



Alliance
for Public Health



STUDY REPORT

WOMEN AND WAR: Risks of HIV Infection in Ukraine

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**Authors:**

Svitlana Shevchenko (1)

Oksana Kovtun (2)

Olha Haryhina (1)

Yana Fedotova (2)

Ihor Boyko (1)

Iryna Balieva (1)

(1) TOV 'IPSOS'

(2) ICF 'Alliance for Public Health'

Layout: Iryna Sukhomlynova**Literary editor:** Valentyna Bozhok

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Dream, create, achieve your goals and change the world!

We will win.



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ACRONYMS

CDC	US Centers for Disease Control and Prevention
GAM	UNAIDS Global AIDS Monitoring
SPSS	Statistical Package for the Social Sciences or Statistical Product and Service Solutions
ART	antiretroviral therapy
HIV	human immunodeficiency virus
IDP	internally displaced person/people
STI	sexually transmitted infection
KP	key populations for HIV infection
PLWH	people living with HIV
ICF	International Charitable Foundation
NGO	non-government organization
UN	United Nations
CATI	Computer Assisted Telephone Interview
AIDS	acquired immunodeficiency syndrome



1. INTRODUCTION

According to information bulletin 'HIV Infection in Ukraine'¹, as of the end of 2021, slightly above two thirds of HIV cases were registered in key populations (KPs), with an upward trend in the proportion of general public for the period until 2025. Russia's full-scale war against Ukraine may become a driver of growing risks of HIV infection in general population. The studies of war experiences of other countries indicate that there is an impact on long-term HIV incidence and mortality as one of latent negative war effects for public health². Besides, war causes ruining and disruption of the health care system and logistic chains enabling delivery of life-saving medications to people living with HIV (PLWH). More than a quarter million of Ukrainians live with HIV, and interrupted access to antiretroviral therapy (ART) and prevention services would mean a surge of deaths and a threat of return of the AIDS pandemic in Ukraine³.

The war increases the risk of the spread of HIV among the affected population that changes behaviors due to disruption of usual life and new economic vulnerability. Civilians are often subjected to mass displacement and sexual crime (*especially on the territories under occupation or those that have been temporarily occupied*), as well as poverty that may force them to provision of paid sexual services as the only source of income. Women, and especially young girls are the most vulnerable in emergency settings, including war⁴. According to a simulation of HIV epidemic in Ukraine, before the full-scale Russian invasion, the women outside the key populations comprised 22.2% of new HIV cases (*among the adults aged above 15*), and this population was 35.8% of the total number of people living with HIV⁵.

In the context of the war against Ukraine, considering the extreme nature of the situation, people may underestimate the risks of HIV infection and fail to seek testing as they do not consider it a priority during the war. Besides, disruption of the healthcare system may lead to interruptions of HIV testing of pregnant women, which will increase the number of cases of mother-to-child HIV transmission. A potentially vulnerable population is internally displaced people (IDP), as, among other things, it is difficult for them to get health services at the new place of residence. IDP from among PLWH after moving to another place may be wary about seeking aid from HIV service providers they are not familiar with⁶. Women may also be afraid of seeking the services in the new location, especially considering traditionally more conservative attitudes of the residents of the West of Ukraine, the region that has become a haven for thousands of IDP.

Summing it up, we can assume that risks of HIV infection for women increase during the war, and so HIV service programs need to step up their efforts to cover this population with prevention and testing. Understanding current situation with women's behaviors and experience that may, directly or indirectly, be linked with the risk of HIV transmission, is important for developing tactics and a strategy for further work with this population and for planning new interventions targeting women as program clients.

1 Information bulletin 'HIV Infection in Ukraine' No. 53, 'Public Health Center' SI, 2022. https://phc.org.ua/sites/default/files/users/user90/HIV_in_UA_53_2022_EN.pdf

2 Kerridge, B.T., Saha, T.D. & Hasin, D.S. Armed Conflict, Substance Use and HIV: A Global Analysis. *AIDS Behav* 20, 473–483 (2016). <https://doi.org/10.1007/s10461-015-1161-4>

3 UNAIDS warns that the war in Ukraine risks a humanitarian catastrophe for people living with and affected by HIV, 13 April 2022. https://www.unaids.org/en/resources/presscentre/pressreleaseandstatementarchive/2022/april/20220413_ukraine

4 Roxo, U., Mobula, M.L., Walker, D. et al. Prioritizing the sexual and reproductive health and rights of adolescent girls and young women within HIV treatment and care services in emergency settings: a girl-centered agenda. *Reprod Health* 16 (Suppl 1), 57 (2019). <https://doi.org/10.1186/s12978-019-0710-0>

5 HIV monitoring in Ukraine (simulation), 'Public Health Center' SI, 2023. https://npsi.phc.org.ua/en/HIV_Monitoring?indicator=271&tab=infographics

6 Despite war, Pact and its partners in Ukraine deliver critical HIV services, 26.03.2023. <https://www.pactworld.org/blog/despite-war-pact-and-its-partners-ukraine-deliver-critical-hiv-services>



2. STUDY METHODOLOGY

2.1. GOAL AND OBJECTIVES

The goal of the study is to identify the risks of HIV infection for women and behaviors that increase such risks during the Russia's war against Ukraine, and to provide recommendations on HIV prevention, testing and case finding in target populations.

Objectives of the study include:

- ▶ establishing the prevalence of behaviors that may lead to women's HIV infection (*such as risky sexual and injection behaviors, displacement, taking part in the hostilities, and blood contact*);
- ▶ studying the experience of women seeking medical aid, including HIV testing and treatment;
- ▶ identifying the subpopulation of women requiring further attention in the context of HIV detection and treatment.

2.2. STUDY DESIGN

The study comprised of two components – desk research and a quantitative study of the target population using a structured questionnaire completed through a computer assisted telephone interview (CATI).

2.3. DESK RESEARCH

The results of the desk research – a secondary analysis of available relevant data – were used to prepare the main quantitative stage, namely to:

- ▶ identify a list of questions to be used in the study of the risk of HIV infection;
- ▶ shape hypotheses for the quantitative survey and consider them while developing the data collection tools;
- ▶ produce the options of answers to the questions in the questionnaire, thus reducing the quantity of open-ended questions in it.



For the purposes of the desk research, the following data sources were used:

- ▶ government (official) documents (e.g. the Order of the Ministry of Health of Ukraine dd. 16.11.2022 no. 2092 'On Approval of the Standards of HIV Care'⁷, draft Law of Ukraine on amending the Law of Ukraine 'On Preventing the Spread of Diseases Caused by Human Immunodeficiency Virus (HIV) and Legal and Social Protection of People Living with HIV'⁸);
- ▶ scientific papers published by international peer-reviewed magazines (*AIDS Care, AIDS Behavior, Public Health, Emerging Themes in Epidemiology, BMC Public Health, Conflict and Health, Journal of the International AIDS Society, BMC Women's Health*);
- ▶ information from the official web resources of the UN and CDC;
- ▶ reports of earlier studies (including the OSCE-led 'Survey on the Well-being and Safety for Women for Ukraine'⁹, 'Estimating the size of key populations, bridge populations and other categories in Ukraine, 2020: the network scale up method'¹⁰, 'Human Rights of Women Living with HIV in Ukraine: Findings of Community-based Research through the lens of CEDAW'¹¹, 'Summary report based on the results of studies and routine monitoring among key populations and NGO specialists regarding the needs, receiving and providing of HIV services during the war in Ukraine'¹²).

Following the desk research, a list of topics relevant for the national study of HIV risks was formed. The topics include:

1. Sociodemographic profile of the respondents.
2. Displacement and/or living on the temporarily occupied territories (*experience of relocation after the beginning of the full-scale invasion, region of residence before February 24, 2022 and afterwards, etc.*)
3. Experience of living under temporary occupation or staying in or near an active combat zone.
4. Risky sexual practices (*sexual contacts with multiple partners in a period of time, sexual contacts without condom, providing paid sexual services, casual sex before the start of the full-scale war and thereafter*).
5. Experienced violence (*kinds of violence, perpetrator, seeking post-violence aid*).
6. Drug use (*injected and non-injected drug use, receiving opioid agonist treatment*).

7 Наказ МОЗ України від 16.11.2022 №2092 «Про затвердження Стандартів медичної допомоги «ВІЛ-інфекція». (Order of the Ministry of Health of Ukraine dd. 16.11.2022 no. 2092 'On Approval of the Standards of HIV Care, (Ukr.)' <https://moz.gov.ua/article/ministry-mandates/nakaz-moz-ukraini-vid-16112022--2092-pro-zatverdzhennja-standartiv-medichnoi-dopomogi-vil-infekcija>

8 Проект Закону про внесення змін до Закону України «Про протидію поширенню хвороб, зумовлених вірусом імунодефіциту людини (ВІЛ), та правовий і соціальний захист людей, які живуть з ВІЛ» щодо застосування сучасних підходів до профілактики, тестування і лікування ВІЛ-інфекції відповідно до керівних документів ВООЗ. (Draft Law of Ukraine on amending the Law of Ukraine 'On Preventing the Spread of Diseases Caused by Human Immunodeficiency Virus (HIV) and Legal and Social Protection of People Living with HIV' Regarding Applying Modern Approach to Prevention, Testing and Treatment of HIV According to WHO Guidelines, (Ukr.)' <https://www.kmu.gov.ua/bills/proekt-zakonu-pro-vnesennya-zmin-do-zakonu-ukraini-pro-protidiyu-poshirennyu-khvorob-zumovlenikh-virusom-imunodefitsitu-lyudini-vil-ta-pravoviy-i-sotsialnij-zakhist-lyudey-yaki-zhiv>

9 OSCE-led Survey on the Well-being and Safety of Women for Ukraine, OSCE, 2019. <https://www.osce.org/uk/secretariat/440318>

10 Estimating the size of key populations, bridge populations and other categories in Ukraine, 2020: the network scale up method. – O. Kovtun, T. Saliuk, Y. Sakhno, V. Paniotto, N. Kharchenko, O. Lyshtva. – K.: ICF "Alliance for Public Health", 2021. – 103 p. https://aph.org.ua/wp-content/uploads/2021/05/Scale-up_2020_ukr_web_fin0921.pdf

11 Human rights of women living with HIV in Ukraine: Findings of community-based research through CEDAW lens, CO 'Positive Women', 2020. <https://ukraine.un.org/sites/default/files/2020-09/hiv%20through%20cedaw%20lensengcompressed.pdf>

12 Summary report based on the results of studies and routine monitoring among key populations and NGO specialists regarding the needs, receiving and providing of HIV services during the war in Ukraine. – O. Kovtun. – K.: ICF "Alliance for Public Health", 2022. – 39 p. https://aph.org.ua/wp-content/uploads/2022/09/Report_War__5.09.2022_Red_Red.pdf



7. Experience of taking part in combat (*in particular, in the context of HIV infection risks – blood contact, health interventions in inadequate conditions, etc.*).
8. Seeking medical aid during war (*including receiving HIV testing and treatment services, HIV testing during pregnancy*).
9. Experience of HIV testing, knowledge about available testing (*in particular, self-assessment of one's own risk of being HIV positive, having taken an HIV test – ever or in certain periods*).
10. Presence of a regular partner and his risks of being HIV positive (*e.g., partner's belonging to PLWH, injected drug users, men having sex with men, etc.*);
11. Aid – resources and needs.

2.4. QUANTITATIVE COMPONENT: NATIONAL-LEVEL SURVEY

The quantitative component was implemented as a national-level survey of a thousand women aged 15 to 49 and residing on Ukraine's Government-controlled territories as of the time of the survey. The data collection method was computer-assisted telephone interview (CATI).

2.5. SAMPLE AND GEOGRAPHY OF THE SURVEY

The target population of the study were women aged 15 to 49 residing on Ukraine's Government-controlled territories as of the time of the survey. The eligibility criteria, beside sex, age territory of residence, included verbal consent to participate in the study. The total size of the sample was 1000 women.

The survey covered 24 oblasts of Ukraine (*Vinnytsia, Volyn, Dnipropetrovsk, Donetsk, Zhytomyr, Zakarpattia, Zaporizhzhia, Ivano-Frankivsk, Kyiv, Kirovohrad, Luhansk, Lviv, Mykolaiv, Odesa, Poltava, Rivne, Sumy, Ternopil, Kharkiv, Kherson, Khmelnytsky, Cherkasy, Chernivtsi, and Chernihiv*) and the city of Kyiv. The parts of Donetsk, Zaporizhzhia, Luhansk and Kherson oblasts that were temporarily occupied as of the time of the survey, were excluded from the study, and so was the Autonomous Republic of Crimea. Thus, the findings presented here concern only the territories under control of the Government of Ukraine.

The study uses region-based approach to calculation of the sample and data analysis. The composition of different regions is presented in [Table 1](#).

Table 1. Composition of the regions of Ukraine

Region	Oblasts
West	Volyn, Zakarpattia, Ivano-Frankivsk, Lviv, Rivne, Ternopil, Khmelnytskyi, Chernivtsi
South	Mykolaiv, Odesa, Kherson
North	Zhytomyr, Kyiv, Chernihiv
East	Zaporizhzhia, Dnipropetrovsk, Donetsk, Luhansk, Sumy, Kharkiv
Center	Vinnytsia, Kirovohrad, Poltava, Cherkasy
Kyiv	Kyiv city

**Table 2.** Sample structure by age, region of residence until 24.02.2022 and the type of settlement

Age, full years	Number of participants	Total
15–17	63	1000
18–25	160	
26–35	305	
36–49	472	
Region of residence until 24.02.2022	Number of participants	Total
West	284	1000
South	118	
North	104	
East	281	
Center	127	
Kyiv	86	
Type of settlement	Number of participants	Total
Cities with 500+ thousand residents	237	1000
Cities with 100–499 thousand residents	178	
Towns with 50–99 thousand residents	55	
Towns with 0–49 thousand residents	224	
Rural areas	306	

2.6. DATA COLLECTION METHOD

Considering the goals and the target population of the sample, the optimal data collection method is computer-assisted telephone interviewing (CATI):

- ▶ CATI allows reaching respondents regardless of their place of residence within Ukraine and get smaller bias thanks to the random selection of phone numbers. It is expected that the distribution of respondents' sociodemographics will quite accurately reflect that of the population of Ukraine;
- ▶ Using randomly generated phone numbers for CATI makes the sample close to a being a simple probability one representing the general population presently residing in Ukraine;
- ▶ CATI, unlike other methods such as online survey, allows reaching the rural population and the population of small towns.

To conduct the survey, a simple random sample based on random digital dialing (RDD) was used. This array of numbers is the closest to a simple random sample and ensures the best representation of the population, with every respondent having equal probability of being included.

The survey was conducted using only mobile phone numbers. The numbers were randomly generated and checked for validity. The generation effort included phone numbers of all mobile providers and all the prefixes used in Ukraine.



2.7. TOOL PILOTING

Before the start of data collection, the questionnaire was piloted through a telephone-based survey of 50 respondents.

Following the piloting, the questionnaire was modified (*some questions were excluded and/or more relevant questions were added, the order and wording of the questions were changed*), which allowed shortening the questionnaire and making the questions clearer for potential respondents. Also, modifications of the questionnaire took into account the comments from the call center operators who did the surveying and took notes of the points that the respondents were finding hard to understand.

2.8. SURVEY PROCESS

After contacting a respondent, she was screened for eligibility, and was read the text of the informed consent. In particular, she was informed about the topic, goal and organization of the study; confidentiality and anonymity principles; voluntary nature of the participation and the right to refuse answering any of the questions and stop her participation in the survey at any time.

If the respondent was ineligible or decided to terminate her participation in the survey, the interviewer would thank her for her time. When necessary, she would provide contact data of the organizations that could facilitate resolution of various problems (*such as HIV service organizations or those providing help to violence survivors*).

The survey was conducted when there were no third persons in the room (*except for little kids if the respondent could not put under someone else's care for the time of the survey*). The measures taken for the survey considering the sensitive topic are covered in detail in 'Sensitive topic studying methodology' section.

2.9. DATA COLLECTION

The questionnaire was piloted from July 20 to July 24, 2023 (*sample size: 50 respondents*). The main data collection was done from July 31 to August 19, 2023.

The survey was conducted by 23 female interviewers, the average number of interviews per day – 50. The average interview length was 23 minutes, which complies with the method of telephone interviewing.

The total of 128 thousand phone numbers were generated, and 53,765 phone calls were made.

**Table 3. Statistics of contacts during the field stage of the study**

Call outcome	Qty	%
Call made	53765	100.0
No contact happened, namely...	47130	87.7
They asked to call later (<i>after picking up the phone</i>)	4658	8.7
They hung up the phone	4383	8.2
They did not pick up the phone (<i>dial tone</i>)	14554	27.1
No connection / Out of range	16617	30.9
Line busy (<i>busy tone</i>)	4292	8.0
Wrong / invalid telephone number	1409	2.6
Silence / a beep and hanging up	471	0.9
Fax / modem	29	0.1
Other	717	1.3
Contact made	6635	12.3
Male call recipients	3185	48.0
Female call recipients	3450	52.0
Women who picked up the phone and did not agree to participate	1270	36.8
Women who picked up the phone and agreed to participate	2180	63.2
Women who did not agree to participate in the survey	1270	36.8
Women who did not pass the screening or decided to refuse during the survey	1180	34.2
Women who completed the survey	1000	29.0

2.10. DATA QUALITY CONTROL

Data quality was controlled in parallel with data collection: at least 15% of the sample was checked to ensure data quality. The questionnaires to be checked were selected randomly, ensuring the control of work of every interviewer. The control involved listening to the records of the telephone interviews (*100% of the interviews were recorded*).

The controllers focused on whether the interviewer had:

- ▶ correctly read the questions and answer options,
- ▶ been neutral regarding the topics covered by the questions,
- ▶ correctly noted the answers given by the respondent,
- ▶ followed the logic of completion of the questionnaire, e.g. whether she had skipped some answer options,
- ▶ repeated the questions and answer options for better understanding when required.



At the stage of producing the data array for further analysis, some of the questionnaires were excluded if:

- ▶ the survey had not been completed, or not all the questions had been asked,
- ▶ the respondent did not belong to the target population,
- ▶ it was noted that the interviewer had completed the questionnaire herself,
- ▶ there were instances of incorrect/incomplete reading the questions/answer options/terms leading to respondents' misunderstanding the questions and giving wrong answers,
- ▶ the interviewer had imposed her personal opinion on the respondent, so a subjective opinion of the respondent was not received,
- ▶ there were errors affecting the logic of the questionnaire.

2.11. DATA PROCESSING, WEIGHTING AND ANALYSIS

The data were processed using IBM SPSS Statistics 22 (*Statistical Package for the Social Sciences or Statistical Product and Service Solutions*). It involved coding the answers to open-ended questions, creating new secondary variables, and data weighting.

The data obtained in the course of the survey were weighted by age, type of settlement and the region of respondent's residence before 24.02.2022. For this purpose, raking ratio estimation was used, i.e. iterative proportional fitting of data based on the population distribution indicators (*according to the State Statistics Service of Ukraine as of 01.01.2022*). Regional weighting was based on the questions about permanent residence of the respondent before February 24, 2022, which allowed us to indirectly take into account the influence of migration processes after the beginning of the full-scale war. The regional indicators in the report are given based on the region of residence of the respondent as of the time of the survey.

Survey data analysis included statistical check of hypotheses ($p\text{-value} < 0.05$), establishing connection between variables, interpretation of the collected data (*in particular, data from frequency analysis, bivariate distributions and correlation analysis*).

In the tables presented in this report, grey filling of the cells means there is a statistically significant (0.05) difference from the average data.

If a table quotes a question, there is a question mark at the end of the question. If it contains aggregated data, integrated data, or data calculated based on other answers, there is no question mark.

2.12. SENSITIVE TOPIC STUDYING METHODOLOGY

To minimize discomfort and anxiety of the respondents, special measures were developed in the course of designing and organization of the study.

Special aspects of the survey tools. The following rules were used for questionnaire design:

1. At the beginning of the questionnaire, there are questions on general topics, after which more sensitive issues are raised. At the same time, sensitive topics could be mixed with 'lighter' questions to add some balance to the structure of the document.



2. To protect the privacy of the respondent, before the interview, the interviewer would provide her a code word which could be used to initiate transition to a special section in the questionnaire and suspend the interview at this point. Then they would agree on the time to call the respondent back and continue the survey from the question on which it was suspended by the code word.
3. At the end of each interview, the respondents were provided, when required, contact information of organization that could help them with resolving some problems (*e.g. contact information of HIV service organizations or organizations providing help to violence survivors*).

Interviewer training. All the interviews, including those used to pilot the questionnaire, were conducted only by female interviewers to reduce possible tensions during the sensitive conversation. There was a special training for interviewers, in particular, to prepare them to possible emotional reaction of respondents to the questions. The training was based on the following main principles of interviewing:

- ▶ working with interviewers' stereotypes and bias regarding the women who used to face / facing violence in order to avoid judgment or any other biased attitude towards respondents affected by violence that could discourage them from giving sincere answers or generally from taking part in the survey;
- ▶ while informing a respondent about the survey, the interviewers were to say the following: 'This is an important survey about women's problems, their well-being and safety. It covers the way the war affects women's lives'. However, they were not to tell that sensitive topics were to be raised;
- ▶ the interviews were to be conducted, where possible, on the basis of full privacy. If necessary, the respondent can find a quiet private place to have this conversation. During the interview, there had to be no people aged above two around who could eavesdrop;
- ▶ the interviewers always read the exact wording from the questionnaire to avoid involuntary errors, incorrect phrases or misuse of some words;
- ▶ the interviewers had to tell the respondents that any information obtained in the course of the survey and all the personal information (*names, phone numbers, etc.*) would not be given to anyone, including the family or friends of the interviewers, other interviewers or respondents;
- ▶ should an interviewer have recognized a respondent, the interview would have been conducted by another interviewer;
- ▶ the main point for the interviewer was to remain neutral regardless of the answers respondents would give. The interviewer could have had similar experience to that of the respondent, but could by no means share her thoughts on it;
- ▶ the interviewers were provided with recommendations to increase the response rate. When a respondent was in doubt about whether to start/continue the interview, the interviewer could politely remind that the participation was important, as the results of the survey would be significant for the society and for supporting women in general. At the same time, there had to be no pressure if the respondent was unwilling to answer any of the questions;
- ▶ it was recommended that the interviewers were to use correct terms regarding the key populations (*avoiding stigmatizing and offensive words, e.g. 'junkie'*).



2.13. ETHICAL PRINCIPLES

Ethical principles of the study are based on the Code of Professional Conduct of the Sociological Association of Ukraine¹³ and Declaration of Helsinki on ethical research principles. The study protocol and the study tool underwent ethical review of the Institutional Review Board of ICF 'Alliance for Public Health' (Kyiv, Ukraine).

Before their involvement in the study, respondents were informed about all the conditions of participation in the survey, the interview told them about the topics, goals and objectives of the study, format and length of the interview. Respondents could speak their opinion on all the questions, or refuse to answer any question of the questionnaire, or terminate the interview at any time.

The study used verbal informed consent because the survey was confidential, posed minimal risks for the participants and did not involve procedures that usually require written informed consent regardless of the context of the study. Before the start of an interview, the interviewer would read out the brief verbal informed consent form, check eligibility of the respondent and noted the fact of consent in the questionnaire (*in the electronic format*). Whenever consent was not given, the interview was not conducted.

All the respondents were informed that the participation in the study was confidential and anonymous. Information provided by respondents was de-identified and aggregated. Members of the research team did not document names or other identification data of the respondents. They were given answers and clarifications regarding all the questions, and they could call the research team to get more information about the study or their participation in it.

The questionnaire did not contain any names, phone numbers, addresses or other contact data of the respondents. None of their answers were linked to a phone number in the final data array. The data base of 'responding' numbers (*or others that were actually used to establish a contact*) was stored in a separate file that could not be matched against the response data array. All the collected information, including the data array, was stored digitally on a protected server. Only members of the research team could access the data; third party access was impossible.

Conducting a survey, especially concerning sensitive issues, requires simple wording of the questionnaire, i.e. it should 'speak respondents' language'. Besides, respondents may not always know or correctly understand official terms used to denominate the key populations (*such as 'people who inject drugs', 'sex workers', etc.*). However, the words commonly used to call the members of the key populations (*'junkies', 'prostitutes', etc.*) are also unacceptable for communications with the respondents because they are offensive and stigmatizing, they could make the questions even more sensitive and discourage sincere answers, and the results produced could be difficult for interpretation. There is a problem about using the word 'AIDS', because respondents may apply it to all HIV-positive people. That is why special attention during questionnaire development was paid to wording the questions and ensuring a balance between understandability and neutrality of terms.

2.14. STUDY LIMITATIONS

The study has some limitations linked to the sensitivity of the topic, the wartime situation in Ukraine caused by the foreign military aggression, impossibility of conducting the survey in the areas under temporary occupation, and the lack of data about Ukrainian women abroad.

¹³ Кодекс професійної етики соціолога, Соціологічна Асоціація України. (Code of Professional Conduct, Sociological Association of Ukraine, (Ukr.)) <https://sau.in.ua/app/uploads/2019/07/Kodeks-socziologa.docx>



The limitations related to potential unwillingness of some respondent to give honest answers to the questions of the questionnaire because of the sensitive issues raised were mitigated by the following measures:

- ▶ all the interviewers were trained on the sensitive topic studying methodology,
- ▶ respondents were informed about the measures taken for ensuring confidentiality of the collected data,
- ▶ the questionnaire was thoroughly piloted, which enabled adjusting the tool to ensure better interaction with respondents.

According to the most recent data, as of 2019, the estimated sizes of the KPs in Ukraine (*including non-controlled territories*) was 350 thousand people who inject drugs and 86 thousand sex workers¹⁴. The estimated number of PLWH as of the end of 2021 was 245 thousand, including 200 thousand people living on the uncontrolled territories¹⁵. These numbers are an insignificant share of the general population, so aiming the study at this category instead of focusing on KPs is rather an attempt to assess the variety of new risks caused by the war than accurately measure them.

