



Population Size Estimate of Drug Addicted Women of Reproductive Age and Drug Addicted Pregnant Women in Ukraine

Analytical Report on the Study Findings



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of Drug Addicted Women of Reproductive Age
and Drug Addicted Pregnant Women
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This publication presents findings of the estimates of the number of drug using women, number of such women among pregnant and postpartum women and the number of these women, who acquired HIV-infection through drug injections; these data were obtained based on reports and experts' evaluations. Also, this publication contains consolidated data about the estimated number of women at the reproductive age, who use drugs in the cities of Dnipropetrovsk, Kyiv, Poltava and in Volyn oblast, and the calculated number of such female populations on the national level. The report materials are intended for the specialists of state institutions and civil society organizations to substantiate HIV response activities in Ukraine.

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ACRONYMS AND ABBREVIATIONS

ARV	Antiretroviral
ART	Antiretroviral therapy
HIV	Human immunodeficiency virus
SMT	Substitution maintenance therapy
STI	Sexually transmitted infections
NGO	Non-governmental organizations
MTCT	Mother-to-child transmission
PMTCT	Prevention of mother-to-child transmission
IDU	Injecting drug users
AIDS	Acquired immunodeficiency syndrome
CSSFCY	Centre of Social Services for Family, Children and Youth
UISC named after O. Yaremenko	Ukrainian Institute of Social Research named after O. Yaremenko
UNAIDS	Joint United Nations Programme on HIV/AIDS
UNICEF	the United Nations Children's Fund

INTRODUCTION

Updated estimates of HIV/AIDS situation in Ukraine demonstrate that around 230,000 people aged 15+ years were living with HIV by the beginning of 2012, which is 0.58% of the entire population in this age group¹. In 2013, Ukrainian authorities reported 21,631 new cases of HIV-infection including 3,915 children under 14 years of age, including children with an unconfirmed status born to HIV-infected mothers. As of 01.01.2014, 3,129 new HIV-infection cases among the newborns were caused by mother-to-child transmission of HIV or breastfeeding. In spite of the declining trend, the parenteral transmission due to drug injections still remained high and reached 32.7% in 2013 (taking into account the rates of vertical transmission in the structure of transmission routes)². These data confirm that injecting drug use still remains a driver of HIV epidemic in Ukraine.

According to the data presented in the Ukraine Harmonized AIDS Response Progress Report, people in the age of 25–49 years (i. e., people of reproductive age) prevail in the age and sex structure of HIV-infections (from 2007 to 2011: 62.8%, 62.5%, 63.8%, 64.8% and 66.3% correspondingly), followed by men, the proportion of which has a declining trend (from 2007 to 2011: 56.2%, 55.4%, 55.1%, 56.4% and 54.5% correspondingly). In 2011, and average HIV prevalence among pregnant women in Ukraine on the basis of primary HIV testing was 0.47%³. In 2013, according to official data, this percentage dropped to 0.39%.

According to the estimates of the national experts (including the representatives of the Office of the United Nations Children's Fund (UNICEF) in Ukraine), females find it difficult to access appropriate psychosocial and medical support when identified as «HIV-positive» and as «drug users». Drug using pregnant women are 2–3 times less likely to receive PMTCT interventions and have a higher likelihood of transmitting HIV to their children. Major challenges remain when it comes to reaching most at-risk marginalized women with interventions directed towards prevention, including social support.

To address these still very acute issues, UNICEF initiated a pilot project 'Prevention of Mother-to-Child Transmission and Improving Neonatal Outcomes among Drug-Dependent Pregnant Women and Children Born to Them in Three

¹ National assessment of situation in the area of HIV/AIDS in Ukraine at the beginning of 2012 – developed in participation of the State institution 'Ukrainian Centre for Socially Dangerous Diseases Control of the Ministry of Health of Ukraine', WHO in Ukraine, ICF 'International HIV/AIDS Alliance in Ukraine' and UNAIDS – 7 p.

² Information Bulletin 'HIV-infection in Ukraine' № 41 /Ministry of Health of Ukraine; State institution 'Ukrainian Centre for Socially Dangerous Diseases Control of the Ministry of Health of Ukraine'; State institution 'Institute of Epidemiology and Infectious Diseases named after L.V.Gromashevskiy', National Academy of Medical Sciences, Kyiv, 2014. – 86 p.

³ Ukraine Harmonized AIDS Response Progress Report. Reporting period: January, 2010 – December, 2012 K., 2012. – p. 11–12. Available : http://www.aidsalliance.org.ua/ru/library/our/2012/me/garp_ru_2011.pdf.

Cities in Ukraine' launched in 2011 in Kiev, Poltava and Dnipropetrovsk. The project focuses on introducing integrated services for drug addicted pregnant women by establishing Centres for Integrated HIV Prevention, Care and Support Services⁴.

Importance of work with drug addicted pregnant women and the need to introduce integrated services for them are confirmed by sociological research conducted in this population. Centre of Social Expertise has conducted a retrospective epidemiological analysis of medical cards of HIV-positive parturient women and a sociological survey of 200 HIV-infected women, who have HIV-positive children. The results of this study demonstrate that the sub-group of drug using women was the most vulnerable to mother-to-child transmission of HIV during pregnancy and/or labour. Coverage of pregnant IDUs with ARV was 49.0%. More than half (56.0%) of the surveyed women had low adherence to ARV treatment. This situation in relation to ARV treatment is also related to the fact that IDUs most often learn about their HIV- positive status right before delivery or during the second test for HIV⁵.

One of the barriers for monitoring of the pilot project progress and planning of the national scaling up of the model is the lack of agreed estimates of the number of drug dependent women of reproductive age and those who are pregnant. There is no official statistics for this group of population. The data available from different studies and research present only the number of PWID population without disaggregation to age and gender and mainly cover people already infected by HIV.

The most recent research of the size of most-at-risk populations in Ukraine with regards to HIV-infection was conducted by the International HIV/AIDS Alliance in Ukraine in 2011. The estimated ranges of IDU populations in each oblast centres were calculated and then extrapolated to the oblast level. The estimated size of IDU population was approved and recommended for further use – it was 310,000 people⁶ (based on the agreed upon estimates in the range of 278,150 – 387,000 people⁷). However, this calculated population size estimate of IDUs provides only information about the number of injecting drug users, without age and sex disaggregation.

⁴ In Kyiv this project is being implemented on the basis of the Central District Clinic of Darnitsa District; in Dnipropetrovsk – at the Dnipropetrovsk City Maternity Hospital #1; in Poltava – at the City Clinical Maternity Hospital.

⁵ «Sociodemographic and Medical Determinants of the Risk of Mother-to-Child Transmission of HIV in Ukraine». Annotation Report. Kyiv, 2013. – 55 p.

⁶ Information Bulletin 'HIV-infection in Ukraine' № 40 /Ministry of Health of Ukraine; State institution 'Ukrainian Centre for Socially Dangerous Diseases Control of the Ministry of Health of Ukraine'; State institution 'Institute of Epidemiology and Infectious Diseases named after L.V.Gromashevskiy', National Academy of Medical Sciences, Kyiv, 2014. – 24 p.

⁷ Analytical Report «Populations Size Estimate of the Most-at-Risk for HIV-infection in Ukraine» as of 2012 based on the results of 2011 survey / G. Berleva, K. Dumchev, M. Kasianchuk et al. – K.: International HIV/AIDS Alliance in Ukraine, 2012.

The Ukraine Harmonized AIDS Response Progress Report⁸ contains an indicator «percentage of HIV-infected pregnant women, who inject drugs», which measures the share of HIV-infected women, who were actively injecting drugs during pregnancy (*it was calculated on the basis of Joint Reporting Tool on Health Sector Response to HIV/AIDS developed by WHO, UNAIDS and UNICEF*), which amounted to 3.5% in 2011. The numerator includes the number of HIV-infected pregnant women, who were actively injecting drugs during pregnancy, which included 141 women in 2011. The denominator includes data on the total number of HIV-infected women with such pregnancy outcome as delivery or abortions – 4,351 women in 2011. Until 2011 the PMTCT related statistical reporting in Ukraine had not included the active IDU status in pregnant women, but only included the data about the number of pregnant women with parenteral (related to injecting drug use) HIV-infection. The portion of such women in the general population of HIV-infected pregnant women was 7.3% in 2008, 7.1% in 2009 and 6.4% in 2010. In 2011 the data needed for this indicator were received within the process of improvement of PMTCT-related reporting and recording system. HIV-infected pregnant women, who inject drugs, remain a hard-to-reach population to implement interventions aimed at prevention of vertical transmission of HIV. It is well known that injecting drug use, as well as use of other substances is always accompanied with stigma and discrimination, which makes the patients hide this fact. In view of this, the real number of injecting drug users among HIV-infected pregnant women can be significantly higher. This situation is hampering the opportunities to provide timely PMTCT services, substitution maintenance therapy, other health, social and prevention services to HIV-infected pregnant women, who are actively injecting drugs. So, there is a demand to conduct a more realistic assessment of the population size of drug addicted women of reproductive age, pregnant women who use drugs and HIV-positive pregnant women, who were infected due to drug use.

An institutional research «Assessment of the Population Size of Drug Addicted Women of reproductive Age in Ukraine» was conducted in 2012–2013 by the Social Monitoring Centre with the technical support from the Representative Office of the United Nations Children’s Fund (UNICEF) in Ukraine. The research was conducted in the four administrative unites of Ukraine: in the cities of Dnipropetrovsk, Kyiv, Poltava and Volyn oblast.

The data about the population size of drug addicted women can be used for the effective planning, implementation and evaluation of projects aimed at scaling-up of integrated services for drug addicted women vulnerable to HIV and already HIV-infected, in order to reduce the rate of mother-to-child transmission of HIV, as well as to monitor the country achievements towards elimination of transmission of HIV from mother to child.

⁸ Ukraine Harmonized AIDS Response Progress Report. Reporting period 2010–2011, Ministry of Health of Ukraine, 2012. – <http://dssz.gov.ua/index.php/en/operatyvna-informaciya/plany-izvity/1294-2012-11-13-12-19-44>.

