



ECONOMIC COSTS OF VIOLENCE AGAINST WOMEN IN UKRAINE

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Summary

1. Violence against women is one of the most prevalent forms of discrimination and a major violation of human rights taking roots in historically unequal power relations between women and men. Besides being directly harmful to health and well-being of survivors, violence against women yields significant costs for the society measured by monetary, labour and non-material losses, and has short-term, long-term or postponed effects. The economic costs of violence against women are burdening different actors in a society, including survivors of violence, their abusers and family members, employers that face losses due to disability of employees, public and non-governmental organizations that provide services to survivors, insurance funds and budgets of different levels, all taxpayers, and all in all the entire economy. Indirect costs linked with negative emotional effects of violence (e.g. stress disorders, psychological damage to children who witnessed violence, broken survivors' family relations and decreased quality of life) cannot be currently measured in terms of economic equivalent.

2. This report presents the findings of a comprehensive assessment of the economic costs of violence against women in Ukraine. The estimates were produced for the following categories of potential costs: 1) lost economic output due to irreversible population losses (premature women's deaths), temporary and permanent disability due to gender-based violence, and reduced work productivity of survivors; 2) costs of services provided in response to violence and assistance for survivors (healthcare sector, law enforcement and the system of justice, penitentiary institutions for abusers, social and specialized services for women affected by violence); 3) personal material losses and cash expenses of survivors due to violence.

3. The cost estimates are based on different approaches, including the "unit cost" approach that estimates the cost of a certain service package to be provided to a survivor in a certain case (e.g. costs of a post-exposure service package for rape cases), "total operational costs" approach applicable to 24/7 services (such as a telephone hotline for survivors of violence), and "proportional operating costs" approach based on identifying the share of GBV survivors in the total number of service recipients. When it is impossible to identify the exact market value of certain goods or services, the "transfer of similar costs" approach was used, as well as expert opinions.

4. The economic estimations of the costs of violence are restricted by the high latency of these offenses, since only a few survivors seek external assistance – fearing being stigmatized, blamed for provocative behaviour or retaliated by the abuser. Public distrust towards law enforcement results in underreporting of violent incidents to police, while the lack of specialized services for survivors leads to low rates of referrals for

help. Because the official data misrepresents the real magnitude of violence against women, the presented economic estimates are based on two scenarios of calculations: 1) “typical” scenario based on the official police statistics on offenses, and 2) “full coverage” scenario based on the simulation model using the violence prevalence rates and features of survivors who sought help established by population-based surveys. In order to identify the scope and composition of personal expenses of women affected by physical and sexual violence, a special survey of survivors was conducted in different regions of the country.

5. With latency adjustments, the economic costs of violence against women totaled up to **\$208 million** in 2015, or **0.23% of Ukraine’s GDP**. This simulated estimate is nearly 20 times as high as the estimate based only on the registered violence cases (\$10.8 billion in 2015). Based on the extrapolation of the GBV survey data onto the entire population of Ukraine, the estimated number of women aged 15-49 years suffering from physical and sexual violence is **1.1 million** annually.

6. Notwithstanding the significant monetary losses to violence against women, Ukraine bears smaller costs compared with European countries. According to the European Institute for Gender Equality (2014), the annual costs of violence against women for the United Kingdom totaled €28 billion; for the entire European Union the cost was as high as almost \$ 226 billion (based on data extrapolation). Such a disparity in the estimates between Ukraine and European countries is caused not only by better GBV data collection, but also by a much wider range of more expensive services provided to GBV survivors (specialized shelters, comprehensive safety programs, housing support), as well as monetized social benefits for survivors in many countries across Europe.

7. As a result of the systematic lack of shelters and specialized services for survivors of violence in Ukraine, the lion’s share of the violence costs is borne by survivors. Based on the simulation results, the cumulative personal expenses of women affected by violence and their households could reach **\$190 million** annually (or more than 90% of the aggregate economic costs for the country). Although the amount of survivors’ “out-of-pocket” expenses depends on the severity of damage, a Ukrainian woman spent about **\$200** on average to cope with the effects of violence. These costs are noticeably higher than the average women’s wage and may include payments for medical services and examinations, purchasing medications, transportation expenses, rent payments for safe apartments and arranging the ‘new life’ after separation with abusers, costs of the legal advice, administrative fees, consultations of psychologists for adults and children who witnessed violence. Higher vulnerability of low-income and unemployed women calls for particular attention, as their expenses for coping with violence are determined rather by the availability of cash resources, not by the actual need in services.

8. The total costs of the lost economic output due to violence against women are estimated at **\$3.7 million** for 2015, including \$1.5 million lost due to violence-related deaths of working age women. Besides irreversible population losses, the economy was largely affected by the lost economic product due to injuries and diseases attributable to violence. In particular, about 103.5 thousand working days are lost annually due to temporary disability of violence survivors. Moreover, almost two-thirds of survivors reported their reduced working capacity due to emotional stress, so they were unable to conduct their daily domestic work and needed some help from other people.

9. The costs of services in response to violence and survivor support are assessed at **\$14.1 million** in 2015. The largest proportion of the expenses is channeled through the law enforcement and penitentiary systems. Fewer costs were assigned for the direct services to survivors of violence, which results from underfinancing of health care and social assistance, job cuts and low wages of service providers. Despite the fact that international studies demonstrate that each \$1 invested in GBV prevention saves the economy \$5 to \$20 in future service costs, only **\$25.6 thousand** was spent by the local budgets for targeted interventions on preventing domestic violence in Ukraine in 2015. Therefore, prevention of violence against women suffers a severe lack of political attention and is funded by the leftover principle.

Introduction

Violence against women has been recognized as a major violation of human rights. The United Nations Declaration on the Elimination of Violence against Women (1993) stated that violence against women (VAW) is both a result of and an obstacle to the achievement of women's equality, affecting all women in a society. The 1995 Beijing Platform for Action of the Fourth World Conference on Women (1995) not only called for the elimination of all forms of violence against women, but also more specifically, recommended the promotion of research, collection of data, and compilation of statistics on the prevalence of various forms of violence, including domestic violence. Particular attention was paid to the need in encouraging research on the causes, nature, and consequences of VAW, as well as effectiveness of policy interventions implemented to prevent and redress VAW. Additionally, it called for the wide dissemination of these results.

In 2003, the United Nations called for a study on all forms of VAW in order to better evaluate the scale of such violence, identify gaps in data collection, and formulate proposals for assessing the extent of the problem. One of the important areas to be examined was the development of approaches to assess economic costs of VAW, since every act of violence has some consequential cost, whether it is direct or indirect. Direct costs of violence come from the economic equivalent of goods and services used due to effects of violence; these costs are measured in terms of monetary, labour or material inputs. Indirect costs of violence stem from effects of VAW that cannot be measured by an actual monetary equivalent, but rather have some material input such as loss in income or reduced profits. Social effects of VAW also include intangible costs such as premature deaths, pain, and suffering. Such costs can be borne either in the short-run or long-run by individuals (survivors of violence, abusers, or their family members), various public institutions, governmental authorities and budgets at all levels, as well as by society as a whole.

A number of researches, studies, and meta-analyses have been conducted worldwide to address methodologies and understand the scope and magnitude of economic effects of VAW. While some basic information on prevalence and types of VAW in Ukraine is available through population-based surveys, the issue of economic costs of VAW for a society has hardly been addressed. At the same time, such a study would resolve the currently lacking economic arguments by strengthening public policy on VAW prevention and intensifying the societal debate on the unacceptability and need to eradicate VAW.

With regard to this, the comprehensive research has been conducted in Ukraine, with the aim of developing scientifically sound approaches to estimating the economic costs of VAW, and being applied in the framework of the national data system. This publication will present key findings based on research targeting the following tasks:

- reviewing available methodologies for estimating the economic costs of VAW, and identifying their strengths, weaknesses and feasibility in the context of Ukraine;
- determining data requirements for producing scientifically sound estimates of the economic costs of VAW, analyzing data availability in Ukraine, and outlining present data gaps and possible ways to close them;
- developing an evidence-based research methodology that is feasible for Ukraine, including a description of indicators, data sources and data collection methods, analytical research methods, and models for producing estimates based on at least two VAW response scenarios in terms of service-providing (the ‘typical’ scenario, based on the registered VAW situations, and the ‘best-case’ scenario adjusted to latency rates, e.g. underreported situations of violence);
- conducting a special survey of women, who have survived violence, in order to define the amounts and composition of their personal expenses and losses due to violence;
- producing the estimates of the economic costs of VAW for Ukrainian society through various categories of costs.

In accordance with the research objectives, the **first chapter** of the report is devoted to analyzing prior internationally-established information in reference to developing methodologies and estimating the economic costs of VAW, as well as findings from national surveys on gender-based violence.

In the **second chapter**, the present data sources are reviewed in terms of their feasibility for such studies in Ukraine, current data gaps are defined, and requirements to data collection are outlined. The research will also present the design of a special survey of women who have survived violence, while outlining expert’s judgements to estimate economic costs of VAW.

The **third chapter** deals with developing approaches to estimating the costs of VAW in terms of the lost economic output, including irreversible population losses caused by premature deaths, losses caused by permanent disability due to injuries, and reduced labour productivity due to temporary incapacity as a result of VAW.

The **fourth chapter** estimates the economic costs of services responding to VAW, including the costs of healthcare, law enforcement and justice, social services and specialized services on GBV prevention and response.

In the **fifth chapter**, some possible items of personal costs of women affected by VAW, as well as categories of indirect losses associated with the effects of VAW, are detailed. The findings of a special survey of women, who have survived violence, are presented to identify potential composition and costs of survivors of violence coping with its effects.

The **sixth chapter** of this study aggregates the estimates of the total costs of VAW in Ukraine. The role of such estimations is important, as they can be used as a part of advocacy tools that raise public awareness about the problem, encourage people to practice better informed decision-making at all levels, and strengthen policy response to challenges related to VAW prevention and eradication.

The study was conducted by experts from the Ukrainian Center of Social Reforms and Ptoukha Institute for Demography and Social Studies of the National Academy of Sciences of Ukraine with leadership, as well as technical and organizational support from the UNFPA, United Nations Population Fund in Ukraine. Financial support of the study was also provided by Department for International Development of the Government of the United Kingdom of Great Britain and Northern Ireland (DFID).

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1 Modern approaches to estimating the economic costs of violence against women

To develop a scientifically sound methodology of estimating the economic costs of VAW, a strict definition of the study object is needed. Violence against women is a complex problem, involving a set of concepts and categories. In most societies with varying institutional contexts and legislation, the terms ‘gender-based violence’ (GBV) and ‘violence against women’ (VAW) are used interchangeably, as most GBV is imposed by men on women and girls.

The Declaration on the Elimination of Violence against Women, adopted by United Nations General Assembly in 1993, defines violence against women as

“any act of gender-based violence that results in, or is likely to result in, physical, sexual, or psychological harm or suffering to women, including threats of such acts, coercion or arbitrary deprivation of liberty, whether occurring in public or private life”¹.

According to the Declaration, this term encompasses

“physical, sexual and psychological violence occurring in the family, including battering, sexual abuse of female children in the household, dowry related violence, marital rape, female genital mutilation and other traditional practices harmful to women, non-spousal violence and violence related to exploitation; physical, sexual and psychological violence occurring within the general community, including rape, sexual abuse, sexual harassment and intimidation at work, in educational institutions and elsewhere; trafficking in women and forced prostitution; and physical, sexual and psychological violence perpetrated or condoned by the state, wherever it occurs.”

The Declaration also stresses that violence against women may have more extended consequences associated with unequal distribution of power between women and men when a woman’s position is subordinate to that of a man’s, this may contribute to the prevalence of economic forms of violence.

¹ Declaration on the elimination of violence against women. New York, United Nations, 23 February 1994.

For international agencies, in particular UNFPA, in practice the next definition can be applied to the Ukrainian context:

“ **‘Gender-based violence is violence involving men and women, in which the female is usually the survivor; and which is derived from unequal power relationships between men and women. Violence is directed specifically against a woman because she is a woman, or affects women disproportionately. It includes, but is not limited to, physical, sexual and psychological harm (including intimidation, suffering, coercion, and/or deprivation of liberty within the family, or within the general community)’².**

As for Ukraine’s institutional context, despite notable improvements in gender-sensitive legislation, there is still a problem with a terminological inconsistency in understanding various forms of VAW³. Presently, the basic category regulated by legislation is represented by the term ‘violence within a family’, describing

“ **‘any intentional actions of physical, sexual, psychological or economic nature committed by one family member in relation to other family member, if these actions violate constitutional rights and freedoms of a family member as a person and citizen and inflict moral harm on her/him, harm to her/his physical or psychical health’ (On Prevention of Domestic Violence, Law of Ukraine, 2001)’⁴.**

Though there is no gender-specific approach to identify survivors of domestic violence by law, statistical data confirm that GBV survivors are mostly women and children, while most incidents of violence are associated with actions of husbands or partners. In particular, according to the Ministry of Social Policy, more than 4/5 of the total domestic violence appeals that come to social services are from women (respectively 89.5 thousand of 102.6 thousand appeals in 2015).

The draft law ‘On preventing and combating domestic violence’ (adopted by Verkhovna Rada of Ukraine as a base for further improvements on 17.11.2016) suggests using the term ‘domestic violence’, describing it as

“ **‘all acts of physical, sexual, psychological or economic violence, realized in a family or at a place of residence between former or current spouses or persons who live or have been living together as a family, but are not married or have not been married, irrespective of the current place of residence of perpetrator and survivor of domestic violence’⁵**

² UNFPA (1998). Violence against Girls and Women: A Public Health Priority. UNFPA Gender Theme Group, Interactive Population Center. New York: UNFPA.

³ Gerasymenko G. (2015). Gender-based Violence in Ukraine: Issues of Assessment and Policy Response. Demography and Social Economy, #3 (25): 138-149.

⁴ <http://zakon3.rada.gov.ua/laws/show/2789-14>.

⁵ <http://zakon0.rada.gov.ua/laws/show/1756-19>.

Forms of VAW that take place outside of intimate or family relations are regulated by the Criminal Code of Ukraine (CCoU), proclaiming general liability for incidents of physical violence associated with injuries, battery and torture, and other forms of physical abuse irrespective of gender. As for sexual violence in the form of rapes, sexual exploitation, engagement in pornography and sex work, forced entry into sexual intercourse, etc., such actions are also criminal offenses according to the CCoU (Section IV 'Crimes against sexual freedom and sexual inviolability of a person'). Other forms of GBV, such as child marriage, wife inheritance, female genital mutilation, and forced sterilization, are not typical in Ukrainian society.

By acknowledging multiple and various forms of GBV, *this study is principally focused on forms of violence against women which are criminalized by national law and can be clearly identified and measured by the national system of statistics*, in particular sexual violence (rapes) and domestic violence.

In spite of the acuteness of the problem, the history of GBV studies in Ukraine is quite short. The first national assessments of VAW prevalence were launched in the framework of Ukraine's Demography and Health Survey (UDHS-2007). The survey program included a special 'Domestic Violence Module', asking female respondents if they have ever experienced any form of domestic violence as well as within the last 12 months preceding participation in the survey⁶. To obtain comparative data, a proportional population-based survey on violence against women and girls was conducted in 2014; it was based on the same module from UDHS-2007⁷. The findings of these surveys help determine estimates of GBV prevalence rates and provide a better understanding of its nature, causes, and effects.

Within the 2012 Multiple Indicator Cluster Survey (MICS4), aspects of public attitudes towards domestic violence were examined⁸. The special survey 'Older Women and Men: Quality of Life and Social Well-being' (2013) studied some issues related to domestic violence against older people⁹. Problems with sexual harassment in the workplace were studied through the survey 'Women's Labour Force Participation in Ukraine' (2012)¹⁰. Finally, the 'Report on the results of monitoring of special institutions for women affected by domestic violence' (2012)¹¹ and in the survey 'Accessibility of social services for women

⁶ 2007 Ukraine Demographic and Health Survey, UCSR and Macro International, Calverton, Maryland : 267.

⁷ Incidence of Violence against Women and Girls, conducted by GfK Ukraine with support of UNFPA, Kyiv, 2014. Available at: <http://ukraine.unfpa.org/en/publications/incidence-violence-against-girls-and-women>.

⁸ Ukraine Multiple Indicator Cluster Survey 2012, State Statistics Service, 2013, Kyiv : 433.

⁹ Situation of Older Women in Ukraine, UCSR and UNFPA, Kyiv, 2014 : 89.

¹⁰ Research of Women's Labour Force Participation in Ukraine, Ukrainian Center for Social Reforms, UNFPA, ILO, Kyiv, 2012 : 212.

¹¹ Where and how could survivors of domestic violence get some help: Report on the findings of monitoring of special institutions, NGO 'La Strada – Ukraine', MoSP, Kyiv, 2012:79.

affected by violence' (2014)¹² analyzed the issues with the effectiveness of a network of service providers assisting GBV survivors.

New GBV challenges have escalated due to the conflict in eastern Ukraine in 2014–2015, which has caused a need in research on various forms of violence against women in the conflict-affected regions¹³. However, because the mentioned researches targeted identifying forms, causes, and prevalence rates for GBV, the economic costs of violence were paid no particular attention by scientists.

The estimates of the costs of domestic violence in Ukrainian society were provided in a study from NGO, 'La Strada – Ukraine' and Kharkiv Institute for Social Studies, conducted in cooperation with the Ministry of Internal of Ukraine in 2007. In the framework of this study, the interviews were conducted with women affected by domestic violence by analyzing their cash expenses related to effects of violence. Based on the survey results, the average cost of one incident of violence is estimated to be UAH 7,306.38. According to the estimates, the total cost of incidents of violence reached as high as UAH 669 million in 2007. In spite of the high costs of domestic violence, some important public expenditures were not covered by researchers, including costs of premature deaths, survivors' health losses, public services provided to victims of violence, expenditures on VAW prevention and response.

At the same time, there are many international studies and meta-analyses that estimate the economic costs of VAW. Though most of these papers do not provide estimates on explicit financial costs, they do provide estimates for educational, advocacy and GBV awareness-raising costs. Some authors provide the actual calculations for valid costs either at the national level or through partial measurements of specific expenses. The most comprehensive estimates are known for Finland (2001)¹⁴, USA (2003)¹⁵, Australia (2004)¹⁶,

¹² Demchenko I. Analytical report on the results of sociological survey 'Accessibility of social services for women affected by violence', supported by UNFPA and Ministry of Social Policy of Ukraine, Kyiv, 2014 : 51.

¹³ Gender-Based Violence in the Conflict-Affected Regions. The study report, USCR, UNFPA, 2015. Available at: http://reliefweb.int/sites/reliefweb.int/files/resources/gbv_study_2015_final_eng.pdf.

¹⁴ Piispa et al (2001). The Price of Violence: The Costs of Men's Violence against Women in Finland, Finland, Statistics Finland and Council for Equality.

¹⁵ National Center for Injury Prevention and Control (2003), Costs of Intimate Partner Violence Against Women in the United States, Atlanta (GA). Available at: http://www.cdc.gov/violenceprevention/pub/ipv_cost.html.

¹⁶ Access Economics (2004). The Cost of Domestic Violence to the Australian Economy: Part 1, Australia, Australian Government's Office of the Status of Women. Available at: http://www.fahcsia.gov.au/sites/default/files/documents/05_2012/cost

Great Britain (2004)¹⁷, Spain (2010)¹⁸, Sweden (2010)¹⁹, France (2010)²⁰, Denmark (2010)²¹, Canada (2012)²² Switzerland (2013)²³. Most of these countries represent parts of the most developed regions in the world. They have advanced statistics agencies and good record-keeping by government departments, which provide administrative data that is crucial for securing scientifically sound studies on the costs of violence and obtaining reliable and relevant estimates.

As a whole, the comprehensive analysis of the evolution of international research approaches to measuring the costs of VAW is presented in the 'Expert brief compiled in preparation for the Secretary-General's in-depth study on all forms of violence against women' (2005)²⁴, while recent research findings are summarized by the European Institute on Gender Equality in 2014²⁵.

After examining the current literature review, the estimated costs of VAW should account for greater diversity, covering *tangible costs* measured in the financial equivalent (such as wages of service-providers or costs of preventive medicine), as well as *intangible costs* measured through non-monetary value (such as emotional impact of violence, loss in self-confidence or trust in surrounding people). Most of these costs can be aligned with a specific set of cost-bearing stakeholders: the whole society (such as loss in economic output, deterioration of public health, impact on nuptiality trends, changes in fertility patterns, and postponing of births); public institutions (in particular, a network of healthcare institutions, legal support and justice, and social and specialized services for survivors of violence); and individuals or their households (personal cash expenses attributable to VAW). At the same time, indirect costs may occur as a result of the negative emotional impact of violence, including children who witnessed violence,

¹⁷ Walby, S. (2004), *The Cost of Domestic Violence*, London, Department of Trade and Industry, Women and Equality Unit. Available at: http://www.devon.gov.uk/de/text/cost_of_dv_report_sept04.pdf.

¹⁸ Villagomez (2010). *The economic and social costs of domestic violence against women in Andalusia, Spain*, Almenara Estudios Economicos y Sociales. Available at: <http://www.unece.org/fileadmin/DAM/stats/documents/ece/ces/ge.30/2010/8.e.pdf>

¹⁹ Envall et al (2006). *Costs of violence against women*. Available at: http://www.gender-budgets.org/index.php?option=com_joomdoc&view=documents&path=resources/by-theme-issue/sectoral-application-of-grb/costs-of-violence-against-women&Itemid=822

²⁰ Nectoux, M., Mugnier, C. et al. (2010). *An Economic Evaluation of Intimate Partner Violence in France*, *Sante Publique*, 22(4): 405–416.

²¹ Helweg-Larson et al (2010). *The cost of violence — Economic and personal dimensions of violence against women in Denmark*, National Institute of Public Health, University of Southern Denmark. Available at: http://www.si-folkesundhed.dk/Udgifter/B%C3%B8ger%20og%20rapporter/2010/Voldens_pris.aspx.

²² Zhang, T. et al (2012). *An Estimation of the Economic Impact of Spousal Violence in Canada 2009*, Department of Justice Canada, <http://www.statcan.gc.ca/pub/85-002->

²³ Stern et al, Fleidner et al (2013). *Costs of Intimate Partner Violence: Summary*, Federal Office for Gender Equality (FOGE), Berne. Available at: <http://www.ebg.admin.ch/dokumentation/00012/00196/index.html?lang=en>

²⁴ Day, T., McKenna, K., Bowls, A. (2005). *The Economic Costs of Violence against Women: An Evaluation of the Literature*. Expert brief compiled in preparation for the Secretary-General's in-depth study on all forms of VAW.

