

HOW EFFECTIVE IS STREET DRUG TESTING?

David Otiashvili ^{a, b)}

Vano Tsertsvadze^{a, c)}

Irma Kirtadze^{a)}

Marina Chavchanidze^{a)}

Tomas Zabransky^{b)}

^{a)} Addiction Research Centre, Alternative Georgia, Tbilisi, Georgia

^{b)} Centre for Addictology, First Faculty of Medicine, Charles University in Prague, Czech Republic

^{c)} Georgian Institute of Public Affairs

ABSTRACT

Aim: To gather and analyse data that would indicate the impacts of the relatively novel drug policy intervention that was introduced in the Republic of Georgia in 2006 –urine tests conducted by law enforcement agencies based on random or “intuitive” selection of people who had not been involved in any suspected illegal activity; the positive result of the strip urine test leads to administrative and/or criminal sanctions for drug use and for drug possession with no intention to sell. **Design:** A cost-benefit study using a combination of quantitative and qualitative methodologies to obtain data for the resulting model. **Methods:** Different groups of people tested for the presence of drugs or the metabolites of drugs in their urine after police detention were interviewed using focus groups, in-depth interviews, and assisted questionnaires. Data on monetary expenditures from the national budget were obtained using standard mechanisms stipulated by Georgian legislation on free access to information; where clarifications were necessary, short follow-up phone and face-to-face interviews with representatives of the responsible state authorities were conducted. **Participants:** Samples of problem drug users, other groups of drug users, and members of the non-drug-using population who were subject to the random urine testing in 2008. **Tools:** On the basis of the findings gathered from the study participants, and the legal procedures that follow the positive findings according to the Georgian legislature, a model of the costs and benefits of the systematic random urine tests was created and fed with the monetary data. **Conclusion:** The results of the study show that the punishment and imprisonment of drug users in Georgia has little or no influence on drug-related behaviour and is a dramatically inefficient waste of the limited resources of the law enforcement and judicial system.

KEYWORDS

drug policy; drug legislation; cost-effectiveness; approach: punitive; random street testing; Republic of Georgia

ACKNOWLEDGEMENTS

The authors of the study wish to express their deep gratitude to the *Curatio International Foundation* for cooperation, and its research experts, Natia Rukhadze, Ketevan Chkhatarashvili, and Ketevan Goguadze, for their consultations and technical support in particular.

The present study would be impossible without the support of the member organisations of the Georgian Harm Reduction Network in recruiting and the active engagement in the field process of Lana Lagvilava (Alternative Georgia), Dimitri Tsiklauri, Nana Kapanadze, Paata Porchkhidze (New Vector); Irakli Kirtadze, Giorgi Jvania (Xenoni); Ketevan Bidzinashvili, Kakhi Gemazashvili (Step to the Future); Zoria Tsutsumia, Mindia Khakhutaishvili, and Miranda Zgneti (Imedi).

The study was funded by a grant from the Public Health Programme of the Open Society Institute, NY (PHI/IHD/01/09-16513).

ABSTRACT..... 3

KEYWORDS..... 3

ACKNOWLEDGEMENTS 3

EXECUTIVE SUMMARY 6

BACKGROUND 7

METHODOLOGY 8

 Goals of the study 8

 Tools, methods, and data findings..... 9

 Survey..... 10

 Calculating the state budgetary expenses 22

 Economic model 28

RESULTS..... 31

DISCUSSION 32

 Discussion on the data quality and assumptions used in the calculation 32

 Discussion on the legal and technical procedures..... 33

 Discussion on the ethical aspects of the tested intervention 34

CONCLUSIONS..... 34

RECOMMENDATIONS..... 35

REFERENCES..... 36

LIST OF ABBREVIATIONS 39

“(...) no policy, programme, or project is adopted without first having the answer to these questions:

(1) Are there better ways to achieve this objective?

(2) Are there better uses for these resources?”

The UK Treasury Green Book

“Drug dependence is a health problem. People using drugs need treatment, not punishment.”

Antonio Maria Costa

2002-2010 Executive Director of the United Nations Office on Drugs and Crime

EXECUTIVE SUMMARY

Since 2006, tens of thousands of people annually have been detained by the police on the streets and tested for the presence of illegal drugs and metabolites of illegal drugs in Georgia. Positive test results lead to heavy fines or imprisonment. The main rationale behind this policy is an assumption that strict punitive measures (a) prompt drug users to quit using drugs and (b) prevent children and young adults from experimenting with illegal drugs. Nevertheless, the opponents of such a policy consistently argue that hunting thousands of young adults to test them for drugs has a very limited or negligible influence or none at all on the level of drug use.¹ In order to understand the impact of strict legal measures on the drug situation in Georgia we implemented an economic study using a combination of quantitative and qualitative techniques to create the testing model and to feed it with data: surveys using interviewer-assisted questionnaires, qualitative in-depth interviews and focus group discussions, and identification and calculations of expenditures(costs).

The study specifically tested the hypothesis that the drug users who were punished after being found positive would quit their drug use. We did not manage to identify any data that would allow the preventive/scaring-off effect of the intervention on the non-drug-using population, and young people in particular, in Georgia, to be tested. However, evaluations of well-structured prevention programmes that use different scare tactics in the comprehensive programme curricula consistently suggest a zero or even negative effect of this preventive approach (see e.g. Ennett et al., 1994; Hansen & McNeal, 1997; Vincus, Ringwalt, Harris, & Shamblen, 2010).

On the basis of the results of the study, the authors conclude that the punishment and imprisonment of drug users in Georgia has no influence, or only a negligible one, on the drug-related behaviour of those

¹ Additionally, severe concerns about the ethical aspects of such forced testing have been raised (Kiknadze & Otiashvili, 2007); however, those aspects are not the focus of the present study.

tested, and as such, it is a dramatically inefficient waste of the limited resources of the law enforcement and judicial system.

Punitive measures that have no parallel in developed democratic countries did not result in any measurable reduction of drug use, and led to the criminalisation of 1600 persons annually, which notoriously leads drug users to become involved not only in “consensual” drug crime but also in criminal activities that are significantly more dangerous for public order.

The random drug testing did not fulfil the expectations of its proponents in terms of reducing drug use, and caused significant tangible economic costs to Georgian society, together with difficult-to-monetarise intangible costs (secondary market consequences, the humiliation of those tested, the suffering of families, the criminalisation of drug users not involved in any other illegal activities, etc.). Moreover, given the zero impact of the tested interventions on the drug use of those tested, we can safely conclude that the focus of two police branches on street-hunting young adults diverted precious police (and other law enforcement) resources from activities that would serve their very purpose: improving public order and safety.