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RESEARCH METHODOLOGY

Goal of this research – to identify the number of drug addicted women, including women of reproductive age and drug addicted pregnant women, including HIV-infected and those who have already gave birth (new mothers) in Ukraine.

Target group of the research: female IDUs of reproductive age; pregnant women, including HIV-infected; women who have gave birth to children (new mothers).

General methodology is characterized with a comprehensive approach and is based on the use of different information sources: secondary analysis of available information and expert evaluation of representativeness of such information. In order to calculate the estimated size of this population, the researchers used the methods of statistical analysis, data approximation (on the basis of extrapolation), logical substantiation, calculations based on the coefficient method, triangulation of the received data.

Research methods:

Estimation of the size of female IDU population was conducted in two directions using the method of singling out (see *Diagram 1*):

- from the total number of injecting drug users in Ukraine – the number of female IDUs of reproductive age; from them – the number of HIV-infected female IDUs; from them – the number of HIV-infected pregnant women and new mothers;

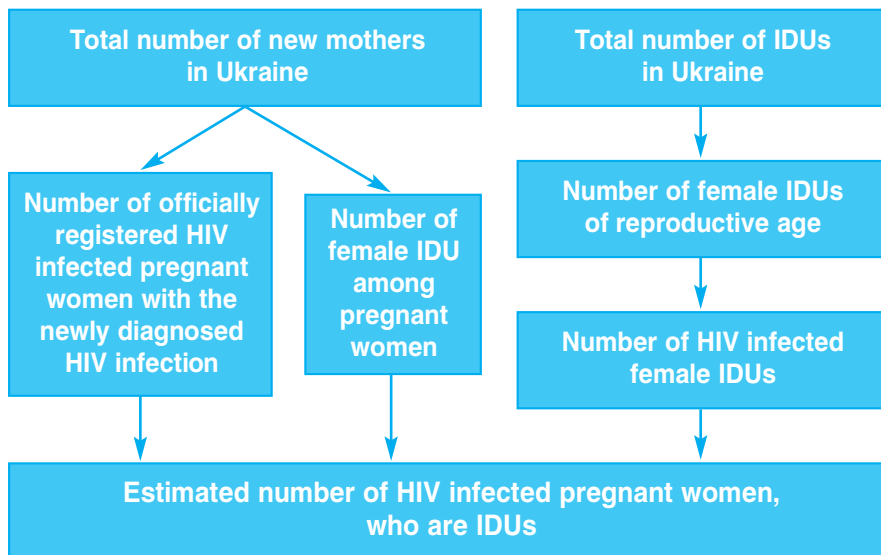


Diagram 1. Stages of evaluation of the population size

- from the total number of pregnant women and new mothers in Ukraine – the number of women, who use drugs; from them – the number of HIV-infected pregnant women and new mothers.

Collection of statistical information:

- Secondary analysis of available data of bio-behavioural survey among IDUs conducted in 2011.
- Collection of medical statistical data (Ukrainian Centre for Socially Dangerous Disease Control of the MOH of Ukraine, antenatal clinics at maternity hospitals), statistics of the social support centres and non-governmental organizations for 2012.
- Analysis of available data from the pilot projects «Prevention of Mother-to-child Transmission of HIV and Improving Neonatal Outcomes among Drug-Dependent Pregnant Women and Children Born to Them in Three Cities in Ukraine» initiated by UNICEF.

**Information Sources to Calculate the Indicators
of the Estimated Size of the Selected Target Groups**

1. Secondary analysis of data:

An estimated number of female IDUs of reproductive age according to the data provided in the report «Evaluation of the size of most-at-risk populations with regards to HIV-infection in Ukraine» presented by the International HIV/AIDS Alliance in Ukraine.

2. Estimation of the number of female IDUs, who are pregnant, including HIV-positive and those, who gave birth to children (new mothers), of reproductive age (using the method of coefficients).

Sources of sociological information:

- Secondary analysis of bio-behavioural survey «Behaviour Monitoring and HIV Prevalence among Injecting Drug Users as a Component of Second Generation Surveillance of HIV» conducted by the Ukrainian Institute for Social Research named after Olexander Yaremenko commissioned by the International HIV/AIDS Alliance in Ukraine in 2011. In order to estimate the population size, the data disaggregated by sex and age of IDUs in the study sites were used⁹.

⁹ The study was conducted in 26 cities of Ukraine (oblast centres, Simferopol, Kyiv and Bila Tserkva of Kyiv oblast).

Sources of statistical information:

1. Number of new mothers, who use drugs (or used them before pregnancy), in 2012.
Source: the data are obtained from the medical records on delivery and birth according to the history collected at the maternity hospital or ward.
2. Number of pregnant women, who use drugs (or used them before pregnancy), in 2012.
Source: the data are obtained from the medical cards of the patients at antenatal clinics.
3. Number of women of reproductive age, who use or used drugs, and who had gynaecological examination in 2012.
Source: the data are obtained from the medical cards of the patients at antenatal clinics.
4. Number of HIV-infected new mothers, who were infected through the injecting drug use in 2012.
Source: the data of AIDS Centre.
5. Number of newly reported HIV-infected pregnant women in 2012, who were infected through injecting drug use.
Source: the data of AIDS Centre.
6. Number of newborns, who had neonatal abstinence syndrome in 2012.
Source: the data are obtained from the growth history of infants at the maternity hospitals.
7. Number of women of reproductive age, who are registered at drug clinics in 2012.
Source: the data from drug clinics.
8. Number of women of reproductive age, who participated in SMT programme in 2012.
Source: the data from drug clinics.
9. Number of HIV-infected pregnant women and new mothers co-infected with TB, in 2012.
Source: the data from AIDS Centre.
10. Number of HIV-infected women of reproductive age with the associated Hepatitis C marker, who were infected heterosexually in 2012.
Source: the data from AIDS Centre.
11. Number of HIV-infected women of reproductive age with the associated Hepatitis marker.
Source: the data from AIDS Centre.

12. Number of women of reproductive age (up to 49 years), who were deprived of parental rights due the drug use in 2012.

Source: the data are provided by the Service for Children's Affairs.

13. Number of families, in which a woman of reproductive age (up to 49 years) was using drugs in 2012.

Source: the data are provided by the State Service for Families, Children and Youth.

Additional information to interpret data: in-depth interviews with the experts from the Centres for Social Services for Families, Children and Youth, Services for Children's Affairs and non-governmental organizations, in order to receive an expert opinion on the following:

- assessment of the scale of drug use, including injecting drug use among women of reproductive age;
- proportion of pregnant women and new mothers, who are IDUs, in the total number of pregnant women and new mothers;
- proportion of female IDUs, who are making abortions, in the total number of women, who made abortions;
- reliability of the statistical data that are collected in parallel, their limitations and reliability.

The calculations conducted on the basis of statistical indicators and survey results helped to evaluate the size of each target population. These composite evaluations create a certain range of estimates on a regional level. The overlap of the maximum number of estimates was used to develop a single estimate (data triangulation).

Approaches to Calculation of the Population Size Estimate

Medical statistics data was collected in four regions of Ukraine (cities of Dnipropetrovsk, Kyiv and Poltava; Volyn oblast – cities of Lutsk and Novovolynsk and rayons of Volodymyr-Volynsky, Kivertsivsky and Kovel'sky), that is why at the first stage the calculation of the target population size was made on a local level for the above mentioned territories.

Calculations of the data of bio-behavioural survey «Behaviour Monitoring and HIV Prevalence among Injecting Drug Users as a component of Second Generation Surveillance of HIV» was conducted in the statistical software SPSS. PC with the use of weights on the basis of respondent age coefficients, which were imported from the RDSAT software that takes into account the size of social networks and links between respondents, which occur with the application of a Respondent Driven Sampling (RDS) method.

The next step in the calculation of the estimated population size is validation of the obtained data in order to identify the reliability of statistical data collection sources,

their limitations and reliability. For this purpose, expert interviews were conducted with service providers, who work with the target group in the selected cities and oblast.

The national population size estimates were made on the basis of extrapolation of the available estimates to the national level. The estimates of the target population size that were received and agreed with the experts, were then extrapolated to the national level on the basis of the evaluation of the IDU population size conducted in 2012¹⁰.

Research Ethical Principles

The Social Monitoring Centre has received a positive conclusion from the Committee on Professional Sociological Ethics of the Sociological Association of Ukraine, which confirmed that the research protocol and tools comply with the ethical norms of sociological studies and are based on the anonymity and confidentiality principles.

In order to ensure confidentiality of data collection from the medical cards (records) of the patients and/or registration log of the patients, the researchers involved the representatives of health care facilities, who had professional access to this information. Information from medical cards and registration logs was transferred to the specially designed forms in a general form and without specifying the data that could be used to identify the patients.

Research Limitations

Until 2012 the maternity hospitals and antenatal clinics did not have any specially regulated forms to record the total number of pregnant women or new mothers, who were using drugs. That is why it was only possible to obtain this information from the medical statistics while collecting data from the individual patient medical cards, which might include these data at the discretion of medical personnel.

Data about the drug use cases to be entered in the medical cards of the patients of maternity hospitals and antenatal clinics contain only information about the cases with visible signs of drug use, or about the women, who decided to inform about their drug addiction, and it does not correspond to the total number of existing cases of drug use among pregnant women and new mothers. That is why, taking into account these limitations, the actual population size of such women is underestimated.

¹⁰ ANALYTICAL REPORT «Estimation of the Size of Populations Most-at-Risk for HIV-infection in Ukraine» as of 2012 based on the results of 2011 survey / G. Berleva, K. Dumchev, M. Kasianchuk et al. – K.: International HIV/AIDS Alliance in Ukraine, 2012. – P. 68.

Pregnant women, who use drugs, have much higher risk of miscarriage, that is why a significant number of these women do not register for their pregnancy and are not included in the statistical reports on drug addicted pregnant women.

If the information about drug using pregnant woman is entered in the medical card, it does not always specify the type of drug use (injecting or non-injecting). That is why data from medical cards can contain information about the amount of drugs being taken through both injections and other routes. Sociological studies, the data of which were used to calculate the estimated population size, were conducted among IDUs, and that is why a cross-cutting analysis of the data of sociological studies and medical statistics can have some insignificant bias.

