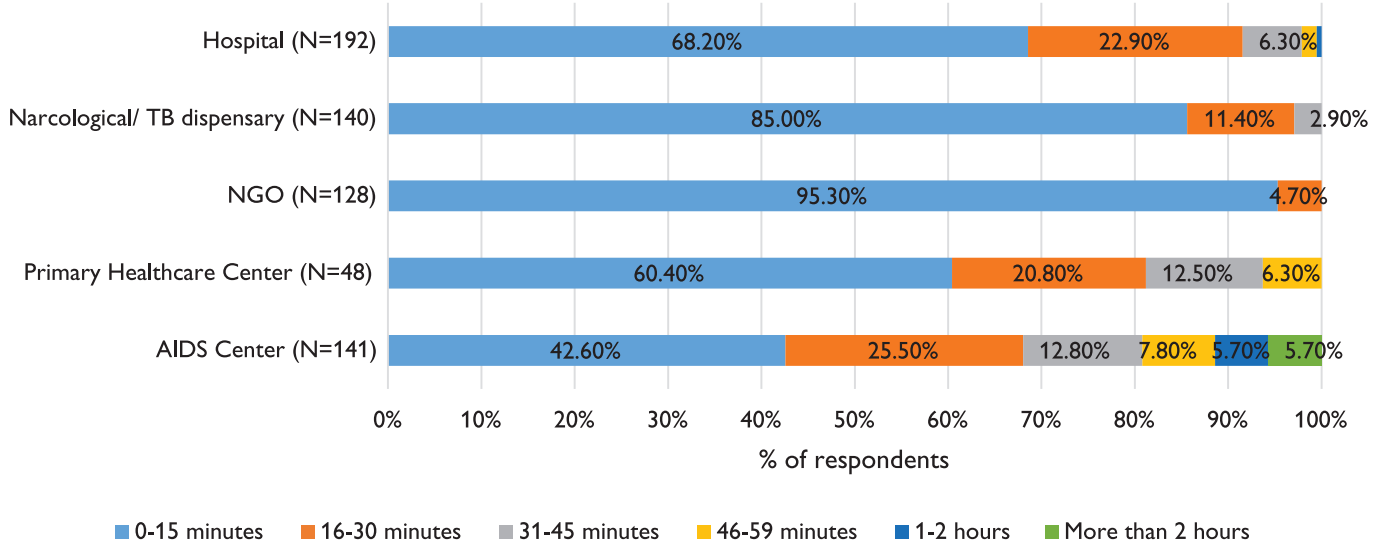
"If people are from the region, they have to get here (AIDS Center). That's why I'm talking about decentralization. It takes time to come to us. This is a time factor, a money factor, the factor of "Where are you going?" They must ask their boss at work, as many have jobs."
– Chief Doctor at Regional AIDS Center

"Many patients who live in remote areas, it's a problem for them to come because they have no money, and often they don't manage to get ART. So ART can be skipped or disrupted. That's the problem we face."
– Nurse at Central District Hospital

Wait time

Once at the facility, 71.0% of respondents waited no more than 15 minutes to receive services. The longest wait times were reported for AIDS Centers, were 11.4% of clients reported waiting up to 1-2 hours or more. The only other facility type reporting wait times of an hour or more were hospitals. NGO clients reported the shortest waiting time, with 95.3% of clients from this facility type having waited 15 minutes or less (Figure 7). Not surprisingly, while over 75% of clients indicated that the amount of time they waited to receive services was "not long" across all other facilities, only 53.2% of AIDS Center clients indicated the same sentiment. Similarly, 88% of clients who had to wait longer than 30 minutes perceived this amount of waiting time as "very long" or "long enough".

Figure 7. **Wait times, by facility type**

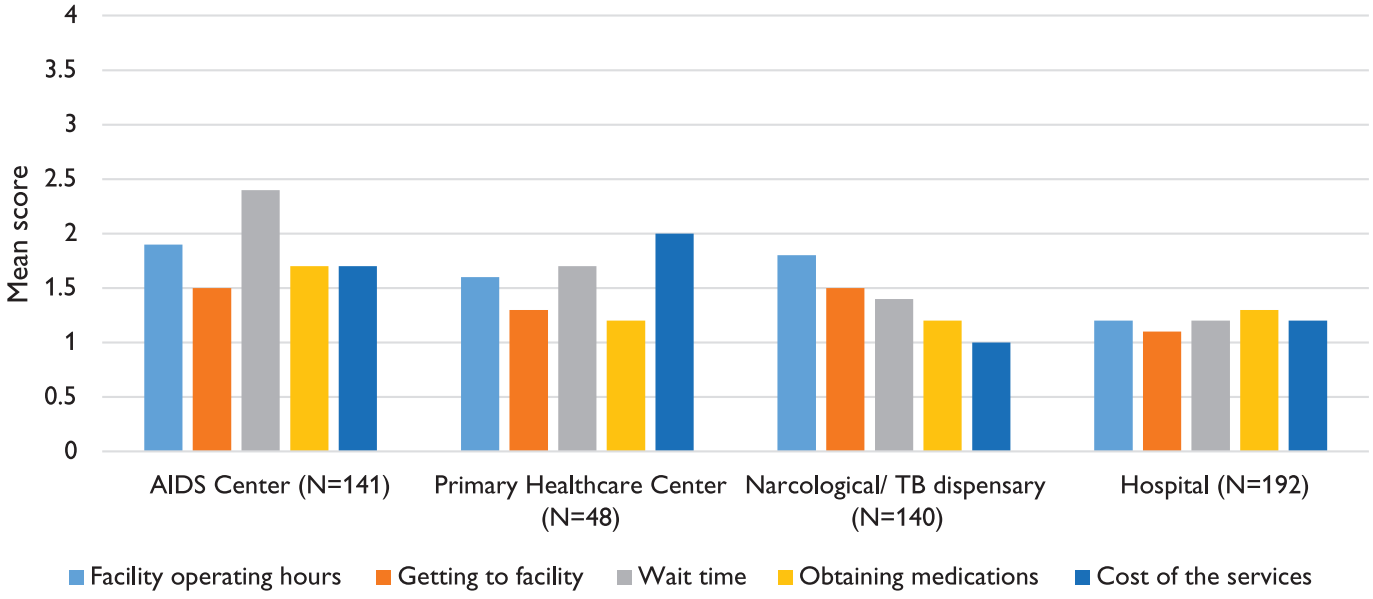


4.6. Overall Accessibility Score

Perspectives on accessibility of services at the facility

In addition to specifying details about how they arrived at the facility and how long it took them to get there and receive services, respondents also shared their opinion about the extent to which they found these issues to be problematic. Respondents also shared their opinions about whether they had any problems obtaining necessary medicines and whether facility operating hours and the cost of getting care presented a problem. Respondents used a scale of 1 to 4 to indicate their opinions where *1 = not at all a problem*, and *4 = serious problem*.

Figure 8. **Mean scores for Key Accessibility Indicators**[17]



Overall, respondents did not indicate that they found any of these factors to be a major problem in accessing services. Clients of AIDS Centers and Narcological/TB dispensaries, who typically had the longest travel time, were more likely to report a minor problem compared to healthcare center or hospital clients.

Consistent with the finding that 11% of clients had to wait for over an hour to receive services at AIDS Centers, wait times at these facilities had statistically higher (relatively worse) problematic scores ($p<0.05$) compared to other facilities.

Cost of services at primary health centers and AIDS Centers were significantly more of a problem (though minor) when comparted to cost of services at hospitals and Narcological/TB dispensaries ($p<0.05$).

Overall Accessibility Score

These mean key indicator scores were converted into an *Accessibility Score* using confirmatory factor analysis. Factor loadings were used to calculate weighted scores for each client.[18] The weighted scores were then added and standardized on a 0-1 scale. The overall **Accessibility Score** was calculated to be **0.79** out of 1.[19]

0.79 out of 1
Accessibility Score

17 Questions measuring accessibility were asked only among clients of state-run medical facilities staffed with medical personnel. Accessibility scores are not available for clients of NGO, as these organizations are generally not staffed with medical personnel.

18 0.775*Indicator 1.1+0.634*Indicator 1.2+0.882*Indicator 1.3+0.614*Indicator 1.4+0.653*Indicator 1.5

19 Standardized score was recalculated as (V - min V)/ (max V - min V), where V represents the value of the score in the data set. This method allows variables to have differing means and standard deviations but equal ranges. In this case, there is at least one observed value at the 0 and 1 endpoints.

Table 8. **Overall Accessibility Score (among clients interviewed at medical facilities, N=521)**

	Mean (standard deviation)	Standardized factor loadings by CFA[20]
Indicator 1. Accessibility *(measured on 4-point likert scale: 1-not a problem at all; 2-minor problem; 3-moderate problem; 4-serious problem)*[21]		
Indicator 1.1. Concerns with facility's operating hours	1.6 (0.9)	0.775
Indicator 1.2. Concerns with getting to the site	1.3 (0.7)	0.634
Indicator 1.3. Concerns with waiting time to receive services	1.6 (0.9)	0.882
Indicator 1.4. Concerns with receiving medications on site	1.4 (0.8)	0.614
Indicator 1.5. Concerns with cost of services	1.3 (0.7)	0.653
Accessibility Score	**0.79**	

In addition to analyzing difference in overall Accessibility Score by type of facility, we examined whether the Accessibility Score differed by factors such as age, sex, education level, employment status, income level, and type of service received. Accessibility scores were significantly lower for AIDS Centers (0.63 out of 1), compared to other facility types ($p<0.001$). In general, clients with higher education tended to perceive lower level of accessibility (0.7 out of 1) compared to clients with lower education levels (0.8 out of 1; $p=0.006$). Clients who received free condoms or sterile injecting equipment (needles/syringes exchange) tended to have better perception of accessibility: 0.91 and 0.89 points out of 1 respectively ($p=0.001$, $p=0.018$, respectively). A full table of the accessibility scores by selected control variables is available in Appendix 1.

4.7. User-friendliness

User-friendliness of services is measured by five key indicators of the quality of the interaction between the client and the service providers at the facility. Respondents were asked to indicate how they perceived the health providers' with respect to these indicators, on a 3-point scale tailored for each indicator, where generally, 1=negative rating, 2=average, and 3=positive rating.

Across all health facilities, about 75% of respondents reported being listened to attentively, felt comfortable asking questions and getting adequate answers, and being engaged in decisions about their health care. Though opinions on user-friendliness were similar across different facility types, a significantly higher proportion of hospital clients reported more positively for a range of indicators, compared to clients from other facility types ($p<0.05$). About 29.1% of clients at AIDS Centers and 30% at Narcological/TB dispensaries estimated interactions with health providers as only somewhat respectful.

Key Indicators of User-friendliness

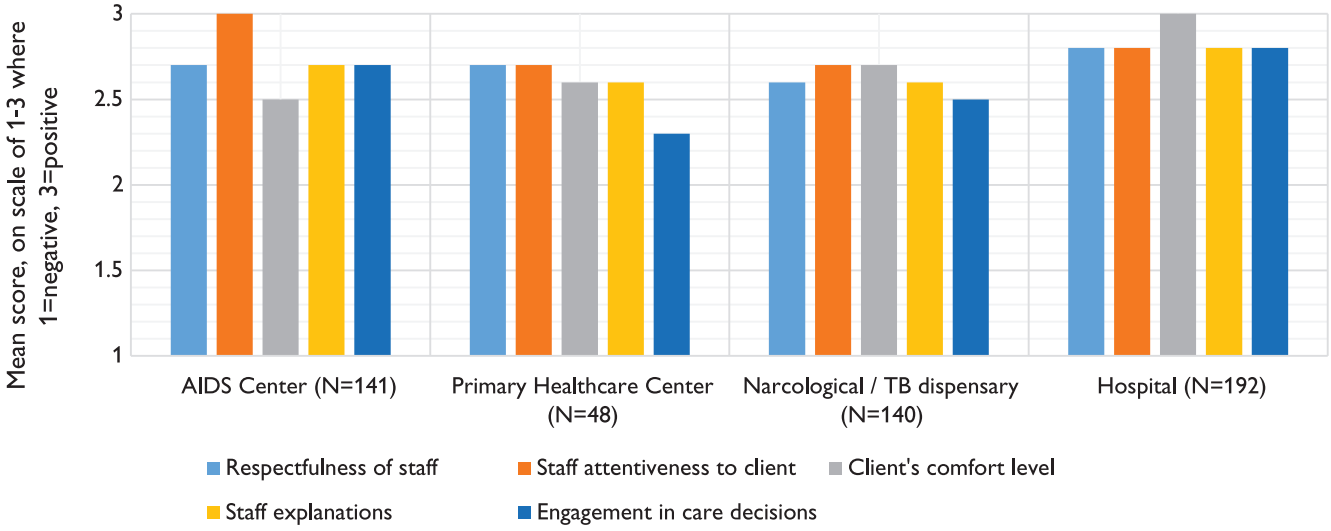
Perceptions on:

- Respectfulness of staff
- Staff's attentiveness during interaction with client
- Client's comfort level in asking questions
- How well staff explained things
- Extent to which staff involved client in care decisions

20 Factor loadings > 0.5 are considered as acceptable fit meaning that selected indicators result from the one underlying latent variable. A factor loading is a correlation between latent variable and an observed indicator.

21 The scale was reversed in confirmatory factor analysis as well as during computation of Accessibility Score in order to consider low value as unsatisfactory (1 point) and high value (4 points) as satisfactory similar to other quality dimensions.

Figure 9. **Mean scores for Key User-friendliness Indicators**[22]



Overall user-friendliness Score

0.85 out of 1
User-friendliness Score

And overall *User-friendliness Score* was calculated as 0.85 out of 1 (Table 9).[23]

Multivariate analysis results show that clients aged 36 or over had better perception of user-friendliness compared to younger clients (p=0.030). Clients of hospitals had higher scores on user-friendliness compared to other facilities (p<0.001). When compared by the type of service provided, the highest user-friendliness scores were seen among clients who received free condoms (0.95 out of 1) and clean syringes/needles (0.92 out of 1)

Table 9. **Overall User-friendliness Score (among clients interviewed at medical facilities, N=521)**

	Mean (standard deviation)	Standardized factor loadings by CFA[24]
Indicator 2. User-friendliness *(measured on 3-point likert scale: 1-not well; 2-relatively well; 3-well)*		
Indicator 2.1. Perceptions of respectfulness of medical staff	2.7 (0.5)	0.834
Indicator 2.2. Perceptions of medical staff's attentiveness	2.7 (0.5)	0.927
Indicator 2.3. Client's comfort level in asking questions	2.7 (0.5)	0.837
Indicator 2.4. Providers' explanation of health issue	2.7 (0.6)	0.832
Indicator 2.5. Involvement with decision-making	2.6 (0.6)	0.818
User-friendliness Score	**0.85**	

A full table of the user-friendliness scores by selected control variables is available in Appendix 1.

22 Questions measuring user-friendliness were asked only among clients of state-run medical facilities staffed with medical personnel. User-friendliness scores are not available for clients of NGO, as these organizations are generally not staffed with medical personnel.

23 Standardized score was recalculated as (V - min V)/ (max V - min V), where V represents the value of the score in the data set. This method allows variables to have differing means and standard deviations but equal ranges. In this case, there is at least one observed value at the 0 and 1 endpoints.

24 Factor loadings > 0.5 are considered as acceptable fit meaning that selected indicators result from the one underlying latent variable. A factor loading is a correlation between latent variable and an observed indicator. Factor loadings were used as weights to calculate scores for each client: 0.834*Indicator 2.1+0.927*Indicator 2.2+0.837*Indicator 2.3+0.832*Indicator 2.4 +0.818*Indicator 2.5

4.8. Privacy and Confidentiality

Privacy and confidentiality of services are measured by how comfortable clients felt with the level of privacy during their interaction with health providers and how confident they felt with the level of confidentiality. These indicators are measured on a 3-point scale where generally, 1=not comfortable with level of privacy/confidentiality, and 3= comfortable level of privacy/confidentiality.

Overall, respondents were more comfortable with the levels of privacy than with the level of confidentiality during their interaction with health providers (72.6% vs 63.0% respectively). A higher proportion of clients (25.5%) were unsure about the level of confidentiality of the information they shared with the medical staff than those who were ambivalent about the level of privacy (17.9%).

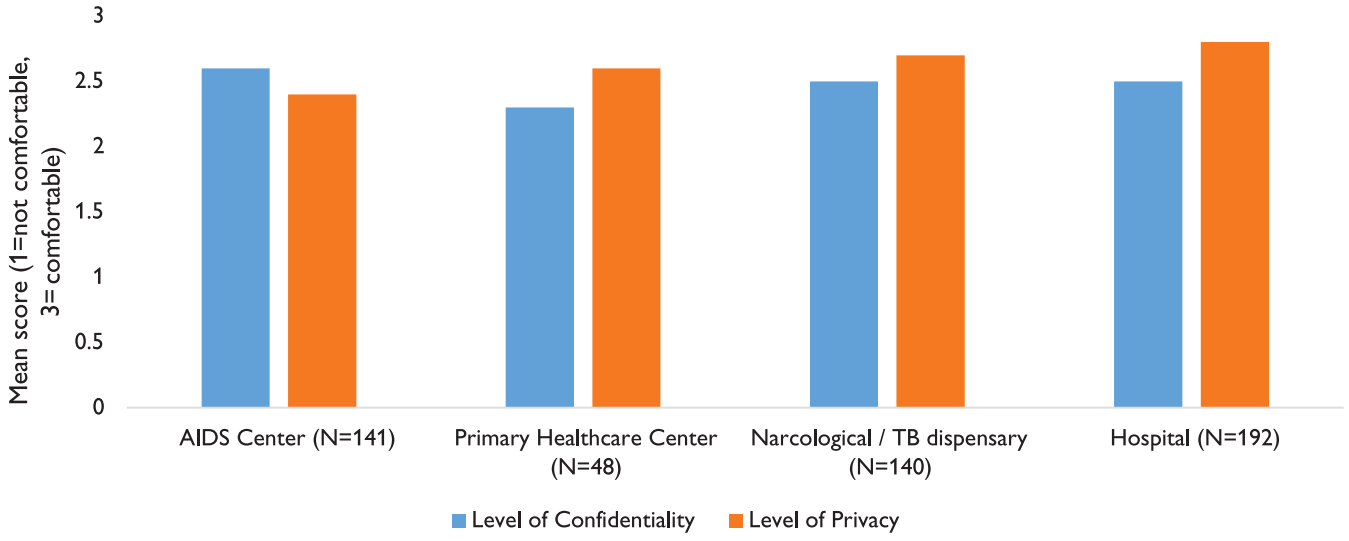
Key Indicators of Privacy and Confidentiality

Perceptions on:

- Level of confidentiality
- Level of privacy

Clients from the AIDS Centers (17%) more frequently indicated that they were *not* comfortable with the level of privacy at the facility than clients from Narcological/TB dispensaries and hospitals ($p<0.05$). On the other hand, a higher proportion of AIDS Center clients noted more comfort with the level of confidentiality compared to clients from other facilities, though differences were not statistically significant.

Figure 10. **Mean scores for privacy and confidentiality** [25]



25 Questions measuring privacy and confidentiality were asked only among clients of state-run medical facilities staffed with medical personnel. Privacy and confidentiality scores are not available for clients of NGO, as these organizations are generally not staffed with medical personnel.

Overall Privacy and Confidentiality Score

Overall *Privacy & Confidentiality Score* was 0.84 out of 1 (Table 10).[26] On average, females tended to perceive lower levels of privacy and confidentiality than males (0.81 versus 0.86 out of 1). Similarly, clients with a higher income reported lower levels of privacy and confidentiality (0.82 out of 1) when compared with clients with a monthly income of UAH 2000 or below (0.87 out of 1, p=0.009). There were no statistically significant differences in the perception of privacy and confidentiality by the type of facility nor by type of service received.

A full table of the privacy and confidentiality scores by selected control variables is available in Appendix 1.

0.84 out of 1
Privacy & Confidentiality Score

Table 10. **Overall Privacy and Confidentiality Score (among clients interviewed at medical facilities, N=521)**

	Mean (standard deviation)	Standardized factor loadings by CFA[27]
Indicator 3. Privacy and Confidentiality *(measured on 3-point likert scale: 1-not comfortable; 2-not sure; 3-comfortable)*		
Indicator 3.1. Perceptions of privacy during interaction with staff at the facility	2.6 (0.6)	0.898
Indicator 3.2. Perceptions of confidentiality of information shared with staff at the facility	2.5 (0.7)	0.532
Privacy and Confidentiality Score	**0.84**	

Additional factors that influence privacy and confidentiality

Service providers noted several important factors that contribute to clients' perceptions of privacy and confidentiality.

Location of facility. Perceptions of privacy can be influenced by factors beyond the direct control of the facility. As has been reported in other studies[28], the location of the facility may present challenges in creating a sense of privacy and anonymity for clients. While there are accessibility challenges of visiting facilities that are remote, clients may be deterred from vising facilities close to their home out of fear that they may encounter providers or other clients that know them and can potentially find out the reason for their visit.

> *"We are now working on referring persons living with HIV to local health facilities [as part of the health reform]. Some people who don't want to be observed at the place of residence, of course, are experiencing stress. I feel sorry for these people, because we promised them that they would receive services here, and no one at their place of residence would know...A person may not want to be observed there, but now his documents are sent to his place of residence."*
> *– Head of the laboratory for diagnostics of HIV infection, Regional AIDS Center*

26 Standardized score was recalculated as (V - min V)/ (max V - min V), where V represents the value of the score in the data set. This method allows variables to have differing means and standard deviations but equal ranges. In this case, there is at least one observed value at the 0 and 1 endpoints.

27 Factor loadings >0.5 are considered as acceptable fit meaning that selected indicators result from the one underlying latent variable. A factor loading is a correlation between latent variable and an observed indicator. Factor loadings were used as weights to calculate scores for each client: 0.898*Indicator 3.1+0.532*Indicator 3.2.

28 The USAID HIV Reform in Action Project. (2016). *Analysis of the workload, motivators and incentives of medical personnel for the provision of HIV services in seven regions of Ukraine.* Kyiv: HIVRiA

Facility's reputation. Service providers raised the issue of the reputation or positive image of the facility as a critical factor in the level of confidence that clients have with the services received therein. Given the highly sensitive nature of HIV and OST services, clients want to be assured that the facility will take seriously the issues of privacy and anonymity. Interestingly, this issue was raised more commonly by staff from NGOs.

"I think this is a positive image of the organization, the fact that clients know that when they contact the organization, they won't expose themselves to any dangers or threats from law enforcement agencies... They know that the information is confidential and that we can be of help and not a tension for them… So a word of mouth and positive reputation of the organization in mass media - these factors are influential; our work is known, and it helps."
– NGO, Social worker

"It's the image of the organization, of course. Initially we started with a small number of clients, but rumors spread that everything was anonymous here, that it was a quality thing. Now people come to us every day. We have a constantly growing number of clients here."
– Deputy Director, NGO

4.9. Overall Service Quality Score

Average score for the **Overall Service Quality** based on *user-friendliness*, *accessibility*, and *confidentiality & privacy* was 0.83 out of 1. Type of facility and type of service received are the main factors associated with the quality perception. The highest mean scores on quality were found among clients of hospitals (0.9 out of 1) (with AIDS Centers scoring the lowest) ($p<0.001$) and clients who received free condoms (0.92 out of 1) ($p=0.001$) or sterile syringes/needles (0.89 out of 1) ($p=0.053$).

4.10. Stigma and Discrimination

Overall, only 3.7% of respondents felt that they were treated poorly at the facility they visited on the day of the interview, citing their drug use as being the main reason they believe they were being mistreated. Notably, none of the NGO clients reported poor treatment by their provider.

Service providers highlighted more concerns about stigma and discrimination than did clients. Across different types of facilities, service providers identified the concern they have with the level of stigma towards HIV harbored by their colleagues, mostly specialists in other medical areas. Providers commonly noted that other doctors avoid treating HIV patients and instead keep referring them back to the AIDS Center or other centers to treat the "HIV", when in fact they have another medical issue that requires attention. Though providers noted that such attitudes are improving among the medical community as well as the general population, it is still a topic of concern.

"Specialists don't fully embrace HIV-infected patients, they're afraid to provide care to HIV infected. It's not discrimination per se, it's just that everything is written off for the HIV infection. He no longer comes – that's because of HIV infection. His hand got itchy – that's HIV for sure. His memory is deteriorating – that's HIV infection. They don't want to deal with such patient. It creates difficulties, as infectious disease doctor can't treat everything. There are related areas, and, for example, a patient needs to go to the neurology department, but the neurologist says - that's all HIV. Once it took me 1.5 months to prove that a patient has TB of lymph nodes and to send him to TB dispensary."
– Infectious Disease Doctor at Central District Hospital

"We have a big problem at [the] Central District Hospital - our doctors of other specialties treat HIV-positive patients very badly… The attitude of doctors to these patients is very negative. We can't get patients to in-patient hospital. "Go to the AIDS Center – that's your main underlying disease". As for HIV disease, our staff do everything, but when a patient needs a consultation of a neurologist or a surgeon, we start having problems."
– Nurse at Central District Hospital

As there was only one survey question on stigma and discrimination, this dimension was not included in further analysis. However, it is important to note that stigma continues to influence both clients' behavior related to accessing HIV-related services as well as providers' perceptions and potentially quality of care provided for HIV-affected individuals.

4.11. Comprehensiveness of HIV Counseling and Testing (HCT) Services

HIV testing services are regulated by a series of Ministry of Health's orders and national protocols, which stipulate that testing service include pre- and post-test counseling and that all stages of HIV testing services are voluntary, confidential, free of charge, anonymous, of high quality, and provide linkage to care. Measures for the comprehensiveness of HCT services were informed by these national level regulations and include indicators on receipt of pre- and post-test counseling, option to refuse testing, and receipt of information on reducing risk of infection.

Key Indicators of HCT Comprehensiveness

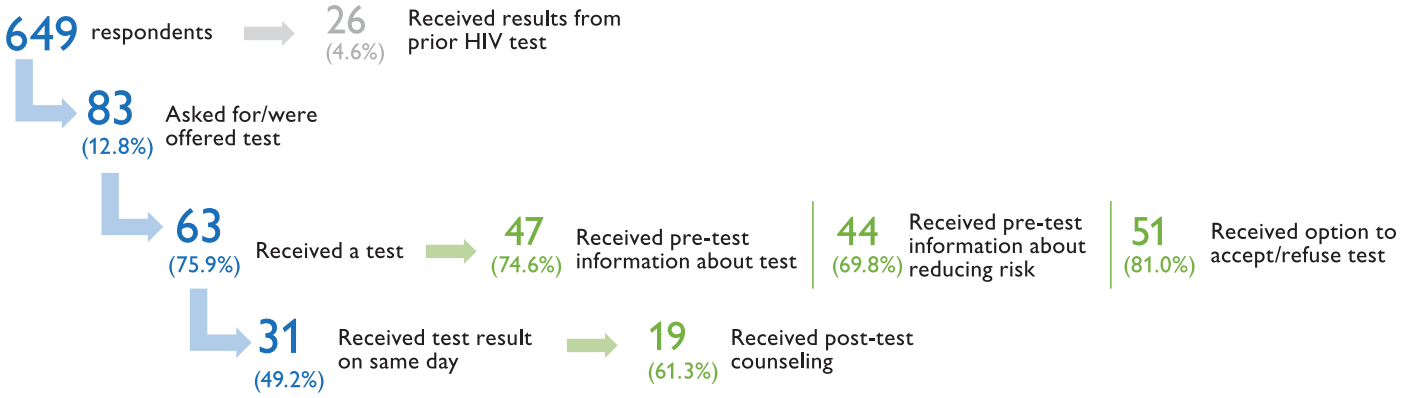
Perceptions on:

- Receipt of information prior to getting an HIV test
- Receipt of information on reducing HIV risks
- Option to refuse/accept HIV test
- Receipt of counseling after receiving HIV test result [for those who received HIV test result on the day of the survey]

Overview of HCT services received

Overall, only 73 (11.2%) clients that visited the facilities on the day of the exit survey came to the facility specifically to get tested for HIV. In total, 83 respondents (12.8%) asked for, or were offered, a HIV test that day (including clients who came for other services). About three quarters (63) of the 83 respondents who asked for or were offered a test *received* a test on the day of their visit, 52.4% of which received the HIV rapid test (antibody test), whereas the other 47.6% took the ELISA test (blood antigen). Accordingly, just about half of those tested (31, 49.2%) received their test results on the same day. Of the 73 people who came to the facility to be tested, 62 (84.9%) did receive a test. It is not clear why the other 15% did not receive a test, with one likely explanation being the unavailability of rapid tests at facility.