When interpreting the data provided in this report, sensitivity of the topic needs to be taken into account. The risks women face are likely underestimated, and the data on prevalence of different experiences (e.g. injecting drugs, sexual violence, etc.) should be interpreted as the lower boundary of prevalence of these phenomena.

The limitations caused by the russian aggression may include respondents' being unable to find a private place for the interview or interruption of the interview because of an air raid alarm, black out or loss or deterioration of mobile connection. The 'code word' technique mentioned above does mitigate these limitations, but cannot eliminate them completely.

The limitations linked to inability of reaching the temporarily occupied territories are relevant because it is there that the networks of HIV services are disrupted, which leads to late HIV detection and unavailability of treatment.

The limitation caused by non-inclusion of Ukrainian women who had been forced to leave the country and have not returned yet are relevant because a significant share of the female refugees come from the oblasts that were subjected to destruction and occupation at the beginning of the invasion, and so they could have experienced sexual assaults or other behaviors of increased HIV infection risk.

2.15. ACCESS TO THE DATA

If you need information about some of the calculations not presented in the report, or you would like to get the data array of this study, please send a request to Executive Director of ICF 'Alliance for Public Health' at office@aph.org.ua. The study protocol and the tool, as well as the form of request to receive the data array will be posted on the 'HIV Situation in Ukraine Analysis' online portal at: hivdata.org.ua.

¹⁴ «Оцінка чисельності ключових груп в Україні». Я. Сазонова, Г. Дученко, О. Ковтун, І. Кузін. МБФ «Альянс громадського здоров'я». 2019 р. – 84 с. ('Estimate of the Size of Key Population in Ukraine'. Y. Sazonova, H. Duchenko, O. Kovtun, I. Kuzin. ICF Alliance for Public Health, 2019, – 84 p. (Ukr.)) https://aph.org.ua/wp-content/uploads/2019/06/Otsinka-chiselnosti_32200.pdf

¹⁵ Information bulletin 'HIV Infection in Ukraine' No. 53, 'Public Health Center' SI, 2022. https://phc.org.ua/sites/default/files/users/user90/HIV_in_UA_53_2022_EN.pdf



3. STUDY RESULTS

3.1. HYPOTHESES OF THE STUDY AND TESTS OF THE HYPOTHESES

Table 4. Hypotheses of the study and tests of the hypotheses

Nº	Hypotheses	Result
those confirmed at the quantitative stage		
1	High socioeconomic status, higher level of education and living in a city are linked to a higher level of awareness about HIV and less bias regarding PLWH	The hypothesis was generally confirmed
2	Assessment of prevalence of sexual violence will show higher levels for women who have been on the temporarily occupied territories	The hypothesis was generally confirmed. The experience of sexual violence is more prevalent not just on the occupied territories, but also on the other territories heavily affected by war
3	Women from among IDP or refugees have/had problems with seeking medical aid at their new place of temporary residence (<i>incl. because they do not have a declaration with a family doctor</i>)	The hypothesis was generally confirmed. Women from among IDP struggle accessing health services (<i>e.g., they do not have a declaration with a family doctor</i>) at the place of residence as of the time of the survey
4	Women whose partners are servicemen, do not consider their and their partner's risk of HIV infection high, and that is why they do not get tested for HIV	The hypothesis was generally confirmed. Women whose partners are servicemen get tested for HIV and use condoms as often as the women whose partners do not serve in the military. Therefore, women do not consider their and partner's risks high, and do not get tested for HIV
those that were not fully tested at the quantitative stage		
6	Among women providing paid sexual services in the wartime who are not clients of HIV service non-government organizations (NGOs), the rate of HIV testing is low	The hypothesis could not be tested because of small numbers of such women
7	Women who have one regular partner do not use condoms and have not got tested for HIV after February 24, 2022 (<i>except for pregnant ones</i>)	The hypothesis could not be fully confirmed because most of the women told they had one regular partner. The rate of HIV testing after February 24, 2022 among those with one regular partner and those who have multiple partners is the same
8	The women who have lived on the temporarily occupied territories have faced problems with accessing testing	The hypothesis was not confirmed by first-hand experience, but the respondents informed about such cases from their circle, and those cases happened on the territories that could have been occupied
9	The women who informed about having encountered sexual violence had not sought post-contact prophylaxis	The hypothesis was formally confirmed, but the number of cases is insufficient for an analysis



3.2. KEY RESULTS OF THE STUDY

Table 5. Key results of the study (among all the respondents, N = 1000, %)

Characteristics	N	%
Experience of displacement during the war	369	36.9
IDP as of the time of the interview	110	11.0
Personal war-related experience	531	53.1
Experience of staying in the combat area	191	19.1
Experience of blood contact in HIV-risky situations (<i>unprotected contact with blood or other hazardous biological liquids in the war context</i>)	30	3.0
Having a declaration with a family doctor	894	89.4
Having had tuberculosis diagnosis after February 24, 2022	2	0.2
Having had hepatitis B diagnosis after February 24, 2022	5	0.5
Having had hepatitis C diagnosis after February 24, 2022	2	0.2
Having had diagnosis of a sexually transmitted infection (STI) after February 24, 2022	5	0.5
Discriminating attitude towards PLWH (N = 837)	352	43.0
Attitude towards violence against women	30	3.0
Aware of free HIV testing in Ukraine	696	69.6
Aware of free HIV treatment in Ukraine	473	47.3
Having got tested for HIV before February 24, 2022	597	59.7
Having got tested for HIV after February 24, 2022	191	19.1
Having ever tested for HIV	631	63.1
Pregnancy after February 24, 2022	76	7.6
of them, experienced the situations where the tests were not prescribed or taken because of the war	4	5.0
Already HIV-positive	2	0.2
Assessing their risk of being HIV-positive as medium or high	84	8.4
Having ever used drugs	101	10.1
Having used non-injected drugs after February 24, 2022	10	1.0
Having ever had sex	923	92.3
Of them, having had sex with multiple partners after February 24, 2022 (<i>non-monogamous</i>)	14	1,5
Of them, having had multiple regular partners after February 24, 2022	27	2,9
Of them, having provided paid sexual services after February 24, 2022	1	0,1
Of them, having experienced sexual violence after February 24, 2022	2	0,2
Having had sex after February 24, 2022	856	85.6
Of them, having used condom during the most recent sex	316	36,9
Of them, having always used condom during sex	188	20,0



Characteristics	N	%
Of them, having had situations when they could not obtain condoms when they needed them	36	4,2
Having a sexual partner from among the key populations or people with risky behaviors in the context of HIV (<i>N = 846 of those who have had sex and a partner after February 24, 2022</i>)	15	1.7
Belonging to a 'potentially HIV risk population'	279	27.9
Knowing something about resources and organizations women can turn to seek aid	317	31.7
Requiring some kind of aid	454	45.4
Requiring psychological aid	195	19.5
Requiring financial aid	193	19.3

3.3. SOCIODEMOGRAPHIC PROFILE

3.3.1. AGE GROUPS, DISPLACEMENT EXPERIENCE, PLACE AND CONDITIONS OF LIVING

The national survey involved one thousand women aged from 15 through 49 residing on the territories controlled by the Government of Ukraine. More than one third (36.9%) of the women had the experience of displacement, and that is an underestimation, because the women who had moved to other countries did not take part in the survey. Presently, every ninth woman (11%) is an internally displaced person.

Table 6. Sociodemographic profile of respondents (among all the respondents, *N = 1000*, %)

Characteristics	N	%
Age ranges (4 categories)		
15-17	63	6.3
18-25	160	16.0
26-35	305	30.5
36-49	472	47.2
Experience of displacement during the war		
Did not move	631	63.1
Changed their place of residence inside Ukraine, and are currently living in a different place than before February 24, 2022	103	10.3
Changed their place of residence inside Ukraine, but then returned to their home location	171	17.1
Went abroad and returned to their home location	88	8.8
Went abroad and returned to another location in Ukraine	7	0.7
Experience of displacement during the war		
Yes	369	36.9
No	631	63.1



Characteristics	N	%
Having an IDP certificate and IDP status		
Not an IDP, not a former IDP	719	71.9
IDP without a certificate	18	1.8
Former IDP without a certificate (<i>having now returned to their home location</i>)	88	8.8
IDP with a certificate	92	9.2
Former IDP with a certificate (<i>having now returned to their home location</i>)	83	8.3
Being an IDP		
IDP as of the time of the interview	110	11.0
Not an IDP as of the time of the interview	890	89.0

Changing the place of residence is obviously directly related to military action, and it makes perfect sense that in the East of Ukraine, there are fewer respondents now than before the full-scale invasion. Meanwhile, in Kyiv, in the Center and in the West of Ukraine, the number of respondents has increased.

Table 7. Place of residence of the respondents before February 24, 2022 and at the time of the interview (among all the respondents, N = 1000, %)

Characteristics	Before 24.02.2022		NOW	
	n	%	n	%
Region of residence				
West	284	28.4	299	29.9
South	118	11.8	108	10.8
North	104	10.4	110	11.0
East	281	28.1	250	25.0
Center	127	12.7	141	14.1
Kyiv	86	8.6	91	9.1
Type of settlement				
Cities of 500+ thousand	237	23.7	261	26.1
Cities of 100-499 thousand	178	17.8	174	17.
Cities of 50-99 thousand	55	5.5	49	4.9
Cities of 0-49 thousand	224	22.4	211	21.1
Rural areas	306	30.6	306	30.6

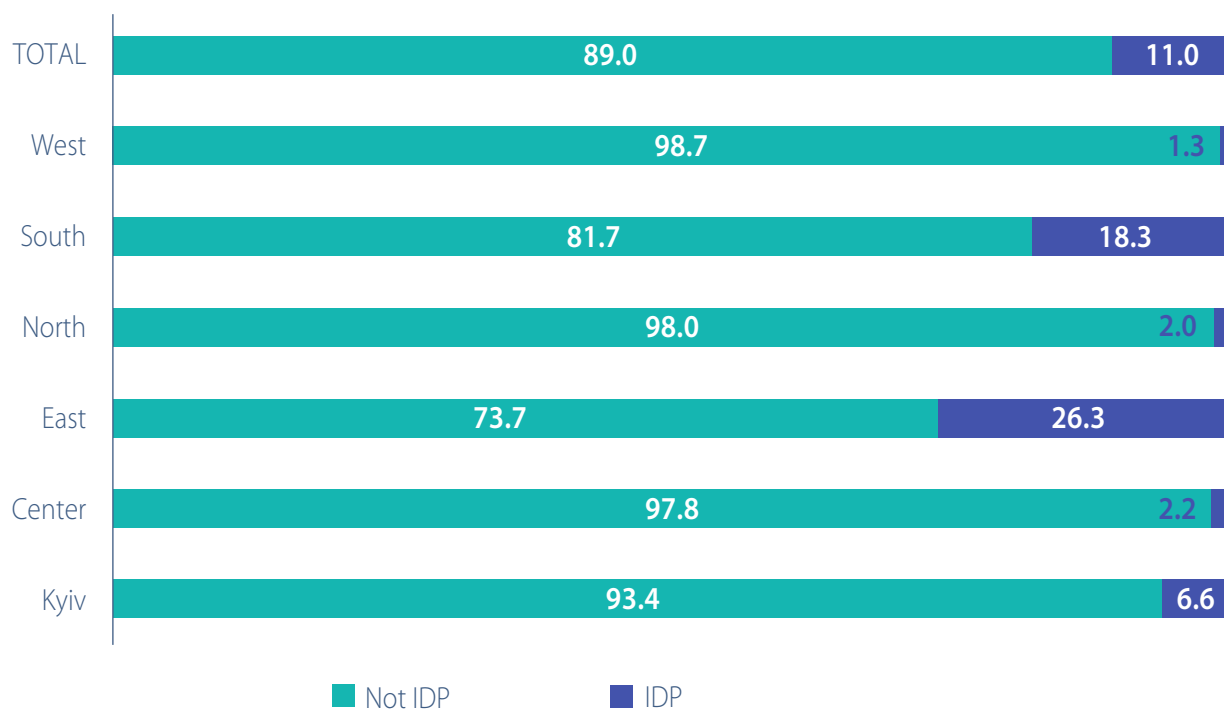
While more than one third (36.9%) of all the respondents experienced displacement, for the residents of the North and the East of Ukraine, this figure was about a half, and for residents of the city of Kyiv – 58.0%. Among the women who were IDP at the time of the interview (11.0%), the majority were from the East and the South. 26.3% of the women who lived in the East before February 24, 2022 and 18.3% of those who lived in the South are still IDP.



Figure 1. Experience of displacement by the region of residence before February 24, 2022
(among all the respondents, N = 1000, %)



Figure 2. Being an IDP as of the time of interview broken down by the region of residence before February 24, 2022 (among all the respondents, N = 1000, %)





With regard to the living conditions (*type of dwelling*) during the war, as of the time of interview, a majority of respondents (93.2%) dwelt at a separate home (apartment, house, summer house for one family only). 2.2% of the women share a home with other people (*living with hosts*), and the same share of respondents live at a hotel, holiday facility, or a dormitory. A total of 6.8% of the respondents reside not at a separate dwelling. In particular, 25.5% of the IDP do not have a separate home, and this figure is lower for women who remain in the same location as before the full-scale war – 4.5%.

Altogether, starting from February 24, 2022, 34.0% of the women have experienced or still experience not having a separate dwelling¹⁶, with 61.2% of those being IDP and 30.5% – non-IDP; 67.2% among those who have been displaced and 14.6% among those who have not. Similar experience is different in different age groups: 28.6% among women aged from 15 to 17, 36.2% among those from 18 to 25, 40.3% for those aged from 26 to 35 and 30.0% for participants of 36 to 49 years of age. From the beginning of the invasion, every sixth respondent (16.9%) has temporarily shared a home with hosts, and some women had the experience of living in non-residential premises.

Table 8. Living conditions of respondents (among all the respondents, N = 1000, %)

Characteristics	FROM THE BEGINNING OF THE WAR (multiple answers allowed)		NOW (one answer only)	
	n	%	n	%
Dwelling (<i>apartment, house, summer house</i>) for your family only	932	93.2	19	1.9
Sharing an apartment, house, summer house with hosts	22	2.2	169	16.9
A room at a recreation facility, hotel, hostel, or dormitory	22	2.2	39	3.9
A room in an apartment or house shared with other Ukrainian families	17	1.7	58	5.8
Temporary non-resident premises (<i>sports hall, school, etc.</i>)	2	0.2	26	2.6
Temporary non-resident premises other than buildings (<i>container, hut, improvised house, etc.</i>)	–	–	8	0.8
IDP shelter organized by local authorities or by a charity	–	–	15	1.5
In the street, without shelter	–	–	1	0.1
Other	5	0.5	37	3.7
The same type of dwelling as now, all the time			694	69.4

¹⁶ The category 'Without separate dwelling' includes all the answers except 'Dwelling (*apartment, house, summer house*) for your family only'



3.3.2. EDUCATION, INCOME AND EMPLOYMENT

Most of the respondents have a high education level – 55.4% of the respondents told they had a university degree. The highest share of women with a university degree is among the women who before February 24, 2022 lived in the city of Kyiv.

Table 9. Education of respondents (among all the respondents, N = 1000, %)

Characteristics	n	%
Education level		
Elementary education (<i>up to 7 years of school</i>)	4	0.4
Basic secondary education (<i>8-9 years of school</i>)	29	2.9
Complete secondary education (<i>10-11 years of school</i>)	167	16.7
Vocational education	245	24.5
University degree	549	54.9
Doctoral degree	5	0.5
<i>Difficult to say</i>	<i>1</i>	<i>0.1</i>
Education level (three categories)		
Elementary or secondary	200	20.0
Vocational education	245	24.5
University degree	554	55.4
<i>Difficult to say</i>	<i>1</i>	<i>0.1</i>

Employment and income levels have changed significantly during the war. The share of women with a full-time job has significantly decreased (*from 65.3% to 51.1%*), while that of women with part-time employment has increased (*from 6.5% to 9.7%*); the share of the unemployed has also increased (*from 6.6% to 15.1%*). Especially large loss of employment is seen among IDP: as few as 33.7% have a full-time job, while 25.8% are unemployed.

After the beginning of the full-scale war, the income level has dropped. For example, almost one third (31.9%) of the respondents now have low income or income below average, while on February 24, 2022 only 10.5% of the women had low income. At the same time, there was almost no change in the share of respondents with the average income, while the decrease of the share of respondents with the income above average or high income (*from 42.7% to 21.5%*) is not surprising. In general, income dropping by one or several levels is characteristic for 43.8%, while improvement is seen only by 3.6% of the women.



Table 10. Employment and income of the respondents before February 24, 2022 and at the time of interview (among all the respondents, N = 1000, %)

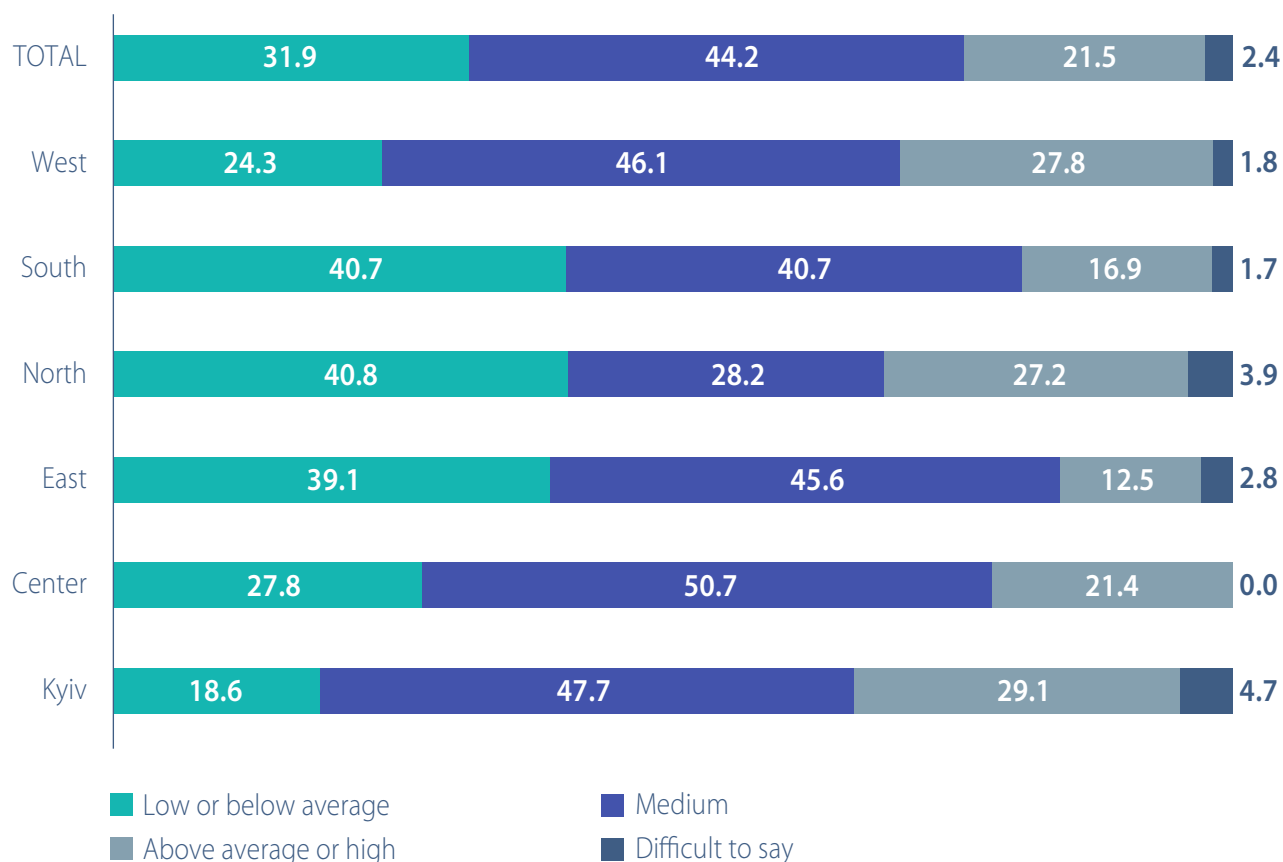
Characteristics	Before 24.02.2022		NOW	
	n	%	n	%
Employment				
Full-time job	653	65.3	511	51.1
Part-time job	65	6.5	97	9.7
Leave with the full pay	1	0.1	6	0.6
Leave without pay	3	0.3	10	1.0
Not working, unemployed or looking for a job	66	6.6	151	15.1
Not working, retired, on a maternal leave, studying	208	20.8	216	21.6
No paid employment, volunteering or doing community service	4	0.4	10	1.0
Income level				
We hardly have money to buy food	5	0.5	24	2.4
We have money to buy food, but buying clothes is a problem	100	10.0	295	29.5
We have the money for food, clothes, and can occasionally buy something expensive (a refrigerator or a TV set)	452	45.2	442	44.2
We can afford expensive things (a refrigerator, a TV set and so on)	326	32.6	117	17.7
We can afford buying whatever we want	101	10.1	38	3.8
<i>Difficult to say</i>	10	1.0	18	1.8
<i>Refused to answer</i>	6	0.6	6	0.6
Income level (three categories)				
Low or below average	105	10.5	319	31.9
Average	452	45.2	442	44.2
Above average or high	427	42.7	215	21.5
<i>Difficult to say or refused to answer</i>	10	1.0	18	1.8

Deterioration of financial situation is characteristic for the most war-affected regions – the East, the South and the North. Among the women who lived in these regions as of 24 February 2022, at the time of interview, there was the biggest number of respondents with low income and the lowest number of those with high income.

Among IDP respondents, 44.4% had low income, 45.0% had average income and just 10.6% had high income as of the time of interview. Considering that their income distribution before the full-scale war was not different from that of the general population, we can assume that the financial situation of the IDP rapidly deteriorated. Besides, in this group we see an increase of unemployment – as few as 33.7% of the IDP have a full-time job, and 25.8% are unemployed and are looking for a job.



Figure 3. Current income broken down by region of residence before February 24.02.2022
(among all the respondents, N = 1000, %)



3.3.3. MARITAL AND PARENTAL STATUS

According to the survey, more than a half of the women (56.8%) are formally married, 13.4% are in civil partnership, and 20.8% have never been married. There are almost no regional differences in this regard, except for the city of Kyiv: in the capital, the share of women who have never been married was one third (33.6%), which is a statistically significant difference from other regions where these figures are lower. There is no difference in marital status distribution by the type of settlement.

67.0% of respondents informed about having children; 45.3% have underage children. In Kyiv, where a majority of women are not married, significantly more women have no children – 65.3% compared to 32.0% in the sample as a whole. Total size of an average household is 3.4 persons (*for respondents with children – 3.7, for those without children – 2.8*).

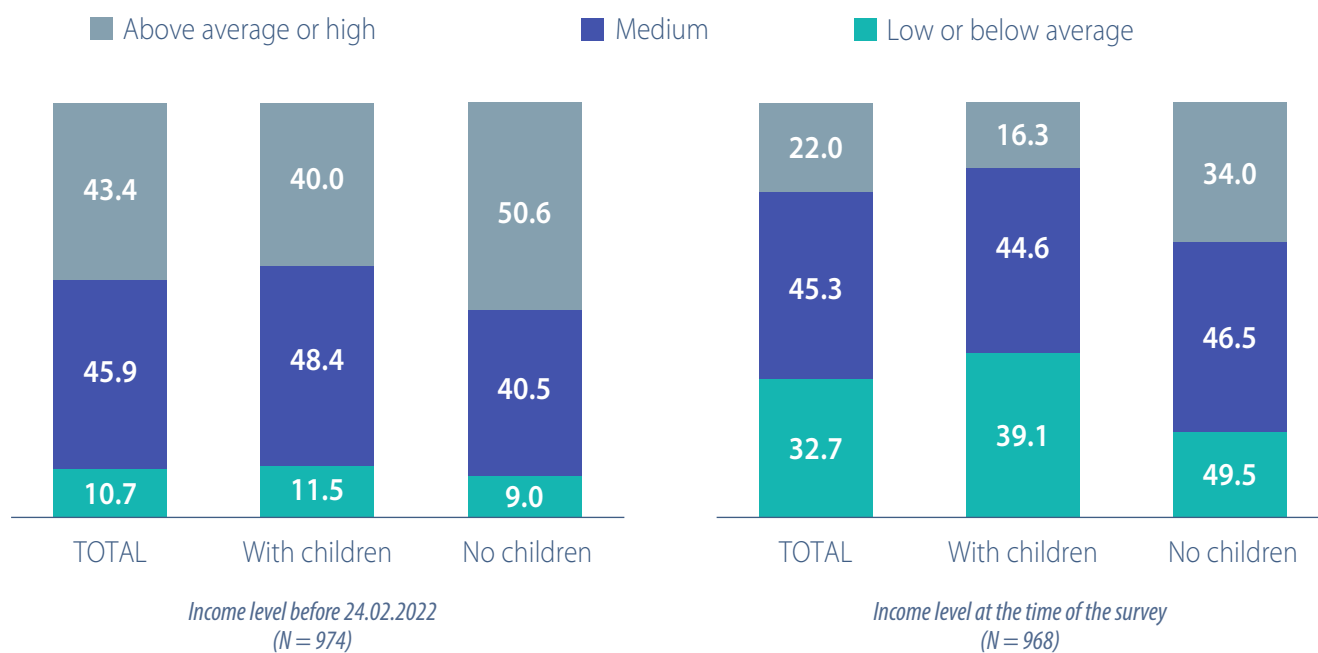

Table 11. Marital and parental status of respondents (among all the respondents, N = 1000, %)

Characteristics	n	%
Marital status		
Have never been married	208	20.8
Formally married	568	56.8
Civil partnership/Living with a partner	134	13.4
Divorced	69	6.9
Widow	19	1.9
<i>Refused to answer</i>	2	0.2
Children, their age (multiple choice question)		
No children	320	32.0
Child/children less than 1 year of age	30	3.0
Child/children aged 1 to 3	96	9.6
Child/children aged 4 to 7	183	18.3
Child/children aged 8 to 13	276	27.6
Child/children aged 14 to 17	198	19.8
Child/children aged 18 or older	217	21.7
<i>Refused to answer</i>	10	1.0
Parental status, in general		
With children	670	67.0
No children	320	32.0
<i>Refused to answer</i>	10	1.0
Underage children		
Children younger than 18 years of age	453	45.3
No children younger than 18 years of age	537	53.7
<i>Refused to answer</i>	10	1.0

Parental status correlates with the income level of the respondents. While on February 24, 2022, income levels of women with or without children were basically the same, at the time of the survey, women with children proved to have been more affected financially. Before the full-scale war, 11.5% of women with children had income that was low or below average, and now there are 39.1% of them in this category. Before the full-scale war, 40.0% of women with children had income that was high or above average compared to 16.3% currently. Women without children have also seen a significant decrease in their income, but substantially less than the women with children.