1. ESTIMATED NUMBER OF WOMEN OF REPRODUCTIVE AGE IN DNIPROPETROVSK CITY

1.1 Estimated number of female drug users in Dnipropetrovsk city

An estimated number of IDUs in Dnipropetrovsk city is 10,300 individuals¹¹. According to a bio-behavioural study «Behaviour Monitoring and HIV Prevalence among Injecting Drug Users as a Component of Second Generation Surveillance of HIV», the proportion of women in the IDU population in Dnipropetrovsk was 28.2%, including 87.2% women of reproductive age (see Table 1.1.1).

Table 1.1.1

Estimated number of female injecting drug users in Dnipropetrovsk city: according to the estimated data on the total population size of IDUs and the secondary analysis of results of the bio-behavioural survey of IDUs

Estimated population size of IDUs	Proportion of female IDUs, %	Estimated population size of female IDUs	Proportion of female IDUs of reproductive age, %	Estimated number of women of reproductive age, who are injecting drugs
A	B	C=A*B/100	D	C*D/100
10,300	28.2	2,905	87.2	2,532
<i>The data were received from the following sources:</i>				
Analytical report by the results of research «Evaluation of the size of most-at-risk populations vulnerable to HIV-infection in Ukraine» for 2012	Secondary analysis of bio-behavioural study «Behaviour Monitoring and HIV Prevalence among Injecting Drug Users as a Component of Second Generation Surveillance of HIV» for 2011	Calculations of the authors	Secondary analysis of bio-behavioural study «Behaviour Monitoring and HIV Prevalence among Injecting Drug Users as a Component of Second Generation Surveillance of HIV» for 2011	Calculations of the authors

¹¹ ANALYTICAL REPORT «Estimation of the Size of Populations Most-at-Risk for HIV-infection in Ukraine» as of 2012 based on the results of 2011 survey / G. Berleva, K. Dumchev, M. Kasianchuk et al. – K.: International HIV/AIDS Alliance in Ukraine, 2012 – P. 26.

Calculation of the estimated population size on the basis of the data obtained from the drug clinic about the number of women of reproductive age, who were registered as drug users in 2012, is presented in *Table 1.1.2*.

Table 1.1.2

**Estimated number of women of reproductive age,
who injected drugs in Dnipropetrovsk:**

According to the data of drug clinic registry (for 2012) and secondary analysis of results of bio-behavioural survey among IDUs

Number of women of reproductive age, who were registered at the drug clinic	Proportion of women, who indicated that they were registered at the drug clinic due to injecting drug use, %	Estimated number of women of reproductive age, who were using drugs
A	B	A*100/B
436	25.1	1,737
<i>The data were received from the following sources:</i>		
Dnipropetrovsk oblast drug clinic	Secondary analysis of bio-behavioural study «Behaviour Monitoring and HIV Prevalence among Injecting Drug Users as a Component of Second Generation Surveillance of HIV» for 2011	Calculations of the authors

So, the estimated number of women of reproductive age, who were using drugs in Dnipropetrovsk, may range from 1,737 to 2,532 (the medium value – 2,135) women. It amounts to 0.77 – 1.13% (mean value – 0.95%) of the total number of women of reproductive age.

**1.2 Assessment of the number of women,
who use drugs, among pregnant women
and new mothers in Dnipropetrovsk city**

Health care facilities of Dnipropetrovsk have provided statistical information about the number of new mothers, who used drugs (*Table 1.2.1*), for 2012 and about the number of newborns who were born with withdrawal syndrome, which may be an evidence of drug use by their mothers (*Table 1.2.2*). The data were collected from medical cards of the new mothers and from the patient registration logs.

The data were collected on the basis of the form «Number of new mothers, who used drugs in 2012» filled in by the specialists of the following health care facilities of Dnipropetrovsk:

- City Maternity Hospital № 1,
- City Clinical Hospital № 2,
- City Clinical Hospital № 9,
- Specialized Medical and Sanitary Clinic № 6,
- Road Clinic,
- Oblast Clinical Hospital,
- Dnipropetrovsk Oblast Perinatal Centre.

Total 12 city clinical hospitals are functioning in Dnipropetrovsk city (the data were collected in 2 of them) and 8 maternity hospitals (the data were collected in one of them). Other health care facilities, which can be visited by pregnant women, are fully represented. Selection of these health care facilities was based on the recommendations of the specialists from Department of Health of the City Public Administration of Dnipropetrovsk. These very health care facilities were selected because they register information about the drug use by pregnant women. If the fact of drug use in pregnancy is identified in other health care facilities, these women shall be referred to the above mentioned health care facilities. However, taking into account the fact that the data were collected not from all health facilities, the data can be incomplete and the calculations – underestimated.

Table 1.2.1

**Proportion of new mothers, who used drugs,
among the total number of new mothers
in Dnipropetrovsk city in 2012**

Total number of new mothers	Number of new mothers, who used drugs	Proportion of new mothers, who used drugs, among the total number of new mothers, %
A	B	$B \cdot 100 / A$
14,802	57	0.39
<i>The data were received from the following sources:</i>		
Department of Health of the Dnipropetrovsk Oblast Public Administration	Data from medical forms collected in the following health care facilities: CMH № 1, CCH № 1, № 2, SMSC № 6, Road Clinic, OCH, OPC	Calculations by the authors

These statistical data confirm that the majority of the new mothers, who used drugs, belonged to the age group 25–34 years (30 women).

Table 1.2.2 presents the data collected from the form «Number of newborns with the registered withdrawal syndrome in 2012», which was filled out by health care workers of Dnipropetrovsk city health facilities:

- City Maternity Hospital № 1,
- City Clinical Hospital № 2,
- City Clinical Hospital № 9,
- Specialized Medical and Sanitary Clinic № 6,
- Road Clinic,
- Oblast Clinical Hospital,
- Dnipropetrovsk Oblast Perinatal Centre.

Taking into account that the withdrawal syndrome is not registered ,in all cases when a woman uses drugs (some infants are born without this syndrome, even if a woman uses drugs, and sometimes this syndrome is overlooked by the physicians, and is registered as other diseases), further calculations will be based on the proportion of new mothers, who were using drugs, of the total number of new mothers in Dnipropetrovsk city in 2012.

Table 1.2.2

**Proportion of newborns with the withdrawal syndrome
among the total number of newborns
in Dnipropetrovsk city in 2012**

Total number of newborns	The number of newborns with registered withdrawal syndrome	Proportion of newborns with registered withdrawal syndrome of the total number of newborns, %
A	B	B*100/A
14,875	15	0.10
<i>The data were received from the following sources:</i>		
Department of Health of the Dnipropetrovsk Oblast Public Administration	Data from medical forms collected in the following health care facilities: CMH № 1, CCH № 1, № 2, SMSC № 6, Road Clinic, OCH, OPC	Calculations by the authors

1.3. Assessment of the number of HIV-infected new mothers, who were infected through injecting drug use in Dnipropetrovsk city

Data for the calculation of this indicator were provided by Dnipropetrovsk Oblast and City AIDS Centres. *Table 1.3.1* presents the aggregated number of HIV-infected new mothers with the known status and newly registered HIV-infected women.

The data were collected from the form «Number of HIV-infected new mothers with the known status» and «Number of newly registered HIV-infection cases among new mothers».

Table 1.3.1

Proportion of HIV-infected new mothers, who were infected through injecting drug use, in the total number of HIV-positive new mothers in Dnipropetrovsk city in 2012

Number of HIV-infected new mothers with the known status, who were infected through injecting drug use	34	49
Number of newly registered HIV-infection cases among new mothers, who were infected through injecting drug use	15	
Total number of HIV-infected new mothers	558	
Proportion of HIV-infected new mothers, who were infected through injecting drug use, in the total number of HIV-positive new mothers, %	8.8	

1.4 Reporting data on the number of HIV-infected pregnant women in Dnipropetrovsk city

Since 2012, according to the order № 612 of the Ministry of Health of Ukraine «On approval of the forms of primary registration documents and reporting for the monitoring of activities to prevent mother-to-child transmission of HIV, and on instructions for their filling out», the statistical data on the number of HIV-infected pregnant women are being collected, including specification of the fact of injecting drug use. The data provided by the Monitoring and Evaluation Centre of the Ukrainian Centre for Socially Dangerous Disease Control at the MOH of Ukraine are presented in *Table 1.4.1*.

Table 1.4.1

Prevention of mother-to-child transmission of HIV in 2012

Dnipropetrovsk oblast (Control of the data from the lines: 1 + 2 + 3 – 4 = 5 + 6)				
Indicator title	№ of a line	Total	Urban population	Rural population
HIV-infected pregnant women under follow-up by the beginning of 2012 (women who got pregnant in 2011 and whose pregnancy resulted in delivery in 2012)	1	235	196	39
Number of HIV-infected women who were under follow-up before 2012 and got pregnant in 2012	2	210	182	28
HIV-infected pregnant women taken under follow-up during 2012	3	458	331	127
<i>including:</i> the ones with the newly diagnosed HIV-infection (from line 3.0)	3.1	458	331	127
due to injecting drug use		17	17	0
<i>including:</i> active injecting drug users		15	15	0
women, who took substitution maintenance treatment		2	2	0
Patients deregistered in 2012	4	5	1	4
HIV-infected women under follow-up by the end of 2012, whose pregnancy resulted in delivery and abortions in 2012	5	586	514	72
HIV-infected pregnant women under follow-up by the end of 2012	6	312	194	118

Source: Registration of officially reported HIV-infected pregnant women at the health care facilities that provide follow-up for HIV-infected people.

1.5. Estimated number of HIV-infected women, who were infected through injecting drug use in Dnipropetrovsk oblast

This indicator has been calculated on the basis of the estimated number of women of reproductive age, who were using drugs in Dnipropetrovsk city, and of the data about prevalence of HIV among female IDUs on the basis of the results of bio-behavioural survey among IDUs conducted in 2011 (*Table 1.5.1*).