²⁵ EIGE (2014). *Estimating the costs of gender-based violence in the European Union*, Luxembourg: Publications Office of the European Union, 2014.

broken family relations, or survivors' lost opportunities in terms of earnings, career advancement, and general self-fulfilment. The last category of costs can be considered long-term, described as violence that may cause postponed psychological effects.

The current study is based on approaches proposed by the European Institute on Gender Equality (2014) applied in UK case study in order to formulate a framework for estimating the economic costs of GBV²⁶. The advantage of this approach is its ability to clearly identify possible costs, utilize a transparent and scientifically sound method of estimating total costs, and easily aggregate final results in the form of a model to account for costs.

In accordance with the selected approaches, potential economic costs attributable to the effects of VAW can be classified by three groups, along with their consequences:

1) lost economic output caused by demographic losses that affect the whole economic system's operations:

- irreversible population losses (deaths) and their economic equivalent measured by the value of human life;
- effects of permanent inability of survivors of violence to work (disability);
- economic losses related to temporary incapacity and reduced labour productivity of survivors;

2) costs of services associated with response to GBV and providing comprehensive assistance to survivors by a network of relevant institutions, including:

- healthcare sector,
- law enforcement and justice,
- penal system and prisons,
- social services sector,
- specialized services on GBV prevention and response (information hotlines, crisis centers, shelters for survivors of violence);

3) personal costs of VAW survivors and their households, including:

- tangible costs such as property and income loss due to VAW, expenditures on personal security programs, expenditures on moving to a new residence, and rent payments for separate housing,
- intangible costs associated with survivor's aggravated quality of life, through potentially lost opportunities in terms of earning a salary, advancing in a career, fulfilling recreational needs, or bearing the emotional impact of violence and its postponed psychological effects, moral harms, or intergenerational impacts, etc.

²⁶ Ibid.

Available methods of estimating various costs associated with VAW may be attributable to one of two basic approaches. Costs can be measured by using either a ‘*bottom-up*’ or ‘*top-down*’ approach²⁷. ‘Bottom-up’ studies are usually focused on a case study that is based on an algorithm with step-by-step calculations of costs for each transaction (‘unit cost’). On the other hand, ‘top-down’ studies begin with aggregate data that describe the whole institutional system, and then try to identify a proportional share of the relevant incidents or costs.

Comparative analysis of these two approaches reveals some benefits for each of them. Thus, ‘unit cost’ studies can provide the most comprehensive data on the effects of violence on women’s lives; these approaches can be performed in a local environment with lower research costs. Still, there is an obvious problem with this approach, as case studies are not representative of the whole population, and so it may be quite difficult to hypothesize national costs of VAW. On the other hand, the benefit of ‘top-down’ studies is that they begin with representative national statistics and can make use of administrative data that are regularly collected by governmental institutions and agencies.

In the ‘bottom-up’ approach, a unit cost per incident is estimated, then multiplied by the number of victims and/or incidents (e.g. by prevalence and/or incidence rates). In the ‘top-down’ approach, the total scope of services or overall budget costs are estimated, of which a proportion of the resources attributable to VAW is then identified based on administrative data.

In both approaches, the main challenges are to identify and collect reliable data which are feasible enough for further economic estimates and models. Each method, whether ‘top-down’ or ‘bottom-up’, requires some primary data – a unit cost in monetary form and a multiplier to assess the scale of the impact, also referenced as aggregate costs of the problem and proportions of VAW attributable costs. More detailed analysis on the available data sources for such studies, requirements for data quality, and methods of data collection are presented in the next chapter.

Though both approaches are quite feasible for estimating the economic costs of VAW in Ukraine, their strengths and weaknesses vary depending on the types of cost, specific effects of VAW, and availability of relevant data for analysis. In this study’s subsequent chapters, there are detailed explanations of the preferred approaches to estimating each type of public expenses due to violence. The final methodological task is to aggregate the costs of various effects of VAW within the aggregate accounting model.

²⁷ Chan, K. L., Cho, E. Y-N. (2010). A review of cost measures for the economic impact of domestic violence, Trauma, Violence and Abuse, 11 (3): 129–143.

2 Sources of information and data requirements for estimating the economic costs of violence against women in Ukraine

Data availability and quality constitute the main challenge for all approaches seeking to estimate the costs of VAW. This problem is stressed by an overwhelming majority of experts in the literature review. In particular, primary data, including any injuries and medical service received, pursuit of protection from police or social service providers, etc., is needed in order to provide understanding on the effects of violence on a survivor's life. To estimate the aggregate costs, the cost of each service provided to women must be known. Finally, VAW prevalence rates are needed to ground the rates of latency and extrapolate the costs for the whole population affected. Consequently, the more data provided by statistics agencies, the more accurate the summary estimates of costs will be.

Collecting data on VAW can be challenging, particularly because it is related to issues like domestic violence and sexual assault. In international practice, two basic approaches to collecting VAW data are used: 1) population-based surveys that can be used to measure the prevalence of violence, and 2) administrative data on registered incidents of violence routinely collected by institutions engaged in prevention-and-response activities. There is also a range of qualitative study approaches to data collecting that allow in-depth analysis of forms, causes, and consequences of VAW through in-depth interviews, focus groups, expert judgments, and case study analyses. Potential target groups for such qualitative studies are represented by survivors of VAW, representatives of public authorities and service providers, and non-governmental organizations (NGOs) assisting survivors of violence.

Administrative data has a lot of advantages, as it provides updated information on the registered incidents of VAW and scope of services provided to survivors. This data also measures incidents (not people) that are useful for estimating the need of various types of service. Moreover, administrative data can measure some severe forms of violence that cannot be measured by population-based surveys (like murders, grievous injuries and disabilities). In terms of estimating the costs of the effects of violence, this method is also important, as it provides data on the scope of utilized specific services and their costs. This is a source of potentially high-quality data, but official statistics do not reflect the magnitude of VAW in a population. Underreporting of GBV is widely acknowledged globally because not all survivors seek assistance due to a stigma attitude, as well as

distrust in social institutions. In particular, based on the UNFPA study (2014)²⁸, only 32% of Ukrainian women who survived physical or sexual violence applied for somebody's assistance. Besides representing only the 'top of the iceberg', administrative data do not target the evaluation of the quality of utilized services and efficiency of administrative procedures. Double counting VAW incidents is also possible because of ineffective inter-departmental data exchanges between various institutions, reducing the reliability of data.

In contrast, **population-based surveys** provide reliable tools for collecting data on the prevalence of VAW in a population and understanding risk factors, effects, and coping strategies of survivors. Based on specially developed questionnaires, the skilled interviewers ask the representatives of a sample population about their personal experience with violence, the nature of their injuries, their utilization of services, and their coping strategies. Such surveys can be used to measure the scope of non-reporting and reasons for not seeking any help; sample population-based surveys also enable the evaluation of the quality of utilized services and monitoring of outcomes of preventive interventions. However, the quality of collected data largely depends on a respondent's sincerity, accurate recollection, and readiness to share information. Unwillingness to recall a traumatic experience or anticipation of non-confidentiality can result in a survey's underestimated results. Other limitations of population-based surveys are associated with their high costs, sensitivity of collected data to the lack of interviewer's methodological use and skills, safety concerns, and ethical considerations.

The advantages of **qualitative studies such as focus groups, expert's judgments, and in-depth interviews** are associated with enabling in-depth analysis of VAW, including risk factors, coping strategies, and evaluation of policy interventions. Focus groups are effective as a tool to study local communities in order to capture public attitudes regarding domestic violence or unmet needs in services. In-depth interviews with experts from this field can be used to estimate the latency rate for sexual crimes, efficiency of a set of services provided to women in case of violence, and indicative costs of such services. This method is often used in the absence of quantitative data, but can also provide a valuable source of information to capture the gaps in service providing and administrative procedures, strengthen policy responses to VAW, and raise public awareness about the problem. Other important advantages of this method are its simplicity and low resource intensity.

Walby and Olive (2013)²⁹ proposed some additional approaches to collecting data on the costs of VAW, including victim recall studies, longitudinal population data sets, and the 'similar harm transfer' approach that is based on transferring costs known for injuries other

²⁸ Incidence of Violence against Women and Girls, conducted by GfK Ukraine with support of UNFPA, Kyiv, 2014. Available at: <http://ukraine.unfpa.org/en/publications/incidence-violence-against-girls-and-women>.

²⁹ Walby, S., Olive, P. (2013), Economic aspects of the added value of measures to combat violence against women, Brussels: Report for European Parliament.

than VAW, but have comparable health effects (for instance, injuries attributable to road traffic accidents or crimes).

In accordance with outlined data sources, the currently available information that supports estimations of economic costs of VAW in Ukraine consists of:

- 1) data from special population-based surveys and thematic modules incorporated in more comprehensive surveys (such as UDHS-2007, MICS4, Incidence of VAWG-2014, GBV in the Conflict Setting-2015);
- 2) administrative data from the Ministry of Social Policy (MoSP) on the scope of appeals to social protection authorities (in case of domestic violence), and number of victims of domestic violence staying in shelters subordinated to the MoSP;
- 3) administrative data from the Ministry of Internal (MoI), General Prosecutor's Office, and State Court Administration on the registered number of administrative and crime offences, prosecutions, and convictions. The data collected is based on the following forms:
 - Form for state statistical observation, No. 1-AO 'Report on cases of administrative offences and persons brought to administrative liability';
 - MoI Form No. 1 HC 'Report on the results of departmental work on domestic violence';
 - MoI (up to 2012) and Prosecutor General's Office Form №1 'Report on crime situation';
 - State Court Administration Form №3 'Report on the review of cases on administrative offences and against those brought to administrative liability';
 - State Court Administration Form №1 'Report of first instance courts on cases with criminal proceedings';
 - State Court Administration Form №1-1 'Report of first instance court's review of the criminal proceedings';
- 4) statistics on victims of VAW collected by assisting NGOs, specialized service-providers (such as crisis centers or social and psychological support mobile teams) and information hotline consultants.

Most of the available data sources were used in this study, but some of them have important limitations in terms of enabling reliable estimates. In particular, the Ministry of Health (MoH) produces some regular statistics on causes of morbidity and mortality in Ukraine (disaggregated by sex), but there is no opportunity to identify GBV-attributable causes in this dataset. Also, medical and social rehabilitation centers do not supply the MoH with data on utilized services provided to survivors of domestic violence.

A comprehensive analysis of VAW data gaps, restrictions in data use, and minimum requirements for data collection was conducted by Kalachova (2014)³⁰. The author argues that it is impossible to compare the basic sets of administrative data on crime offences associated with VAW (number of victims registered by police and number of victims of criminal acts registered by courts in criminal cases), as these statistics are based on different classifications and reporting procedures. Thus, it is difficult to observe the trends of criminal justice with regard to survivors of violence. On the other hand, the MoSP operates its own database of clients who applied to social centers due to domestic violence. Statistics from this database are not comparable with administrative data of the law enforcement agencies.

Finally, an important gap in the currently available administrative data is seen in the *lack of data disaggregated* by age of survivors, forms of violence, sex of abusers, and type of relationship between the offender and the victim. These minimum requirements for data collection are needed to obtain more reliable estimates of VAW because collecting relevant data can be easily done by police departments working on preventing GBV and domestic violence, and does not need the allocation of additional resources.

Regarding multiple data gaps and inability to disaggregate some statistical indicators on GBV within the system of administrative data, methods employed and interviews conducted by experts were used to collect additional information for this study. In particular, three **Expert Discussions** in the form of Focus Groups were conducted with leading experts from various sectors, including medical workers, demographers and social scientists, social workers, representatives of law enforcement and criminal justice, assisting NGO workers, etc., who are engaged with VAW prevention and response work. **Situational analyses** of non-governmental services provided to VAW survivors were conducted in several pilot locations (Zaporizhzhya, Vinnytsya, Zhytomyr and Kherson cities). The results of discussions and expert interviews enabled a greater understanding of the most adequate approaches to estimating the costs of various social services, as well as some algorithms when looking at GBV or domestic violence survivors.

Another component of this study was related to a special survey of women affected by domestic or sexual violence outside of the family (Annex A). The survey objectives were targeted at collecting depersonalized information on individual tangible and intangible women's costs attributed to violence. To meet this objective, a special questionnaire was developed, consisting of a range of questions on the character of injuries, length of temporary incapacity, in-patient treatment, and amount of personal cash expenses spent to cope with consequences of violence (Annex B).

³⁰ Kalachova I. (2014). The current system for collecting and analysing data regarding violence against women and domestic violence in Ukraine, report prepared for the Council of Europe, 50 p.

The Survey was conducted in most regions of Ukraine, including the government-controlled areas of Donetsk and Lugansk oblasts. As the survey target group was represented by a hard-to-reach population category (women affected by domestic or sexual violence), there were no strict regional quota requirements set, while the recruitment of respondents was organized based on available opportunities to reach them and obtain informed consent for interviews. To conduct the survey, three recruitment channels were used:

- 1) social and psychological support mobile teams, providing assistance to populations in the eastern regions of Ukraine (including locations such as Bakhmut, Berdiansk, Dobropillya, Dnipro, Zaporizhzhya, Izyum, Kramatorsk, Kryvyi Rih, Kostyantynivka, Kreminna, Lysychansk, Lozova, Melitopol, Myrnodgrad, Nikopol, Pavlograd, Rubizhne, Sievierodonetsk, Sloviansk, Starobilsk, and Kharkiv);
- 2) International Women's Human Rights Center, 'La Strada' (Kyiv city), whose national hotline consultants work on the prevention of domestic violence, human trafficking, and gender discrimination;
- 3) experts from social centers and non-governmental organizations that assist women affected by violence. In particular, the interviews were conducted by experts of the following organizations: Association of Feminists 'Progressive Women' (Vinnitsa city), 'Women's Information-Consultation Center' (Ozerne, Zhytomyr oblast), Zaporizhzhya oblast Center of Social Services for Family, Children and Youth, Kyiv city Center of Work with Women, Center on Families and Youth of Desnyanskyi District of Kyiv city, NGO 'Women's Perspectives', Public Movement 'Vira, Nadiya, Lyubov' (Odesa city), 'Rivne Center of Support of Public Initiatives 'Chaika'', Charitable Organization 'Other' (Kherson city).

In total, 707 women aged 18-60 were surveyed; all of them experienced some form of physical or sexual violence during the 12 months preceding the survey. The respondents represented most regions of Ukraine, different age groups, and statuses of employment in the labour market (Annex C). The survey program consisted of questions on experience with varying forms of violence (physical violence was the most prevalent) and survivors' appeals to seek help from various public institutions. Some questions were devoted to the possible impact of violence on respondents' children, since they witnessed the incidences of violence in most situations.

The survey findings are presented in the following chapters of this study to clarify the effects of violence in the context of health losses and temporary incapacity, women's subjective estimates of their personal tangible and moral harms, as well as cash expenses spent to receive needed help (healthcare, psychological or legal support, rent of separate housing, etc.).

3 Approaches to estimating the costs of violence against women in terms of the lost economic output

Violence against women results in large losses for survivors, as well as the whole economy. The first attempt to estimate the economic costs of VAW was completed in Australia in 1988. Based on interviews with two dozen women, researchers were able to extrapolate findings on the whole population, and reveal that costs of VAW could reach up to AUD 108 million per annum. In accordance with more recent estimates from UN's agencies, the annual losses caused by VAW could reach about 2 per cent of the global GDP.

This part of the study is focused on the *lost economic output* attributable to VAW. Usually, such costs classify the economic equivalent of irreversible losses as deaths, economic losses due to temporary and permanent incapacity (disability), employment termination, and reduced labour productivity. Most of the relevant studies provide estimates of losses attributable to physical injuries and deaths of VAW victims, while some authors also include the costs of psychological stress and mental disorders into their estimates. In Table 3.1, available studies are summarized by countries of origin and categories of estimated economic costs of VAW.

Table 3.1. Components of the lost economic output attributable to VAW and availability of analysis in international studies

Categories for lost economic output	Countries and studies									
	Switzerland	Canada	Denmark	France	Spain	UK	Australia	Sweden	USA	Finland
Physical injuries	x	x	x	x	x	x	x	x	x	x
Mental health		x					x			
Deaths	x		x	x		x	x	x	x	x
Lost output (product)	x	x	x	x	x		x	x	x	
Paid work	x	x		x		x		x	x	
Unpaid work	x	x						x	x	x
Education		x							x	
Childcare		x	x							
Absence at work		x			x	x	x			
Administrative costs		x					x			
Long-term costs					x	x				

The most important demographic and economic effects of VAW are associated with irreversible population losses (deaths). These costs can be estimated either as an equivalent of the lost economic output for a current (one) year or through an assessment of potential losses of outputs for the period of a woman's life that she did not survive. This period can be measured either based on the WHO threshold for premature death (age 65) or average death age in a country (women's average life expectancy). In this case, the economic output can be estimated in terms of the lost national product (such as GDP) or in terms of the equivalent of loss in income (such as average yearly women's wage)

In western research literature, there is also an approach to estimating the lost life value based on lost future incomes and intangible costs (such as lost enjoyment of life, lower quality of life, etc). The last component (that can be used in estimates of reversible health and demography losses, such as incapacity) can be hardly measured through a monetary equivalent. As a result, some authors argue that 'loss in life' practically has no market value.

To estimate the first component (lost income), analysis of 'willingness to pay' and 'willingness to accept' may be used. These approaches were proposed by Ludwig and Cook (2001) and Cohen et al. (2004). 'Willingness to pay' is the maximum price at or below which a person is ready to pay to reduce the probability of death, while 'willingness to accept' is associated with financial compensations individuals were willing to disregard despite the increased probability of death. For instance, if a person is ready to pay \$500 to reduce the risk of death by 0.01%, the statistical value of his/her life is $\$500/0,01\% = \5 million . In particular, based on available estimates, this value was about \$7 million in the USA (Viscusi, 2008). This approach is used for estimates at the macro level, mostly for estimating the effects of occupational injuries and related costs. The results of estimating the value of statistical life (VSL) are presented in Table 3.2. At the same time, this approach can be potentially used to compare the economic costs of VAW and costs of efforts to reduce VAW (reduced probability of incidents of violence).

The alternate approach to estimate the costs of VAW (both irreversible losses and injuries) can be developed based on the WHO approach to measure the overall disease burden, expressed as the number of years lost due to poor health, disability, or early death. As a whole, the *disability-adjusted life year (DALY)* approach was designed to measure the global losses caused by disease burden. So, we will analyze its advantages and limitations, when estimating reversible losses caused by injuries attributable to VAW.

Table 3.2. Selected studies on estimating the value of statistical life (VSL)

Author(s)	Year	Country	VSL, in USD million (2008)
Miller	1990	USA	4,0
Kniesner and Leeth	1991	Australia	5,3
Viscusi	1993	USA	4,9-11,5
Miller, Cohen and Wiersema	1996	USA	4,0
Siebert and Wei	1998	Hong Kong	2,1
Meng and Smith	1999	Canada	2,9
Arabsheibani and Marin	2000	UK	38,4
Shanmugam	2001	India	1,3-1,8
Smith	2000	USA	2,9-6,1
Viscusi	2000	USA	4,0-11,9
Gunderson and Hyatt	2001	Canada	5,1-23,1
Leeth and Ruser	2003	USA	3,4
Viscusi	2004	USA	6,4
Aldy and Viscusi	2008	USA	4,3-9,5
Viscusi	2008	USA	7,0-12,5

When using any of these approaches, it is important to make relevant estimates of yearly irreversible demographic losses (deaths) attributable to violence. It is impossible to make the exact estimates of these losses in Ukraine – neither based on population statistics (death causes), nor on administrative data (justice system and police). But, the methodology of western scholars, as well as expert’s judgments, can be used.

The main data source for estimating incidence of violence is provided by statistics on domestic violence collected by the National Police (Form 1-HC-OBC (595)). The Form contains information about reported incidents of domestic violence (number of police calls and number of victims), as well as information on the gravity of injuries.

After analyzing relevant expert’s judgments (desk study and in-depth interviews with experts), as well as statistics from various sources which offer potentially feasible ways of estimating irreversible losses, it can be concluded that two scenarios for estimating the cost of women losing their lives should be used. The first scenario is focused on estimating the minimum cost of these losses based on administrative data (‘typical’ scenario), while the second one is focused on estimating losses that can be regarded as the maximum ones (‘best-case’ scenario).

The minimum costs are based on the yearly number of deaths registered by administrative data from the Mol, and collected by the Form 1-HC-OBC (Section IV. Information on persons who suffered from criminal offenses related to domestic violence). Articles 115, 166 and 119 of the Criminal Code of Ukraine, e.g. officially document women’s deaths attributable to domestic violence.

When estimating the maximum number of relevant deaths, it is important to focus on the number of women's homicides and lethal injuries of undetermined intent (this data can be also disaggregated by locations where murders took place (at home) based on the State Statistics Form AC-1 'Mortality by sex and death cause') within the 'sample'³¹. The relevant deaths are classified with codes X85-Y09 ('Intentional: assault/homicide') and Y10-Y34 ('Event of undetermined intent'), while the proportion of deaths attributable to VAW can be estimated by desk study results and in-depth interviews with experts (47-50%^{32 33}).

Finally, to estimate the maximum population losses, the number of victims of VAW-attributable homicides can be combined with the number of suicides attributable to VAW³⁴. According to the available data, up to 10% of women's suicides are associated with effects of sexual violence (rapes). However, some reputable scholars do not recommend including these population losses in estimates of VAW costs, mainly due to the lack of reliable evidence that confirms cause-and-effect relations between VAW and suicides³⁵.

When estimating the lost macroeconomic output caused by premature deaths, only the economically active population should be taken into account. Since it is impossible to disaggregate VAW victims by their labour force participation rates, a number of working age women's deaths can be used in estimates, with subsequent adjustment by the current employment rate of women in this age range. Thus, according to the proposed approach, yearly (per annum) macroeconomic losses can be estimated by multiplying a number of lost lives of employed women of the working age by GDP in a current year (in current or constant prices³⁶ per employed person.

After analyzing the age composition of victims of female homicides in the last years (State Statistics Form ДСС C-8), and based on the expert's judgments, we suggest that among all survivors, 3/4 (75%) were working-age women. The number of employed women and sex-disaggregated employment rates within the working age, as well as GDP estimates, are regularly published by the State Statistics Service³⁷.

³¹ Some causes of death were excluded from this analysis, as we assume they are hardly attributable to VAW, in particular 'injuries due to explosives' or 'using smoke, fire and flame to kill or cause injury', etc..

³² The economic costs of violence against women. – Available at: <http://www.unwomen.org/en/news/stories/2016/9/speech-by-lakshmi-puri-on-economic-costs-of-violence-against-women>.