Figure 4. Income levels before February 24, 2022 and at the time of the survey broken down by parental status (among the respondents that answered to the questions about the income levels and parental status, %)



3.3.4. STRESS COPING METHODS

Respondents were asked about their usual stress coping methods. The women, on the average, chose 5 or 6 options from the suggested list (*multiple choices were allowed*). The answers differ substantially in different age groups.

There is no significant difference in the ways of stress coping based on IDP status, however, only 23.7% of the displaced women mentioned tending their plants or gardening, which is lower than in the sample as a whole.

Those women who before the full-scale invasion lived in the Center of Ukraine, more often than the rest visit family or friends or entertain guests (39.8%) and tend their plants (52.5%) to relieve the stress, while the residents of the West more often mention volunteering (26.3%) and spending time alone (38.0%). Women from the East more often go to concerts, exhibitions, and museums (7.9%) or go shopping (13.6%) to improve their mental state. Women from Kyiv more often (*compared to women from other regions*) cope with stress by doing sports (39.8%), and less often by spending time with their children (27.0%) and tending plants (24.9%).



Table 12. Stress coping methods in general and broken down by age groups (among all the respondents, N = 1000, multiple choices allowed, %)

What do you personally do to cope with stress after February 24, 2022?	TOTAL (N = 1000)	15-17 y.o. (N = 63)	18-25 y.o. (N = 160)	26-35 y.o. (N = 305)	36-49 y.o. (N = 472)
	%	%	%	%	%
Spending time with family or friends	60.2	76.4	64.5	65.1	53.3
Watching films, TV shows, listening to music, reading	54.7	69.9	67.6	60.1	44.8
Outdoor walks	51.3	71.2	58.0	55.6	43.7
Children (<i>looking after them, communication</i>)	41.3	10.8	24.7	46.6	47.7
Animals (<i>looking after them</i>)	37.8	25.0	37.6	34.7	41.7
Tending plants, gardening	37.5	11.3	26.5	34.7	46.4
Cooking	35.6	43.1	35.2	35.9	34.6
Spending time alone, prayers, meditation	30.9	34.6	31.2	33.9	28.4
Visiting family or friends, or entertaining guests	30.0	39.5	29.6	36.0	24.9
Social media	29.5	61.3	36.4	25.2	25.8
Sports, fitness, gym, jogging, biking	28.4	61.0	39.8	29.0	19.7
Work	26.6	4.8	26.2	26.4	29.8
Handicrafts (<i>knitting, sewing, etc.</i>)	24.2	23.7	14.7	25.1	27.0
Volunteering	20.4	17.3	24.4	19.6	20.0
Shopping	19.2	38.6	25.8	21.7	12.8
Attending concerts, exhibitions, museums	12.6	20.4	12.5	14.7	10.3
Home improvements	12.2	4.8	14.3	11.9	12.6
Video games	5.2	13.6	9.2	3.9	3.6
<i>Smoking</i>	<i>12.6</i>	<i>6.4</i>	<i>12.0</i>	<i>11.5</i>	<i>14.4</i>
<i>Drinking alcohol</i>	<i>9.2</i>	<i>3.4</i>	<i>4.9</i>	<i>12.8</i>	<i>9.0</i>
<i>Injecting drugs</i>	<i>0.1</i>	–	–	<i>0.3</i>	–
<i>Drug sniffing, smoking, and other using</i>	<i>0.1</i>	–	–	<i>0.3</i>	–
<i>Other</i>	<i>6.2</i>	<i>4.4</i>	<i>5.7</i>	<i>5.7</i>	<i>7.0</i>



3.4. COMBAT AND GENERAL WAR EXPERIENCE

Respondents were asked about their experience of facing various conditions and situations caused by the Russian invasion. The respondents have different experience, but generally more than a half of them (53.1%) are having or had an experience going beyond 'normal' life, namely: 46.0% have been to an area with the high risk of air raids, 21.6% have travelled across areas of active fighting or very close to them, 16.8% have been in an area of active fighting, and 8.7% have lived on a territory that was occupied after February 24, 2022.

Table 13. War-related experience of the women
(among all the respondents, N = 1000, multiple choices allowed, %)

Characteristics	n	%
War-related experience		
Staying in an area with the high risk of air raids (<i>daily missile attacks, shelling, UAV attacks, etc.</i>)	460	46.0
Travelling across areas of active fighting or very close to them	216	21.6
Staying in an area of active fighting	168	16.8
Staying on the territories that were occupied after February 24, 2022	87	8.7
Taking part in cleaning up after shelling, destruction of civil infrastructure, etc.	85	8.5
Staying on the territories affected by ecological disasters (<i>without access to drinking water or normal sanitation</i>)	75	7.5
Taking part in fighting as a soldier or a medic, paramedic	13	1.3
Taking part in recovery of liberated territories (<i>e.g., demining</i>)	11	1.1
Staying on the territories of so-called 'donetsk people's republic', 'luhansk people's republic', or the occupied Crimea	7	0.7
Staying on the territory of the Russian Federation	4	0.4
Being a prisoner	–	–
None of the above	469	46.9
Personal war-related experience		
Any of the listed experiences	531	53.1
No experience	469	46.9

Averaged data of the respondents show regional differences. 68.4% to 77.9% of women who lived in Kyiv, in the East, South or North of Ukraine before the full-scale war or are living there now have some war-related experience, while for the Center and the West this figure is 29.9% and 20.1% respectively.



Figure 5. Personal war-related experience broken down by region of residence before February 24.02.2022 (among all the respondents, N = 1000, %)

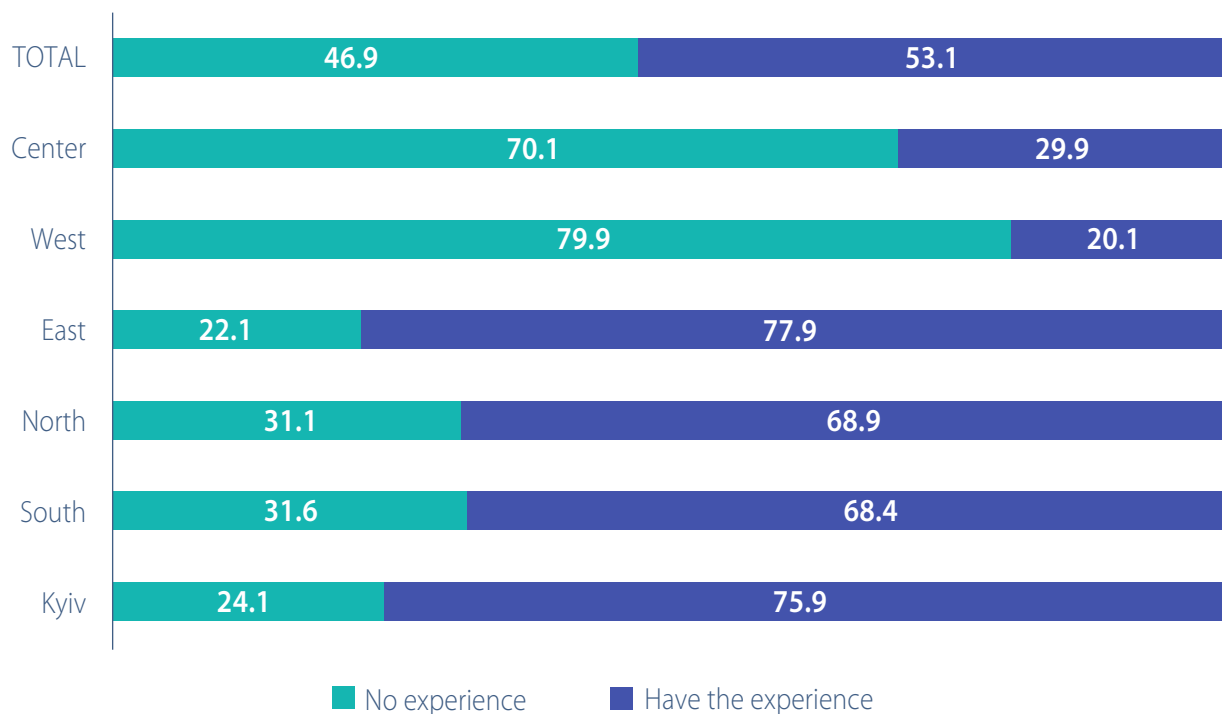
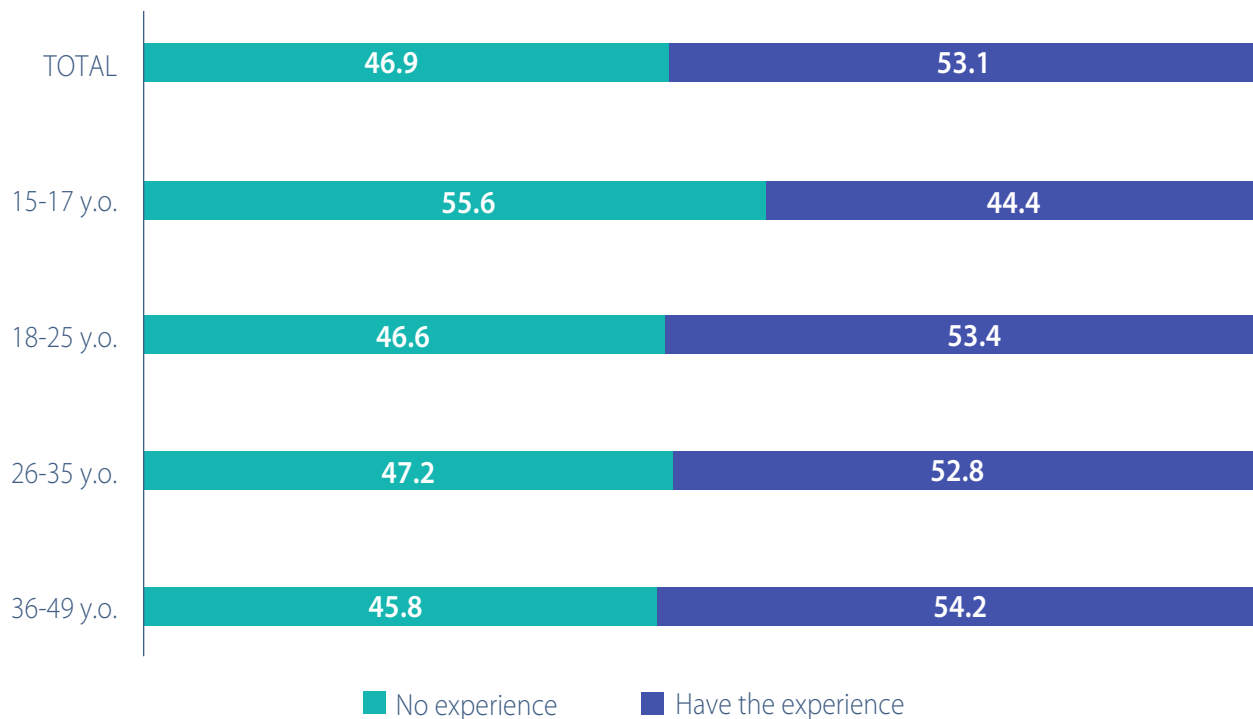


Figure 6. Personal war-related experience broken down by age (among all the respondents, N = 1000, %)





To study the issue of unsafe stay on the territories of active fighting, we asked the respondents who had mentioned having some kind of war-related experience (N = 531) about their stay in the areas of active fighting in their various roles – as a civilian, a volunteer, a medic or a paramedic, or a servicewoman. All in all, 191 women informed about having stayed in an area of active fighting in any role, and this is 36.0% of those who have had any war-related experience, or 19.1% of the total sample size. Thus, 15.8% of the respondents stayed there as civilians, and 4.8% as volunteers. The numbers of servicewomen, medics and paramedics are quite low, which could be explained by low accessibility of these groups for a telephone survey in the times of war. Therefore, the national survey may underestimate the numbers of women in military service.

Table 14. Staying in the areas of active fighting
(among all the respondents, N = 1000, multiple choices allowed, %)

Characteristics	n	%
Experience of staying in a combat area	191	19,1
As a civilian	158	15.8
As a volunteer	48	4.8
As a servicewoman	3	0.3
As a medic or a paramedic	8	0.8

All the women were asked whether they had personally been to situations of high HIV-infection risk involving unprotected contact with blood or other potentially hazardous biological liquids. 3.0% of the women had some kind blood contact in such situations.

For civilians that have been in combat areas, this number is 8.9%, and for volunteers – 17.0%. The sample of servicewomen and medics is too small for statistical analysis, but it can be assumed that women from these categories are more likely to be in situations of blood contact because of the nature of their activities.

Table 15. Encountering HIV-risky war-related situations
(among all the respondents, N = 1000, multiple choices allowed, %)

Characteristics	n	%
Having faced at least one of the following situations	30	3.0
Injury caused by sharp tools, weapons contaminated with blood or other potentially hazardous biological liquids	9	0.9
Surgeries in the field (i.e. not under proper conditions that exist in a hospital surgery room)	3	0.3
Contact with blood of strangers during fighting, rescue operations, etc.	12	1.2
Other situations of blood contact	13	1.3

Speaking about war-related experience, blood contact situations happened much more often to those who have stayed on the most heavily fighting-affected territories.

**Table 16. Blood contact in the context of war-related experience (multiple choices, %)**

Characteristics	n	%
Having contacted blood (among all the respondents, N = 1000)	30	0.3
Among those who have had personal war-related experience (N = 531)		
Taking part in fighting as a soldier or a medic, paramedic (N = 13)	4	29.7
Taking part in recovery of liberated territories (e.g., demining) (N = 11)	3	26.5
Taking part in cleaning up after shelling, destruction of civil infrastructure, etc. (N = 85)	15	17.2
Staying on the territories of so-called 'donetsk people's republic', 'luhansk people's republic', or the occupied Crimea (N = 7)	1	12.4
Travelling across areas of active fighting or very close to them (N = 216)	21	9.8
Staying on the territories affected by ecological disasters (without access to drinking water or normal sanitation) (N = 75)	7	9.1
Staying in an area of active fighting (N = 168)	15	8.8
Staying on the territories that were occupied after February 24, 2022 (N = 87)	6	6.6
Staying in an area with the high risk of air raids (daily missile attacks, shelling, UAV attacks, etc.) (N = 460)	26	5.7
Among those who have not had personal war-related experience (N = 469)	3	0.6

3.5. HEALTH AND MEDICAL SERVICES

Questions about health and seeking medical aid were aimed at getting understanding of the risks of HIV infection for women in the context of receiving (or not receiving) different kinds of health care.

3.5.1. CERTAIN MEDICAL PROCEDURES AND INTERVENTIONS

The total of 83.2% of the respondents experienced some of the listed medical interventions or procedures in the period from February 24, 2022 until the time of interview. In particular, 56.5% of them received dental services, 55.4% took blood tests, and 51.5% were examined or treated by gynecologist. Other medical interventions were much less common.

Among those who had had a medical procedure, 1% informed about having encountered situations where it was impossible to ensure sterility of the tools, or medication storage temperature requirements were not met, or the procedures were done by doctors of a wrong profile, or there were other problems caused by destruction of healthcare infrastructure.

**Table 17. Experience of medical interventions after February 24, 2022**
(among all the respondents, N = 1000, multiple choices allowed, %)

Characteristics	n	%
Dental services	566	56.6
<i>including that under inadequate conditions</i>	3	0,3
Examination or treatment by gynecologist	515	51.5
<i>including that under inadequate conditions</i>	1	0,1
Vaccination	164	16.4
<i>including that under inadequate conditions</i>	2	0,2
Donating blood	92	9.2
<i>including that under inadequate conditions</i>	1	0,1
Planned surgery	57	5.7
Giving birth	44	4.4
Emergency surgery	35	3.5
<i>including that under inadequate conditions</i>	1	0,1
Abortion or artificial termination of pregnancy for medical reasons	20	2.0
Receiving blood transfusion	3	0.3

3.5.2. DECLARATION WITH A FAMILY DOCTOR

Despite the fact that after the start of the full-scale invasion the Ministry of Health of Ukraine enabled IDP to receive health services at the place of actual residence without a signed declaration or prescription, having one regular family doctor is better for comprehensive support of the patient and ensures provision of quality and timely care. Therefore, the respondents were asked about whether they had a signed declaration with a family doctor at the new place of residence.

Most of the respondents (89.4%) said they had a declaration, and 4.6% of the women had been in situations when during the war they did not have a declaration. Another 4.8% do not have a declaration with the family doctor because of the war.

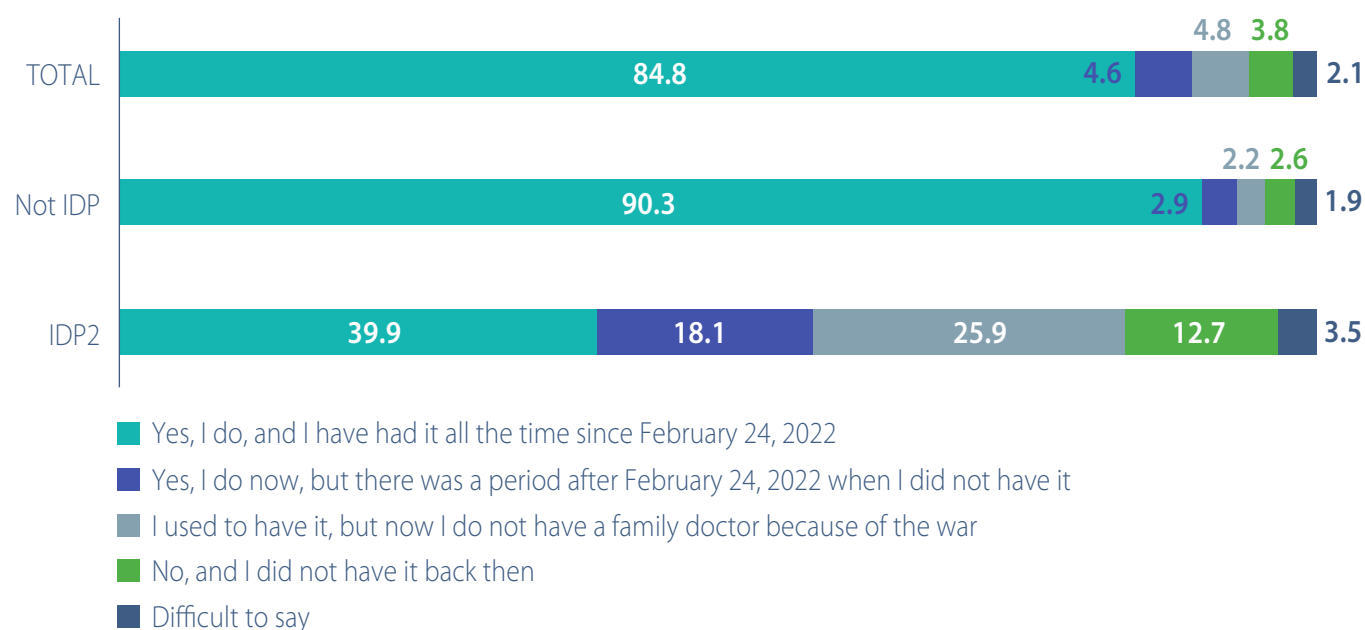
Table 18. Signed declarations with a family doctor (among all the respondents, N = 1000, %)

Do you have a declaration with a family doctor at the location where you currently reside?	n	%
Yes, I do, and I have had it all the time since February 24, 2022	848	84.8
Yes, I do now, but there was a period after February 24, 2022 when I did not have it (during a forced displacement, because doctors left or the healthcare facility was destroyed)	46	4.6
No, I used to have it, but now I do not have a family doctor because of the war	48	4.8
No, and I did not have it back then	38	3.8
<i>Difficult to say</i>	21	2.1



The fact of having (*or not having*) a declaration with a family doctor is linked to the IDP status. A quarter (25.9%) of women as of August did not have a family doctor, and 18.1% informed that there had been a period at the beginning of the full-scale invasion when they did not have the declaration, but at the time of the survey they already had it. Talking about regional differences, the share of women who do not and did not have a declaration with a family doctor was higher among the women who lived in Kyiv before February 24, 2022 (11.6%). Thus, the hypothesis that internally displaced women struggle receiving health services, in particular, not having a declaration with a family doctor at the place of actual residence, was confirmed.

Figure 7. Signed declarations with a family doctor broken down by IDP status
(among all the respondents, N = 1000, %)



3.5.3. CO-MORBIDITIES

Respondents were asked about common HIV co-morbidities – tuberculosis, hepatitis B, hepatitis C and STIs. The respondents who informed about having such diseases also told they were HIV-negative, except for one who lives with HIV and had diagnosed STIs before 24.02.2022.

Table 19. Having diagnosed diseases (among all the respondents, N = 1000, multiple choices allowed, %)

Characteristics	n	%
Tuberculosis (ever in their lives)	6	0.6
Diagnosis after February 24, 2022	2	0.2
Hepatitis B (ever in their lives)	19	1.9
Diagnosis after February 24, 2022	5	0.5
Hepatitis C (ever in their lives)	7	0.7
Diagnosis after February 24, 2022	2	0.2
STIs (ever in their lives)	25	2.5
Diagnosis after February 24, 2022	5	0.5



3.6. HIV INFECTION

3.6.1. DISCRIMINATORY ATTITUDE TOWARDS PLWH

Considering the goal of the study, a lot of questions were dedicated to HIV. The survey involved collecting data for calculation of indicators for the national report under UNAIDS Global AIDS Monitoring (GAM)¹⁷ – indicator 6.1. Discriminatory attitude towards people living with HIV and 4.2. Attitudes towards violence against women.

The discriminatory attitude is measured based on answers to two questions: 'Would you buy vegetables from a seller who you knew had HIV?' and 'Do you think children living with HIV can attend school together with HIV-negative children?'. A third (33,7%) of the respondents answered 'no' to the first question, and 13.3% gave a negative answer to the second question. A significant share of the respondents are unsure about their answers (12.0% and 13.5% respectively).

Aggregated indicator calculated as a ratio between those who gave a negative answer to at least one question and the total number of responses is 42.0% (352 women out of 837; the respondents who chose 'difficult to say' or 'refused to answer' to both questions were excluded from the calculation).

Table 20. Discriminatory attitude towards people living with HIV
(among all the respondents aware of the disease, N = 979, %)

Characteristics	N	%
Would you buy vegetables from a seller who you knew had HIV?		
Yes	532	54.3
No	330	33.7
<i>Difficult to say</i>	<i>117</i>	<i>12.0</i>
Do you think children living with HIV can attend a school together with HIV-negative children?		
Yes	716	73.1
No	130	13.3
<i>Difficult to say</i>	<i>132</i>	<i>13.5</i>
<i>Refused to answer</i>	<i>1</i>	<i>0.1</i>

With regard to both questions, we saw difference in answers depending on the levels of education and income before the start of the full-scale war, and on the region and type of settlement. Higher income and higher education level correlate with lower rates of biased and discriminatory attitude towards HIV-positive grocery sellers – 26.5% of high-income respondents gave negative answers, while among low-income respondents this figure reached 45.3%; the situation with the education level is similar. The most tolerant responses came from residents of Kyiv and the North of Ukraine, the most discriminatory were respondents from rural areas. The question about attending schools by HIV-positive children generally received more positive answers, but the correlation between the income level and regional differences were the same. Thus, the hypothesis that a high socioeconomic status, higher level of education and living in a city are linked to a higher level of awareness about HIV and less bias regarding PLWH was generally confirmed.