Table 1.5.1

Estimated number of HIV-infected female IDUs in Dnipropetrovsk oblast in 2012

Estimated number of female IDUs of reproductive age	Proportion of HIV-infected among female IDUs of reproductive age, %	Estimated number of HIV-infected female IDUs of reproductive age
A	B	C=A*B/100
1,737–2,532 (2,135)	42.3	734–1,071 (903)
<i>The data were received from the following source:</i>		
Calculations by the authors (Tables 1.1.1, 1.1.2)	Secondary analysis of bio-behavioural survey «Behaviour Monitoring and HIV Prevalence among Injecting Drug Users as a Component of Second Generation Surveillance of HIV», 2011; number of surveyed women of reproductive age – 123 including 52, who received HIV-positive test result during the linked study	Calculations by the authors

1.6. Consolidated estimates of the number of drug using women of reproductive age in Dnipropetrovsk, and an expert opinion

The experts, who were interviewed, included representatives of non-governmental organizations, Centre for Social Service for Families, Children and Youth, and Service on Children's Affairs. According to the experts, the collected data about the number of new mothers among female drug users were underestimated. The interviewed experts indicated that this group is 'closed' for official statistics, and that is why their number is understated. Taking this opinion into account and knowing the existing limitation of the research and biases in data calculations, the research team would suggest using the maximum indicator values to estimate the size of this target population.

Table 1.6.1

Consolidated estimates of different categories of drug using women of reproductive age in Dnipropetrovsk city in 2012

	Source	Number of women	%
Total number of women of reproductive age (15–49 years)	Department of Health of the Dnepropetrovsk Oblast Public Administration	224,688	100
Estimated number of female IDUs of reproductive age	Calculations, Table 1.1.1	2,532	1.13
Estimated number of HIV-infected women of reproductive age, who were infected through injecting drug use	Calculations, Table 1.5.1	903	0.40
Number of new mothers, who use drugs	Calculations, Table 1.2.1	57	0.025
Number of HIV-infected new mothers, who were infected through injecting drug use	Calculations, Table 1.3.1	49	0.022

2. ESTIMATED NUMBER OF WOMEN OF REPRODUCTIVE AGE IN KYIV CITY

Statistical information about the number of drug using women was provided by not all health care facilities in Kyiv that might have this information. The estimated number was calculated on the basis of information provided by the following facilities:

- Kyiv City Clinical Hospital «Sociotherapia»,
- Kyiv City AIDS Prevention Centre at the MOH of Ukraine,
- Kyiv City Maternity Hospital № 1,
- Kyiv City Maternity Hospital № 3,
- Kyiv City Clinical Hospital № 1,
- Central District Out-patient Clinic of Holosyivsky district,
- Antenatal clinics of Holosyivsky district,
- Antenatal Clinic of CDH of Pechersk district.

2.1. Estimated number of drug using women in Kyiv city

Estimated number of IDUs in Kyiv city is 31,300 individuals¹². According to bio-behavioural survey «Behaviour Monitoring and HIV Prevalence among Injecting Drug Users as a Component of Second Generation Surveillance of HIV», the proportion of women in the IDU population in Kyiv city is 29.8%, including all women of reproductive age (*see Table 2.1.1*).

Calculation of the estimated number on the basis of the data received from Kyiv City Clinical Hospital «Sociotherapia» about the number of women of reproductive age registered in 2012 due to use of drug substances is presented in *Table 2.1.2*. *Table 2.1.3* presents the estimated data calculated on the basis of an indicator «Number of women on SMT».

¹² ANALYTICAL REPORT «Estimation of the Size of Populations Most-at-Risk for HIV-infection in Ukraine» as of 2012 based on the results of 2011 survey / G. Berleva, K. Dumchev, M. Kasianchuk et al. – K.: International HIV/AIDS Alliance in Ukraine, 2012. – P. 26.

Table 2.1.1

**Estimated number of female injecting drug users
in Kyiv city according to the data of estimated size
of the general population of IDUs and secondary assessment
of the results of bio-behavioural survey among IDUs**

Estimated size of the general IDU population	Proportion of female IDUs, %	Estimated number of female IDUs	Proportion of female IDUs of reproductive age, %	Estimated number of women of reproductive age who inject drugs
A	B	$C=A*B/100$	D	$C*D/100$
31,300	29.8	9,327	100.0	9,327
<i>The data were received from the following sources:</i>				
Analytical report by the results of research «Evaluation of the size of most-at-risk populations with regards to HIV-infection in Ukraine in 2012»	Secondary analysis of bio-behavioural survey «Behaviour Monitoring and HIV Prevalence among Injecting Drug Users as a Component of Second Generation Surveillance of HIV», 2011	Calculations by the authors	Secondary analysis of bio-behavioural survey «Behaviour Monitoring and HIV Prevalence among Injecting Drug Users as a Component of Second Generation Surveillance of HIV», 2011	Calculations by the authors

Table 2.1.2

**Estimated number of women of reproductive age,
who use injecting drugs in Kyiv city on the basis of the data
of drug clinic registration (2012) and secondary analysis
of the results of bio-behavioural survey**

Number of women of reproductive age registered at the drug clinic	Proportion of women, who informed that they were registered at the state drug clinic due to the use of injecting drugs, %	Estimated number of women of reproductive age according to the drug clinic registration
A	B	$A*100/B$
1,657	7.0	23,671
<i>The data were received from the following sources:</i>		
Data were provided by Kyiv City Clinical Hospital «Sociotherapia»	Secondary analysis of bio-behavioural survey «Behaviour Monitoring and HIV Prevalence among Injecting Drug Users as a Component of Second Generation Surveillance of HIV», 2011	Calculations by the authors

This statistical information confirms that the majority of women enrolled in care belong to the age group of 25–49 years – 1,590 women.

Table 2.1.3

**Estimated number of women of reproductive age,
who use injecting drugs in Kyiv city, on the basis of drug clinic
registration (2012) and secondary analysis of bio-behavioural survey**

Number of women of reproductive age, who participate in SMT	Proportion of women, who informed that they participated in the SMT programme, %	Estimated number of women of reproductive age on the basis of participation in SMT programmes in Kyiv city
A	B	A*100/B
84	1.8	4,666
<i>The data were received from the following sources:</i>		
Data were provided by Kyiv City Clinical Hospital «Sociotherapia»	Secondary analysis of bio-behavioural survey «Behaviour Monitoring and HIV Prevalence among Injecting Drug Users as a Component of Second Generation Surveillance of HIV», 2011	Calculations by the authors

2.2 Analysis of the number of women, who use drugs, among pregnant women and new mothers in Kyiv city

Health care facilities from Kyiv city provided statistical information for 2012 on the number of new mothers, who used drugs (*Table 2.2.1*) and the number of infants born with withdrawal syndrome, which may indicate the drug use by their mothers (*Table 2.2.2*). Taking into account the fact that data on this indicator were received from not all health care facilities of Kyiv, an estimated number was calculated on the basis of the total number of infants born at health care facilities that provided statistical information.

The data were collected from the medical cards of the new mothers and from patient registration logs from the following facilities:

- Kyiv City Maternity Hospital № 1,
- Kyiv City Maternity Hospital № 3,
- Kyiv City Clinical Hospital № 1,
- Central District Out-patient Clinic of Holosyivsky district,
- Antenatal clinics of Holosyivsky district,
- Antenatal Clinic of CDH of Pechersk district.

Table 2.2.1

**Proportion of the new mothers, who were using drugs,
in the total number of new mothers in Kyiv city in 2012**

Total number of new mothers	Number of new mothers, who used drugs	Proportion of drug using new mothers in the total population of new mothers, %
A	B	$B*100/A$
12,203	44	0.36
<i>The data were received from the following sources:</i>		
Consolidated data from Kyiv City Maternity Hospital № 1, Kyiv City Maternity Hospital № 3, Kyiv City Clinical Hospital № 1, Central District Out-patient Clinic of Holosiyivsky district, Antenatal clinics of Holosiyivsky district, Antenatal Clinic of CDH of Pechersk district		Calculations by the authors

Table 2.2.2

**Proportion of pregnant women, who used drugs,
in the total number of pregnant women in Kyiv city in 2012**

Number of pregnant women	Number of pregnant women, who used drugs	Proportion of drug using pregnant women in the total population of pregnant women, %
A	B	$B*100/A$
2,458	3	0.33
<i>The data were received from the following sources:</i>		
Consolidated data from Kyiv City Maternity Hospital № 1, Kyiv City Maternity Hospital № 3, Kyiv City Clinical Hospital № 1, Central District Out-patient Clinic of Holosiyivsky district, Antenatal clinics of Holosiyivsky district, Antenatal Clinic of CDH of Pechersk district		Calculations by the authors

The data about the number of new mothers, who used drugs, and number of infants born with withdrawal syndrome in Kyiv city in 2012 indicate that these data are reported only in some cases. That is why the quantitative characteristics by these categories will be used only to calculate the national level data. As these data cannot be repeated, it is not possible to calculate these indicators separately for Kyiv city.

Table 2.2.3

**Proportions of newborns with withdrawal syndrome
in the total population of newborns born in Kyiv city in 2012**

General number of newborns	Number of newborns with identified withdrawal syndrome	Proportion of newborns with withdrawal syndrome in the total population of newborns, %
A	B	$B*100/A$
11,247	5	0.05
<i>The data were received from the following sources:</i>		
Consolidated data from Kyiv City Maternity Hospital № 1, Kyiv City Maternity Hospital № 3, Kyiv City Clinical Hospital № 1, Central District Out-patient Clinic of Holosiyivsky district, Antenatal clinics of Holosiyivsky district, Antenatal Clinic of CDH of Pechersk district		Calculations by the authors

2.3. Analysis of the number of HIV-infected new mothers, who were infected through injecting drug use in Kyiv city

Data for the calculation of this indicator were provided by Kyiv City AIDS Prevention Centre. *Table 2.3.1* presents the number of HIV-infected new mothers, who were infected as a consequence of drug use.

The data were collected from the forms «Number of HIV-infected new mothers with the known status» and «Number of newly identified HIV-infection cases among the new mothers».