On the basis of the study results, the authors of the study apply to the bodies engaged in the formation of drug policy with the following recommendations:

- remove Article 273 from the Criminal Code of Georgia; this would prevent approximately 1600 people from being sent to prison annually and would save more than 8 mil Georgian Lari (GEL) per year in imprisonment costs alone;
- allocate the saved imprisonment costs of 8 mil GEL to the planning and implementation of a modern, structured National Drug Strategy and Action Plans in the EU style, which would introduce and/or expand effective demand reduction programmes (treatment, harm reduction, rehabilitation, prevention), which are highly cost-effective from the perspective of both society and the state budget;
- shift the police capacity released by abandoning the random drug testing programmes so that police priorities would move from hunting young adults (suspected to be potential drug users) to the prevention and detection of criminal activities that have a real impact on the criminal situation and/or on public safety.

BACKGROUND

In the developed countries, it is widely agreed that democratic public policies should be evidence-based. Evidence-based policy has been defined as an “approach that helps people make well-informed decisions about policies, programmes, and projects by putting the best available evidence from research at the heart of policy development and implementation. This approach stands in contrast to the opinion-based policy, which relies heavily on either the selective use of evidence (e.g. on single studies, irrespective of

quality) or on the untested views of individuals or groups, often inspired by ideological standpoints, prejudices, or speculative conjecture”(Davies, 2004).

One of the main principles of evidence-based policies is an ongoing evaluation of interventions in terms of their **process** (the application of the intervention),² their **efficacy** (success in terms of reaching its goals),³ and **cost-effectiveness**.⁴ This applies specifically to (anti-)drug policies, which are considered one of the political priorities in the developed countries.⁵

It was exactly the principles of evidence-based democratic governance that led the authors of this report to undertake an exercise that is rather novel in the history of the drug policy of Georgia, and in the history of the countries of the former Soviet Union.

Since 2006, tens of thousands of people annually have been detained by the police in the street and tested for (metabolites of) illegal drugs in Georgia. Positive test results lead to heavy fines and/or imprisonment. According to the proponents of this systematic legal intervention, the major rationale behind this policy is an assumption that such extremely strict punitive measures (a) prompt drug users to quit using illegal drugs, and (b) prevent young people and young adults from experimenting with illegal substances (or, rather, scare them off). Nevertheless, the opponents of such a policy consistently argue that hunting thousands of young people to test them for drugs has a very limited or negligible influence on the level of drug use. They also argue that the random testing of the urine of young people infringes their dignity and human rights (Kiknadze & Otiashvili, 2007).

This study, however, carefully avoids the ideological conflicts and ethical problems that the urine testing of people detained in the street may have for some. Instead, it wants to cast some light on this discussion using internationally established scientific methods for the evaluation of interventions, examining specifically the hypothesis (assumption) that as a result of testing, the (tested) drug users would be forced to quit their drug use.

METHODOLOGY

GOALS OF THE STUDY

The research questions were as follows.

- A) How much did Georgia spend on drug testing and subsequent legal measures in 2008?
- B) What were the impacts of the testing on drug users in terms of their drug career/use, and drug-related disorders?

² Asking the question “Was the intervention applied in the way that it was planned?”

³ “Did the intervention reach the goals that were defined/planned by the policy makers?”

⁴ Asking questions such as: “Are the benefits of the intervention higher than its cost? Is there another intervention that would have a better benefit/cost ratio and achieve the same goals?” etc.

⁵ As shown, e.g., by the evaluation of the EU Drugs Strategy and Action Plans, the regular and periodic evaluations of the Australian Drug Strategy, the annual reporting of the US Office for Narcotic Drugs Control, evaluations of Canadian drug policies, evaluations of the National Drug Strategies and/or Action Plans of EU countries, and a substantial number of scientific papers appearing in reviewed journals etc. (see e.g. Single, E., Rohl, T., & Ministerial Council on Drug Strategy, 1997; European Community, 2008; Moreira, Trigueiros, & Antunes, 2007; Success Works, 2003; Wilkins, Sweetser, & Casswell, 2006; etc.)

- c) What could be achieved if the funds identified in a) had been spent on increasing the availability of treatment or preventive measures that are seen by the global scientific community and the relevant agencies of the United Nations as effective, and for which the research on their effectiveness is seen as conclusive?⁶

TOOLS, METHODS, AND DATA FINDINGS

Our economic study used a combination of quantitative and qualitative methods:

- qualitative in-depth interviews and focus group discussions;
- surveys using interviewer-administered questionnaires;
- identification of expenditures (direct costs), and
- modelling using assumptions that were either verified or generated by the quantitative and qualitative research methods, and feeding the model with the identified direct costs.

Quantitative data related to the budgetary year 2008 were collected from all relevant ministries and governmental agencies using documented letter communication based on Article 10: Publicity (of the General Administrative Code of Georgia, 1999). Interviews were conducted with 500 persons (412 drug users, 88 non-drug users) whose urine was tested for drugs following street detention at least once in 2008 (Figure 1).

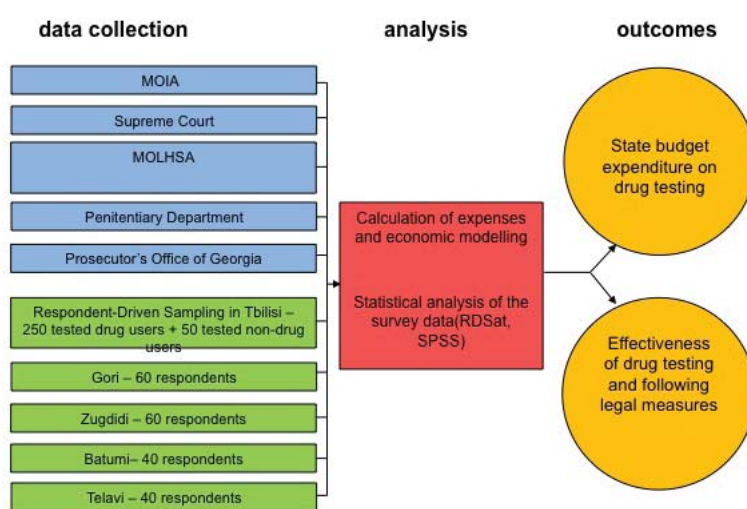


Figure 1: Research design

By collating the data obtained through analysis of the official documents and surveys, it became possible to enumerate the expenditures covering the various measures taken by each body involved in the intervention. For example, the following indicators were used to calculate the cost of the time spent on the drug testing of those suspected by the patrol police:

⁶ see, e.g. Hawks, Katie, & McBride, 2002; World Health Organisation, United Nations Office on Drugs and Crime, UNAIDS, 2004; World Health Organisation, 2009; etc.)