³³ The many faces of homicide. – Available at: https://www.unodc.org/documents/gsh/pdfs/Chapter_2-2.pdf.

³⁴ The relevant data on lethal intentional self-injuries can be found in State Statistics Form ДСС C-8 and Form AC-1.

³⁵ ElGE (2014). Estimating the costs of gender-based violence in the European Union, Luxembourg: Publications Office of the European Union, 2014.

³⁶ If analysis of time series is needed.

³⁷ Statistical Yearbooks 'Economic activity of the population of Ukraine' and 'National Accounts of Ukraine'.

Below, an example of such estimates for 2015 is presented. Based on the Mol data, the minimum number of women's irreversible losses attributable to VAW was 13 persons in 2015 (this number of adult female victims of homicide is provided in Form 1-HC-OBC; as victims under age 15 and elderly victims are classified in this Form, there is no need to disaggregate women who are within working age in this sample).

Proceeding to employment rates among working age women in Ukraine (about 61% in 2015), irreversible population losses can be estimated as 8 persons (by the 'typical' scenario). As a 'best-case' scenario (Form AC-1), female population losses were 275 persons in 2015: 1,279 (deaths) \times 0.47 (proportion of deaths attributable to VAW) \times 0.75 (among victims, the proportion of women within the working age) \times 0.61 (proportion of employed women).

Based on macroeconomic statistics, Ukraine's GDP was UAH 1,979,458 million in 2015 (current prices), while the total number of those employed was 16,443.2 thousand persons. Thus, the GDP per employed person was UAH 120.38 thousand. As a result, the economic equivalent of the lost product was at least **UAH 963.05 thousand** (almost \$44.1 thousand based on the average yearly exchange rate in 2015); the maximum costs of these irreversible population losses were **UAH 33,104.5 thousand** (about \$1,515.8 thousand) in 2015.

At the same time, it should be noted that the lost economic output attributable to unnatural deaths is not limited to the lost GDP; it also applies to the 'non-lived' period of life. To estimate these losses, we propose using a methodological approach that considers not only the actual statistics of deaths, but also the scope of potentially non-lived years of life³⁸. Indirect estimates of the lost economic output may be realized based on a multiplicative model that correlates the number of the years a person lost to their yearly cost equivalent (the same GDP per employed person)³⁹.

The algorithm for estimating potentially lost macroeconomic output consists of:

- calculating the number of the lost years of a potential life due to premature death, attributable to VAW;
- estimating the scope of potentially lost economic output in the form of national products that were not produced.

³⁸ Gardner J.W., J.S. Sanborn (1990). Years of potential life lost – what does it measure? *Epidemiology*, Jul. 1(4) : 322–329; Brown D.W. (2008). Economic value of disability-adjusted life years lost to violence: estimates for WHO, *Rev Panam Salud Publica*. № 24 (3) : 203–209.

³⁹ Developing such a model is based on the assumption that employment and productivity rates during the lost years of life will remain equal to the current rates.

The potentially lost years of murdered women (per 100,000 persons) can be estimated as a sum of differences between the age of premature death and actual age of deaths of women, who died before reaching the threshold age:

$$\frac{\Sigma (65 - \text{actual age of death}) \times \text{number of deaths in each age group} \times 100\,000}{\text{number of persons aged 16-65}}$$

There is no data on age-specific composition of VAW victims to obtain such estimates in Ukraine. Therefore, to make the estimates, we assume that age-specific composition of VAW-attributable deaths corresponds with the documented structure of all deaths of *adult* women caused by homicides (Form C-8). In accordance with objectives of this study, only deaths of *adults* (working- age persons) can be used in the estimates, so we use a number of adult women under 65 as denominator. Thus, the estimates of lost years of women's lives can be applied to persons who have died after entering the working age; in terms of estimating the lost economic output, this approach is more relevant. The scope of potential irreversible economic losses attributed to VAW can be estimated by multiplying the lost years of a potentially employed life (e.g. adjusted by women's employment rate) by its economic equivalent in the form of GDP per employed person.

Aside from irreversible population losses, the economy is greatly impacted by labor output losses caused by injuries and illnesses attributable to domestic violence. For example, it was estimated in the USA that the country loses 8 million working days a year due to domestic violence (that is equivalent to 32 thousand full-time jobs).

The costs of injuries attributable to VAW are borne by victims themselves (lost earnings and lost job) and their employers (payment for sick-leaves, reduced labour productivity of victims, their absence from work, etc.). Currently, there is no single approach to measure the economic costs of injuries attributable to VAW.

Potentially, the *DALY*-approach can be used for such purposes. The *DALY*-index is measured on a scale from 0 to 1, and its increase correlates with an increase in the loss of health. For example, in the case of a broken leg, a value of 0.31 means that for 31% of a year, a person is not considered to be in good health. But, there are two problems with *DALY*, providing limitations to the full-scale use of this technique. First, the index is not measured in the monetary value, and the economic equivalent of each injury must be assessed by multiplying the *DALY*-index of each injury by value of statistical life (*VSL*) per year. Secondly, any approach used for estimating that is based on *DALY* needs detailed data on the number and types of injuries among victims of VAW. There is no such information available presently (and, as international studies demonstrate, the lack of such information is common for most countries).

So, to estimate reversible population losses attributable to VAW, we estimate each separate component of the total costs. The next three components should be considered:

- lost macroeconomic product (GDP) due to temporary incapacity of survivors;
- losses caused by permanent incapacity (registered disability);
- losses caused by inability to conduct routine housework and childcare.

To estimate the monetary equivalent of these losses, the following data from the State Statistics Service can be used: number of first-time registered disabled persons, and average pension on disability, etc.

As there is no high-quality data on temporary incapacity, a number of days of sickness is estimated based on the Regulations for forensic examination of the gravity of bodily injuries, adopted by Decree of the MoH of 17.01.1995 №6⁴⁰. Statistics from the National Police provides information on number of domestic violence victims and the gravity of their injuries. We propose classifying all victims of domestic violence through three categories: minor injuries, injuries of medium gravity, and grievous injuries (Table 3.3), associated with proper periods of incapacity to work.

Table 3.3. Categories of injuries attributable to VAW

Categories of injuries	Forms of injuries	Average period of incapacity, days
Minor injuries	Intentional minor injuries	5
Injuries of medium gravity	Intentional injuries of medium gravity, grievous injuries or injuries of medium gravity caused by negligence, threats of murder, illegal detention of kidnapping	21
Grievous injuries	Intentional grievous injuries, intentional grievous injuries in case of exceeding the limits of necessary defense, intentional grievous injuries from the heat of a moment, battery and torture; rape; sexual insults; unnatural gratification of sexual desire	42*

*As there is no definition for the length of recovering from grievous injuries in Regulations for forensic examination of the severity of physical injuries, we assume that recovering from grievous injuries could take twice as long (21 * 2 = 42 days).

Unfortunately, there is no reliable data available for more accurate estimates of the costs of lost capacity to work. For example, the General Social Survey in Canada contains questions about length of stay in a hospital in case of domestic violence, number of

⁴⁰ Правила судово-медичного визначення ступеня тяжкості тілесних ушкоджень, що затверджені наказом МОЗ України від 17.01.1995 р. №6. - Режим доступу: <http://zakon2.rada.gov.ua/laws/show/z0255-95>.

days spent in a bed at home, and number of additional days when a victim of violence was unable to conduct her daily routine.

We assume that Ukrainian women, who were affected by any violence and were injured, stay in hospitals for much shorter periods as compared with established norms. This assumption is supported by findings of the special survey of women affected by violence conducted in the framework of this study (survey program and design are described in chapter 2 in detail). As it has been mentioned before, available data can be disaggregated by age to identify persons aged under or above the working age, so the costs of lost incapacity will not be estimated for these population groups.

According to the National Police, there were 158 adult women with minor injuries due to criminal offenses related to domestic violence (154 minor injuries and 4 injuries due to battery and torture), 11 women with injuries of medium gravity and 19 women with grievous injuries in 2012. Obviously, this data does not represent the whole picture of women's injuries attributable to domestic violence, so we use statistics of the National Police only to estimate the 'minimum' scenario of economic costs. In order to obtain more reliable results, there is a need in adjustments by latency rates for crimes related to GBV through findings of special sociological surveys. The simulation model for these estimates is presented in a separate chapter.

As it has been mentioned that costs of temporary incapacity of survivors of violence consist of the lost macroeconomic output (GDP). Respectively, the total costs of temporary incapacity will be estimated based on the following formulae:

$$\text{Lost product}_{\text{incapacity}} = \sum_{\substack{\text{minor injuries} \\ \text{grivous injuries}}} (\text{n} \times \text{days of incapacity}) \times \text{daily GDP per employed}$$

n – number of injuries by categories, incidents

In 2015, GDP per employed person was UAH 120,381.57 (or UAH 479.61 per working day). So, the minimum lost macroeconomic product caused by temporary incapacity of women with various forms of bodily injuries attributable to domestic violence can be estimated in **UAH 872,410.6** (\$39,945.5).

The detailed calculations of the lost macroeconomic output due to temporary incapacity attributable to domestic violence are presented in Table 3.4.

Table 3.4. Indicative estimates of the costs of losses due to temporary incapacity of women, who got bodily injuries attributable to domestic violence (based on documented incidents), 2015.

	Minor bodily injuries	Bodily injuries of medium gravity	Grievous bodily injuries
Registered crime offences attributable to domestic violence, number of female survivors	158 (154 – minor bodily injuries, 4 – battery and torture)	11	19
Average length of incapacity period, days	5	21	42
GDP per employed person per working day, UAH (\$)	479,61 (\$22)	479,61 (\$22)	479,61 (\$22)
Indicative costs of temporary incapacity in terms of GDP, UAH (\$)	378 891,9 (\$17 348,5)	110 789,9 (\$5 072,8)	382 728,8 (\$17 524,2)
Total costs of the lost GDP		UAH 872 410,6 (\$39 945,5)	

Note: average yearly exchange rate of the National Bank of Ukraine: \$1 = UAH 21.84

The alternate approach to estimating the costs of injuries attributable to domestic violence can be based on data from medical institutions (Zhang et al., 2012)⁴¹. Information on causes (circumstances) of injuries and proportion of injuries attributable to VAW can be obtained only through expert's judgments⁴².

Injuries attributable to domestic violence can result not only in temporary incapacity to work, but also in disability due to severe injuries. Based on the expert's judgments, only 5% of women with grievous injuries attributable to domestic violence end up with a permanent disability and receive official status as disabled persons. This assumption is confirmed by the survey of women affected by violence, conducted in the framework of this study: among 34 women with grievous bodily injuries, only 2 women reported having a disability within the group III, e.g. there were 5.6% of such women (Table 3.5). So, this percentage can be used for further estimates of the costs of losses due to women's disability attributable to VAW.

⁴¹ Zhang, T., Hoddenbagh, J., McDonald, S., Scrim, K. (2012), An Estimation of the Economic Impact of Spousal Violence in Canada 2009, Department of Justice Canada, Available at: <http://www.statcan.gc.ca/pub/85-002-x/2013001/article/11766/11766-3-eng.htm#r16>.

⁴² To collect data for such estimates, in-depth interviews with traumatologists may be conducted.

Table 3.5. Distribution of respondent's answers to the question: 'Has violence resulted in permanent incapacity / disability?' (women with grievous bodily injuries)

Answers	Number of women	Proportion, %
No, it hasn't	15	44,2
Yes, I've become partially incapable, but have no official documentation of my disability status	17	50,0
Yes, am now disabled	2	5,6
Total	34	100,0

Macroeconomic costs of permanent incapacity (disability) per annum can be estimated as follows:

$$\text{Losses}_{\text{disability}} = 0,056 \times n_{\text{grievous injuries}} \times \text{pension on disability}$$

n – number of grievous injuries, incidents;

„pension on disability“ – average yearly sum of pension benefits on disability, in UAH.

As the average monthly pension on disability was UAH1,545.15 in 2015, the minimum cost of losses due to women's disability attributable to VAW were UAH19,728.48 (\$903.3):

$$\text{Losses}_{\text{disability}} = 0,056 \times 19 \times 1\,545,15 \times 12 \text{ months} = \text{UAH } 19\,728,5 \text{ грн.} (\$903,3)$$

In addition to expenses related to payment of pensions, disability naturally results in the lost macroeconomic product (GDP). In 2015, GDP per employed person was UAH120,381.56 (\$5,510.79 based on the average yearly exchange rate), so permanent incapacity of those women who became disabled due to violence caused the minimum GDP losses in the amount of UAH120,086 or \$5,864.7.

Thus, the total lost macroeconomic output due to disability of women who survived violence were **UAH 147,814.5** (\$6,768.0) based on the 'typical' scenario of estimates.

It should be mentioned that such estimates of losses do not account for only one year, but also for the entire period of women's lost employment (to the threshold of the working age). Yet, such estimates require quite detailed information on the age (age-specific composition) and disability status of such injured women.

In addition to the lost earnings, women affected by violence may be unable to fully perform their housework and childcare for a long period of time. These losses can also be included

to the aggregate economic costs of VAW. For example, women spend on average at least 4 hours a day on housework, cooking, and childcare in Canada⁴³. As a result, when women cannot conduct these activities for some time, their work is transferred to close friends, relatives, and even their children. The relevant costs can be estimated through multiplying the number of VAW survivors (including victims of rape), number of days of temporary incapacity due to injury, and average daily wage in the domestic sector. To estimate wages of domestic workers in Ukraine, the minimum wage was used.

According to the special survey of women affected by violence, 62.1% of respondents confirmed that violent incidents affected their ability to conduct household work. The median number of days of reduced capacity to conduct household work was reported to be 7 days. By taking into account the average minimum wage in 2015, UAH 1,271.33, the total cost of the lost output in terms of household work for officially registered women who suffered domestic or sexual violence was:

$$(188+288) \times 62,1\% \times 7 \times \frac{1\,271,33}{21} = \text{UAH } 125\,266,7 \text{ (\$ } 735,7 \text{)}$$

When summarizing all components of lost economic output due to temporary incapacity and disability of women affected by VAW (Table 3.6), we argue that such minimum costs could have reached **more than UAH 1 million**, or **\$52.5**, in 2015 (based on the average exchange rate of the National Bank of Ukraine for 2015).

Though the results obtained may be perceived as relatively small costs, we have to pay attention to Ukraine's low minimum wage that was used to estimate the losses due to non-conducted domestic work and large prevalence of the shadow economy. Since *the official indicators* of the State Statistics Service were used for these estimates, the real cost of lost economic output may be much higher. At the same time, prevalent underreporting of GBV incidents enables us to argue that the real scope of injuries and incapacity attributable to violence against women is much larger. That's why, in order to obtain reliable estimates, these indicators must be adjusted by latency rates for crimes through the findings of population-based surveys. The results of the country-wide simulation will be presented in a separate chapter of this study.

⁴³ Zhang, T. et al (2012), An Estimation of the Economic Impact of Spousal Violence in Canada 2009, Department of Justice Canada, Ottawa. Available at: <http://www.statcan.gc.ca/pub/85-002-x/2013001/article/11766/11766-3-eng.htm#r16>.

Table 3.6. Total cost of the lost economic output due to premature deaths, temporary incapacity and disability of women affected by GBV, 2015

Types of cost	Monetary value, UAH thousand	Monetary value, \$ thousand
Irreversible losses (deaths)	963.1 (min) – 33,104.5 (max)	44.1 (min) – 1,515.8 (max)
Losses due to injuries and incapacity, of them:	1 145,5	52,4
losses due to temporary incapacity (GDP)	872,4	39,9
losses due to permanent disability (pensions)	19,7	0,9
losses due to permanent disability (GDP)	128,1	5,9
losses due to reduced productivity and incapacity to conduct daily household work	125,3	5,7

4 Approaches to estimating the costs of services associated with response to violence against women and support for survivors

The national system of response to violence against women consists of a range of public institutions engaged in preventive activities, comprehensive support for survivors, and prosecution of abusers. As a whole, **more than 15 institutions** are involved with interventions to combat VAW, including:

- the central executive authority, responsible for development of the state policy on preventing domestic violence (Ministry of Social Policy of Ukraine);
- executive authorities, local governing authorities and their structural divisions (department on social protection, departments on families and youth);
- special departments of the National Police (more than 5 departments, depending on gravity of criminal offences);
- services for children;
- social service centers for families, children and youth;
- social-psychological support centers;
- social-psychological rehabilitation centers for children;
- shelters for children;
- healthcare institutions (family doctors, out-patient and in-patient institutions, etc.);
- educational institutions (preschools, general secondary schools, etc).

As a result, the total costs of interventions for response to violence and support for victims by various service-providers can be estimated through expenditures allocated for the financing of healthcare, law enforcement and the justice system, penitentiary facilities for offenders, social services, and specialized services such as information hotlines or crisis centres for survivors of violence. These services are funded from different sources, including public expenditures regulated by a network of state and communal institutions, resources from the non-governmental sector, allocations from civil society organizations, grant programs implemented by development agencies and charitable foundations, and private funds from households and individuals. Since funding mechanisms may vary for different categories of services, the economic estimates of the relevant costs require different approaches.

In this chapter, we analyze approaches to estimating the costs of services associated with response to VAW incidents and support for survivors, in following sectors:

- healthcare;
- law enforcement and the justice system;
- the penal system and correctional institutions;
- social services;
- specialized services on VAW prevention and response.

4.1. Healthcare sector

The most important social effects of violence against women are associated with a survivor's health losses. Based on WHO's definition (1948), health is

“ ‘a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity’.

Thus, the negative effects of physical, sexual or psychological violence can be interpreted as not only direct losses, resulting from physical injuries or reproductive health losses, but also long-term psychological problems and stress disorders, affecting survivors' quality of life in the long-term.

In regard to this, WHO (2013)⁴⁴ proposed three groups of effects from potential health losses attributable to VAW, including intimate partner violence:

- 1) physical injuries (traumas);
- 2) psychological traumas and stress disorders;
- 3) fear and effects of controlling behaviour.

While costs for the first group can be identified, studied, and recorded (such as injuries attributable to physical violence or unwanted pregnancies caused by sexual violence), other losses can be difficult to statistically measure, in particular if they are associated with postponed effects. Thus, survivors in need of medical assistance may concern not only emergency aid, diagnostics and medical consultancies, but also prolonged psychological support. Although the last category of therapy may be the most expensive, no economic estimates of such services can be currently obtained due to the lack of reliable data; it can only be addressed in future studies.

Relatively reliable estimates of the need in healthcare may be obtained only for the types of health losses that are documented by administrative data (such as physical

⁴⁴ World Health Organization (2013), Global and regional estimates of violence against women: prevalence and health effects of intimate partner violence and non-partner sexual violence, Geneva, World Health Organization. Available at: http://apps.who.int/iris/bitstream/10665/85239/1/9789241564625_eng.pdf.

injuries of varying severity or recorded incidents of sexual violence). Still, economic analysis of the health effects of domestic or sexual violence is complicated by two important constraints:

- 1) no availability of *medical statistics* that identify health losses attributable to VAW, and
- 2) no availability of data that identify the scope of *total financing* in the healthcare sector for healthcare services that domestic and sexual violence survivors received.

With regard to the first constraint, the current system that registers recipients of medical services in healthcare institutions does not suggest compulsory documentation of causes of injury, as medical workers are simply obliged to provide needed medical care. Although they are obliged to notify the police about the criminal nature of injuries (gunshot, stab wounds, etc.)⁴⁵, this data is not reflected in medical statistics that are based on the international classification of illnesses and deaths. Thus, it is impossible to identify categories of ‘domestic’ or ‘sexual’ violence within causes of injuries documented by medical institutions.

The only data source available for estimating the need in relevant medical services comes from reports about identified victims from criminal offenses associated with domestic violence that resulted in bodily injuries (Art. 121, 122, 124, 125, 126, 127, 128 of the Criminal Code of Ukraine), and reported crimes of sexual nature – in particular, rapes (Art. 152 and 153 of the Criminal Code of Ukraine)⁴⁶. Information on such offences is summarized in the Report on activities of law enforcement departments on domestic violence (Form 1-HC-OBC (595)), and documented by sexual crime statistics (Table 4.1). Evidently, every woman who survived violence required some form of medical services, examinations, and treatments.

The second constraint in results comes from the current way in which the public infrastructure of medical institutions is financed through line-item budgetary funding. As a result, it is impossible to estimate the actual costs of specific services utilized by patients⁴⁷. Moreover, the duplication of some services provided by medical institutions at different levels and inter-departmental subordination (primary, secondary and specialized healthcare) causes difficulties with evaluating the whole process in which patients appeal for and receive service for specific diseases or injuries.

⁴⁵ Decree of MoH of 06.07.2016 № 612/679 ‘On registration of appeals to medical institutions and delivery of persons with injuries from a criminal character to medical institutions, and informing police about such situations’.

⁴⁶ In many situations, it is the severity of injury and length of the respective medical treatment that are used to criminalize offences.

⁴⁷ In accordance with the economic budget classification, the main part of healthcare expenditures of the Consolidated Budget of Ukraine is allocated to the payment of wages and accruals (50.3% of total expenditures in 2015); a share of expenditures for payment for communal services is also quite large.

The situation is also complicated by the currently unresolved mechanism for providing paid medical services at public institutions, since there is an unlimited availability of free-of-charge medical care as declared by Art. 49 of the Constitution of Ukraine. Out-of-pocket payments are also quite common in the healthcare system⁴⁸, in case of serious injuries or illness, such payments can become ‘catastrophic’ costs for households.

Table 4.1. Number of victims involved in criminal offenses associated with domestic violence and crimes of sexual nature

Categories of victim's health losses	Articles from the Criminal Code of Ukraine	12 months in 2015			6 months in 2016		
		Number of victims involved in criminal offences	adults		Number of victims involved in criminal offences	adults	
			males	females		males	females
Total criminal offences, associated with domestic violence:		329	60	212	344	68	242
grievous injuries	121, 124, 128	30	10	19	27	7	17
injuries of medium gravity	122	16	3	11	14	3	9
minor injuries	125	221	31	154	245	47	176
battery and torture	126, 127	8	1	4	14	1	11
rapes	152, 153	7	2	3	1		
Total rapes	152, 153	306	28	278	216	19	197

With regard to the constraints of economic analysis of the costs of public health services, the proposed approaches are based on the estimated costs of such services at private medical institutions. In order to get information, open information sources are used (Internet sites from private clinics in Ukraine's five largest cities). This approach seems justified, as price-setting in the private sector of healthcare is guided by principles of rationality and competitiveness, while the financing of public health institutions may include some non-transparent expenses that are not directly related to service-providing (such as the training of medical personnel, travels, scientific events, etc.).

⁴⁸ Based on the World Bank estimates in 2013, out-of-pocket expenses made up 42.8% of total expenditures on healthcare in Ukraine (World Bank, data.worldbank.org).