Table 2.3.1

**Proportion of HIV-infected new mothers, who were infected
through injecting drug use, in the total number of HIV-positive
new mothers in Kyiv city in 2012**

Number of HIV-infected new mothers, who are IDUs	89
Total number of HIV-infected new mothers	229
Proportion of HIV-infected new mothers, who were infected through injecting drug use, in the total number of HIV-positive new mothers, %	38.9

2.4 Reporting data on the number of HIV-infected pregnant women in Kyiv city

According to the Order № 612 of the Ministry of Health of Ukraine «On approval of the forms of primary registration documents and reporting on the monitoring of PMTCT activities and instructions on filling them out», statistical data about the number of HIV-infected pregnant women, including specification of their injecting drug use, are being collected since 2012. The data were provided by the Monitoring and Evaluation Centre of the Ukrainian Centre for Socially Dangerous Disease Control at the MOH of Ukraine, and are presented in *Table 2.4.1* below.

Table 2.4.1

Prevention of mother-to-child transmission of HIV in 2012

Kyiv city (Control: 1 + 2 + 3 – 4 = 5 + 6)		
Indicator title	№ of a line	Number
HIV-infected pregnant women under follow-up by the beginning of 2012 (women who got pregnant in 2011 and whose pregnancy resulted in delivery in 2012)	1	83
Number of HIV-infected women who were under follow-up before 2012 and got pregnant in 2012	2	151
HIV-infected pregnant women taken under follow-up during 2012	3	118
<i>including:</i> the ones with the newly diagnosed HIV-infection (from line 3.0)	3.1	113
due to injecting drug use		18
<i>including:</i> active injecting drug users		7
women, who took substitution maintenance treatment		5
Patients deregistered in 2012	4	8
HIV-infected women under follow-up by the end of 2012, whose pregnancy resulted in delivery and abortions in 2012	5	257
HIV-infected pregnant women under follow-up by the end of 2012	6	87

Source: Registration of officially reported HIV-infected pregnant women at the health care facilities that provide follow-up for HIV-infected people.

2.5. Estimated number of HIV-infected women, who were infected through injecting drug use in Kyiv city

This indicator has been calculated on the basis of the estimated number of women of reproductive age, who were using drugs in Kyiv city, and of the data about prevalence of HIV among female IDUs on the basis of the results of bio-behavioural survey among IDUs conducted in 2011 (*Table 2.5.1*).

The estimated number of women of reproductive age ranges from 4,666 to 23,671. In order to calculate the estimated number of HIV-infected women, the authors suggest using an average estimate – 9,327 women, which was calculated on the basis of the report «Estimation of the Size of Populations Most-at-Risk for HIV-infection in Ukraine». Selection of this very group is based on the fact that the estimated number of women provided in the report are based on the maximum amount of statistical data and their comparative analysis, which suggests the best possible reliability of these estimates.

Table 2.5.1

Estimated number of HIV-infected female IDUs in Kyiv city in 2012

Estimated number of female IDUs of reproductive age	Proportion of HIV-infected among female IDUs of reproductive age, %	Estimated number of HIV-infected female IDUs of reproductive age
A	B	A*B/100
9,327	42.1	4,513
<i>The data were received from the following sources:</i>		
Calculations by the authors (Table 2.1.1)	Secondary analysis of bio-behavioural survey «Behaviour Monitoring and HIV Prevalence among Injecting Drug Users as a Component of Second Generation Surveillance of HIV», 2011; number of surveyed women of reproductive age – 152 including 64, who received HIV-positive test result during the linked study	Calculations by the authors

2.6. Consolidated estimates of the number of drug using women of reproductive age in Kyiv city, and an expert opinion

The experts interviewed in Kyiv indicated that this group is ‘closed’ for official statistics, and that is why their number is understated. Taking this opinion into account and knowing the existing limitation of the research and biases in data calculations, the research team would suggest using the maximum indicator values to estimate the size of this target population.

Table 2.6.1

Consolidated estimates of different categories of drug using women of reproductive age in Kyiv city in 2012

	Source	Number of women	%
Total number of women of reproductive age (15–49 years) by the end of 2012	State Statistics Service of Ukraine	761,619	100
Estimated number of female IDUs of reproductive age in Kyiv city in 2012	Calculations, Table 2.1.1	9,327	1.22
Estimated number of HIV-infected female IDUs	Calculations, Table 2.5.1	4,513	0.59
Number of HIV-infected new mothers, who are IDUs	Calculations, Table 2.3.1	89	0.012

Taking into account the fact that not all health care facilities of Kyiv city provided the data about the number of drug using new mothers, their number (44) does not correlate with the data that reflect general situation in the city by other categories. That is why these data were not entered in *Table 2.6.1*, but they can be taken into consideration for the analysis of prevalence of drug use among new mothers in certain health care facilities in Kyiv.

The experts, who were interviewed, included representatives of non-governmental organizations, Centre for Social Service for Families, Children and Youth, and Service on Children’s Affairs. According to the experts, there is an insignificant number of pregnant women or new mothers among female injecting drug users. *«It happens very rarely. Let’s take the last two and a half years. Only our organization has been implementing this programme. We had 4 pregnant women. “Step by Step” – when I worked, I remember that we had 5 such women. That is, it is not frequent. There was a situation, when girls came to us and complained that it had been very hard for them to register at the gynaecological service, because there they try to persuade them to terminate pregnancy. But now we do not have many clients of this kind».*

3. ESTIMATED NUMBER OF WOMEN OF REPRODUCTIVE AGE IN VOLYN OBLAST

Statistical information about the number of drug using women was collected in all health care facilities of the cities of Lutsk, Novovolynsk and oblast districts (Volodymyr-Volynsky, Kiveretsky and Kovel'sky).

3.1. Estimated number of drug using women in Volyn oblast

An estimated number of IDUs in Volyn oblast is 5,500 people¹³. According to a bio-behavioural study «Behaviour Monitoring and HIV Prevalence among Injecting Drug Users as a Component of Second Generation Surveillance of HIV», the proportion of women in the IDU population in Lutsk was 18.5%, including 94.5% women of reproductive age (see Table 3.1.1).

Table 3.1.1

Estimated number of female injecting drug users in Volyn oblast: according to the estimated data on the total population size of IDUs and the secondary analysis of results of the bio-behavioural survey of IDUs

Estimated population size of IDUs	Proportion of female IDUs, %	Estimated population size of female IDUs	Proportion of female IDUs of reproductive age, %	Estimated number of women of reproductive age, who are injecting drugs
A	B	$C=A*B/100$	D	$C*D/100$
5,500	18.5	1,018	94.5	961
<i>The data were received from the following sources:</i>				
Analytical report by the results of research «Evaluation of the size of most-at-risk populations vulnerable to HIV-infection in Ukraine» for 2012	Secondary analysis of bio-behavioural study «Behaviour Monitoring and HIV Prevalence among Injecting Drug Users as a Component of Second Generation Surveillance of HIV» for 2011	Calculations of the authors	Secondary analysis of bio-behavioural study «Behaviour Monitoring and HIV Prevalence among Injecting Drug Users as a Component of Second Generation Surveillance of HIV» for 2011	Calculations of the authors

¹³ ANALYTICAL REPORT «Estimation of the Size of Populations Most-at-Risk for HIV-infection in Ukraine» as of 2012 based on the results of 2011 survey / G. Berleva, K. Dumchev, M. Kasianchuk et al. – K.: International HIV/AIDS Alliance in Ukraine, 2012. – P. 26.

Calculation of the estimated population size on the basis of the data obtained from Volyn oblast drug clinic about the number of women of reproductive age, who were registered as drug users in 2012, is presented in *Table 3.1.2*.

Table 3.1.2

**Estimated number of drug using women in Volyn oblast:
according to the data of drug clinic registry (for 2012) and secondary
analysis of results of bio-behavioural survey among IDUs**

Number of women of reproductive age, who were registered at the drug clinic	Proportion of women, who indicated that they were registered at the drug clinic due to injecting drug use, %	Estimated number of women of reproductive age, who were using drugs, according to the drug service data
A	B	A*100/B
229	28.1	814
<i>The data were received from the following sources:</i>		
Volyn oblast drug clinic	Secondary analysis of bio-behavioural study «Behaviour Monitoring and HIV Prevalence among Injecting Drug Users as a Component of Second Generation Surveillance of HIV» for 2011	Calculations of the authors

This statistical information demonstrates that an overwhelming majority of women, registered at drug clinics (179 women), represent the age group of 25–49 years.

Table 3.1.3

**Estimated number of women of reproductive age
on the basis of participation in SMT programmes in Volyn oblast:
according to the data of drug clinic registry (for 2012) and secondary
analysis of results of bio-behavioural survey among IDUs**

Number of women of reproductive age, who participate in SMT programmes	Proportion of women, who informed that they were participants of an SMT programme, %	Estimated number of women of reproductive age on the basis of participation in SMT programmes
A	B	A*100/B
22	15.4	142
<i>The data were received from the following sources:</i>		
Volyn oblast drug clinic	Secondary analysis of bio-behavioural study «Behaviour Monitoring and HIV Prevalence among Injecting Drug Users as a Component of Second Generation Surveillance of HIV» for 2011	Calculations of the authors

3.2. Assessment of the number of women, who use drugs, among pregnant women and new mothers in Volyn oblast

Health care facilities of Volyn oblast have provided statistical information about the number of new mothers, who used drugs (*Table 3.2.1*) and the number of pregnant women, who were examined by a gynaecologist (*Table 3.2.2*) in 2012 and about the number of women of reproductive age, who were examined by a gynaecologist (*Table 3.2.3*). During 12 months of 2012 not a single case of neonatal withdrawal syndrome was registered at maternity hospital of Volyn oblast (total 9,206 children were born).

The data were collected from the medical cards of new mothers and from patient registration logs from all maternity hospitals and antenatal clinics of the cities of Lutsk and Novovolynsk, and of the oblast districts (Volodymyr-Volynsky, Kiveretsky and Kovelsky):

- Form «Number of new mothers, who were using drugs in 2012».
- Form «Number of pregnant women, who were using drugs in 2012».
- Form «Number of women, who were examined by a gynaecologist in 2012».
- Form «Number of pregnant women, who were using drugs and were examined at an antenatal clinic in 2012».