Figure 11. **The number of respondents receiving different components of the HCT service package, across all facilities**



Although statistical significance testing was often not possible due to the small sample sizes of respondents who received HCT, there were some notable differences in HCT services received across different types of facilities (Figure 11).

Testing. The proportion of AIDS Center, hospital, and NGO clients *asking for/ offered a HIV test* (18.4%, 16.1%, 15.6% respectively) was higher than clients at the primary healthcare centers or Narcological/TB dispensaries (6.3% and 2.1% respectively) (Figure 12). Interestingly,

while about two thirds of primary healthcare center and Narcological/TB dispensary clients who asked for/ were offered a HIV test actually received a test, only 7 (35%) of NGO clients wanting a test received one, with the most likely reasons being unavailability of rapid tests and/or authorized staff to administer a rapid test. The proportion of clients tested was highest at hospitals (93.5%) and relatively high at AIDS Centers (88.5%).

Though clients themselves did not provide reasons for why they did not receive a test, service providers noted that they are not always able to provide the services requested due to insufficient funding. In some cases, clients are referred to paid clinics to receive such service.

> *"Yes, we do fewer tests. We refuse people and refer them to paid clinics - to private institutions where people have to pay more for these services"*
> *- Laboratory clinician, Regional AIDS Center*

Only AIDS Center and hospital clients (91.3% and 31.0%) reported having received an ELISA test. In line with this, the same proportion of respondents from these facilities reported that they *did not* receive their test results that day.

All others respondents were tested using the HIV rapid test. This is consistent with the fact that often these are only AIDS Centers and hospitals that have laboratory capabilities and are therefore able to administer ELISA. Other facilities, when necessary, collect blood samples and transfer them to those laboratories for ELISA testing.

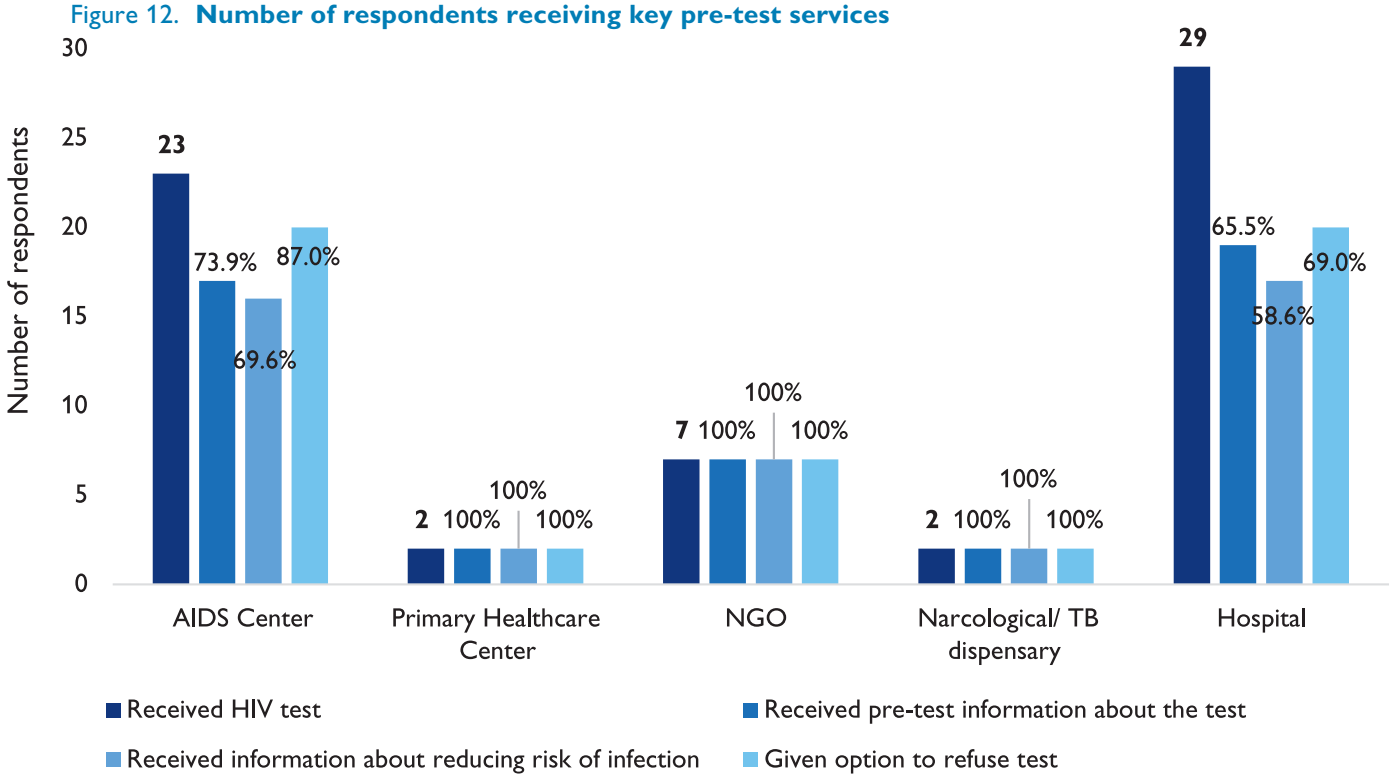
With the exception of one respondent from a primary healthcare center, all other respondents who gave an answer and who were tested at a primary healthcare center, NGO, or dispensary received their results on the same day.

Pre-test counseling indicators. Overall, at least 70% of respondents who were tested indicated having received at least one component of pre-test counseling. Prior to receiving the test, 47 (74.6%) respondents received *some information about the HIV test*, including the meaning of test results and the importance of obtaining test results. Similarly, 44 (69.8%) respondents received *information about reducing the risk of HIV infection*. It is worth noting that up to 25% of respondents who got tested did not receive pre-test counseling. These respondents were from the AIDS Center and hospitals, where the majority of clients are tested and where people are typically referred for HIV testing services. One fourth of AIDS Center clients and one third of hospital clients who came for an HIV test did not receive pre-test counseling. On the other hand, clients from the primary healthcare centers, NGOs, and dispensaries all indicated having received pre-test counseling.

Option to refuse test. While 81% of all respondents who were tested were given an option to refuse the test, a notable proportion of hospital clients (20.7%) were given no such option. Only one other respondent from an AIDS Center indicated they weren't given that option either.[29]

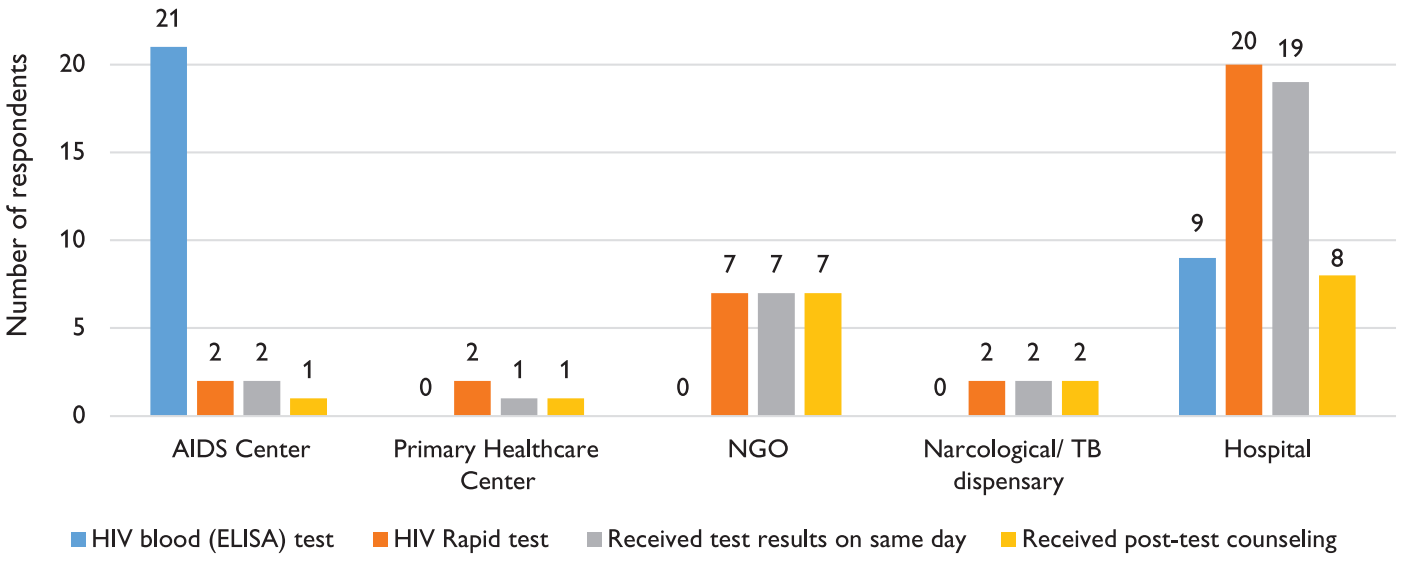
29 5 respondents (7.9%) did not provide an answer to whether or not they were given an option to refuse the HIV test.

Figure 12. **Number of respondents receiving key pre-test services**



Post-test counseling. Of the 31 respondents who received their test results on the same day as their test, 19 (61.3%) indicated that they received some *counseling after they got their results*. All of the respondents who were tested at a primary healthcare center, NGO, or dispensary with a rapid test and received their results also received post-test counseling. Only about half of the respondents from AIDS Centers and hospitals who received their results also received post-test counseling (50% and 42.1%, respectively). It should be noted however, that there were only two respondents from AIDS Centers who received their results on the same day, therefore this finding is not conclusive.

Figure 13. **Number of respondents receiving key post-test services**



Overall HCT Comprehensiveness Score

An *Overall HIV Testing Comprehensiveness Score* was calculated using the binary variables described below, for the subset of clients who received a HIV test at the facility on the day of the interview (N=63). Table 11 presents results of confirmatory factor analysis for the key indicators of comprehensiveness of HCT services. Considering low factor loading for the option to refuse/accept HIV test (0.092), this indicator does not contribute much to the *Overall HCT Comprehensive Score.* Other indicators are within acceptable fit (factor loadings > 0.5). Factor loadings were used as weights to calculate Overall Comprehensive Score for HIV testing for each client[30] and the score was standardized on a 0-1 scale.[31]

0.64 out of 1
HCT Comprehensiveness Score

Table 11. **Results of confirmatory factor analysis (CFA) for the Overall Comprehensiveness Score for HIV testing (N=63)**

	Count (%) of clients who received services (as percent of those who were tested)	Standardized factor loadings by CFA[31]
Indicator 4.1. Receipt of information prior to getting HIV test	47 (74.6%)	1.00
Indicator 4.2. Receipt of information on reducing HIV risk	44 (69.8%)	0.918
Indicator 4.3. Option to refuse/accept test	51 (81%)	0.092
Indicator 4.4. Receipt of counseling after receiving HIV test result (among clients who received HIV test result after taking a test on the day of the interview (N=31))	19 (61%)	0.537
Overall HCT Comprehensiveness Score	**0.64**	

CFA model fit:
Minimum Function Test Statistic=4.46
Degrees of freedom=3
Comparative Fit Index (CFI)=0.99
Tucker-Lewis Index (TLI)=0.99
RMSEA=0.09

Overall HCT Comprehensiveness Score was 0.64 out of 1. While the low number of respondents who were tested did not allow for tests of statistical significance, multivariate analysis indicates some interesting differences in the overall *HCT Comprehensiveness Score* by the various control variables.

As has been noted earlier, AIDS Centers and hospitals, which typically have higher demand for HCT, tend to offer less comprehensive HCT services than other type of facilities, as is reflected in the lower comprehensiveness scores (0.58 and 0.55, respectively). One possible explanation for this observation may be that HIV pre-test counseling is often provided by an NGO-hired social worker at a different site (e.g., mobile clinic, NGO office) before the client is referred to medical facilities for testing. However, the practice of conducting HIV testing without pre-test counseling is

30 1.00*Indicator 4.1+0.918*Indicator 4.2+0.092*Indicator 4.3+0.537*Indicator 4.4

31 It was recalculated as (V - min V)/(max V - min V), where V represents the value of the score in the data set. This method allows variables to have differing means and standard deviations but equal ranges. In this case, there is at least one observed value at the 0 and 1 endpoints.

32 Factor loadings > 0.5 are considered as acceptable fit meaning that selected indicators result from the one underlying latent variable. A factor loading is a correlation between latent variable and an observed indicator.

not uncommon either. HIV service providers who were interviewed indicated that while they are fully aware of and respect the National guidelines for HIV services, they are not always able to adhere to all the guidelines, given the shortage of health workers, and the high demand for the available staff's time at state-run health facilities. The implication being that higher volume of service demand and provision, without the supporting resources, can reduce the comprehensiveness and quality of services.

> *"We're doing our best, but it affects the quality of treating these patients. Because instead of 10 patients a doctor admits 25-30 patients per day, so the quality of care decreases proportionally."*
> *- Regional AIDS Center, Physician*

> *"The only thing that hinders the provision of services is lack of funds, since absolutely no funds are allocated in our hospital for HIV infection. Thanks God, there is an NGO that brings us HIV tests [which they receive through funding from external donors]. Had there been no tests from this NGO, people wouldn't get tested at all, because the hospital doesn't buy tests, it doesn't buy gloves, scarifiers, the hospital doesn't pay to the doctor for pre-test and post-test counseling. There isn't enough funding."*
> *- Infectious disease doctor, Central Municipal Hospital*

Young age (under 35 years), male sex, higher education, having full time or part-time job, high income and relatively short duration of visiting the facility are potential factors associated with receiving less comprehensive services. However, it was not possible to determine whether these differences are statistically significant due to the small number or respondents within each sub-category.

A full table of the HCT comprehensiveness score by selected control variables is available in Appendix 1.

4.12. Comprehensiveness of Antiretroviral Therapy (ART)

Antiretroviral therapy (ART) in Ukraine is a mandatory component of comprehensive medical care for HIV-infected people and is provided to the adult patients in accordance with the "*Clinical protocol of antiretroviral therapy of HIV infection in adults and adolescents*", approved by the Order of MoH of Ukraine of 12.07.2010 № 551, and with the Order of MoH of Ukraine of 22.12.2015 № 887 "*On approval of the changes to the Clinical protocol of antiretroviral therapy of HIV infection in adults and adolescents*".

According to the national guidelines, routine medical examinations of patients on ART should be held at least once every 3 months or more often, depending on the clinical indications. In the first six months of ARV therapy, monthly examinations and laboratory tests are recommended as optimal. During each patient's planned visit to the health facility, patient's complaints should be documented, objective physical examination and assessment of patient's adherence to treatment conducted, as well as assessment of the adequacy of social and psychological support provided. A year after starting ART, in case of its evident efficacy and good tolerability, patient's routine medical examinations can be carried out every 3-6 months, but at least once in six months.

Overview of ART services received

A total of 336 (51.8%) respondents were on antiretroviral therapy (ART), with 135 (40.2%) indicating that they received ARV medicine from the facility on the day of the interview. The majority of respondents who indicated they received ART, were from AIDS Centers (40%) and hospitals (38%). Only 5 (3.7%) and 3 (2.2%) respondents received ART from primary healthcare centers and through a medical professional associated with NGOs, respectively. Though 21 (30.4%) respondents from Narcological/TB Dispensaries received ARVs, providers from the dispensaries did note that their facilities do not always provide HIV medications for their patients, but they instead refer them to the regional AIDS Center.

"Because services are provided by vertically organized institutions, so [ART prescribing and monitoring] is done by [the] Regional AIDS Center. We know that our patients receive ART, we encourage them to visit the AIDS Center, but we neither prescribe nor dispense ART."
– OST Program coordinator, Oblast Narcology Dispensary

126 respondents indicated that they were visiting the facility specifically to receive ARV. While 118 (93.7%) of those did receive their medication, six (4.8%) did not get any ARVs and two (1.6%) did not provide an answer. Seventeen respondents also received ARVs, though that was not their primary reason for visiting the facility on the day of the interview. Those that did not receive any medication did not specify a reason for not receiving it. However, in their interviews, service providers complained about shortage of medications, which results in change in the treatment protocol or skipped treatments for patients.

"When we do not follow the guidelines in full… Sometimes we face temporary shortages of antiretroviral medicines, when you have "to play" with the schemes. For example, the child already receives pills, but the pills will arrive next month; so we give him syrup instead. He is already a teenager, but he has to drink syrup. This is a problem."
– Pediatrician, Oblast AIDS Center

Key Indicators of Comprehensiveness of ART Services

Perceptions on:

- Receipt of information about taking pills on schedule
- Receipt of information on adherence
- Receipt of information on nutrition
- Receipt of information on emotional issues
- Receipt of information on side effects

"Everything depends on ART availability. If treatment is declared, but in fact is not provided in a timely manner and in the amount that is defined by the schemes, and if we have to substitute one medication with another one... then it's clear that this makes our work less efficient."
– Head of Dovira Cabinet, Regional AIDS Center

Interestingly, while the majority of clients across all sites (77.1%) received their ARV medicines from a nurse, about 30% of respondents from AIDS Centers who received ARV noted they received their medicine from a doctor. This is consistent with findings from the HIV service provider workload analysis study that was also conducted in 2016 and documented that patients received medicine from physicians in 32% of observed cases of ARV dispensing across all types of healthcare facilities included in the study.[33] National guidelines do not stipulate that ARV dispensing needs to be handled by a physician. The high frequency with which physicians have been noted to dispense ARVs to patients highlights a potential area for optimization of health workforce utilization through task-shifting and may also point to a shortage of nurses at AIDS Centers.

On average, respondents have been taking ARV medication for about 3 years (35.3 months), while respondents from the dispensaries noted a much shorter period of 12.6 months, compared to respondents from other facilities. Over 50% of respondents indicated that

33 The USAID HIV Reform in Action Project. (2016). *Analysis of the workload, motivators and incentives of medical personnel for the provision of HIV services in seven regions of Ukraine*. Kyiv: HIVRiA

they receive ARV medicines on a monthly basis, while 28.1% received it bi-monthly. All five of the primary healthcare center respondents on ART indicated receiving their medicine every two months, while about 20% of respondent from AIDS Centers who are on ART receive their medicines every 3-6 months.

Respondents reported a median of five visits to HIV providers to monitor the progress of HIV infection in the past 12 months, which is generally in line with the current national HIV guidelines. However, while the majority of Narcological dispensary clients visit the facility on a daily basis to receive OST medication, respondents from these facilities reported a median of only two visits in the past 12 months specifically to see an HIV specialist, as they likely seek services of HIV specialists at other types of facilities.

Respondents from all facilities were prescribed and received CD4 and viral load (VL) tests an average of two times during the last 12 months. However, National guidelines recommend three viral load tests and four CD4 count tests per year.

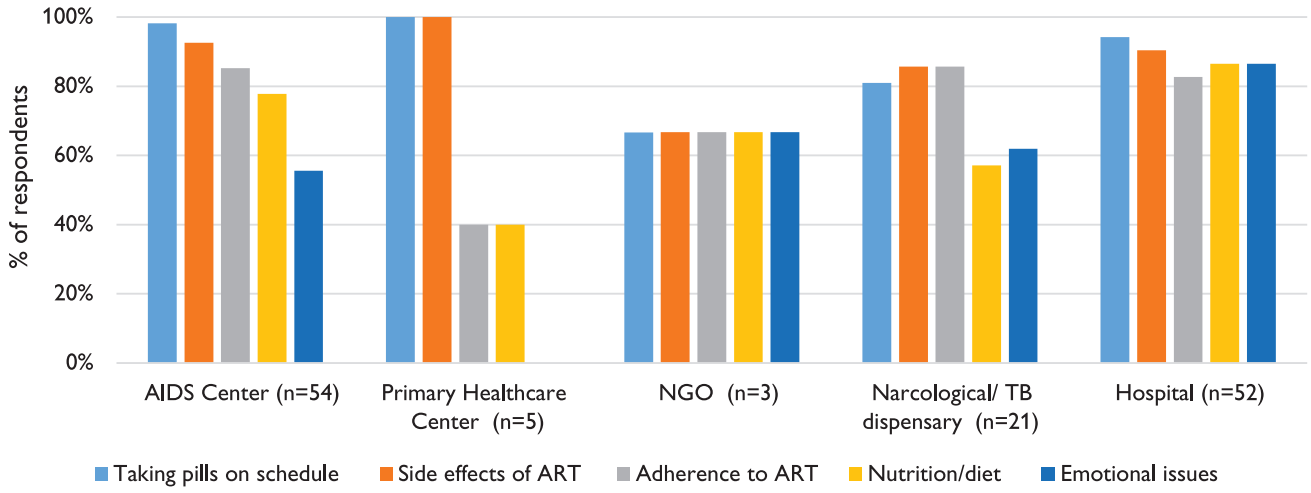
HIV service providers commonly pointed to the lack of specific supplies, equipment, or material as an impeding factor in conducting HIV monitoring tests at the recommended frequency.

"There are limitations in funding and in technical resources. For instance, we do not do viral load test. We don't have appropriate equipment. We take all this to Kyiv Infectious Diseases Hospital, to the lab; and delivery of serum complicates the process - patients have to visit us specifically on the days of sampling, there are crowds of patients on these days, plus we transport the serum using our own resources."
– Head of Dovira Cabinet, Regional AIDS Center

National guidelines also stipulate that ARV medicines are to be provided free of charge, however seven (5.2%) respondents who received ART noted that they paid out-of-pocket for their medicines. One possible explanation for this could be that patients were referring to payment for drugs to treat other comorbidities or opportunistic infections, which are not free, as opposed to antiretroviral medicines. This issue, however, needs further exploration in order to understand what the patients paid their money for and whether or not service providers acted in violation of existing regulations.

The majority of respondents who received ARVs were counseled on maintaining their treatment schedule (93.3%), the side effects of ART (90.4%), the importance of adhering to their regimen (82.2%), nutrition or diet (76.3%), and/or emotional issues such as stress, anxiety, or depression (66.7%). Notably, none of the respondents from primary healthcare centers received information about handling emotional issues as part of their ARV treatment. Similarly, a very low proportion of primary healthcare center clients received information about nutrition or adherence to ART (40% each), compared to clients at other facilities. Discussions on emotional issues were also infrequent among AIDS Center clients, with just over half (55.6%) reporting that they received some information on this topic from their healthcare provider.

Figure 14. **Comprehensiveness of ART service provision by health facilities**



Overall, 26 (19.3%) respondents who received ARVs reported having faced some difficulties in getting HIV care or treatment, with the majority of those complaints coming from AIDS Center clients (19, 73%).

Overall ART Comprehensiveness Score

An *Overall HIV treatment (ART) Comprehensiveness Score* was calculated using the binary variables described below, for the subset of clients who received ART at the facility on the day of the interview (N=135). Table 12 presents results of confirmatory factor analysis for the key indicators of comprehensiveness of ART services. All factor loadings except the one for the "Receipt of information about taking pills on schedule" (0.174) are within acceptable fit, indicating that this particular indicator does not contribute much to the *Overall ART Comprehensiveness Score.* Factor loadings were used as weights to calculate an Overall Comprehensiveness Score for ART for each client[34] and the score was standardized on a 0-1 scale.[35]

The average Overall HIV Treatment (ART) Comprehensiveness Score was calculated as 0.77 out of 1. Though statistical testing of differences by control variables was not possible due to the small sample sizes, there were some variations in the comprehensiveness scores by certain variables. Respondents who are younger (under 36 years), have higher education, and have full time or part-time job, tended to report more comprehensive ART services. Interestingly, these same variables were associated with report of *less* comprehensive HCT services.

0.77 out of 1
ART Comprehensiveness Score

34 0.174*Indicator 5.1+0.804*Indicator 5.2+0.810*Indicator 5.3+0.708*Indicator 5.4+0.903*Indicator 5.5

35 It was recalculated as (V - min V)/(max V - min V), where V represents the value of the score in the data set. This method allows variables to have differing means and standard deviations but equal ranges. In this case, there is at least one observed value at the 0 and 1 endpoints.

Table 12. **Results of confirmatory factor analysis (CFA) for the Overall Comprehensiveness Score for HIV Treatment Services**

	Count (%) of clients who received services	Standardized factor loadings by CFA[36]
Indicator 5.1. Receipt of information about taking pills on schedule	118 (87.4%)	0.174
Indicator 5.2. Receipt of information on adherence	111 (82.2%)	0.804
Indicator 5.3. Receipt of information on nutrition	103 (76.3%)	0.810
Indicator 5.4. Receipt of information on emotional issues	90 (66.7%)	0.708
Indicator 5.5. Receipt of information on side effects	122 (90.4%)	0.903
Overall ART Comprehensiveness Score	**0.77**	

CFA model fit:
Minimum Function Test Statistic=2.99
Degrees of freedom=3
Comparative Fit Index (CFI)=1.00
Tucker-Lewis Index (TLI)=1.00
RMSEA=0.00

Differences across the different facility types were consistent with what is described above. A full table of the ART comprehensiveness score by selected control variables is available in Appendix 1.

4.13. Other Services

Overall, 94.8% clients reported they received all services they came for. The proportion of clients who did not receive the needed services was larger at AIDS Center (12.8%) than at any other facility, and significantly higher compared to NGOs, Narcological/TB dispensaries and hospitals (Table 13).

Table 13. **Respondents who received services they came for**

	Type of facility											
	AIDS Center		Primary Healthcare Center		NGO		Narcological/ TB dispensary		Hospital		Total	
	Count	%	Count	%	Count	%	Count	%	Count	%	Count	%
No – Did not receive all services needed	18_{a}	12.8%	$3_{a,b}$	6.3%	3b	2.3%	$3_{b,c}$	2.1%	$5_{b,d}$	2.6%	32	4.9%
Yes – Received all services needed	122_{a}	86.5%	$45_{a,b}$	93.8%	125b	97.7%	$136_{b,c}$	97.1%	$187_{b,d}$	97.4%	615	94.8%
No answer	1_{a}	0.7%	0^{1}	0%	0^{1}	0%	1_{a}	0.7%	0^{1}	0%	2	0.3%
Total	141	100%	48	100%	128	100%	140	100%	192	100%	649	100%

Note: Values in the same row and sub-table not sharing the same subscript are significantly different at p< .05 in the two-sided test of equality for column proportions. Cells with no subscript are not included in the test. Tests assume equal variances. Tests are adjusted for all pairwise comparisons within a row of each innermost sub-table using the Bonferroni correction.

[1] This category is not used in comparisons because its column proportion is equal to zero or one.

In addition to HCT and ART, respondents commonly received other services from the same facility.

36 Factor loadings >0.5 are considered as acceptable fit meaning that selected indicators result from the one underlying latent variable. A factor loading is a correlation between latent variable and an observed indicator

Condoms. Overall, 15.4% of respondents reported having received condoms, primarily at NGOs. About one fourth (24.7%) of those who came to receive HIV counseling or education were provided with condoms. Respondents received an average of 10 condoms, and viewed this quantity as being mostly adequate.

Educational materials. NGO clients (33.6%) also reported having received educational materials more frequently than respondents from other facilities, most notably AIDS Centers, where only 23 (16.3%) respondents received such materials.

Sterile needles. A total of 67 respondents (10.3% of all respondents) reported receiving sterile needles and/or syringes on the day of the interview, primarily at NGOs. While 40 (31.3%) of respondents from NGOs received needles and/or syringes, only 15 (10.7%) of respondents from dispensaries and 10 (5.2%) from hospitals received the safe injection equipment. No respondents from AIDS Centers indicated having received sterile needles and/or syringes. Those that did receive this service reported receiving an average of 10 sterile needles and syringes, which was considered to be a sufficient amount by 89.6% of the respondents receiving this safe injection equipment.

OST. Out of a total of 179 respondents who received opioid substitution therapy on the day of the interview, the vast majority (168, 93.9%) received Methadone, while the remaining received Buprenorphine. As can be expected, the proportion of clients receiving any OST was highest at the Narcological/TB dispensaries (77.1% of respondents from this facility). However, a fairly high proportion of primary healthcare center respondents (58.3%) also received OST, while only about 21.9% of respondents from hospitals, and one respondent from an AIDS Center received OST. None of the NGO respondents reported having received this service. A total of only five respondents reported receiving take-home dosages of opioid substitution therapy, which can be seen as an important factor for both client satisfaction and retention in service, forcing the clients to pay daily visits to the facility and face, as discussed above, challenges with getting to the facility and facility's operating hours.

Motivational package. Only two (both from NGO) out of all 649 respondents reported having received a motivational package such as transportation assistance, or food package.