¹⁷ Global AIDS Monitoring 2023, UNAIDS, 2023. https://www.unaids.org/sites/default/files/media_asset/global-aids-monitoring_en.pdf



Figure 8. Readiness to buy vegetables from an HIV-positive seller broken down by income level before February 24, 2022 (among those respondents who were aware of HIV and informed about their income level before February 24, 2022, N = 964, %)

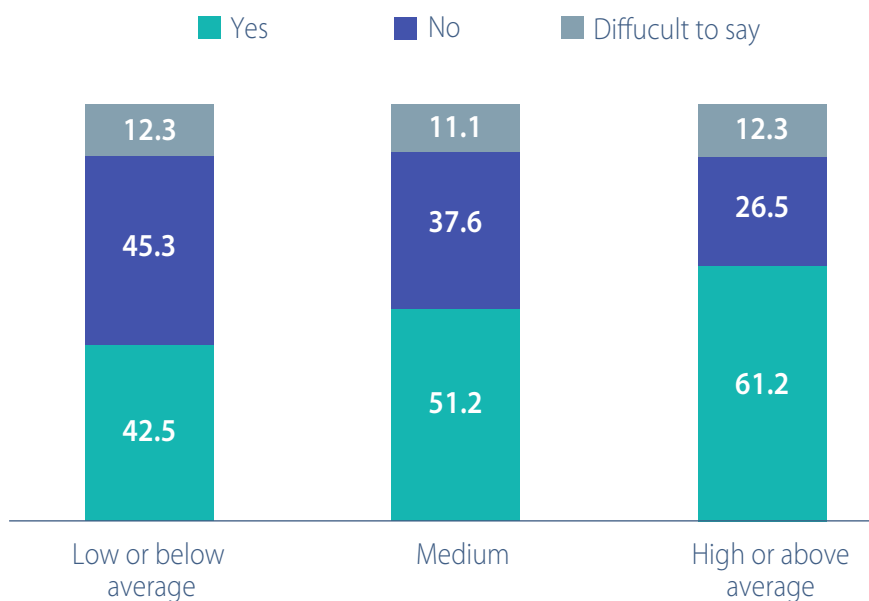
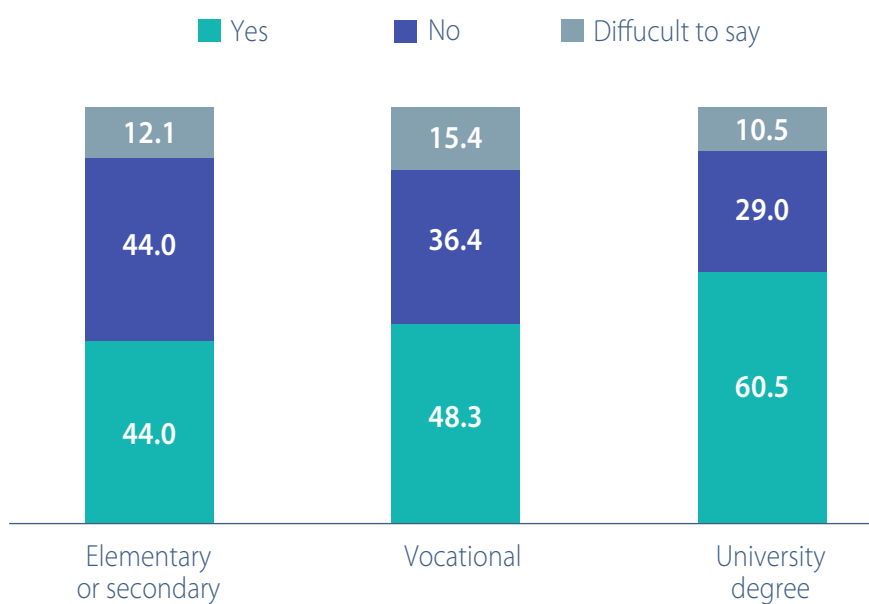


Figure 9. Readiness to buy vegetables from an HIV-positive seller broken down by education level (among those respondents who were aware of HIV and informed about their education level, N = 979, %)





3.6.2. ATTITUDE TOWARDS VIOLENCE AGAINST WOMEN

The national indicator of international reporting about attitudes towards violence against women is measured based on answers to the question 'Do you think actions of a man beating his wife/partner are justified in the following situations?' (*with five cases or situations*). A total of 3.0% women have answered positively, i.e. justified a violent action of a man against his wife/partner. The biggest number of answers justifying violence (2.6%) were given about the context where a woman fails to take care of her children.

Table 21. Attitudes towards violence against women (among all the respondents, N = 1000, %)

Characteristics	n	%
Do you think actions of a man beating his wife/partner are justified in the following situations?		
If she decides to go for a walk without letting him know about it	–	–
If she fails to take care of her children	26	2.6
If she is arguing with him	5	0.5
If she refuses to have sex with him	2	0.2
If she burns food she cooks	2	0.2
At least one positive answer	30	0.3

Similar to the previous indicator, education level is important in the context of perception of gender-based violence: only 1.2% of women with university degree gave a positive answer, while among women with elementary and secondary education this indicator reached 5.6%, and among those with vocational education – 4.9%.

According to the survey, discriminatory attitude towards PLWH and attitudes to violence against women are interrelated. 81.1% of those who agree that a man has the right to hit or beat his partner also show discriminatory attitude towards PLWH (*p-value < 0.001*).

3.6.3. AWARENESS OF HIV TESTING AND TREATMENT

Understanding women's knowledge about HIV in general and its diagnosing and treatment in particular is important in terms of work with the key population with regard to mitigation of risk of infection. The survey included two questions about free testing and treatment of HIV: 'Do you think HIV testing is free in Ukraine, or people need to pay for it?', and 'Do you think HIV treatment is free in Ukraine, or the patient needs to pay for it?'

Two thirds (69.6%) of the women are aware that HIV testing is free, while only 47.3% know that the treatment is free. Also, 15.1% of respondents thought the testing is not free of charge, and twice as many (30.9%) thought so about the treatment. A significant part of the respondents could not answer these questions – 15.3% and 21.8% respectively. All in all, correct answers to both questions (*i.e. 'free of charge' in both cases*) were given by 42.0% of the respondents; 28.4% were misinformed (they answered 'paid' to one or both of the questions, and 29.6% did not have clear knowledge about testing and treatment (*they answered 'difficult to say' to one or both of the questions*).



Table 22. Knowledge of the cost of HIV testing and treatment (among all the respondents, N = 1000, %)

Characteristics	n	%
Do you think HIV TESTING is free in Ukraine, or people need to pay for it?		
It is paid	151	15.1
It is free of charge	696	69.6
<i>Difficult to say</i>	153	15.3
Do you think HIV TREATMENT is free in Ukraine, or the patient needs to pay for it?		
It is paid	309	30.9
It is free of charge	473	47.3
<i>Difficult to say</i>	218	21.8
General knowledge about HIV testing and treatment		
Correct answers to both questions	420	42.0
Incorrect answer to any or both of the questions	284	28.4
No clear knowledge (<i>'difficult to say' answer to any or both of the questions</i>)	296	29.6

Beliefs about testing and treatment have certain patterns. The thought about whether the testing is free does not show any statistically significant differences between different categories of women, i.e. it is not related to region, age, income, education, etc.. Besides, these beliefs do not significantly differ between those who have ever got tested for HIV and those who have not.

Yet, different subgroups of women have different beliefs about the treatment. For example, as the age increases, the share of those who are aware about free HIV treatment also grows, but so does the share of those unsure about the right answer. A majority (62%) of respondents from the youngest age range (15 to 17 y.o.) believe that the treatment is not free, also demonstrating the least uncertainty about their answers (6.7%). In the oldest subgroup of the women, a half of the respondents (49.4%) know that the treatment is free, and slightly more than a quarter were not ready to provide a decisive answer.

Figure 10. Knowledge of the cost of HIV treatment broken down by age (among all the respondents, N = 1000, %)

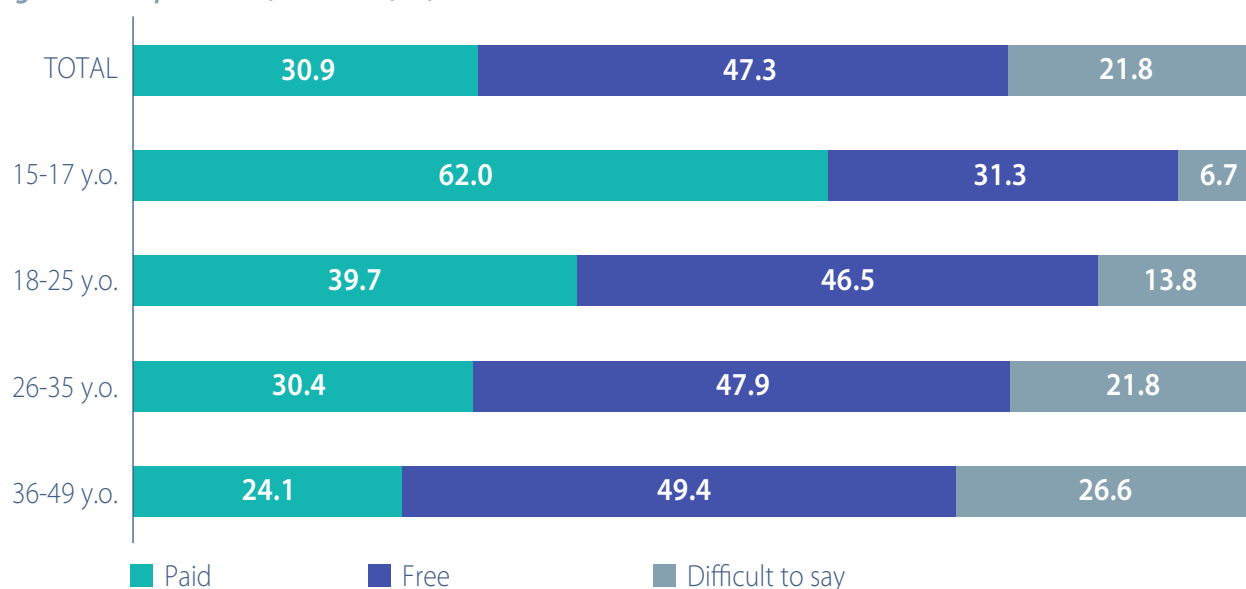




Table 23. Knowledge of the cost of HIV testing broken down by sociodemographics (among all the respondents, N = 1000, %)

Characteristics	PAID		FREE		DIFFICULT TO SAY	
	n	%	n	%	n	%
Total	151	15.1	696	69.6	153	15.3
Age, full years	p=0.043					
15-17 y.o.	15	23.6	40	64.2	8	12.1
18-25 y.o.	19	12.1	120	74.7	21	13.2
26-35 y.o.	48	15.6	221	72.5	36	11.9
36-49 y.o.	69	14.6	315	66.7	88	18.7
Region of residence BEFORE February 24, 2022	p=0.375					
West	35	12.3	197	69.3	52	18.4
South	19	15.9	83	70.0	17	14.1
North	19	18.1	72	69.0	13	12.9
East	53	18.8	192	68.5	36	12.7
Center	13	10.1	92	72.6	22	17.3
Kyiv	13	14.6	60	69.9	13	15.4
Settlement type BEFORE February 24, 2022	p=0.183					
Cities of 500+ thousand	35	14.9	168	70.7	34	14.4
Cities of 100-499 thousand	20	11.0	138	77.3	21	11.7
Cities of 50-99 thousand	8	14.3	40	73.1	7	12.6
Cities of 0-49 thousand	38	16.9	154	69.0	32	14.1
Rural areas	50	16.3	196	64.1	60	19.6
CURRENT region of residence	p=0.550					
West	37	12.3	208	69.5	55	18.2
South	18	16.3	74	68.2	17	15.5
North	19	17.2	78	71.5	12	11.3
East	46	18.4	170	68.2	34	13.4
Center	17	11.8	103	72.6	22	15.6
Kyiv	15	16.0	63	68.7	14	15.4
CURRENT type of settlement	p=0.102					
Cities of 500+ thousand	39	15.0	183	70.3	38	14.7
Cities of 100-499 thousand	17	9.5	138	79.7	19	10.7
Cities of 50-99 thousand	9	18.0	33	67.8	7	14.2
Cities of 0-49 thousand	38	17.8	141	67.1	32	15.1
Rural areas	49	15.9	200	65.2	58	18.8
Being an IDP	p=0.257					
Not an IDP as of the time of interview	134	15.0	614	69.0	142	16.0
An IDP as of the time of interview	17	15.4	82	74.3	11	10.3



Characteristics	PAID		FREE		DIFFICULT TO SAY	
	n	%	n	%	n	%
Experience of displacement during the war	p=0.010					
Yes	61	16.6	268	72.6	40	10.9
No	89	14.2	428	67.9	113	18.0
Parental status, in general	p=0.825					
With children	102	15.2	463	69.1	105	15.7
No children	47	14.6	227	70.9	46	14.5
Underage children	p=0.478					
Children younger than 18 years of age	74	16.4	308	68.0	71	15.6
No children younger than 18 years of age	74	13.9	382	71.1	81	15.1
Income level BEFORE February 24, 2022	p=0.132					
Low or below average	20	18.9	63	59.5	23	21.6
Average	62	13.8	320	70.9	69	15.2
Above average or high	64	15.0	305	71.5	58	13.6
CURRENT income level	p=0.031					
Low or below average	62	19.4	203	63.5	55	17.1
Average	58	13.0	323	73.0	62	14.0
Above average or high	26	12.1	158	73.6	31	14.4
Education level	p=0.096					
Elementary or secondary	36	17.9	127	63.5	37	18.6
Vocational education	40	16.3	163	66.6	42	17.1
University degree	75	13.5	405	73.1	74	13.4
Having got tested for HIV BEFORE February 24, 2022	p=0.015					
Tested	93	15.5	425	71.1	80	13.4
Not tested	54	14.0	260	67.8	70	18.2
Having got tested for HIV AFTER February 24, 2022	p=0.123					
Tested	29	15.1	142	74.2	20	10.7
Not tested	121	15.0	551	68.7	131	16.3
Having ever tested for HIV	p=0.039					
Tested	97	15.4	451	71.5	82	13.0
Not tested	49	13.9	235	66.9	67	19.2
Self-assessment of one's risk of being HIV-positive	p=0.197					
Zero	104	16.9	406	66.3	103	16.8
Low	33	12.3	203	74.9	35	12.8
Medium	10	14.7	53	75.5	7	9.8
High	1	6.6	12	86.8	1	6.6
I am already HIV-positive	–	–	2	100.0	–	–
Difficult to say	2	7.4	19	64.7	8	27.9
Refused to answer	–	–	1	100.0	–	–



Table 24. Knowledge of the cost of HIV treatment broken down by sociodemographics (among all the respondents, N = 1000, %)

Characteristics	PAID		FREE		DIFFICULT TO SAY	
	n	%	n	%	n	%
Total	309	30.9	473	47.3	218	21.8
Age, full years	p<0.001					
15-17 y.o.	39	62.0	20	31.3	4	6.7
18-25 y.o.	63	39.7	74	46.5	22	13.8
26-35 y.o.	93	30.4	146	47.9	66	21.8
36-49 y.o.	114	24.1	233	49.4	125	26.6
Region of residence BEFORE February 24, 2022	p=0.856					
West	89	31.1	137	48.4	58	20.3
South	40	33.9	51	43.1	27	23.0
North	38	36.5	47	45.4	19	18.0
East	84	29.7	136	48.3	62	22.0
Center	37	28.8	61	48.1	29	23.1
Kyiv	22	25.2	41	47.5	24	27.4
Settlement type BEFORE February 24, 2022	p=0.568					
Cities of 500+ thousand	70	29.5	107	45.2	60	25.3
Cities of 100-499 thousand	57	32.1	86	48.0	35	19.8
Cities of 50-99 thousand	16	28.6	28	51.7	11	19.6
Cities of 0-49 thousand	60	26.9	116	51.7	48	21.4
Rural areas	106	34.5	136	44.6	64	20.9
CURRENT region of residence	p=0.827					
West	96	32.2	144	48.2	59	19.6
South	35	31.9	48	44.1	26	24.0
North	40	36.6	48	43.7	22	19.7
East	71	28.2	123	49.3	56	22.5
Center	44	30.9	67	47.7	30	21.5
Kyiv	23	25.5	43	46.7	25	27.8
CURRENT type of settlement	p=0.629					
Cities of 500+ thousand	77	29.5	121	46.3	63	24.2
Cities of 100-499 thousand	54	30.9	86	49.4	34	19.7
Cities of 50-99 thousand	17	34.2	22	45.8	10	20.0
Cities of 0-49 thousand	56	26.7	110	52.3	44	21.0
Rural areas	105	34.4	134	43.8	67	21.8
Being an IDP	p=0.445					
Not an IDP as of the time of interview	272	30.6	419	47.0	199	22.4
An IDP as of the time of interview	37	33.3	55	49.7	19	17.0



Characteristics	PAID		FREE		DIFFICULT TO SAY	
	n	%	n	%	n	%
Experience of displacement during the war	p=0,320					
Yes	119	32.2	179	48.6	71	19.2
No	190	30.1	294	46.6	147	23.3
Parental status, in general	p=0,002					
With children	186	27.7	324	48.4	160	23.9
No children	122	38.2	144	45.0	54	16.8
Underage children	p=0.061					
Children younger than 18 years of age	129	28.4	213	46.9	112	24.7
No children younger than 18 years of age	179	33.4	255	47.6	102	19.1
Income level BEFORE February 24, 2022	p=0.100					
Low or below average	43	41.1	38	36.1	24	22.8
Medium	137	30.3	214	47.3	101	22.4
Above average or high	126	29.4	215	50.3	87	20.3
CURRENT income level	p=0.039					
Low or below average	110	34.4	132	41.4	77	24.2
Medium	139	31.4	223	50.5	80	18.1
Above average or high	57	26.5	107	49.6	51	23.9
Education level	p<0.001					
Elementary or secondary	90	44.7	72	36.0	39	19.3
Vocational education	71	28.9	115	47.0	59	24.1
University degree	148	26.8	285	51.5	120	21.7
Having got tested for HIV BEFORE February 24, 2022	p=0.028					
Tested	167	27.9	291	48.8	139	23.3
Not tested	137	35.8	173	45.2	73	19.1
Having got tested for HIV AFTER February 24, 2022	p=0.232					
Tested	51	26.8	101	52.7	39	20.5
Not tested	256	31.9	371	46.3	175	21.8
Having ever tested for HIV	p=0.019					
Tested	176	27.9	309	49.0	146	23.1
Not tested	128	36.5	157	44.6	67	18.9
Self-assessment of one's risk of being HIV-positive	p=0.138					
Zero	205	33.5	270	44.1	137	22.4
Low	73	26.7	136	50.2	63	23.1
Medium	18	25.6	44	62.0	9	12.3
High	5	36.8	7	49.7	2	13.5
I am already HIV-positive	–	–	2	100.0	–	–
Difficult to say	7	24.2	14	48.3	8	27.6
Refused to answer	1	100.0	–	–	–	–



3.6.4. HIV TESTING EXPERIENCE

Respondents were asked about their experience of HIV testing in the periods before the start of the full-scale invasion and after it. 59.7% of the women informed that they had got tested for HIV before February 24, 2022. This testing was mostly related to pregnancy. 11.3% of the women had had voluntary testing, and 38.3% had not got tested for HIV before the full-scale war began.

At the beginning of the invasion, 19.1% of the respondents got tested for HIV, while most (80.3%) did not. Among women who indicated they had got tested after the full-scale war started, 28.2% told they did it voluntarily, and 30.4% were referred to testing by a health worker unrelated to pregnancy. 44.3% of all who took an HIV test after February 24, 2022 (or 8.5% of the sample) got tested in the recent six months, and 19.6% – in the last 30 days before the survey. Considering HIV-risky situations of unprotected blood contacts during the war (*wounds, surgeries in the field, etc.*), the levels of testing for HIV after February 24, 2022 for women with this experience does not significantly differ from the averaged rate for the whole sample.

On the whole, 63.5% of the respondents have got tested for HIV in their lifetime, and 35.1% have never done it.

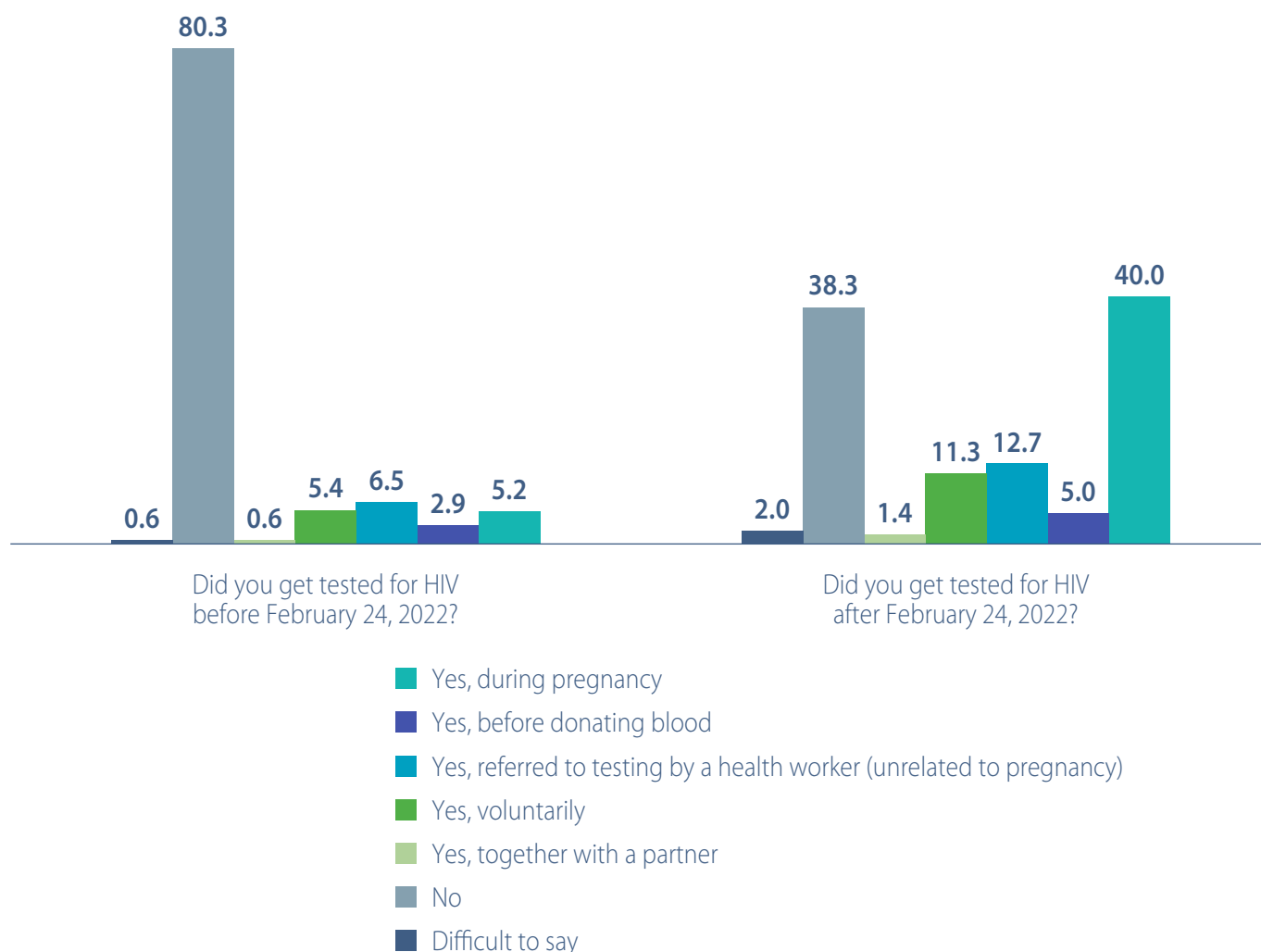
Table 25. Experience of HIV testing (among all the respondents, N = 1000, %)

Characteristics	n	%
Experience of testing for HIV BEFORE February 24, 2022		
Yes, during pregnancy	400	40.0
Yes, before donating blood	50	5.0
Yes, referred to testing by a health worker (<i>unrelated to pregnancy</i>)	127	12.7
Yes, voluntarily	113	11.3
Yes, together with a partner	14	1.4
No, never	383	38.3
<i>Difficult to say</i>	20	2.0
Having got tested for HIV BEFORE February 24, 2022		
Tested for HIV	597	59.7
Not tested for HIV	383	38.3
<i>Difficult to say</i>	20	2.0
Experience of testing for HIV AFTER February 24, 2022		
Yes, during pregnancy	52	5.2
Yes, before donating blood	29	2.9
Yes, referred to testing by a health worker (<i>unrelated to pregnancy</i>)	65	6.5
Yes, voluntarily	54	5.4
Yes, together with a partner	6	0.6
No, never	803	80.3
<i>Difficult to say</i>	6	0.6



Characteristics	n	%
Recency of the last testing for HIV AFTER February 24, 2022 (N = 191, among those who have taken an HIV test after February 24, 2022)		
In the last 30 days	38	19.6
In the last 6 months	85	44.3
In the last year	47	24.6
More than a year ago, but after February 24, 2022	20	10.4
<i>Difficult to say</i>	2	1.1
Having got tested for HIV AFTER February 24, 2022		
Tested for HIV	191	19.1
Not tested for HIV	803	80.3
<i>Difficult to say</i>	6	0.6
Having ever got tested for HIV		
Tested for HIV	631	63.1
Not tested for HIV	351	35.1
<i>Difficult to say</i>	18	1.8

Figure 11. Experience of HIV testing before and after February 24, 2022
(among all the respondents, N = 1000, %)





HIV testing correlates with the age of respondents. Before the start of the full-scale war, only 8.0% of the 15-17 y.o. group took tests for HIV, with 39.9% in the 18-25 y.o. category and more than two thirds in older age categories. At the beginning of the war, the tests were most often taken by women aged 18-25 and 26-35, while members of older groups and girls up to 17 got tested significantly less often. Speaking about the experience of taking an HIV test ever in their life, the distribution is similar to the one that existed before the invasion.