Table 3.2.1

Proportion of new mothers, who used drugs, among the total number of new mothers in Volyn oblast in 2012

Total number of new mothers	Number of new mothers, who were using drugs	Proportion of new mothers, who used drugs, among the total number of new mothers, %
A	B	B*100/A
9,171	11	0.12
<i>The data were received from the following sources:</i>		
Data from maternity hospitals of the cities of Lutsk and Novovolynsk, and of the oblast districts (Volodymyr-Volynsky, Kiveretsky and Kovelsky)		Calculation by the authors

Table 3.2.2

**Proportion of pregnant women,
who were using drugs in Volyn oblast in 2012**

Total number of pregnant women	Number of pregnant women, who were using drugs	Proportion of pregnant women who were using drugs, %
A	B	$B*100/A$
9,438	11	0.12
<i>The data were received from the following sources:</i>		
Data from maternity hospitals of the cities of Lutsk and Novovolynsk, and of the oblast districts (Volodymyr-Volynsky, Kiveretsky and Kovelsky)		Calculation by the authors

Table 3.2.3

**Proportion of pregnant women,
who were examined by a gynaecologist in Volyn oblast in 2012**

Total number of pregnant women	Number of pregnant women, who examined by a gynaecologist	Proportion of pregnant women, who were examined by a gynaecologist, %
A	B	$B*100/A$
115,680	54	0.05
<i>The data were received from the following sources:</i>		
Data from maternity hospitals of the cities of Lutsk and Novovolynsk, and of the oblast districts (Volodymyr-Volynsky, Kiveretsky and Kovelsky)		Calculation by the authors

**3.3. Assessment of the number
of HIV-infected new mothers, who were infected
through injecting drug use in Volyn oblast**

Data for the calculation of this indicator were provided by Volyn Oblast AIDS Centre. *Table 3.3.1* presents the aggregated number of HIV-infected new mothers with the known status and newly registered HIV cases caused by drug use.

Table 3.3.1

**Proportion of HIV-infected new mothers, who were infected
through injecting drug use, in the total number
of HIV-positive new mothers in Volyn oblast in 2012**

Total number of HIV-infected new mothers	75	
Number of HIV-infected new mothers with the known status	11	12
Number of newly registered HIV-infection cases among new mothers	1	
Proportion of HIV-infected new mothers, who were infected through injecting drug use, in the total number of HIV-positive new mothers, %	16	

3.4. The data of reporting about the number of HIV-infected pregnant women in Volyn oblast

Since 2012, according to the order № 612 of the Ministry of Health of Ukraine «On approval of the forms of primary registration documents and reporting for the monitoring of activities to prevent mother-to-child transmission of HIV, and on instructions for their filling out», the statistical data on the number of HIV-infected pregnant women are being collected, including specification of the fact of injecting drug use. The data provided by the Monitoring and Evaluation Centre of the Ukrainian Centre for Socially Dangerous Disease Control at the MOH of Ukraine are presented in *Table 3.4.1*.

Table 3.4.1

Prevention of mother-to-child transmission of HIV in 2012

Volyn oblast (Control: 1 + 2 + 3 – 4 = 5 + 6)				
Indicator title	№ of a line	Total	Urban population	Rural population
HIV-infected pregnant women under follow-up by the beginning of 2012 (women who got pregnant in 2011 and whose pregnancy resulted in delivery in 2012)	1	25	19	6
Number of HIV-infected women who were under follow-up before 2012 and got pregnant in 2012	2	29	17	12
HIV-infected pregnant women taken under follow-up during 2012	3	21	17	4
<i>including:</i> the ones with the newly diagnosed HIV-infection (from line 3.0)	3.1	21	17	4
due to injecting drug use		1	1	0
<i>including:</i> active injecting drug users		0	0	0
women, who took substitution maintenance treatment		0	0	0
Patients deregistered in 2012	4	0	0	0
HIV-infected women under follow-up by the end of 2012, whose pregnancy resulted in delivery and abortions in 2012	5	57	42	15
HIV-infected pregnant women under follow-up by the end of 2012	6	18	11	7

Source: Registration of officially reported HIV-infected pregnant women at the health care facilities that provide follow-up for HIV-infected people.

3.5. Assessment of the number of HIV-infected women, who were infected through injecting drug use in Volyn oblast

This indicator has been calculated on the basis of the estimated number of women of reproductive age, who were using drugs in Volyn oblast, and of the data about prevalence of HIV among female IDUs on the basis of the results of bio-behavioural survey among IDUs conducted in 2011 (*Table 3.5.1*).

Table 3.5.1

Estimated number of HIV-infected female IDUs in Volyn oblast in 2012

Estimated number of female IDUs of reproductive age	Proportion of HIV-infected among female IDUs of reproductive age by the results of bio-behavioural survey, %	Estimated number of HIV-infected female IDUs of reproductive age
A	B	A*B/100
814–961 (888)	9.8	80–94 (87)
<i>The data were received from the following sources:</i>		
Calculations by the authors (Tables 3.1.1, 3.1.2, 3.1.3)	Secondary analysis of bio-behavioural survey «Behaviour Monitoring and HIV Prevalence among Injecting Drug Users as a Component of Second Generation Surveillance of HIV», 2011; number of surveyed women of reproductive age – 61 including 6, who received HIV-positive test result during the linked study	Calculations by the authors

3.6. Consolidated estimates of the number of drug using women of reproductive age in Volyn oblast, and an expert opinion

The interviewed experts indicated that this group is ‘closed’ for official statistics, and that is why their number is understated. Taking this opinion into account and knowing the existing limitation of the research and biases in data calculations, the research team would suggest using the maximum indicator values to estimate the size of this target population.

Table 3.6.1

Consolidated estimates of different categories of drug using women of reproductive age in Volyn oblast in 2012

	Source	Number of women	%
Total number of women of reproductive age (15–49 years)	Department of Health of the Volyn Oblast Public Administration	135,364	100
Estimated number of female IDUs of reproductive age	Calculations, Table 3.1.1	961	0.71
Estimated number of HIV-infected women of reproductive age, who were infected through injecting drug use	Calculations, Table 3.5.1	87	0.06
Number of pregnant women, who use drugs	Calculations, Table 3.2.3	54	0.04
Number of new mothers, who were infected through drug use	Calculations, Table 3.3.1	12	0.01

4. ESTIMATED NUMBER OF WOMEN OF REPRODUCTIVE AGE IN POLTAVA CITY

Statistical information about the number of drug using women was collected in all antenatal clinics and at the maternity hospital in Poltava.

4.1. Estimated number of drug using women in Poltava city

An estimated number of IDUs in Poltava city is 2,900 individuals¹⁴. According to a bio-behavioural study «Behaviour Monitoring and HIV Prevalence among Injecting Drug Users as a Component of Second Generation Surveillance of HIV», the proportion of women in the IDU population in Poltava was 37.1%, including 97.0% women of reproductive age (see Table. 4.1.1).

Table 4.1.1

**Estimated number of female injecting drug users in Poltava city:
according to the estimated data on the total population size of IDUs and
the secondary analysis of results of the bio-behavioural survey of IDUs**

Estimated population size of IDUs	Proportion of female IDUs, %	Estimated population size of female IDUs	Proportion of female IDUs of reproductive age, %	Estimated number of women of reproductive age, who are injecting drugs
A	B	C=A*B/100	D	C*D/100
2,900	37.1	1,076	97.0	1,044
<i>The data were received from the following sources:</i>				
Analytical report by the results of research «Evaluation of the size of most-at-risk populations vulnerable to HIV-infection in Ukraine» for 2012	Secondary analysis of bio-behavioural study «Behaviour Monitoring and HIV Prevalence among Injecting Drug Users as a Component of Second Generation Surveillance of HIV» for 2011	Calculations of the authors	Secondary analysis of bio-behavioural study «Behaviour Monitoring and HIV Prevalence among Injecting Drug Users as a Component of Second Generation Surveillance of HIV» for 2011	Calculations of the authors

¹⁴ ANALYTICAL REPORT «Estimation of the Size of Populations Most-at-Risk for HIV-infection in Ukraine» as of 2012 based on the results of 2011 survey / G. Berleva, K. Dumchev, M. Kasianchuk et al. – K.: International HIV/AIDS Alliance in Ukraine, 2012. – P. 26.

Calculation of the estimated population size on the basis of the data obtained from the Poltava oblast drug clinic about the number of women of reproductive age, who were registered as drug users in 2012, is presented in *Table 4.1.2*.

Table 4.1.2

**Estimated number of women of reproductive age,
who injected drugs in Poltava city:**

According to the data of drug clinic registry (for 2012) and secondary analysis of results of bio-behavioural survey among IDUs in Poltava

Number of women of reproductive age, who were registered at the drug clinic in Poltava in 2012	Proportion of women, who indicated that they were registered at the governmental drug clinic due to injecting drug use in Poltava, %	Estimated number of women of reproductive age, according to the drug clinic registration data in Poltava in 2012
A	B	A*100/B
138	26.2	256
<i>The data were received from the following sources:</i>		
Poltava oblast drug clinic	Secondary analysis of bio-behavioural study «Behaviour Monitoring and HIV Prevalence among Injecting Drug Users as a Component of Second Generation Surveillance of HIV» for 2011	Calculations by the authors

This statistical information suggests that the overwhelming majority (121) of women, who are registered at the drug clinic, belong to the age group of 25–49 years.

Table 4.1.3

**Estimated number of women of reproductive age
on the basis of participation in SMT programmes in Poltava city:**

according to the data of drug clinic registry (for 2012) and secondary analysis of results of bio-behavioural survey among IDUs

Number of women of reproductive age, who participate in SMT programmes	Proportion of women, who informed that they were participants of an SMT programme, %	Estimated number of women of reproductive age on the basis of participation in SMT programmes
A	B	A*100/B
46	14.5	317
<i>The data were received from the following sources:</i>		
Poltava oblast drug clinic	Secondary analysis of bio-behavioural study «Behaviour Monitoring and HIV Prevalence among Injecting Drug Users as a Component of Second Generation Surveillance of HIV» for 2011	Calculations of the authors

4.2. Assessment of the number of women, who use drugs, among pregnant women and new mothers in Poltava city

Most of health care facilities have submitted statistical information about the absence or an insignificant number of drug using new mothers. The data are presented in *Tables 4.2.1–4.2.2*.