The estimated costs of healthcare services, associated with response to VAW, are based on the **'unit cost' approach**, suggesting a minimum complex of diagnostics tests, medical procedures, and treatment strategies for each 'typical' situation. In practice, abused women may not necessarily use all services or need additional support, but the algorithms are developed based on our understanding of the 'proper' healthcare response to patients, and (if possible) with regard to the relevant clinical protocols. Below are examples of estimates based on this approach, including the costs of post-exposure procedures and services in the event of sexual violence (rape) and various groups of injuries attributable to domestic violence.

Sexual violence (rape). According to WHO (2003)⁴⁹, comprehensive assistance to victims of sexual violence should include: psychological support, emergency contraception, treatment and prevention of sexually transmitted infections, adequate prevention of HIV-infection, information on safe abortion, and so on. We can assume that a set of required services must also include at least one consultation with a gynecologist, an ultrasound of the pelvic organs, and mandatory tests for HIV, hepatitis, and sexually transmitted infections. In some highly traumatic cases, emergency aid may be needed, as well as primary surgical treatment of wounds or in-patient treatments. The indicative costs of a minimum set of post-exposure medications and treatments are shown in Table 4.2 (prices as of December 2016). The calculated costs are exchanged into USD to ensure proper estimations of the cost of services utilized by rape survivors in 2015.

Even with regard to a high latency rate for sexual crimes, the estimated costs for the minimum scope of healthcare utilized by documented rape survivors in 2015 could have reached:

- 1) the minimum costs of post-exposure measures: \$65,608 [278 women \$236];
- 2) given that some rapes (1/3 of total incidents) were highly traumatic and required more diverse services: \$115,456 [185 women \$236 + 93 women with serious injuries \$772];
- 3) given that some victims utilized long-term psychological services / therapy (at least 1/3 of all women): \$118,990 [185 women \$236 + 93 women with serious injuries, who utilized psychological support services \$810].

⁴⁹ WHO (2003). Guidelines for medico-legal care for victims of sexual violence. Geneva, World Health Organization.

Table 4.2. Estimates for the costs of compulsory post-exposure services, procedures, and medications in the event of a rape

Post-exposure prophylactics and examinations	Minimum costs of procedures and medications			Costs, scenario 2 (UAH)	Costs, scenario 3 (UAH)
	Unit cost, UAH	Number of units	Total costs, UAH		
Examination by gynecologist	200	1 consultation.	200	6 125	
Ultrasound of pelvic organs	150	1	150		
HIV express-test	180	² (1 + 1 in a month)	360		
Tests for hepatitis, syphilis and other STDs	200	1	200		
Emergency contraception ('Ginepriston' / 'Postinor')	165	1 yn.	165		
Prevention of STDs ('Saphocid')	650	1 yn.	650		
<i>Two-component treatment of HIV («Virocomb» or its analogue (zidovudine + lamivudine))</i>	4000	1 pkg. monthly	4 000		
Consultancy of psychologist / psychotherapist	200	1	200		
Total	UAH 6 125 (\$236)				
Emergency ambulance call				1 000	20 075
Primary surgical treatment of deep wounds				750	
In-patient treatment (5 days)				10 000	
Medication (antiseptics, antibiotics, pain medications)				1 000	
Course of psychological support/therapy (5 consultations)				1 000	
Total, more traumatic situations				20 075 (\$536)	
Additional psychological support/therapy (+ 5 consultancies)					1 000
Total, including psychological support services					21 075 (\$810)

Note: prices as on December of 2016; indicative exchange rate: \$1 = UAH 26.

Bodily injuries due to domestic violence. The 'unit cost' approach can also be used to estimate the indicative costs of a set of healthcare services utilized by victims with bodily injuries attributable to domestic violence. According to the Regulations for forensic examination on the severity of physical injuries, approved by the Decree of MoH of Ukraine of 17.01.1995 №6, *minor injuries* are classified as health disorders lasting more than 6 days, but not more than 21 days, and minor transient effects of no more than 6 days (abrasions, bruises, etc.); *injuries of medium gravity* are classified as long-term health problems that exceed 21 days and result in disruption of the body or significant disability (fractures, sprains, superficial wounds, etc.); *grievous injuries* are classified as life threatening injuries involving danger to one's life, leading

to health disorders lasting more than 120 days, or permanent disability incapacitating at least one-third of one's ability (traumatic brain injuries, deep penetrating wounds, etc.).

The experts were invited to discuss the approaches to estimating costs of the effects of VAW, providing their expertise to identify indicative algorithms for healthcare and scope of minimum services for each category of bodily injuries (Table 4.3). In particular, while consequences of minor bodily injuries mostly require out-patient treatment, traumatologist examinations, and inexpensive medications (on average, costing up to UAH 520), bodily injuries of medium gravity may require more prolonged and expensive treatments (on average, costing up to UAH 10,000). In the event of grievous bodily injuries, there is a need for highly expensive diagnostics and examinations (such as MRI of brain), consultation from multiple experts, and sometimes even surgery and subsequent prolonged rehabilitation. Based on the experts' judgments, the indicative cost of a minimum set of examinations, treatments (including in-patient healthcare), and medication may reach as high as UAH 26,000.

According to administrative data from the National Police on victims of domestic violence in 2015, the total costs of medical services utilized by survivors may have been as high as **UAH 683 thousand (\$26,270)** based on the documented number of incidents ('typical' scenario of estimates).

Obviously, the provided estimates are quite indicative and cover only a part of some possible costs of healthcare for VAW survivors. These costs do not take into account potential and postponed effects, including infertility in the event of harm to reproductive health, long-term post-traumatic behavioral disorders, and depression, etc. Still, although these results should be used with caution, they can provide a general view of the economic costs of effects of VAW in the healthcare sector.

Thus, according to the estimates, **the total costs of healthcare services for female survivors of GBV could have reached as high as \$145,260 in 2015**. When considering high latency rates for crimes associated with GBV, resulting in underreporting of survivors' appeals to medical workers, the costs of utilized services will largely increase. The simulation results for the healthcare sector costs will be presented in a separate chapter of this study.

Table 4.3. Indicative estimates of healthcare needs for women with bodily injuries attributable to domestic violence (registered incidents and adjusted estimates), 2016

	Minor injuries (6-21 days of treatment)	Injuries of medium gravity (more than 21 days of treatment)	Grievous injuries
Aggregate character of injuries	Bruises, hematomas, scratches	Fractions, dislocations, superficial wounds	Deep penetrating wounds, traumatic brain injuries, etc.
Minimum set of needed healthcare services	Examination by traumatologist, medication, bandaging	Emergency medical aid, consultation of surgeon / traumatologist, radiography in several projections, primary surgical treatment of wounds, surgical dressing, imposing fixing bandages / plaster, local / general anesthesia, medication. In-patient treatment from 5 to 14 days.	Emergency medical aid, consultation of surgeon, radiography in several projections, MRI (brain) surgery preoperative examination, surgery, surgical dressings, local / general anesthesia, medication. Consultations of ophthalmologist, psychologist, neurologist in case of traumatic brain injury. In-patient treatment from 14 to 21 days.
Indicative costs for a set of healthcare services per 1 injury (prices as on December 2016; indicative exchange rate: \$1 = UAH 26), in UAH (\$)	520 (\$20)	10 000 (\$384,60)	26 000 (\$1 000)
Number of female victims for crimes related to domestic violence	158 (154 – minor injuries, 4 – battery and torture)	11	19
Estimated costs of healthcare for registered victims, in UAH (\$).	79 000 (\$3 160)	110 000 (\$4 230)	494 000 (\$19 000)
Total costs ('typical' scenario)	UAH 683,000 (\$26,270)		

Source: author's estimates

4.2. Law enforcement and the justice system

Under the current law, all offenses associated with violence against women (sexual crimes and domestic violence) are classified based on criminal, administrative or civil liability.

Administrative liability (Art. 173 of the Code of Ukraine on Administrative Offenses) concerns incidents of domestic violence, (any actions of physical, psychological or economic nature) that have not led to physical pain or bodily injuries, threats, insults or harassment, denial of housing, food, clothing, money or other property of victims, but may cause or have caused harm to the physical or mental health of victims; administrative liability also concerns failures of domestic violence offenders to follow protective orders or attend correctional programs.

Besides administrative and criminal liability, *civil liability* can be applied to offenders who commit domestic violence, assuming there is a need to compensate victims for moral and material harms caused by domestic violence. At the same time, if offender's actions are not subject to prosecution in criminal or administrative proceedings, a victim still has the right to initiate a lawsuit and allege an offender for civil liability.

In contrast to administrative law, *criminal law* in Ukraine has no special provisions devoted to issues of criminal liability regarding domestic violence. However, many articles of the Criminal Code of Ukraine regulate the prosecution of offenses that may be associated with domestic violence and/or such offenses committed by family members. In accordance with Art. 115 of the Criminal Code of Ukraine, murders should be punishable by imprisonment for a term from seven years to life imprisonment. The Criminal Code of Ukraine contains provisions that punish murders, murders committed in the heat of the moment, unlawful violence, systematic harassment, grievous insults towards a victim (Art. 116), infanticide (Art. 117), and murders in excess of necessary self-defense or in excess of measures necessary to apprehend an offender (Art. 118), and negligent homicide (Art. 119). If a person was driven to committing suicide as a result of domestic violence, or attempted suicide because of cruel treatment, blackmail, coercion to commit unlawful actions, or systematic humiliation of his/her human dignity, Art. 120 declares the punishment (driving a person into committing suicide).

Quite often, domestic violence results in bodily injuries of varying severity: minor injuries (Art. 125), injuries of medium gravity, grievous injuries, battery and torture (Art. 126), and threats to kill (Art. 129).

Crimes against sexual freedom and sexual inviolability of a person include rapes, e.g. sexual intercourse combined with violence, threats of violence, or taking advantage of the victim's helpless condition (liability regulated by Art. 152 of the Criminal Code of Ukraine), violent and unnatural gratification of sexual desire (Art.153), or compulsion to sexual intercourse (Art. 154). Being married to or having long-term sexual relations with the survivor does not exempt the abuser from liability for these offences.

With regard to important differences between these types of offenses, we propose the estimation of costs incurred upon law enforcement response for each type of classified offense – ‘minor’, ‘medium gravity’ and ‘grievous’ offenses – based on either administrative or criminal liability (*‘unit cost’ approach*). Each group can be characterized by a specific algorithm based on the actions of police officers, with varying lengths of time spent on investigating and prosecuting offenders in the court.

The costs of ‘minor’ offenses (Box 4.1) can only be attributed to police calls, time police spent on preventive conversations with abusers (1 hour), and registration of incidents by district police inspectors (1 hour). Based on official data from the National Police of Ukraine, the marginal wage of district inspectors is UAH 7,000, policemen – UAH 6,600, investigators – UAH 10,000. Respectively, the average costs of 1 working hour these officers are: UAH 40, UAH 37.5, and UAH 57.4. Given no official estimates of the cost of police patrol calls, some indirect estimates may be used based on a *transfer of ‘similar costs’*. Thus, as of December 2016, the average cost of the state security service call to respond to an alarm signal from individuals and legal entities was UAH 270.

Box 4.1. ‘Minor’ offenses related to violence against women

‘Minor’ offenses represent incidents that are not associated with a survivor’s physical pain or bodily injuries. In this case, offenders who commit domestic violence are not charged with any liability due to various reasons. Minor offenses are mostly associated with psychological and economic violence, given that such violence poses no threat to a survivor’s life and health.

When receiving a call with information about a minor incident of domestic violence, the crew of patrol police consisting of 2 persons arrives to interview the survivor and offender. In addition, victims can request police officers or local (district) police inspectors by themselves.

If an offender is absent at the moment when a police patrol arrives, he/she may be invited to the police station for questioning. At the final stage of response to minor offenses, police conduct a preventive conversation with offenders and/or submit an official warning about impermissibility of committing domestic violence. Even in the case of minor domestic violence offenses, police officers must inform survivors about the availability of social services.

Thus, the average cost of a police response can be transferred to a 'minor' incident of VAW as the following estimate: UAH 270 (police patrol call) + 2 UAH 37.5 (1 hour of working time for 2 policemen) + UAH 40 (1 hour of working time for 1 district inspector) = UAH 385 (about \$15 as on December 2016).

The number of such 'minor' offenses can be calculated as the difference between the total number of registered domestic violence complaints and number of registered administrative and criminal offences. In particular, law enforcement agencies registered 116,548 domestic violence complaints, 83,740 administrative offenses, and 336 criminal offenses associated with domestic violence in 2015. Respectively, 32,472 complaints were not associated with administrative or criminal liability, and can be regarded as 'minor' offences. So, we can assume that the economic costs of law enforcement response to domestic violence incidents that were not associated with administrative or criminal liability ('minor' offences) can be estimated to be **\$487,080** [32,472 incidents \$15]

It is more difficult to estimate the costs associated with response to offenses of 'medium gravity' (Box 4.2) that are mainly classified as administrative offenses. The estimates consist of the following categories of expenditures: police patrol call, time spent calming down offenders, issuing administrative protocols, processing documents in the courts (up to 3 hours of working time for 2 policemen and 1 district inspector), and investigating cases in the courts (up to 1 hour of working time of a judge), and temporary isolation of offenders in the event of a court decision (up to 15 days).

Box 4.2. 'Medium gravity' offenses associated with violence

These offences are associated with physical or mental injuries attributable to domestic violence, resulting in administrative liability in accordance with Art. 1732 of the Code of Ukraine on Administrative Offenses.

In the event of a call with information about 'medium gravity' offenses, a police patrol crew consisting of 2 persons arrives at the scene to interview the survivor and offender. If this incident can be classified as administrative offense, the administrative protocol is issued and sent to the court later.

If needed, police patrol can detain an offender and bring him to the court to issue a decision on his temporary isolation in a detention center.

After the court receives information regarding the completion of police protocol, a judge is assigned to work on this case, a date and time for the court session is scheduled, the offender is informed about these details, and the court hearings begin.

Usually, the court investigates such offenses in accordance with regulations from Art. 1732 of the Code of Ukraine on Administrative Offences at one or two sessions, lasting no more than 1 hour each. As a result, the court issues a decision sentencing offenders to public works for a period of thirty to forty hours, or administrative arrest for a term of up to seven days.

When the court decides to charge the offender based on liability issues, it is forwarded to the executive service. In the event that the court decides to charge the offender based on administrative arrest, an offender will stay in a detention center for the duration issued. If the court decides to sentence an offender to public works, suggested types of work will be offered in the writ.

In addition, an offender is registered by the National Police in the prophylactics registry and sent to correctional programs that are mandatory for them to attend. Correctional programs are conducted by structural departments of local state administrations for the prevention of domestic violence (department on social protection or department on families and youth for or city administrations).

Failure to attend correctional programs will result in offenders subject to additional administrative liability, in accordance with Art. 1732 of the Code of Ukraine on Administrative Offences.

Also, an offender can be issued with an official warning about the unacceptability of domestic violence as well as a protective order, forbidding certain actions towards a survivor of domestic violence. Such restrictions are set for a period of 90 days. In the event that there are 'medium gravity' offenses, police should inform the survivor about available social services and, if need be, medical services. Within 3 days after registering domestic violence case, police must report this crime to authority units responsible for the prevention of domestic violence. This information is recorded in quarterly statistics and sent to the Ministry of Social Policy of Ukraine.

In accordance with the Law of Ukraine “On Judiciary and Status of Judges” (2016)⁵⁰, the base minimum wage of judges in local courts does not exceed 15 amounts of the subsistence minimum for work-capable persons (UAH 24,000 per month or UAH 136.40 per hour). Thus, the average cost of law enforcement response to ‘medium gravity’ offenses associated with VAW can be estimated as follows: UAH 270 (police patrol call) + 3 × 2 × UAH 37.5 (3 working hours for 2 policemen) + 3 × UAH 40 (3 working hours for 1 district inspector) + UAH 136.4 (1 working hour for 1 judge) = UAH 751.4 (\$29 as on December 2016).


As there were 83,740 administrative offences associated with domestic violence in 2015, the total cost of law enforcement response to ‘medium gravity’ offences can be estimated to be \$2,428,460 a year [83,740 incidents × \$29].

Moreover, 3,895 persons were subjected to administrative arrest in 2015, so additional costs were needed to provide their isolation in detention centers. Based on official data from the State Penitentiary Service of Ukraine, the daily costs of maintaining a person in a penitentiary institution was UAH 136 (\$5)⁵¹ so the minimum cost of temporary isolation for ‘domestic abusers’ (we assume that they spend up to 15 days in detention centers) was \$292,125 in 2015 [3,895 persons × 15 days × \$5 a day]. Finally, the aggregate costs of law enforcement response to administrative offenses associated with domestic violence could have reached as high as **\$2,720,585** [\$2,428,460 + \$292,125] in 2015.

Naturally, the largest costs are spent on law enforcement response to ‘grievous’ offences associated with criminal liability. The economic costs in this case consist of not only police patrol calls, but also investigative working groups, several forensic examinations, working hours spent on investigation and court considerations, costs of lawyers, and long-term stay of suspects in detention centers (Box 4.3). Unfortunately, there is no availability to make reliable estimates of such costs presently, as algorithms of actions, length of investigations, and number of specialists involved varies largely. So, at this stage, the experts argued that indicative costs of police response to ‘grievous’ offenses can be at least 6-7 times larger than costs of administrative offenses (e.g. not less than \$174). As criminal proceedings were closed for 336 offenses related to domestic violence in 2015, the costs of law enforcement response could be estimated to be **\$58,464** [336 incidents × \$174]. In addition, law enforcement agencies registered 323 rapes and rape attempts; based on the proposed approach, the costs of response to these criminal offences can be estimated with an additional **\$56,202** [323 incidents × \$174]. Thus, the indicative cost of law enforcement response to criminal offences associated with GBV could have reached as high as **\$114,666** in 2015.

⁵⁰ <http://zakon2.rada.gov.ua/laws/show/1402-19/page>.

⁵¹ Based on the State Penitentiary Service, the daily cost of maintaining an imprisoned person is UAH 16 (direct allowance on food, healthcare, and partially clothing), and UAH 136 including wages of personnel and other expenses.

Box 4.3. 'Grievous' offences related to violence against women

Grievous offenses related to physical domestic violence include bodily injuries of varying severity (minor injuries, injuries of medium gravity, grievous injuries), battery and torture, threats to kill, attempted suicide because of cruel treatment, blackmail, coercion to commit unlawful actions, or systematic humiliation of person's human dignity, sexual crimes.

Grievous offences related to domestic violence are subject to criminal liability.

In of a call with information about grievous offense, a police patrol consisting of 2 persons arrive at the scene. Policemen interview the survivor and offender. Also, the investigative group arrives, consisting of operating police officers, criminalists, and investigators. If violent actions are still taking place upon arrival of the police, policemen stop the offender and, if there is a need, provide emergency aid to the survivor. They also call the ambulance to provide the survivor with medical services. If need be, an injured person is delivered to the hospital

The operating group captures the circumstances of incidents, holding primary data collection and surveys. If some preventive measures are needed to be applied, the police deliver an offender to the court so that they can make a decision on the relevant measures. Within 24 hours, investigators submit information about the domestic violence incident to the Unified Register of Pre-trial Investigations.

Within 3 days after registering the domestic violence incident, police must report this offence to the authority unit responsible for the prevention of domestic violence. This information is recorded in quarterly statistics, and sent to the Ministry of Social Policy of Ukraine.

Police inform the survivor about available social services, and her/his rights and freedoms. In addition, an injured person receives forensic examination, including immunobiological and fingerprint examinations.

Investigations can last for 1-2 months after the incident. The procedure includes questionings (survivor, offender, and witnesses), investigative experiments, confrontations, and more. After the investigations, the National Police prepare the indictment that is sent to the court.

In serious incidents of domestic violence, court hearings can last about 2 months (from 4 to 8 sessions). An offender stays at home or a detention center during the entire period, depending on the gravity of offense.

According to the Law of Ukraine 'On free legal assistance', an offender is provided with public legal support (a lawyer). Usually, these lawyers are provided by centers for free secondary legal aid. At the same time, an injured person is entitled to free primary legal assistance that is to inform her about rights and freedoms, procedure for their implementation, and recovery in the case of any violations.

After sentencing, an offender is imprisoned. On average, domestic violence offenders are sentenced to 5 years of imprisonment in the event of 'grievous' injuries.

Still, the most costly component of the system of criminal justice is represented by penitentiary system expenditures, in particular imprisonment of offenders, convicted for crimes associated with sexual and domestic violence. Though the criminal law of Ukraine has no special provisions to identify 'domestic violence' in convictions, the main proportion of these crime offences is associated with threats to an individual's life and health (homicide, physical bodily injuries, etc.), and can be classified within these categories of crimes. In particular, according to the State Penitentiary Service of Ukraine, convicted persons serving their prison sentences in 2015 were categorized as the following:

- 10.6 thousand persons convicted for intentional murders;
- 4,7 thousand persons convicted for intentional grievous bodily injuries;
- 1,4 thousand persons, convicted for rapes.

As the State Penitentiary Service does not provide disaggregated statistics for people convicted for domestic violence, this study is based on the judgement of the heads of some penitentiary institutions. In accordance with their estimates, 'domestic abusers' constitute for about 10% of the total number convicted for intentional murders (respectively 1.06 thousand persons), and about 20% of the total number convicted for intentional grievous injuries (respectively 940 persons). Taking into account the number of people who were convicted for rapes, there were about 3.4 thousand persons imprisoned in 2015 due to VAW crimes.

Thus, the indicative yearly costs of imprisonment of abusers convicted for crimes associated with GBV could reach as high as **\$6,205 thousand** [3.4 thousand convicted persons × \$5 a day × 365 days], of them direct costs of detention make up \$745 thousand.

The aggregate costs related to law enforcement response to GBV and maintenance of penitentiary institutions could have reached as high as \$9,527 thousand in 2015. The costs of penitentiary institutions overshadow other costs (Fig. 4.1), while law enforcement response to incidents of violence that were classified as administrative offences make up the second most amount of costs.