Referrals. Over half of all respondents (56%) received information from service providers regarding other services available in their communities. Significantly more clients of NGOs received information about other resources available in the community, compared to clients of AIDS Centers, Narcological/TB dispensaries or hospitals ($p<0.05$). On average, only 10% of clients were referred to another facility to get specific services and the highest number of referrals took place at primary healthcare centers and at AIDS Centers (16.7% and 16.3%, respectively).

Specifically, 393 (60.6%) of all respondents discussed their drug and alcohol use with their HIV providers. When this was needed, they were provided with a referral. About half of AIDS Center clients reported being asked about their substance use by their health provider – more than at other facility types.

Case management. Most often, case management services were provided at NGOs, primary healthcare centers and Narcological/TB dispensaries, very seldom in the hospitals. The vast majority of clients who received case management across all types of facilities reported that their case manager helped them with receiving the needed services "all the time" or "most times". Overall, 88.2% of all clients responded that they would definitely recommend their case manager to another person in need.

4.14. Facility Characteristics

In terms of the characteristics of health facilities, in general, the facilities were reported as clean by three fourth of the respondents. The majority of clients

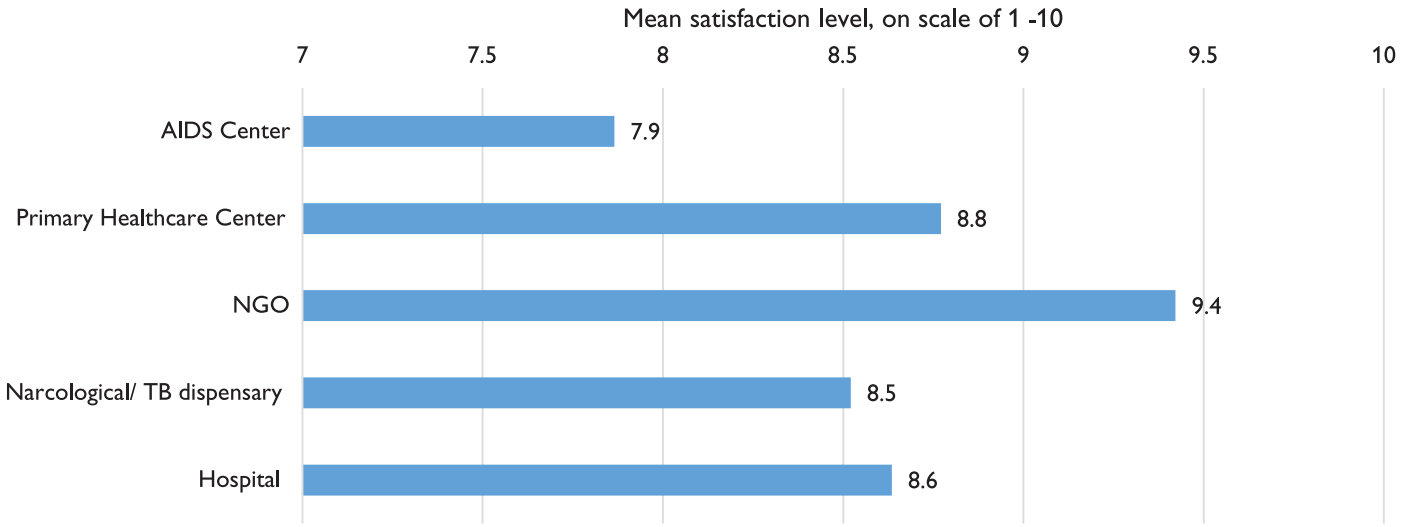
(51.4%) estimated availability of medicines as good, and 10.9% - as poor; however, good availability of medicines was mentioned by 62.5% of hospital clients, which was a significantly larger proportion than 37.6% at AIDS Centers. Twelve percent of Narcological/TB dispensary and 10.6% of AIDS Center clients reported medication supplies as poor.

Spaciousness of the waiting areas was perceived as good by a half of all respondents. This was the case at hospitals (70.3% of respondents, a higher proportion compared to all other facility types); at the same time, a larger proportion of AIDS Center clients described the spaciousness of the waiting areas as poor (31.2%), compared to clients at any other types of facilities. Examination rooms were reported as more spacious by clients of primary healthcare centers and hospitals, compared to perceptions on this issue by clients of AIDS Centers and Narcological/TB dispensaries. Availability of the necessary equipment to provide care was estimated as poor by 9.4% of respondents on average; more than half of respondents (56.2%) thought it was good, especially clients at hospitals (68.8%) compared to 36.9% of clients at AIDS Centers.

4.15. Overall Satisfaction

Respondents were asked to rate their overall satisfaction with the services received on the day of the interview using a scale of 0-10, with 10 representing "best service" (Figure 15). Respondents from NGOs expressed the highest level of satisfaction (mean satisfaction of 9.4), while those from AIDS Centers were least satisfied (mean satisfaction of 7.9).

Figure 15. **Mean overall satisfaction level, by facility type (on scale of 1-10)**



Other indicators of satisfaction

On average, 94.9% of the clients reported they would definitely or probably *recommend the facility* they visited to their friends or family members if they needed HIV services. Only seven (1.1%) of all respondents reported they would definitely not recommend this facility's services to their friends and/or family members, while 17 (2.6%) noted they would *probably not* recommend the facility. The proportion of respondents who were not inclined to recommend the facility was highest at primary healthcare centers (6.3% of respondents from these facilities) and hospitals (5.2% of respondents from these facilities).

When asked whether they would *prefer to receive HIV services from the same facility*, 552 (85.1%) of respondents

indicated a preference for continuing to receive services from the same facility they visited the day of the interview. About 16% of clients at both AIDS Centers and Narcological/TB dispensaries noted they would prefer to receive care at other facilities, where they receive other health services, primarily for convenience, reduced cost of transportation, better opportunity to access additional medical services, increased likelihood of following up on other referred services, and to reduce stigma related with visiting facilities specialized in providing HIV services. Respondents from primary healthcare centers and hospitals were not as concerned with these factors as these facilities already provide a range of non-HIV services to clients.

0.83 out of 1
Overall Satisfaction Score

Overall satisfaction score

To compare with the quality dimension scores, the satisfaction levels were standardized on a scale of 0-1 (Table 14).[37] The standardized *Overall Satisfaction Score* was calculated to be 0.83 out of 1. Multivariate analysis shows that in addition to receiving services from NGOs, receiving free condoms/lubricants or clean syringes/needles were associated with higher satisfaction rates ($p<0.001$; $p=0.001$ respectively).

Overall, similar average scores were observed for satisfaction, perception of service comprehensiveness and different quality dimensions explored in the study (about 0.8 out of 1), with the only exception of the Comprehensiveness of HIV Testing (the lowest mean score: 0.64 out of 1) (Table 14).

Table 14. **Comparison of scores for satisfaction, perception of service comprehensiveness and different quality dimensions, descriptive statistic**

Dimensions of Service Quality	Mean	Standard Deviation	Median	Minimum	Maximum	Number of cases
Accessibility*	0.79	0.24	0.85	0.00	1.00	521
User-friendliness*	0.85	0.20	0.91	0.00	1.00	521
Confidentiality & Privacy*	0.84	0.22	1.00	0.00	1.00	521
Overall Quality Score*^	0.83	0.18	0.88	0.22	1.00	521
Comprehensiveness of HIV Testing (for clients who received HIV testing on the day of survey)	0.64	0.36	0.79	0.00	1.00	63
Comprehensiveness of HIV Treatment Services (for clients who received ARV drugs on the day of survey)	0.77	0.25	0.95	0.00	1.00	135
Satisfaction with services (for all clients)	0.83	0.20	0.88	0.00	1.00	649

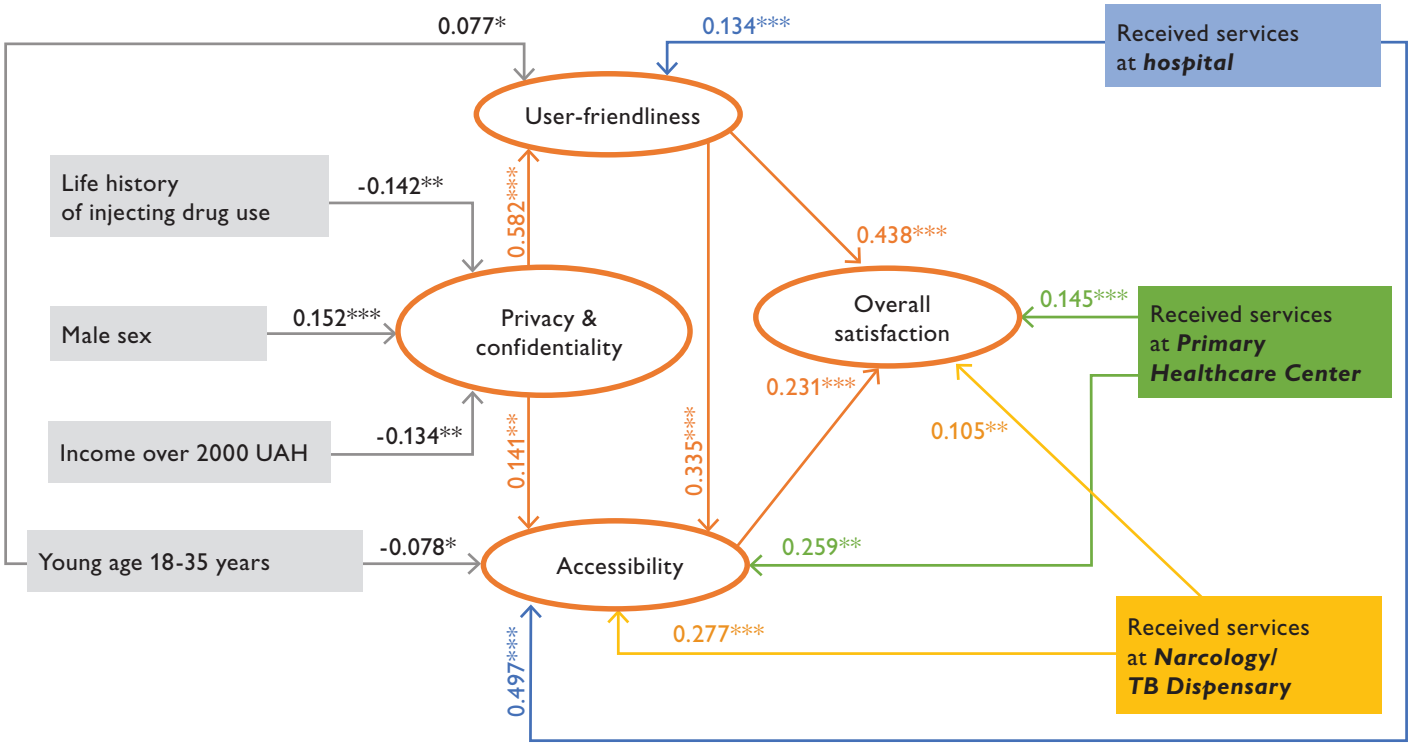
* Scores calculated only for respondents interviewed at state-run medical facilities, excluding respondents from NGOs.
^ As composite of accessibility, user-friendliness, and confidentiality & privacy scores

37 It was recalculated as (V - min V)/(max V - min V), where V represents the value of the score in the data set. This method allows variables to have differing means and standard deviations but equal ranges. In this case, there is at least one observed value at the 0 and 1 endpoints.

Determinants of overall satisfaction

Multivariate analysis of quality dimensions and satisfaction was calculated among study participants who visited state-run facilities staffed with medical personnel: AIDS Center, primary healthcare center, Narcological/ TB dispensary or hospital (N=521). Indicators for accessibility, user-friendliness and confidentiality & privacy were not measured among NGOs, as these organizations are generally not staffed with medical personnel. Consequently, this section includes results on links between service quality and satisfaction only among patients of state-run medical facilities. Figure 16 presents statistically significant associations ($p<0.05$) between selected outcome variables as well as covariates measured by structural equation modelling (SEM).

Figure 16. **Structural equation modelling of interdependencies between quality dimensions and satisfaction, standardized regression coefficients***



Model fit

N=649; Robust Minimum Function Test Statistic = 15.73; degrees of freedom = 17; CFI = 1.00; TLI = 1.00; RMSEA=0.00; SRMR=0.02

Description

Outcome variable

Control variable

0.259** ← Standardized regression coefficient with arrow indicating the direction of association and stars indicating statistical significance of the coefficient (p-value).

Level of statistical significance: *** p-value<0.001; **p-value<0.01; *p-value<0.05.

Note: All outcome variables were standardized before analysis to have value of 0-1

* Only among clients interviewed at state-run medical facilities, N=521

According to the study results, satisfaction was positively related to user-friendliness (both direct and indirect associations) and accessibility (direct association), as well as confidentiality & privacy (indirect association through other quality dimensions).

Perception of confidentiality & privacy in the facility strongly impacts on scores for user-friendliness. On average, 0.1 points increase in Confidentiality & Privacy Score was related to 0.582 points increase in User-Friendliness Score controlling for other factors. The impact of confidentiality & privacy perception on accessibility was less powerful but still statistically significant: 0.1 points increase in Confidentiality & Privacy Score resulted in 0.141 points increase in Accessibility Score. Perception of accessibility was mostly determined by user-friendliness; standardized regression coefficient for the link between User-Friendliness and Accessibility Score equals 0.335.

Total standardized effect sizes for quality dimensions show that user-friendliness have the strongest influence on satisfaction with the service (Table 14). Taking into account that all measures are within the 0-1 range, 0.1 points increase in User-Friendliness Score was associated with 0.515 points increase in Satisfaction Score controlling for demographics and type of service; 0.1 points increase in Accessibility Score or Confidentiality & Privacy Score was associated with 0.231 and 0.333 points increase in Satisfaction respectively.

Indirect relations between quality dimensions reveal important practical implications. In order to improve satisfaction rate, the most optimal solution is investment in user-friendliness of service, which in turn is mostly determined by the perception of confidentiality and privacy of information shared with medical staff.

Although not shown in the graph above, statistical analysis suggested that type of service received in the facility was not associated with the service quality or satisfaction if other variables are controlled; no statistically significant links were found between quality dimensions as well as satisfaction and receiving HIV test, ARV drugs, OST, free condoms or sterile syringes/needles.

Nevertheless, type of facility appears to be important predictor in perception of service quality and service satisfaction. Adjusting for controls, average scores on satisfaction were higher among clients who received services at primary healthcare centers (both direct and indirect effects), patients of Narcological/ TB dispensaries (both direct and indirect effects) and hospitals (indirect effect through user-friendliness and accessibility) compared to AIDS Centers.

Similar effects were found for accessibility; average Accessibility Score was higher by a factor of 0.497 among hospital patients, by a factor of 0.259 among primary healthcare center patients and by a factor of 0.277 among clients of Narcological/ TB dispensaries comparing to AIDS Center patients if other factors are controlled. Patients who received services in hospitals tended to have higher scores on user-friendliness compared with other facilities. At the same time, type of facility does not determine the perception of confidentiality and privacy adjusting for other associations.

Demographics mostly impact on the perception of confidentiality and privacy. Lower scores on Confidentiality & Privacy Score were associated with life history of injecting drug use, female sex, and higher income (over UAH 2000). Notable, that young age (under 35 years) was negatively linked to Accessibility Score but positively to User-Friendliness Score. No statistically significant associations were found between service quality/satisfaction outcomes and education, employment status and duration of visiting the facility.

STUDY LIMITATIONS

5. STUDY LIMITATIONS

Our study has some important limitations.

Construct validity. A key limitation of this study is the lack of empirical assessment of the validity and reliability of the measures used to quantify the different dimension of quality. The measures used were derived from the available literature. However, there is no evidence to support the construct validity of these measures, especially within the context of Ukraine.

Insufficient qualitative insights. The instrument for client satisfaction survey was tightly structured and did not allow for identification or deeper exploration of other issues that may be important aspects of service quality from the clients' perspective. Given that the instrument was not tested for reliability and validity, more open ended items could have helped to either corroborate the data from the close-ended questions or provide additional insights for other potential indicators of service quality.

No objective measures of service quality from the providers' perspective. Though our study did include providers' perceptions of quality, it did not include objective measurements of service quality from the providers' perspective to allow for comparison between both patients' and providers' perceptions of key services and actual service provision processes.

Limited analysis. Although our study population was relatively large, the number of people receiving different services on the day of the interview was quite low, limiting the robustness of the analysis by type of service received. This especially limited our ability to make conclusive statements about the comprehensiveness of services received.

DISCUSSION

6. DISCUSSION

This study aimed to examine the level of quality of key HIV services across different types of facilities and identify key determinants of HIV service quality. Our findings indicate some variance in the level of quality across different quality dimensions as well as between different types of facilities, and highlights factors that are associated with perceptions of quality. As retention of clients within the HIV continuum of care has been shown to be in part influenced by client satisfaction with the quality of services, it is important to identify the key levers that impact and can influence clients' perception of quality.

Finding 1. User-friendliness has a strong influence on overall satisfaction level. *User-friendliness* and *privacy & confidentiality* were the two dimensions of quality that were scored relatively high across all of the medical facilities (score of above 0.8 on a 0-1 scale). Scores for these two dimensions were also fairly similar from one facility to another, with slightly higher scores for hospitals on both dimensions. While perceptions of privacy & confidentiality were not statistically directly correlated with overall satisfaction, user-friendliness has a strong influence on overall satisfaction. After controlling for demographic variables and facility type, the strength of the association between *User-friendliness Score* and *Overall Satisfaction* is 0.438 ($p<0.001$).

In our study, user-friendliness was measured by attributes of the interaction between the health providers and the clients, such as the degree of attentiveness of the health providers, the level of respect given to the client, clarity of explanation and comfort in asking questions, as well as engagement of the client in care decisions. Perceptions of privacy & confidentiality, which are factors of the interaction with the provider as well as the physical characteristics of the facility, also strongly influenced perceptions of user-friendliness (coefficient=0.582, $p<0.001$).

While additional training may help in enhancing the quality of the health providers' engagement and interaction with their clients, the shortage of staff as well as the excessive workload of current staff present a more systemic challenge in addressing this issue. Providers commonly raised the issue of poor compensation and low staff motivation as ongoing challenges across different HIV service providers, – sentiments that were profoundly documented not only in this but also in another recent study that focused specifically on motivators and incentives for healthcare workers to provide HIV services.[38] However, providers also noted that despite the low compensation, there is high commitment to their work, and to meeting the needs of their patients as best as they can. Despite best intentions, evidence indicates that poorly resourced, over-worked, and de-motivated staff are less likely to provide comprehensive, respectful, and high quality services to their patients.

Given that the quality of the interaction between providers and clients is a key determinant of client satisfaction, it is important for HIV service providers to address this issue through training, task-shifting, and to the extent possible through augmenting the HIV staff.

Finding 2. Accessibility of services also influences overall satisfaction, with a strength of association of 0.231 ($p<0.001$). Accessibility was measured by the degree to which the facility's operating hours, location/transportation to the facility, wait times, ability to obtain medicines, or cost of services, were problematic for respondents.

38 The USAID HIV Reform in Action Project. (2016). Analysis of the workload, motivators and incentives of medical personnel for the provision of HIV services in seven regions of Ukraine. Kyiv: HIVRiA

In general, long wait times, and the limited facility operating hours were the accessibility indicators that respondents found more problematic, with higher dissatisfaction among respondents from AIDS Centers. Yet, with many NGOs providing mainly condom distribution and NSP services in addition to counselling and education on HIV prevention and other related issues, it is apparent that, unlike AIDS Centers and other state-run health facilities offering a range of clinical HIV services, NGOs do not have to deal with consistently large patient flows.

In contrast, with AIDS Centers operating as specialized facilities for patients with HIV, a significant number of HIV diagnostics, treatment and care services are concentrated in these institutions. As often reported by both patients and service providers, the volume of clients at AIDS Centers is very high, resulting in waiting lines in front of the offices of service providers. On the other hand, services such as HIV testing are not consistently or widely provided across other types of facilities. In our study, only 6.3% of respondents from primary healthcare centers and NGOs alike, and only 1 respondent from the Narcological/TB dispensary indicated that they were visiting those facilities to get tested for HIV. Additionally, 55% of respondents who went to an NGO to get tested were not able to get a test on the day of their visit.

Expanding the availability of HIV testing across other health facilities should help to ease the burden on AIDS Centers, thereby reducing wait times for all services at these facilities. Availability of testing services at other facilities would also reduce the level of effort needed by clients to access these services as they would not need to travel to the regional capital just for testing. This especially becomes critical where ELISA tests are used (as is common in both AIDS Centers and hospitals), which requires clients to return on a different day to receive test results, increasing the risk of loss to follow up. As a Ukraine patient pathways analysis demonstrated, a fairly large proportion of patients who are given an ELISA test, never return to pick up the test results.[39]

Finding 3. There are some significant gaps in the comprehensiveness of HIV testing services, indicating that national guidelines are not fully adhered to. Across all facilities, as many as one quarter of clients who asked for an HIV test did not receive the test on the day of their visit. The inability to provide testing for those seeking this service (who may be infected) points to weaknesses in the national prevention efforts, and compromises efforts to achieve the 90-90-90 targets.

Moreover, our findings suggest that a noteworthy proportion of those who do get tested are not provided with comprehensive pre-test counseling (most notably at AIDS Centers and hospitals), and therefore do not receive complete information about the meaning of test results, and how to protect against risks of infection. Even more notable, only 19 of 31 clients (61.3%) who received rapid HIV test results on the day of the interview were provided with post-test counseling, creating a missed opportunity for implementing an evidence-based intervention to reduce the risk of further infection.

While staff training might need to be offered on the importance of conducting post-HIV test counseling, health managers might also need to institute measures (such as client exist interviews) to monitor the performance of personnel responsible for testing and counseling.

Finding 4. Though NGOs play a significant role in supporting provision of HIV services, they too face resource constraints that pose risks for the continuity of services they support as well as the need for more efficient service provision. Our findings indicate that HIV prevention programs such as condoms and sterile

39 Avaliani, N., Kuzin, I., Martsynovska, V., Yaremenko, O., & Zhytkova, Yu. (2015). *Ukraine's national patient pathways analysis, 2015.* Poster presented at the 8th IAS Conference on HIV Pathogenesis, Treatment and Prevention (IAS 2015). Vancouver, Canada, July 19-22, 2015.

needles and syringes are most often provided by NGOs – whether they are stand-alone facilities, or based within a health facility. It should be noted, however, that only 15% of all respondents reported receiving condoms on the day of the interview. Though, such services did not have a direct association with overall client satisfaction (likely due to the low number of respondents receiving this service), the data do suggest that those who received condoms tend to have more positive perspectives on the quality dimensions. This also points to a need for NGOs to focus on more efficient service provision, ensuring that they provide a broader range of HIV prevention services that goes beyond counselling and education on HIV prevention.

NGOs also support HIV testing whether through offering rapid tests onsite or through a mobile clinic, or, according to some service providers, by supplying test kits for health facilities. However, as noted above, as many as half of the respondents who went to an NGO to get tested were not able to receive an HIV test that same day. Though respondents did not offer an explanation for this, this could be due to multiple reasons, including lack of rapid test and/or lack of medical personnel to administer a test given that non-medical personnel are not currently authorized to administer an HIV test.

Service providers commonly pointed out the value added by the services provided by NGOs, but also questioned the sustainability of such services given that NGOs are largely financed by international donors. Instead, providers suggested that social workers be integrated into the health facility teams and budgeted for accordingly.

"Support from NGOs is necessary. But how supportive can NGOs be if they are no longer financed by the donors? So, I believe that we should have our own social services and social workers. While we are still cooperating with NGOs, we have to ensure we have our own social workers in the staff. Then later, when donors stop financing NGOs, we'd be left with something. If we're suddenly left without social support, it'll be difficult for us to work."
– TB physician, Regional TB Dispensary

"It's necessary to somehow combine the medical part with the social services which must be included in the overall service delivery cycle. Because if it's carried out by a NGO within the framework of [donor-funded] project implementation, this is vulnerable because once the project ends, there's no financing, and there's no service. Therefore, this must be clearly defined; maybe the government with its budget should take over these services, define who will be responsible for what, include them in the general list of medical services. ...This would allow a patient to feel comfortable in any health facility."
– Head of Dovira Cabinet, Regional AIDS Center

APPENDIX 1.
SUPPLEMENTARY TABLES

APPENDIX 1. **SUPPLEMENTARY TABLES**

Table 1. **Sample size for client satisfaction survey**

Facility type	Number of facilities in sample	Average number of HIV service clients per day	Total number of clients	Number of clients to interview per facility	Sample size
AIDS Center	3	240	720	47	141
NGO	16	41	656	8	128
Primary Healthcare Center	4	20	80	12	48
Hospital (Central District or Central Municipal Hospital)	17	20	340	11/12	192
Narcological/TB Dispensary	7	130	910	20	140
Total	**47**	**-**	**2706**	**-**	**649**

Table 2. **Number of clients interviewed, by type of facility and region**

Type of Facility	Region			Total
	Mykolayiv	Poltava	Zhytomyr	
AIDS Center	47	47	47	**141**
Primary Healthcare Center	24	24	0	**48**
NGO	56	32	40	**128**
Narcological / TB dispensary	40	80	20	**140**
Central District / Central Municipal Hospital	56	80	56	**192**
Total	**223**	**263**	**163**	**649**

Table 3. **Demographic Characteristics of Clients**

		Type of facility											
		AIDS Center		Primary Healthcare Center		NGO		Narcological/ TB dispensary		Hospital		Total	
		Mean or Count	% or St. dev.	Mean or Count	% or St. dev.	Mean or Count	% or St. dev.	Mean or Count	% or St. dev.	Mean or Count	% or St. dev.	Mean or Count	% or St. dev.
Mean age		34_a	9	36_a	7	36_a	9	37_a	7	35_a	8	36	8
Sex	Female	62_a	44.0%	21_a	43.8%	53a	41.4%	31_b	22.1%	77_a	40.1%	244	37.6%
	Male	79_a	56.0%	27_a	56.3%	75a	58.6%	109_b	77.9%	115_a	59.9%	405	62.4%
	Total	**141**	**100%**	**48**	**100%**	**128**	**100%**	**140**	**100%**	**192**	**100%**	**649**	**100%**
Education	Secondary (including vocational) or less	117_a	83.0%	41_a	85.4%	113_a	88.3%	129_a	92.1%	171_a	89.1%	571	88.0%
	Higher	24_a	17.0%	7_a	14.6%	14_a	10.9%	10_a	7.1%	19a	9.9%	74	11.4%
	No answer	0^1	0%	0^1	0%	1_a	.8%	1_a	.7%	2a	1.0%	4	.6%
	Total	**141**	**100%**	**48**	**100%**	**128**	**100%**	**140**	**100%**	**192**	**100%**	**649**	**100%**
Employment status	Occasional work / unemployed / disability	$69_{a,d}$	48.9%	$34_{a,b}$	70.8%	85_b	66.4%	$108_{b,c}$	77.1%	90_d	46.9%	386	59.5%
	Full time or part-time job	$55_{a,c}$	39.0%	$14_{a,b,c}$	29.2%	$38_{a,b}$	29.7%	32_b	22.9%	96_c	50%	235	36.2%
	No answer	17_a	12.1%	0^1	0%	5_b	3.9%	0^1	0%	6_b	3.1%	28	4.3%
	Total	**141**	**100%**	**48**	**100%**	**128**	**100%**	**140**	**100%**	**192**	**100%**	**649**	**100%**
Income	Less or equal to UAH 2000	80_a	56.7%	29_a	60.4%	83_a	64.8%	73_a	52.1%	126_a	65.6%	391	60.2%
	UAH 2001 and more	50_a	35.5%	17_a	35.4%	37_a	28.9%	43_a	30.7%	53_a	27.6%	200	30.8%
	No answer	$11_{a,b}$	7.8%	$2_{a,b}$	4.2%	$8_{a,b}$	6.3%	24_a	17.1%	13_b	6.8%	58	8.9%
	Total	**141**	**100%**	**48**	**100%**	**128**	**100%**	**140**	**100%**	**192**	**100%**	**649**	**100%**
Life history of injecting drugs	No	61_a	43.3%	12_a	25.0%	46_a	35.9%	8_b	5.7%	75_a	39.1%	202	31.1%
	Yes	77_a	54.6%	36_a	75.0%	81a	63.3%	132_b	94.3%	117_a	60.9%	443	68.3%
	No answer	3_a	2.1%	0^1	0%	1_a	.8%	0^1	0%	0^1	0%	4	.6%
	Total	**141**	**100%**	**48**	**100%**	**128**	**100%**	**140**	**100%**	**192**	**100%**	**649**	**100%**

Note: Values in the same row and sub-table not sharing the same subscript are significantly different at $p < .05$ in the two-sided test of equality for column proportions or two-sided test of equality for column means. Cells with no subscript are not included in the test. Tests assume equal variances. Tests are adjusted for all pairwise comparisons within a row of each innermost sub-table using the Bonferroni correction.

