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SUMMARY OF RESULTS OF AN IMPLEMENTATION STUDY OF THE “SEVEN STEPS” BEHAVIORAL INTERVENTION FOR INJECTING DRUG USERS



Injecting drug use remains a major mode of HIV transmission in Ukraine. According to bio-behavioral studies, HIV prevalence rates among people who inject drug (PWIDs) has remained consistent at about 20% for the last several years, despite investments made toward prevention with the PWID population. The USAID/RESPOND Project implemented the “Seven Steps”¹ behavioral intervention through its partner NGOs in Zaporizhzhya, Poltava and Cherkasy oblasts to address this issue. The major objectives of the intervention include: increasing client motivation to change risky injecting drug use and unprotected sexual behavior that may lead to HIV/STI/viral hepatitis infection, as well as development of a personal plan to maintain positive behavioral changes.

The intervention consists of seven structured modules to be implemented during a 3-6 month period. Modules include: the induction; five personal counseling modules with a comprehensive case management component (care for your own health, reduce sex-related HIV infection risk, reduce drug-related HIV infection risk, readiness for drug treatment, and relapse prevention); and the final, booster module reviewing and integrating all previously reached goals, as well as addressing any issues revealed during the intervention.

In order to evaluate implementation effectiveness, its fidelity and feasibility in Ukraine, as well as its programmatic and cost-effectiveness, the Analytical Center “Socioconsulting” carried out a related study.

Study design: an experimental, randomized trial.

Study geography: the study was carried out in two types of population centers across three oblasts: oblast centers (Zaporizhzhya, Poltava, and Cherkasy) and smaller towns/rayons within the same oblasts (Melitopol, Kremenchuk, and Uman). The geographical select was influenced by where the intervention is currently implemented.

The following **study methods** were employed:

- 1) Three PWID surveys were conducted with 781 participants in the experimental group (EG) and 784 participants in the control

group (CG)². Surveys were conducted at the start, four-months (midpoint) and seven-months (endpoint);

- 2) Focus group discussions and in-depth interviews with the intervention participants and NGO employees implementing the intervention;
- 3) Recording of randomly selected counseling sessions and analysis of these audio records;
- 4) Analysis of the case notes prepared and managed by NGO employees;
- 5) Cost-effectiveness analysis by reviewing the social return on investment (SROI);
- 6) Expert interviews with infectious disease specialists, STI specialists and narcologists (for SROI).

Social and demographic characteristics of the study participants

Most of PWIDs (approximately 80%) involved in the trial were males. While all respondents were of reproductive and active working age, the majority (55%) were under 35 years old. An overwhelming majority of the participants were unemployed. By the end of the intervention, their social image didn't undergo any significant changes.

Study results related to fidelity of the implementation process

The evaluation results for the “Seven Steps” behavioral intervention indicate that the intervention was implemented according to the protocol. efficacious. Eighty percent of PWIDs involved in the intervention program mastered more than 5 modules.

Clients counseling adherence to the counseling structure was studied during the analysis of audio records of specific psychological counseling sessions (13%) and the conformity of counselors to the contents and objectives of specific modules, in particular. There were 204 out of 1520 records analyzed in total.

¹ The “Seven Steps” intervention is based on the Modelo de Intervención Psicomédica (MIP) behavioral intervention and the results of its studies implemented by the Central University of the Caribbean, School of Medicine, Center for Addiction Studies, Puerto Rico under support of the National Institute of Drug Abuse (NIDA) (2001, 2004, 2005). You may access the detailed information here: <https://effectiveinterventions.cdc.gov/en/HighImpactPrevention/Interventions/MIP.aspx>.

² The control group participants were not covered by the intervention services, but they could access any other HIV-related services provided by the same NGOs.



Different types of counseling quality indicators improved during the implementation process. Particularly, focus group discussions with clients demonstrated their satisfaction with the services provided. The highest satisfaction level was observed for the following services: psychological counseling sessions (5 points out of 5 possible), HIV testing (5 points) and STI testing (5 points).

The study results indicate that both NGO employees and the clients were contentious about the intervention guidelines and recommendations related to client involvement in drug treatment and access to a set of healthcare services. However, there isn't significant difference between the recommended services and services which were received by PWIDs. Eighty-one percent of intervention participants were covered with prevention services (distribution of syringes, condoms, alcohol wipes and HIV testing). The prevention service coverage significantly increased ($p < 0.05$) from the mid-point to the final stage of the study.