1. detailed budget of the patrol police;
2. number of patrol policemen employed in 2008; and
3. the data yielded through the discussions in focus groups and interviewing on the typical (average) time spent by police officers to perform the drug testing and other legal measures when dealing with cases of detaining and testing a person for the presence of drugs (drug metabolites) in the person's urine.

Using the two types of data – the routinely recorded state administration data obtained in accordance with Article 10: Publicity of the General Administrative Code of Georgia (and, when necessary, précised by additional questioning of the relevant state administrators), and the data that we obtained using our research tools in order to describe the testing process with quantitative indicators – we fed the models and calculated the related expenditures for each of the institutions involved in the drug testing intervention process and related further legal proceedings in 2008.

Subsequently, the final combined model produced a composite monetary indicator, i.e. the actual amount spent on the whole intervention as it was conducted in 2008. Finally, the survey data were used to identify the impact of the expenditure, in particular whether the drug use of those tested decreased or not – i.e. if there is any identifiable benefit of the “random testing intervention”.

SURVEY

AIMS

Surveys of people whose urine was tested following detention (after no criminal or public order nuisance activity had been committed) were conducted at five selected study sites, representing different Georgian regions with different levels and patterns of drug use (see e.g. Javakhishvili, Sturua, Otiashvili, Kirtadze, & Zabransky, 2011): Tbilisi, Telavi, Gori, Batumi, and Zugdidi. The major aims of the survey were to find out:

1. the extent of the usage of the human resources of different agencies involved in the process of detention and testing, and in the sanctions in the event of a positive finding (patrol police, drug testing/expert establishments, Public Prosecutor's offices, courts, and penitentiary department) for drug tests and subsequent measures;
2. whether the drug testing and subsequent punitive measures result in behavioural changes in the people identified as drug users at the time of testing, and if so, to what extent and for how long that happened.

ETHICAL ASPECTS OF THE STUDY

The bioethical aspects of the present study and the issues of the safety and confidentiality and anonymity of the study participants were assessed by the Institutional Review Board (Independent Ethics Committee) of the Maternal and Child Care Union (certified by the US Office on Human Subject Protection # IRB00006752).

On the basis of the criteria and protocols approved above, each study participant was informed about the aims, topic, risks, and benefit of the study and participated in the survey only through his/her voluntary consent and only in the event of his/her meeting the study criteria.

CRITERIA FOR INCLUSION

The criteria for inclusion were defined by the study protocol as follows:

1. a study participant must be of legal age, i.e. older than 18 years;
2. consent to participate in the study must be obtained on a voluntary basis and in a health state that does not exclude the understanding of the information received;
3. a study participant must have been introduced to drug testing at least once in 2008, no matter what the test result (positive or negative) and no matter what his or her current drug-using status (drug naïve, former drug user, current drug user).

DEVELOPMENT OF THE STRUCTURED QUESTIONNAIRE (STUDY TOOL)

Individual informal interviews and meetings with the field experts were organised at the initial stage of the study; then formal focus groups (FGs) were conducted with social workers from low-threshold harm reduction programmes and drug users subjected to drug testing in 2008.

The aim of the focus group (FG) organised with the staff members of low-threshold services was to preliminarily identify

- the frequency of the street drug testing,
- the most common reasons for the police to subject a person to drug testing, and
- process of detaining and testing

All the stages a person subject to drug testing undergoes, starting from being detained by the patrol police in the street, through drug testing and the subsequent legal proceedings, were discussed. In addition, attention was paid to the size of fines and the modes of their payment.

The focus group with the drug users targeted the same topics; given the personal experience of the FG participants with the intervention being studied, discussion was more detailed than in the previous FG;

the questions of fines and bail, the ways in which they were paid, and the sources of the resources used for the payments were clarified.

After two waves of focus groups with representatives of different subpopulations that had been reported to be tested and detained, the structured questionnaire used in the survey was developed. The draft questionnaire was piloted with five drug users who were subject to urine drug testing following street detention in 2008. On the basis of the interviews after the administration of the pilot questionnaire, the study team then finalised the study tool.

Two different sampling methods were selected by the study team and consultants :

- respondent-driven sampling (see Heckathorn&Magnani, 2005) to recruit drug users in Tbilisi;
- simple snowball sampling (see e.g. Goodman, 1961) was used to recruit non-drug-users in Tbilisi, and both drug users and non-users in other cities.

DATA COLLECTION

The recruitment in Tbilisi was carried out with two methods – respondent-driven sampling (250 drug users were interviewed) and snowball sampling (about 50 non-users subject to drug testing were interviewed). Another two hundred people, including drug users (n=162) and non-users (n=38), were interviewed in Zugdidi, Batumi, Gori, and Telavi. The non-users were recruited into the study with the help and support of member organisations of the Georgian Harm Reduction Network (GHRN), which carried out advocacy projects and had contacts with the non-users subjected to urine testing on drugs/drug metabolites after detention.

The surveys were organised in November 2009. A single questionnaire made up of 34 questions was used for both groups. For the respondent-driven sampling method, the nomination questions were asked additionally to follow the methodology and to achieve representativeness of the sample for tested drug users in Tbilisi.

As for the snowball method, the first participants in the study were recruited by the social workers of harm reduction and treatment facilities, and further participants were recruited by those who had been interviewed.

The respondent-driven sampling survey was initiated with six recruited participating drug users (seeds), each from different age groups and different areas. Each participant received a monetary incentive as compensation for his/her time. The participants were also asked to recruit three other people to the study in line with the study criteria (i.e. current or former drug users who had been subjected to random drug testing) and were given three coupons (with unique numbers) for this. Each new respondent was then given three more coupons for further recruitment, and so on. In accordance with the RDS methodology, the recruitment was rewarded with a modest monetary incentive. The distribution of coupons was stopped as soon as the sample size reached 70% of what was considered desirable (altogether, 495

coupons were issued). Each coupon contained information on the address of the research site and information regarding the participation in the study and inclusion criteria and on the sum that would be given as compensation. Each coupon had a unique ID number. Each issued and returned coupon was processed through a specially created database to allow the coupons that had been issued and each recruited coupon associated with them to be checked and thus to exclude the possibility of any forged coupons being received in the study.