Figure 12. Experience of HIV testing (among all the respondents, N = 1000, %)

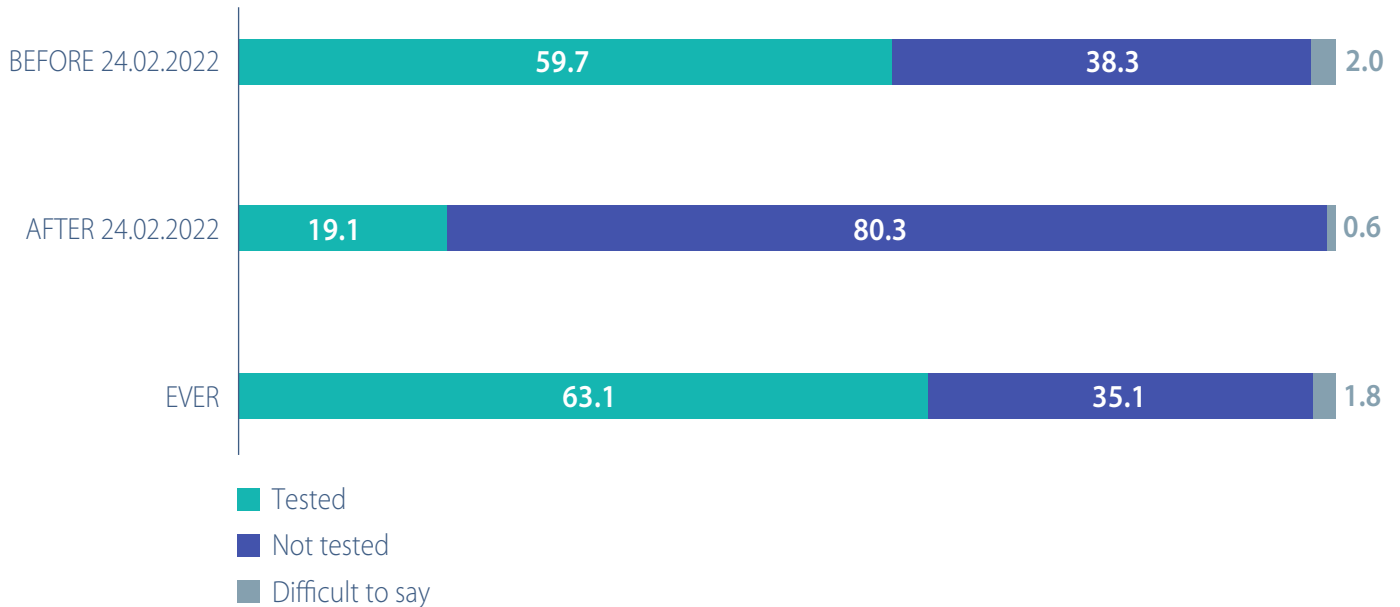


Figure 13. Experience of HIV testing during respondents' lifetime broken down by age (among all the respondents, N = 1000, %)

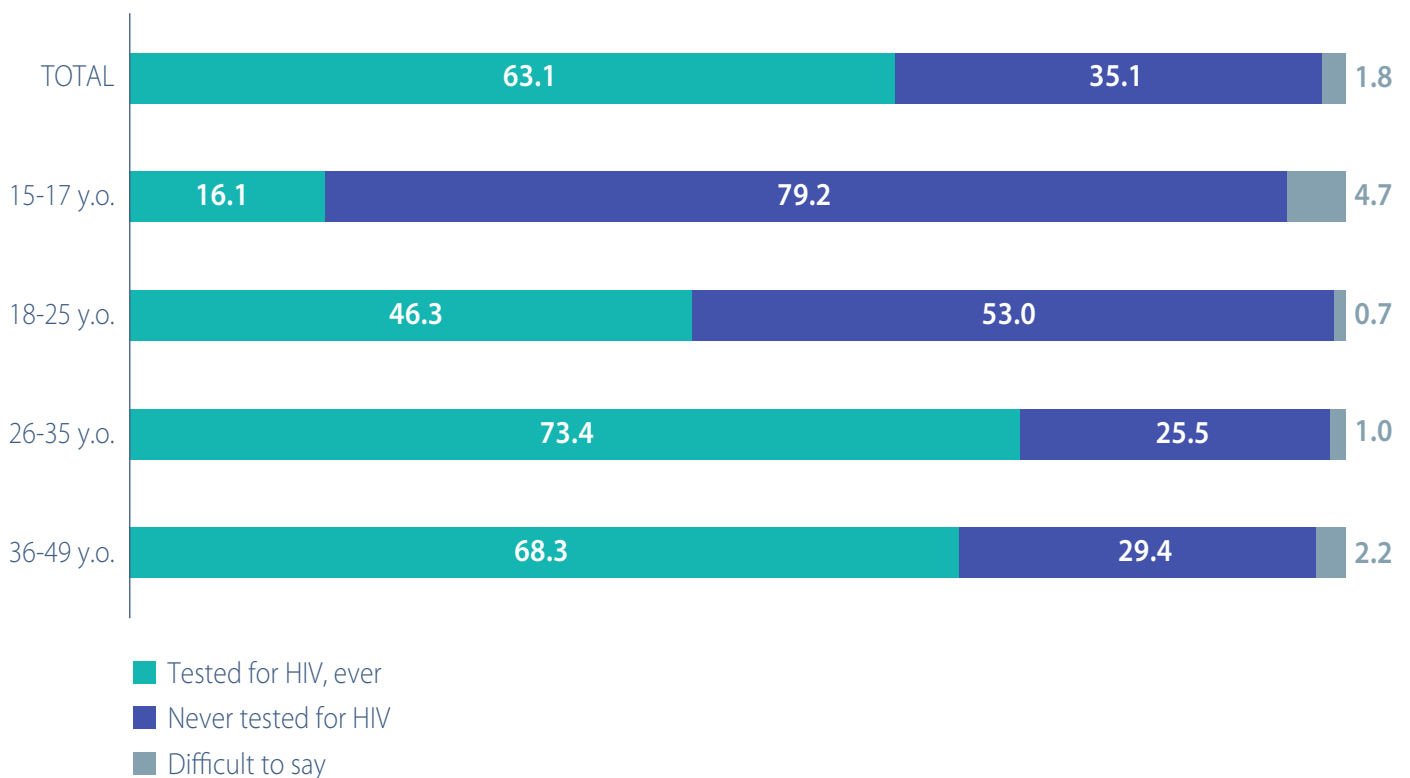




Figure 14. Experience of HIV testing before February 24, 2022 broken down by age (among all the respondents, $N = 1000$, %)

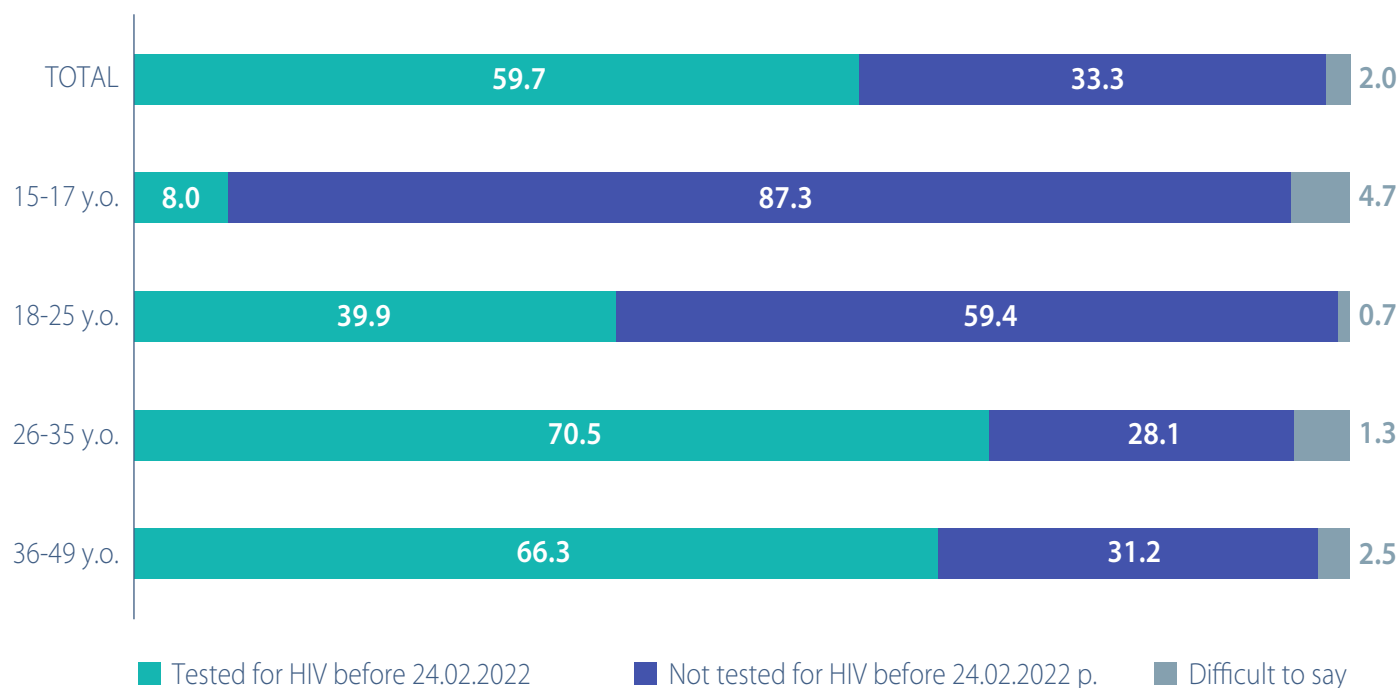
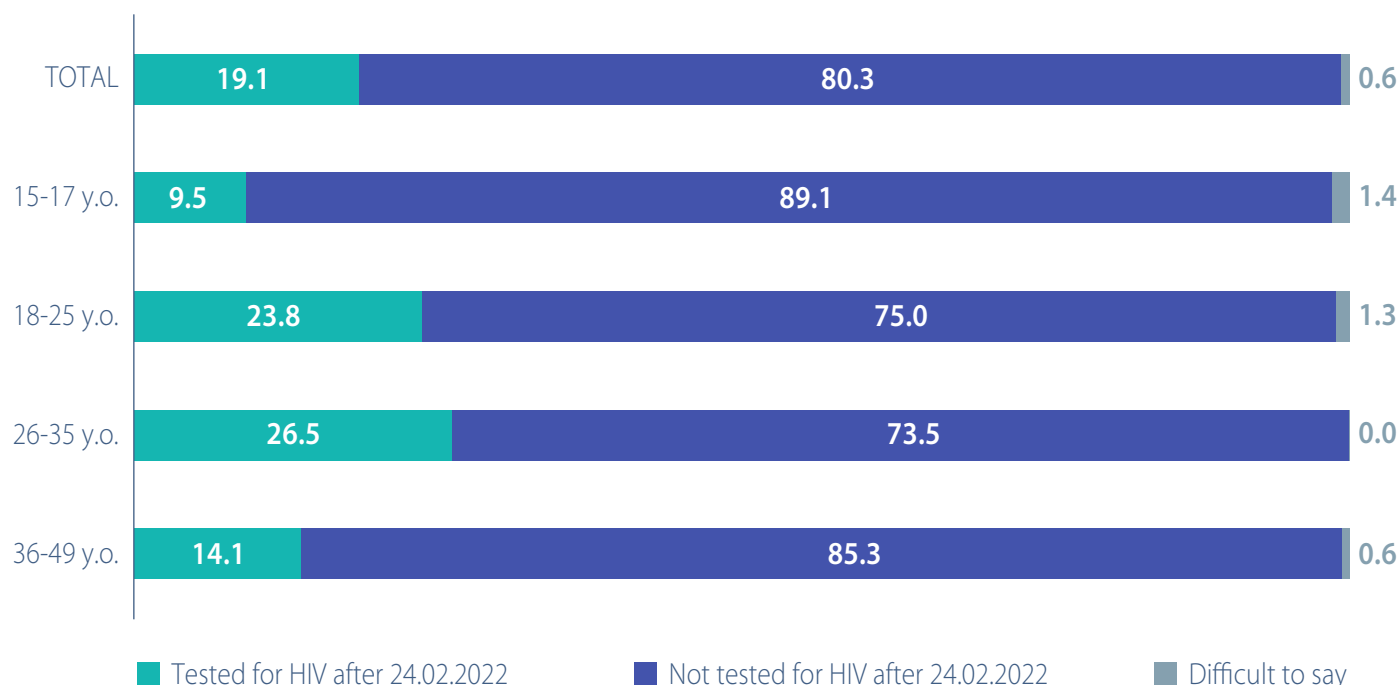


Figure 15. Experience of HIV testing after February 24, 2022 broken down by age (among all the respondents, $N = 1000$, %)



There are some regional differences in HIV testing: residents of the East of Ukraine more often than is the average for the sample inform about having got tested for HIV before the war (67.9%) and throughout their lifetime (71.1%), while for residents of the taking the tests was significantly less common – 49.4% and 52.6% respectively. In the period after February 24, 2022, residents of the city of Kyiv were the most active in taking HIV tests – 37.1%. However, these regional differences are rather the result of higher activity of HIV testing projects in the East, a region with more cities, while in the West there are more rural areas and testing rates are lower.



Table 26. Experience of HIV testing before February 24, 2022 broken down by sociodemographics (among those who provided the answers, N = 980, %)

Characteristics	Tested for HIV BEFORE 24.02.2022		Not tested for HIV BEFORE 24.02.2022	
	n	%	n	%
Total (N = 980)	597	60.9	383	39.1
Age, full years	p<0.001			
15-17 y.o.	5	8.4	55	91.6
18-25 y.o.	64	40.2	95	59.8
26-35 y.o.	215	71.5	86	28.5
36-49 y.o.	313	68.0	147	32.0
Region of residence BEFORE February 24, 2022	p<0.001			
West	140	50.8	136	49.2
South	79	67.8	37	32.2
North	60	59.0	42	41.0
East	191	68.6	87	31.4
Center	69	56.5	53	43.5
Kyiv	59	68.0	27	32.0
Settlement type BEFORE February 24, 2022	p=0.002			
Cities of 500+ thousand	167	71.2	68	28.8
Cities of 100-499 thousand	110	62.8	65	37.2
Cities of 50-99 thousand	31	58.8	22	41.2
Cities of 0-49 thousand	127	57.4	94	42.6
Rural areas	162	54.7	134	45.3
CURRENT region of residence	p<0.001			
West	148	50.7	144	49.3
South	76	70.3	32	29.7
North	63	58.3	45	41.7
East	169	68.1	79	31.9
Center	78	58.1	56	41.9
Kyiv	64	70.3	27	29.7
CURRENT type of settlement	p<0.001			
Cities of 500+ thousand	186	71.7	73	28.3
Cities of 100-499 thousand	109	63.8	62	36.2
Cities of 50-99 thousand	28	60.0	19	40.0
Cities of 0-49 thousand	112	54.4	94	45.6
Rural areas	163	54.6	135	45.4
Being an IDP	p=0.033			
Not an IDP as of the time of interview	521	59.7	351	40.3
An IDP as of the time of interview	76	70.6	32	29.4



Characteristics	Tested for HIV BEFORE 24.02.2022		Not tested for HIV BEFORE 24.02.2022	
	n	%	n	%
Experience of displacement during the war	p<0.001			
Yes	253	69.9	109	30.1
No	344	55.7	274	44.3
Parental status, in general	p<0.001			
With children	483	73.6	173	26.4
No children	108	34.2	207	65.8
Underage children	p<0.001			
Children younger than 18 years of age	348	78.2	97	21.8
No children younger than 18 years of age	243	46.2	282	53.8
Income level BEFORE February 24, 2022	p=0.682			
Low or below average	58	57.9	42	42.1
Medium	275	62.3	167	37.7
Above average or high	254	60.2	168	39.8
CURRENT income level	p=0.004			
Low or below average	205	65.6	107	34.4
Medium	270	62.3	164	37.7
Above average or high	109	51.5	102	48.5
Education level	p<0.001			
Elementary or secondary	76	39.1	118	60.9
Vocational education	155	65.3	83	34.7
University degree	366	66.9	181	33.1
Having got tested for HIV AFTER February 24, 2022	p<0.001			
Tested	158	83.4	31	16.6
Not tested	435	55.3	351	44.7
Having ever got tested for HIV	p<0.001			
Tested	597	95.0	31	5.0
Not tested	–	–	351	100.0
Self-assessment of one's risk of being HIV-positive	p<0.001			
Zero	339	56.4	262	43.6
Low	191	71.2	77	28.8
Medium	44	63.0	26	37.0
High	11	78.5	3	21.5
I am already HIV-positive	2	100.0	–	–
Difficult to say	11	44.3	14	55.7
Refused to answer	–	–	1	100.0



Table 27. Experience of HIV testing after February 24, 2022 broken down by sociodemographics (among those who provided the answers, $N = 994$, %)

Characteristics	Tested for HIV AFTER 24.02.2022		Not tested for HIV AFTER 24.02.2022	
	n	%	n	%
Total (N = 994)	191	19.2	803	80.8
Age, full years	p<0.001			
15-17 y.o.	6	9.6	56	90.4
18-25 y.o.	38	24.1	120	75.9
26-35 y.o.	81	26.5	224	73.5
36-49 y.o.	67	14.2	403	85.8
Region of residence BEFORE February 24, 2022	p=0.063			
West	45	15.9	237	84.1
South	21	18.3	96	81.7
North	19	18.8	84	81.2
East	55	19.6	225	80.4
Center	23	18.6	103	81.4
Kyiv	27	31.7	59	68.3
Settlement type BEFORE February 24, 2022	p=0.096			
Cities of 500+ thousand	55	23.2	181	76.8
Cities of 100-499 thousand	41	23.4	135	76.6
Cities of 50-99 thousand	11	20.2	43	79.8
Cities of 0-49 thousand	35	15.5	189	84.5
Rural areas	50	16.4	255	83.6
CURRENT region of residence	p=0.052			
West	47	15.8	250	84.2
South	18	16.9	89	83.1
North	20	18.8	88	81.2
East	52	20.8	197	79.2
Center	26	18.2	115	81.8
Kyiv	28	31.0	63	69.0
CURRENT type of settlement	p=0.047			
Cities of 500+ thousand	63	24.5	196	75.5
Cities of 100-499 thousand	38	22.1	134	77.9
Cities of 50-99 thousand	9	18.7	39	81.3
Cities of 0-49 thousand	31	14.6	180	85.4
Rural areas	50	16.5	255	83.5
Being an IDP	p=0.633			
Not an IDP as of the time of interview	168	19.0	716	81.0
An IDP as of the time of interview	23	21.2	87	78.8



Characteristics	Tested for HIV AFTER 24.02.2022		Not tested for HIV AFTER 24.02.2022	
	n	%	n	%
Experience of displacement during the war	p=0.129			
Yes	80	21.7	287	78.3
No	112	17.8	515	82.2
Parental status, in general	p=0.397			
With children	132	19.8	534	80.2
No children	56	17.5	263	82.5
Underage children	p<0.001			
Children younger than 18 years of age	107	23.9	342	76.1
No children younger than 18 years of age	80	15.0	455	85.0
Income level BEFORE February 24, 2022	p=0.315			
Low or below average	14	13.4	90	86.6
Medium	88	19.5	362	80.5
Above average or high	84	19.8	342	80.2
CURRENT income level	p=0.379			
Low or below average	56	17.5	263	82.5
Medium	91	20.7	348	79.3
Above average or high	36	17.0	178	83.0
Education level	p=0.057			
Elementary or secondary	27	13.6	172	86.4
Vocational education	54	22.0	190	78.0
University degree	111	20.1	439	79.9
Having got tested for HIV BEFORE February 24, 2022	p<0.001			
Tested	158	26.6	435	73.4
Not tested	31	8.2	351	91.8
Having ever got tested for HIV	p<0.001			
Tested	191	30.5	435	69.5
Not tested	–	–	351	100.0
Self-assessment of one's risk of being HIV-positive	p<0.001			
Zero	91	14.9	520	85.1
Low	64	23.6	207	76.4
Medium	22	32.2	47	67.8
High	10	71.7	4	28.3
I am already HIV-positive	1	50.9	1	49.1
Difficult to say	3	11.3	24	88.7
Refused to answer	–	–	1	100.0
Blood contacts during the war	p=0.341			
Yes	9	29.0	22	71.0
No	183	18.9	781	80.5



Table 28. Experience of HIV testing during respondents' lifetime broken down by sociodemographics (among those who provided the answers, $N = 982$, %)

Characteristics	Tested for HIV EVER		Not tested for HIV EVER	
	n	%	n	%
Total (N = 982)	631	64.2	351	35.8
Age, full years	p<0.001			
15-17 y.o.	10	16.9	50	83.1
18-25 y.o.	74	46.6	85	53.4
26-35 y.o.	224	74.2	78	25.8
36-49 y.o.	322	69.9	139	30.1
Region of residence BEFORE February 24, 2022	p<0.001			
West	149	54.0	128	46.0
South	84	72.4	32	27.6
North	61	60.0	41	40.0
East	200	71.6	79	28.4
Center	73	59.9	49	40.1
Kyiv	63	73.4	23	26.6
Settlement type BEFORE February 24, 2022	p=0.002			
Cities of 500+ thousand	175	74.2	61	25.8
Cities of 100-499 thousand	116	66.5	59	33.5
Cities of 50-99 thousand	34	64.3	19	35.7
Cities of 0-49 thousand	130	59.0	91	41.0
Rural areas	175	58.9	122	41.1
CURRENT region of residence	p<0.001			
West	157	53.7	135	46.3
South	79	73.2	29	26.8
North	65	60.2	43	39.8
East	178	71.5	71	28.5
Center	83	62.0	51	38.0
Kyiv	69	75.3	23	24.7
CURRENT type of settlement	p<0.001			
Cities of 500+ thousand	195	75.3	64	24.7
Cities of 100-499 thousand	114	66.9	57	33.1
Cities of 50-99 thousand	30	64.2	17	35.8
Cities of 0-49 thousand	117	56.5	90	43.4
Rural areas	174	58.4	124	41.6
Being an IDP	p=0.007			
Not an IDP as of the time of interview	549	62.8	325	37.2
An IDP as of the time of interview	82	75.7	26	24.3



Characteristics	Tested for HIV EVER		Not tested for HIV EVER	
	n	%	n	%
Experience of displacement during the war	p<0.001			
Yes	269	73.9	95	26.1
No	362	58.5	256	41.5
Parental status, in general	p<0.001			
With children	498	75.7	159	24.3
No children	126	40.0	189	60.0
Underage children	p<0.001			
Children younger than 18 years of age	358	80.3	88	19.7
No children younger than 18 years of age	266	50.5	261	49.5
Income level BEFORE February 24, 2022	p=0.401			
Low or below average	61	60.2	40	39.8
Medium	294	66.4	149	33.6
Above average or high	265	63.0	156	37.0
CURRENT income level	p=0.004			
Low or below average	216	68.7	98	31.3
Medium	284	65.5	150	34.5
Above average or high	116	54.9	95	45.1
Education level	p<0.001			
Elementary or secondary	87	45.2	106	54.8
Vocational education	162	67.7	77	32.3
University degree	381	69.5	167	30.5
Having got tested for HIV BEFORE February 24, 2022	p<0.001			
Tested	597	100.0	–	–
Not tested	31	8.2	351	91.8
Having got tested for HIV AFTER February 24, 2022	p<0.001			
Tested	191	100.0	–	–
Not tested	435	55.3	351	44.7
Self-assessment of one's risk of being HIV-positive	p=0.002			
Zero	362	60.1	240	39.9
Low	196	72.8	73	27.2
Medium	48	69.5	21	30.5
High	11	78.5	3	21.5
I am already HIV-positive	2	100.0	–	–
Difficult to say	12	48.2	13	51.8
Refused to answer	–	–	1	100.0



3.6.5. TESTING FOR HIV DURING PREGNANCY

7.6% of the respondents told that they have been pregnant after February 24, 2022. Among those, 5.0% encountered situations when mandatory blood tests for HIV during pregnancy were not prescribed or were not taken because of the war. Further review of the answers of these women to other questions of the questionnaire shows that they did take tests for HIV after the full-scale invasion began and are HIV-negative. As those women did not reside on the occupied territories, we can assume that there were interruptions with provision of HIV testing for pregnant women in the wartime, yet the necessary tests were then taken (*possibly upon their own initiative, on a paid basis or behind schedule*).

Table 29. Testing for HIV during pregnancy after February 24, 2022 – personal experience
(among those who informed about having been pregnant after February 24, 2022, N = 76, %)

Characteristics	n	%
Have you personally encountered a situation during your pregnancy where the required HIV blood tests could not be taken because of the war?		
Yes, I was in a situation when the required tests were not prescribed or were not taken because of the war	4	5.0
Yes, I was in a situation when the required tests were not prescribed or were not taken because of other reasons, unrelated to the war	–	–
No, all the tests were prescribed and taken in time	68	89.6
At that stage of pregnancy I did not need to take the tests	4	5.4

All the respondents were asked whether they were aware of some cases among their close circle (*at the location of residence during the survey*) where a female acquaintance aged 15-49 did not take the required blood test for HIV during pregnancy because of the war. Out of the whole sample, 2.6% of the women reported of such cases. Respondents aware of such cases in their close circle reported on the average about two women who did not take a HIV test during pregnancy (*based on 25 responses; one of the respondents could not name the number of such women*). Half of those who have women with this experience in their close circle lived in the East. Considering that the geographic scope of the survey was limited to the territories under control of the Ukrainian Government, the prevalence of such cases during the war may be underestimated, especially on the temporarily occupied territories.

The hypothesis that the women with the experience of living on temporarily occupied territories during pregnancy had problems with taking the required HIV tests was not supported by personal experience of the respondents. At the same time, the respondents informed about such cases among their acquaintances, and these cases did happen on the territories that could be occupied.

Table 30. HIV testing during pregnancy after February 24, 2022 – experience in the close circle
(among all the respondents, N = 1000, %)

Characteristics	n	%
Are you aware of cases in your close circle in [oblast of current residence] when your acquaintance aged 15-49 did not take the required blood test for HIV during pregnancy because of the war?		
Yes, I know of such cases	26	2.6
No, I do not know of such cases	965	96.5
<i>Difficult to say</i>	9	0.9



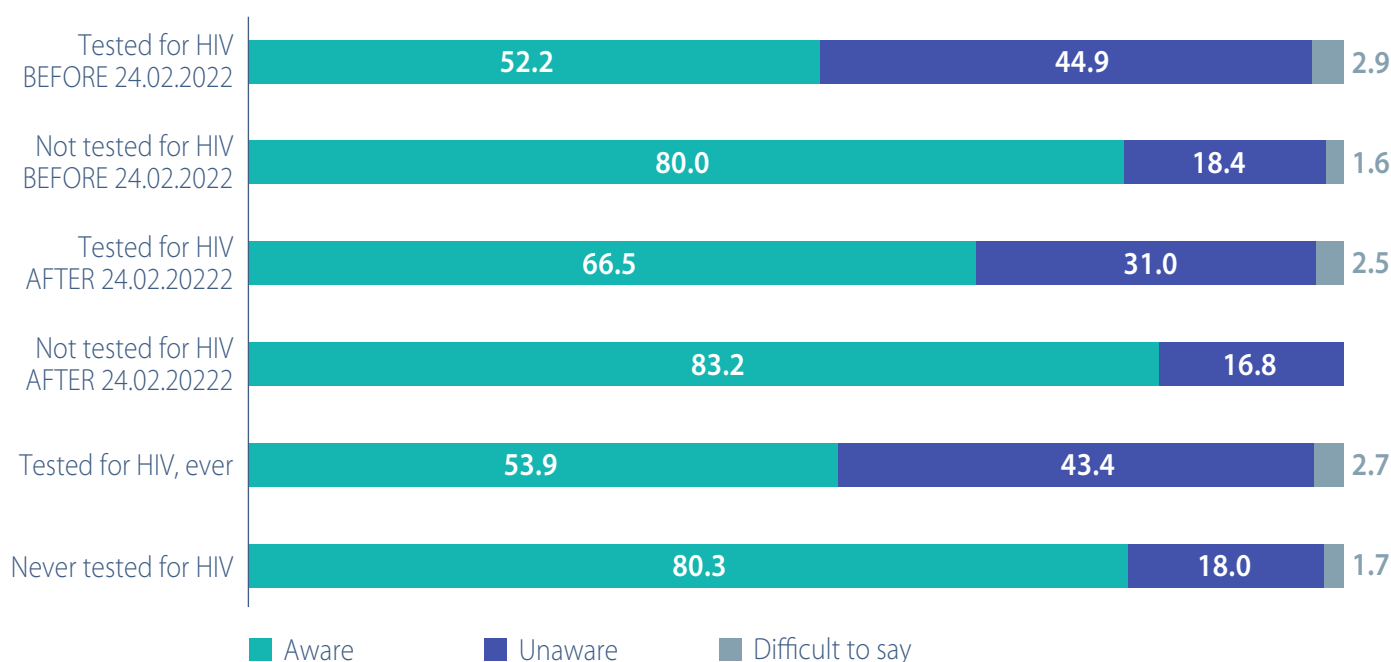
3.6.6. AWARENESS OF HIV SERVICE ORGANIZATIONS

Respondents who did not inform they were HIV-positive during the interview, were asked about their awareness about the places where they could get tested for HIV. About two thirds of them (69.7%) said they knew where they can get tested, and 28.2% said they did not. Predictably, the awareness was higher among those who had the experience of HIV testing. The share of the aware is lower among girls aged 15–17 (55.6%); the same concerns the experience of HIV testing. It is interesting to note the relation between the beliefs about the cost of HIV testing and treatment and the knowledge about the testing facilities: those respondents who are not aware that HIV testing and treatment is free are more likely to be unaware about the testing facilities.