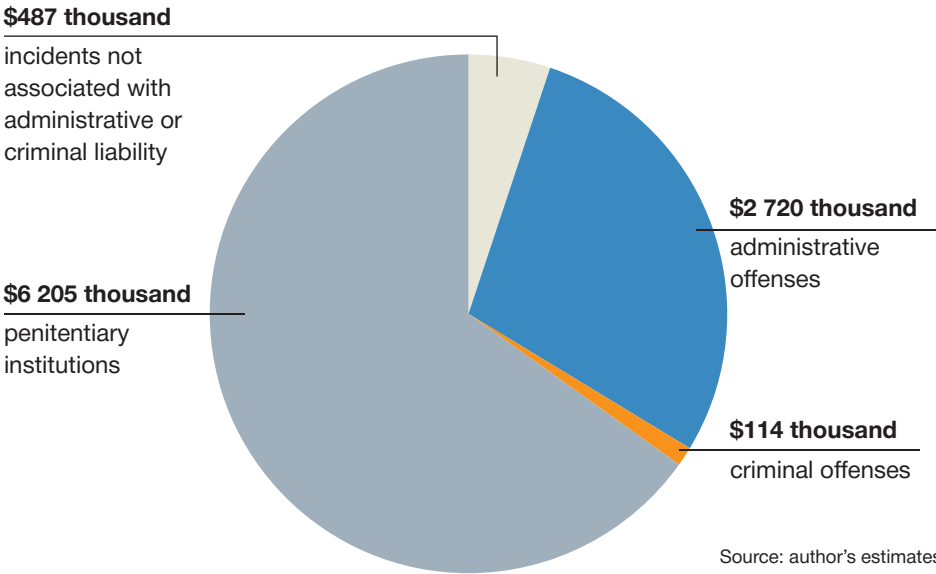


Fig. 4.1. Indicative data on the scope and composition of the aggregate costs of law enforcement response to GBV in 2015, in USD.

4.3. Social services sector

In Ukraine, an extended network of social centers operates; the centers may provide women affected by domestic violence with social services, including temporary stay in shelters. Most of these institutions are communal or state property, while their network consists of centers for socio-psychological support and social centers for mothers and children. In centers of social services for family, children and youth, a broad range of social services can be provided to individuals with difficult life circumstances; a network of these centers operates at the regional and local levels. A smaller number of institutions serve as specialized centers, founded by charitable and non-governmental organizations, religious communities, and in some cases, by individual philanthropists.

According to the MoSP, there were 102,561 people who applied to social centers due to domestic violence in 2015, with a large share of repeated appeals of about 10%. Almost 90% of all complaints were done by women (89,551 appeals), while 12,304 appeals came from men and 706 appeals from children (Annex D). The largest numbers of appeals were registered in Kyiv city, and Vinnitsa and Kharkiv oblasts, which can be explained by better access to service-providers and awareness of people, not necessarily the prevalence of violence in these regions.

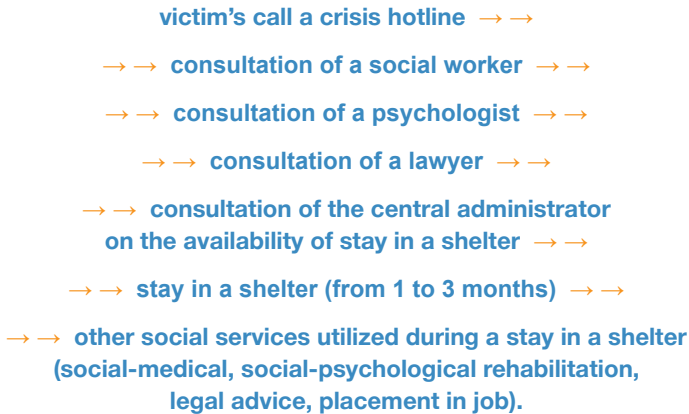
As a result of these appeals, almost 7.4 thousand families were registered in the databank of families experiencing difficult life circumstances (due to domestic violence), of them 1.3 thousand families were covered with social patronage. Also, 5,704 persons were referred to correctional programs, of them 390 women and 5,314 men (though only 1,265 persons completed the correctional program in full). Social services (due to domestic violence) were provided to 17.1 thousand persons, while 60 families were referred to social-psychological support centers.

There are 20 social-psychological support centers and 16 social centers for mothers and children in Ukraine. These institutions are situated in most regions of the country and provide free-of-charge social services to support families and individuals with difficult life circumstances who are unable to overcome such challenges by themselves. The occupancy rates vary from 10 to 30 beds per institution in each of the different regions; in some regions, there are no such social centers at all, so survivors of violence have no access to high-quality services there (Annex E).

Activities of social-psychological support centers target various categories of clients: along with women affected by domestic violence, other vulnerable populations may use the services, including persons released from prisons, homeless persons, etc. According to MoSP, social-psychological rehabilitation centers provided services to 9,036 persons,

of them 1,476 were women affected by violence (about 16% of the total number of clients). In addition, 579 women stayed in social centers, departments and apartments for mothers and children.

Such figures indicate not only the prevalence of domestic violence in the Ukrainian society, but also the unmet needs of survivors with respect to proper social support. In this chapter, we study some possible approaches to estimating the economic costs of such services at a macro-level. The aforementioned ‘*unit cost*’ approach suggests indicative algorithms for utilizing specific sets of services and step-by-step estimating of the costs of each component. The consultation of social workers and experts discussions conducted in the framework of this study provided understanding of an indicative set of social services in the case of domestic violence:



Theoretically, when estimating the indicative costs of a set of services, time spent by social workers providing services and their average wages can also be used. Still, this approach seems hardly feasible for estimating the costs of social services for VAW survivors at the macro-level, as individual needs of social service recipients may differ, as well as the number of consultations provided by social workers from various specializations. Social workers, who participated in the experts discussions, referred to examples when clients of social centers disclosed that the real driving force behind their appeals was related to domestic violence only after they had utilized a set of social services (trainings, information events, workshops, etc.), and managed to create some trust with social workers. In other words, women who applied to social centers due to domestic violence, in practice, could utilize some other types of social services that were not directly related to response to violence (Box 4.4).

Box 4.4. Types of services provided in social centers:

- *information*: providing information needed to resolve difficult life situations and information on types of social benefits, contacts of public services and institutions;
- *psychological*: psychological diagnostics, counseling on mental health and improving relations with the social environment, and psychological correction and psychological rehabilitation;
- *social-medical*: assistance in preventive and therapeutic activities, advice on health status, outreach programs to promote healthy lifestyle, support for people with addictions, and preventing socially dangerous diseases and other infectious diseases;
- *legal*: legal advice on laws, guarantees, benefits, implementation of rights and interests of families and individuals, protection of child rights, and assistance with applying to law enforcement and judicial authorities, etc;
- *temporary residence* (if available in a crisis center): victims of domestic violence may temporarily stay in special shelters (typically for 1 to 3 months, and in some cases – up to 6 months), if incidence of domestic violence is confirmed by proper documents (references from local police inspector), and they have a medical certificate to confirm absence of socially dangerous diseases. If needed, women can stay in shelters with their children; depending on their individual needs, women are provided with assistance in placing children at (pre)schools.

Another important argument against the ‘unit cost’ approach is related to the need for the public financing of full-time operations of crisis centers (such as 24-hour hotlines or day-and-night shelters). In this regard, the economic costs of such services should be associated with the *total operating costs* of the sector. At the same time, as social services are also provided to other categories of people (Box 4.5), the *proportional costs of services* for victims of domestic violence can be estimated based on the ‘*proportional operating costs*’ approach.

So, the estimating of aggregate costs of utilized social services for women who suffered from domestic violence will combine two approaches: 1) ‘unit cost’ approach for assessing the number of appeals registered by social protection authorities; 2) ‘proportional operating cost’ approach for assessing the economic equivalent of services provided by social psychological support centers.

Box 4.5. Activities of the Center for Families and Women of Desnyanskiy district of Kyiv city

October 2016

- legal advice – 42 consultations provided, of them **15 incidents of violence**;
- psychological support – 36 consultations provided, of them **15 incidents of violence**;
- social-medical consultations – 19 consultations provided;
- social services – 16 consultations provided;
- shelter administrator – **7 consultations on violence and temporary shelter stays** provided.

In total, 120 consultations provided, of them **37 were related to issues of domestic violence** (women).

November 2016

- legal advice – 69 consultations provided, of them **23 incidents of violence**;
- psychological support – 48 consultations provided, of them **27 incidents of violence**;
- social-medical consultations – 23 consultations provided, of them **4 incidents of violence**;
- social services – 15 consultations provided;
- shelter administrator – **6 consultations on violence and temporary shelter stay** provided.

In total, 161 consultations provided, of them 60 **were related to issues of domestic violence** (57 women and 3 men).

In October-November, there were **5 persons** staying in the Center's shelter, of them 1 child.

Activities are conducted in the framework of the 'Program of correctional work with persons, who commit domestic violence': **2 persons** completed the Program in full, **2 persons** were attending the Program in October; **1 person** was referred to attend the Program, and **9 persons** continued attending the Program in November.

First of all, it is natural that each registered appeal to social protection authorities resulted in some time spent by social workers to provide consultation and process the documents. As the average monthly wage in the social services sector was UAH 2,829 in 2015, social workers received as on average UAH 17.91 per working hour⁵². When considering the minimum time spent by social workers to process an appeal (1 hour), the costs of utilized services will be:

- appeals to social protection authorities due to domestic violence (women):
89,551 persons × UAH 17.91 = UAH 1,603,858.4 (\$73,436.7)
- referrals to correctional programs (men):
5,704 persons × UAH 17.91 = UAH 95,174 (\$4,358);
- referrals to social psychological support centers:
17,094 persons × UAH 17.91 = UAH 306,154 (\$14,018).

In accordance with methodical recommendations on conducting correctional programs with abusers of domestic violence, the length of correctional works has to be from 47 to 52 hours⁵³. So, based on assumption that about 50 hours were spent to work with an abuser. The aggregate costs of correctional programs were: 1,265 persons × UAH 17.91 × 50 hours = UAH 1,132,808 (\$51,868).

The next step of the analysis is estimating the scope of total financing of social psychological support centers and identifying the proportion of appeals due to domestic violence. As discussions with social workers indicated, a share of clients, who applied due to domestic violence, can vary from a few percent of service recipients to **almost half** of the total appeals. The detailed data of MoSP on the results of activities of social-psychological support centers (Annex E) confirm these assumptions. Thus, survivors of domestic violence constitute less than 10% of the total service recipients in Zhytomyr, Kirovograd, Mykolayiv, Rivne, Sumy, Cherkasy and Chernivtsi oblasts. At the same time, they composed from 25 to 41 percent of clients who receive social-psychological support services in Donetsk, Dnipropetrovsk, Zaporizhzhya, Lviv and Khmelnytskyi oblasts.

For example, the regional budget of Khmelnytskyi oblast allocated UAH 360.6 thousand for maintenance of the regional social and psychological support center, and UAH 641.9 thousand for maintenance of the regional social center for mothers and children. As survivors of violence constituted 23.1% of the total service recipients at the social-psychological support center, we can assume that the costs of services to this group of clients were UAH 83.2 thousand [UAH 360.6 thousand × 23.1%]. When adding the costs spent to finance social centers for mothers and children, the total yearly cost of utilization

⁵² Labour in Ukraine in 2015. Statistics Booklet / State Statistics Service of Ukraine, Kyiv, Consultant, 2016 : 143.

⁵³ Methodical guidelines for experts who implement correctional programs with persons who have committed domestic violence / Ed. By Mustafayev G.Yu., Dovgal I.I., Kyiv, 2011 : 192.

of social services for these groups of clients was UAH 725.1 thousand [UAH 83.2 thousand + UAH 641.9 thousand].

Based on the proportional operating costs approach, the total cost spent for financing social services for survivors of domestic violence in all regions of the country can be estimated to be UAH 12,593.4 thousand (or \$576.621 based on the average exchange rate of the National Bank of Ukraine in 2015⁵⁴). When including additional costs related to registering and processing appeals on domestic violence and implementing correctional programs for abusers, the costs of social services increase up to **\$720,301.7** per year.

Though these estimates have quite an indicative character, it must be mentioned that there is no need to adjust the estimates by latency rates because the scope of utilized social services is fully represented by administrative data.

Special interventions on preventing domestic violence are addressed in the framework of the target social programs on family support and domestic violence prevention at the level of oblasts. The programs are developed by social protection departments of regional state administrations and financed by local budgets and other sources in accordance with the law. A review of tasks and activities from the Programs allows us to distinguish which initiatives pertain to preventing domestic violence, and to estimate the total cost of relevant funding during the course of specific years. The special interventions have consisted of: outreach and educational campaigns with social advertisements on the forms and dimensions of domestic violence, as well as its causes and consequences; facilitation of intolerable attitudes towards violent patterns within family relations, including the annual regional National Campaign «16 days against violence»; training sessions to improve the skills of specialists who are engaged in work with abusers and survivors; and efforts to strengthen interactions between all parties engaged in VAW prevention and response.

In 2015, the costs of regional interventions to prevent domestic violence were **UAH 559,855** or **\$25,643** (based on the average exchange rate for 2015) (Annex D). The core proportion of these funds was allocated to implement preventive measures in Khmelnytskyi oblast (UAH 207.8 thousand). Vinnitsa oblast had the second highest allocation of funds (UAH 65.8 thousand), though the lag in the scope of financing was quite large. Much less money was spent on targeted interventions in Kharkiv, Kirovograd, Chernihiv, Zaporizhzhya, Ternopil and Zhytomyr oblasts, while the yearly amounts of funding did not exceed UAH 10,000 in Volyn, Lviv and Poltava oblasts (Fig. 4.2). At the same time, there was no target funding for preventive interventions allocated in some regions of the country (such as Donetsk, Zakarpattia, Ivano-Frankivsk, Lugansk, Mykolayiv, Odesa, Kherson, and Chernivtsi oblasts). These trends confirm that financing of gender policy is not prioritized in Ukraine.

⁵⁴ The average exchange rate in 2015 was: \$1 = UAH 21.84.

Thus, the total expenditure the social services sector spent supporting women affected by violence and targeting interventions on domestic violence prevention in the Ukraine was **UAH 13,153,255** or **\$602,255** in 2015 (based on the average exchange rate for this year).

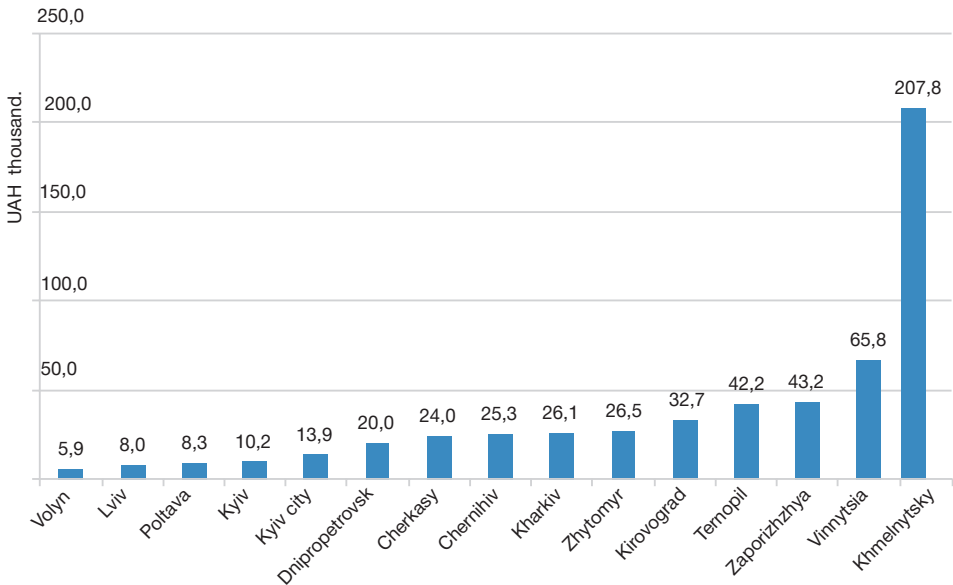


Fig. 4.2. Costs spent on targeted interventions on preventing domestic violence in the regions of Ukraine, 2015.

Source: data from the MoSP.

In order to compare these indicative estimates with the total public expenditure on social protection for the Ukrainian population, we can use data from the National accounts of Ukraine⁵⁵. At the macro-level, these budgetary items are classified as ‘Family and Children’; in 2015, the relevant funding was UAH 37,447,080 thousand. But, the main part of these costs is traditionally spent on payments in numerous forms of cash-based social assistance programs (in particular, benefits for childbirth and maternity leave), while only UAH 1,734,640 thousand (4.6% of the total expenditure) was allocated to providing in-kind assistance (e.g. social services, maintenance of centers of leisure and recreations, etc). Respectively, the estimated costs of interventions on VAW prevention covered less than 1% of the social services sector’s total public funding.

⁵⁵ National Accounts of Social Protection (NASP) in Ukraine. Statistics Booklet / State Statistics Service of Ukraine, 2014 : 133.

4.4. Specialized services provided to survivors of gender-based violence

The system of specialized services for women affected by violence consists of hotlines, special crisis centers that provide information services, psychological and legal support, shelters or centers for temporary stay for victims of domestic violence, preventive efforts, training for specialists involved in VAW response and victim's support, and other targeted interventions from various social institutions (including coordination activities). As providers of these services are mostly presented by non-governmental organizations (NGOs), the estimates of the scope of their activities and the economic costs of utilized services may require different study approaches.

National information hotline on preventing domestic violence, human trafficking and gender-based discrimination has been operating by the NGO 'La Strada-Ukraine' since 1997⁵⁶. The hotline consultants provide legal, psychological, and information counseling for men and women on the following issues: preventing and combating domestic violence, anti-trafficking activities, unsafe traveling abroad, gender discrimination and gender violence, as well as protecting internally displaced persons. All calls are free of charge for fixed and mobile phones, and they are also anonymous and confidential.

Since 01.02.2016, the hotline has been operating 24/7 - that is, around the clock, seven days a week, with no breaks. While there were 9,135 calls received in 2015, this number dramatically grew to 38,292 calls in 2016, e.g. the number of calls increased by more than 4 times as compared with the previous year. The absolute majority of calls (90.8%) was related to the problem of domestic violence. The largest number of callers needed consultations on psychological domestic violence (50% of calls), whereas consultations on physical domestic violence were somewhat less (37.9% of calls). Sexual violence consisted of 2.5% of calls, while 9.6% of callers asked for advice on economic forms of domestic violence. According to statistics of the calls, women constituted about two-thirds of all calls.

Since the hotline provides day-and-night information services and referrals for specialized service providers, it is reasonable to estimate the economic costs for this category of specialized services based on the '*total operating cost*' approach. Since the vast majority of calls are associated with issues of domestic violence, there is no need to indicate a proportionate share of funding.

According to the experts of 'La Strada-Ukraine', if all possible expenditure items are considered, the total cost of maintaining the National hotline on domestic violence, human

⁵⁶ <http://la-strada.org.ua>.

trafficking, and gender discrimination is about \$30 per hour. Respectively, operating the hotline day-and-night is estimated to be \$720 per day, while the total per annum expenditure was **\$262,800** [$\30×363 days].

NGOs also provide multiple specialized services to women affected by violence, including information and legal consultations, individual psychological assistance and support for survivor's self-assistance groups, correctional work with abusers, and sometimes the provision of shelters (Box 4.6).

Such organizations closely collaborate with regional social-psychological support centers, as they prioritize psychological support of survivors of violence. The interviewed experts argued that psychological support of survivors may last for a half of a year (10 sessions as a minimum)⁵⁷.

Box 4.6. Activities of NGOs that assist women affected by violence

NGO 'Vzayemodiya' (Zaporizhzhya city) closely collaborates with their oblast's social-psychological support center that has a shelter for vulnerable persons, including women affected by VAW. In accordance with the current law, women can stay there for up to 90 days. On average, a woman utilizes about 200 social and household services monthly (food, shower, kitchenette, laundry, ironing, watching videos or the TV, and sanitary facilities), 10-15 information and advisory services, support from a social psychologist, etc.

NGO 'Vira, Nadiya, Lyubov' (Odessa city) has its own crisis rehabilitation center. Since there is no funding currently available, NGO's only offer emergency assistance for short stays of about 3-5 days. After staying at the crisis rehabilitation center, women affected by violence (mostly women with children) are referred to other institutions with shelters, such as the municipal social center for mothers and children. In this context, representatives from the NGO stressed that the social center has important restrictions in its activities: in particular, only women under 35 and women with children under 3 may stay there.

⁵⁷ In the framework of this study, interviews were conducted with representatives from NGOs in different regions: Charitable Foundation 'Other' (Kherson city), NGO 'Women's Information and Consultation Center' (Zhytomyr oblast, Ozerne), Zaporizhzhya oblast NGO 'Association of Psychologists and Psychoanalysts 'Vzayemodiya' (Zaporizhzhya city), and Association of Feminists 'Progressive women' (Vinnytsya city), NGO 'Center 'Women's Perspectives' (Lviv city), NGO 'Vira, Nadiya, Lyubov' (Odessa city).

In all regions, there is an acute problem with the availability of temporary shelters for women in need. Due to the lack of resources, there were situations, when specialists from NGO's settled women into their own homes (for up to 1 month). If possible, women seek charitable organizations or religious communities that help place women in housing for a short time or rent an apartment at the market price. According to the experts, it is particularly difficult to arrange women with children (in particular, with 2 children or more), even if they have the resources to rent an apartment. Owners of apartments are often unwilling to provide their housing for women with many children and are trapped in difficult life circumstances.

That's why all the experts interviewed agreed on the acute need to *establish shelters* for women affected by VAW. Within 10 beds, the occupancy rate in these shelters may vary. It is necessary to have a separate room (isolator) with a shower and kitchen for the period while medical tests are being analyzed, as well as to store hygiene items, first aid kit and so on. There should be a healthcare worker, a social psychologist (both for adults and children); if needed, additional personnel may be involved in providing services. There were proposals to open shelters at hospitals in district centers, as some empty rooms are available there. The indicative costs of living and service utilizing in shelters for VAW survivors are summarized in Table 4.4 based on data of the assisting NGOs in Table 4.4.

The total cost of financing such shelters for VAW survivors may reach as high as **UAH 563 thousand per annum** (Annex F); the largest proportion of expenditures is allocated to pay salaries to the personnel, while less is spent on the maintenance of the room and provision of basic needs for women who stay in shelters.

Table 4.4. Indicative estimates of the costs of living and service providing in shelters for women affected by VAW

Organization	Number of beds in a shelter	Average cost of stay (monthly)	Average wage of a psychologist (monthly)
CF 'Other' (Kherson city)	10	UAH 20 thousand	UAH 4 thousand
NGO 'Women's Information-Consultation Center' (Zhytomyr oblast)	8	UAH 46.9 thousand	UAH 4 thousand
Association of Feminists 'Progressive Women' (Vinnytsya)	4	UAH 43.3 thousand	UAH 4 thousand
NGO 'Center 'Women's Prospects''	8	UAH 16 thousand	UAH 6 thousand
NGO 'Vira, Nadiya, Lyubov'	10	UAH 30 thousand	UAH 5-6 thousand

Source: author's estimates.