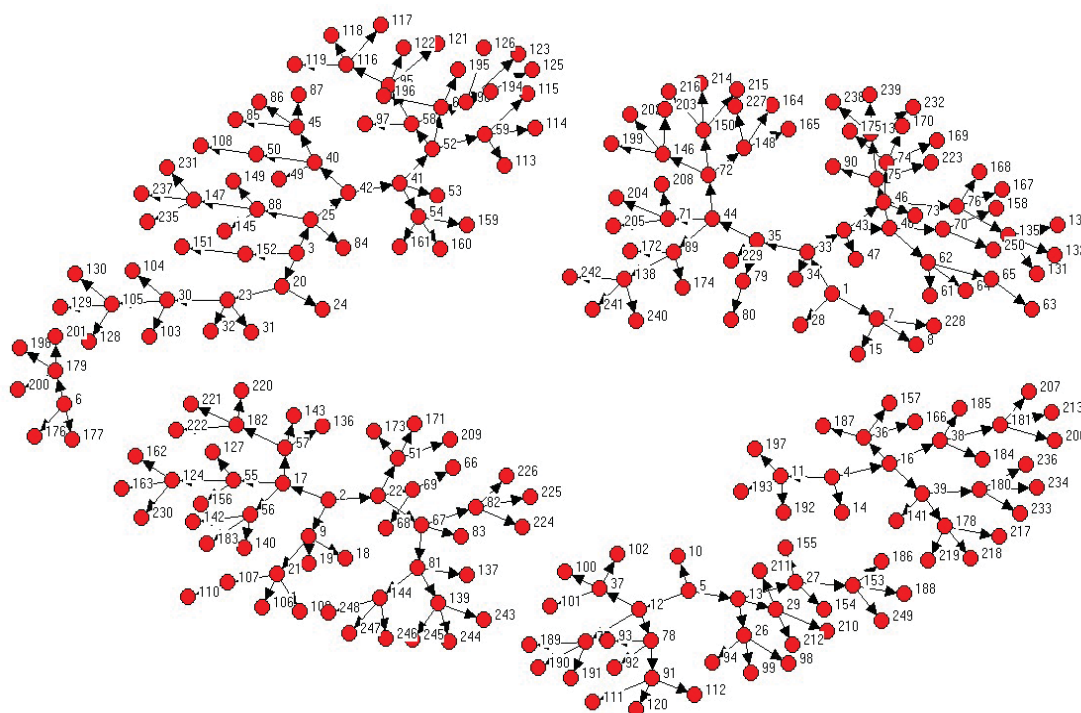


Figure 2: Six recruiting chains of the respondent-driven sampling in Tbilisi. Red spots represent every individual study participant; the arrows show the direction of recruitment and the numbers reflect the order of the participation in the study.

The combined database made up of the data received from all the cities was analysed with the SPSS v.16 software (the cleaned data of 491 people were imported into the database). The data received by the RDS method (n=250) were analysed with the RDSAT v.6 software.

FINDINGS

DEMOGRAPHIC DATA

There were no significant differences in demographic data between the “tested users” and “tested non-users” groups.

The mean age of all the study participants was 31.38 and the median was 30 (min=18, max=64). There were only 2 women in the sample that was interviewed (0.41%).⁷ The majority of the individuals who

⁷ There is a very low share of females in drug treatment and low threshold services in Georgia – 1-2%. This is commonly explained by the extreme stigma associated with female drug use and their reluctance to seek assistance.

were interviewed are of Georgian nationality (93.3%); others included Armenians (2.9%), Ossetians (2%), and other nationalities (1.8%).

A significant proportion of the respondents had higher (secondary) education (39.71%).

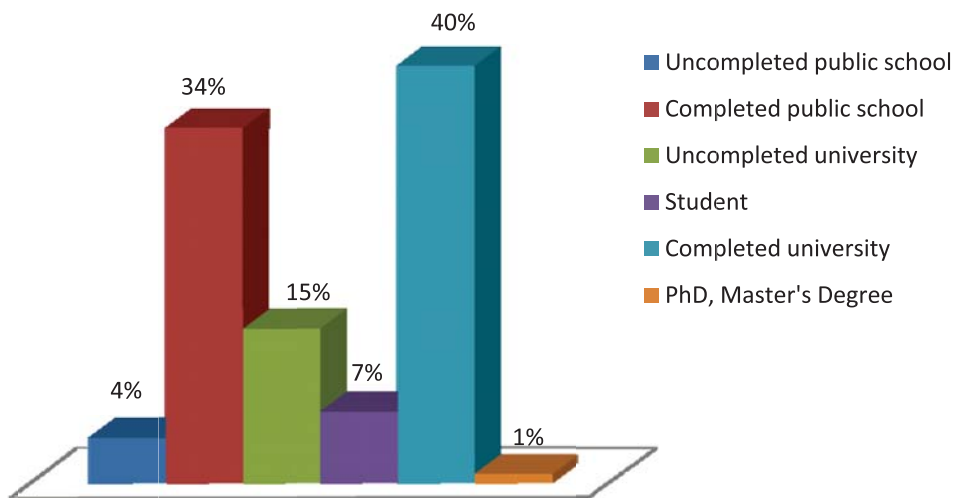


Figure 3: Education of the respondents

Almost half of the participants were in a legal marriage (Figure 4).

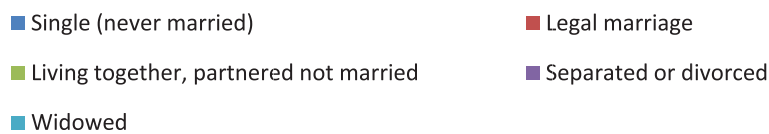


Figure 4: Marital/partnership status of the participants

As for housing, 12.6% rented an apartment, 27.3% lived in their own apartments, 54.4% lived with a family member, 1% lived with a sexual partner, 2.3% lived with a friend, 0.8% lived at a shelter, 0.2% lived in a house without the right to live there or in a ruined building, 1% lived in some other place, and 0.4% refrained from replying.

Again, none of these characteristics were significantly different between the group of “users when tested” and “non-users”.

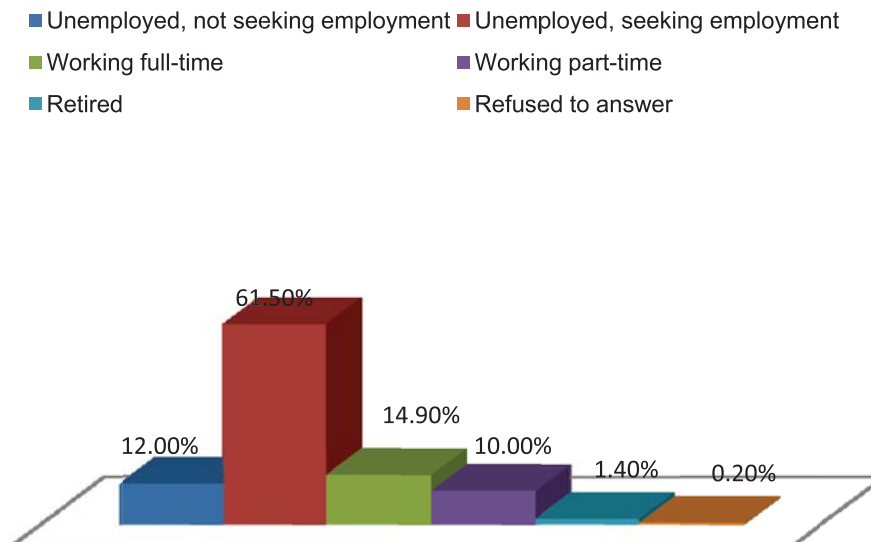


Figure 5: Employment status

Almost two thirds of those interviewed were unemployed (73.52%), with 61.51% seeking a job (Figure 5).