Table 31. Awareness of HIV testing facilities and the beliefs about the cost of HIV testing and treatment (among all the respondents except those who reported they were HIV-positive, N = 998%)

Characteristics	AWARE		UNAWARE		DIFFICULT TO SAY	
	n	%	n	%	n	%
Total	696	69.7	281	28.2	21	2.1
Beliefs about the cost of testing	p=0.004					
It is paid	100	66.2	49	32.5	2	1.3
It is free of charge	507	71.3	172	24.8	15	2.2
<i>Difficult to say</i>	89	58.2	60	39.2	4	3.6
Beliefs about the cost of HIV treatment	p=0.004					
It is paid	192	62.3	110	35.7	6	1.9
It is free of charge	353	74.9	109	21.3	9	1.9
<i>Difficult to say</i>	150	68.8	62	28.4	6	2.8

Figure 16. Awareness of HIV testing facilities broken down by experience of HIV testing (among all the respondents except those who reported they were HIV-positive, N = 998%)





The knowledge about HIV service organizations is quite limited. Almost every third respondent could provide no answer to the open-ended question: 'Please tell what resources, facilities, organizations providing counseling or help in the context of HIV/AIDS that you know of'. More than a half (53.6%) are aware they can get a consultation at a polyclinic, outpatient department, hospital, family doctor, etc., and one respondent in ten (10.3%) named private laboratories, such as 'Dila', 'Sinevo', etc. Only a few of the respondents were able to name specific HIV service organizations.

Table 32. Awareness of HIV service organizations
(among all the respondents, N = 1000, open-ended question, %)

Characteristics	n	%
Please tell what resources, facilities, organizations providing counseling or help in the context of HIV/AIDS that you know of		
Polyclinic, outpatient department, hospital, family doctor	536	53.6
Private laboratory – 'Dila', 'Sinevo', 'InVitro', etc.	103	10.3
AIDS Center	54	5.4
International UN organizations (<i>UNAIDS, WHO</i>)	14	1.4
REAct project	12	1.2
Trust points	11	1.1
help24.org.ua, a web resource	10	1.0
Public Health Center	10	1.0
National HIV/AIDS hotline	7	0.7
Charitable foundation '100% Life'	1	0.1
<i>Other</i>	27	2.7
<i>I do not know</i>	46	4.6
<i>Difficult to say or refused to answer</i>	328	32.8

When asked 'Are you a client of NGOs (*non-government organizations*) providing HIV prevention and treatment services?', 0.8% of the respondents (8 women) gave a positive answer. The two (*self-reported*) HIV-positive respondents are not clients of NGOs.

2.6.7. ACCESS TO ART (FOR PLWH)

The questionnaire includes a dedicated section on ART for PLWH. Only two of all respondents reported being HIV-positive, so there is not enough data for statistical analysis of this section. Below is the list of answers to questions from the access to ART section (*without further analysis*):

- ▶ 'Have you already been prescribed ART (*antiretroviral therapy*)?', both answers were 'yes';
- ▶ 'Do you currently receive ART?', both answers were 'yes';
- ▶ 'Did you have problems with accessing ARV drugs after February 24, 2022?', both answers were 'no';
- ▶ 'How many HIV-positive women aged 15-49 do you personally know in [oblast of current residence]?', one answer was '0', the other was '3'. Both women stayed did not change their place of residence after the full-scale invasion started.



2.6.8. SELF-ASSESSMENT OF THE RISK OF BEING HIV-POSITIVE

All the respondents were asked about their self-assessed risk of being HIV-positive. Most of them consider it zero (61.3%) or low (27.1%), while only 7.0% believe it is medium (7.0%) and 1.4% think it is high. The self assessment of the risk of being HIV-positive correlates with the education level and HIV testing experience before and after February 24, 2022 and ever in the lifetime, as well as with having multiple partners in a certain period of life, condom use during the most recent sexual contact, and blood contacts in HIV-risky situations during the war.

According to self-reporting, 0.2% of the sample (2 persons) are women living with HIV.

Table 33. Self-assessment of the risk of being HIV-positive and testing results according to self-reporting (among all the respondents, N = 1000, %)

Characteristics	n	%
How do you assess your personal risk of being HIV-positive?		
Zero	613	61.3
Low	271	27.1
Medium	70	7.0
High	14	1.4
I am already HIV-positive	2	0.2
<i>Difficult to say</i>	29	2.9
<i>Refused to answer</i>	1	0.1
What was the result of your last HIV test? (N = 648)*		
Positive	1**	0.2
Negative	635	98.0
<i>Difficult to say</i>	11	1.7
<i>Refused to answer</i>	1	0.1

* The question was not given to those who had never got tested for HIV

** The woman who informed about a positive result of the test, when answering the question about self-assessment of the risk identified it as 'high'; during data processing, her answer was re-coded to 'I am already HIV-positive' to retain the logic



Table 34. Self-assessment of the risk of being HIV-positive broken down by sociodemographics (among all the respondents, N = 1000, %)

Characteristics	Zero		Low		Medium		High		HIV+		Difficult to say		Refused	
	n	%	n	%	n	%	n	%	n	%	n	%	n	%
Total (N = 1000)	613	61.3	271	27.1	70	7.0	14	1.4	2	0.2	29	2.9	1	0.1
Age, full years	p=0.009													
15-17 y.o.	46	73.3	10	16.1	5	7.8	–	–	–	–	1	1.4	1	1.4
18-25 y.o.	104	64.7	42	26.2	12	7.6	2	1.4	–	–	–	–	–	–
26-35 y.o.	181	59.4	87	28.5	20	6.7	7	2.2	2	0.6	8	2.6	–	–
36-49 y.o.	282	59.8	132	28.1	33	6.9	5	1.0	–	–	20	4.2	–	–
Region of residence BEFORE February 24, 2022	p=0.207													
West	166	58.4	85	29.8	19	6.7	8	2.8	1	0.3	6	2.0	–	–
South	75	63.1	36	30.2	4	3.2	1	0.9	–	–	3	2.5	–	–
North	70	67.1	21	19.9	7	7.2	–	–	1	1.0	5	4.9	–	–
East	180	64.1	65	23.1	24	8.4	3	1.0	–	–	9	3.1	1	0.3
Center	74	58.4	32	25.0	15	11.9	2	1.6	–	–	4	3.2	–	–
Kyiv	48	56.7	34	39.5	1	1.3	–	–	–	–	2	2.6	–	–
Settlement type BEFORE February 24, 2022	p=0.401													
Cities of 500+ thousand	141	59.6	76	32.0	12	5.0	1	0.4	–	–	6	2.7	1	0.4
Cities of 100-499 thousand	103	57.9	49	27.7	15	8.3	2	1.1	1	0.5	8	4.4	–	–
Cities of 50-99 thousand	34	61.0	15	28.1	4	7.1	1	2.0	1	1.8	–	–	–	–
Cities of 0-49 thousand	146	65.0	58	25.7	11	5.1	4	1.7	–	–	6	2.6	–	–
Rural areas	189	61.9	73	24.0	28	9.2	6	2.1	–	–	9	2.8	–	–
CURRENT region of residence	p=0.154													
West	173	58.4	91	30.4	20	6.9	8	2.7	1	0.3	6	1.9	–	–
South	71	65.0	31	28.8	4	3.5	1	1.0	–	–	2	1.7	–	–
North	74	67.0	23	20.7	7	6.8	–	–	1	0.9	5	4.6	–	–
East	160	64.2	54	21.7	22	9.0	3	1.2	–	–	9	3.5	1	0.4
Center	84	59.2	35	25.1	15	10.7	2	1.4	–	–	5	3.6	–	–
Kyiv	51	56.1	37	40.3	1	1.2	–	–	–	–	2	2.4	–	–
CURRENT type of settlement	p=0.414													
Cities of 500+ thousand	158	60.6	79	30.3	14	5.5	1	0.3	–	–	8	2.9	1	0.3
Cities of 100-499 thousand	96	55.0	53	30.3	15	8.5	2	1.1	1	0.6	8	4.5	–	–
Cities of 50-99 thousand	29	60.5	13	27.2	4	8.0	1	2.2	1	2.1	–	–	–	–
Cities of 0-49 thousand	135	64.1	54	25.4	13	5.9	3	1.3	–	–	7	3.3	–	–
Rural areas	195	63.7	73	23.8	25	8.0	7	2.4	–	–	6	2.1	–	–



Characteristics	Zero		Low		Medium		High		HIV+		Difficult to say		Refused	
	n	%	n	%	n	%	n	%	n	%	n	%	n	%
IDP status	p=0.733													
Not an IDP as of the time of interview	548	61.6	235	26.4	65	7.3	13	1.5	2	0.2	26	3.0	-	-
An IDP as of the time of interview	65	59.0	36	33.2	5	4.9	1	0.9	-	-	2	2.0	-	-
Experience of displacement during the war	p=0.587													
Yes	216	58.6	108	29.3	30	8.0	4	1.1	-	-	11	3.0	-	-
No	397	62.8	163	25.9	40	6.4	10	1.6	2	0.3	18	2.8	1	0.1
Parental status, in general	p=0.468													
With children	414	61.8	177	26.4	46	6.8	12	1.8	2	0.3	20	2.9	-	-
No children	195	60.9	91	28.5	23	7.3	2	0.7	-	-	8	2.4	1	0.3
Underage children	p=0.137													
Children younger than 18 years of age	280	61.7	120	26.5	29	6.3	11	2.4	2	0.4	12	2.6	-	-
No children younger than 18 years of age	329	61.3	148	27.5	40	7.5	3	0.6	-	-	16	3.0	1	0.2
Income level BEFORE February 24, 2022	p=0.012													
Low or below average	72	68.0	21	20.0	8	7.3	3	2.9	-	-	2	1.9	-	-
Medium	276	61.2	109	24.2	38	8.4	9	2.0	-	-	19	4.2	-	-
Above average or high	256	59.8	138	32.2	24	5.7	2	0.4	2	0.5	6	1.3	-	-
CURRENT income level	p=0,202													
Low or below average	193	60.4	81	25.2	26	8.1	7	2.3	-	-	13	4.0	-	-
Medium	264	59.9	130	29.5	33	7.4	5	1.1	1	0.2	9	2.0	-	-
Above average or high	143	66.5	56	25.8	10	4.5	2	0.9	1	0.4	4	1.8	-	-
Education level	p<0.001													
Elementary or secondary	151	75.5	28	13.9	12	6.2	3	1.6	-	-	5	2.4	1	0.4
Vocational education	156	63.7	46	18.6	20	8.2	10	4.0	1	0.4	12	5.0	-	-
University degree	305	55.0	198	35.8	38	6.8	1	0.2	1	0.2	12	2.1	-	-
Having got tested for HIV BEFORE February 24, 2022	p<0.001													
Tested	339	56.7	191	32.0	44	7.3	11	1.8	2	0.3	11	1.8	-	-
Not tested	262	68.5	77	20.2	26	6.7	3	0.8	-	-	14	3.6	1	0.2
Having got tested for HIV AFTER February 24, 2022	p<0.001													
Tested	91	47.7	64	33.4	22	11.6	10	5.2	1	0.5	3	1.6	-	-
Not tested	520	64.7	207	25.7	47	5.8	4	0.5	1	0.1	24	3.0	1	0.1



Characteristics	Zero		Low		Medium		High		HIV+		Difficult to say		Refused	
	n	%	n	%	n	%	n	%	n	%	n	%	n	%
Having EVER got tested for HIV	p=0.002													
Tested	362	57.3	196	31.1	48	7.6	11	1.7	2	0.3	12	1.9	–	–
Not tested	240	68.4	73	20.9	21	6.0	3	0.9	–	–	13	3.6	1	0.3
Experience of drug use	p=0.009													
Yes	54	53.5	39	38.6	6	5.9	2	2.0	–	–	–	–	–	–
No	558	62.1	233	25.9	64	7.1	12	1.3	2	0.2	28	3.1	1	0.1
Experience of non-injected drug use	p=0.886													
Yes, only before February 24, 2022	43	55.8	27	35.1	5	6.5	1	1.3	–	–	1	1.3	–	–
Yes, both before and after February 24, 2022	2	40.0	3	60.0	–	–	–	–	–	–	–	–	–	–
Yes, only after February 24, 2022	1	20.0	3	60.0	1	20.0	–	–	–	–	–	–	–	–
No, never	9	52.9	6	35.3	1	5.9	1	5.9	–	–	–	–	–	–
Experience of injecting drugs	p=0.776													
Yes, only before February 24, 2022	2	100	–	–	–	–	–	–	–	–	–	–	–	–
No, never	53	52.5	39	38.6	6	5.9	2	2.0	–	–	1	1.0	–	–
Having multiple partners in some period of life	p<0.001													
Multiple partners	30	51.7	23	39.7	3	5.2	1	1.7	–	–	1	1.7	–	–
One partner only	520	60.7	237	27.7	61	7.1	13	1.5	2	0.2	23	2.7	–	–
Condom use during the most recent sexual contact	p<0.001													
Yes	193	61.1	92	29.1	19	6.0	3	0.9	2	0.6	7	2.2	–	–
No	321	60.5	19	28.1	37	7.0	11	2.1	–	–	12	2.3	1	0.2
Blood contact in HIV-risky situations during the war	p=0.001													
Yes	13	41.9	8	25.8	5	16.1	3	9.7	–	–	2	6.5	–	–
No	600	61.9	264	27.2	65	6.7	11	1.1	2	0.2	27	2.8	1	0.1



3.7. DRUG USE

Most of the respondents (89.7%) informed that they did not have the experience of using drugs, and those who did have it mostly were non-injected drug users. Only two persons (0.2% of the sample) informed about having the experience of injecting drugs. According to the respondents, that experience was in pre-war period, so they were not asked questions about risky use practices¹⁸. One of the two women said she was tested HIV-negative, and the other had never taken an HIV test in her life. Both reported having practiced non-injected drug use before the start of the full-scale war and assessed their risk of HIV infection as low.

The questions about drug use are among very sensitive, and thus we cannot be absolutely sure that the answers were honest. For example, 16 women said they had never used non-injected or injected drugs, **but gave a positive answer to the first** general question about having ever used drugs in their life.

Non-injected use, according to the respondents, mostly took place in pre-war period, yet there were 0.5% of the respondents who used drugs both before and after the start of the full-scale invasion, and 0.5% who used drugs only after the invasion began. Most commonly reporting about any type of drug use came from residents of Kyiv (24.9%), but additional questions about the use have yielded too few positive answers for analysis.

Table 35. Drug use experience (among all the respondents, N = 1000, %)

Characteristics	n	%
Have you ever used drugs (any drugs, any form of use)?		
Yes	101	10.1
No	897	89.7
Difficult to say	2	0.2
Did you use non-injected (i.e. used without a needle and a syringe) drugs before and after February 24, 2022? We are speaking about smoking, swallowing, or sniffing*		
Yes, only before February 24, 2022	76	7.6
Yes, both before and after February 24, 2022	5	0.5
Yes, only after February 24, 2022	5	0.5
No, never	16	1.6
Did you use injected (i.e. used with a needle and a syringe) drugs before and after February 24, 2022?*		
Yes, only before February 24, 2022	2	0.2
Yes, both before and after February 24, 2022	–	–
Yes, only after February 24, 2022	–	–
No, never	101	10.1

* The questions were not given to those who had answered negative to the question about having used any drugs in their life (N = 103)

¹⁸ Those were the following questions: 'Did you use a new (sterile) syringe and needle during the last injection?'; 'Did you encounter situations after February 24, 2022 when you could not access sterile syringes/needles and had to do something of the following: a list of risky drug use practices'; 'Are you a client of an opioid agonist therapy program?'



We made an attempt to assess the social network of women with risky behaviors in the context of injecting drugs. All the respondents were asked 'How many women aged 15-49 who inject drugs do you know in [oblast of current residence]? We mean all women who inject drugs in the period after February 24, 2022. You can give an approximate number'. Most of the respondents (92.2%) know no such women, 1.4% refused to give an answer, and 6.5% informed that they know at least one such woman among their acquaintances. Most (99.2%) of the respondents who at the time of the survey were IDP do not know women who inject drugs at the current location of residence. The two participants who reported of having their own drug use experience did not know about women with this experience among their acquaintances. One of the two HIV-positive respondents also was not aware of such practices among her acquaintances, while the other one informed about 20 women who inject drugs (*in Rivne oblast*).

3.8. SEXUAL PRACTICES

3.8.1. SEXUAL EXPERIENCE

The risk of HIV infection is linked to certain sexual practices, such as having multiple sexual partners, not using condom, providing paid sexual services, etc. So a large section of the questionnaire was dedicated to specifics of sexual life of the respondents during the war.

The filter question for this section was 'Have you ever had sex?' Positive answer came from 92.3% of the respondents, mostly women of older age groups. In the category of girls aged 15-17, 41.9% reported having sexual experience.

Table 36. Sexual experience broken down by age (among all the respondents, N = 1000, %)

Characteristics	YES		NO		DIFFICULT TO SAY / REFUSAL	
	n	%	n	%	n	%
Total (N = 1000)	923	92.3	73	7.3	4	0.4
Age, full years	p<0.001					
15-17 y.o.	26	41.9	37	58.1	–	–
18-25 y.o.	137	85.3	22	13.9	1	0.7
26-35 y.o.	299	98.1	6	1.9	–	–
36-49 y.o.	461	97.4	8	1.7	3	0.6

Next questions were proposed to those women who informed about having sexual experience (N = 923). It should be noted that some of the women either found the question hard to understand, or they were unwilling to give honest answers (*such situations cannot be fully avoided while researching sensitive topics*), because some of them said they had no sexual experience, meanwhile indicating having children.

No less than 90.0% said they were in monogamous relationships (*i.e. they had only one partner at one time*) both before the full-scale war and after it began. Before the full-scale war, 4.0% did not have sexual experience, with 7.0% not being sexually active after the full-scale war began (*but these were other women, as those who had not sexual experience whatsoever did not have to answer these questions*).



According to the respondents, 5.3% of them had multiple partners at the same time before the full-scale invasion, while after February 24, 2022 this figure dropped to 1.5%. Most of the women practiced monogamous relationships both before and after February 24, 2022. Speaking about the whole lifetime, 6.3% of the respondents admitted having had relationships with multiple partners at the same time.

Women who reported of having multiple partners at the same time (*both before and after the beginning of the full-scale war*) are distributed uniformly across all age groups, regions and other sociodemographic characteristics.

Table 37. Types of sexual experience
(among those who informed about having sexual experience, N = 923, %)

Characteristics	n	%
Which of the following most accurately describes your sexual experience BEFORE February 24, 2022?		
I had no sexual contacts at all	37	4.0
I had sexual contacts with one partner at a time (<i>monogamous</i>)	831	90.0
I had sexual contacts with multiple partners at a time (<i>non-monogamous</i>)	49	5.3
<i>Difficult to say</i>	2	0.2
<i>Refused to answer</i>	4	0.4
Which of the following most accurately describes your sexual experience AFTER February 24, 2022 and up till now?		
I had no sexual contacts at all	64	7.0
I had sexual contacts with one partner at a time (<i>monogamous</i>)	838	90.8
I had sexual contacts with multiple partners at a time (<i>non-monogamous</i>)	14	1.5
<i>Difficult to say</i>	4	0.4
<i>Refused to answer</i>	3	0.3
Having multiple partners at a time (<i>non-monogamous</i>)		
Yes	58	6.3
No	856	92.7
<i>Difficult to say or refused to answer</i>	9	1.0

Most respondents have had only one partner after the full-scale war began (*the number of partners may exceed one even though the relationships are monogamous, i.e. there is one partner at a time; such respondents are also there, though they are few*). 89.7% of women informed about having one regular partner in the period following February 24, 2022, while 2.9% had two or more partners and 7.3% had no sexual partners since the beginning of the full-scale invasion until the time of the survey in August 2023.

More women from among those who had multiple partners after the full-scale war started assess their risk of HIV infection as high (7.4% compared to 1.6% among all the women with sexual experience), but since the absolute numbers are small (*we are talking about two women in this case*), they are insufficient for statistical analysis. There are no statistically significant differences between the groups of women that have one, multiple or no partners in the context of HIV testing.



14 women informed about having casual sexual partners after February 24, 2022, and most of them (12) had a single casual partner in that period. Other two respondents had two and seven casual partners respectively; they also told about having had commercial sexual partners in the period after February 24, 2022.

Table 38. Number of sexual partners after February 24, 2022
(among those who informed about having sexual experience, N = 923, %)

Characteristics	n	%
How many sexual partners have you had since February 24, 2022?		
No partners	67	7.3
One	822	89.1
Two	21	2.3
Three	4	0.4
Four or more	2	0.2
<i>Difficult to say or refused to answer</i>	6	0.7
Having only one regular partner after February 24, 2022		
One partner only	822	89.1
Multiple partners	27	2.9
No partners	67	7.3
<i>Difficult to say or refused to answer</i>	6	0.7

3.8.2. CONDOM USE

Unprotected sex poses risk of HIV infection, especially with several partners. Those respondents who had sexual contacts after February 24, 2022, were asked about condom use during the most recent sexual contact, during the last 30 days (*only for those who indicated having had more than three partners*) and about situations where condoms were unavailable.

All in all, a bit more than a third of the respondents (36.9%) informed that during the most recent sex contact they used condoms, while 62.0% did not. Almost a half of the women (45.3%) never used condoms for sex from the beginning of the full-scale war until the time of the survey, and only 22.0% always practiced protected sex.

The situations where condoms were needed but unavailable were reported by 4.2% of the women. These situations occurred more often in the active fighting areas or on the occupied territories. E.g., 9.2% of those who had stayed in the areas of active fighting and 10.2% of those who had stayed in occupied or ecologically affected regions reported having been in a situation where there was no access to condoms.



Table 39. Condom use practices (among those who had sexual contacts after February 24, 2022, N = 856, %)

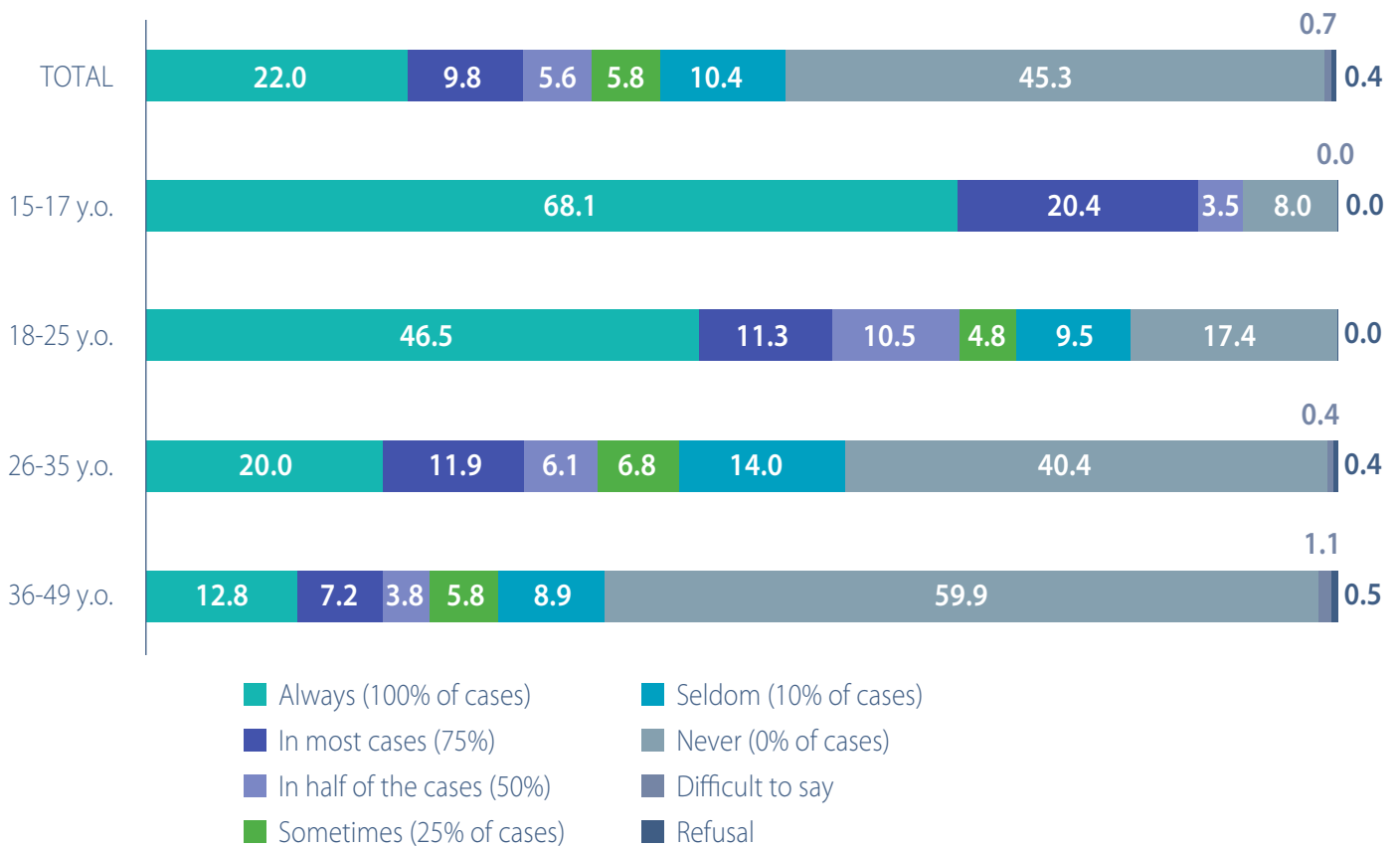
Characteristics	n	%
Did you or your partner use a condom during the most recent sexual contact?		
Yes	316	36.9
No	530	62.0
<i>Difficult to say</i>	6	0.7
<i>Refused to answer</i>	3	0.4
How often did you use condom during sex after February 24, 2022? (N = 854)*		
Always (100% of cases)	188	22.0
In most cases (75%)	83	9.8
In half of the cases (50%)	48	5.6
Sometimes (25% of cases)	50	5.8
Seldom (10% of cases)	89	10.4
Never (0% of cases)	387	45.3
<i>Difficult to say</i>	6	0.7
<i>Refused to answer</i>	3	0.4
After February 24, 2022, have you been in a situation where you and your partner could not get condoms though you needed them (e.g., they were not available at a pharmacy because of broken supply chains, or the pharmacies were closed or destroyed, etc.), which resulted in you having sex without condom?		
Yes	36	4.2
No	812	94.9
<i>Difficult to say</i>	6	0.7
<i>Refused to answer</i>	2	0.2

* The two respondents who indicated having had more than three partners were asked the following question instead: 'How often did you use condom during sex in the last 30 days?', with one answering 'always' and the other – 'never'.