Though there is much evidence demonstrating that NGOs are more efficient in providing services to victims of VAW compared with the activities of public institutions, the non-governmental sector is highly dependent on opportunities from external financing, which is quite fragmental and non-systemic. Given no grant support, NGOs are forced to fold most areas of their work on supporting vulnerable groups, and re-orient their personnel to search for additional sources of funding. With regard to the fragmentation and dispersion of these funds, it seems appropriate to not include the costs of NGOs in the aggregated cost model for estimating the economic costs of VAW in Ukraine at the current stage. The capacities of the non-governmental sector should be regarded as an important supplementary resource in assisting VAW victims.

Thus, the large number of parties engaged with response to GBV and the different nature of services provided to victims make it feasible to use different methods of estimating their economic costs. In particular, if the costs of healthcare and law enforcement can be estimated based on the 'unit cost' approach that describes the 'typical' set of procedures and services, then the social services sector should be estimated based on the total operating costs approach, adjusted with the proportion of clients attributable to VAW. Specialized services should be available at all times and in full scale, so they require continuous financing that should not be estimated with regard to the actual number of appeals.

5 Estimates of the indirect costs of violence against women and personal costs of survivors or their households

The estimates of personal costs of women affected by violence are important to understand the aggregated economic effects of VAW. Given the low rates of victims seeking any assistance in public institutions that provide free-of-charge services (such as social-psychological support or post-exposure measures in case of rape), the burden of VAW-associated costs is mostly borne by victims or their families. As only one-third of all women affected by violence seek out help, we can assume that the majority the total cost of VAW effects is covered by victims.

The only source of relevant data for estimating these types of cost can be obtained through the target survey of actual victims of VAW. Respectively, in order to estimate the scope of tangible costs and cash expenses of survivors of gender-based violence, the targeted survey of women, who applied for assistance at various institutions, was launched. In total, 707 women were interviewed in different regions of the country, while they were recruited by representatives of service-providers. The brief outline of the survey program is given in Annex A, while the survey tool (questionnaire) is presented in Annex A, and basic social-demographic background of the surveyed persons is described in Annex C.

Physical violence was the most prevalent form of violence, with 79.3% of respondents reporting about such incidents. Psychological violence was the second most prevalent form of violence, as it was reported by 65.5% of interviewed women. One-third of women faced economic violence (33.4% of respondents). Sexual violence turned out to be the least prevalent (reported only by 14.7% of women). As to other forms of violence, interviewed women mentioned kidnapping, harassments, separation from children, and bans to seeing their children were mentioned (about 1% of total respondents).

Almost half the respondents informed about both physical and emotional violence, while one-fourth of them reported about a combination of physical and economic or emotional and economic violence. One-fifth of women reported incidents of combined physical, economic and emotional violence.

The survey findings revealed that many survivors sought assistance: only 10.6% of respondents have not applied for any support after the incident of violence (in contrast, the UNFPA 2014 survey demonstrated that only about one-third of survivors apply for assistance). This disparity can be explained by a *specific characteristic of the target population, as it was represented only by women who confirmed their experience of violence*, e.g. utilized some response services or called to the National hotline to get a consultation on violence.

Another disparity of this survey from previous studies is found in high rates of survivors' reported complaints to law enforcement. 43% of surveyed women reported that they applied to the police or prosecutor's office after the incident of violence (in contrast to only 16% of women affected by GBV in accordance with data from the sample population-based surveys). More survivors applied to medical institutions (28% versus 1% based on the sample population survey) and social services (one-fourth of survivors versus 1%). Many women reported that they asked their family members and friends for assistance (more than one-third of respondents), as well as psychologists (almost 30% of women) and non-governmental organizations (22% of women). Less than 10% of respondents called hotlines, and instead applied to religious institutions (churches). As to other sources of support, some respondents mentioned lawyers and judges, representatives of local authorities and neighbors, etc.

Tangible costs attributable to violence against women. Many respondents were unwilling to share personal information regarding their financial character (in particular, by phone, when calling the National hotline), still the survey revealed some findings. Thus, more than half of the women affected by violence confirmed that they faced some material harms, whether it was because of losing either personal or family property as a result of violence (Table 5.1). Though the average amount of these costs was almost UAH 12 thousand, the damage might be much greater in certain situations. In their comments, some respondents recalled that they have lost their entire home and property as a result of separation with their husbands or partners due to violence:

“ ‘I lost everything, as I had to go and leave it all to my former husband’

Table 5.1. Material damage of survivors attributable to violence.

Types of damage	Number of women who faced material damage, persons	Proportion among all surveyed women, %	Average amount of damage (among women who faced any damage), UAH
Lost personal or family property	392	55,4	11 945,60
Lost earnings	179	25,3	8 130,90

In addition, one-fourth of the surveyed women reported that they faced some damage associated with lost earnings due to violence. Such losses were reported by 62% of affected women among own-account workers or self-employed persons, 46% of affected women among employees, and less than 10% of women among pensioners, students, and other population groups (Fig. 5.1). Women's lost earnings resulted from temporary incapacity (e.g. employer's refusals to pay for 'sick leaves', incapacity to work for some time for self-employed persons, psychological problems with concentration to work, etc.), as from lost jobs. In particular, some respondents complained that they were forced to quit their jobs because of gossip, or decided to change their job to avoid some bad memories. In some situations, women were informed that they were dismissed from their previous

jobs, as they were unable to control themselves for a while and work productively.

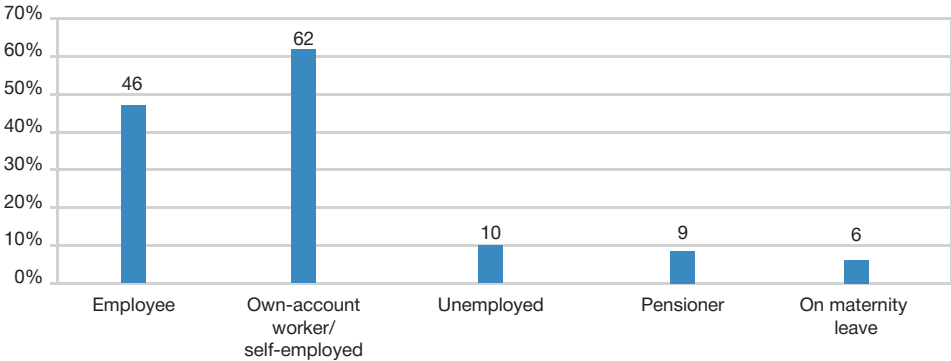


Fig. 5.1. Proportion of women who lost their earnings due to violence by their labour market status, %.

According to the estimates of the surveyed women, the average sum of their lost earnings was more than UAH 8 thousand; the largest losses were reported by workers / self-employed women (as on average, UAH 22.5 thousand). Much smaller losses were reported by employees (respectively, UAH 5.3 thousand). As to pensioners, unemployed, and women who stay on maternal leave, their lost earnings (probably non-official incomes) turned out to be even smaller (from UAH 2.5 thousand to UAH 3.5 thousand). At the same time, if we compare the reported lost earnings with average women’s wage in Ukraine (UAH 4,480 per month in 2016), the role of such losses for personal budgets and well-being of VAW survivors is well-demonstrated (Fig. 5.2).

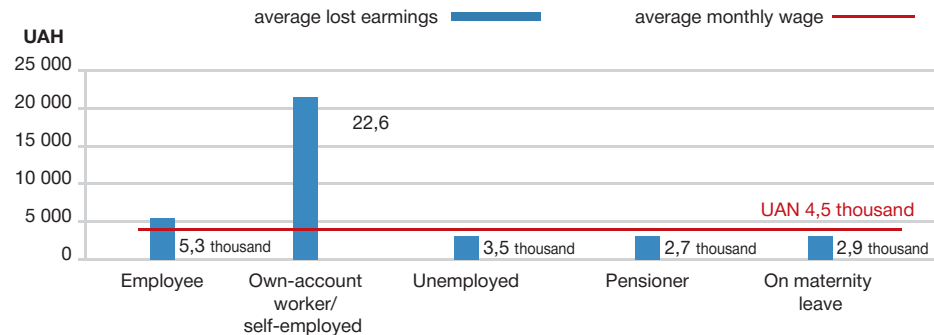


Fig. 5.2. Average lost earnings attributable to VAW and average women’s wage in the country in 2016, in UAH.

Personal cash expenses of women affected by VAW. Some types of cash expenses borne by women affected by violence may include:

- costs of transportation to and from healthcare institutions, police departments, forensics, courts, social service providers, etc.;
- costs of health services, including diagnostics examination and purchase of medicines;
- costs of psychological support, including child psychologists in case if children witness domestic violence;
- costs of legal advice;
- costs of administrative services such as payments for issuing certificates, mandatory court fees, and document recovery;
- costs related to lost or damaged personal property;
- costs related to a need to move to a new place of residence, to rent a separate apartment, or place children in another school;
- costs related to temporary stay in shelter (payment for utilities, food, etc.);
- costs related to searching for a new job.

As the survey findings demonstrated, almost all respondents had some type of expenses related to coping with the effects of violence and/or arranging a survivor's 'new' life after separation from their abusers (Table 5.2).

The most prevalent type of cash expense of survivors of violence was related to the purchase of medication, as it was reported by almost 70% of the surveyed women. In addition, almost one-fourth of survivors spent some money on healthcare services associated with emergency calls, consultations with doctors, medical examinations, and tests, while each tenth respondent had cash expenses related to in-patient treatment after incidents of violence.

Naturally, expenses on transportation services turned out to be also quite prevalent, as survivors had to get to hospitals, police departments, social centers, or their relatives to seek help: such expenses were reported by almost half of the survey respondents. One-third of women shared their expenses on purchases associated with lost or damaged property and clothes, while one in seven women reported expenses related to moving to a new place of residence, and 13% of respondents reported about expenses from renting a separate apartment.

Table 5.2. Proportion of the surveyed women who had various types of personal expenses due to violence, as well as the average amount of expenses

Types of expense	Items	Number of women who had expenses, persons	Proportion of women among respondents, %	Average amount of expense by item, in UAH	Average amount of expense by type of expense, in UAH
Transportation to hospital, social services center, police department, etc.	Transportation to hospital, social services center, police department, etc.	329	46,5	173,2	173,2
Ambulance call, medical treatments, laboratory tests	Ambulance call, medical treatments, laboratory tests	152	21,5	842,7	1 710,5
	Purchase of medication	490	69,3	1116,5	
	In-patient treatment (hospital)	79	11,2	2193,1	
Consultation with psychologist / psychotherapist	Consultation with psychologist / psychotherapist	88	12,4	845,9	992,5
	Consultancy of child psychologist	47	6,6	823,4	
Legal advice and legal support in the court	Legal advice and legal support in the court	80	11,3	2451,3	2 343,2
	Document issuing (court and administrative fees, fines, state expertise)	81	11,5	1365,6	
Rent for separate apartment (per month)	Rent for separate apartment (per month)	92	13	6933,6	5 958,2
	Moving to a new place of residence (transfer of property, placement of children in schools)	110	15,6	2055,1	
Expenses for re-purchasing lost or damaged property, clothes, etc.		238	33,7	3413,8	3 413,8
Other		10	1,4	8040	8 040

One in nine women spent some money on receiving legal advice, while almost the same number of women paid some administrative fees (fines, court fees, costs of state expertise, fees for recovery of lost documents, etc). Quite a small number of women used paid psychological services (only 12% of respondents), since most of them had the opportunity to use free-of-charge psychological support at specialized centers or through the assistance of mobile teams. Though more than two-thirds of women with children reported that their children witnessed incidents of violence (71% of respondents), only 47 women applied for consultations with child psychologists (respectively, only 13.6% of the population group).

As for other types of cash expenses associated with the effects of violence, the surveyed women reported other items such as paying off their husband's debts, supporting their children's temporary stay at their relatives' homes, or purchasing food or fuels (such as coal) for the period of time that they are separated from their abusers.

Arranging a "new life" (after separation with their abuser) turned out to be the costliest type of expense for VAW survivors. We classify such costs that were spent on moving to a new place of residence (such as transfer of property, children's placement in new (pre) schools, etc.) and renting a separate apartment. Though such an experience was reported by a small number of the surveyed women (110 persons reported about moving, while 92 women reported about apartment renting), their average expenses for these purposes amounted to nearly UAH 6 thousand (Table 5.2).

Survivors' personal expenses on purchasing or repairing property that was damaged as a result of violence were also quite large in number (as on average, UAH 3.4 thousand). Women, who had corresponding types of expenses, mentioned in their comments about damage such as broken furniture or entrance doors, broken windows and dishes, or damaged clothing.

As for healthcare services, the surveyed women spent on average UAH 1,710 to receive needed medical aid or examinations, or purchase medication after the incident of violence. The most costly expenses were in-patient treatment (on average, more than UAH 2,000), while survivors spent about UAH 1,000 to purchase medication. Many women in need of medical aid reported that they received the needed services free-of-charge (in particular, consultations with traumatologists, radiography for injured body parts, or the issuing of 'sick leave' certificates), so the real costs of the needed set of healthcare services might be much more expensive in practice.

Survivors spent high amounts of money to receive psychological support, though many of them highlighted that they were able to receive free-of-charge services at specialized centers or through psychological support mobile teams. Women who applied for the paid psychological services for themselves or their children spent nearly UAH 1,000 on average.

More significantly, the respondents spent large amounts of money on other types of expenses, including responses to the effects of economic violence that accompanied

psychical and/or emotional conflicts. In particular, some of the surveyed women shared that they were forced to pay off the debts of their husbands who are gambling addicts. The sum of the expenses reached as high as UAH 20-25 thousand.

As a whole, the survey findings revealed that the average sum of survivors' personal cash expenses to cope with the effects of violence and adapt to new conditions in life was **UAH 5,053**. At first sight, this amount does not look very significant, but, when comparing it with the average *cash expenses of households* in Ukraine (UAH 5,016 per month in the third quarter of 2016⁵⁸), it is obvious that this sum can exceed the *average monthly budget of some families*. Unfortunately, the limited population sample and approaches to recruiting respondents do not enable analysis of regional variation in the amount of personal expenses, but the largest sums were fixed in Kyiv city (UAH 12,973).

Survivors' composition by amount of their personal cash expenses demonstrates that almost one in eight women did not spend any money to cope with the effects of violence (Fig. 5.3). One-third of survivors spent less than UAH 1 thousand, while about one-fourth of the surveyed women – from UAH 1 thousand to UAH 5 thousand. At the same time, almost one in twelve women spent UAH 15 thousand and more to cope with the effects of violence.

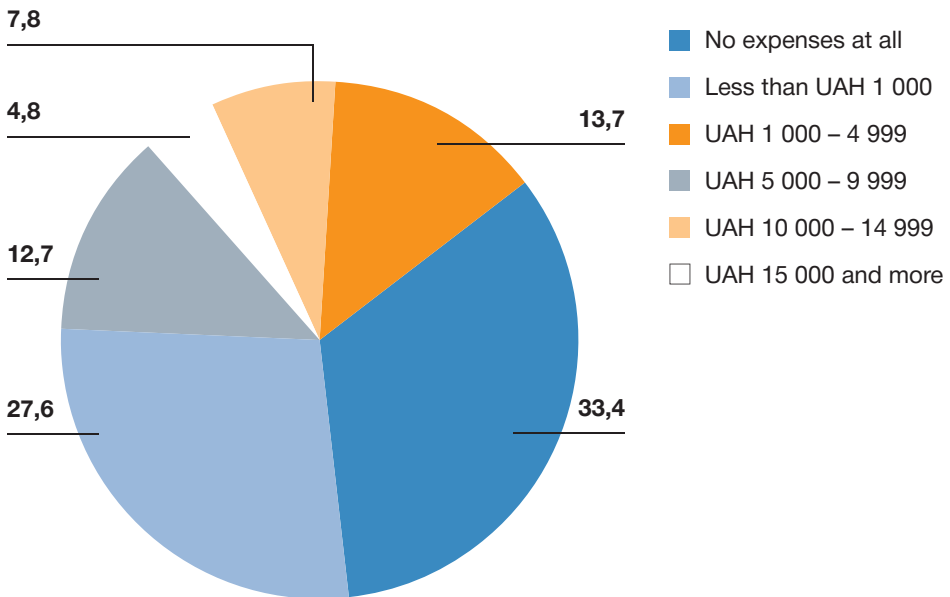


Fig. 5.3. Survivors' composition by amount of personal cash expenses spent to cope with the effects of violence, %.

⁵⁸ Expenditures and resources of Ukrainian households in the third quarter of 2016, Statistical Booklet of the State Statistics Service, Kyiv, 2017 : 153.

Women's personal expenses to cope with violence were largely dependent on the gravity of injuries, reported by survivors (Fig. 5.4). Thus, the average amount of expenses of women with grievous injuries were 1.7 times larger than the average expenses of women with injuries of medium gravity, and 2.6 times larger than expenses of women with minor bodily injuries. Expenses of survivors, who reported other health disorders (not simply injuries), were also quite large (on average, UAH 8.3 thousand). In their comments, these respondents mentioned disorders such as exacerbation of chronic diseases due to stress attributable to violence, hypertensive crises, and nervous breakdowns that needed durable treatment and recovery.

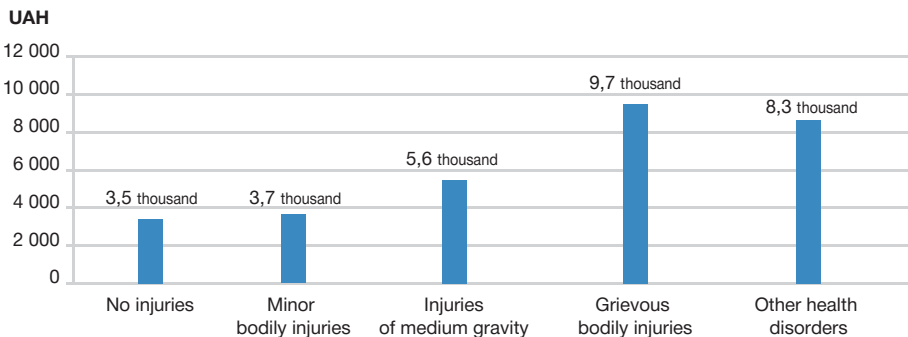


Fig. 5.4. Survivors' personal expenses by gravity of bodily injuries, %.

At the same time, the average cash expenses of VAW survivors varied by their age and labour market status (Fig. 5.5). Thus, young women reported much smaller expenses than older women. Average expenses of non-employed women (who had no permanent incomes) were also lower than expenses of women who were employed in the labour market. In particular, average expenses of own-account workers were almost 3 times larger than the average expenses of unemployed women, pensioners and housewives. This provides the grounds for the disappointing conclusion that personal cash expenses VAW survivors spent to cope with the effects of violence and return to normalcy are determined not by their *actual needs in assistance*, but by the *availability of resources*. Respectively, low-income women or women who are incapable of working, especially those who do not receive external help, are particularly vulnerable and might have an abundance of unmet needs.

In the context of economic analysis of the costs of violence against women, it is important to note that the prevailing proportion of these costs is paid by survivors themselves (Table 5.3). 42% of respondents reported that they paid (with their own money) for all types of cash expenses themselves, while 22% of them received support from their parents, children, or other relatives. Only one in eight survivors took money from her household's common budget, while abusers covered expenses for only 4% of survivors.

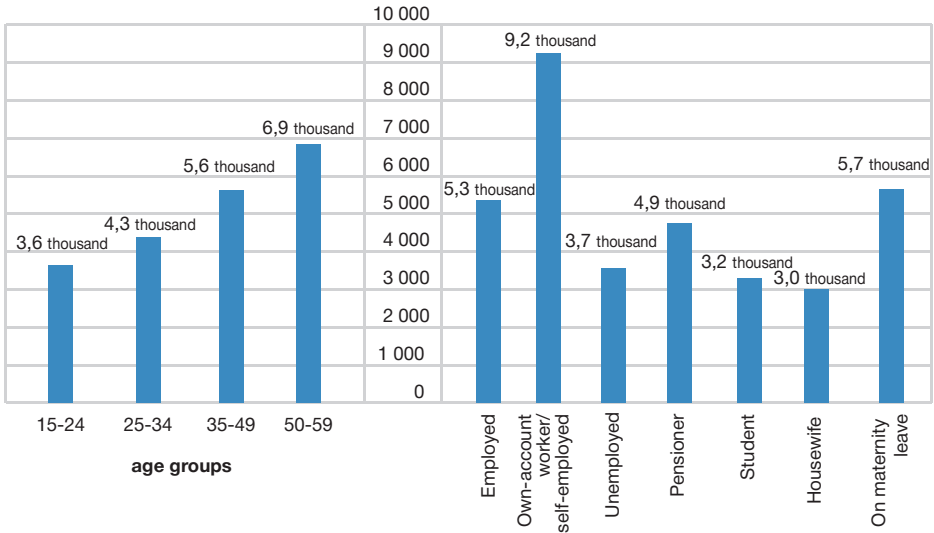


Fig. 5.5. Personal cash expenses of women affected by VAW by age groups and labour market status.

Table 5.3. Distribution of respondents’ answers to the question: ‘Who paid the prevailing proportion of your expenses attributable to violence?’

Answers	Number of women	Proportion
Paid by herself (personal money)	298	42,1
Took some money from the household’s common budget	94	13,3
Got help from parents, children, or other relatives	157	22,2
Paid by abuser	27	3,8
Received help from other people, not family members	51	7,2
Other	5	0,7
Total relevant answers	632	89,4
No answer (refused or did not know)	75	10,6
Total	707	100,0

More importantly, the effects of violence against women is not shown only in direct cash expenses or injuries; some *important indirect effects* may occur, resulting in the loss in stable, long-term enjoyment, new difficulties communicating with family members, low self-confidence, lost trust in surrounding people, etc. In particular, the survey on internally displaced women in the framework of Project ‘Mobilization of internally displaced women against domestic and gender-based violence’ (NGO ‘Convictus-Ukraine’ and AC ‘Socioconsulting’, 2016) revealed that almost one-third of respondents who survived violence, felt some difficulties in

communicating with close friends and family (Table 5.4), while one in ten women recalled the lack of trust they now have in people. Emotional problems were also demonstrated by the respondent's repeated aggression towards close friends and family, while 6% of women said that they terminated all any communication with close friends and family.

Table 5.4. Effects of violence in terms of relations with close friends and family, % of respondents who faced at least one incident of violence

Effects	Yes	No	Do not know
I felt it became difficult to communicate with close friends and family	30	69	1
I felt a permanent feeling of shame/guilt	21	76	3
I was angry and aggressive with my beloved ones for no reason	25	73	2
I am unable to trust close friends and family anymore	12	85	3
I terminated all communication with close friends and family	6	93	1
Other	1	93	6

Source: sociological survey 'Mobilizing internally displaced women against domestic and gender-based violence' (NGO 'Convictus Ukraine', AC 'Socioconsulting', 2016).