As the majority of those interviewed were unemployed, their income depended on different sources, including the aid received from their family members and friends, illegal income, etc. (Figure 6).

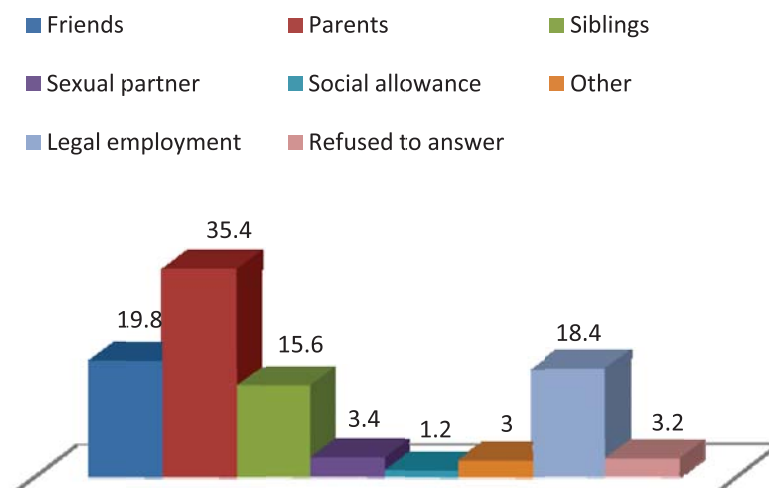


Figure 6: Means for living

The monthly income of the majority of the respondents was 100 to 300 GEL (Figure 7).

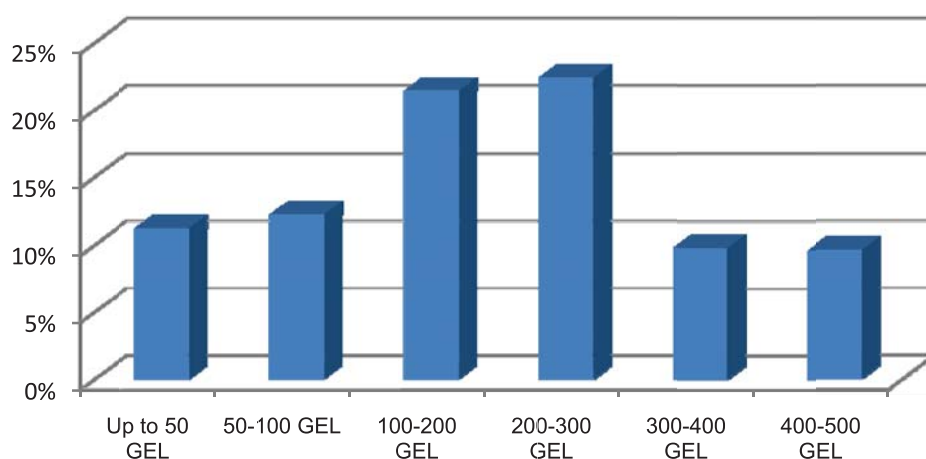


Figure 7: Monthly income of the respondents

HISTORY OF DRUG TESTING

As expected, the majority of the respondents (62.12%) were detained by the law enforcement authorities and subjected to drug testing only once in 2008. The highest number of cases of testing for a single person was ten in 2008 (Figure 8).

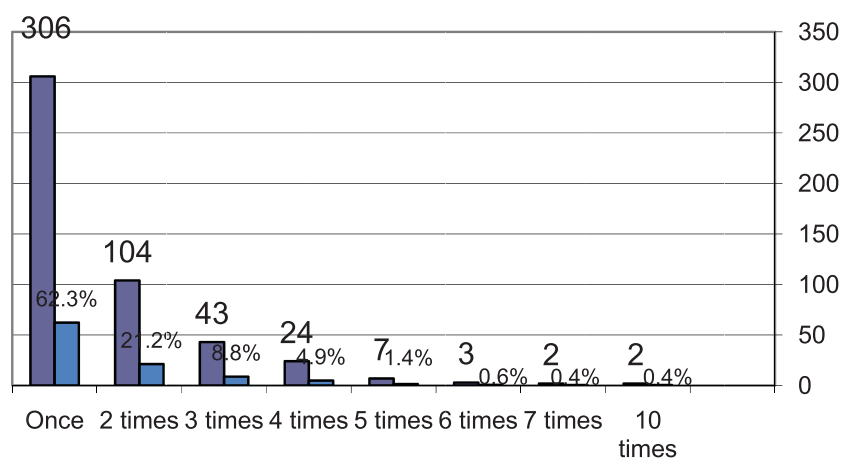


Figure 8: Number of drug testing cases per person in the study

We asked the respondents to recall all the procedures they were subjected to after detention.