Condom use correlates with age: younger girls and women more often report about regularly (for every contact) practicing protected sex. E.g., in the 15-17 age group, 68.1% always use condom, while among the group of women aged 36 to 49 this figure is just 12.8%.

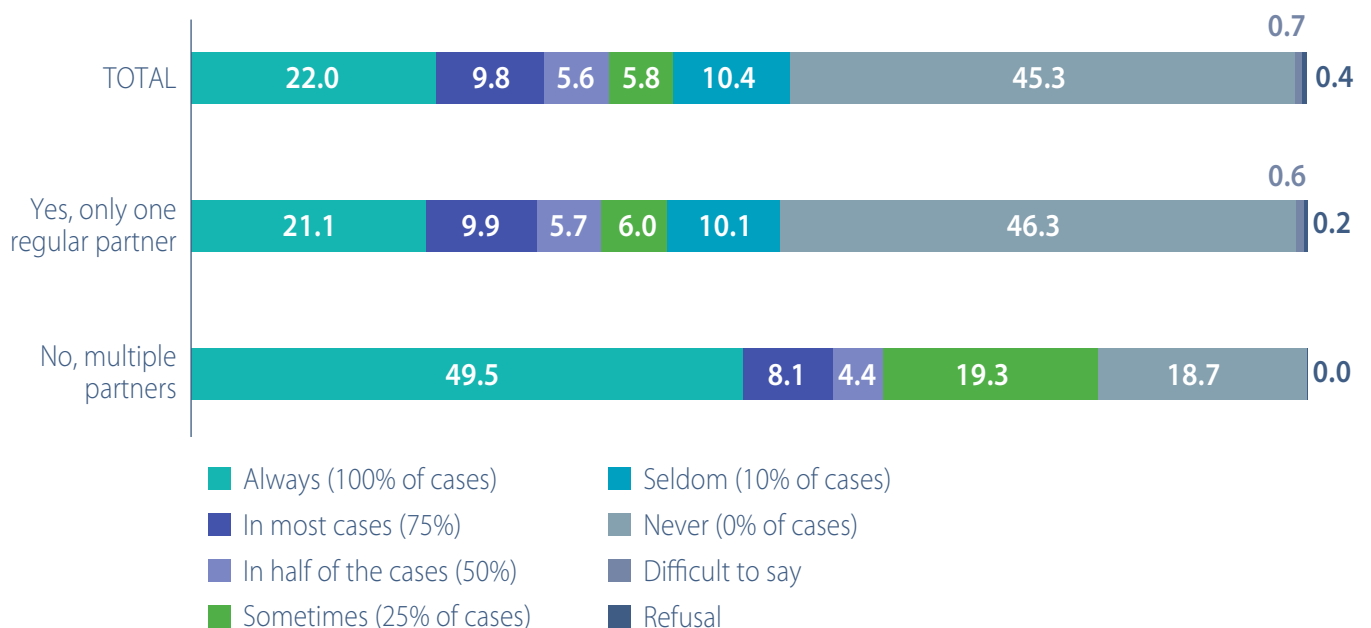


Figure 17. Condom use during sex after February 24, 2022 (among those who had sex contacts after February 24, 2022 and indicated having had not more than three partners, N = 854, %)



As most of the respondents informed of having had only one partner since February 24, 2022, this group (*only one regular partner*) has the pattern of condom use that is similar to the rest of the sample. In the small subgroup of the women who had multiple partners (N = 24), 49.5% always use condoms.

Figure 18. Condom use during sex after February 24, 2022 broken down by the number of partners (among those who had sex contacts after February 24, 2022 and indicated having had not more than three partners, N = 854, %)





The hypothesis that women who have only one, regular partner do not use condoms and do not get tested for HIV cannot be confidently confirmed, because the most of the respondents said they have only one partner and so the comparison group is too small. The rate of HIV testing after February 24, 2022 among those with one regular partner and those who have multiple partners is the same. At the same time, the rate of condom is lower among the women with one partner (*always use* – 21.1%, *never use* – 46.3%) than in the small group of the respondents with multiple partners. We do not see correlation between self-assessed risk of being HIV-positive and condom use or the fact of HIV testing.

3.8.3. SEXUAL PARTNERS

The respondents were asked whether their sexual partners practice risky behaviors or belong to the key populations in the context of HIV. The total number of positive answers is insignificant (N = 15) and too small for statistical analysis. For example, it is impossible to check whether women who have partners from among key populations more often reported about having taken tests for HIV or assessed their own risk of infection higher, or compare the patterns of condom use.

Table 40. Sexual partner's belonging to the key populations
(among those who had sexual contacts and a partner after February 24, 2022, N – 846, %)

Characteristics	YES		NO		DIFFICULT TO SAY		REFUSAL	
	n	%	n	%	n	%	n	%
Did or does your partner (<i>any of your partners</i>) have sexual contacts with men?	2	0.2	827	97.8	12	1.4	5	0.6
Was your partner (<i>any of your partners</i>) diagnosed with hepatitis C?	8	0.9	823	97.4	12	1.4	3	0.3
Was your partner (<i>any of your partners</i>) diagnosed with HIV?	1	0.1	839	99.1	4	0.5	4	0.3
Does your partner (<i>any of your partners</i>) inject drugs?	1	0.1	840	99.2	3	0.3	3	0.3
Does your partner (<i>any of your partners</i>) use women-provided paid sexual services?	1	0.1	811	81.1	31	3.1	4	0.4
Is your partner (<i>any of your partners</i>) a former inmate?	6	0.7	835	98.6	3	0.3	3	0.3
At least one positive answer	n=15 / 1.7%							
At least one positive answer or 'Difficult to say' or 'Refused to answer'	n=61 / 6.0%							

* After this, all respondents were asked: 'Are you a former inmate?' to which we received no positive answers

A separate issue in the context of HIV infection are partners serving in the army, because their risks are quite high, so if no protection is used these risks also affect their female partners. A total of 16.4% of the women who had sexual contacts after the beginning of the full-scale war reported having partners who serve in the army. The share of the respondents with such partners is the same in all the groups regardless of age, region, settlement type, education level, income, parental status, IDP status, etc.



There is no connection between a partner being a serviceman, having experience of testing for HIV and condom use. Women whose partners are servicemen get tested for HIV and use condoms as often as the women whose partners do not serve in the military. The self-assessed level of risk of being HIV-positive does not differ in the two groups. This confirms the hypothesis that partners of servicemen do not believe their and their partners' risk of HIV infection is high, so they do not seek additional testing. We could not check the correlation between having partners from the military and general number of partners because of the low absolute numbers of the respondents with multiple partners.

Table 41. Sexual partner's belonging to the servicemen
(among those who had sexual contacts and a partner after February 24, 2022, N = 846, %)

Characteristics	YES		NO		Difficult to say / refusal	
	n	%	n	%	n	%
Self-assessment of one's risk of being HIV-positive	p=0.737					
Zero	94	18.4	408	79.6	10	1.9
Low	28	11.8	210	87.0	3	1.3
Medium	10	17.6	43	77.1	3	5.3
High	2	14.3	12	85.7	–	–
I am already HIV-positive	–	–	2	100.0	–	–
<i>Difficult to say</i>	4	18.5	16	76.7	1	4.9
<i>Refused to answer</i>	–	–	1	100.0	–	–
Having got tested for HIV BEFORE February 24, 2022	p=0.097					
Tested	98	17.7	445	80.7	9	1.6
Not tested	38	13.6	232	83.5	8	2.9
Having got tested for HIV AFTER February 24, 2022	p=0.829					
Tested	28	16.3	140	81.5	4	2.2
Not tested	107	16.1	549	82.0	13	1.9
Having EVER got tested for HIV	p=0.127					
Tested	99	17.4	470	81.4	9	1.5
Not tested	38	14.9	208	81.9	8	3.1
Frequency of condom use during sex after February 24, 2022	p=0.956					
Always (100% cases)	25	13.5	155	83.8	5	2.7
In most cases (75%)	14	16.9	67	80.7	2	2.4
In half of the cases (50%)	10	20.8	37	77.1	1	2.1
Sometimes (25% cases)	9	18.4	38	77.6	2	4.1
Seldom (10% cases)	15	17.2	72	82.8	–	–
Never (0% cases)	64	16.6	314	81.6	7	1.8
<i>Difficult to say</i>	1	20.0	4	80.0	–	–
<i>Refused to answer</i>	–	–	2	100.0	–	–
Having only one regular partner after February 24, 2022	p=0.214					
Yes. only one regular partner	130	15.9	673	82.0	17	3.1
No. multiple partners	8	30.8	18	69.2	–	–



3.8.4. PROVIDING PAID SEXUAL SERVICES

The question 'Did you personally have situations after February 24, 2022 when you were paid for sex?' yielded one positive answer, which is 0.1% of the sample. This respondent said she had provided paid sexual services before February 24, 2022 as well. When asked clarifying questions, she informed that her clients were her acquaintances, and they used condom in 25% of cases (*sometimes*).

Six respondents (0.6%) reported having been paid for sex before the start of the full-scale war, but there were no respondents who started providing sexual services after February 24, 2022. Considering these small numbers, checking the hypothesis that HIV testing rate is low among women who were paid for sex during the war and are not clients of HIV service NGOs is impossible.

Considering the sensitivity of this topic, it is worth paying attention to indirect indicators – such as cases in the close circle. All the respondents regardless of sexual experience were asked whether they were aware of cases in their close circle where a woman provided paid sexual services after February 24, 2022. Positive answers were given by 4.5% of the sample. After being asked about the number of such women and the number of those who were paid for sex before the start of the full-scale war, 2.8% reported increasing numbers of their acquaintances with this experience, and 1.6% said the numbers of these women did not change between before and after February 24, 2022.

Table 42. Experience of provision of paid sexual services in the close circle
(among all the respondents, N = 1000, %)

Characteristics	n	%
Are you aware of some cases in your close circle where a girl or a woman received payment for sex after February 24, 2022?		
Yes	45	4.5
No	946	94.6
<i>Difficult to say</i>	6	0.6
<i>Refused to answer</i>	3	0.3
Changes in the number of female acquaintances who get paid for sex after February 24, 2022		
The number has increased	28	2.8
The number has not changed	16	1.6

Women who have immediate war-related experience more often report knowing women who provide paid sexual services. For example, 8.0% of the respondents who stayed on the territories affected by ecological disasters know women who provide such services.



Table 43. Having women who provide paid sexual services in close circle broken down by war-related experience (among all the respondents, N = 1000, %)

Characteristics	n	%
Knowing women who provide sexual services after February 24.2022 (N = 1000)	45	4.5
Among those who have had personal war-related experience (N = 531)	35	6.6
Staying on the territories affected by ecological disasters (<i>without access to drinking water or normal sanitation</i>) (N = 75)	6	8.0
Taking part in fighting as a soldier or a medic, paramedic (N = 13)	1	7.7
Taking part in cleaning up after shelling, destruction of civil infrastructure, etc. (N = 85)	6	7.0
Staying in an area of active fighting (N = 168)	10	6.0
Staying on the territories that were occupied after February 24, 2022 (N = 87)	5	5.7
Travelling across areas of active fighting or very close to them (N = 216)	12	5.6
Staying in an area with the high risk of air raids (<i>daily missile attacks, shelling, UAV attacks, etc.</i>) (N = 460)	18	3.9
Among those who have not had personal war-related experience (N = 469)	9	1.9

3.8.5. SEXUAL VIOLENCE AND POST-EXPOSURE HIV PROPHYLAXIS

There were just two women (0.2%) who answered 'yes' when asked 'After February 24, 2022, did you have situations where you were forced to have sex, i.e. where you were subjected to sexual violence?', and two more found it difficult to answer this question.

These two instances of violence, as other answers of these women show, are most probably not connected to actual military activity. Indeed, one of them from the 15-17 age category, coming from Kyiv, said only that she had the experience of 'staying in an area with the high risk of air raids', while the other, from the age group of 36-49 coming from Khmelnytskyi oblast, mentioned no situation that could be classified as 'war-related experience'. The girl from the 15-17 age category was subjected to violence by her partner, after which she sought psychologist's help, she has never taken an HIV test or post-exposure prophylaxis. The woman from the 36-49 age category survived violence by a stranger, she did not seek aid, she did not take HIV tests after February 24, 2022 and did not receive post-exposure prophylaxis.

And while the answers about the personal experience of sexual violence do not allow us to connect this kinds of violence with military activity because of the low number of persons with this experience, the indicator concerning 'female acquaintances who were subjected to sexual violence' allows us to make a conclusion about higher prevalence of this practice in the regions most affected by the war. For example, all respondents were asked about whether after February 24, 2022 in their close circle there were cases of sexual violence against a girl or a woman, i.e. when she was forced to have sex, and 4.4% of the sample gave a positive answer (*most of them knowing one such person*).

Women who have immediate war-related experience more often report knowing women who have faced sexual violence. Such cases are known to 10.7% of respondents who stayed in the areas affected by ecological disasters, 9.2% of those who stayed on temporarily occupied territories, and 8.9% of the respondents who stayed in the areas of active fighting. For respondents who do not have 'war-related experience', this number is just 2.8%. The hypothesis that the estimate of prevalence of sexual violence will be higher among the women who stayed on temporarily occupied territories was generally confirmed, but cases of sexual violence are also common for territories most affected by the war.



Table 44. Known cases of sexual violence in the closest circle (*among all the respondents, N = 1000, %*)

Characteristics	n	%
Talking about the period after February 24, 2022, do you know about cases in your close circle where a girl or a woman was subjected to sexual violence, i.e. was forced to have sex?		
Yes	44	4.4
No	955	95.5
<i>Difficult to say</i>	1	0.1
Among those who have had personal war-related experience (N = 531):	31	5.8
Staying on the territory of the Russian Federation (N = 4)	1	25.0
Staying on the territories of so-called 'Donetsk People's Republic', 'Luhansk People's Republic', or the occupied Crimea (N = 7)	1	14.3
Staying on the territories affected by ecological disasters (<i>without access to drinking water or normal sanitation</i>) (N = 75)	8	10.7
Staying on the territories that were occupied after February 24, 2022 (N = 87)	8	9.2
Taking part in recovery of liberated territories (<i>e.g., demining</i>) (N = 11)	1	9.1
Staying in an area of active fighting (N = 168)	15	8.9
Taking part in fighting as a soldier or a medic, paramedic (N = 13)	1	7.7
Travelling across areas of active fighting or very close to them (N = 216)	19	7.3
Taking part in cleaning up after shelling, destruction of civil infrastructure, etc. (N = 85)	6	7.0
Staying in an area with the high risk of air raids (<i>daily missile attacks, shelling, UAV attacks, etc.</i>) (N = 460)	29	6.3
Among those who have not had personal war-related experience (N = 469)	13	2.8

In addition to question about their personal experience of sexual violence and that of their female acquaintances, there were separate questions about awareness of post-exposure prophylaxis of HIV. Slightly more than a quarter of the respondents (27.4%) know what post-exposure prophylaxis is. The awareness was higher among those who got tested for HIV after the full-scale war started (40.1%). At the same time, it is the same for different age groups and other sociodemographic characteristics (*including region, type of settlement, education level, income, etc.*).


Table 45. Awareness of post-exposure prophylaxis of HIV (among all the respondents, N = 1000, %)

Characteristics	YES		NO		DIFFICULT TO SAY / REFUSAL	
	n	%	n	%	n	%
Total (N = 100)	274	27.4	716	71.6	10	1.0
Self-assessment of one's risk of being HIV-positive	p=0.089					
Zero	152	24.8	456	74.4	5	0.8
Low	79	29.0	189	69.5	4	1.5
Medium	28	40.0	42	60.0	–	–
High	8	57.1	6	42.9	–	–
I am already HIV-positive	1	50.0	1	50.0	–	–
<i>Difficult to say</i>	6	20.7	22	75.9	1	3.4
<i>Refused to answer</i>	–	–	1	100.0	–	–
Having got tested for HIV BEFORE February 24, 2022	p=0.100					
Tested	180	30.2	411	68.8	6	1.0
Not tested	92	24.0	288	75.2	3	0.8
Having got tested for HIV AFTER February 24, 2022	p<0.100					
Tested	77	40.1	113	58.9	2	1.0
Not tested	195	24.3	601	74.8	7	0.9
Having EVER got tested for HIV	p=0.021					
Tested	194	30.7	431	68.3	6	1.0
Not tested	79	22.5	269	76.6	3	0.9
Frequency of condom use during sex after February 24, 2022	p=0.261					
Always (100% cases)	58	30.9	130	69.1	–	–
In most cases (75%)	27	32.1	56	66.7	1	1.2
In half of the cases (50%)	12	25.0	35	72.9	1	2.1
Sometimes (25% cases)	22	44.0	28	56.0	–	–
Seldom (10% cases)	22	24.7	64	71.9	3	3.4
Never (0% cases)	103	26.6	280	72.4	4	1.0
<i>Difficult to say</i>	2	33.3	4	66.7	–	–
<i>Refused to answer</i>	–	–	3	100.0	–	–
Having only one regular partner after February 24, 2022	p=0.391					
Yes, only one regular partner	234	28.5	579	70.4	9	1.1
No, multiple partners	10	37.0	17	63.0	–	–
No partners after February 24, 2022	13	19.1	54	79.4	1	1.5



3.9. RISKS OF HIV INFECTION

The group of 'women belonging to a potentially HIV risk population' comprises of the respondents who:

- ▶ had at least one incidence of HIV-risky behavior/event
 - ▷ risky blood contact during the war (0.3% of the 1000 respondents),
 - ▷ experience of injecting drugs after February 24, 2022 (0.0% of the 1000 respondents),
 - ▷ sexual contacts with multiple partners at a time after February 24, 2022 (1.5% of the 923 respondents who had sexual experience),
 - ▷ multiple sexual partners after February 24, 2022 (2.9% of the 923 respondents who had sexual experience),
 - ▷ a partner from a key population, including refusals to answer (6.0% of the 846 respondents who had sexual contacts and a partner after February 24, 2022),
 - ▷ experience of providing paid sexual services after February 24, 2022 (0.1% of the 923 respondents who had sexual experience),
 - ▷ experience of sexual violence after February 24, 2022 (0.2% of the 923 respondents who had sexual experience),
 - ▷ history of hepatitis C (0.7% of all the 1000 respondents)
 - ▷ history of hepatitis B after February 24, 2022 (0.5% of all the 1000 respondents),
 - ▷ STIs after February 24, 2022 (0.5% of all the 1000 respondents)
- ▶ OR assess their risk of being HIV-positive as medium or high (8.4% of the 1000 respondents);
- ▶ OR got tested for HIV after February 24, 2022 (except for pregnancy-related testing) (14.1% of the 1000 respondents)

Self-assessed high or medium risk of being HIV-positive is connected with the increase of the share of the tested respondents. I.e. we can assume that if a woman uses practices risky behaviors (and she may not be willing to tell about all of them to an interviewer), her desire to take an HIV test will be higher. Therefore, a woman who does not practice risky behaviors is unlikely to get tested. Thus, including in the calculations those who got tested (except those women who got tested during pregnancy, which is a required procedure for pregnancy management and not a voluntary act) and those who assess their risk as medium or high allows identifying the category of respondents where there can be an elevated rate of HIV detection if these respondents are included in the target populations of HIV service projects.

According to this logic, the category of women potentially at risk of having HIV includes 279 respondents or 27.9% of the sample. These women are evenly distributed among all regions, types of settlements and age groups; the experience of displacement after the beginning of the full-scale war also does not play any role here.

At the same time, there are more women with a full-time job (58.9%) in this group, yet fewer respondents with high income (17.2%) or married women (49.7%). In the context of marital status, the category of divorced women stands out, where 41.2% belong to the population potentially at risk (the share of divorced women in the sample is 6.9%).



The indicators of awareness of resources, desire to learn more and the need of help do not show significant difference from the average values for the whole sample:

- ▶ 35.6% of the women potentially at risk of HIV are aware of the resources and organizations they can turn to to get help, 63.4% are not aware of those, and 1.0% had trouble answering the questions,
- ▶ 65.1% of the women in this group said they did not need additional information, 19.7% said they needed psychological aid, and 15.0% spoke about the need of legal aid.

Table 46. Income, employment and marital status in the context of women's belonging to the group at a higher risk of HIV, %

Characteristics	TOTAL (N = 1000)		From the 'potentially HIV risk population' (N = 279)	
	n	%	n	%
CURRENT income level				
Low or below average	319	31.9	96	34.4
Medium	442	44.2	126	45.2
Above average or high	215	21.5	48	17.2
<i>Difficult to say or refused to answer</i>	24	2.4	9	3.2
Employment				
Full-time job	511	51.1	164	58.9
Part-time job	97	9.7	29	10.4
Leave with the full pay	6	0.6	1	0.4
Leave without pay	10	1.0	1	0.3
Not working, unemployed or looking for a job	151	15.1	38	13.7
Not working, retired, on a maternal leave, studying	216	21.6	42	15.2
No paid employment, volunteering or doing community service	10	1.0	3	1.2
Marital status				
Have never been married	208	20.8	62	22.0
Formally married	568	56.8	139	49.7
Civil partnership/Living with a partner	134	13.4	44	15.7
Divorced	69	6.9	28	10.1
Widow	19	1.9	6	2.1



Table 47. Comparison of current income, employment and marital status in the context of women's belonging to the group at a higher risk of HIV, %

Characteristics	AT RISK		NOT AT RISK	
	n	%	n	%
<i>Total</i>	279	27.9	721	72.1
CURRENT income level	p=0.069			
Low or below average	96	20.1	223	69.9
Medium	126	28.5	316	71.5
Above average or high	48	22.3	167	77.7
<i>Difficult to say or refused to answer</i>	9	37.5	15	62.5
Employment	p=0.022			
Full-time job	164	32.2	346	67.8
Part-time job	29	29.9	68	70.1
Leave with the full pay	1	16.7	5	83.3
Leave without pay	1	10.0	9	90.0
Not working, unemployed or looking for a job	38	25.3	112	74.7
Not working, retired, on a maternal leave, studying	42	19.5	173	80.5
No paid employment, volunteering or doing community service	3	30.0	7	70.0
Marital status	p=0.036			
Have never been married	62	29.7	147	70.3
Formally married	139	24.4	430	75.6
Civil partnership/Living with a partner	44	32.8	90	67.2
Divorced	28	41.2	40	58.8
Widow	6	31.6	13	68.4

For the women 'potentially at risk of HIV', war-related experience is more common: these women more often reported having been in the combat areas or having travelled there, stayed in an area with the high risk of air raids, and taken part in cleaning up after shelling.



Table 48. Belonging to the group of women potentially at risk of HIV in the context of war-related experience (among all the respondents, N = 1000, %)

Characteristics	TOTAL (N = 1000)		Potentially at the risk of HIV (N = 279)		Potentially NOT at the risk of HIV (N = 721)	
	n	%	n	%	n	%
Travelling across areas of active fighting or very close to them	216	21.6	79	28.3	137	19.0
Staying on the territories of so-called 'donetsk people's republic', 'luhansk people's republic', or the occupied Crimea	7	0.7	3	1.1	4	0.6
Staying on the territories that were occupied after February 24, 2022	87	8.7	30	10.9	57	7.9
Staying on the territories affected by ecological disasters (without access to drinking water or normal sanitary)	75	7.5	32	11.6	42	5.8
Staying in an area of active fighting	168	16.8	59	21.3	109	15.1
Staying in an area with the high risk of air raids (daily missile attacks, shelling, UAV attacks, etc.)	460	46.0	151	54.0	310	43.0
Taking part in fighting as a soldier or a medic, paramedic	13	1.3	11	3.8	2	0.3
Taking part in recovery of liberated territories (e.g., demining)	11	1.1	3	1.0	8	1.1
Taking part in cleaning up after shelling, destruction of civil infrastructure, etc.	85	8.5	39	13.8	47	6.5
No personal war-related experience	469	46.9	109	23.2	360	50.0

3.10. NEEDS AND RESOURCES

The answers to the questions about resources and organizations providing help speak about women's insufficient awareness of those (*they are likely to look for help among their friends or acquaintances*). About a third of them (31.7%) know about informational resources or organizations they can use to get counseling, psychological or legal aid, while two thirds (67.4%) do not know about them.