Feasibility of the intervention

Generally, implementation of the “Seven Steps” intervention did not cause any significant difficulties or issues for those implementing. During their work, there were no significant changes to adjust the intervention for the Ukrainian national HIV service. There are, however, some suggested insignificant changes included into the intervention program. Suggestions regarding its improvement were mostly related to the counseling process, specifically:

- changes in the contents of the counseling process, specifically, arrangement of the module sequence and optional counseling topics (family relations, employment);
- expansion of the types of counseling offered, in particular including group or couple counseling, partner counseling and peer-to-peer counseling sessions;
- increasing requirements related to HR, organizational and resource capacity of responsible NGOs.

Conclusions on feasibility were based on the survey among NGO employees who implemented the intervention. The feasibility of other NGOs implementing this intervention is minimal given the level

of resources required for further implementation. According to the evaluation done by the project coordinators, the chances of financial funding from international donors and local resources is low. They find it more realistic to implement the intervention model into the work of psychologists, social workers and healthcare facility doctors providing specialized care for PWIDs. Another realistic option (an additional resource) is implementation of fee-based counseling and escort services in accordance with the “Seven Steps” intervention as a part of integration recovery programs for PWIDs. Those NGO employees involved in the intervention program have plans for using its elements in their further work.

Intervention effectiveness

The intervention effectiveness was studied by reviewing the following indicators:

- changes in clients' HIV-related knowledge level;
- use of healthcare services;
- clients' injecting drug use behavior;
- changes in the clients' sexual behavior;
- changes in the clients' social and psychological health.

The quantitative study results indicate effectiveness of the intervention. Specifically, due to their participation in the program, clients significantly boosted their knowledge on specific issues related to the ways of HIV transmission and composite indicator. The participants have also made significant progress in HIV, STI, hepatitis and TB diagnostics. Moreover, their participation in the intervention caused other positive and unexpected results such as the reduction in drug use frequency (use during 30 days) or complete withdrawal from injection use for a number of clients (at a site level in Melitopol town).

At the end of the intervention, the rate of consistent condom use for each sexual intercourse within the last 30 days increased for the experimental PWIDs group, as did the rate of PWIDs who used a condom during their last sexual intercourse (**Table 1**). Non-use of condoms is mostly correlated to those PWIDs with a single sexual partner (80%), which can be explained by a high level of trust among



them. Moreover, social workers indicated a surge in demand for condoms among their clients, which might be an additional sign of positive changes in PWIDs' sexual behavior.

Table 1

Intervention effectiveness rates, %

Indicator	Survey						p ¹
	basic		intermediate		final		
	EG n=781	CG n=781	EG n=781	CG n=781	EG n=781	CG n=781	
A rate of PWIDs who define the ways of HIV transmission correctly and know how HIV is not transmitted	60.7	59.7	84.3	75.0	87.8	83.8	p = 0.01*
A rate of PWIDs who passed HIV testing for the last 12 months and are aware of their status	59.7	60.3	90.9	76.0	93.8	81.4	p = 0.00*
A rate of PWIDs who passed STI testing for the last 12 months	34.3	27.7	50.2	39.5	48.7	36.9	p = 0.63
A rate of PWIDs who practiced injected drug use (syringe) for the last 30 days	95.9	95.0	68.5	84.6	62.4	77.0	p = 0.00*
Indicator	EG n=749	CG n=745	EG n=458	CG n=590	EG n=292	CG n=394	
A rate of PWIDs who never used common materials or equipment for making or distributing a drug solution for the last 30 days (of those respondents who injected drugs with a syringe for the last 30 days)	56.1	55.7	50.2	46.9	52.7	44.9	p = 0.62
Indicator	EG n=587	CG n=592	EG n=531	CG n=551	EG n=370	CG n=409	
A rate of PWIDs who always used condoms during their sexual intercourses for the last 30 days (of those respondents who had a sexual intercourse for the last 30 days)	33.9	37.2	44.4	37.0	47.6	41.6	p = 0.03*

* Significant difference.

³ p-value – change significance: it is a value used for statistical hypothesis tests. In fact, it is a probability of an error when the null hypothesis is rejected (type I error). p is considered significant with the value lower than 0,05.