The emotional effects of violence may not only lead to long-term psychological disorders and depression, but can also occur in the distant future, resulting in deterioration of the overall quality of life of affected women. Another type of intangible cost attributable to violence against women is seen in the lost opportunities for personal fulfillment, successful career development, and proper recreation and leisure. Psychologists referred to examples when the effects of sexual violence led to complicated relationships with those of the opposite sex, denial of sexual relations, or planning pregnancy. Numerous studies emphasize that children who witnessed violence in their own family, demonstrate a tendency towards deviant behavior, suffering from psychological disorders during adulthood, and can reproduce this relationship pattern with their own family.

Unfortunately, the present tools of economic analysis do not enable reliable estimations of costs based on the extent of emotional harms and lost opportunities as a result of violence. The only source for such data may be found in self-assessments of the affected women, who are able to estimate the indicative amount for the decent compensation of moral harms for each specific case. Obviously, it is difficult to estimate the cost of the economic equivalent of emotional harms, given the diverse nature of injuries, actual and potential losses, and long-term effects of psychological trauma. The surveyed women found it quite difficult to clearly identify the specific sum of a decent compensation; many of them emphasized that it is impossible to measure the consequences of survived violence in their lives:

“it is impossible to measure, as I've lost my health, and that is priceless,” ‘My life was completely ruined. How can it be measured?’

However, when summarizing their responses, the average sum of a decent compensation that most women find acceptable for moral harms was equal to **UAH 42,181**.

6 Aggregate economic costs of violence against women in Ukraine (based on the simulation model)

As argued in the previous chapters, the official statistics of crime offenses related to violence against women present only a small fraction of the real incidents that take place. GBV survivors seldom seek help, as they are afraid of being stigmatized or blamed for provocative behaviour; they may also expect retaliation from abusers. Distrust with public institutions, including law enforcement, as well as questionable availability and quality of specialized services for survivors of violence at the local level are important reasons for sexual and domestic violence underreporting.

Therefore, credible economic cost estimations related to violence require adjustments for the latency of offenses, i.e. their shadowed nature. In particular, it can be surely assumed that only a small fraction of women's visits for medical assistance due to physical injuries are registered as associated with domestic or sexual violence, since violence survivors usually do not wish to disclose the real causes of injuries. The same situation can be common for appeals to law enforcement. For this reason, special population-based surveys are internationally used to estimate the prevalence rates of GBV.

Thus, based on the findings of 2014 UNFPA survey in Ukraine⁵⁹, 8.8% of women aged 15-49 were subjected to physical violence during the last 12 months, while 2.5% of women of this age reported sexual violence. At the same time, only 31.6% of survivors sought any kind of help after the violent incident. Only 15.9% of survivors sought help from the police, while only about 1% of them sought help from medical and social workers.

The extrapolation of these proportions onto the whole female population of Ukraine in the age of 15-49 (being 10,260.8 thousand persons in 2015 according to the State Statistics Service) enables a simulation of the hypothetical numbers of survivors of physical and sexual violence in the population and to identify the indicative numbers of recipients of services that are provided for GBV survivors but not represented by the official statistics (such as medical services).

Based on the prevalence rates for GBV in the Ukrainian society, the hypothetical estimates demonstrate that there could be 902.5 thousand women affected by physical violence and 256.5 thousand women affected by sexual violence in 2015 (Table 6.1).

⁵⁹ Incidence of Violence against Women and Girls, conducted by GfK Ukraine with support of UNFPA, Kyiv, 2014. Available at: <http://ukraine.unfpa.org/en/publications/incidence-violence-against-girls-and-women>.

In accordance with the methodological approaches of this study, the lost economic output is estimated with regard to employed population only, so additional data on the hypothetical number of survivors among employed women (5.8 million employed women as of 2015) is needed to develop a sound model of economic costs of VAW. Based on the prevalence rates for GBV in this sample of female population, there were 510.7 thousand employed women affected by physical violence and 145.1 thousand employed women affected by sexual violence in 2015.

The detailed simulation results for the number of women who sought help of various service providers, including law enforcement and healthcare, are presented in Table 6.1.

The next step is to identify the hypothetical number of women with bodily injuries attributable to GBV. These data are needed to estimate the cost of medical services required by survivors, as well as the lost macroeconomic output due to temporary disability of survivors.

Table 6.1. Estimated total number of women affected by physical and sexual violence, and women who sought help, 2015 (simulation model based on the 2014 UNFPA GBV survey)

	Total population, persons	Employed population, persons
Total number of women aged 15-49, including:	10 260 831	5 804 500
women affected by physical violence (8.8% - UNFPA, 2014)	902 953	510 796
women affected by sexual violence (2.5% - UNFPA, 2014)	256 521	145 113
Total women affected by physical and sexual violence, including:	1 159 474	655 909
sought help (31.6% - UNFPA, 2014)	366 394	207 267
sought help of medical workers (1.2% - UNFPA, 2014)	13 913	7 871
sought help of police (15.9% - UNFPA, 2014)	184 356	104 290

Source: estimated based on the State Statistics Service and 2014 UNFPA survey.

The 2014 UNFPA GBV survey provides data on the prevalence of bodily injuries of varying severity among survivors of physical and sexual violence, while extrapolation of these indicators onto the hypothetical number of survivors who sought help from medical workers (and evidently had some injuries due to violence) enables estimating the indicative numbers of incidents with minor injuries, injuries of medium gravity and severe injuries (Table 6.2).

As the simulation demonstrates, the indicative numbers of women with injuries due to GBV are much larger than those registered by the National Police in 2015 (respectively, 188 women with bodily injuries of varying severity, and 278 women who survived rapes).

Table 6.2. The number of women with injuries due to physical and sexual violence, 2015 (simulation model based on the 2014 UNFPA GBV survey)

	Total population					Employed population				
	Survivors of physical violence		Survivors of sexual violence		Total survivors of GBV, persons	Survivors of physical violence		Survivors of sexual violence		Total survivors of GBV, persons
	%	persons	%	persons		%	persons	%	persons	
Total survivors aged 15-49 who sought help of medical workers, including:	100	10 835	100	3 078	13 913	100	6 130	100	1 741	7 871
minor bodily injuries	73	7 910	65,4	2 013	9 923	73	4 475	65,4	1 139	5 614
bodily injuries of medium gravity	16	1 734	19	585	2 318	16	981	19	331	1 312
severe bodily injuries	7,2	780	18,7	576	1 356	7,2	441	18,7	326	767

Source: estimated based on the State Statistics Service and 2014 UNFPA survey.

The hypothetical numbers will be used to adjust the estimates of economic costs of VAW to the real number of survivors. Importantly, such statistical operations make sense for those cost items that demonstrate high latency rates, in particular prevalence of injuries due to physical and sexual violence or estimates of the need in medical services for survivors. At the same time, those cost items that are fully represented by the administrative data (such as appeals to social protection authorities and social services utilized) do not need additional adjustments.

Below, the estimates of the economic costs associated with response to GBV and support for survivors are presented. The estimates are based on the developed methodological approaches and the simulation results for the number of GBV survivors.

1. Lost economic output. Based on the developed approaches, the lost economic output comprises premature deaths due to GBV, losses in GDP due to temporary or permanent disability of survivors, expenditures for payment of disability pensions, economic losses due to reduced productivity of survivors that affects their daily household work. Based on GDP per employed person, average length of disability leave for survivors with injuries of varying severity, annual amount of average disability pension, and minimum wage that have been grounded in chapter 3, and using the simulated number of employed women who survived violence, the lost macroeconomic output would be calculated as follows:

1) premature deaths: 275 deaths of women × \$5,510.79 (annual GDP per employed person) = \$1,515,560;

- 2) GDP losses due to temporary disability of women with injuries: 5,614 employed women with minor injuries × 5 days of disability × \$21.96 (GDP per employed person per day) + 1,312 employed women with injuries of medium gravity × 21 days of disability × \$21.96 (GDP per employed person per day) + 767 employed women with severe injuries × 42 days of disability × \$21.96 (GDP per employed person per day) = \$1,928,879;
- 3) losses due to permanent disability of women with severe bodily injuries: 767 employed women with severe injuries × 5.6% (rate of disability due to GBV) × \$5,510.79 (annual GDP per employed person) = \$221,237;
- 4) expenditures for payment of disability pensions to women who got disability due to GBV: 767 employed women with severe injuries × 5.6% (rate of disability due to GBV) × \$70.7 (average monthly disability pension) × 12 months = \$36,440;
- 5) lost economic output due to reduced productivity of work (in terms of household work): 13,913 survivors of physical and sexual violence who sought help of medical workers (total population aged 15-49) × 62.1% (survivors who reported that their household work was affected by the effects of violence) × 7 days (average length of reduced productivity) × \$2.77 (average daily minimum wage) = \$167,529.

Respectively, based on the simulation results, the total lost economic output due to violence against women was **\$3,869,645** in 2015.

2. *Cost of services associated with response to GBV and support for survivors.* The economic costs of services provided for survivors of violence include medical services, law enforcement response to GBV, social services for survivors of domestic violence, and violence against women prevention.

Based on the indicative costs of the minimum package of compulsory medical services and procedures for each 'typical incident' of GBV that were grounded in chapter 4.1, the total costs of healthcare services utilized by women who survived violence was **\$2,999,038** in 2015, including:

- 1) medical services for survivors of sexual violence: 2,013 women in need of the minimum scope of post-exposure services × \$236 + 585 women with more serious injuries × \$772 + 576 women with severe injuries and in need of psychological support × \$810 = \$1,393,248;
- 2) medical services for survivors of domestic violence: 7,910 women with minor injuries × \$20 + 1,734 women with injuries of medium gravity × \$385 + 780 women with severe injuries × \$1,000 = \$1,605,790.

Law enforcement response to GBV is mostly represented by the official data on the registered criminal offenses. Still, the experts argue about high latency rates for crimes related to domestic violence, as survivors do not wish to disclose the real circumstances of bodily injuries oftentimes. Thus, some groups of the registered criminal offenses can be adjusted to the rates of survivors' appeals through population-based surveys.

In accordance with the findings from 2014 UNFPA GBV survey, only 15.9% of women who survived physical or sexual violence sought help from the police; moreover, only 88% of survivors' applications were registered by policemen⁶⁰. Still, even if an application was not registered, police officers evidently spent some time to collect information, interview victims or witnesses. As a result, the total number of 'minor' offenses that were not associated with administrative or criminal liability can be adjusted to the corresponding latency rate (88%). In this case, the hypothetical number of appeals to police due to GBV increases to 36,900 in 2015.

We can assume that the rate of registration of administrative offenses associated with domestic violence also does not represent the real magnitude of the problem, as some survivors do not wish to register their appeal in the police. That is why it is also reasonable to adjust the number of registered administrative offenses by the rate of registration of survivors' appeals (88%) in order to estimate the real scope of the law enforcement response. Based on the simulation model, the hypothetical number of criminal offenses associated with GBV will be 95,159.

In order to estimate the real number of criminal offenses associated with GBV, the hypothetical number of survivors with injuries of varying severity due to physical and sexual violence will be used (13,597 persons, based on the simulation model from Table 6.2). All types of bodily injuries are subject to criminal proceeding, so the latency of these crimes can be associated with an assumption that some survivors try to avoid disclosing information on their abusers (husbands or partners). Based on the rate of survivors' appeals to police and registration of these appeals (15.9% and 88%), the hypothetical number of criminal offenses associated with GBV increases to 1,902 incidents.

Respectively, based on the indicative costs of a 'typical' set of activities to respond to offenses of varying severity (chapter 4.2), the economic costs of law response and justice system are:

- 1) appeals associated with GBV that are not subject to administrative or criminal liability: $36,900 \text{ appeals} \times \$15 = \$553,500$;
- 2) administrative offenses: $95,159 \text{ offenses} \times \$29 = \$2,759,614$;

⁶⁰ Incidence of Violence against Women and Girls, conducted by GfK Ukraine with support of UNFPA, Kyiv, 2014. Available at: <http://ukraine.unfpa.org/en/publications/incidence-violence-against-girls-and-women>.

- 3) administrative arrests of abusers: $3,895 \text{ persons} \times 15 \text{ days} \times \$5 \text{ per day} = \$292,125$;
- 4) criminal offenses: $1,902 \text{ offenses associated with GBV} \times \$174 = \$330,948$;
- 5) expenditures of the penitentiary system for maintenance of the sentenced abusers: $3,400 \text{ persons} \times \$5 \text{ per day} \times 365 \text{ days} = \$6,205,000$.

Thus, the total costs of the law enforcement and justice system response to GBV could be as high as **\$10,141,187** for 2015.

The costs of *social services* that were provided to women who survived violence do not depend on the latency rates for GBV appeals, so the corresponding costs are well-captured by administrative data on the number of appeals to social protection authorities due to violence and proportion of recipients of services at social psychological support centers (chapter 4.3):

- 1) appeals to social protection authorities due to domestic violence (women): $89,551 \text{ appeals} \times 1 \text{ hour (time spent for consultation by a social worker)} \times \text{UAH } 17.91 \text{ (average hourly wage in the social services sector)} = \$73,437$;
- 2) referrals to correctional programs (men): $5,704 \text{ persons} \times 1 \text{ hour (time spent to process the documents)} \times \text{UAH } 17.91 \text{ (average hourly wage in social services sector)} = \$4,358$;
- 3) referrals to social psychological support centers: $17,094 \text{ persons} \times 1 \text{ hour (time spent to process the documents)} \times \text{UAH } 17.91 \text{ (average wage in social services sector)} = \$14,018$;
- 4) attending correctional programs by abusers (men): $1,265 \text{ persons} \times 50 \text{ hours} \times \text{UAH } 17.91 \text{ (average hourly wage in social services sector)} = \$51,868$;
- 5) financing services provided for survivors of domestic violence in social psychological support centers: \$576,621;
- 6) special targeted efforts on prevention of domestic violence (expenditures of local budgets): \$25,634.

Thus, the total costs of social services provided for women who survived domestic and gender-based violence was **\$745,936** in 2015. In addition, the costs of *specialized services* include financing of the national hotline in the sum of \$262,800 per year (chapter 4.4).

3. *Personal costs of GBV survivors* present an important component of the aggregate economic costs of violence against women. This category of costs include lost personal property or income, costs of services associated with coping with the effects of violence or separating with the abuser and moving to a new place of residence. Based on the 2014 UNFPA GBV survey, 31.6% of women who survived violence sought help, so we can assume that only this proportion of survivors had some cash expenses to cope with the

effects of violence. Extrapolation of this indicator onto the hypothetical number of women who survived GBV (1,159 thousand persons) provides the figure of 366,394 persons.

At the same time, the special survey of women who survived violence enables estimating the average material damage and 'out-of-pocket' expenses of survivors, as well as a proportion of survivors who had the corresponding types of expenses (chapter 5). Respectively, the amounts of personal expenses of survivors in the total female population are as follows:

- 1) losses of personal property: 366,394 women who sought help × 55.4% (proportion of survivors who reported lost property due to violence) × \$547 (average amount of the reported losses) = \$110,999,136;
- 2) losses of income: 366,394 women who sought help × 25.3% (proportion of women who reported lost income due to violence) × \$372 (average amount of the reported losses) = \$34,503,329;
- 3) personal expenses to cope with the effects of violence: 366,394 women who sought some help × \$122 (average personal expenses ⁶¹, without costs of medical expenses) = \$44,530,933.

Thus, the total amount of personal expenses of women who survived GBV can make up **\$190,033,398** per year.

When summarizing the estimates of the economic costs of violence against women in the Ukrainian society (based on the simulation model), **the aggregate costs adjusted to the latency rates of GBV can be as high as \$208 million per year.** This figure is almost 20 times higher than the economic equivalent of the officially registered incidents of violence against women (respectively, \$10.8 million in 2015) and constitute up to **0.23% of the national GDP.**

Cost item review of the aggregate economic costs of violence against women is presented in Table 6.3. The 'typical' scenario is based on the registered number of women with injuries due to physical and sexual violence and administrative data on the registered criminal offenses and social services provided. The 'full coverage' scenario represents the simulation results for the hypothetical number of survivors of various forms of violence based on the findings of special surveys, in particular the prevalence rate for GBV among women aged 15-49, rates of their appeals for help, and prevalence of injuries due to physical and sexual violence.

Based on the prevalence of GBV in a population, the hypothetical number of women who suffered from violence during the last 12 months is **1.1 million** persons. Using the same extrapolation, the number of survivors with bodily injuries is much bigger than officially reported, resulting in the increased losses in the economic output due to incapacity of women, and increased scope of medical services utilized.

⁶¹ Without costs of the paid medical services that were costed within the system of healthcare, the average personal expenses of survivors of violence are UAH 3,160 (\$122).

Evidently, the largest part of the economic costs of GBV is borne by the survivors of violence. Given poorly provided or unavailable services for survivors of violence, many survivors had to make 'out-of-pocket' payments for services associated with issuing documents and conducting state expertise, legal advice in the court or necessary psychological support. As a result of the systematic lack in shelters for women who faced domestic violence, survivors have to rent safe apartments at their own expense and cope with new conditions of life after the separation with their abusers.

At the same time, the costs of social services provided to survivors of domestic violence constitute a small proportion of the aggregate economic costs. It can be explained by low financing of the sector, short-cutting the number of social workers, and low wages in social services. Miserable costs are spent for special efforts that target prevention of violence (\$25.6 thousand per year); moreover, funding is allocated only in some regions of the country.

Law enforcement and penitentiary institutions represent the 'costliest' type of response services, in particular in terms of maintenance of the sentenced abusers. At the same time, the high latency of GBV crimes results in underreporting of the scope of criminal offenses, as well as refusals to register the appeal by the police.

Table 6.3. Aggregate economic cost associated with the effects of violence against women, 2015, in \$ thousand, USD

Categories of cost	Cost items	Registered number of survivors/ abusers	'Typical' scenario	'Full coverage' scenario
1. Lost economic output				
Irreversible losses	Lost lives (deaths)	8 (min) – 275 (max)	44,1	1 515,8
	Total			
Reversible	Losses due to temporary disability (all types of bodily injuries)	188 (min) – 7 693 (max)	39,9	1 928,9
	Losses due to permanent disability (GDP)	19 (min) – 43 (max)	5,9	221,2
	Losses due to permanent disability (pensions)	19 (min) – 43 (max)	0,9	36,4
	Losses due to reduced capacity to work	476 (min) – 8 640 (max)	5,7	167,5
	Total		52,5	2 354,0
Total post economic output			96,6	3 869,8
2. Costs of services associated with response to violence against women and support to survivors				
Healthcare	Sexual violence	278 (min) – 3 078 (max)	118,0	1 393,2
	Domestic violence (all types of bodily injuries)	188 (min) – 10 424 (max)	26,3	1 605,8
	Total		145,3	2 999,0
Law enforcement and penitentiary institutions	Offenses not associated with administrative or criminal liability	32 472 (min) – 36 900 (max)	13	6933,6
	Administrative offenses	83 740 (min) – 95 159 (max)	15,6	2055,1
	Administrative arrest of abusers	3 895		292,1
	Criminal offenses	659 (min) – 1 902 (max)	114,7	330,9
	Maintenance of abusers in penitentiary institutions	3 400		6 205,0
	Total		9 527,4	10 141,1
Social services sector	Appeals to social protection authorities due to domestic violence and referrals to correctional programs	xxx		143.7
	Services provided for survivors of violence in social institutions	2,055*		576.6
	Targeted interventions on prevention of domestic violence	xxx		25.6
	Total			745.9
Specialized services for survivors of violence	Day-and-night maintenance of the National information hotline	xxx		262.8
Total costs of services			10 681,4	14 148,8
3. Personal costs of survivors of violence and their households				
Material damage	Lost personal property	366 394 (max)	xxx	110 999,1
	Lost income	366 394 (max)	xxx	34 503,3
Personal cash expenses	'Out-of-pocket' expenses to cope with the effects of violence	366 394 (max)	xxx	44 530,9
Total personal costs of survivors of violence			xxx	190 033,3
Total aggregated costs			10 778,0	208 051,9

* Recipients of services from social-psychological support centers (due to violence) and social centers for mothers and children.

Conclusions

The study of the economic costs of violence against women in Ukraine confirms the complex nature of the problem that not only affects the private lives of survivors or their families, but also has important social implications. The costs attributed to gender-based violence can be measured in terms of cash, labour, or intangible effects; these costs may result in on-going, long-term, and potential effects shared among various parties including victims, their families, abusers, employers who face losses due to temporary disability of their employees affected by violence, public and non-governmental institutions that provide services to survivors, budgets of different levels, and society as a whole.

Some relevant items on the economic costs include the lost economic output due to the temporary disability of victims and costs of services provided to respond to VAW, assist victims, and hold abusers accountable to justice. Medical-demographic losses can be also measured in terms of economic value including premature deaths, aggravated health, and the disability of victims. Indirect costs of violence against women can result from emotional disorders caused by survived violence, postponed post-traumatic effects, and impact on family and interpersonal relations of survivors, etc.

In this study, some possible items examined as economic costs are classified under three broad groups: 1) lost economic output that includes irreversible (premature deaths) and reversible population losses (temporary incapacity, disability, and reduced productivity of work), 2) costs of services associated with response to violence and support for survivors (healthcare sector, law enforcement and criminal justice, correctional institutions for abusers, social services and specialized services sector for women affected by violence), and 3) personal costs of victims who spent money to cope with the effects of violence, and indirect (emotional, moral) harms, which are currently difficult to estimate in terms of economics.

The proposed estimates of various cost items are based on different study approaches, including the 'unit cost' approach used to estimate the costs of a typical set of services that are provided in some specific situations of violence, 'total operating costs' approach used to measure services that need to be available with no limits (such as the day-and-night operation of the information hotline), and 'proportional operating costs' approach used to identify a share of service recipients who were affected by violence in the total scope of utilized services. If the exact market value of some goods or services could not be estimated, the 'transfer of the similar costs' approach was applied, as well as valid judgments of experts who were invited to discuss the study approaches.

The estimating of the economic losses due to violence against women is restricted by a high latency of crimes, as few survivors seek help, trying to avoid stigma attitudes that blame women for provocative behaviour or being afraid of abusers. The prevalence of underreporting of gender-based violence results from survivors' distrust to law enforcement bodies, while the lack (or unavailability) of specialized services causes the low rates of survivors' seeking help.

With regard to the latency of GBV, **the aggregate economic costs of violence against women for the Ukrainian society can make up to \$208 million per year (0.23% of the country's GDP)**. These estimates present the simulation results based on sociological surveys that characterize the prevalence rates for violence against women and proportions of survivors who seek for help. The simulation results are almost 20 times higher than the economic equivalent of the registered number of GBV (\$10.8 million), while the hypothetical number of survivors of physical and sexual violence against women increases up to 1.1 million women.