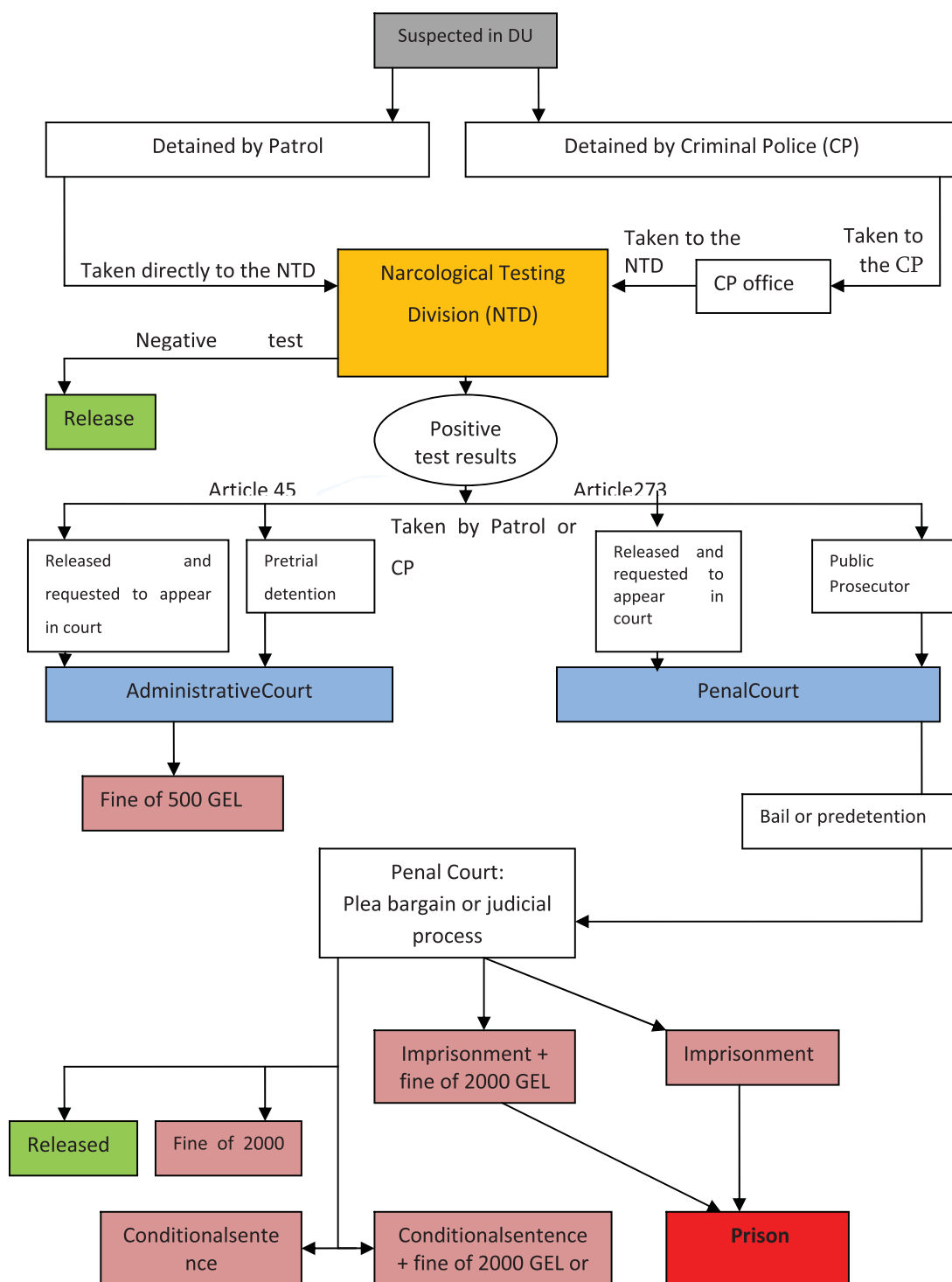


Figure 9: Schematic description of a detention and the subsequent legal procedure of a person suspected of drug use

According to the respondents, they were detained in different places. By far the most frequent target of detention was “a pedestrian walking down the street”. A detailed breakdown is provided by Table 1:

	Frequency	%
I was walking in the street when I got detained	336	68.43
I was detained when I was in a car	73	14.87
I was detained when I was in a taxi	27	5.5
I was detained near the pharmacy/at the pharmacy	24	4.89
I was arrested at home	9	1.83
I was detained at my friend's place	5	1.02
I was detained at a casino/slot club	5	1.02
I was detained In the schoolyard	5	1.02
I was detained on the train or at the railway station	2	0.41
Other	5	1.01
Total	491	100

Table 1: Places of detention of the person suspected of using drugs

The detention was organised by the patrol police and criminal police. The cases of detention are almost equally distributed between these two police bodies(Figure 10).

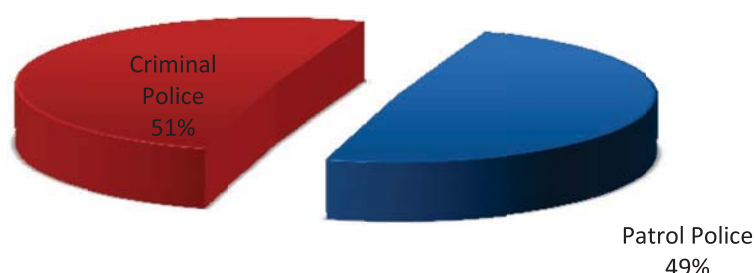


Figure 10: Involvement of Patrol Police and Criminal Police in detaining people in order to perform forced testing of urine for drugs on them

CALCULATION OF TIME SPENT ON DRUG TESTING AND SUBSEQUENT PROCEDURES

In order to determine the time spent by the police on the drug testing of one person, we have calculated: (i) the duration of detention;(ii) the time from detention to drug testing, and(iii) from drug testing to the user's presentation to the court, and the number of law enforcement staff members accompanying the arrestee either temporarily or permanently. The law enforcement staff mostly work at detaining people in groups; this is also reflected in the study findings and the calculations. According to the study results, 2.7 policemen on average work to detain one person (min. 1;max. 8;std. error 0.04; std. deviation 0.95). After detention, a group of law enforcement staff members accompanies the detained person to the drug testing; they wait and attend the drug testing procedure. Accordingly, the answers to the question as to “how

many law enforcement staff members accompanied you from the moment of detention to drug testing” produced the figure of 2.45 people in the group (min.1; max.6. std. error 0.03; std. deviation 0.75).

We also calculated the human resources (person-hours) spent by the law enforcement staff members from the moment of detaining a suspect to drug testing, making to 3.57person-hours. In most cases, the law enforcement staff members had to wait in a queue at the drug testing establishments and had to wait until the end of the testing – a procedure requiring on average 3.28 person-hours in total. Further, the test result is recorded into a protocol and the case is either submitted to the court (if the urine drug result is positive), or it is closed (if the result is negative). In the event of a positive result and when the legal proceedings cannot be carried out the same day for various reasons, the detained person is either freed before the proceedings or s/he is detained (Figure 11).