The data were collected from the medical cards of new mothers and from patient registration logs from all maternity hospitals and antenatal clinics:

- Form «Number of new mothers, who were using drugs in 2012».
- Form «Number of newborns with the withdrawal syndrome in 2012».

Table 4.2.1

Proportion of new mothers, who used drugs, among the total number of new mothers in Poltava in 2012

Total number of new mothers	Number of new mothers, who were using drugs	Proportion of new mothers, who used drugs, among the total number of new mothers, %
A	B	B*100/A
5,042	9	0.18
<i>The data were received from the following sources:</i>		
Data from medical cards and patient registration logs from all maternity hospitals and antenatal clinics of Poltava city		Calculations by the authors

Table 4.2.2

Proportion of newborns with the withdrawal syndrome in the total number of newborns in Poltava city in 2012

Number of newborns	Number of newborns with the withdrawal syndrome	Proportion of newborns with the withdrawal syndrome in the total number of newborns, %
A	B	B*100/A
5,126	6	0.12
<i>The data were received from the following sources:</i>		
Data from medical cards and patient registration logs from all maternity hospitals and antenatal clinics of Poltava city		Calculations by the authors

4.3. Assessment of the number of HIV-infected new mothers, who were infected through injecting drug use in Poltava city

Data for the calculation of this indicator were provided by Poltava Oblast AIDS Centre. *Table 4.3.1* presents the aggregated number of HIV-infected new mothers with the known status and newly registered HIV-infected women, who were infected through injecting drug use.

The data were collected from the following sources:

- Newsletter «HIV-infection in Ukraine», № 39.
- Forms «Number of HIV-infected new mothers with the known status in 2012», «Number of newly registered HIV-infection cases among new mothers in 2012», «Number of HIV-infected pregnant women and new mothers co-infected with TB in 2012» filled out by the specialists from Poltava Oblast AIDS Prevention Centre.

Table 4.3.1

Proportion of HIV-infected new mothers, who were infected through injecting drug use, in the total number of HIV-positive new mothers in Poltava city in 2012

Total number of HIV-infected new mothers	28
Number of HIV-infected new mothers with the known status, who were infected through injecting drug use	3
Number of newly registered HIV-infection cases among new mothers, who were infected through injecting drug use	0
Proportion of HIV-infected new mothers, who were infected through injecting drug use, in the total number of HIV-positive new mothers, %	10.7

4.4. Reporting data on the number of HIV-infected pregnant women in Poltava city

Since 2012, according to the order № 612 of the Ministry of Health of Ukraine «On approval of the forms of primary registration documents and reporting for the monitoring of activities to prevent mother-to-child transmission of HIV, and on instructions for their filling out», the statistical data on the number of HIV-infected pregnant women are being collected, including specification of the fact of injecting drug use.

The data provided by the Monitoring and Evaluation Centre of the Ukrainian Centre for Socially Dangerous Disease Control at the MOH of Ukraine are presented in *Table 4.4.1*.

Table 4.4.1

Prevention of mother-to-child transmission of HIV in 2012

Poltava oblast (Control: 1 + 2 + 3 – 4 = 5 + 6)				
Indicator title	№ of a line	Total	Urban population	Rural population
HIV-infected pregnant women under follow-up by the beginning of 2012 (women who got pregnant in 2011 and whose pregnancy resulted in delivery in 2012)	1	31	13	18
Number of HIV-infected women who were under follow-up before 2012 and got pregnant in 2012	2	38	16	22
HIV-infected pregnant women taken under follow-up during 2012	3	39	20	19
<i>including:</i> the ones with the newly diagnosed HIV-infection (from line 3.0)	3.1	39	20	19
due to injecting drug use		7	5	2
<i>including:</i> active injecting drug users		0	0	0
women, who took substitution maintenance treatment		0	0	0
Patients deregistered in 2012	4	0	0	0
HIV-infected women under follow-up by the end of 2012, whose pregnancy resulted in delivery and abortions in 2012	5	79	31	48
HIV-infected pregnant women under follow-up by the end of 2012	6	29	18	11

Source: Registration of officially reported HIV-infected pregnant women at the health care facilities that provide follow-up for HIV-infected people.

4.5. Estimated number of HIV-infected women, who were infected through injecting drug use in Poltava city

This indicator has been calculated on the basis of the estimated number of women of reproductive age, who were using drugs in Poltava city, and of the data about prevalence of HIV among female IDUs on the basis of the results of bio-behavioural survey among IDUs conducted in 2011 (*Table 4.5.1*).

The estimated number of women of reproductive age ranges from 256 to 1,044 individuals. In order to calculate the estimated number of HIV-infected women, the authors suggest using the estimate – 1,044 women, which was calculated on the basis of the report «Estimation of the Size of Populations Most-at-Risk for HIV-infection in Ukraine». Selection of this very estimate is based on the fact that the estimated number of women included in the report are based on the maximum amount of statistical data and their comparative analysis, which suggests the best possible reliability of these estimates.

Table 4.5.1

Estimated number of HIV-infected female IDUs in Poltava city in 2012

Estimated number of female IDUs of reproductive age	Proportion of HIV-infected women of reproductive age by the results of bio-behavioural survey, %	Estimated number of HIV-infected female IDUs
A	B	A*B/100
1,044	21.4	223
<i>The data were received from the following sources:</i>		
Calculations by the authors (Table 4.1.1)	Secondary analysis of bio-behavioural survey «Behaviour Monitoring and HIV Prevalence among Injecting Drug Users as a Component of Second Generation Surveillance of HIV», 2011	Calculations by the authors

4.6. Consolidated estimates of the number of drug using women of reproductive age in Poltava city, and an expert opinion

The interviewed experts indicated that this group is ‘closed’ for official statistics, and that is why their number is understated. Taking this opinion into account and knowing the existing limitation of the research and biases in data calculations, the research team would suggest using the maximum values to estimate the size of this target population.

Table 4.6.1

Consolidated estimates of different categories of drug using women of reproductive age in Poltava city in 2012

	Source	Number of women	%
Total number of women of reproductive age (15–49 years)	Department of Health of the Poltava Oblast Public Administration	78,145	100
Estimated number of female IDUs of reproductive age	Calculations, Table 4.1.1	1,044	1.34
Estimated number of HIV-infected women of reproductive age, who were infected through injecting drug use	Calculations, Table 4.5.1	223	0.29
Number of drug using pregnant women	Calculations, Table 4.2.1	9	0.01
Number of HIV-infected new mothers, who were infected through injecting drug use	Calculations, Table 4.3.1	3	0.003

5. NATIONAL LEVEL CALCULATION

5.1. Estimated number of women, who use drugs

Analysis of estimation results for four separate regions of Ukraine demonstrated that the most accurate indicator to calculation the population size of female IDUs of reproductive age is the indicator based on the results of the secondary analysis of the estimated size of the total population of IDUs on the regional and national levels¹⁵ and the data of the bio-behavioural study «Behaviour Monitoring and HIV Prevalence among Injecting Drug Users as a Component of Second Generation Surveillance of HIV» conducted in 2011. These estimates turned out to be closest to the population size estimates calculated on the basis of the data collected from health care facilities.

Table 5.1.1

Estimated number of female injecting drug users in Ukraine in general according to the data of estimated size of the general population of IDUs and secondary assessment of the results of bio-behavioural survey among IDUs

Estimated size of the general IDU population	Proportion of female IDUs, %	Estimated number of female IDUs	Proportion of female IDUs of reproductive age, %	Estimated number of women of reproductive age who inject drugs
A	B	C=A*B/100	D	C*D/100
310,000	27.5	85,250	96.5	82,266
<i>The data were received from the following sources:</i>				
Analytical report by the results of research «Evaluation of the size of most-at-risk populations with regards to HIV-infection in Ukraine in 2012»	Secondary analysis of bio-behavioural survey «Behaviour Monitoring and HIV Prevalence among Injecting Drug Users as a Component of Second Generation Surveillance of HIV», 2011	Calculations by the authors	Secondary analysis of bio-behavioural survey «Behaviour Monitoring and HIV Prevalence among Injecting Drug Users as a Component of Second Generation Surveillance of HIV», 2011	Calculations by the authors

¹⁵ ANALYTICAL REPORT «Estimation of the Size of Populations Most-at-Risk for HIV-infection in Ukraine» as of 2012 based on the results of 2011 survey / G. Berleva, K. Dumchev, M. Kasianchuk et al. – K.: International HIV/AIDS Alliance in Ukraine, 2012. – P. 26.

Calculation of the population size estimate for the women of reproductive age, who inject drugs, on the basis of an agreed upon estimate of the size of this IDU population with the use of coefficients (proportion of female IDUs and female IDUs of reproductive age), calculated on the basis of the data of bio-behavioural survey on the national level is presented in *Table 5.1.1*.

5.2. Estimated number of new mothers, who use drugs

The estimated data on the population size of the new mothers, who were using drugs in four regions of Ukraine, allowed calculating the proportion of such new mothers among the general population of new mothers in the region. *Table 5.2.1* presents official data about the number of new mothers in Ukraine and contains a calculated number of new mothers, who were using drugs¹⁶. The proportion of drug using new mother in the total population of the new mothers in the regions of this research was 0.12–0.39%.

Table 5.2.1

Estimated number of new mothers, who were using drugs in Ukraine in 2012

Number of new mothers	Proportion of drug using new mothers, % ¹⁷	Estimated number of drug using new mothers (<i>min-max</i>)
A	B	A*B/100
516,020	0.12–0.39	619–2,012
<i>The data were received from the following sources:</i>		
State Statistics Service of Ukraine	Tables 1.2.1, 2.2.1, 3.2.1, 4.2.1	Calculations by the authors

¹⁶ A certain bias is possible taking into account that one mother can give birth to twins or triplets.

¹⁷ The proportion is calculated for the four regions of research, while for other regions these data were extrapolated considering the birth rates in the regions.

5.3. Reporting data on the number of HIV-infected pregnant women in Ukraine

According to the Order № 612 of the Ministry of Health of Ukraine «On approval of the forms of primary registration documents and reporting on the monitoring of PMTCT activities and instructions on filling them out», statistical data about the number of HIV-infected pregnant women, including specification of their injecting drug use, are being collected since 2012. The data were provided by the Monitoring and Evaluation Centre of the Ukrainian Centre for Socially Dangerous Disease Control at the MOH of Ukraine, and are presented in *Table 5.3.1* below.