According to the results of three psychological tests, participation in the intervention provoked positive changes in an PWID's social and psychological health. The results of the Dembo-Rubinstein evaluation indicated that respondents' self-esteem was on 3.6 – 6.4 points of 10 possible, and it almost always remained the same during implementation of the intervention, but self-esteem values for the representatives of the experimental group are more reasonable than for their control counterparts. The semantic differential technique showed that during the intermediate and final evaluation stage the experimental group was further ahead of the control group in regards to its intentions and actions on behavioral changes and relations with the environment. It was also demonstrated that PWIDs' self-stigmatization for the experimental group were reduced in comparison with the control one where these characteristics increased. Similar conclusions can be drawn by the results from the focus group discussions with the clients who completed the intervention program.

Positive changes in the clients' social and psychological health were also influenced by normalization of their relations with their social environment. According to the clients who have already completed the intervention program, they normalized relations with their parents (mostly, with their mothers), husband/wife, and reduced conflict frequency and intensity.

Thus, we may state that the “Seven Steps” intervention is effective in comparison with a standard HIV-service package, which could be provided for the control group representatives. The effectiveness is measured by the following indicators: 1) impact on the level of clients' HIV-related knowledge; 2) HIV-testing and obtaining results during the last 12 months; 3) TB and hepatitis testing; 4) level of a safe injection behavior (use of sterile equipment); 5) withdrawal from injecting drug use; 6) positive changes in social and psychological health; 7) mending relations with their social environment.

For such indicators as involvement in STI testing; reduction of drug use frequency; safer sexual behavior (use of condom at every sex act), – the intervention hasn't proved significant effectiveness than other NGO prevention activities.

Intervention cost-effectiveness

The Social Return of Investment (SROI) evaluation demonstrated a great return on investment for the “Seven Steps” intervention (each UAH invested returned UAH 23, and ranged from UAH 17 to UAH 99 according to alternative calculations). In other words, UAH 9,955,787 invested into the implementation process by the donor is returned in the amount of UAH 258,183,586.

The greatest (financially related) outcome of the intervention was specifically for the PWIDs. In particular, they benefitted from the intervention through:

- improvement of social health through mending relations with their relatives;
- improvement of their wealth due to withdrawal from drug use and/or gainful employment;
- improvement of their health due to reduction in HIV and HC infection risks and respective reduction in the costs for their possible treatment;
- substitution of alcohol for drug use (a negative result).

The intervention also demonstrated its effectiveness for PWID partners who were not direct participants in the program but achieved a significant advantage in the form of:

- possible savings for HIV, STI and HB treatment due to a safer behavior;
- wealth improvement due to reduction in expenses for drugs and PWID's employment.

The level of satisfaction related to implementation of the intervention was the most significant result for NGO employees. NGOs, while being the major contractors of the RESPOND Project, managed to engage PWID volunteers, who had succeeded in completing the intervention program, which reduced NGO expenses for human resources. Other PWIDs, non-participants of the intervention who are nonetheless covered with NGO services, can count on more qualified assistance now due to boosted capacity of NGO employees and organizations themselves. This turned out to be the greatest financial result of the intervention (29%).



Among the major limitations *of the survey*, we should mention the following:

- **time limitations:** follow-up period for a specific client constituted 7 months, which is not enough to evaluate behavioral change amongst the drug-addicted;
- **biological component missing:** follow-up activities were carried out without any type of control as HIV, viral hepatitis and STI testing, meaning that all the conclusions on the intervention effectiveness were based on respondents' feedback about their behavioral changes only;
- **control group contamination:** control group participants were provided with a range of services that was even wider than the basic harm reduction packages of the projects implemented at the cost of the Global Fund;

- **clients-specific behavior:** they weren't always sober during their interviews, so they couldn't understand all the questions asked by their interviewers clearly; this had its impact on the acquired data quality;
- **intervention-specific limitations:** lack of access to healthcare and social services provided by healthcare facilities, employment centers, administrative service centers, etc. The need to expand the use of healthcare and social services were often limited by the actual capacities for providing services at some pilot sites. The biggest was the unsatisfied demand for detoxification and substitution therapy. for the clients due to limited NGO capacities on providing access to the programs. Employment centers' capacities are also very limited in their support to employment process.

Conclusions and recommendations

The study has identified that the “Seven Steps” intervention is acceptable for Ukraine and of high efficiency regarding its impact on the level of knowledge, HIV testing, drug and condom use. Given the short period of the intervention result study, making any conclusions about its long-term effects is quite complicated. At the same time, we think that

involvement of motivated PWIDs or PWIDs and their partners in case they use drugs too, as well as providing easier access to free drug treatment programs (ST and detoxification, in particular) for PWIDs would significantly improve the intervention effectiveness.