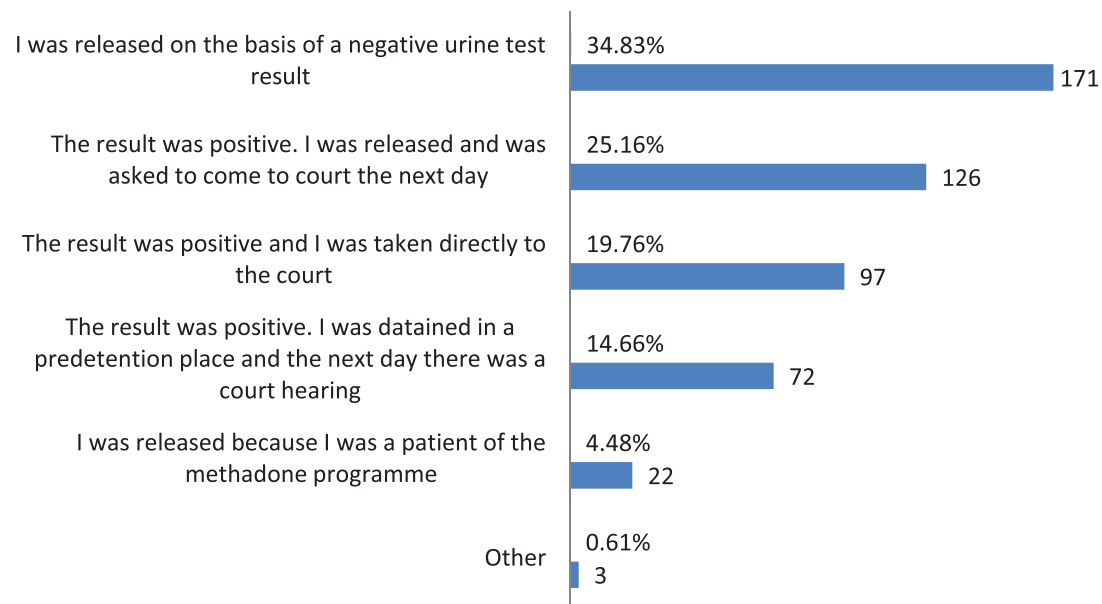


Figure 11: Scenario development after drug testing

On average, 1.58 person-hours of police resources were spent on the court proceedings in our sample. In total, **8.43**police person-hours were spent on all the above-mentioned procedures during one average testing case.

62% of our sample were charged with administrative or criminal sanctions for an offence associated with drug use in 2008; 71.62% of them were charged once, 22.3% were charged twice, 4.39% three times, and 0.34% were charged four times. The amount officially paid for these offences amounted to 256,567 GEL, with one person paying 849.55 GEL on average (in a year when the average monthly income was 147.2 GEL(National Statistics Office of Georgia, 2011).

These amounts were obtained by the individuals who were fined by using different sources of money(see Figure 12).

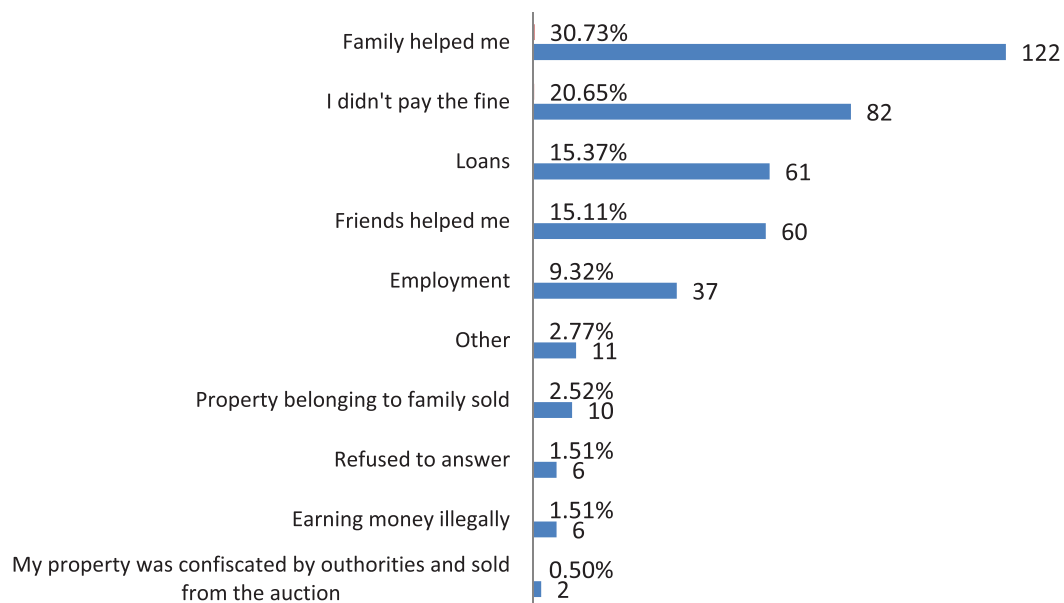


Figure 12: Sources for payment of monetary fine imposed for drug use

BEHAVIOURAL CHANGES

One of the principal objectives of the study was to find out if the punitive measures encourage drug users to stop using illegal substances. With this in mind, several questions in the questionnaire focused on behavioural changes after the punishment. The study results show that of those from our sample who tested positively and were drug users at the time of the test, 177 persons (54% of the described sub-sample) did not change their patterns of drug use at all; 36 people (11%) stopped using illegal drugs and the others shifted to other forms of using drugs (Figure 13).

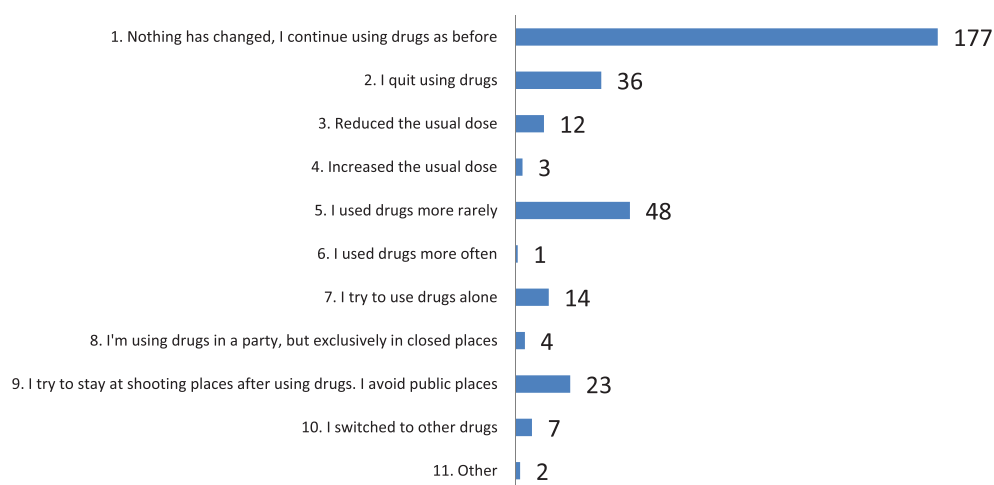


Figure 13: Change in behaviour after punishment related to drug use

In order to picture the changes in terms of the goals of the proponents of the intervention (the cessation of drug use), we have coded different patterns of illegal drug use into a single category; in these terms, 89% of the participants in our study who used drugs before their detention and urine drug test did not stop using them (Figure 14).