Table 5.3. 1

Prevention of mother-to-child transmission of HIV in 2012

Ukraine in general (Control of the data by the lines: 1 + 2 + 3 – 4 = 5 + 6)				
Indicator title	Line	Total	Urban population	Rural population
HIV-infected pregnant women under follow-up by the beginning of 2012 (women who got pregnant in 2011 and whose pregnancy resulted in delivery in 2012)	1	976	705	271
Number of HIV-infected women who were under follow-up before 2012 and got pregnant in 2012	2	1,897	1341	556
HIV-infected pregnant women taken under follow-up during 2012	3	2,346	1,622	824
<i>including:</i> the ones with the newly diagnosed HIV-infection (from line 3.0)	3.1	2,316	1,610	706
due to injecting drug use		138	117	21
<i>including:</i> active injecting drug users		43	41	2
women, who took substitution maintenance treatment		16	16	0
Patients deregistered in 2012	4	87	67	20
HIV-infected women under follow-up by the end of 2012, whose pregnancy resulted in delivery and abortions in 2012	5	4,133	2,968	1,165
HIV-infected pregnant women under follow-up by the end of 2012	6	999	633	366

Source: Registration of officially reported HIV-infected pregnant women at the health care facilities that provide follow-up for HIV-infected people.

Table 5.3.2

**Proportion of IDUs among officially registered
HIV-infected pregnant women, in dynamics**

Year	Officially registered HIV-infected pregnant women with the newly diagnosed HIV-infection, number of women	Including those infected through IDU		Active IDUs	
		people	%	people	%
2005	1,989	302	15.18		
2006	2,272	259	11.4		
2007	2,436	226	10.92		
2008	2,540	249	9.8		
2009	2,231	188	8.43		
2010	2,018	168	8.33		
2011	2,167	151	6.97		
2012	2,316	138	5.96	43	1.86

Source: data from the Ukrainian Centre for Socially Dangerous Disease Control at the MOH of Ukraine.

5.4. Estimated number of HIV-infected women and HIV-infected pregnant women, who were infected through injecting drug use

This indicator has been calculated on the basis of the estimated number of women of reproductive age, who were using drugs in Ukraine in 2012, and of the data about proportion of HIV-infected women of reproductive age on the basis of analysis of bio-behavioural survey «Behaviour Monitoring and HIV Prevalence among Injecting Drug Users as a Component of Second Generation Surveillance of HIV».

Table 5.4.1

Estimated number of HIV-infected women of reproductive age, who were infected through injecting drug use in Ukraine in 2012

Estimated number of female IDUs of reproductive age	Proportion of HIV-infected women of reproductive age among IDUs, %	Estimated number of HIV-infected women of reproductive age, who were infected through injecting drug use
A	B	A*B/100
82,266	24.0	19,744
<i>The data were received from the following sources:</i>		
Table 5.1	Secondary analysis of bio-behavioural survey «Behaviour Monitoring and HIV Prevalence among Injecting Drug Users as a Component of Second Generation Surveillance of HIV», 2011; total number of women of reproductive age – 2,405 including 576, who received HIV-positive test result during the linked study	Calculations by the authors

Table 5.4.2 presents the estimated number of HIV-infected pregnant women, who were infected as a result of drug use. The estimate is calculated on the basis of official statistical data about the number of HIV-infected pregnant women in Ukraine, and proportion of pregnant women, who were infected as a result of drug use, calculated for four researched regions of Ukraine.

Table 5.4.2

**Estimated number of HIV-infected pregnant women,
who were infected through injecting drug use in Ukraine in 2012**

HIV-infected women under follow-up by the end of 2012, whose pregnancy resulted in delivery and abortions in 2012	Proportion of HIV-infected pregnant women, who were infected as a result of drug use, %	Estimated number of HIV-infected pregnant women, who were infected through injecting drug use (<i>min-max</i>)
A	B	A*B/100
4,133	8.8–38.9	364–1,608
<i>The data were received from the following sources:</i>		
Records on officially registered HIV-infected pregnant women at health care facilities that provide follow-up for HIV-infected people / Data from the Monitoring and Evaluation Centre of the Ukrainian Centre for Socially Dangerous Disease Control at the MOH of Ukraine (<i>Table 5.3.1</i>)	Tables 1.3.1, 2.3.1, 3.3.1, 4.3.1	Calculations by the authors
HIV-infected pregnant women under follow-up by the beginning of 2012	Proportion of HIV-infected pregnant women, who were infected as a result of drug use, %	Estimated number of HIV-infected pregnant women, who were infected through injecting drug use (<i>min-max</i>)
A	B	A*B/100%
999	8.8–38.9	88–389
<i>The data were received from the following sources:</i>		
Records on officially registered HIV-infected pregnant women at health care facilities that provide follow-up for HIV-infected people / Data from the Monitoring and Evaluation Centre of the Ukrainian Centre for Socially Dangerous Disease Control at the MOH of Ukraine (<i>Table 5.3.1</i>)	Tables 1.3.1, 2.3.1, 3.3.1, 4.3.1	Calculations by the authors
TOTAL:		452–1,997

It should be noted that the data of Ukrainian Centre for Socially Dangerous Disease Control of the MOH of Ukraine about the number of officially registered HIV-infected pregnant women with the newly diagnosed HIV-infection (2,316 in 2012) and the number of women infected through injecting drug use among them (138 women, or 5.96%) (see *Table 5.3.2*) should not be used to calculate in order

to get an estimate of the total number of HIV-infected pregnant women, who were infected through injecting drug use. First of all, this statistics is based on the responses of women (self-identification) about their experience of injecting drug use and is not complete (the drug using experience, especially in the past, is usually concealed). Secondly, these data include only the number of newly identified cases of HIV-infection. At the same time, these estimates provide an opportunity to plan prevention activities and their costs.

5.5. Consolidated estimates of the number of drug using women of reproductive age in Ukraine in general

Consolidated estimates that are based on the analysis are presented in *Table 5.5.1*. The least clear are estimates of the number of pregnant women, who are active injecting drug users, and the estimated number of HIV-infected pregnant women, who were infected through IDU.

Table 5.5.1

Consolidated estimates of different categories of drug using women of reproductive age in Ukraine in 2012

	Indicators	Source	Number of women	%
	Total number of women of reproductive age (15–49 years)	State Statistics Service	11,441,025	100
	Number of new mothers	State Statistics Service	516,020	4.51
1.	Estimated number of female IDUs of reproductive age	Calculations, Table 5.1.1	82,266	0.71
2.	Estimated number of HIV-infected women, who were infected as a result of drug use	Calculations, Table 5.4.1	19,744	0.17
	Recommended estimate of the number of pregnant women, who inject drugs	Harmonization of indicators 3A and 3B	2,600	0.023
3.	3A. Estimated number of pregnant women, who are active IDUs	Calculations, Tables 1.2.1, 3.2.3, 4.2.1	2,860 (1,144–4,576)	0.025 (0.01–0.04)
	3B. Estimated number of new mothers, who injected drugs	Calculations, Table 5.2.1	1,316 (619–2,012)	0.01
4.	Estimated number of HIV-infected pregnant women, who were infected as a result of drug use	Calculations, Table 5.4.2	1,225 (452–1,997)	0.01

CONCLUSIONS AND RECOMMENDATIONS

So, the conducted analysis provides grounds to state, that the minimal estimated number of women of reproductive age, who are injecting drugs, is **0.71% of the total number of women of reproductive age.**

An estimated number of HIV-infected women of reproductive age, who were infected through drug use, is almost 20,000 women (19 744). Considering the national estimation of the total number of people living with HIV in the beginning of 2013 (238,000 people¹⁸) and their gender structure (45% are women¹⁹), one can state that **every one in five HIV-positive women was infected as a result of injecting drug use.**

The minimal estimate of the number of pregnant women, who inject drugs is 2,600 women.

An estimated number of HIV-infected pregnant women in Ukraine, who were infected through injecting drug use is 1,225 women.

Taking into account the fact that the rate of HIV transmission from the drug addicted women to their children amounts to 11% according to the official data, the number of infants, who will acquire HIV from this sub-group of new mothers can be **135 children annually**²⁰.

In order to obtain more specific data about the number of drug addicted women of reproductive age; of pregnant women, who inject drugs, including HIV-positive ones, it would be **expedient to update the existing data collection procedures.**

There is a need to update the general registration of drug addicted individuals with disaggregation by age and sex (in their relationship) and to ensure the opportunities for data analysis non only on the national level, but also on the oblast, district and settlement levels in order to plan respective interventions.

It would be expedient to develop registration forms to identify and register drug addicted pregnant women (irrespective of their reproductive plans) at all facilities that provide health services to pregnant women and/or perform follow-up for the

¹⁸ ВІЛ-інфекція в Україні:інформ. бюл./ Укр. центр контролю за соціально небезпечними захворюваннями ; Ін-т епідеміології та інфекційних хвороб ім. Л. В. Громашевського; Мін-во охорони здоров'я України. – 2013. – № 40.

¹⁹ ВІЛ-інфекція в Україні : інформ. бюл. / Укр. центр контролю за соціально небезпечними захворюваннями ; Ін-т епідеміології та інфекційних хвороб ім. Л. В. Громашевського; Мін-во охорони здоров'я України. – 2013. – № 39.

²⁰ For the reference: according to the Ukrainian Centre for Socially Dangerous Disease Control at the MOH of Ukraine, in 2011 HIV diagnosis was established in 136, in 2010 – in 174, in 2009 – in 169 children born to HIV-positive mothers.

gestation development. These data are important to evaluate the needs and ensure provision of integrated services to these categories of women.

It is necessary to update the tools to identify the fact of drug use among pregnant women with HIV-positive status, as it provides an opportunity for an earlier initiation of medical interventions to prevent transmission of HIV to children and to provide social support to these women.

All these proposed changes in the procedures for identification, registration and reporting should be taken into consideration through the improvement of legal and normative acts.

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