[1] This category is not used in comparisons because its column proportion is equal to zero or one.

Table 4. **Answers to the question "*How long have you been visiting this facility*?" by the type of facility**

	Type of facility											
	AIDS Center		Primary Healthcare Center		NGO		Narcological/ TB dispensary		Hospital		Total	
	Count	%	Count	%	Count	%	Count	%	Count	%	Count	%
First visit	20_a	14.2%	$1_{a,b}$	2.1%	2_b	1.6%	$1_{b,c}$	0.7%	25_a	13.0%	49	7.6%
More than 1 month	11_a	7.8%	1_a	2.1%	5_a	3.9%	3_a	2.1%	7_a	3.6%	27	4.2%
2-6 months	$11_{a,b}$	7.8%	$1_{a,b}$	2.1%	15_a	11.7%	21_a	15.0%	5_b	2.6%	53	8.2%
7-11 months	13_a	9.2%	13_b	27.1%	10_a	7.8%	8_a	5.7%	13_a	6.8%	57	8.8%
1-2 years	43_a	30.5%	$25_{a,b}$	52.1%	$60_{a,b}$	46.9%	78_b	55.7%	$98_{b,c}$	51.0%	304	46.8%
3-4 years	13_a	9.2%	3_a	6.3%	15_a	11.7%	18_a	12.9%	22_a	11.5%	71	10.9%
5-6 years	13_a	9.2%	2_a	4.2%	11_a	8.6%	7_a	5.0%	8_a	4.2%	41	6.3%
7-10 years	12_a	8.5%	1_a	2.1%	6_a	4.7%	3_a	2.1%	6_a	3.1%	28	4.3%
11-15 years	2_a	1.4%	0^1	0%	3_a	2.3%	1_a	0.7%	3_a	1.6%	9	1.4%
16-20 years	2_a	1.4%	1_a	2.1%	0^1	0%	0^1	0%	5_a	2.6%	8	1.2%
No answer	1_a	0.7%	0^1	0%	1_a	0.8%	0^1	0%	0^1	0%	2	0.3%
Total	**141**	**100%**	**48**	**100%**	**128**	**100%**	**140**	**100%**	**192**	**100%**	**649**	**100%**

Note: Values in the same row and sub-table not sharing the same subscript are significantly different at p< .05 in the two-sided test of equality for column proportions. Cells with no subscript are not included in the test. Tests assume equal variances. Tests are adjusted for all pairwise comparisons within a row of each innermost sub-table using the Bonferroni correction.

[1] This category is not used in comparisons because its column proportion is equal to zero or one.

Table 5. **Answers to the question *"Before today's visit, when was the last time that you visited this facility to receive HIV prevention, care or treatment services?"* by the type of facility**
(among those who hasn't been visiting the facility for the first time on the day of the interview, N=600)

	Type of facility											
	AIDS Center		Primary Healthcare Center		NGO		Narcological/ TB dispensary		Hospital		Total	
	Count	%	Count	%	Count	%	Count	%	Count	%	Count	%
Less than 1 month	59_a	48.8%	$30_{a,b}$	63.8%	99_b	78.6%	130_c	93.5%	$117_{b,d}$	70.1%	435	72.5%
Between 1-6 months ago	52_a	43.0%	$15_{a,b}$	31.9%	22_b	17.5%	6_c	4.3%	$46_{a,b}$	27.5%	141	23.5%
Between 7-11 months ago	5_a	4.1%	1_a	2.1%	3_a	2.4%	0^1	0%	3_a	1.8%	12	2.0%
1-2 years ago	4_a	3.3%	0^1	0%	0^1	0%	1_a	.7%	0^1	0%	5	0.8%
3-4 years	0^1	0%	1_a	2.1%	0^1	0%	0^1	0%	0^1	0%	1	0.2%

Note: Values in the same row and sub-table not sharing the same subscript are significantly different at p< .05 in the two-sided test of equality for column proportions. Cells with no subscript are not included in the test. Tests assume equal variances. Tests are adjusted for all pairwise comparisons within a row of each innermost sub-table using the Bonferroni correction.

[1]This category is not used in comparisons because its column proportion is equal to zero or one.

Continuation of Table 5

	Type of facility											
	AIDS Center		Primary Healthcare Center		NGO		Narcological/ TB dispensary		Hospital		Total	
	Count	%	Count	%	Count	%	Count	%	Count	%	Count	%
5-10 years ago	1_a	.8%	0^1	0%	1_a	.8%	0^1	0%	0^1	0%	2	0.3%
No answer	0^1	0%	0^1	0%	1_a	.8%	2_a	1.4%	1_a	.6%	4	0.7%
Total	**121**	**100%**	**47**	**100%**	**126**	**100%**	**139**	**100%**	**167**	**100%**	**600**	**100%**

Note: Values in the same row and sub-table not sharing the same subscript are significantly different at p< .05 in the two-sided test of equality for column proportions. Cells with no subscript are not included in the test. Tests assume equal variances. Tests are adjusted for all pairwise comparisons within a row of each innermost sub-table using the Bonferroni correction.

[1]This category is not used in comparisons because its column proportion is equal to zero or one.

Table 6. **Answers to the question "*How long did it take you to come to the facility today (hours: minutes)?*" by type of facility** (for patients who reported coming to the facility on the day of the interview, N=627)

Type of facility	Mean	Std. Deviation	Median	Minimum	Maximum	Number of cases
AIDS Center	0:39	0:30	0:30	0:05	3:30	141
Primary Healthcare Center	0:18	0:13	0:15	0:03	1:00	48
NGO	0:25	0:16	0:20	0:05	2:00	127
Narcological/ TB dispensary	0:26	0:13	0:25	0:01	1:30	119
Hospital	0:24	0:18	0:20	0:04	2:10	192
Total	**0:28**	**0:21**	**0:25**	**0:01**	**3:30**	**627**

Note: Kruskal-Wallis 1-way ANOVA p-value < 0.001

Table 7. **Answers to the question "*What was the transportation that you used to come to the facility today?*" by the type of facility**

	Type of facility											
	AIDS Center		Primary Healthcare Center		NGO		Narcological/ TB dispensary		Hospital		Total	
	Count	%	Count	%	Count	%	Count	%	Count	%	Count	%
Bus	38_a	27.0%	$7_{a,b}$	14.6%	32_a	25.0%	$32_{a,b}$	22.9%	23_b	12.0%	132	20.3%
"Marshrutka" (public minivan)	54_a	38.3%	10_a	20.8%	41_a	32.0%	52_a	37.1%	55_a	28.6%	212	32.7%
Taxi	1_a	.7%	0^1	0%	4_a	3.1%	0^1	0%	2_a	1.0%	7	1.1%
Own car	8_a	5.7%	2_a	4.2%	3_a	2.3%	5_a	3.6%	4_a	2.1%	22	3.4%

Note: Values in the same row and sub-table not sharing the same subscript are significantly different at p< .05 in the two-sided test of equality for column proportions. Cells with no subscript are not included in the test. Tests assume equal variances. Tests are adjusted for all pairwise comparisons within a row of each innermost sub-table using the Bonferroni correction.

[1] This category is not used in comparisons because its column proportion is equal to zero or one.

Continuation of Table 7

	Type of facility											
	AIDS Center		Primary Healthcare Center		NGO		Narcological/ TB dispensary		Hospital		Total	
	Count	%	Count	%	Count	%	Count	%	Count	%	Count	%
Friends'/family car	5_a	3.5%	2_a	4.2%	0^1	0%	4_a	2.9%	9_a	4.7%	20	3.1%
On foot	27_a	19.1%	26_b	54.2%	45_b	35.2%	22_a	15.7%	98_b	51.0%	218	33.6%
Other	8_a	5.7%	$1_{a,b,c}$	2.1%	$3_{a,c}$	2.3%	25_b	17.9%	1_c	.5%	38	5.9%
Total	**141**	**100%**	**48**	**100%**	**128**	**100%**	**140**	**100%**	**192**	**100%**	**649**	**100%**

Note: Values in the same row and sub-table not sharing the same subscript are significantly different at p< .05 in the two-sided test of equality for column proportions. Cells with no subscript are not included in the test. Tests assume equal variances. Tests are adjusted for all pairwise comparisons within a row of each innermost sub-table using the Bonferroni correction.

[1] This category is not used in comparisons because its column proportion is equal to zero or one.

Table 8. **Answers to the question "*How long did you wait before you received the service you came for today*?" by the type of facility**

	Type of facility											
	AIDS Center		Primary Healthcare Center		NGO		Narcological/ TB dispensary		Hospital		Total	
	Count	%	Count	%	Count	%	Count	%	Count	%	Count	%
0-15 minutes	60_a	42.6%	$29_{a,c}$	60.4%	122_b	95.3%	119_b	85.0%	131_c	68.2%	461	71.0%
16-30 minutes	36_a	25.5%	$10_{a,c}$	20.8%	6_b	4.7%	$16_{b,c,d}$	11.4%	$44_{a,d}$	22.9%	112	17.3%
31-45 minutes	18_a	12.8%	$6_{a,b}$	12.5%	0^1	0%	4_b	2.9%	$12_{a,b}$	6.3%	40	6.2%
46-59 minutes	11_a	7.8%	$3_{a,b}$	6.3%	0^1	0%	0^1	0%	3_b	1.6%	17	2.6%
1-2 hours	8_a	5.7%	0^1	0%	0^1	0%	0^1	0%	1_b	.5%	9	1.4%
More than 2 hours	8_a	5.7%	0^1	0%	0^1	0%	0^1	0%	0^1	0%	8	1.2%
No answer	0^1	0%	0^1	0%	0^1	0%	1_a	.7%	1_a	.5%	2	0.3%
Total	**141**	**100%**	**48**	**100%**	**128**	**100%**	**140**	**100%**	**192**	**100%**	**649**	**100%**

Note: Values in the same row and sub-table not sharing the same subscript are significantly different at p< .05 in the two-sided test of equality for column proportions. Cells with no subscript are not included in the test. Tests assume equal variances. Tests are adjusted for all pairwise comparisons within a row of each innermost sub-table using the Bonferroni correction.

[1] This category is not used in comparisons because its column proportion is equal to zero or one.

Table 9. **Answers to the question *"How do you feel about the amount of time you waited to receive service?"* by type of facility**

	Type of facility											
	AIDS Center		Primary Healthcare Center		NGO		Narcological/ TB dispensary		Hospital		Total	
	Count	Column %	Count	Column %	Count	Column %	Count	Column %	Count	Column %	Count	Column %
Very long	15_a	10.6%	$2_{a,b}$	4.2%	0^1	0%	2_b	1.4%	$5_{b,c}$	2.6%	24	3.7%
Long enough	19_a	13.5%	0^1	0%	0^1	0%	2_b	1.4%	5_b	2.6%	26	4.0%
Moderately long	31_a	22.0%	10_a	20.8%	4_b	3.1%	18_a	12.9%	24_a	12.5%	87	13.4%
Not long	75_a	53.2%	$36_{a,c}$	75.0%	124_b	96.9%	118_c	84.3%	$157_{c,d}$	81.8%	510	78.6%
No answer	1_a	.7%	0^1	0%	0^1	0%	0^1	0%	1_a	.5%	2	0.3%
Total	**141**	**100%**	**48**	**100%**	**128**	**100%**	**140**	**100%**	**192**	**100%**	**649**	**100%**

Note: Values in the same row and sub-table not sharing the same subscript are significantly different at p< .05 in the two-sided test of equality for column proportions. Cells with no subscript are not included in the test. Tests assume equal variances. Tests are adjusted for all pairwise comparisons within a row of each innermost sub-table using the Bonferroni correction.

[1] This category is not used in comparisons because its column proportion is equal to zero or one.

Table 10. **Cross-tabulation of answers to the questions *"How do you feel about the amount of time you waited to receive service?"* and *"How long did you wait before you received the service you came for today?"***

		How do you feel about the amount of time you waited to receive service?														
		Very long + Long Enough			Moderately long			Not long			No answer			Total		
		Count	Column%	Row %	Count	Column%	Row %	Count	Column%	Row %	Count	Column%	Row %	Count	Column%	Row %
How long did you wait before you received the service you came for today?	0-15 minutes	2_a	4.0%	.4%	13_a	14.9%	2.8%	444_b	87.1%	96.3%	2^1	100%	.4%	461	71.0%	100%
	16-30 minutes	4_a	8.0%	3.6%	50_b	57.5%	44.6%	58_a	11.4%	51.8%	0^1	0%	0%	112	17.3%	100%
	31 minutes or more	44_a	88.0%	59.5%	24_b	27.6%	32.4%	6_c	1.2%	8.1%	0^1	0%	0%	74	11.4%	100%
	No answer	0^1	0%	0%	0^1	0%	0%	2_a	.4%	100%	0^1	0%	0%	2	0.3%	100%
	Total	**50**	**100%**	**7.7%**	**87**	**100%**	**13.4%**	**510**	**100%**	**78.6%**	**2**	**100%**	**.3%**	**649**	**100%**	**100%**

Note: Values in the same row and sub-table not sharing the same subscript are significantly different at p< .05 in the two-sided test of equality for column proportions. Cells with no subscript are not included in the test. Tests assume equal variances. Tests are adjusted for all pairwise comparisons within a row of each innermost sub-table using the Bonferroni correction.

[1] This category is not used in comparisons because its column proportion is equal to zero or one.

Table 11. **Answers to the question *"How much time did you spend with the health service provider (doctor, nurse, counselor)?"* by the type of facility**

	Type of facility											
	AIDS Center		Primary Healthcare Center		NGO		Narcological/ TB dispensary		Hospital		Total	
	Count	%	Count	%	Count	%	Count	%	Count	%	Count	%
0-15 minutes	$74_{a,b,d}$	52.5%	$33_{a,c,d}$	68.8%	50_{b}	39.1%	120_{c}	85.7%	125_{d}	65.1%	402	61.9%
16-30 minutes	$45_{a,b}$	31.9%	$9_{a,c}$	18.8%	54_{b}	42.2%	10_{c}	7.1%	$57_{a,b}$	29.7%	175	27.0%
31-45 minutes	$15_{a,b}$	10.6%	$6_{a,b}$	12.5%	17_{a}	13.3%	$8_{a,b}$	5.7%	8_{b}	4.2%	54	8.3%
45-60 minutes	6_{a}	4.3%	0^{1}	0%	5_{a}	3.9%	2_{a}	1.4%	1_{a}	.5%	14	2.2%
more than 1 hour	1_{a}	.7%	0^{1}	0%	2_{a}	1.6%	0^{1}	0%	1_{a}	.5%	4	0.6%
Total	**141**	**100%**	**48**	**100%**	**128**	**100%**	**140**	**100%**	**192**	**100%**	**649**	**100%**

Note: Values in the same row and sub-table not sharing the same subscript are significantly different at p< .05 in the two-sided test of equality for column proportions. Cells with no subscript are not included in the test. Tests assume equal variances. Tests are adjusted for all pairwise comparisons within a row of each innermost sub-table using the Bonferroni correction.

[1] This category is not used in comparisons because its column proportion is equal to zero or one.

Table 12. **Answers to the question *"Are you satisfied with the facility's operating hours?"* by the type of facility**

	Type of facility											
	AIDS Center		Primary Healthcare Center		NGO		Narcological/ TB dispensary		Hospital		Total	
	Count	%	Count	%	Count	%	Count	%	Count	%	Count	%
No	20_{a}	14.2%	$4_{a,b}$	8.3%	1_{b}	.8%	34_{a}	24.3%	$7_{b,c}$	3.6%	66	10.2%
Yes	113_{a}	80.1%	$43_{a,b}$	89.6%	124_{b}	96.9%	102_{a}	72.9%	$184_{b,c}$	95.8%	566	87.2%
No answer	8_{a}	5.7%	$1_{a,b}$	2.1%	$3_{a,b}$	2.3%	$4_{a,b}$	2.9%	1_{b}	.5%	17	2.6%
Total	**141**	**100%**	**48**	**100%**	**128**	**100%**	**140**	**100%**	**192**	**100%**	**649**	**100%**

Note: Values in the same row and sub-table not sharing the same subscript are significantly different at p< .05 in the two-sided test of equality for column proportions. Cells with no subscript are not included in the test. Tests assume equal variances. Tests are adjusted for all pairwise comparisons within a row of each innermost sub-table using the Bonferroni correction.

[1] This category is not used in comparisons because its column proportion is equal to zero or one.

Table 13. **Answers to the question *"Did you come here today because you received a referral (were advised to come here) by another health facility or NGO?"* by the type of facility**

	Type of facility											
	AIDS Center		Primary Healthcare Center		NGO		Narcological/ TB dispensary		Hospital		Total	
	Count	%	Count	%	Count	%	Count	%	Count	%	Count	%
No	111_{a}	78.7%	$45_{a,b}$	93.8%	122_{b}	95.3%	$127_{a,b}$	90.7%	$171_{a,b}$	89.1%	576	88.8%
Yes	30_{a}	21.3%	$2_{a,b}$	4.2%	5_{b}	3.9%	$10_{b,c}$	7.1%	$19_{b,d}$	9.9%	66	10.2%
No answer	0^{1}	0%	1_{a}	2.1%	1_{a}	.8%	3_{a}	2.1%	2_{a}	1.0%	7	1.1%
Total	**141**	**100%**	**48**	**100%**	**128**	**100%**	**140**	**100%**	**192**	**100%**	**649**	**100%**

Note: Values in the same row and sub-table not sharing the same subscript are significantly different at p< .05 in the two-sided test of equality for column proportions. Cells with no subscript are not included in the test. Tests assume equal variances. Tests are adjusted for all pairwise comparisons within a row of each innermost sub-table using the Bonferroni correction.

[1] This category is not used in comparisons because its column proportion is equal to zero or one.

Table 14. **Answers to the question *"What was the reason for your visit to this facility today?"* by type of facility** (proportions of participants who checked such reasons, multiple choice)

		Type of facility																	
		AIDS Center			Primary Healthcare Center			NGO			Narcological / TB dispensary			Hospital			Total		
		Count	Column %	Row %	Count	Column %	Row %	Count	Column %	Row %	Count	Column %	Row %	Count	Column %	Row %	Count	Column %	Row %
To get tested for HIV	Mentioned	30_{a}	21.3%	41.1%	$3_{a,b}$	6.3%	4.1%	$8_{b,d}$	6.3%	11.0%	$1_{b,c}$	.7%	1.4%	$31_{a,d}$	16.1%	42.5%	73	11.2%	100%
	Not mentioned	111_{a}	78.7%	19.3%	$45_{a,b}$	93.8%	7.8%	$120_{b,d}$	93.8%	20.8%	$139_{b,c}$	99.3%	24.1%	$161_{a,d}$	83.9%	28.0%	576	88.8%	100%
	Total	141	100%	21.7%	48	100%	7.4%	128	100%	19.7%	140	100%	21.6%	192	100%	29.6%	649	100%	100%
To receive HIV test results	Mentioned	12_{a}	8.5%	44.4%	2_{a}	4.2%	7.4%	4_{a}	3.1%	14.8%	0^{1}	0%	0%	9_{a}	4.7%	33.3%	27	4.2%	100%
	Not mentioned	129_{a}	91.5%	20.7%	46_{a}	95.8%	7.4%	124_{a}	96.9%	19.9%	140^{1}	100%	22.5%	183_{a}	95.3%	29.4%	622	95.8%	100%
	Total	141	100%	21.7%	48	100%	7.4%	128	100%	19.7%	140	100%	21.6%	192	100%	29.6%	649	100%	100%
For HIV counseling or education	Mentioned	19_{a}	13.5%	12.3%	5_{a}	10.4%	3.2%	89_{b}	69.5%	57.8%	2_{c}	1.4%	1.3%	39_{a}	20.3%	25.3%	154	23.7%	100%
	Not mentioned	122_{a}	86.5%	24.6%	43_{a}	89.6%	8.7%	39_{b}	30.5%	7.9%	138_{c}	98.6%	27.9%	153_{a}	79.7%	30.9%	495	76.3%	100%
	Total	141	100%	21.7%	48	100%	7.4%	128	100%	19.7%	140	100%	21.6%	192	100%	29.6%	649	100%	100%

Note: Values in the same row and sub-table not sharing the same subscript are significantly different at p< .05 in the two-sided test of equality for column proportions. Cells with no subscript are not included in the test. Tests assume equal variances. Tests are adjusted for all pairwise comparisons within a row of each innermost sub-table using the Bonferroni correction.

[1] This category is not used in comparisons because its column proportion is equal to zero or one.

Continuation of Table 14

		Type of facility																	
		AIDS Center			Primary Healthcare Center			NGO			Narcological / TB dispensary			Hospital			Total		
		Count	Column %	Row %	Count	Column %	Row %	Count	Column %	Row %	Count	Column %	Row %	Count	Column %	Row %	Count	Column %	Row %
For OST	Mentioned	1_a	0.7%	0.6%	28_b	58.3%	15.6%	0_1	0%	0%	110_c	78.6%	61.1%	41_d	21.4%	22.8%	180	27.7%	100%
	Not mentioned	140_a	99.3%	29.9%	20_b	41.7%	4.3%	128_1	100%	27.3%	30_c	21.4%	6.4%	151_d	78.6%	32.2%	469	72.3%	100%
	Total	141	100%	21.7%	48	100%	7.4%	128	100%	19.7%	140	100%	21.6%	192	100%	29.6%	649	100%	100%
To get free condoms/ lubricants	Mentioned	0^1	0%	0%	0^1	0%	0%	47_a	36.7%	65.3%	11_b	7.9%	15.3%	14_b	7.3%	19.4%	72	11.1%	100%
	Not mentioned	141^1	100%	24.4%	48^1	100%	8.3%	81_a	63.3%	14.0%	129_b	92.1%	22.4%	178_b	92.7%	30.8%	577	88.9%	100%
	Total	141	100%	21.7%	48	100%	7.4%	128	100%	19.7%	140	100%	21.6%	192	100%	29.6%	649	100%	100%
To get clean needles/ syringes	Mentioned	0^1	0%	0%	0^1	0%	0%	35_a	27.3%	62.5%	10_b	7.1%	17.9%	11_b	5.7%	19.6%	56	8.6%	100%
	Not mentioned	141^1	100%	23.8%	48^1	100%	8.1%	93_a	72.7%	15.7%	130_b	92.9%	21.9%	181_b	94.3%	30.5%	593	91.4%	100%
	Total	141	100%	21.7%	48	100%	7.4%	128	100%	19.7%	140	100%	21.6%	192	100%	29.6%	649	100%	100%
Regular check-up for HIV care for myself	Mentioned	25_a	17.7%	39.1%	10_a	20.8%	15.6%	4_b	3.1%	6.3%	0^1	0%	0%	25_a	13.0%	39.1%	64	9.9%	100%
	Not mentioned	116_a	82.3%	19.8%	38_a	79.2%	6.5%	124_b	96.9%	21.2%	140^1	100%	23.9%	167_a	87.0%	28.5%	585	90.1%	100%
	Total	141	100%	21.7%	48	100%	7.4%	128	100%	19.7%	140	100%	21.6%	192	100%	29.6%	649	100%	100%
Regular check-up for HIV care for my child	Mentioned	12_a	8.5%	80%	$1_{a,b}$	2.1%	6.7%	0^1	0%	0%	0^1	0%	0%	2_b	1.0%	13.3%	15	2.3%	100%
	Not mentioned	129_a	91.5%	20.3%	$47_{a,b}$	97.9%	7.4%	128^1	100%	20.2%	140^1	100%	22.1%	190_b	99.0%	30%	634	97.7%	100%
	Total	141	100%	21.7%	48	100%	7.4%	128	100%	19.7%	140	100%	21.6%	192	100%	29.6%	649	100%	100%
ARV treatment	Mentioned	47_a	33.3%	37.0%	5_b	10.4%	3.9%	1_c	.8%	.8%	21_b	15.0%	16.5%	$53_{a,b}$	27.6%	41.7%	127	19.6%	100%
	Not mentioned	94_a	66.7%	18.0%	43_b	89.6%	8.2%	127_c	99.2%	24.3%	119_b	85.0%	22.8%	$139_{a,b}$	72.4%	26.6%	522	80.4%	100%
	Total	141	100%	21.7%	48	100%	7.4%	128	100%	19.7%	140	100%	21.6%	192	100%	29.6%	649	100%	100%
To get other health services	Mentioned	18_a	12.8%	30%	$1_{a,b}$	2.1%	1.7%	3_b	2.3%	5.0%	$13_{a,b}$	9.3%	21.7%	25_a	13.0%	41.7%	60	9.2%	100%
	Not mentioned	123_a	87.2%	20.9%	$47_{a,b}$	97.9%	8.0%	125_b	97.7%	21.2%	$127_{a,b}$	90.7%	21.6%	167_a	87.0%	28.4%	589	90.8%	100%
	Total	141	100%	21.7%	48	100%	7.4%	128	100%	19.7%	140	100%	21.6%	192	100%	29.6%	649	100%	100%

Note: Values in the same row and sub-table not sharing the same subscript are significantly different at p< .05 in the two-sided test of equality for column proportions. Cells with no subscript are not included in the test. Tests assume equal variances. Tests are adjusted for all pairwise comparisons within a row of each innermost sub-table using the Bonferroni correction.

[1] This category is not used in comparisons because its column proportion is equal to zero or one.

Table 15. **Answers to the question "*Were you offered or did you ask for an HIV test today?*" by the type of facility**

	Type of facility											
	AIDS Center		Primary Healthcare Center		NGO		Narcological/ TB dispensary		Hospital		Total	
	Count	%	Count	%	Count	%	Count	%	Count	%	Count	%
No	$58_{a,c}$	41.1%	$27_{a,b}$	56.3%	83_{b}	64.8%	$77_{a,b}$	55.0%	64_{c}	33.3%	309	47.6%
Yes	26_{a}	18.4%	$3_{a,b}$	6.3%	20_{a}	15.6%	3_{b}	2.1%	31_{a}	16.1%	83	12.8%
No answer	57_{a}	40.4%	$18_{a,b}$	37.5%	25_{b}	19.5%	60_{a}	42.9%	97_{a}	50.5%	257	39.6%
Total	**141**	**100%**	**48**	**100%**	**128**	**100%**	**140**	**100%**	**192**	**100%**	**649**	**100%**

Note: Values in the same row and sub-table not sharing the same subscript are significantly different at p< .05 in the two-sided test of equality for column proportions. Cells with no subscript are not included in the test. Tests assume equal variances. Tests are adjusted for all pairwise comparisons within a row of each innermost sub-table using the Bonferroni correction.

Table 16. **Answers to the question *"Did you receive results from an HIV test you took on a prior day?"* by the type of facility** (among those who didn't answer "yes" to the question "Were you offered or did you ask for an HIV test today?", N=566)

	Type of facility											
	AIDS Center		Primary Healthcare Center		NGO		Narcological/ TB dispensary		Hospital		Total	
	Count	%	Count	%	Count	%	Count	%	Count	%	Count	%
No	47_{a}	40.9%	13_{a}	28.9%	83_{b}	76.9%	60_{a}	43.8%	49_{a}	30.4%	252	44.5%
Yes	11_{a}	9.6%	1_{a}	2.2%	0^{1}	0%	10_{a}	7.3%	4_{a}	2.5%	26	4.6%
No answer	57_{a}	49.6%	$31_{a,c}$	68.9%	25_{b}	23.1%	67_{a}	48.9%	108_{c}	67.1%	288	50.9%
Total	**115**	**100%**	**45**	**100%**	**108**	**100%**	**137**	**100%**	**161**	**100%**	**566**	**100%**

Note: Values in the same row and sub-table not sharing the same subscript are significantly different at p< .05 in the two-sided test of equality for column proportions. Cells with no subscript are not included in the test. Tests assume equal variances. Tests are adjusted for all pairwise comparisons within a row of each innermost sub-table using the Bonferroni correction.

[1] This category is not used in comparisons because its column proportion is equal to zero or one.