The answers about this knowledge are declarative, and they were not checked additionally (*i.e. it was not checked whether the resources the woman knows of are actually usable*), so they demonstrate only a general awareness level.

In the youngest age group, 20.1% of respondents know about the supporting organizations, while in other age groups the distribution does not differ from the average distribution in the whole sample. The level of awareness of resources and organizations providing help is significantly lower (22.7%) among the women who had low income before the full-scale war. The awareness is much higher among IDP – 46.2%.



Table 49. Awareness of resources and organizations providing help to women
(among all the respondents, N = 1000, %)

Characteristics	n	%
How well are you aware about informational resources or organizations women can turn to to get various counseling, psychological and legal aid?		
Well – I know about such resources and organizations, I used their help	51	5.1
Moderately well – I know where I can go if I need	266	26.6
Poorly aware – I have heard about them but I do not have a clear understanding about where I need to go if I need	380	38.0
Not aware at all – I know nothing about such organizations	294	29.4
<i>Difficult to say</i>	9	0.9
Awareness about resources and organizations		
Generally aware (<i>well + moderately well</i>)	317	31.7
Generally not aware (<i>poorly aware + not aware</i>)	674	67.4
<i>Difficult to say</i>	9	0.9

Knowledge about the resources and organizations correlates with the knowledge of facilities where one can get tested for HIV (*even if we exclude the youngest age group that is less aware of such things*). Those who told that they knew testing sites were more likely to be aware about resources and organizations providing help ($p < 0.100$). Also, awareness of the resources correlates with the experience of HIV testing.

Figure 19. Awareness of HIV testing sites in the context of awareness about resources and organizations providing care (among all the respondents, N = 1000, %)

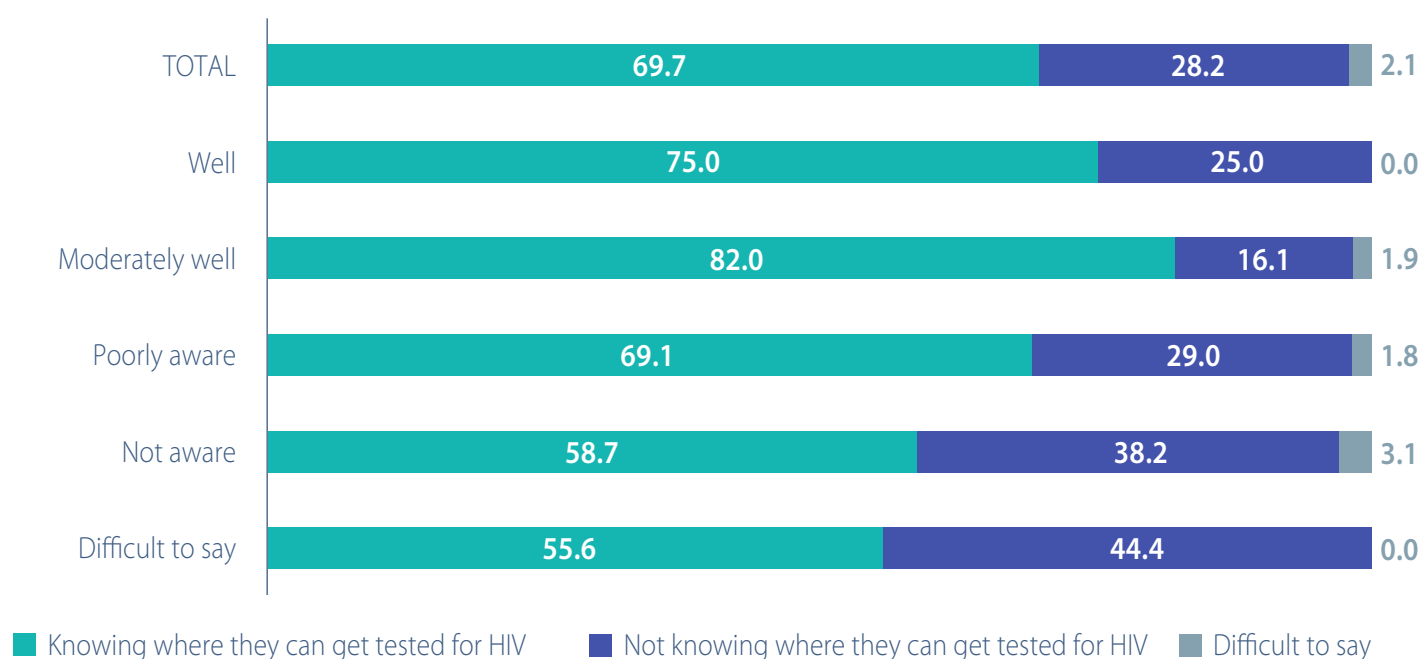




Table 50. Awareness of resources and organizations providing help to women in the context of experience of HIV testing (among all the respondents, N = 1000, %)

Characteristics	WELL		MODERATELY WELL		POORLY AWARE		NOT AWARE		DIFFICULT TO SAY	
	n	%	n	%	n	%	n	%	n	%
<i>Total (N = 1000)</i>	51	5.1	266	26.6	380	38.0	294	29.4	9	0.9
Having got tested for HIV BEFORE February 24, 2022	p=0.001									
Tested	36	6.0	181	30.3	231	28.3	146	24.4	4	0.7
Not tested	15	3.9	82	21.4	144	37.6	137	35.8	5	1.3
<i>Difficult to say / Refusal</i>	–	–	3	15.0	6	30.0	11	55.0	–	–
Having got tested for HIV AFTER February 24, 2022	p=0.001									
Tested	10	5.2	6	33.5	79	41.4	38	19.9	–	–
Not tested	41	5.1	197	24.5	300	37.4	256	31.9	9	1.1
<i>Difficult to say / Refusal</i>	–	–	5	83.3	1	16.7	–	–	–	–
Having EVER got tested for HIV	p=0.001									
Tested	37	5.9	189	29.8	247	39.1	155	24.6	4	0.6
Not tested	14	4.0	75	21.4	127	36.2	130	37.0	5	1.4
<i>Difficult to say / Refusal</i>	–	–	3	16.7	6	33.3	9	50.0	–	–

Respondents were asked whether they want to learn more about such resources and organizations. 69.3% said they had sufficient information, and about one third named one or two topics they would have liked to get more information about. The most relevant proved to be psychological (18.1%) and legal (12.8%) aid.

Table 51. Women's interest in various kinds of aid (among all the respondents, N = 1000, multiple choices allowed, %)

Characteristics	n	%
Would you like to learn more about such resources or organizations? What specific topics are you interested in?		
No, I know enough	693	69.3
Yes, psychological aid	181	18.1
Yes, legal aid, legal counseling	128	12.8
Yes, women's health	98	9.8
Yes, raising children	93	9.3
Yes, the issue of violence	38	3.8
Yes, the issue of HIV/AIDS	22	2.2
Yes, the issue of viral hepatitis	16	1.6
Yes, the issues of drug dependence and opioid agonist treatment	12	1.2
Yes, the issue of tuberculosis	10	1.0
<i>Other</i>	2	0.2
<i>Difficult to say</i>	14	1.4



In general, different groups of the women, including the women at potential risk of HIV and IDP, do not show statistically significant difference in their desire to learn more. The exception is girls aged from 15 to 17, who much less require legal aid (3.2%), and women whose income is low or below average, who were much more interested in help with raising children (13.9%) – as we have mentioned before, the decrease in the level of income has especially affected women with children. Among the women whose partners serve in the military, 19.7% would like to learn more about legal aid.

Table 52. Women's interest in various kinds of aid broken down by age
(among all the respondents, N = 1000, multiple choices allowed, %)

Would you like to learn more about such resources or organizations? What specific topics are you interested in?	TOTAL (N = 1000)	15-17 y.o. (N = 63)	18-25 y.o. (N = 160)	26-35 y.o. (N = 305)	36-49 y.o. (N = 472)
	%	%	%	%	%
No, I know enough	69.3	72.0	67.8	72.8	67.2
Yes, psychological aid	18.1	17.4	23.5	15.9	17.8
Yes, legal aid, legal counseling	12.8	3.2	10.7	12.3	15.2
Yes, women's health	9.8	12.4	11.7	7.6	10.2
Yes, raising children	9.3	3.2	5.2	10.9	10.4
Yes, the issue of violence	3.8	4.5	5.7	3.0	3.6
Yes, the issue of HIV/AIDS	2.2	1.6	3.3	1.7	2.3
Yes, the issue of viral hepatitis	1.6	1.6	3.3	1.4	1.1
Yes, the issues of drug dependence and opioid agonist treatment	1.2	1.6	2.0	1.0	1.1
Yes, the issue of tuberculosis	1.0	1.6	1.3	1.0	0.8
<i>Other</i>	<i>0.2</i>	–	–	<i>0.7</i>	–
<i>Difficult to say</i>	<i>1.4</i>	–	<i>1.3</i>	<i>0.3</i>	<i>2.3</i>

Table 53. Women's interest in various kinds of aid in the context of current income level
(among all the respondents, N = 1000, multiple choices allowed, %)

Would you like to learn more about such resources or organizations? What specific topics are you interested in?	TOTAL (N = 1000)	Low or below average (N = 319)	Medium (N = 442)	Above average or high (N = 215)
	%	%	%	%
No, I know enough	69.3	63.0	73.0	73.2
Yes, psychological aid	18.1	19.7	17.2	15.4
Yes, legal aid, legal counseling	12.8	15.4	10.9	11.4
Yes, women's health	9.8	11.3	9.5	8.2
Yes, raising children	9.3	13.9	8.2	4.7
Yes, the issue of violence	3.8	3.4	3.9	2.9



Yes, the issue of HIV/AIDS	2.2	2.5	2.8	0.5
Yes, the issue of viral hepatitis	1.6	1.3	2.1	0.5
Yes, the issues of drug dependence and opioid agonist treatment	1.2	0.3	2.1	0.5
Yes, the issue of tuberculosis	1.0	0.7	1.4	0.5
<i>Other</i>	<i>0.2</i>	<i>0.7</i>	–	–
<i>Difficult to say</i>	<i>1.4</i>	<i>1.5</i>	<i>1.4</i>	<i>1.0</i>

A slight majority (51.9%) of women told that they did not need any help, and the most needed kinds of support are psychological (19.5%) and financial (19.3%).

Table 54. Relevant kinds of help (among all the respondents, N = 1000, multiple choices allowed, %)

Characteristics	n	%
What kinds of help/support do you currently require the most? You can choose several primary needs		
<i>I need no help</i>	519	51.9
Psychological	195	19.5
Financial	193	19.3
Food / Clothes	37	3.7
Job	35	3.5
Medical care and/or medicines	35	3.5
Hygienic products / Household chemicals	28	2.8
Childcare	27	2.7
Legal / administrative support	25	2.5
Advanced training	11	1.1
Dwelling	9	0.9
<i>Other</i>	<i>37</i>	<i>3.7</i>
<i>Difficult to say</i>	<i>27</i>	<i>2.7</i>

With the age, the share of women who do not need any help decreases: among the girls of 15 to 19 years of age, it reaches 81.2%, while among women aged 36 to 49 – only 45.1%. The same concerns financial aid, while psychological support is needed by all at approximately the same rate. IDP require help more (*financial aid* – 29.9%, *finding a job* – 7.9%). 6.3% of the women whose partners are or were in the military service told that they needed legal / administrative support. The level of needs among the respondents ‘potentially at risk of HIV’ is generally the same as in the whole sample, except for the 0.7% who told they needed support with childcare.



Table 55. Relevant kinds of help broken down by age
(among all the respondents, N = 1000, multiple choices allowed, %)

What kinds of help/support do you currently require the most?	TOTAL (N = 1000)	15-17 y.o. (N = 63)	18-25 y.o. (N = 160)	26-35 y.o. (N = 305)	36-49 y.o. (N = 472)
	%	%	%	%	%
I need no help	51.9	81.2	65.2	49.3	45.1
Psychological	19.5	1.4	18.9	20.4	19.8
Financial	19.3	3.0	10.5	19.0	24.6
Food / Clothes	3.7	–	2.2	4.2	4.4
Job	3.5	–	1.5	1.6	6.0
Medical care and/or medicines	3.5	–	3.5	3.3	4.2
Hygienic products / Household chemicals	2.8	–	0.8	3.1	3.6
Childcare	2.7	–	1.4	4.4	2.5
Legal / administrative support	2.5	–	0.7	3.2	3.0
Advanced training	1.1	–	1.3	1.6	0.9
Dwelling	0.9	–	–	0.9	1.3
<i>Other</i>	3.7	1.4	0.7	2.9	5.6
<i>Difficult to say</i>	2.7	–	0.8	3.6	3.2

Table 56. Relevant kinds of help broken down by IDP status
(among all the respondents, N = 1000, multiple choices allowed, %)

What kinds of help/support do you currently require the most?	TOTAL (N = 1000)	Non-IDP (N = 890)	IDP (N = 110)
	%	%	%
I need no help	51.9	53.4	39.7
Psychological	19.5	19.2	22.2
Financial	19.3	17.9	29.9
Food / Clothes	3.7	3.3	7.1
Job	3.5	3.0	7.9
Medical care and/or medicines	3.5	3.3	5.2
Hygienic products / Household chemicals	2.8	2.7	3.3
Childcare	2.7	2.5	4.6
Legal / administrative support	2.5	2.6	1.6
Advanced training	1.1	0.9	3.2
Dwelling	0.9	0.5	3.7
<i>Other</i>	3.7	3.7	3.7
<i>Difficult to say</i>	2.7	2.9	1.7



4. CONCLUSIONS

4.1. SOCIODEMOGRAPHIC PROFILE

As of August 2023, 11.0% of women aged from 15 to 49 living on the territories controlled by the Government of Ukraine are IDP (including those who returned to another location after staying abroad), and 25.5% of them do not have a separate dwelling (while the women who have not been displaced after the start of the full-scale war do not have it only in 4.5% of cases). Altogether, 36.9% of the respondents left their homes after February 24, 2022, and 34.0% live or lived not having a separate dwelling after the full-scale war began (in the IDP category that figure is as high as 61.2%).

Since February 24, 2022, the share of women with a full-time job has significantly decreased (from 65.3% to 51.1%), while that of women with part-time employment has increased (from 6.5% to 9.7%); the share of the unemployed has also increased (from 6.6% to 15.1%). There is a strong increase of unemployment among IDP: only a third (33.7%) of the women have a full-time job, and a quarter (25.8%) are unemployed and looking for a job as of August 2023.

The income level of the women and their families has substantially dropped: presently, 31.9% of the women have low income, while on February 24, 2022 they comprised only 10.5% of the sample. The share of the families with high income has decreased from 42.7% to 21.5%, and 43.8% of the respondents have seen the of their personal or family income decrease. The income drop has been noticed mostly among respondents from the East, South and North of Ukraine. Currently 44.4% of IDP have low income, 45.0% – medium, and only 10.6% have high income. Considering that before the war the income level distribution was not different from general, the data point to a rapid deterioration of financial standing of displaced women.

67.0% of the respondents have children, and 45.3% of them have children aged below 18, i.e. underage children. Women with children have been affected by the income drop the most: before February 24, 2022, 11.5% of them had income that was low or below average, and now that category includes 39.1%; before the full-scale war, 40.0% of them had income that was high or above average, but now it applies only to 16.3% of women with children. The decrease of income has generally affected all of the respondents, but there is a smaller difference of income before and after the start of the full-scale war among women without children.

4.2. COMBAT OR WAR-RELATED EXPERIENCE

More than a half (53.1%) of the women have received war-related experience: 46.0% have been to areas with a high risk of air raids, 21.6% have travelled across the areas of active fighting or close to them, 16.8% have been to combat areas, and 8.7% have experienced living under occupation.

19.1% have been to combat areas, including 15.8% as civilians and 4.8% as volunteers. The share of servicewomen and medics among the respondents is less than 1.0%, which can be explained by low accessibility of such women for a telephone survey in wartime.

The share of women who have been to situations creating risks of HIV infection (unprotected contact with blood or other hazardous biological liquids) due to military activity is 0.3% to 1.3%. All in all, 3.0% of the women have had blood contacts in HIV-risky situations during the war. Among the civilians who have been to combat areas, this figure is 8.9%, and among volunteers having been to those areas it is 17.0%.



4.3. HEALTH AND MEDICAL SERVICES

83.2% of the respondents have experienced medical procedures and practices included in the questionnaire that can be linked to HIV infection risks. In particular, 56.6% of them received dental services, 55.4% took blood tests, and 51.5% were examined or treated by gynecologist. In 1.0% of cases, these procedures/interventions were made in situations where there was no way to ensure that tools are sterile, medication storage temperature requirements were not met, or the procedures were done by doctors of a wrong profile, or there were other problems caused by destruction of healthcare infrastructure.

89.4% of all the respondents reported having a signed declaration with a family doctor at the place of current residence. At the same time, 4.8% said they do not have such a declaration because of the war, and 3.8% did not have it neither before the start of the full-scale invasion nor afterwards. Among IDP, as of August 2023, 25.9% do not have a family doctor because of the war (*compared to 2.2% from among those who have not been displaced*).

We received from 0.6% to 2.5% of positive answers to questions about respondents' having diagnosis of diseases that are common co-morbidities of HIV (*tuberculosis, hepatitis B or C, STIs*). The respondents who reported of having such a diagnosis claimed they were HIV-negative, except for one who lives with HIV and had been diagnosed with STIs before the start of the full-scale war.

4.4. HIV INFECTION

According to the survey, 42.0% of the respondents have discriminatory attitudes towards PLWH. The indicator of attitudes towards violence against women has reached 3,0%, i.e. 3.0% of the women provided at least one answer confirming that a man has the right to hit or beat his partner. The hypothesis that a high socioeconomic status, higher level of education and living in a city are connected to a higher level of awareness about HIV and less bias regarding PLWH was confirmed.

The fact that HIV testing is free is known to 69.9% of the respondents, while zero cost of HIV treatment is known to 47.3%. Many (42%) of the respondents failed to give a correct answer to questions about the cost of HIV testing and treatment. Beliefs about whether HIV testing is free have no significant differences in different subgroups of the women and do not differ between those who have taken an HIV test and those who have not. With the increase of the age, we see the increase of the share of respondents aware that HIV treatment is free, but we also observe the increase of the share of those who are not sure about the answer.

Among all the respondents, 59.7% had the experience of getting testing for HIV before February 24, 2022, and most of those tests were related to pregnancy. 11.3% of the women took the test on a voluntary basis, while 38.3% did not get tested at all. After the start of the full-scale invasion, 19.1% of the respondents took an HIV test, with 28.2% of them doing it voluntarily, and 34.9% following a referral from a health worker in pregnancy-unrelated cases. Altogether 35.1% of the participants have taken an HIV test, and 35.1% have never got tested for HIV.

Since the beginning of the full-scale invasion, 7.6% of the respondents have been pregnant, of whom 5.0% reported having been to situations where medically required blood test for HIV was not prescribed or was not taken because of the war. The hypothesis that women who have experienced staying on temporarily occupied territories struggled accessing testing was not confirmed by personal experience of the respondents, however they did report about such cases among their acquaintances.

69.7% of the respondents know where they can access HIV testing, though among the girls aged 15 to 17 the awareness rate is only 55.6%. The respondents who do are not aware that HIV testing and treatment are free of charge usually do not know where they can get tested. The knowledge about HIV service organizations is quite limited. The most-known are polyclinics, outpatient departments, hospitals, incl. family doctors (53.6%), followed



by private laboratories (10.3%). Only a small part of the respondents were able to name specific HIV service organizations. There are 0.8% of the respondents who are clients of HIV service NGOs, and the two respondents who reported of their HIV-positive status are not among them.

The two women who reported living with HIV are 0.2% of the sample. At the same time, 7.0% and 1.4% of the women assess their risk of being HIV-positive as medium or high respectively. We see more cases of assessed 'zero' risk among women with lower education level, while women with a university degree tend to assess their risk as 'low'. Among those who have had hazardous blood contacts during the war, one women in four (25.8%) assess their risk of being HIV-positive as medium or high. However, despite considering their own risks to be higher, their rate of HIV testing after February 24, 2022 does not differ significantly from the average rate in the sample.

4.5. DRUG USE

89.7% of the respondents have no experience of drug use. Most cases of drug use involve non-injected substances, with only two of the women (0.2%) reporting of having injected drugs (*but they did it before the full-scale war began*). When asked about whether they know some women who inject drugs, 92.2% said they did not and 6.5% said they did.

When interpreting the results, we need to take into account that the questions of the CATI were sensitive, but even the question about acquaintances does not allow making conclusions about the prevalence of injected drug use among women on the government-controlled territory of Ukraine and respective increased risks of HIV infection.

4.6. SEXUAL PRACTICES

A total of 92.3% of the respondents reported having the experience of sexual contacts, with 41.9% of them being girls aged 15 to 17. No less than 90.0% said they are in monogamous relationships (*i.e. they had only one partner at one time*) both before the full-scale war and after it began. 5.3% of the women had multiple partners, and 1.5% had multiple partners after February 24, 2022. Altogether 6.3% of the respondents have the experience of non-monogamous contacts at some point in their lives. The share of those who assess their risk of being HIV-positive is higher among those who had multiple partners after February 24, 2022 (*7.4% compared to 1.6% among all who had sexual contacts*).

36.9% of the respondents used condom during the most recent sexual contact, and 45.3% have never used condom during sex after the full-scale war began. Only 4.2% of the respondents reported about unavailability of condoms, and this problem was more common in the areas of active fighting or on temporarily occupied territories.

15 women said their sexual partner practices risky behaviors or belongs to a key population, but this number is insufficient for an analysis.

Among those who had sexual contacts after February 24, 2022, 16.4% informed that their partners serve in the military, and the share of such women is the same in all subgroups (*age, region, settlement type, education level, income, parental status, IDP status, etc.*) Women whose partners are servicemen get tested for HIV and use condoms at the same rate as the women whose partners do not serve in the military. Their self-assessment of the risk of being HIV-positive is also similar. This confirms the hypothesis that women whose partners serve in the military do not consider their and their partners' risk of infection high, so they do not seek testing for HIV.



The number of respondents does not include women who had to provide paid sexual services after the full-scale war began; the quantity of women with this experience is so small that it does not enable us to conduct a detailed analysis. At the same time, 4.5% of the respondents know girls or women who provided such services after February 24, 2022; 2.8% of women reported increasing of the number of such acquaintances compared to the pre-war period. These cases were more often reported by women who have 'war-related experience'.

Only two women (0.2% of the sample) told about personal experience of being forced to have sex, which is most likely not connected immediately with the war. At that, 4.4% of the respondents know about cases where a girl or a woman encountered a sexual assault, and most of them know only about one such case. The same concerns provision of paid sexual services. Cases of sexual violence in close circle were more commonly reported by the respondents with war-related experience, so we can assume that this phenomenon is spread wider in the regions most affected by the war.

Almost every fourth of the respondents (27.4%) know about post-exposure prophylaxis of HIV, and this awareness is the same in all sociodemographic subgroups. The hypothesis that women who told about their experience of sexual violence had not sought post-exposure prophylaxis is formally confirmed, yet the number of actual cases is insufficient for analysis.

4.7. RISKS OF HIV INFECTION

The group of women potentially at risk of HIV includes those who have had at least one instance of HIV-risky behavior since February 24, 2022, or those who assessed their risk of being HIV-positive as medium or high, or got tested for HIV after February 24, 2022 (*except pregnancy-related testing*). This group includes 27.9% of the respondents.

The share of these women is virtually the same (*without significant difference*) in all regions, settlement types and age groups. The experience of displacement after the war began also has no effect on respondent's belonging to the group at risk. In terms of marital status, the category of divorced stands out, where 41.2% of the respondents belong to the group at risk.

4.8. NEEDS AND RESOURCES

The respondents are not well aware about resources and organizations to get support from, they are known only to 31.7% of the respondents. This number is lower among girls aged 15 to 17 (20.1%) and women with low pre-war income (22.7%), while IDP are much more likely to know about such resources (46.2%).

Altogether, 69.3% of the respondents said they had sufficient information and did not want to learn more. 19.7% of the women whose partners serve in the military want to learn more about legal aid.

The most relevant proved to be psychological (19.5%) and legal (19.3%) aid. With the increase of age, the share of women who require no support (*in particular, financial*) reduces. IDP require help more (*financial aid – 29.9%, finding a job – 7.9%*). Among the women potentially at risk of HIV, the rates of awareness about resources, desire to learn more about them, and the needs are the same as in the general sample.



5. RECOMMENDATIONS

- 1.** Make HIV prevention and testing programs target women with personal 'war-related experience', i.e. those who have been to active fighting areas, took part in the fighting or reconstruction of liberated territories, cleaned up damaged sites, etc. In particular, pay attention to the subgroup of women who have already had the experience of contact with blood in HIV-risky situations (*wound, providing aid to the wounded in the field, or any unprotected blood contact*). Besides, it is recommended to, as far as possible, promote free access to condoms for women and men serving in the military.
- 2.** Conduct awareness-raising campaigning for women whose partners serve in the army with the emphasis on importance of health and HIV prevention and treatment.
- 3.** Girls ages 15 to 17 and women with low education level stand out in terms of lack of awareness of HIV testing and treatment. Therefore, it seems necessary to conduct routine educational activities for these categories to improve their awareness regarding issues related to HIV.
- 4.** Help internally displaced women to access health services, in particular, to find a family doctor at a new place of residence and sign a declaration with them.
- 5.** Assuming that the share of women who had to provide paid sexual services or encountered sexual violence is higher on temporarily occupied territories than on the Ukraine's Government-controlled territories, it is desirable to make efforts to provide these women with HIV prevention and testing services as soon as they return. Special attention should be paid to observing the requirements regarding HIV testing in pregnant women.



ICF "ALLIANCE FOR PUBLIC HEALTH"

24 BULVARNO-KUDRYAVSKA ST., BUILDING 3

01601 KYIV, UKRAINE

E-MAIL: OFFICE@APH.ORG.UA

WWW.FACEBOOK.COM/ALLIANCEPUBLICHEALTH

WWW.APH.ORG.UA