Despite of large losses due to violence against women in a society, Ukraine lags far behind developed countries of Europe by the economic costs of GBV. According to the study of European Institute for Gender Equality (EIGE 2014) that was used as methodological guidelines for the current research, the costs of violence against women in Great Britain could make up to €28 billion per year, while the extrapolated costs could make up to €226 billion in the European Union.

Such disparities in the economic estimates result not only from a more advanced system of GBV data collection in European countries, but also from a broader spectrum of services provided for survivors of violence against women, and higher quality of these services. Higher social standards determine higher wages of specialists engaged in service providing in the sector of healthcare, social protection, legal support and justice system. Also, there are extended networks of specialized shelters for women who faced domestic violence, as well as complex security programs for survivors, targeted housing programs for women who have lost their home because of domestic violence, and social benefits for survivors.

As to Ukraine, the systematic lack of shelters and specialized services for survivors of GBV is observed. As a result, most of the economic costs associated with response to violence and coping with its effects are paid by survivors themselves. Based on the simulation results, the total personal costs of survivors and their households constitute for \$190 million per year in the entire population (e.g. more than 90 per cent of the aggregate economic costs of a society). In contrast, personal costs of survivors make only 3 per cent of the aggregate costs of GBV in Great Britain based on the EIGE study in 2014.

Although the amount of personal expenses of survivors of physical and sexual violence varies depending on the gravity of the injuries, women spent about \$200 (more than UAH 5

thousand) to cope with the effects of violence in Ukraine. Some possible types of expenses include: payment for medical services and examinations, purchase of medication, costs of transportation to a new place of residence after separation with abusers, costs of arranging 'new life' and renting a separate apartment, costs of legal advice, payment for administrative services (court fees, penalties, state expertise), and consultation of psychologists for adults and children (if children witness some violence), etc.

Although this amount looks rather small, the costs exceed the average women's monthly wage and are very close to the average cash expenses of households in Ukraine (UAH 5,016 monthly in the end of 2016). The worrying findings of the survey also reveal increased vulnerability of low-income and unemployed women in coping with the effects of violence, as the survey clearly indicates that personal expenses are determined not by a need in response services, but rather by the availability of resources.

As the estimates indicate, the total cost of the lost economic output due to medical-demographic losses attributable to violence against women in Ukraine reached up to \$3.7 million in 2015. As some lost output items are based on the minimum wage and disability pension indicators, the country's current low social standards obviously result in underestimating the economic equivalent of reversible population losses, in particular when adjusting for a USD equivalent. On the other hand, a widespread shadow economy in Ukraine provides grounds to argue that the real scope of the lost economic output attributable to the temporary incapacity or disability of survivors of violence is much larger and has more significant effects on the entire economic system's operations.

At the same time, the total cost of services associated with response to violence against women and assistance to survivors reached **\$14.1 million** in 2015. According to the study estimates, the most 'costly' public spending item is related to law enforcement and criminal justice. More than **\$6.2 million** was spent simply to maintain the relevant group of abusers in penitentiary institutions in 2015; large amounts of funding were also allocated to provide response to administrative offenses associated with domestic violence.

Quite a small share of the total cost was spent on providing social services to VAW survivors (**\$0.7 million**). This low figure is the result of the sector's low funding, short-cutting the social workers and low wages of specialists who are engaged in social service providing.

In the context of 'cost and benefit' analysis, it is important to pay attention to the scope of financing allocated to prevent GBV. Only **\$25.6 thousand** was spent on supporting targeted policy interventions to prevent domestic violence in 2015; this figure confirms the residual financing policies to combat violence and a general lack of attention to issues of gender policy in public administration.

When summarizing the study results, we need to articulate that the lack of reliable data on the prevalence of GBV in a society constrains development of sound methodologies to assess the economic effects of the problem. On the other hand, in order to estimate the costs of response services provided by public institutions, there is a need to have a clear understanding of the algorithm of actions of service-providers for each specific case, and the market price for certain sets of services. Therefore, scientists from around the world face major methodological challenges with current research, especially seen in choosing relevant indicators and collecting primary data that would serve as a basis for any further estimations and models. In this regard, any estimates are quite indicative and cannot claim to provide a full and comprehensive coverage of all the effects of violence against women. Mostly, these estimates are only able to provide a general idea of the problem scope, attract more public attention, and advocate for strengthened policy interventions to prevent violence.

That's why the development of the national system of GBV prevention and response needs proper data support to enable the conducting of a needs assessment for various types of services for survivors of violence and allocating of available resources in the efficient way. As only few survivors seek assistance, the current data does not represent the real prevalence of GBV in Ukrainian society and limits full estimates of effects of VAW on women, their households, communities, and the entire economic system.

At the same time, there is an acute need not only in motivating women to seek any help in the event of violence, but also in improving data collection systems. Establishing a unified database of GBV survivors will contribute to closing the current data gaps by providing disaggregated data on age groups, form of violence, and an abuser's sex and relation to a survivor. These minimum requirements for data collection will ensure the production of more reliable assessments on the prevalence of violence against women and estimates of the economic costs of violence for Ukrainian society.

ANNEX A.

PASSPORT OF THE SURVEY OF WOMEN AFFECTED BY GENDER-BASED VIOLENCE

Project	'Economic costs of violence against women in Ukraine'
Contractor	NGO 'Ukrainian Center for Social Reforms'
Contact person	Ganna Gerasymenko, e-mail: geranna@ukr.net
Timeline of fieldworks	February 22 – March 22, 2017
Regions of the survey	Vinnytsya, Dnipropetrovsk, Zhytomyr, Zaporizhzhya, Kyiv, Lviv, Odesa, Poltava, Rivne, Kharkiv, Kherson, Khmelnytskyi, and Cherkasy oblasts; government-controlled areas of Donetsk and Lugansk oblasts
Target group	Women aged 18-60 who were affected by domestic or sexual violence during the last 12 months
Method of data collecting	Individual interview
Methods of recruiting	<ol style="list-style-type: none"> 1) Clients from social and psychological support mobile teams, assisting the population of east regions of Ukraine; 2) Calls to the National hotline on preventing domestic violence, human trafficking, and gender-based discrimination (NGO 'La Strada', Kyiv city); 3) Clients from social services and non-governmental organizations that assist women affected by violence
Number of surveyed respondents	707 women

ANNEX B.

QUESTIONNAIRE FOR SURVEY OF WOMEN AFFECTED BY GENDER-BASED VIOLENCE

ATTENTION! ONLY WOMEN AGED 18-60, WHO HAVE CONFIRMED THEIR PERSONAL EXPERIENCE WITH DOMESTIC OR SEXUAL VIOLENCE OUTSIDE DURING THE LAST 12 MONTHS, CAN BE INTERVIEWED!!!

M1. Date of interview	« » _____ 2017
M2. Location of interview:	

Dear Respondent! We invite you to join the survey on the economic costs of violence against women, launched by the UNFPA in Ukraine. The objective of this survey is to estimate the cost of the effects of violence for survivors including damaged health, medication and other services, and personal cash expenses.

The results of the survey will ensure a better understanding of women's needs, improve the system of services for survivors of violence, and draw more public attention to their problems. All your responses will remain absolutely confidential and will be used in the aggregate form, in combination with responses of other women. More details about the survey can be obtained from NGO 'Ukrainian Center for Social Reforms' by phone in Kyiv: (044) 486 90 97.

We thank you for agreeing to participate in the survey! The following questions will concern your personal experience related to incidents of violence during the last year. If you faced several situations of violence over this period, please incorporate the most serious one. We will only discuss this incident at his time.

BLOCK A.**SOCIO-DEMOGRAPHIC BACKGROUND AND EXPERIENCE OF VIOLENCE****A1. Your age:** _____ **y.o.****A2. What was your status in the labour market at the moment of violence?** *One answer.*

1. Employed
2. Own-account worker / self-employed
3. Unemployed
4. Pensioner
5. Student
6. Housewife
7. Maternity leave
8. Other (explain) _____

A3. What was your status in the labour market at the moment of violence? *Many answers possible*

1. Physical (beating, kicking, other forms of physical abuse)
2. Emotional, psychological (humiliation, intimidation, blackmailing)
3. Sexual (sexual intercourse, harassment)
4. Economic (manipulating with money, financial dependency)
5. Other (explain) _____

A4. Have you sought any help due to violence? If yes, where? *Many answers possible*

1. No, I have not
2. Medical institutions
3. Police, prosecutor's office
4. Social services
5. Helpline
6. Psychologist
7. Non-governmental organization
8. Relatives, friends
9. Religious organization (church)
10. Other (explain) _____

A5. Do you have any children under 17 (age 0-17)?

1. Yes, I have ____ child / children →
→ **A5.1. Did your child/children witness this situation of violence?** 1. No
2. Yes
2. No, I do not have any children

BLOCK B.**TEMPORARY INCAPACITY AND HEALTH LOSSES****B.1. Do you have any bodily injuries or health disorders as a result of violence?**

1. No, I haven't got any → SKIP TO QUESTION B5
2. Yes, I've got some →
 - **B.1.1. What kind of injuries have you got?**
 1. Rather minor bodily injuries (bruises, scratches, etc.)
 2. Rather bodily injuries of medium gravity (dislocations, sprains, fractures, superficial wounds)
 3. Rather grievous bodily injuries (deep wounds, serious head injuries, etc.)
 4. Other health disorders, not injuries (general sickness, aggravation of chronic diseases)

B.2. Have you been on a 'sick leave' (officially or based on verbal agreement) due to injuries/health disorders? If yes, for how many days?

1. No, I have not been on a 'sick leave' at all
2. Yes, I have not been working for _____ days
3. Irrelevant question (unemployed, pensioner, maternity leave)

B.3. Have you been staying in a hospital because of this incident? If yes, for how many days?

1. No, I haven't
2. Yes, I have been staying there for _____ days

B.4. Has this incident of violence resulted in permanent incapacity (disability)?

1. No, it has not
2. Yes, I am partially incapable, but have no officially documented status of disability
3. Yes, I have a disability from the _____ group

B.5. Has this incident of violence affected you in terms of your routine household work (such as housekeeping, childcare, care for other family members)?

1. No, it has not
2. Yes, it has → **B.5.1. How long were you unable to conduct these activities in full?**
_____ days

BLOCK C.**PERSONAL CASH EXPENSES**

C.1. Did you have any material damage associated with lost personal or family property because of violence? If yes, how much would you estimate this damage to be? _____ UAH

C.2. Did you have any losses associated with lost earnings (such as a lost job, temporary incapacity to work, and inability to concentrate on your job)? If yes, how much would you estimate these losses to be? _____ UAH

C.3. C.3. Please indicate ALL ITEMS classified as personal cash expenses or expenses that your family spent to cope with the effects of violence:

	Possible items of expense	Indicative sum, in UAH
1.	Transportation to hospital, social services center, police department	
2.	Ambulance call, healthcare services, laboratory tests	
3.	Purchase of medication	
4.	In-patient treatment (hospital)	
5.	Consultation with psychologist / psychotherapist	
6.	Consultation with child psychologist	
7.	Legal advice and legal support in the court	
8.	Issuing of documents (document recovery, payment of court fines, state expertise, etc.)	
9.	Payment of rent for of separate housing (monthly)	
10.	Moving to a new place of residence (transfer of property, arrangement of children in (pre)schools	
11.	Purchase of lost or damaged property, clothes	
12.	Other (explain) _____	

C.4. Who paid the prevailing proportion of these expenses?

1. Myself (my own money)
2. Took some money from my household's budget
3. My parents/children/other relatives
4. My abuser
5. Other people, not family members
6. Other (explain) _____

C.5. In your view, what sum of money can be regarded as a fair compensation for the moral harms you endured? _____ UAH

Thank you very much for your assistance and time! Your responses will help us understand the needs and problems of women affected by violence.

ANNEX C.

SOCIO-DEMOGRAPHIC BACKGROUND OF THE SURVEY RESPONDENTS AND THEIR EXPERIENCE WITH VIOLENCE

Socio-demographic background	Number of women	Proportion
Age group		
15-24	81	11,5
25-34	260	36,8
35-49	279	39,5
50-59	87	12,3
Labour market status		
Employee	285	40,3
Own-account worker /self-employed	50	7,1
Unemployed	88	12,4
Pensioner	32	4,5
Student/schoolgirl	34	4,8
Housewife	102	14,4
On maternity leave	103	14,6
Other	13	1,8
Children		
Have no children	220	31,1
Have a child/children, of them:	487	68,9
children witnessed violence	345	70,8
Form of violence (more than one answer possible)		
Physical	561	79,3
Emotional, psychological	463	65,5
Sexual	104	14,7
Economic	236	33,4
Other	5	0,7
Practice of seeking any help (more than one answer possible)		
Have not sought any help	75	10,6
Healthcare institutions	197	27,9
Police, prosecutor's office	304	43,0
Social services	179	25,3
Helpline	61	8,6
Psychologist	206	29,1
Non-governmental organization	156	22,1
Relatives, friends	245	34,7
Religious institution (church)	36	5,1
Other	100	14,1
Total	707	100,0

ANNEX D.

Activities on domestic violence prevention in the regions of Ukraine in 2015

№	Oblast	Number of complaints about			of them, from:			of them:		Number of persons referred to correctional programs	Number of persons, who attended correctional programs	Number of families registered in the databank of families experiencing difficult life circumstances	Of them, the number of families covered with social patronage	Number of social services recipients (due to domestic violence)	Number of families referred to socio-psychological support centers	Number of children in the Register on domestic violence	Number of interventions to protect child rights in the event of domestic violence	Amount of money spent on interventions on preventing domestic violence (in UAH)
		men	women	children	men	women	men	women										
1	AR Crimea	6 559	2 403	2 123	11	4 337	2 211	573	0	338	68	32	636	0	47	305	65 805	
2	Vinnitsya	2 498	2 403	2 123	6	2 268	224	329	17	312	150	259	9	542	4	20	192	5 931
3	Volyn	7 319	4 379	2 728	0	6 865	454	1 856	149	1 707	292	116	83	561	0	123	78	20 000
4	Dnipropetrovsk	4 379	2 728	2 123	62	4 033	284	120	30	90	40	334	27	642	3	44	440	0
5	Donetsk	2 728	2 123	1 826	6	2 501	221	158	5	153	13	59	33	698	3	68	73	26 502
6	Zhytomyr	2 123	2 403	2 123	11	1 793	319	0	0	0	105	16	302	0	48	95	0	0
7	Zakarpattya	5 019	2 403	2 123	10	4 330	679	121	16	105	6	219	88	938	6	43	294	43 200
8	Zaporizhzhya	2 403	2 403	2 123	28	1 826	549	0	0	0	96	7	3	0	8	20	383	0
9	Ivano-Frankivsk	4 610	4 708	4 708	43	3 756	811	339	25	314	50	261	193	1 018	0	49	379	10 171
10	Kyiv	4 708	4 708	4 708	8	4 253	447	0	0	0	101	47	363	0	69	69	32 700	0
11	Kirovohrad	622	5 896	2 525	15	530	77	0	0	0	26	10	26	0	13	85	0	0
12	Lugansk	5 896	2 525	2 525	49	5 068	779	0	0	0	45	26	493	1	36	117	8 000	0
13	Lviv	2 525	2 525	2 525	2	2 435	88	217	6	211	43	1 240	83	1 214	1	63	257	0
14	Mykolayiv	5 757	2 991	2 991	39	3 928	1 790	176	30	146	10	1 223	38	1 185	0	86	581	0
15	Odesa	2 991	2 991	2 991	19	2 200	172	0	0	0	35	18	3	0	6	154	8 273	0
16	Poltava	2 830	2 080	2 080	57	2 462	311	0	0	0	425	44	1 645	1	33	89	0	0
17	Rivne	2 080	2 080	2 080	10	1 865	205	0	0	0	115	27	0	4	36	382	0	0
18	Sunny	2 820	2 820	2 820	3	2 764	53	354	5	349	55	85	49	162	2	39	809	42 200
19	Tempopil	5 615	3 616	3 616	37	5 100	478	45	6	39	25	491	173	1 168	0	68	293	26 050
20	Kharkiv	3 616	3 616	3 616	31	3 453	132	0	0	0	58	29	149	0	43	495	0	0
21	Kherson	2 774	2 774	2 774	7	2 538	229	441	20	421	162	864	126	2 767	9	38	377	207 810
22	Khmelnytskyi	4 718	4 718	4 718	92	4 430	196	205	0	205	5	85	20	194	1	34	228	24 000
23	Cherkasy	3 660	3 660	3 660	11	3 364	285	179	24	155	34	760	24	760	7	35	96	0
24	Chernivtsi	3 812	1 099	1 099	11	3 591	210	0	0	0	81	39	240	0	38	229	25 313	0
25	Chernihiv	1 099	1 099	1 099	138	9 861	1 100	591	57	534	42	225	16	1 385	10	37	613	13 900
26	Kyiv city	102 561	102 561	102 561	706	89 551	12 304	5 704	390	5 314	1 265	7 376	1 257	17 094	60	1 136	7 113	559 855
	Total																	

Source: data from MoSP.

ANNEX E.

Summarized information on social service institutions, outcomes of their work, and service recipients in the regions of Ukraine

№	Oblast	social-psycho logical support centers					social centers, departments, and apartments for mothers and children						
		Number of social-psycho logical support centers	Number of departments/ rooms/ social apartments for pregnant girls and mothers with small children	Number of beds in institutions	Number of service recipients in institutions	Number of victims of domestic violence	% of total clients	Total sum of expenditures on maintenance of institutions in 2015 (UAH thous.)	Number of social centers for mothers and children	Number of departments/apartments for pregnant girls and mothers with small children	Number of beds in institutions	Number of persons who stayed in institutions during the reporting period	Total sum of expenditures on maintenance of institutions in 2015 (UAH)
1	Vinnitsya	1		20	942	130	13,8	528,60	1		20	41	736,2
2	Volyn	1		15	2 275	951	41,8	639,41	1		30	12	1 363,7
3	Dnipropetrovsk	1		30	110	36	32,7	944,30	1		0	0	969,7
4	Donetsk	1		16	333	6	1,8	554,90	1		8	13	
5	Zhytomyr	1		10	7 300			480,04	1		20	66	512,8
6	Zakarpattya	1		10	218	51	23,4	1 256,80	1		20	13	723,0
7	Zaporizhzhya	1		30	126	21	16,7	648,50	1		8	11	
8	Ivano-Frankivsk	1		12	219	6	2,7	479,90	1		30	59	1 597,2
9	Kyiv	1		0	0	0	0	571,10	1		20	55	597,1
10	Kirovohrad	1*		15	322	82	25,5	806,90	1		20	24	671,4
11	Lugansk	1		16	123	2	1,6	838,40	1		8	28	
12	Lviv	1		18	406	34	8,4	972,77	1		20	6	1 202,8
13	Mykolajiv	1		16	368	9	2,4	556,40	1		25	17	539,3
14	Odessa	1		16	1 633	32	2,0	433,50	1		8	13	
15	Poltava	1		12	50	2	4,0	321,00	1		20	35	487,4
16	Rivne	1		24	24	24	100,0		1		25	45	808,5
17	Sумы	1		0	65	15	23,1	360,60	1		20	55	767,3
18	Tempil	1		20	73	4	5,5	397,80	1		14	44	641,9
19	Kharkiv	1**		0	520	23	4,4	474,10	1		20	32	390,9
20	Kherson	1		13	61	9	14,8	639,10	1		10	32	556,1
21	Khmelnytskyi	1		30	462	63	16,3	1 152,90	1		14	43	501,0
22	Cherkasy	1		20	1 476	1 476	13,6	13 059,02	1**		12	30	621,0
23	Chernivtsi	1		20	9 036	1 461	16,3	13 059,02	16	5	328	579	13 687,3
24	Chernihiv	1		20	1 461	1 461	16,3	13 059,02	16	5	328	579	13 687,3
25	Kyiv city	1		20	1 461	1 461	16,3	13 059,02	16	5	328	579	13 687,3
	Total	20	1	461	9 036	1 476	16,3	13 059,02	16	5	328	579	13 687,3

* Lugansk oblast's social-psycho logical support center was re-registered and re-located from Slovianoserbsk to Slevierodonetsk.
 ** institutions established in the framework of implementation of programs led by ICF 'Ukrainian Foundation for Public Health' with the support of UNFPA.
 Source: data from MoSP.

ANNEX F.

Indicative operational budget of Rehabilitation Center «Yevgeniya» (shelter), Zhytomyr oblast

Cost items	Unit	Unit cost	Number of units	Expenses, in UAH per annum		Notes
				total	per person per day	
Maintenance						
Water	mo	400	12	4800	13.4	1,7 25m ³ x UAH 16.0 = UAH 400
Electricity	mo	4000	12	48000	133.4	16.7 Lighting and heating
Communication systems, internet	mo	250	12	3000	8.4	1 Phone and internet
Housekeeping services	mo	300	12	3600	10	1.3 Cleaning the drain, plumbing repair, replacement of lighting, detergents
Rent of land	mo	900	12	10800	30	3.8
Total, 'Maintenance'				70 200		
Administrative expenses						
Director	mo	4000	12	48000	133.4	16.7
Accountant	mo	4000	12	48000	133.4	16.7
Deputy director (head of management)	mo	4000	12	48000	133.4	16.7
Psychologist	mo	4000	12	48000	133.4	16.7
Lawyer	mo	4000	12	48000	133.4	16.7
Social pedagogue – 4 persons	mo	4000	12	192000	533.6	66.7
Stationery, copying	mo	200	12	2400	6.7	0.8 Photocopies, paper, pens, envelopes, stamps
Total, 'Administrative expenses'				434 400		
Individual assistance						
First aid kit	mo	300	12	3600	10	1.3 Cotton wool, bandages, iodine, hydrogen per-oxide, analgesic, antipyretic
Hygiene	pers	200	96	19200	53.3	6.7 8pers x 12 months: toothpaste, shampoo, toilet paper, sanitary pads
Food	pers	300	96	28800	80	10 8 pers x 12 months: cereal, oil, fish, vegetables, meat, tea, sugar, butter
Travel expenses	mo	600	12	7200	20	2.5 Transfer of victims from rural areas
Total, 'Individual assistance'				58 800	1565.8	196
Total expenses				563 400		

Note: estimates as of December, 2016.

Additional information: total monthly expenses: UAH 563,400 / 12 = UAH 46,950; total daily expenses: UAH 46,950 / 30 = UAH 1,565; total expenses per person per day: UAH 1,565 / 8 = UAH 195.6.



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