Table 17. **Answers to the question "*Did you get an HIV test today?*" by the type of facility** (among those who were offered or asked for an HIV test today, N=83)

	Type of facility											
	AIDS Center		Primary Healthcare Center		NGO		Narcological/ TB dispensary		Hospital		Total	
	Count	%	Count	%	Count	%	Count	%	Count	%	Count	%
No	0	0%	1	33.3%	11	55.0%	1	33.3%	0	0%	13	15.7%
Yes	23	88.5%	2	66.7%	7	35.0%	2	66.7%	29	93.5%	63	75.9%
No answer	3	11.5%	0	0%	2	10%	0	0%	2	6.5%	7	8.4%
Total	**26**	**100%**	**3**	**100%**	**20**	**100%**	**3**	**100%**	**31**	**100%**	**83**	**100%**

Note: Statistical testing is not valid because of small numbers in cells.

Table 18. **Cross-tabulation of answers to the questions "*Did you get an HIV test today?*" and "*What was the reason for your visit to this facility today?*" (such reasons may be relevant both for PLHIV and HIV-negative participants)** (among those who were offered or asked for an HIV test today, N=83)

Reason for visit		"Did you get an HIV test today?"							
		No		Yes		No answer		Total	
		Count	Row N %	Count	Row N %	Count	Row N %	Count	Row N %
To get tested for HIV	Mentioned	1	1.5%	62	91.2%	5	7.4%	68	100%
	Not mentioned	12	80%	1	6.7%	2	13.3%	15	100%
	Total	13	15.7%	63	75.9%	7	8.4%	83	100%
HIV counseling or education	Mentioned	10	58.8%	5	29.4%	2	11.8%	17	100%
	Not mentioned	3	4.5%	58	87.9%	5	7.6%	66	100%
	Total	13	15.7%	63	75.9%	7	8.4%	83	100%
OST	Mentioned	0	0%	1	100%	0	0%	1	100%
	Not mentioned	13	15.9%	62	75.6%	7	8.5%	82	100%
	Total	13	15.7%	63	75.9%	7	8.4%	83	100%
To get free condoms/ lubricants	Mentioned	4	33.3%	6	50%	2	16.7%	12	100%
	Not mentioned	9	12.7%	57	80.3%	5	7.0%	71	100%
	Total	13	15.7%	63	75.9%	7	8.4%	83	100%
To get clean needles/syringes	Mentioned	2	33.3%	4	66.7%	0	0%	6	100%
	Not mentioned	11	14.3%	59	76.6%	7	9.1%	77	100%
	Total	13	15.7%	63	75.9%	7	8.4%	83	100%

Note: Statistical testing is not valid because of small numbers in cells.

Table 19. **Answers to the question *"Which type of HIV test did you take?"*** (among those who had an HIV test today, N=63)

	Type of facility											
	AIDS Center		Primary Healthcare Center		NGO		Narcological/ TB dispensary		Hospital		Total	
	Count	%	Count	%	Count	%	Count	%	Count	%	Count	%
HIV Rapid test (results same day)	2	8.7%	2	100%	7	100%	2	100%	20	69.0%	33	52.4%
HIV blood (ELISA) test	21	91.3%	0	0%	0	0%	0	0%	9	31.0%	30	47.6%
Total	**23**	**100%**	**2**	**100%**	**7**	**100%**	**2**	**100%**	**29**	**100%**	**63**	**100%**

Note: Statistical testing is not valid because of small numbers in cells.

Table 20. **Answers to the question *"Prior to getting the HIV test, were you provided with information about the HIV test and HIV infection, including ways in which HIV is transmitted, the importance of obtaining test results, and the meaning of HIV test results?"*** (among those who had an HIV test today, N=63)

	Type of facility											
	AIDS Center		Primary Healthcare Center		NGO		Narcological/ TB dispensary		Hospital		Total	
	Count	%	Count	%	Count	%	Count	%	Count	%	Count	%
No	6	26.1%	0	0%	0	0%	0	0%	10	34.5%	16	25.4%
Yes	17	73.9%	2	100%	7	100%	2	100%	19	65.5%	47	74.6%
Total	**23**	**100%**	**2**	**100%**	**7**	**100%**	**2**	**100%**	**29**	**100%**	**63**	**100%**

Note: Statistical testing is not valid because of small numbers in cells.

Table 21. **Answers to the question *"Did the health provider tell you what you can do to reduce your risk of HIV infection?"*** (among those who had an HIV test today, N=63)

	Type of facility											
	AIDS Center		Primary Healthcare Center		NGO		Narcological/ TB dispensary		Hospital		Total	
	Count	%	Count	%	Count	%	Count	%	Count	%	Count	%
No	7	30.4%	0	0%	0	0%	0	0%	12	41.4%	19	30.2%
Yes	16	69.6%	2	100%	7	100%	2	100%	17	58.6%	44	69.8%
Total	**23**	**100%**	**2**	**100%**	**7**	**100%**	**2**	**100%**	**29**	**100%**	**63**	**100%**

Note: Statistical testing is not valid because of small numbers in cells.

Table 22. **Answers to the question *"Prior to getting the HIV test, were you given the option to accept or refuse to take the test?"*** (among those who had an HIV test today, N=63)

	Type of facility											
	AIDS Center		Primary Healthcare Center		NGO		Narcological/ TB dispensary		Hospital		Total	
	Count	%	Count	%	Count	%	Count	%	Count	%	Count	%
No	1	4.3%	0	0%	0	0%	0	0%	6	20.7%	7	11.1%
Yes	20	87.0%	2	100%	7	100%	2	100%	20	69.0%	51	81.0%
No answer	2	8.7%	0	0%	0	0%	0	0%	3	10.3%	5	7.9%
Total	**23**	**100%**	**2**	**100%**	**7**	**100%**	**2**	**100%**	**29**	**100%**	**63**	**100%**

Note: Statistical testing is not valid because of small numbers in cells.

Table 23. **Answers to the question *"Did you receive your HIV test results today?"* (**among those who had an HIV test today, N=63)

	Type of facility											
	AIDS Center		Primary Healthcare Center		NGO		Narcological/ TB dispensary		Hospital		Total	
	Count	%	Count	%	Count	%	Count	%	Count	%	Count	%
No	21	91.3%	1	50%	0	0%	0	0%	9	31.0%	31	49.2%
Yes	2	8.7%	1	50%	7	100%	2	100%	19	65.5%	31	49.2%
No answer	0	0%	0	0%	0	0%	0	0%	1	3.4%	1	1.6%
Total	**23**	**100%**	**2**	**100%**	**7**	**100%**	**2**	**100%**	**29**	**100%**	**63**	**100%**

Note: Statistical testing is not valid because of small numbers in cells.

Table 24. **Answers to the question *"Did you receive some counseling after receiving your test result?"*** (among those who received HIV test results today, N=31)

	Type of facility											
	AIDS Center		Primary Healthcare Center		NGO		Narcological/ TB dispensary		Hospital		Total	
	Count	%	Count	%	Count	%	Count	%	Count	%	Count	%
No	1	50%	0	0%	0	0%	0	0%	11	57.9%	12	38.7%
Yes	1	50%	1	100%	7	100%	2	100%	8	42.1%	19	61.3%
Total	**2**	**100%**	**1**	**100%**	**7**	**100%**	**2**	**100%**	**19**	**100%**	**31**	**100%**

Note: Statistical testing is not valid because of small numbers in cells.

Table 25. **Results of confirmatory factor analysis (CFA) for the Overall Comprehensiveness Score for HIV testing** (among those who received HIV test and/or HIV test results after taking an HIV test today, N=63)

	Count (%) of clients who received services	Standardized factor loadings by CFA[40]
Indicator 1. Receipt of information prior to getting HIV test	47 (74.6%)	1.00
Indicator 2. Receipt of information on reducing HIV risk	44 (69.8%)	0.918
Indicator 3. Option to refuse/accept test	51 (81%)	0.092
Indicator 4. Receipt of counseling after receiving HIV test result *(among clients who received HIV test result after taking a test on the day of the interview (N=31))*	19 (61%)	0.537

CFA model fit:
Minimum Function Test Statistic=4.46
Degrees of freedom=3
Comparative Fit Index (CFI)=0.99
Tucker-Lewis Index (TLI)=0.99
RMSEA=0.09

40 Factor loadings > 0.5 are considered as acceptable fit meaning that selected indicators result from the one underlying latent variable. A factor loading is a correlation between latent variable and an observed indicator.

Table 26. **Overall Comprehensiveness Score for HIV testing and differences in the score by selected control variables**
(among those who received HIV test and/or HIV test results after taking an HIV test today, N=63)

		Mean	Standard Deviation	Median	Minimum	Maximum	Number of cases
Age	18-35	0.58	0.35	0.75	0.00	1.00	50
	36+	0.87	0.27	1.00	0.04	1.00	13
	Total	0.64	0.36	0.79	0.00	1.00	63
Sex	Female	0.79	0.30	0.79	0.00	1.00	18
	Male	0.57	0.36	0.75	0.00	1.00	45
	Total	0.64	0.36	0.79	0.00	1.00	63
Education	Secondary (including vocational) or less	0.67	0.33	0.79	0.00	1.00	49
	Higher	0.51	0.44	0.79	0.00	1.00	14
	Total	0.64	0.36	0.79	0.00	1.00	63
Employment status	Occasional work / unemployed / disability	0.73	0.37	0.79	0.00	1.00	20
	Full time or part-time job	0.61	0.36	0.75	0.04	1.00	37
	No answer	0.47	0.29	0.43	0.00	0.79	6
	Total	0.64	0.36	0.79	0.00	1.00	63
Income	Up to UAH 2000	0.69	0.36	0.79	0.00	1.00	27
	UAH 2001+	0.59	0.37	0.75	0.00	1.00	33
	No answer	0.67	0.21	0.79	0.43	0.79	3
	Total	0.64	0.36	0.79	0.00	1.00	63
How long have you been visiting this facility?	Less than a year	0.56	0.36	0.75	0.00	1.00	41
	1 year +	0.78	0.31	0.88	0.04	1.00	22
	Total	0.64	0.36	0.79	0.00	1.00	63
Type of facility	AIDS Center	0.58	0.31	0.79	0	1	23
	Primary Healthcare Center	0.89	0.15	0.89	0.79	1	2
	NGO	1	0	1	1	1	7
	Narcological / TB dispensary	1	0	1	1	1	2
	Hospital	0.55	0.39	0.75	0	1	29
	Total	0.64	0.36	0.79	0	1	63
Received OST	Not mentioned	0.63	0.36	0.79	0.00	1.00	62
	Mentioned	-	-	-	1.00	1.00	1
	Total	0.64	0.36	0.79	0.00	1.00	63
Received free condoms	Not mentioned	0.60	0.36	0.75	0.00	1.00	57
	Mentioned	1.00	0.00	1.00	1.00	1.00	6
	Total	0.64	0.36	0.79	0.00	1.00	63
Received sterile syringes/needles	Not mentioned	0.61	0.36	0.79	0.00	1.00	59
	Mentioned	1.00	0.00	1.00	1.00	1.00	4
	Total	0.64	0.36	0.79	0.00	1.00	63
Received referral(s)	Not mentioned	0.62	0.36	0.79	0.00	1.00	59
	Mentioned	0.95	0.11	1.00	0.79	1.00	4
	Total	0.64	0.36	0.79	0.00	1.00	63

Note: Statistical testing is not valid because of small subsets.

Table 27. **Answers to the question *"Are you currently taking any antiretroviral medications or combination therapy for your HIV infection?"* by the type of facility**

	Type of facility											
	AIDS Center		Primary Healthcare Center		NGO		Narcological/ TB dispensary		Hospital		Total	
	Count	%	Count	%	Count	%	Count	%	Count	%	Count	%
No	60_a	42.6%	28_a	58.3%	63_a	49.2%	71_a	50.7%	90_a	46.9%	312	48.1%
Yes	81_a	57.4%	20_a	41.7%	65_a	50.8%	69_a	49.3%	101_a	52.6%	336	51.8%
No answer	0^1	0%	0^1	0%	0^1	0%	0^1	0%	1_a	.5%	1	.2%
Total	**141**	**100%**	**48**	**100%**	**128**	**100%**	**140**	**100%**	**192**	**100%**	**649**	**100%**

Note: Values in the same row and sub-table not sharing the same subscript are significantly different at p< .05 in the two-sided test of equality for column proportions. Cells with no subscript are not included in the test. Tests assume equal variances. Tests are adjusted for all pairwise comparisons within a row of each innermost sub-table using the Bonferroni correction.

[1] This category is not used in comparisons because its column proportion is equal to zero or one.

Table 28. **Answers to the question *"Did you receive any ARV drugs at this facility today?"* by the type of facility** (among those who are on ART, N=336)

	Type of facility											
	AIDS Center		Primary Healthcare Center		NGO		Narcological/ TB dispensary		Hospital		Total	
	Count	%	Count	%	Count	%	Count	%	Count	%	Count	%
No	26_a	32.1%	$15_{b,c}$	75.0%	62_b	95.4%	46_c	66.7%	$47_{a,c,d}$	46.5%	196	58.3%
Yes	54_a	66.7%	$5_{b,c}$	25.0%	3_b	4.6%	21_c	30.4%	$52_{a,c,d}$	51.5%	135	40.2%
No answer	1_a	1.2%	0^1	0%	0^1	0%	2_a	2.9%	2_a	2.0%	5	1.5%
Total	**81**	**100%**	**20**	**100%**	**65**	**100%**	**69**	**100%**	**101**	**100%**	**336**	**100%**

Note: Values in the same row and sub-table not sharing the same subscript are significantly different at p< .05 in the two-sided test of equality for column proportions. Cells with no subscript are not included in the test. Tests assume equal variances. Tests are adjusted for all pairwise comparisons within a row of each innermost sub-table using the Bonferroni correction.

[1] This category is not used in comparisons because its column proportion is equal to zero or one.

Table 29. **Answers to the question *"Who provided the ARV drugs to you today?"*** (among those who received any ARV drugs at the facility today, N=135)

	Type of facility											
	AIDS Center		Primary Healthcare Center		NGO		Narcological/ TB dispensary		Hospital		Total	
	Count	%	Count	%	Count	%	Count	%	Count	%	Count	%
Doctor	16	29.6%	1	20%	0	0%	1	4.8%	7	13.5%	25	18.5%
Nurse	36	66.7%	4	80%	1	33.3%	20	95.2%	43	82.7%	104	77.1%
Social worker	2	3.7%	0	0%	1	33.3%	0	0%	0	0%	3	2.2%
No answer	0	0%	0	0%	1	33.3%	0	0%	2	3.8%	3	2.2%
Total	**54**	**100%**	**5**	**100%**	**3**	**100%**	**21**	**100%**	**52**	**100%**	**135**	**100%**

Note: Statistical testing is not valid because of small numbers in cells.

Table 30. **Answers to the question *"Did you pay any money to receive any ARV drugs from this facility today?"*** (among those who received any ARV drugs at the facility today, N=135)

	Type of facility											
	AIDS Center		Primary Healthcare Center		NGO		Narcological/ TB dispensary		Hospital		Total	
	Count	%	Count	%	Count	%	Count	%	Count	%	Count	%
No	50	92.6%	5	100%	2	66.7%	21	100%	49	94.2%	127	94.1%
Yes	4	7.4%	0	0%	0	0%	0	0%	3	5.8%	7	5.2%
No answer	0	0%	0	0%	1	33.3%	0	0%	0	0%	1	.7%
Total	**54**	**100%**	**5**	**100%**	**3**	**100%**	**21**	**100%**	**52**	**100%**	**135**	**100%**

Note: Statistical testing is not valid because of small numbers in cells.

Table 31. **Answers to the question *"Did anyone at this facility ever talk to you or mention ways to take your pills on schedule?"*** (among those who received any ARV drugs at the facility today, N=135)

	Type of facility											
	AIDS Center		Primary Healthcare Center		NGO		Narcological/ TB dispensary		Hospital		Total	
	Count	%	Count	%	Count	%	Count	%	Count	%	Count	%
No	0	0%	0	0%	0	0%	4	19.0%	3	5.8%	7	5.2%
Yes, everything was clear to me	48	88.9%	3	60%	2	66.7%	17	81.0%	48	92.3%	118	87.4%
Yes, but it was not clear to me	5	9.3%	2	40%	0	0%	0	0%	1	1.9%	8	5.9%
No answer	1	1.9%	0	0%	1	33.3%	0	0%	0	0%	2	1.5%
Total	**54**	**100%**	**5**	**100%**	**3**	**100%**	**21**	**100%**	**52**	**100%**	**135**	**100%**

Note: Statistical testing is not valid because of small numbers in cells.

Table 32. **Answers to the question *"Did anyone at this facility ever talk to you about adherence to ART?"*** (among those who received any ARV drugs at the facility today, N=135)

	Type of facility											
	AIDS Center		Primary Healthcare Center		NGO		Narcological/ TB dispensary		Hospital		Total	
	Count	%	Count	%	Count	%	Count	%	Count	%	Count	%
No	8	14.8%	3	60%	0	0%	3	14.3%	6	11.5%	20	14.8%
Yes	46	85.2%	2	40%	2	66.7%	18	85.7%	43	82.7%	111	82.2%
No answer	0	0%	0	0%	1	33.3%	0	0%	3	5.8%	4	3.0%
Total	**54**	**100%**	**5**	**100%**	**3**	**100%**	**21**	**100%**	**52**	**100%**	**135**	**100%**

Note: Statistical testing is not valid because of small numbers in cells.

Table 33. **Answers to the question *"Did anyone at this facility talk to you or mention nutrition or diet?"*** (among those who received any ARV drugs at the facility today, N=135)

	Type of facility											
	AIDS Center		Primary Healthcare Center		NGO		Narcological/ TB dispensary		Hospital		Total	
	Count	%	Count	%	Count	%	Count	%	Count	%	Count	%
No	10	18.5%	3	60%	0	0%	9	42.9%	6	11.5%	28	20.7%
Yes	42	77.8%	2	40%	2	66.7%	12	57.1%	45	86.5%	103	76.3%
No answer	2	3.7%	0	0%	1	33.3%	0	0%	1	1.9%	4	3.0%
Total	**54**	**100%**	**5**	**100%**	**3**	**100%**	**21**	**100%**	**52**	**100%**	**135**	**100%**

Note: Statistical testing is not valid because of small numbers in cells.

Table 34. **Answers to the question *"Did anyone at this facility mention or talk to you about emotional issues such as stress, anxiety, or depression?"*** (among those who received any ARV drugs at the facility today, N=135)

	Type of facility											
	AIDS Center		Primary Healthcare Center		NGO		Narcological/ TB dispensary		Hospital		Total	
	Count	%	Count	%	Count	%	Count	%	Count	%	Count	%
No	24	44.4%	5	100%	0	0%	8	38.1%	6	11.5%	43	31.9%
Yes	30	55.6%	0	0%	2	66.7%	13	61.9%	45	86.5%	90	66.7%
No answer	0	0%	0	0%	1	33.3%	0	0%	1	1.9%	2	1.5%
Total	**54**	**100%**	**5**	**100%**	**3**	**100%**	**21**	**100%**	**52**	**100%**	**135**	**100%**

Note: Statistical testing is not valid because of small numbers in cells.

Table 35. **Answers to the question *"Did anyone talk to you about the side effects of ART?"*** (among those who received any ARV drugs at the facility today, N=135)

	Type of facility											
	AIDS Center		Primary Healthcare Center		NGO		Narcological/ TB dispensary		Hospital		Total	
	Count	%	Count	%	Count	%	Count	%	Count	%	Count	%
No	4	7.4%	0	0%	0	0%	3	14.3%	4	7.7%	11	8.1%
Yes	50	92.6%	5	100%	2	66.7%	18	85.7%	47	90.4%	122	90.4%
No answer	0	0%	0	0%	1	33.3%	0	0%	1	1.9%	2	1.5%
Total	**54**	**100%**	**5**	**100%**	**3**	**100%**	**21**	**100%**	**52**	**100%**	**135**	**100%**

Note: Statistical testing is not valid because of small numbers in cells.

Table 36. **Answers to the question *"How long have you been taking ARV medicines (in months)?"*** (among those who received any ARV drugs at the facility today and answered the question, N=134)

Type of facility	Mean	Std. Deviation	Median	Minimum	Maximum	Number of cases
AIDS Center	46.06	35.682	40.50	1	132	54
Primary Healthcare Center	39.20	18.580	42.00	10	60	5
NGO	28.00	2.828	28.00	26	30	2
Narcological/ TB dispensary	12.62	36.438	2.00	1	168	21
Hospital	33.10	23.208	30.00	3	98	52
Total	**35.26**	**32.488**	**30.00**	**1**	**168**	**134**

Note: Statistical testing is not valid because of small subsets.

Table 37. **Answers to the question *"How often do you receive your ARV medicines?"*** (among those who received any ARV drugs at the facility today, N=135)

	Type of facility											
	AIDS Center		Primary Healthcare Center		NGO		Narcological/ TB dispensary		Hospital		Total	
	Count	%	Count	%	Count	%	Count	%	Count	%	Count	%
More often than once a month	2	3.7%	0	0%	0	0%	0	0%	0	0%	2	1.5%
Once a month	24	44.4%	0	0%	2	66.7%	20	95.2%	28	53.8%	74	54.8%
Every 2 months	16	29.6%	5	100%	0	0%	0	0%	17	32.7%	38	28.1%
Every 3-6 months	10	18.5%	0	0%	0	0%	0	0%	6	11.5%	16	11.9%
Every 6-12 months	1	1.9%	0	0%	0	0%	0	0%	0	0%	1	.7%
Less than once a 2 years	0	0%	0	0%	0	0%	1	4.8%	1	1.9%	2	1.5%
Other	1	1.9%	0	0%	0	0%	0	0%	0	0%	1	.7%
No answer	0	0%	0	0%	1	33.3%	0	0%	0	0%	1	.7%
Total	**54**	**100%**	**5**	**100%**	**3**	**100%**	**21**	**100%**	**52**	**100%**	**135**	**100%**

Note: Statistical testing is not valid because of small numbers in cells.

Table 38. **Answers to the question *"How many times in the past 12 months have you visited your HIV physician to monitor the progress of HIV infection?"*** (among those who received any ARV drugs at the facility today, N=135)

Type of facility	Mean	Std. Deviation	Median	Minimum	Maximum	Number of cases
AIDS Center	9.57	11.045	6.00	0	48	53
Primary Healthcare Center	7.80	2.588	7.00	5	11	5
NGO	46.50	2.121	46.50	45	48	2
Narcological/ TB dispensary	3.05	3.057	2.00	0	12	21
Hospital	8.43	8.794	5.00	0	40	51
Total	**8.58**	**10.339**	**5.00**	**0**	**48**	**132**

Note: Statistical testing is not valid because of small subsets.

Table 39. **Answers to the question *"How many times in the past 12 months were you prescribed a viral load test?"*** (among those who received any ARV drugs at the facility today, N=135)

Type of facility	Mean	Std. Deviation	Median	Minimum	Maximum	Number of cases
AIDS Center	1.86	1.400	1.00	0	5	51
Primary Healthcare Center	.40	.548	0.00	0	1	5
NGO	2.50	.707	2.50	2	3	2
Narcological/ TB dispensary	1.47	1.505	1.00	0	6	17
Hospital	1.94	1.248	2.00	0	6	49
Total	**1.79**	**1.351**	**2.00**	**0**	**6**	**124**

Note: Statistical testing is not valid because of small subsets.

Table 40. **Answers to the question *"How many times in the past 12 months did you have a viral load test?"* by the type of facility** (among those who received any ARV drugs at the facility today, N=135)

Type of facility	Mean	Std. Deviation	Median	Minimum	Maximum	Number of cases
AIDS Center	1.67	1.275	1.00	0	5	51
Primary Healthcare Center	.40	.548	0.00	0	1	5
NGO	1.50	2.121	1.50	0	3	2
Narcological/ TB dispensary	1.35	1.169	1.00	0	4	17
Hospital	1.84	1.167	2.00	0	6	50
Total	**1.64**	**1.227**	**2.00**	**0**	**6**	**125**

Note: Statistical testing is not valid because of small subsets.

Table 41. **Answers to the question *"How many times in the past 12 months were you prescribed a CD4 test?"* by the type of facility** (among those who received any ARV drugs at the facility today, N=135)

Type of facility	Mean	Std. Deviation	Median	Minimum	Maximum	Number of cases
AIDS Center	2.41	1.299	2.00	1	6	51
Primary Healthcare Center	.80	.447	1.00	0	1	5
NGO	4.00	0.000	4.00	4	4	2
Narcological/ TB dispensary	2.42	1.953	2.00	1	8	19
Hospital	2.10	1.104	2.00	0	6	49
Total	**2.25**	**1.362**	**2.00**	**0**	**8**	**126**

Note: Statistical testing is not valid because of small subsets.

Table 42. **Answers to the question *"How many times in the past 12 months did you have a CD4 test?"* by the type of facility** (among those who received any ARV drugs at the facility today, N=135)

Type of facility	Mean	Std. Deviation	Median	Minimum	Maximum	Number of cases
AIDS Center	2.25	1.250	2.00	0	6	52
Primary Healthcare Center	.80	.447	1.00	0	1	5
NGO	3.00	1.414	3.00	2	4	2
Narcological/ TB dispensary	2.42	1.953	2.00	1	8	19
Hospital	1.96	1.177	2.00	0	6	50
Total	**2.12**	**1.355**	**2.00**	**0**	**8**	**128**

Note: Statistical testing is not valid because of small subsets.

Table 43. **Answers to the question *"Have you had any difficulty in getting HIV treatment or care at this facility?"* by the type of facility** (among those who received any ARV drugs at the facility today, N=135)

	Type of facility											
	AIDS Center		Primary Healthcare Center		NGO		Narcological/ TB dispensary		Hospital		Total	
	Count	%	Count	%	Count	%	Count	%	Count	%	Count	%
No	34	63.0%	4	80%	2	66.7%	21	100%	41	78.8%	102	75.6%
Yes	19	35.2%	1	20%	0	0%	0	0%	6	11.5%	26	19.3%
No answer	1	1.9%	0	0%	1	33.3%	0	0%	5	9.6%	7	5.2%
Total	**54**	**100%**	**5**	**100%**	**3**	**100%**	**21**	**100%**	**52**	**100%**	**135**	**100%**

Note: Statistical testing is not valid because of small numbers in cells.

Table 44. **Cross-tabulation of questions *"Did you receive any ARV drugs at this facility today?"* and *"Is your primary reason for visit to receive ARV drugs at this facility?"*** (among those who are on ART, N=336)

		Primary reason for visit to receive ARV drugs								
		Yes			No			Total		
		Count	Column %	Row %	Count	Column %	Row %	Count	Column %	Row %
Received ART at this facility today	Yes	118	93.7%	87.4%	17	8.1%	12.6%	135	40.2%	100%
	No	6	4.8%	3.1%	190	90.5%	96.9%	196	58.3%	100%
	No answer	2	1.6%	40%	3	1.4%	60%	5	1.5%	100%
	Total	**126**	**100%**	**37.5%**	**210**	**100%**	**62.5%**	**336**	**100%**	**100%**

Table 45. **Results of confirmatory factor analysis (CFA) for the Overall Comprehensiveness Score for HIV Treatment Services** (among clients who visited a facility to receive ART on the day of the interview, N=135)

	Count (%) of clients who received services	Standardized factor loadings by CFA[41]
Indicator 1. Receipt of information about taking pills on schedule	118 (87.4%)	0.174
Indicator 2. Receipt of information on adherence	111 (82.2%)	0.804
Indicator 3. Receipt of information on nutrition	103 (76.3%)	0.810
Indicator 4. Receipt of information on emotional issues	90 (66.7%)	0.708
Indicator 5. Receipt of information on side effects	122(90.4%)	0.903

CFA model fit:
Minimum Function Test Statistic=2.99
Degrees of freedom=3
Comparative Fit Index (CFI)=1.00
Tucker-Lewis Index (TLI)=1.00
RMSEA=0.00

41 Factor loadings > 0.5 are considered as acceptable fit meaning that selected indicators result from the one underlying latent variable. A factor loading is a correlation between latent variable and an observed indicator.

Table 46. **Overall Comprehensiveness Score for HIV Treatment Services and differences in the score by selected control variables**
(among clients who visited a facility to receive ART on the day of the interview, N=135)

		Mean	Standard Deviation	Median	Minimum	Maximum	Number of cases
Age	18-35 years	0.80	0.23	0.95	0.05	0.95	50
	36+ years	0.76	0.27	0.95	0.00	1.00	85
	Total	0.77	0.25	0.95	0.00	1.00	135
Sex	Female	0.78	0.25	0.95	0.00	0.95	64
	Male	0.77	0.26	0.95	0.00	1.00	71
	Total	0.77	0.25	0.95	0.00	1.00	135
Education	Secondary (including vocational) or less	0.76	0.26	0.95	0.00	0.95	120
	Higher	0.89	0.10	0.95	0.73	1.00	14
	No answer	-	-	-	0.95	0.95	1
	Total	0.77	0.25	0.95	0.00	1.00	135
Employment status	Occasional work / unemployed / disability	0.76	0.26	0.95	0.00	1.00	83
	Full time or part-time job	0.79	0.25	0.95	0.00	0.95	46
	No answer	0.91	0.09	0.95	0.73	0.95	6
	Total	0.77	0.25	0.95	0.00	1.00	135
Income	Up to UAH 2000	0.81	0.22	0.95	0.00	1.00	81
	UAH 2001+	0.78	0.23	0.95	0.30	0.95	32
	No answer	0.64	0.35	0.75	0.00	0.95	22
	Total	0.77	0.25	0.95	0.00	1.00	135
How long have you been visiting this facility?	Less than a year	0.72	0.30	0.93	0.00	0.95	34
	1 year +	0.79	0.24	0.95	0.00	1.00	100
	No answer	-	-	-	0.75	0.75	1
	Total	0.77	0.25	0.95	0.00	1.00	135
Type of facility	AIDS Center	0.77	0.22	0.75	0.1	1	54
	Primary Healthcare Center	0.5	0.2	0.58	0.3	0.75	5
	NGO	0.95	0	0.95	0.95	0.95	3
	Narcological/ TB dispensary	0.7	0.28	0.75	0	0.95	21
	Hospital	0.83	0.27	0.95	0	0.95	52
	Total	0.77	0.25	0.95	0	1	135
Received OST	Not mentioned	0.77	0.25	0.95	0.00	1.00	130
	Mentioned	0.76	0.43	0.95	0.00	0.95	5
	Total	0.77	0.25	0.95	0.00	1.00	135
Received free condoms	Not mentioned	0.76	0.26	0.95	0.00	1.00	127
	Mentioned	0.92	0.08	0.95	0.73	0.95	8
	Total	0.77	0.25	0.95	0.00	1.00	135

Note: Statistical testing is not valid because of small subsets.

Continuation of Table 46

		Mean	Standard Deviation	Median	Minimum	Maximum	Number of cases
Received sterile syringes/ needles	Not mentioned	0.77	0.25	0.95	0.00	1.00	135
	Mentioned	-	-	-	-	-	-
	Total	0.77	0.25	0.95	0.00	1.00	135
Received referral(s)	Not mentioned	0.78	0.25	0.95	0.00	1.00	125
	Mentioned	0.64	0.32	0.73	0.00	0.95	10
	Total	0.77	0.25	0.95	0.00	1.00	135

Note: Statistical testing is not valid because of small subsets.

Table 47. **Answers to the question *"Did you receive any condoms from this facility today?"* by the type of facility**

	Type of facility																	
	AIDS Center			Primary Healthcare Center			NGO			Narcological/ TB dispensary			Hospital			Total		
	Count	Column %	Row %	Count	Column %	Row %	Count	Column %	Row %	Count	Column %	Row %	Count	Column %	Row %	Count	Column %	Row %
No	137_{a}	97.2%	25.0%	$46_{a,c}$	95.8%	8.4%	69_{b}	53.9%	12.6%	$126_{a,c}$	90%	23.0%	170_{c}	88.5%	31.0%	548	84.4%	100%
Yes	4_{a}	2.8%	4.0%	$2_{a,c}$	4.2%	2.0%	59_{b}	46.1%	59.0%	$13_{a,c}$	9.3%	13.0%	22_{c}	11.5%	22.0%	100	15.4%	100%
No answer	0^{1}	0%	0%	0^{1}	0%	0%	0^{1}	0%	0%	1_{a}	.7%	100%	0^{1}	0%	0%	1	.2%	100%
Total	**141**	**100%**	**21.7%**	**48**	**100%**	**7.4%**	**128**	**100%**	**19.7%**	**140**	**100%**	**21.6%**	**192**	**100%**	**29.6%**	**649**	**100%**	**100%**

Note: Values in the same row and sub-table not sharing the same subscript are significantly different at $p < .05$ in the two-sided test of equality for column proportions. Cells with no subscript are not included in the test. Tests assume equal variances. Tests are adjusted for all pairwise comparisons within a row of each innermost sub-table using the Bonferroni correction.

[1] This category is not used in comparisons because its column proportion is equal to zero or one.

Table 48. **Answers to the question *"Did you receive any condoms from this facility today?"* by the type of service**

Reason for visit		Did you receive any condoms from this facility today?							
		No		Yes		No answer		Total	
		Count	Row %	Count	Row %	Count	Row %	Count	Row %
To get tested for HIV	Not mentioned	482_a	83.7%	93_a	16.1%	$1^{1,2}$	.2%	576	100%
	Mentioned	66_a	90.4%	7_a	9.6%	$0^{1,2}$	0%	73	100%
	Total	548	84.4%	100	15.4%	1	.2%	649	100%
To receive HIV test results	Not mentioned	524_a	84.2%	97_a	15.6%	$1^{1,2}$	.2%	622	100%
	Mentioned	24_a	88.9%	3_a	11.1%	$0^{1,2}$	0%	27	100%
	Total	548	84.4%	100	15.4%	1	.2%	649	100%
For HIV counseling or education	Not mentioned	432_a	87.3%	62_b	12.5%	$1^{1,2}$	.2%	495	100%
	Mentioned	116_a	75.3%	38_b	24.7%	$0^{1,2}$	0%	154	100%
	Total	548	84.4%	100	15.4%	1	.2%	649	100%
OST	Not mentioned	394_a	84.4%	74_a	15.8%	$1^{1,2}$	.2%	469	100%
	Mentioned	154_a	84.6%	26_a	14.4%	$0^{1,2}$	0%	180	100%
	Total	548	84.4%	100	15.4%	1	.2%	649	100%
To get free condoms/ lubricants	Not mentioned	543_a	94.1%	33_b	5.7%	$1^{1,2}$	.2%	577	100%
	Mentioned	5_a	6.9%	67_b	93.1%	$0^{1,2}$	0%	72	100%
	Total	548	84.4%	100	15.4%	1	.2%	649	100%
To get clean needles/syringes	Not mentioned	536_a	90.4%	56_b	9.4%	$1^{1,2}$	.2%	593	100%
	Mentioned	12_a	21.4%	44_b	78.6%	$0^{1,2}$	0%	56	100%
	Total	548	84.4%	100	15.4%	1	.2%	649	100%
For regular check-up for HIV care for myself	Not mentioned	490_a	83.8%	94_a	16.1%	$1^{1,2}$	.2%	585	100%
	Mentioned	58_a	90.6%	6_a	9.4%	$0^{1,2}$	0%	64	100%
	Total	548	84.4%	100	15.4%	1	.2%	649	100%
For regular check-up for HIV care for my child	Not mentioned	533_a	84.1%	100^2	15.8%	$1^{1,2}$	.2%	634	100%
	Mentioned	15_a	100%	0^2	0%	$0^{1,2}$	0%	15	100%
	Total	548	84.4%	100	15.4%	1	.2%	649	100%
ARV treatment	Not mentioned	429_a	82.2%	92_b	17.6%	$1^{1,2}$	.2%	522	100%
	Mentioned	119_a	93.7%	8_b	6.3%	$0^{1,2}$	0%	127	100%
	Total	548	84.4%	100	15.4%	1	.2%	649	100%
To get other health services	Not mentioned	489_a	83.0%	100^2	17.0%	$0^{1,2}$	0%	589	100%
	Mentioned	59_a	98.3%	0^2	0%	$1^{1,2}$	1.7%	60	100%
	Total	548	84.4%	100	15.4%	1	.2%	649	100%

Note: Values in the same column and sub-table not sharing the same subscript are significantly different at $p < .05$ in the two-sided test of equality for proportions. Cells with no subscript are not included in the test. Tests assume equal variances.[3]

[1] This category is not used in comparisons because the sum of case weights is less than two.

[2] This category is not used in comparisons because its column proportion is equal to zero or one.

[3] Tests are adjusted for all pairwise comparisons within a row of each innermost sub-table using the Bonferroni correction.

Table 49. **Answers to the question *"How many condoms did you receive?"*** (among those who reported receiving condoms at the facility today, N=100)

Type of facility	Mean	Std. Deviation	Median	Minimum	Maximum	N
AIDS Center	11.00	6.633	10.00	4	20	4
Primary Healthcare Center	4.00	1.414	4.00	3	5	2
NGO	11.63	19.133	6.00	2	144	59
Narcological/ TB dispensary	6.92	3.088	6.50	3	12	12
Hospital	7.00	5.146	5.00	2	20	22
Total	**9.85**	**15.175**	**5.00**	**2**	**144**	**99**

Note: Statistical testing is not valid because of small subsets.

Table 50. **Answers to the question *"Do you feel that the number of condoms you received was adequate for your needs?"*** (among those reported receiving condoms at the facility today, N=100)

	Type of facility											
	AIDS Center		Primary Healthcare Center		NGO		Narcological/ TB dispensary		Hospital		Total	
	Count	%	Count	%	Count	%	Count	%	Count	%	Count	%
No	0	0%	0	0%	6	10.2%	0	0%	0	0%	6	6.0%
Yes	4	100%	2	100%	53	89.8%	13	100%	22	100%	94	94.0%
Total	**4**	**100%**	**2**	**100%**	**59**	**100%**	**13**	**100%**	**22**	**100%**	**100**	**100%**

Note: Statistical testing is not valid because of small numbers in cells.

Table 51. **Answers to the question *"Did you receive any lubricants from this facility today?"* by the type of facility**

	Type of facility											
	AIDS Center		Primary Healthcare Center		NGO		Narcological/ TB dispensary		Hospital		Total	
	Count	%	Count	%	Count	%	Count	%	Count	%	Count	%
No	141^{1}	100%	46_{a}	95.8%	92_{b}	71.9%	137_{a}	97.9%	184_{a}	95.8%	600	92.4%
Yes	0^{1}	0%	1_{a}	2.1%	36_{b}	28.1%	2_{a}	1.4%	6_{a}	3.1%	45	6.9%
No answer	0^{1}	0%	1_{a}	2.1%	0^{1}	0%	1_{a}	.7%	2_{a}	1.0%	4	.6%
Total	**141**	**100%**	**48**	**100%**	**128**	**100%**	**140**	**100%**	**192**	**100%**	**649**	**100%**

Note: Values in the same row and sub-table not sharing the same subscript are significantly different at $p < .05$ in the two-sided test of equality for column proportions. Cells with no subscript are not included in the test. Tests assume equal variances. Tests are adjusted for all pairwise comparisons within a row of each innermost sub-table using the Bonferroni correction.

[1] This category is not used in comparisons because its column proportion is equal to zero or one.

Table 52. **Answers to the question *"How many lubricants did you receive?"*** (among those who reported receiving lubricants at the facility today, N=45)

Type of facility	Mean	Std. Deviation	Median	Minimum	Maximum	Number of cases
AIDS Center	3.00		3.00	3	3	1
Primary Healthcare Center	7.53	6.101	5.50	1	20	36
NGO	9.00	1.414	9.00	8	10	2
Narcological/ TB dispensary	4.00	1.095	4.00	2	5	6
Hospital	7.02	5.639	5.00	1	20	45
Total	**3.00**		**3.00**	**3**	**3**	**1**

Note: Statistical testing is not valid because of small subsets.

Table 53. **Answers to the question *"Did you receive any educational material about how to prevent HIV infection or transmission today?"* by the type of facility**

	Type of facility											
	AIDS Center		Primary Healthcare Center		NGO		Narcological/ TB dispensary		Hospital		Total	
	Count	%	Count	%	Count	%	Count	%	Count	%	Count	%
No	118_a	83.7%	$33_{a,b}$	68.8%	85_b	66.4%	$104_{a,b}$	74.3%	$153_{a,b}$	79.7%	493	76.0%
Yes	23_a	16.3%	$14_{a,b}$	29.2%	43_b	33.6%	$34_{a,b}$	24.3%	$39_{a,b}$	20.3%	153	23.6%
No answer	0^1	0%	1_a	2.1%	0^1	0%	2_a	1.4%	0^1	0%	3	.5%
Total	**141**	**100%**	**48**	**100%**	**128**	**100%**	**140**	**100%**	**192**	**100%**	**649**	**100%**

Note: Values in the same row and sub-table not sharing the same subscript are significantly different at p< .05 in the two-sided test of equality for column proportions. Cells with no subscript are not included in the test. Tests assume equal variances. Tests are adjusted for all pairwise comparisons within a row of each innermost sub-table using the Bonferroni correction.

[1] This category is not used in comparisons because its column proportion is equal to zero or one.

Table 54. **Answers to the question *"Did you receive any sterile needles or syringes from this facility today?"* by the type of facility**

	Type of facility											
	AIDS Center		Primary Healthcare Center		NGO		Narcological/ TB dispensary		Hospital		Total	
	Count	%	Count	%	Count	%	Count	%	Count	%	Count	%
No	141^1	100%	$46_{a,c}$	95.8%	88_b	68.8%	120_a	85.7%	182_c	94.8%	577	88.9%
Yes	0^1	0%	2_a	4.2%	40_b	31.3%	15_a	10.7%	10_a	5.2%	67	10.3%
No answer	0^1	0%	0^1	0%	0^1	0%	5_a	3.6%	0^1	0%	5	.8%
Total	**141**	**100%**	**48**	**100%**	**128**	**100%**	**140**	**100%**	**192**	**100%**	**649**	**100%**

Note: Values in the same row and sub-table not sharing the same subscript are significantly different at p< .05 in the two-sided test of equality for column proportions. Cells with no subscript are not included in the test. Tests assume equal variances. Tests are adjusted for all pairwise comparisons within a row of each innermost sub-table using the Bonferroni correction.

[1] This category is not used in comparisons because its column proportion is equal to zero or one.

Table 55. **Answers to the question *"How many sterile needles and syringes did you receive?"*** (among those who reported receiving sterile needles and syringes at the facility today, N=67)

Type of facility	Mean	Std. Deviation	Median	Minimum	Maximum	Number of cases
AIDS Center	-	-	-	-	-	0
Primary Healthcare Center	12.00	0.000	12.00	12	12	2
NGO	8.75	8.741	7.50	2	60	40
Narcological/ TB dispensary	12.80	7.223	10.00	3	25	15
Hospital	8.60	.966	8.00	8	10	10
Total	**9.73**	**7.708**	**8.00**	**2**	**60**	**67**

Note: Statistical testing is not valid because of small subsets.

Table 56. **Answers to the question *"Do you feel that the number of needles and syringes you received was adequate for your needs?"*** (among those who reported receiving sterile needles and syringes at the facility today, N=67)

	Type of facility											
	AIDS Center		Primary Healthcare Center		NGO		Narcological/ TB dispensary		Hospital		Total	
	Count	%	Count	%	Count	%	Count	%	Count	%	Count	%
No	0	0%	0	0%	6	15.0%	1	6.7%	0	0%	7	10.4%
Yes	0	0%	2	100%	34	85.0%	14	93.3%	10	100%	60	89.6%
Total	**0**	**0%**	**2**	**100%**	**40**	**100%**	**15**	**100%**	**10**	**100%**	**67**	**100%**

Note: Statistical testing is not valid because of small numbers in cells.

Table 57. **Answers to the question *"Did you receive OST today?"* by the type of facility**

	Type of facility											
	AIDS Center		Primary Healthcare Center		NGO		Narcological/ TB dispensary		Hospital		Total	
	Count	%	Count	%	Count	%	Count	%	Count	%	Count	%
No	139_a	98.6%	20_b	41.7%	128_a	100%	31_b	22.1%	150_c	78.1%	468	72.1%
Yes, Methadone	0^1	0%	28_a	58.3%	0^1	0%	98_a	70%	42_c	21.9%	168	25.9%
Yes, Buprenorphine	1_a	.7%	0^1	0%	0^1	0 %	10_b	7.1%	0^1	0%	11	1.7%
No answer	1_a	.7%	0^1	0%	0^1	0%	1_a	.7%	0^1	0%	2	.3%
Total	**141**	**100%**	**48**	**100%**	**128**	**100%**	**140**	**100%**	**192**	**100%**	**649**	**100%**

Note: Values in the same row and sub-table not sharing the same subscript are significantly different at $p < .05$ in the two-sided test of equality for column proportions. Cells with no subscript are not included in the test. Tests assume equal variances. Tests are adjusted for all pairwise comparisons within a row of each innermost sub-table using the Bonferroni correction.

[1]This category is not used in comparisons because its column proportion is equal to zero or one.

Table 58. **Answers to the question *"Did you receive any take-home dosage of the medicine today?"*** (among those who reported receiving OST today, N=179)

	Type of facility									
	AIDS Center		Primary Healthcare Center		Narcological/ TB dispensary		Hospital		Total	
	Count	%	Count	%	Count	%	Count	%	Count	%
No	1	100%	28	100%	104	96.3%	41	97.6%	174	97.2%
Yes, Methadone	0	0%	0	0%	2	1.9%	1	2.4%	3	1.7%
Yes, Buprenorphine	0	0%	0	0%	2	1.9%	0	0%	2	1.1%
Total	**1**	**100%**	**28**	**100%**	**108**	**100%**	**42**	**100%**	**179**	**100%**

Table 59. **Answers to the question *"Did you receive any motivational package today (food package, transportation assistance etc)?"* by the type of facility**

	Type of facility											
	AIDS Center		Primary Healthcare Center		NGO		Narcological/ TB dispensary		Hospital		Total	
	Count	%	Count	%	Count	%	Count	%	Count	%	Count	%
No	141_1	100%	48_1	100%	126_a	98.4%	137_a	97.9%	192_1	100%	644	99.2%
Yes	0_1	0%	0_1	0%	2_a	1.6%	0_1	0%	0_1	0%	2	.3%
No answer	0_1	0%	0_1	0%	0_1	0%	3_a	2.1%	0_1	0%	3	.5%
Total	**141**	**100%**	**48**	**100%**	**128**	**100%**	**140**	**100%**	**192**	**100%**	**649**	**100%**

Note: Values in the same row and sub-table not sharing the same subscript are significantly different at p< .05 in the two-sided test of equality for column proportions. Cells with no subscript are not included in the test. Tests assume equal variances. Tests are adjusted for all pairwise comparisons within a row of each innermost sub-table using the Bonferroni correction.

[1] This category is not used in comparisons because its column proportion is equal to zero or one.

Table 60. **Answers to the question *"Did you pay money to receive any services at this facility today?"* by the type of facility**

	Type of facility											
	AIDS Center		Primary Healthcare Center		NGO		Narcological/ TB dispensary		Hospital		Total	
	Count	%	Count	%	Count	%	Count	%	Count	%	Count	%
No	118_a	83.7%	42_a	87.5%	128_1	100%	138_b	98.6%	189_b	98.4%	615	94.8%
Yes	23_a	16.3%	6_a	12.5%	0_1	0%	0_1	0%	3_b	1.6%	32	4.9%
No answer	0_1	0%	0_1	0%	0_1	0%	2_a	1.4%	0_1	0%	2	.3%
Total	**141**	**100%**	**48**	**100%**	**128**	**100%**	**140**	**100%**	**192**	**100%**	**649**	**100%**

Note: Values in the same row and sub-table not sharing the same subscript are significantly different at p< .05 in the two-sided test of equality for column proportions. Cells with no subscript are not included in the test. Tests assume equal variances. Tests are adjusted for all pairwise comparisons within a row of each innermost sub-table using the Bonferroni correction.

[1] This category is not used in comparisons because its column proportion is equal to zero or one.

Table 61. **Answers to the question *"Did your health provider tell you about other resources in the community that you can go to for additional services or support?"* by the type of facility**

	Type of facility											
	AIDS Center		Primary Healthcare Center		NGO		Narcological/ TB dispensary		Hospital		Total	
	Count	%	Count	%	Count	%	Count	%	Count	%	Count	%
No	84_{a}	59.6%	$17_{b,c,d}$	35.4%	28_{b}	21.9%	$70_{a,c,d}$	50%	80_{d}	41.7%	279	43.0%
Yes	54_{a}	38.3%	$31_{b,c,d}$	64.6%	100_{b}	78.1%	$68_{a,c,d}$	48.6%	108_{d}	56.3%	361	55.6%
No answer	3_{a}	2.1%	0^{1}	0%	0^{1}	0%	2_{a}	1.4%	4_{a}	2.1%	9	1.4%
Total	**141**	**100%**	**48**	**100%**	**128**	**100%**	**140**	**100%**	**192**	**100%**	**649**	**100%**

Note: Values in the same row and sub-table not sharing the same subscript are significantly different at p< .05 in the two-sided test of equality for column proportions. Cells with no subscript are not included in the test. Tests assume equal variances. Tests are adjusted for all pairwise comparisons within a row of each innermost sub-table using the Bonferroni correction.

[1] This category is not used in comparisons because its column proportion is equal to zero or one.

Table 62. **Answers to the question *"Did your health provider ask about your drug and alcohol use and make a referral if you needed help?"* by the type of facility**

	Type of facility											
	AIDS Center		Primary Healthcare Center		NGO		Narcological/ TB dispensary		Hospital		Total	
	Count	%	Count	%	Count	%	Count	%	Count	%	Count	%
No	73_{a}	51.8%	$20_{a,b}$	41.7%	36_{b}	28.1%	$46_{b,c}$	32.9%	$79_{a,b}$	41.1%	254	39.1%
Yes	68_{a}	48.2%	$28_{a,b}$	58.3%	91_{b}	71.1%	$93_{b,c}$	66.4%	$113_{a,b}$	58.9%	393	60.6%
No answer	0^{1}	0%	0^{1}	0%	1_{a}	.8%	1_{a}	.7%	0^{1}	0%	2	0.3%
Total	**141**	**100%**	**48**	**100%**	**128**	**100%**	**140**	**100%**	**192**	**100%**	**649**	**100%**

Note: Values in the same row and sub-table not sharing the same subscript are significantly different at p< .05 in the two-sided test of equality for column proportions. Cells with no subscript are not included in the test. Tests assume equal variances. Tests are adjusted for all pairwise comparisons within a row of each innermost sub-table using the Bonferroni correction.

[1] This category is not used in comparisons because its column proportion is equal to zero or one.

Table 63. **Answers to the question *"Were you referred to another facility for any specific service?"* by the type of facility**

	Type of facility											
	AIDS Center		Primary Healthcare Center		NGO		Narcological/ TB dispensary		Hospital		Total	
	Count	%	Count	%	Count	%	Count	%	Count	%	Count	%
No	118_{a}	83.7%	39_{a}	81.3%	117_{a}	91.4%	131_{a}	93.6%	177_{a}	92.2%	582	89.7%
Yes	23_{a}	16.3%	$8_{a,b}$	16.7%	$11_{a,b}$	8.6%	8_{b}	5.7%	$15_{a,b}$	7.8%	65	10%
No answer	0^{1}	0%	1_{a}	2.1%	0^{1}	0%	1_{a}	.7%	0^{1}	0%	2	0.3%
Total	**141**	**100%**	**48**	**100%**	**128**	**100%**	**140**	**100%**	**192**	**100%**	**649**	**100%**

Note: Values in the same row and sub-table not sharing the same subscript are significantly different at p< .05 in the two-sided test of equality for column proportions. Cells with no subscript are not included in the test. Tests assume equal variances. Tests are adjusted for all pairwise comparisons within a row of each innermost sub-table using the Bonferroni correction.

[1] This category is not used in comparisons because its column proportion is equal to zero or one.

Table 64. **Answers to the question *"For which service were you referred out?"*** (among those who were referred to another facility, N=65)

	Type of facility											
	AIDS Center		Primary Healthcare Center		NGO		Narcological/ TB dispensary		Hospital		Total	
	Count	%	Count	%	Count	%	Count	%	Count	%	Count	%
ART	0	0%	1	12.5%	1	9.1%	0	0%	1	6.7%	3	4.6%
OST	0	0%	0	0%	1	9.1%	0	0%	0	0%	1	1.5%
TB	0	0%	0	0%	0	0%	0	0%	1	6.7%	1	1.5%
Risk reduction	1	4.3%	0	0%	1	9.1%	0	0%	0	0%	2	3.1%
Psychosocial support	2	8.7%	0	0%	0	0%	1	12.5%	0	0%	3	4.6%
Other	9	39.1%	4	50%	4	36.4%	3	37.5%	7	46.7%	27	41.5%
No answer	11	47.8%	3	37.5%	4	36.4%	4	50%	6	40%	28	43.1%
Total	**23**	**100%**	**8**	**100%**	**11**	**100%**	**8**	**100%**	**15**	**100%**	**65**	**100%**

Note: Statistical testing is not valid because of small numbers in cells.

Table 65. **Answers to the question *"Did the health provider explain to you why you are referred to another facility?"*** (among those who were referred to another facility, N=65)

	Type of facility											
	AIDS Center		Primary Healthcare Center		NGO		Narcological/ TB dispensary		Hospital		Total	
	Count	%	Count	%	Count	%	Count	%	Count	%	Count	%
No	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%
Yes	22	95.7%	8	100%	11	100%	6	75.0%	14	93.3%	61	93.8%
No answer	1	4.3%	0	0%	0	0%	2	25.0%	1	6.7%	4	6.2%
Total	**23**	**100%**	**8**	**100%**	**11**	**100%**	**8**	**100%**	**15**	**100%**	**65**	**100%**

Note: Statistical testing is not valid because of small numbers in cells.

Table 66. **Answers to the question *"Did you receive any support or any services from an NGO based at this facility today?"* by the type of facility** (asked only if not an NGO-provided modality, N=521)

	Type of facility									
	AIDS Center		Primary Healthcare Center		Narcological/ TB dispensary		Hospital		Total	
	Count	%	Count	%	Count	%	Count	%	Count	%
No	67_a	47.5%	20_a	41.7%	48_a	34.3%	124_b	64.6%	259	49.7%
Yes	72_a	51.1%	26_a	54.2%	90_a	64.3%	60_b	31.3%	248	47.6%
No answer	2_a	1.4%	2_a	4.2%	2_a	1.4%	8_a	4.2%	14	2.7%
Total	**141**	**100%**	**48**	**100%**	**140**	**100%**	**192**	**100%**	**521**	**100%**

Note: Values in the same row and sub-table not sharing the same subscript are significantly different at p< .05 in the two-sided test of equality for column proportions. Cells with no subscript are not included in the test. Tests assume equal variances. Tests are adjusted for all pairwise comparisons within a row of each innermost sub-table using the Bonferroni correction.

[1] This category is not used in comparisons because its column proportion is equal to zero or one.

Table 67. **Answers to the question *"Have you ever received any support services at this facility? (case management)?"* by the type of facility**

	Type of facility											
	AIDS Center		Primary Healthcare Center		NGO		Narcological/ TB dispensary		Hospital		Total	
	Count	%	Count	%	Count	%	Count	%	Count	%	Count	%
No	$86_{a,c}$	61.0%	$23_{a,b}$	47.9%	55_b	43.0%	$71_{a,b}$	50.7%	141_c	73.4%	376	57.9%
Yes	$55_{a,c}$	39.0%	$25_{a,b}$	52.1%	73_b	57.0%	$68_{a,b}$	48.6%	51_c	26.6%	272	41.9%
No answer	0^1	0%	0^1	0%	0^1	0%	1_a	.7%	0^1	0%	1	0.2%
Total	**141**	**100%**	**48**	**100%**	**128**	**100%**	**140**	**100%**	**192**	**100%**	**649**	**100%**

Note: Values in the same row and sub-table not sharing the same subscript are significantly different at p< .05 in the two-sided test of equality for column proportions. Cells with no subscript are not included in the test. Tests assume equal variances. Tests are adjusted for all pairwise comparisons within a row of each innermost sub-table using the Bonferroni correction.

[1] This category is not used in comparisons because its column proportion is equal to zero or one.

Table 68. **Answers to the question *"Did your case manager help you get the services you need, at this facility, and other places as needed?"* by the type of facility**
(among those who have ever received case management at the facility, N=272)

	Type of facility											
	AIDS Center		Primary Healthcare Center		NGO		Narcological/ TB dispensary		Hospital		Total	
	Count	%	Count	%	Count	%	Count	%	Count	%	Count	%
All the time	$30_{a,b}$	54.5%	7_{a}	28.0%	52_{b}	71.2%	$43_{b,c}$	63.2%	$31_{a,b}$	60.8%	163	59.9%
Most times	$20_{a,b}$	36.4%	16_{a}	64.0%	19_{b}	26.0%	$19_{b,c}$	27.9%	$18_{a,b}$	35.3%	92	33.8%
Sometimes	5_{a}	9.1%	2_{a}	8.0%	2_{a}	2.7%	3_{a}	4.4%	1_{a}	2.0%	13	4.8%
Rarely	0^{1}	0%	0^{1}	0%	0^{1}	0%	1_{a}	1.5%	1_{a}	2.0%	2	0.7%
Never	0^{1}	0%	0^{1}	0%	0^{1}	0%	2_{a}	2.9%	0^{1}	0%	2	0.7%
Total	**55**	**100%**	**25**	**100%**	**73**	**100%**	**68**	**100%**	**51**	**100%**	**272**	**100%**

Note: Values in the same row and sub-table not sharing the same subscript are significantly different at p< .05 in the two-sided test of equality for column proportions. Cells with no subscript are not included in the test. Tests assume equal variances. Tests are adjusted for all pairwise comparisons within a row of each innermost sub-table using the Bonferroni correction.

[1] This category is not used in comparisons because its column proportion is equal to zero or one.

Table 69. **Answers to the question *"If you knew someone who is HIV-positive and needed a case manager, would you refer him or her to this case management service provider?"* by the type of facility**
(among those who have ever received case management at the facility, N=272)

	Type of facility											
	AIDS Center		Primary Healthcare Center		NGO		Narcological/ TB dispensary		Hospital		Total	
	Count	%	Count	%	Count	%	Count	%	Count	%	Count	%
Definitely yes	$49_{a,c,d}$	89.1%	$20_{a,b}$	80%	71_{c}	97.3%	$59_{a,c,d}$	86.8%	$41_{b,d}$	80.4%	240	88.2%
Maybe	6_{a}	10.9%	4_{a}	16.0%	2_{a}	2.7%	7_{a}	10.3%	8_{a}	15.7%	27	9.9%
Definitely not	0^{1}	0%	1_{a}	4.0%	0^{1}	0%	1_{a}	1.5%	2_{a}	3.9%	4	1.5%
No answer	0^{1}	0%	0^{1}	0%	0^{1}	0%	1_{a}	1.5%	0^{1}	0%	1	0.4%
Total	**55**	**100%**	**25**	**100%**	**73**	**100%**	**68**	**100%**	**51**	**100%**	**272**	**100%**

Note: Values in the same row and sub-table not sharing the same subscript are significantly different at p< .05 in the two-sided test of equality for column proportions. Cells with no subscript are not included in the test. Tests assume equal variances. Tests are adjusted for all pairwise comparisons within a row of each innermost sub-table using the Bonferroni correction.

[1] This category is not used in comparisons because its column proportion is equal to zero or one.

Table 70. **Answers to the question *"How many medical staff did you visit while you were at this facility today (includes nurses, doctors, counselors, diagnostics specialists etc)?"* by the type of facility**
(asked only from non-NGO clients, N=521)

Type of facility	Mean	Std. Deviation	Median	Minimum	Maximum	Number of cases
AIDS Center	2.48	1.222	2.00	1	7	141
Primary Healthcare Center	1.79	0.651	2.00	1	4	48
Narcological/ TB dispensary	2.13	0.812	2.00	1	6	140
Hospital	1.68	0.731	2.00	0	5	192
Total	**1.7**	**1.2**	**2**	**0**	**7**	**521**

Kruskal-Wallis 1-way ANOVA p-value = 0.954

Table 71. **Answers to the question *"I would like to know your opinion about your interaction with the medical staff. Please tell me how satisfied you are with the following aspects of your interaction with the medical staff?"* by the type of facility**
(asked only if not an NGO, N=521)

		Type of facility									
		AIDS Center		Primary Healthcare Center		Narcological/ TB dispensary		Hospital		Total	
		Count / Mean	% / Standard Deviation	Count / Mean	% / Standard Deviation	Count / Mean	% / Standard Deviation	Count / Mean	% / Standard Deviation	Count / Mean	% / Standard Deviation
In your opinion, how respectful were medical staff towards you?	Not respectful (1 point)	3_a	2.1%	2_a	4.2%	4_a	2.9%	5_a	2.6%	14	2.7%
	Somewhat respectful (2 points)	41_a	29.1%	$9_{a,b}$	18.8%	42_a	30%	22_b	11.5%	114	21.9%
	Respectful (3 points)	97_a	68.8%	$37_{a,b}$	77.1%	94_a	67.1%	165_b	85.9%	393	75.4%
	Total	141	100%	48	100%	140	100%	192	100%	521	100%
	Mean score & st. deviation	2.7_a	.5	$2.7_{a,b}$	.5	2.6_a	.5	2.8_b	.4	2.7	0.5
In your opinion, how attentive were medical staff in listening to you?	Not attentive (1 point)	4_a	2.8%	1_a	2.1%	6_a	4.3%	3_a	1.6%	14	2.7%
	More or less attentive (2 points)	47_a	33.3%	14_a	29.2%	34_a	24.3%	24_b	12.5%	119	22.8%
	Attentive (3 points)	90_a	63.8%	33_a	68.8%	99_a	70.7%	165_b	85.9%	387	74.3%
	No answer	0^1	0%	0^1	0%	1_a	.7%	0^1	0%	1	0.2%
	Total	141	100%	48	100%	140	100%	192	100%	521	100%
	Mean score & st. deviation	$2,6_a$	.5	$2.7_{a,b}$	.5	2.7_a	.6	2.8_b	.4	2.7	0.5

Note: Values in the same row and sub-table not sharing the same subscript are significantly different at p< .05 in the two-sided test of equality for column proportions or the two-sided test of equality for column means. Cells with no subscript are not included in the test. Tests assume equal variances. Tests are adjusted for all pairwise comparisons within a row of each innermost sub-table using the Bonferroni correction.

[1] This category is not used in comparisons because its column proportion is equal to zero or one.

Continuation of Table 71

		Type of facility									
		AIDS Center		Primary Healthcare Center		Narcological/ TB dispensary		Hospital		Total	
		Count / Mean	% / Standard Deviation	Count / Mean	% / Standard Deviation	Count / Mean	% / Standard Deviation	Count / Mean	% / Standard Deviation	Count / Mean	% / Standard Deviation
How comfortable did you feel in asking medical staff questions about your health?	Not comfortable (1 point)	10_a	7.1%	4_a	8.3%	9_a	6.4%	11_a	5.7%	34	6.5%
	More or less comfortable (2 points)	46_a	32.6%	$13_{a,b}$	27.1%	$28_{a,b}$	20%	24_b	12.5%	111	21.3%
	Comfortable (3 points)	82_a	58.2%	$31_{a,b}$	64.6%	$101_{a,b}$	72.1%	157_b	81.8%	371	71.2%
	No answer	3_a	2.1%	0^1	0%	2_a	1.4%	0^1	0%	5	1.0%
	Total	141	100%	48	100%	140	100%	192	100%	521	100%
	Mean score & st. deviation	2.5_a	.6	$2.6_{a,b}$	.6	$2.7_{a,b}$	.6	$2,8_b$	.5	2.7	0.6
How well did medical staff explain things in a way you could understand?	Not well (1 point)	3_a	2.1%	1_a	2.1%	8_a	5.7%	2_a	1.0%	14	2.7%
	Relatively well (2 points)	$35_{a,b}$	24.8%	17_a	35.4%	$33_{a,b}$	23.6%	30_b	15.6%	115	22.1%
	Well (3 points)	$102_{a,b}$	72.3%	30_a	62.5%	97_a	69.3%	158_b	82.3%	387	74.3%
	No answer	1_a	.7%	0^1	0%	2_a	1.4%	2_a	1.0%	5	1.0%
	Total	141	100%	48	100%	140	100%	192	100%	521	100%
	Mean score & st. deviation	$2.7_{a,b}$	.5	2.6_a	.5	2.6_a	.6	2.8_b	.4	2.7	0.5
In your opinion, the amount of time that medical staff spent with you was…	Not enough (1 point)	2_a	1.4%	1_a	2.1%	6_a	4.3%	2_a	1.0%	11	2.1%
	Somewhat adequate (2 points)	34_a	24.1%	11_a	22.9%	29_a	20.7%	14_b	7.3%	88	16.9%
	Adequate (3 points)	105_a	74.5%	36_a	75.0%	105_a	75.0%	176_b	91.7%	422	81.0%
	Total	141	100%	48	100%	140	100%	192	100%	521	100%
	Mean score & st. deviation	2.7_a	.5	$2.7_{a,b}$	.5	2.7_a	.5	2.9_b	.3	2.8	0.5
How comfortable were you with the level of privacy you had during your interaction with medical staff?	Not comfortable (1 point)	24_a	17.0%	$5_{a,b}$	10.4%	8_b	5.7%	$12_{b,c}$	6.3%	49	9.4%
	More or less comfortable (2 points)	33_a	23.4%	$11_{a,b}$	22.9%	$28_{a,b}$	20%	21_b	10.9%	93	17.9%
	Comfortable (3 points)	84_a	59.6%	$32_{a,b}$	66.7%	$103_{a,b}$	73.6%	159_b	82.8%	378	72.6%
	No answer	0^1	0%	0^1	0%	1_a	.7%	0^1	0%	1	0.2%
	Total	141	100%	48	100%	140	100%	192	100%	521	100%
	Mean score & st. deviation	2.4_a	.8	$2.6_{a,b}$	.7	2.7_b	.6	$2.8_{b,c}$	.6	2.6	0.6

Note: Values in the same row and sub-table not sharing the same subscript are significantly different at $p < .05$ in the two-sided test of equality for column proportions or the two-sided test of equality for column means. Cells with no subscript are not included in the test. Tests assume equal variances. Tests are adjusted for all pairwise comparisons within a row of each innermost sub-table using the Bonferroni correction.

[1] This category is not used in comparisons because its column proportion is equal to zero or one.

Continuation of Table 71

		Type of facility									
		AIDS Center		Primary Healthcare Center		Narcological/ TB dispensary		Hospital		Total	
		Count / Mean	% / Standard Deviation	Count / Mean	% / Standard Deviation	Count / Mean	% / Standard Deviation	Count / Mean	% / Standard Deviation	Count / Mean	% / Standard Deviation
How confident are you that the information you shared with medical staff will be kept confidential?	Not sure (1 point)	6_a	4.3%	10_b	20.8%	21_b	15.0%	$21_{a,b}$	10.9%	58	11.1%
	More or less sure (2 points)	41_a	29.1%	14_a	29.2%	25_a	17.9%	53_a	27.6%	133	25.5%
	Sure (3 points)	93_a	66.0%	24_a	50%	93_a	66.4%	118_a	61.5%	328	63.0%
	No answer	1_a	0.7%	0^1	0%	1_a	0.7%	0^1	0%	2	0.4%
	Total	141	100%	48	100%	140	100%	192	100%	521	100%
	Mean score & st. deviation	2.6_a	0.6	2.3_b	0.8	$2.5_{a,b}$	0.7	$2.5_{a,b}$	0.7	2.5	0.7
In your opinion, how well did medical staff involve you in making decisions about your health care?	Not well (1 point)	$4_{a,b}$	2.8%	$3_{a,b}$	6.3%	15_a	10.7%	5_b	2.6%	27	5.2%
	Relatively well (2 points)	39_a	27.7%	30_b	62.5%	37_a	26.4%	34_a	17.7%	140	26.9%
	Well (3 points)	$95_{a,c}$	67.4%	15_b	31.3%	87_a	62.1%	153_c	79.7%	350	67.2%
	No answer	3_a	2.1%	0^1	0%	1_a	0.7%	0^1	0%	4	0.8%
	Total	141	100%	48	100%	140	100%	192	100%	521	100%
	Mean score & st. deviation	$2.7_{a,c}$	0.5	2.3_b	0.6	2.5_a	0.7	2.8_c	0.5	2.6	0.6

Note: Values in the same row and sub-table not sharing the same subscript are significantly different at $p < .05$ in the two-sided test of equality for column proportions or the two-sided test of equality for column means. Cells with no subscript are not included in the test. Tests assume equal variances. Tests are adjusted for all pairwise comparisons within a row of each innermost sub-table using the Bonferroni correction.

[1] This category is not used in comparisons because its column proportion is equal to zero or one.

Table 72. **Answers to the question *"I would like to know your opinion about the medical facility. How would you describe the following aspects of this facility?"* by the type of facility** (asked only from non-NGO clients, N=521)

		Type of facility									
		AIDS Center		Primary Healthcare Center		Narcological/ TB dispensary		Hospital		Total	
		Count / Mean	% / Standard Deviation	Count / Mean	% / Standard Deviation	Count / Mean	% / Standard Deviation	Count / Mean	% / Standard Deviation	Count / Mean	% / Standard Deviation
Cleanliness of the facility	Poor (1 point)	4_a	2.8%	0^1	0%	0^1	0%	3_a	1.6%	7	1.3%
	Fair (2 points)	32_a	22.7%	8_a	16.7%	38_a	27.1%	37_a	19.3%	115	22.1%
	Good (3 points)	103_a	73.0%	40_a	83.3%	102_a	72.9%	152_a	79.2%	397	76.2%
	No answer	2_a	1.4%	0^1	0%	0^1	0%	0^1	0%	2	0.4%
	Total	141	100%	48	100%	140	100%	192	100%	521	100%
	Mean score & st. deviation	2.7_a	0.5	2.8_a	0.4	2.7_a	0.4	2.8_a	0.5	2.8	0.5
Availability of needed medicines	Poor (1 point)	15_a	10.6%	5_a	10.4%	17_a	12.1%	20_a	10.4%	57	10.9%
	Fair (2 points)	45_a	31.9%	12_a	25.0%	42_a	30%	38_a	19.8%	137	26.3%
	Good (3 points)	53_a	37.6%	$20_{a,b}$	41.7%	75_b	53.6%	$120_{b,c}$	62.5%	268	51.4%
	No answer	28_a	19.9%	11_a	22.9%	6_b	4.3%	14_b	7.3%	59	11.3%
	Total	141	100%	48	100%	140	100%	192	100%	521	100%
	Mean score & st. deviation	2.3_a	0.7	$2.4_{a,b}$	0.7	$2.4_{a,b}$	0.7	2.6_b	0.7	2.5	0.7
Spaciousness of the waiting area	Poor (1 point)	44_a	31.2%	4_b	8.3%	17_b	12.1%	17_b	8.9%	82	15.7%
	Fair (2 points)	60_a	42.6%	21_a	43.8%	54_a	38.6%	40_b	20.8%	175	33.6%
	Good (3 points)	37_a	26.2%	23_b	47.9%	68_b	48.6%	135_c	70.3%	263	50.5%
	No answer	0^1	0%	0^1	0%	1_a	.7%	0^1	0%	1	0.2%
	Total	141	100%	48	100%	140	100%	192	100%	521	100%
	Mean score & st. deviation	2.0_a	0.8	$2.4_{b,c}$	0.6	2.4_b	0.7	2.6_c	0.6	2.3	0.7
Spaciousness of the examination rooms	Poor (1 point)	19_a	13.5%	0^1	0%	12_a	8.6%	5_b	2.6%	36	6.9%
	Fair (2 points)	63_a	44.7%	$12_{a,b}$	25.0%	55_a	39.3%	27_b	14.1%	157	30.1%
	Good (3 points)	58_a	41.1%	36_b	75.0%	72_a	51.4%	160_b	83.3%	326	62.6%
	No answer	1_a	.7%	0^1	0%	1_a	.7%	0^1	0%	2	.4%
	Total	141	100%	48	100%	140	100%	192	100%	521	100%
	Mean score & st. deviation	2.3_a	0.7	2.7_b	0.4	2.4_a	0.6	2.8_b	0.5	2.6	0.6
Availability of the necessary equipment to provide care	Poor (1 point)	16_a	11.3%	4_a	8.3%	10_a	7.1%	19_a	9.9%	49	9.4%
	Fair (2 points)	57_a	40.4%	20_a	41.7%	$42_{a,b}$	30%	36_b	18.8%	155	29.8%
	Good (3 points)	52_a	36.9%	$24_{a,b}$	50%	85_b	60.7%	$132_{b,c}$	68.8%	293	56.2%
	No answer	16_a	11.3%	0^1	0%	3_b	2.1%	5_b	2.6%	24	4.6%
	Total	141	100%	48	100%	140	100%	192	100%	521	100%
	Mean score & st. deviation	2.3_a	0.7	$2.4_{a,b}$	0.6	2.5_b	0.6	$2.6_{b,c}$	0.7	2.5	0.7

Note: Values in the same row and sub-table not sharing the same subscript are significantly different at $p < .05$ in the two-sided test of equality for column proportions or the two-sided test of equality for column means. Cells with no subscript are not included in the test. Tests assume equal variances. Tests are adjusted for all pairwise comparisons within a row of each innermost sub-table using the Bonferroni correction.

[1] This category is not used in comparisons because its column proportion is equal to zero or one.

Table 73. **Answers to the question *"I would like to know your opinion about the accessibility of care at facility. Please tell me how much of a problem, if at all, any of the following items are for you"* by the type of facility**
(asked only if not an NGO, N=521)

		Type of facility									
		AIDS Center		Primary Healthcare Center		Narcological/ TB dispensary		Hospital		Total	
		Count / Mean	% / Standard Deviation	Count / Mean	% / Standard Deviation	Count / Mean	% / Standard Deviation	Count / Mean	% / Standard Deviation	Count / Mean	% / Standard Deviation
Working hours of this site	Not at all a problem (1 point)	67_a	47.5%	28_a	58.3%	78_a	55.7%	172_b	89.6%	345	66.2%
	Minor problem (2 points)	33_a	23.4%	13_a	27.1%	25_a	17.9%	10_b	5.2%	81	15.5%
	Moderate problem (3 points)	28_a	19.9%	$5_{a,b}$	10.4%	$14_{a,b}$	10%	9_b	4.7%	56	10.7%
	Serious problem (4 points)	11_a	7.8%	$2_{a,b}$	4.2%	20_a	14.3%	1_b	0.5%	34	6.5%
	No answer	2_a	1.4%	0^1	0%	3_a	2.1%	0^1	0%	5	1.0%
	Total	141	100%	48	100%	140	100%	192	100%	521	100%
	Mean score & st. deviation	1.9_a	1.0	1.6_a	0.8	1.8_a	1.1	1.2_b	0.5	1.6	0.9
How get to this site	Not at all a problem (1 point)	95_a	67.4%	$38_{a,b}$	79.2%	84_a	60%	172_b	89.6%	389	74.7%
	Minor problem (2 points)	23_a	16.3%	$6_{a,b}$	12.5%	44_b	31.4%	15_a	7.8%	88	16.9%
	Moderate problem (3 points)	20_a	14.2%	4_a	8.3%	$8_{a,b}$	5.7%	2_b	1.0%	34	6.5%
	Serious problem (4 points)	3_a	2.1%	0^1	0%	1_a	0.7%	3_a	1.6%	7	1.3%
	No answer	0^1	0%	0^1	0%	3_a	2.1%	0^1	0%	3	0.6%
	Total	141	100%	48	100%	140	100%	192	100%	521	100%
	Mean score & st. deviation	1.5_a	0.8	$1.3_{a,b}$	0.6	1.5_a	0.6	1.1_b	0.5	1.3	0.7
Waiting time	Not at all a problem (1 point)	40_a	28.4%	25_b	52.1%	94_b	67.1%	162_c	84.4%	321	61.6%
	Minor problem (2 points)	35_a	24.8%	16_a	33.3%	33_a	23.6%	22_b	11.5%	106	20.3%
	Moderate problem (3 points)	36_a	25.5%	$5_{a,b}$	10.4%	11_b	7.9%	$7_{b,c}$	3.6%	59	11.3%
	Serious problem (4 points)	30_a	21.3%	2_b	4.2%	2_b	1.4%	1_b	0.5%	35	6.7%
	Total	141	100%	48	100%	140	100%	192	100%	521	100%
	Mean score & st. deviation	2.4_a	1.1	1.7_b	0.8	$1.4_{b,c}$	0.7	1.2_c	0.5	1.6	0.9
Receiving medications on site	Not at all a problem (1 point)	59_a	41.8%	31_b	64.6%	119_c	85.0%	$149_{b,c}$	77.6%	358	68.7%
	Minor problem (2 points)	31_a	22.0%	$6_{a,b}$	12.5%	10_b	7.1%	$15_{b,c}$	7.8%	62	11.9%
	Moderate problem (3 points)	14_a	9.9%	0^1	0%	3_b	2.1%	2_b	1.0%	19	3.6%
	Serious problem (4 points)	7_a	5.0%	0^1	0%	2_a	1.4%	13_a	6.8%	22	4.2%
	No answer	30_a	21.3%	11_a	22.9%	6_b	4.3%	13_b	6.8%	60	11.5%
	Total	141	100%	48	100%	140	100%	192	100%	521	100%
	Mean score & st. deviation	1.7_a	.9	1.2_b	.4	1.2_b	.5	1.3_b	.8	1.4	.8

Note: Values in the same row and sub-table not sharing the same subscript are significantly different at $p < .05$ in the two-sided test of equality for column proportions or the two-sided test of equality for column means. Cells with no subscript are not included in the test. Tests assume equal variances. Tests are adjusted for all pairwise comparisons within a row of each innermost sub-table using the Bonferroni correction.

[1] This category is not used in comparisons because its column proportion is equal to zero or one.

Continuation of Table 73

		Type of facility									
		AIDS Center		Primary Healthcare Center		Narcological/ TB dispensary		Hospital		Total	
		Count / Mean	% / Standard Deviation	Count / Mean	% / Standard Deviation	Count / Mean	% / Standard Deviation	Count / Mean	% / Standard Deviation	Count / Mean	% / Standard Deviation
Cost of the service on this site	Not at all a problem (1 point)	66_a	46.8%	6_b	12.5%	90_c	64.3%	133_c	69.3%	295	56.6%
	Minor problem (2 points)	18_a	12.8%	10_a	20.8%	3_b	2.1%	$16_{a,b}$	8.3%	47	9.0%
	Moderate problem (3 points)	25_a	17.7%	5_a	10.4%	0^1	0%	4_b	2.1%	34	6.5%
	Serious problem (4 points)	2_a	1.4%	0^1	0%	0^1	0%	3_a	1.6%	5	1.0%
	No answer	$30_{a,c}$	21.3%	27_b	56.3%	47_a	33.6%	36_c	18.8%	140	26.9%
	Total	141	100%	48	100%	140	100%	192	100%	521	100%
	Mean score & st. deviation	1.7_a	.9	2.0_a	.7	1.0_b	.2	1.2_b	.6	1.3	.7

Note: Values in the same row and sub-table not sharing the same subscript are significantly different at p< .05 in the two-sided test of equality for column proportions or the two-sided test of equality for column means. Cells with no subscript are not included in the test. Tests assume equal variances. Tests are adjusted for all pairwise comparisons within a row of each innermost sub-table using the Bonferroni correction.

[1] This category is not used in comparisons because its column proportion is equal to zero or one.

Table 74. ***Results of confirmatory factor analysis (CFA) for the Overall Quality Score and Quality Dimensions Scores*** (among clients interviewed at medical facilities, N=521)

	Mean (standard deviation) for clients who received services	Standardized factor loadings by CFA[42]
Indicator 1. Accessibility (measured on 4-point likert scale: 1-not a problem at all; 2-minor problem; 3-moderate problem; 4-serious problem)[43]		
Indicator 1.1. Concerns with facility's operating hours	1.6 (0.9)	0.775
Indicator 1.2. Concerns with getting to the site	1.3 (0.7)	0.634
Indicator 1.3. Concerns with waiting time to receive services	1.6 (0.9)	0.882
Indicator 1.4. Concerns with receiving medications on site	1.4 (0.8)	0.614
Indicator 1.5. Concerns with cost of services	1.3 (0.7)	0.653
Indicator 2. User-friendliness (measured on 3-point likert scale: 1-not well; 2-relatively well; 3-well)		
Indicator 2.1. Perceptions of respectfulness of medical staff	2.7 (0.5)	0.834
Indicator 2.2. Perceptions of medical staff's attentiveness	2.7 (0.5)	0.927
Indicator 2.3. Client's comfort level in asking questions	2.7 (0.5)	0.837
Indicator 2.4. Providers' explanation of health issue	2.7 (0.6)	0.832
Indicator 2.5. Involvement with decision-making	2.6 (0.6)	0.818

42 Factor loadings > 0.5 are considered as acceptable fit meaning that selected indicators result from the one underlying latent variable. A factor loading is a correlation between latent variable and an observed indicator.

43 The scale was reversed in confirmatory factor analysis as well as during computation of Accessibility Score in order to consider low value as unsatisfactory (1 point) and high value (4 points) as satisfactory similar to other quality dimensions.

Continuation of Table 74

	Mean (standard deviation) for clients who received services	Standardized factor loadings by CFA[42]
Indicator 3. Confidentiality and Privacy (measured on 3-point likert scale: 1-not sure; 2-more or less sure; 3-sure)		
Indicator 3.1. Perceptions of privacy during interaction with staff at the facility	2.6 (0.6)	0.898
Indicator 3.2. Perceptions of confidentiality of information shared with staff at the facility	2.5 (0.7)	0.532
Correlations between Quality Dimensions		
Indicator 1. Accessibility Score		
with Indicator 2. User-friendliness Score		0.703
with Indicator 3. Confidentiality and Privacy Score		0.735
Indicator 2. User-friendliness Score		
with Indicator 3. Confidentiality and Privacy Score		0.906

CFA model fit indexes:
Minimum Function Test Statistic=124.89
Degrees of freedom=50
Comparative Fit Index (CFI)=0.98
Tucker-Lewis Index (TLI)=0.97
RMSEA=0.067

Table 75. ***Accessibility Score and differences in the score by selected control variables*** (among clients interviewed at medical facilities, N=521)

		Mean	Standard Deviation	Median	Minimum	Maximum	Number of cases
Age (p-value=0.495)	18-35 years	0.8	0.23	0.85	0.06	1	269
	36+ years	0.78	0.24	0.86	0	1	252
	Total	0.79	0.24	0.85	0	1	521
Sex (p-value=0.432)	Female	0.78	0.24	0.82	0	1	191
	Male	0.79	0.24	0.86	0	1	330
	Total	0.79	0.24	0.85	0	1	521
Education (p-value=0.006)	Secondary (including vocational) or less	0.8	0.23	0.86	0	1	458
	Higher	0.7	0.27	0.76	0	1	60
	No answer	0.77	0.21	0.72	0.58	1	3
	Total	0.79	0.24	0.85	0	1	521
Employment status (p-value=0.802)	Occasional work / unemployed / disability	0.78	0.24	0.85	0	1	301
	Full time or part-time job	0.79	0.23	0.85	0	1	197
	No answer	0.81	0.23	0.91	0.13	1	23
	Total	0.79	0.24	0.85	0	1	521

Continuation of Table 75

		Mean	Standard Deviation	Median	Minimum	Maximum	Number of cases
Income (p-value=0.025)	Up to UAH 2000	0.79	0.24	0.85	0	1	308
	UAH 2001+	0.76	0.24	0.79	0	1	163
	No answer	0.86	0.18	0.94	0.33	1	50
	Total	0.79	0.24	0.85	0	1	521
How long have you been visiting this facility? (p-value=0.156)	Less than a year	0.81	0.22	0.86	0	1	154
	1 year +	0.78	0.25	0.85	0	1	366
	No answer	-	-	-	0.54	0.54	1
	Total	0.79	0.24	0.85	0	1	521
Type of facility (p-value<0.001)	AIDS Center	0.63	0.25	0.67	0	1	141
	Primary Healthcare Center	0.77	0.17	0.78	0.33	1	48
	Narcological / TB dispensary	0.78	0.25	0.86	0	1	140
	Hospital	0.92	0.14	1	0.44	1	192
	Total	0.79	0.24	0.85	0	1	521
Received HIV test (p-value=0.697)	Not mentioned	0.79	0.24	0.85	0	1	465
	Mentioned	0.80	0.23	0.79	0.08	1	56
	Total	0.79	0.24	0.85	0	1	521
Received ART (p-value=0.830)	Not mentioned	0.79	0.23	0.85	0	1	389
	Mentioned	0.79	0.25	0.85	0	1	132
	Total	0.79	0.24	0.85	0	1	521
Received OST (p-value=0.397)	Not mentioned	0.78	0.24	0.82	0	1	342
	Mentioned	0.80	0.24	0.86	0	1	179
	Total	0.79	0.24	0.85	0	1	521
Received free condoms (p-value=0.001)	Not mentioned	0.78	0.24	0.82	0	1	480
	Mentioned	0.91	0.19	1.00	0.09	1	41
	Total	0.79	0.24	0.85	0	1	521
Received sterile syringes/needles (p-value=0.018)	Not mentioned	0.78	0.24	0.85	0	1	494
	Mentioned	0.89	0.21	1.00	0.09	1	27
	Total	0.79	0.24	0.85	0	1	521
Received referral(s) (p-value=0.086)	Not mentioned	0.79	0.24	0.86	0	1	467
	Mentioned	0.74	0.22	0.75	0.24	1	54
	Total	0.79	0.24	0.85	0	1	521

Table 76. ***User-Friendliness Score and differences in the score by selected control variables*** (among clients interviewed at medical facilities, N=521)

		Mean	Standard Deviation	Median	Minimum	Maximum	Number of cases
Age (p-value=0.030)	18-35 years	0.83	0.22	0.91	0	1	269
	36+ years	0.87	0.18	1	0.17	1	252
	Total	0.85	0.2	0.91	0	1	521
Sex (p-value=0.680)	Female	0.85	0.21	0.91	0.08	1	191
	Male	0.85	0.2	0.91	0	1	330
	Total	0.85	0.2	0.91	0	1	521
Education (p-value=0.651)	Secondary (including vocational) or less	0.85	0.2	0.91	0	1	458
	Higher	0.84	0.21	0.91	0.17	1	60
	No answer	0.76	0.35	0.91	0.36	1	3
	Total	0.85	0.2	0.91	0	1	521
Employment status (p-value=0.092)	Occasional work / unemployed / disability	0.84	0.22	0.91	0	1	301
	Full time or part-time job	0.87	0.18	0.91	0.17	1	197
	No answer	0.91	0.21	1	0.17	1	23
	Total	0.85	0.2	0.91	0	1	521
Income (p-value=0.193)	Up to UAH 2000	0.86	0.2	1	0	1	308
	UAH 2001+	0.83	0.2	0.91	0.17	1	163
	No answer	0.85	0.22	0.91	0.08	1	50
	Total	0.85	0.2	0.91	0	1	521
How long have you been visiting this facility? (p-value=0.984)	Less than a year	0.85	0.21	0.91	0.17	1	154
	1 year +	0.85	0.2	0.91	0	1	366
	No answer	-	-	-	0.82	0.82	1
	Total	0.85	0.2	0.91	0	1	521
Type of facility (p-value=0.001)	AIDS Center	0.82	0.2	0.9	0.17	1	141
	Primary Healthcare Center	0.8	0.19	0.82	0.26	1	48
	Narcological / TB dispensary	0.82	0.23	0.91	0	1	140
	Hospital	0.91	0.17	1	0.08	1	192
	Total	0.85	0.2	0.91	0	1	521
Received HIV test (p-value=0.309)	Not mentioned	0.85	0.20	0.91	0	1	465
	Mentioned	0.88	0.20	1	0.26	1	56
	Total	0.85	0.20	0.91	0	1	521

Continuation of Table 76

		Mean	Standard Deviation	Median	Minimum	Maximum	Number of cases
Received ART (p-value=0.438)	Not mentioned	0.85	0.20	0.91	0	1	389
	Mentioned	0.86	0.20	1	0.08	1	132
	Total	0.85	0.20	0.91	0	1	521
Received OST (p-value=0.088)	Not mentioned	0.86	0.19	1	0.08	1	342
	Mentioned	0.83	0.22	0.91	0	1	179
	Total	0.85	0.20	0.91	0	1	521
Received free condoms (p-value=0.002)	Not mentioned	0.84	0.21	0.91	0	1	480
	Mentioned	0.95	0.15	1	0.36	1	41
	Total	0.85	0.20	0.91	0	1	521
Received sterile syringes/needles (p-value=0.087)	Not mentioned	0.85	0.20	0.91	0	1	494
	Mentioned	0.92	0.18	1	0.36	1	27
	Total	0.85	0.20	0.91	0	1	521
Received referral(s) (p-value=0.590)	Not mentioned	0.85	0.20	0.91	0	1	467
	Mentioned	0.84	0.20	0.91	0.26	1	54
	Total	0.85	0.20	0.91	0	1	521

Table 77. ***Confidentiality & Privacy Score and differences in the score by selected control variables*** (among clients interviewed at medical facilities, N=521)

		Mean	Standard Deviation	Median	Minimum	Maximum	Number of cases
Age (p-value=0.468)	18-35 years	0.83	0.22	1	0.24	1	269
	36+ years	0.85	0.22	1	0	1	252
	Total	0.84	0.22	1	0	1	521
Sex (p-value=0.008)	Female	0.81	0.24	1	0.24	1	191
	Male	0.86	0.2	1	0	1	330
	Total	0.84	0.22	1	0	1	521
Education (p-value=0.932)	Secondary (including vocational) or less	0.84	0.22	1	0	1	458
	Higher	0.83	0.22	0.93	0.24	1	60
	No answer	0.83	0.3	1	0.48	1	3
	Total	0.84	0.22	1	0	1	521
Employment status (p-value=0.096)	Occasional work / unemployed / disability	0.83	0.23	1	0	1	301
	Full time or part-time job	0.85	0.21	1	0.24	1	197
	No answer	0.93	0.16	1	0.38	1	23
	Total	0.84	0.22	1	0	1	521

Continuation of Table 77

		Mean	Standard Deviation	Median	Minimum	Maximum	Number of cases
Income (p-value=0.009)	Up to UAH 2000	0.87	0.2	1	0.24	1	308
	UAH 2001+	0.82	0.23	0.86	0.24	1	163
	No answer	0.78	0.26	0.86	0	1	50
	Total	0.84	0.22	1	0	1	521
How long have you been visiting this facility? (p-value=0.563)	Less than a year	0.84	0.22	1	0	1	154
	1 year +	0.84	0.21	1	0.24	1	366
	No answer	-	-	-	0.62	0.62	1
	Total	0.84	0.22	1	0	1	521
Type of facility (p-value=0.115)	AIDS Center	0.81	0.23	0.86	0.24	1	141
	Primary Healthcare Center	0.8	0.24	0.86	0.24	1	48
	Narcological / TB dispensary	0.85	0.22	1	0	1	140
	Hospital	0.87	0.2	1	0.24	1	192
	Total	0.84	0.22	1	0	1	521
Received HIV test (p-value=0.186)	Not mentioned	0.84	0.22	1	0	1	465
	Mentioned	0.88	0.19	1	0.24	1	56
	Total	0.84	0.22	1	0	1	521
Received ART (p-value=0.222)	Not mentioned	0.85	0.21	1	0.24	1	389
	Mentioned	0.82	0.24	1	0	1	132
	Total	0.84	0.22	1	0	1	521
Received OST (p-value=0.975)	Not mentioned	0.84	0.22	1	0	1	342
	Mentioned	0.84	0.21	1	0.24	1	179
	Total	0.84	0.22	1	0	1	521
Received free condoms (p-value=0.091)	Not mentioned	0.84	0.22	1	0	1	480
	Mentioned	0.90	0.23	1	0.24	1	41
	Total	0.84	0.22	1	0	1	521
Received sterile syringes/needles (p-value=0.608)	Not mentioned	0.84	0.21	1	0	1	494
	Mentioned	0.86	0.27	1	0.24	1	27
	Total	0.84	0.22	1	0	1	521
Received referral(s) (p-value=0.699)	Not mentioned	0.84	0.22	1	0	1	467
	Mentioned	0.83	0.21	0.93	0.24	1	54
	Total	0.84	0.22	1	0	1	521

Table 78. ***Overall Quality Score and differences in the score by selected control variables*** (among clients interviewed at medical facilities, N=521)

		Mean	Standard Deviation	Median	Minimum	Maximum	Number of cases
Age (p-value=0.406)	18-35 years	0.82	0.18	0.88	0.22	1	269
	36+ years	0.83	0.17	0.87	0.23	1	252
	Total	0.83	0.18	0.88	0.22	1	521
Sex (p-value=0.107)	Female	0.81	0.19	0.86	0.22	1	191
	Male	0.84	0.17	0.89	0.23	1	330
	Total	0.83	0.18	0.88	0.22	1	521
Education (p-value=0.187)	Secondary (including vocational) or less	0.83	0.17	0.88	0.22	1	458
	Higher	0.79	0.19	0.83	0.23	1	60
	No answer	0.78	0.27	0.88	0.47	1	3
	Total	0.83	0.18	0.88	0.22	1	521
Employment status (p-value=0.134)	Occasional work / unemployed / disability	0.82	0.18	0.86	0.23	1	301
	Full time or part-time job	0.84	0.17	0.89	0.22	1	197
	No answer	0.89	0.19	0.95	0.23	1	23
	Total	0.83	0.18	0.88	0.22	1	521
Income (p-value=0.069)	Up to UAH 2000	0.84	0.18	0.89	0.22	1	308
	UAH 2001+	0.8	0.18	0.84	0.3	1	163
	No answer	0.83	0.15	0.88	0.44	1	50
	Total	0.83	0.18	0.88	0.22	1	521
How long have you been visiting this facility? (p-value=0.552)	Less than a year	0.83	0.17	0.9	0.23	1	154
	1 year +	0.82	0.18	0.87	0.22	1	366
	No answer	-	-	-	0.66	0.66	1
	Total	0.83	0.18	0.88	0.22	1	521
Type of facility (p-value<0.001)	AIDS Center	0.75	0.18	0.79	0.22	1	141
	Primary Healthcare Center	0.79	0.16	0.82	0.39	1	48
	Narcological / TB dispensary	0.82	0.18	0.86	0.32	1	140
	Hospital	0.9	0.14	0.95	0.37	1	192
	Total	0.83	0.18	0.88	0.22	1	521

Continuation of Table 78

		Mean	Standard Deviation	Median	Minimum	Maximum	Number of cases
Received HIV test (p-value=0.265)	Not mentioned	0.82	0.18	0.86	0.22	1	465
	Mentioned	0.85	0.16	0.92	0.37	1	56
	Total	0.83	0.18	0.88	0.22	1	521
Received ART (p-value=0.914)	Not mentioned	0.83	0.17	0.88	0.23	1	389
	Mentioned	0.83	0.19	0.88	0.22	1	132
	Total	0.83	0.18	0.88	0.22	1	521
Received OST (p-value=0.792)	Not mentioned	0.83	0.18	0.89	0.22	1	342
	Mentioned	0.82	0.17	0.86	0.32	1	179
	Total	0.83	0.18	0.88	0.22	1	521
Received free condoms (p-value=0.001)	Not mentioned	0.82	0.18	0.86	0.22	1	480
	Mentioned	0.92	0.15	1	0.45	1	41
	Total	0.83	0.18	0.88	0.22	1	521
Received sterile syringes/needles (p-value=0.053)	Not mentioned	0.82	0.18	0.87	0.22	1	494
	Mentioned	0.89	0.17	1	0.45	1	27
	Total	0.83	0.18	0.88	0.22	1	521
Received referral(s) (p-value=0.253)	Not mentioned	0.83	0.18	0.89	0.22	1	467
	Mentioned	0.80	0.17	0.86	0.39	1	54
	Total	0.83	0.18	0.88	0.22	1	521

Table 79. **Answers to the question *"Did you get all the services you wanted today?"* by the type of facility**

	Type of facility											
	AIDS Center		Primary Healthcare Center		NGO		Narcological/ TB dispensary		Hospital		Total	
	Count	%	Count	%	Count	%	Count	%	Count	%	Count	%
No	18_{a}	12.8%	$3_{a,b}$	6.3%	3_{b}	2.3%	$3_{b,c}$	2.1%	$5_{b,d}$	2.6%	32	4.9%
Yes	122_{a}	86.5%	$45_{a,b}$	93.8%	125_{b}	97.7%	$136_{b,c}$	97.1%	$187_{b,d}$	97.4%	615	94.8%
No answer	1_{a}	0.7%	0^{1}	0%	0^{1}	0%	1_{a}	0.7%	0^{1}	0%	2	0.3%
Total	**141**	**100%**	**48**	**100%**	**128**	**100%**	**140**	**100%**	**192**	**100%**	**649**	**100%**

Note: Values in the same row and sub-table not sharing the same subscript are significantly different at p< .05 in the two-sided test of equality for column proportions. Cells with no subscript are not included in the test. Tests assume equal variances. Tests are adjusted for all pairwise comparisons within a row of each innermost sub-table using the Bonferroni correction.

[1] This category is not used in comparisons because its column proportion is equal to zero or one.

Table 80. **Answers to the question *"Would you prefer to receive HIV services from the same facility where you receive other health services instead of here?"* by the type of facility**

	Type of facility											
	AIDS Center		Primary Healthcare Center		NGO		Narcological/ TB dispensary		Hospital		Total	
	Count	%	Count	%	Count	%	Count	%	Count	%	Count	%
No	107_a	75.9%	$41_{a,b}$	85.4%	121_b	94.5%	110_a	78.6%	$173_{b,c}$	90.1%	552	85.1%
Yes	23_a	16.3%	$4_{a,b}$	8.3%	5_b	3.9%	23_a	16.4%	$6_{b,c}$	3.1%	61	9.4%
It doesn't matter	6_a	4.3%	1_a	2.1%	1_a	0.8%	1_a	0.7%	0^1	0%	9	1.4%
No answer	5_a	3.5%	2_a	4.2%	1_a	.8%	6_a	4.3%	13_a	6.8%	27	4.2%
Total	**141**	**100%**	**48**	**100%**	**128**	**100%**	**140**	**100%**	**192**	**100%**	**649**	**100%**

Note: Values in the same row and sub-table not sharing the same subscript are significantly different at p< .05 in the two-sided test of equality for column proportions. Cells with no subscript are not included in the test. Tests assume equal variances. Tests are adjusted for all pairwise comparisons within a row of each innermost sub-table using the Bonferroni correction.

[1] This category is not used in comparisons because its column proportion is equal to zero or one.

Table 81. **Answers to the question *"What is/are the reason(s) you would prefer to receive HIV services from the same facility where you receive other services?"***
(multiple choice, among those preferring to receive HIV services from the same facility where they receive other health services instead of the facility where they were interviewed, N=61)

		Type of facility											
		AIDS Center		Primary Healthcare Center		NGO		Narcological/ TB dispensary		Hospital		Total	
		Count	%	Count	%	Count	%	Count	%	Count	%	Count	%
Convenience – reduced number trips	Not mentioned	10	43.5%	2	50%	2	40%	10	43.5%	3	50%	27	44.3%
	Mentioned	13	56.5%	2	50%	3	60%	13	56.5%	3	50%	34	55.7%
	Total	23	100%	4	100%	5	100%	23	100%	6	100%	61	100%
Cost – reduced cost of transportation	Not mentioned	13	56.5%	3	75.0%	3	60%	14	60.9%	5	83.3%	38	62.3%
	Mentioned	10	43.5%	1	25.0%	2	40%	9	39.1%	1	16.7%	23	37.7%
	Total	23	100%	4	100%	5	100%	23	100%	6	100%	61	100%
Reduced stigma – it won't be obvious I'm seeking HIV-specific services	Not mentioned	19	82.6%	3	75.0%	5	100%	19	82.6%	6	100%	52	85.2%
	Mentioned	4	17.4%	1	25.0%	0	0%	4	17.4%	0	0%	9	14.8%
	Total	23	100%	4	100%	5	100%	23	100%	6	100%	61	100%

Continuation of Table 81

		Type of facility											
		AIDS Center		Primary Healthcare Center		NGO		Narcological/ TB dispensary		Hospital		Total	
		Count	%	Count	%	Count	%	Count	%	Count	%	Count	%
Increased opportunity to access additional health services	Not mentioned	13	56.5%	3	75.0%	5	100%	8	34.8%	3	50%	32	52.5%
	Mentioned	10	43.5%	1	25.0%	0	0%	15	65.2%	3	50%	29	47.5%
	Total	23	100%	4	100%	5	100%	23	100%	6	100%	61	100%
Increased likelihood of following up on other referred services	Not mentioned	21	91.3%	3	75.0%	4	80%	18	78.3%	5	83.3%	51	83.6%
	Mentioned	2	8.7%	1	25.0%	1	20%	5	21.7%	1	16.7%	10	16.4%
	Total	23	100%	4	100%	5	100%	23	100%	6	100%	61	100%
Other	Not mentioned	21	91.3%	4	100%	4	80%	21	91.3%	6	100%	56	91.8%
	Mentioned	2	8.7%	0	0%	1	20%	2	8.7%	0	0%	5	8.2%
	Total	23	100%	4	100%	5	100%	23	100%	6	100%	61	100%

Note: Statistical testing is not valid because of small numbers in cells.

Table 82. **Answers to the question *"At any point, did you feel treated poorly at this facility?"* by the type of facility**

	Type of facility											
	AIDS Center		Primary Healthcare Center		NGO		Narcological/ TB dispensary		Hospital		Total	
	Count	%	Count	%	Count	%	Count	%	Count	%	Count	%
No	134_a	95.0%	46_a	95.8%	128^1	100%	133_a	95.0%	184_a	95.8%	625	96.3%
Yes	7_a	5.0%	2_a	4.2%	0^1	0%	7_a	5.0%	8_a	4.2%	24	3.7%
Total	**141**	**100%**	**48**	**100%**	**128**	**100%**	**140**	**100%**	**192**	**100%**	**649**	**100%**

Note: Values in the same row and sub-table not sharing the same subscript are significantly different at p< .05 in the two-sided test of equality for column proportions. Cells with no subscript are not included in the test. Tests assume equal variances. Tests are adjusted for all pairwise comparisons within a row of each innermost sub-table using the Bonferroni correction.

[1] This category is not used in comparisons because its column proportion is equal to zero or one.

Table 83. **Answers to the question *"Which of the following were the reasons you feel may have caused you to be treated poorly?"*** (multiple choice, among those who felt treated poorly at this facility, N=24)

		Type of facility									
		AIDS Center		Primary Healthcare Center		Narcological / TB dispensary		Hospital		Total	
		Count	%	Count	%	Count	%	Count	%	Count	%
Age	Not mentioned	7	100%	2	100%	7	100%	8	100%	24	100%
	Mentioned	0	0%	0	0%	0	0%	0	0%	0	0%
	Total	7	100%	2	100%	7	100%	8	100%	24	100%
Gender	Not mentioned	7	100%	2	100%	7	100%	8	100%	24	100%
	Mentioned	0	0%	0	0%	0	0%	0	0%	0	0%
	Total	7	100%	2	100%	7	100%	8	100%	24	100%
Sexual orientation	Not mentioned	7	100%	2	100%	7	100%	8	100%	24	100%
	Mentioned	0	0%	0	0%	0	0%	0	0%	0	0%
	Total	7	100%	2	100%	7	100%	8	100%	24	100%
Drug use	Not mentioned	5	71.4%	1	50%	5	71.4%	5	62.5%	16	66.7%
	Mentioned	2	28.6%	1	50%	2	28.6%	3	37.5%	8	33.3%
	Total	7	100%	2	100%	7	100%	8	100%	24	100%
Living place	Not mentioned	6	85.7%	2	100%	7	100%	8	100%	23	95.8%
	Mentioned	1	14.3%	0	0%	0	0%	0	0%	1	4.2%
	Total	7	100%	2	100%	7	100%	8	100%	24	100%
Inability to pay	Not mentioned	7	100%	2	100%	7	100%	7	87.5%	23	95.8%
	Mentioned	0	0%	0	0%	0	0%	1	12.5%	1	4.2%
	Total	7	100%	2	100%	7	100%	8	100%	24	100%
My look	Not mentioned	6	85.7%	2	100%	7	100%	7	87.5%	22	91.7%
	Mentioned	1	14.3%	0	0%	0	0%	1	12.5%	2	8.3%
	Total	7	100%	2	100%	7	100%	8	100%	24	100%
Other	Not mentioned	7	100%	2	100%	6	85.7%	8	100%	23	95.8%
	Mentioned	0	0%	0	0%	1	14.3%	0	0%	1	4.2%
	Total	7	100%	2	100%	7	100%	8	100%	24	100%

Note: Statistical testing is not valid because of small numbers in cells.

Table 84. **Answers to the question *"On a scale of 0-10, with 0 being the worst services and 10 being the best services, how would you rate the services you received at this facility today?"* by the type of facility**

Type of facility	Mean	Std. Deviation	Median	Minimum	Maximum	Number of cases
AIDS Center	7.865	1.7977	8.000	3.0	10.0	141
Primary Healthcare Center	8.771	1.2071	9.000	5.0	10.0	48
NGO	9.422	.8095	10.000	7.0	10.0	128
Narcological/ TB dispensary	8.521	1.7236	9.000	3.0	10.0	140
Hospital	8.635	1.6634	9.000	2.0	10.0	192
Total	**8.609**	**1.6247**	**9.000**	**2.0**	**10.0**	**649**

Table 85. **Answers to the question *"Would you recommend this facility to a friend or family who needs HIV services?"* by the type of facility**

	Type of facility											
	AIDS Center		Primary Healthcare Center		NGO		Narcological/ TB dispensary		Hospital		Total	
	Count	%	Count	%	Count	%	Count	%	Count	%	Count	%
Definitely yes	$105_{a,c}$	74.5%	28_{a}	58.3%	120_{b}	93.8%	112_{c}	80%	$149_{a,c}$	77.6%	514	79.2%
Probably yes	$27_{a,c,d}$	19.1%	17_{a}	35.4%	7_{b}	5.5%	$19_{b,c,d}$	13.6%	32_{d}	16.7%	102	15.7%
Probably no	5_{a}	3.5%	2_{a}	4.2%	0^{1}	0%	3_{a}	2.1%	7_{a}	3.6%	17	2.6%
Definitely no	1_{a}	0.7%	1_{a}	2.1%	0^{1}	0%	2_{a}	1.4%	3_{a}	1.6%	7	1.1%
No answer	3_{a}	2.1%	0^{1}	0%	1_{a}	0.8%	4_{a}	2.9%	1_{a}	0.5%	9	1.4%
Total	**141**	**100%**	**48**	**100%**	**128**	**100%**	**140**	**100%**	**192**	**100%**	**649**	**100%**

Note: Values in the same row and sub-table not sharing the same subscript are significantly different at $p < .05$ in the two-sided test of equality for column proportions. Cells with no subscript are not included in the test. Tests assume equal variances. Tests are adjusted for all pairwise comparisons within a row of each innermost sub-table using the Bonferroni correction.

[1] This category is not used in comparisons because its column proportion is equal to zero or one.

Table 86. **Overall satisfaction score and differences in the score by selected control variables**

		Mean	Standard Deviation	Median	Minimum	Maximum	Number of cases
Age (p-value=0.090)	18-35 years	0.81	0.21	0.88	0.00	1.00	337
	36+ years	0.84	0.20	0.88	0.13	1.00	312
	Total	0.83	0.20	0.88	0.00	1.00	649
Sex (p-value=0.411)	Female	0.83	0.21	0.88	0.00	1.00	244
	Male	0.82	0.20	0.88	0.13	1.00	405
	Total	0.83	0.20	0.88	0.00	1.00	649
Education (p-value=0.418)	Secondary (including vocational) or less	0.83	0.20	0.88	0.00	1.00	571
	Higher	0.81	0.23	0.88	0.13	1.00	74
	No answer	0.94	0.13	1.00	0.75	1.00	4
	Total	0.83	0.20	0.88	0.00	1.00	649
Employment status (p-value=0.208)	Occasional work / unemployed / disability	0.82	0.21	0.88	0.00	1.00	386
	Full time or part-time job	0.83	0.19	0.88	0.13	1.00	235
	No answer	0.89	0.18	0.94	0.13	1.00	28
	Total	0.83	0.20	0.88	0.00	1.00	649
Income (p-value=0.574)	Up to UAH 2000	0.83	0.20	0.88	0.13	1.00	391
	UAH 2001+	0.82	0.20	0.88	0.13	1.00	200
	No answer	0.85	0.23	1.00	0.00	1.00	58
	Total	0.83	0.20	0.88	0.00	1.00	649
How long have you been visiting this facility? (p-value=0.976)	Less than a year	0.83	0.19	0.88	0.13	1.00	186
	1 year +	0.83	0.21	0.88	0.00	1.00	461
	No answer	0.81	0.27	0.81	0.63	1.00	2
	Total	0.83	0.20	0.88	0.00	1.00	649
Type of facility (p-value<0.001)	AIDS Center	0.73	0.22	0.75	0.13	1.00	141
	Primary Healthcare Center	0.85	0.15	0.88	0.38	1.00	48
	NGO	0.93	0.1	1	0.63	1.00	128
	Narcological/ TB dispensary	0.82	0.22	0.88	0.13	1.00	140
	Hospital	0.83	0.21	0.88	0	1.00	192
	Total	0.83	0.2	0.88	0	1.00	649
Received HIV test (p-value=0.480)	Not mentioned	0.82	0.21	0.88	0	1.00	586
	Mentioned	0.84	0.16	0.88	0.38	1.00	63
	Total	0.83	0.20	0.88	0.00	1.00	649
Received ART (p-value=0.055)	Not mentioned	0.83	0.20	0.88	0.13	1.00	514
	Mentioned	0.80	0.23	0.88	0.00	1.00	135
	Total	0.83	0.20	0.88	0.00	1.00	649

Continuation of Table 86

		Mean	Standard Deviation	Median	Minimum	Maximum	Number of cases
Received OST (p-value=0.959)	Not mentioned	0.83	0.20	0.88	0.00	1.00	470
	Mentioned	0.83	0.21	0.88	0.13	1.00	179
	Total	0.83	0.20	0.88	0.00	1.00	649
Received free condoms (p-value<0.001)	Not mentioned	0.81	0.21	0.88	0.00	1.00	549
	Mentioned	0.92	0.14	1.00	0.25	1.00	100
	Total	0.83	0.20	0.88	0.00	1.00	649
Received sterile syringes/needles (p-value=0.001)	Not mentioned	0.82	0.21	0.88	0.00	1.00	582
	Mentioned	0.90	0.15	1.00	0.25	1.00	67
	Total	0.83	0.20	0.88	0.00	1.00	649
Received referral(s) (p-value=0.837)	Not mentioned	0.83	0.20	0.88	0.00	1.00	584
	Mentioned	0.82	0.20	0.88	0.25	1.00	65
	Total	0.83	0.20	0.88	0.00	1.00	649

Table 87. **Comparison of scores for satisfaction, perception of service comprehensiveness and different quality dimensions, descriptive statistics**

Dimensions of Service Quality	Mean	Standard Deviation	Median	Minimum	Maximum	Number of cases
Satisfaction with services *(for all clients)*	0.83	0.20	0.88	0.00	1.00	649
Comprehensiveness for HIV Testing *(for clients who received HIV testing or/and HIV test results on the day of the interview)*	0.64	0.36	0.79	0.00	1.00	63
Comprehensiveness for HIV Treatment Services *(for clients who received ARV drugs at the facility on the day of the interview)*	0.77	0.25	0.95	0.00	1.00	135
Accessibility *(for clients interviewed at state-run medical facilities)*	0.79	0.24	0.85	0.00	1.00	521
User-friendliness *(for clients interviewed at state-run medical facilities)*	0.85	0.20	0.91	0.00	1.00	521
Confidentiality & Privacy *(for clients interviewed at state-run medical facilities)*	0.84	0.22	1.00	0.00	1.00	521
Overall Quality Score *(excluding Comprehensiveness for HIV Testing and Comprehensiveness for HIV Treatment Services)* *(for clients interviewed at state-run medical facilities)*	0.83	0.18	0.88	0.22	1.00	521

Table 88. **Summary of direct, indirect and total effects of Quality Dimensions on Satisfaction based on structural equation modelling, standardized regression coefficients** (among clients interviewed at state-run medical facilities, N=521)

User-Friendliness	
Direct effect on Satisfaction	0.438
Indirect effects on Satisfaction	
User-Friendliness->Accessibility-> Satisfaction	0.335*0.231=0.077
Total effect	**0.438+0.077=0.515**
Confidentiality & Privacy	
Direct effect on Satisfaction	-
Indirect effects on Satisfaction	
Confidentiality & Privacy->User-Friendliness->Satisfaction	0.582*0.438=0.255
Confidentiality & Privacy->Accessibility-> Satisfaction	0.141*0.231=0.033
Confidentiality & Privacy->User-Friendliness->Accessibility -> Satisfaction	0.582*0.335*0.231=0.045
Total effect	**0.255+0.033+0.045=0.333**
Accessibility	
Direct effect on Satisfaction	0.231
Indirect effects on Satisfaction	-
Total effect	**0.231**

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