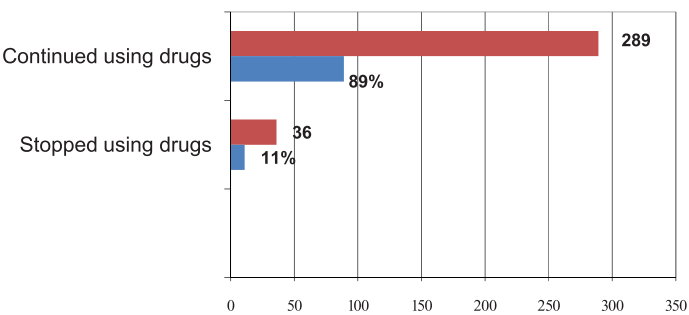


Figure 14: Effectiveness of the intervention in terms of complete cessation of illegal drug use after the positive test and sanction

Thirty-six respondents who stopped using drugs for fear of punitive measures were additionally asked if they are using drugs now (at the time of the interview) and, if so, how long their interruption of drug use was. Most of them resumed using drugs within three months after the punishment and all of them did so by the end of 11 months after the positive test and sanction (Figure 15).

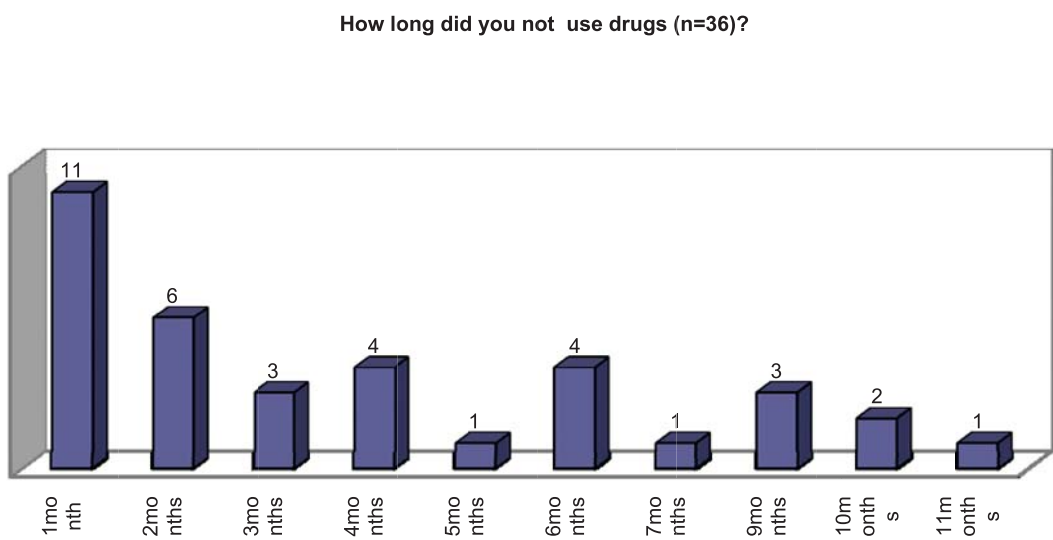


Figure 15: Length of abstinence after drug testing and subsequent punishment (among those who reported stopping using illegal drugs)

In other words, the effect of the sanction vanished completely in our sample after the period of eleven months.

CALCULATING THE STATE BUDGETARY EXPENSES

METHODS, TOOLS, AND FINDINGS

The principal objective of this part of the study was to identify the expenses the state bears to enforce Article No 45 of the Administrative Code and Article No 273 of the Criminal Code of Georgia – the two paragraphs that have been applied to the people suspected of using drugs.

The following levels of the state system are engaged in enforcing the two articles: the patrol police, criminal police, drug testing establishments of the Ministry of Internal Affairs, courts, the Public Prosecutor's office, and the Penitentiary Department of the Ministry of Corrections and Legal Assistance, i.e. the prison service.

The principal objective was broken down into sub-objectives. In particular, it became necessary to present the principal expenditure of each of the above-mentioned bodies as a sum used to enforce Article No 45 of the Administrative Code and Article No 273 of the Criminal Code of Georgia. Our aim was to identify the expenses in the state budget which were used for the process of detaining and examining the suspects and to describe transparently all the assumptions that were necessary for this process.

COST OF INTERVENTION

The output of the activities of the above-mentioned might then be, e.g.:

1. *the amount of time* the policemen spent discharging their official duties– for the patrol and criminal police;
2. *the number of tests* conducted in a given period of time– for the drug testing department;
3. *the number of cases* tried by the Public Prosecutor's office and the courts or *amount of time* spent by them on those cases – for the Public Prosecutor's office, as well as the courts;
4. *the persons in prisons (or, rather, prisoner-days)* during the year and related services rendered to them – for the penitentiary department.

MONETARISATION: THE CONCEPT OF PRIME COST

After we agree about the output of the relevant bodies, then we want to gain a better understanding of what the monetary value of the output is. This process is called “monetarisation” or “costing”.

Costs applied to systems guided by accountancy include “prime costs”,⁸ i.e. all the monetary costs incurred by the system that is testing the urine of people in whose cases there is no suspicion of their committing a crime or it is undefined.

⁸ In accounting and managerial theory, prime costs represent all direct material costs, direct labour costs, and direct expenses (Garrison, Noreen,&Brewer, 2009)

This means e.g. that for the policeman in the street the state spends not only the compensation paid as the fee for his labour, or the cost of the fuel that enables the policeman to use a car while discharging his official duties, but all the costs necessary to operate the patrol police department, i.e. this is the cost of the whole administration, operators, other employees, different service providers (IT technologies, electrical supply, etc.), which are necessary for the patrol police to conduct efficient operations.

Thus, the prime opportunity costs⁹ of the patrol police department are the (monetary) cost allotted from the state budget for the operation of the department.

Similar consideration is true for the Public Prosecutor's office and court system. The monetary costs of the Public Prosecutor's office and court system, as well as the drug testing service and penitentiary department, are discussed in detail below.

CALCULATING TIME

By calculating all prime costs related to identified opportunity costs we receive the total cost of the system, which, besides the cost of the enforcement of Article No 45 of the Administrative Code and Article No 273 of the Criminal Code of Georgia, includes the cost to the systems of responding to other crimes. Therefore, the next step is to isolate the cost incurred for the implementation of Article No 45 of the Administrative Code and Article No 273 of the Criminal Code of Georgia from the total prime cost.

If we ascertain the time used by the system to implement the intervention, i.e. to enforce the above-mentioned articles for a typical case, and the number of cases classified under Article No 45 of the Administrative Code and Article No 273 of the Criminal Code of Georgia, then we can accurately identify the cost incurred by the system and related to ("caused by") the intervention being studied.

As mentioned above, the individuals suspected of violating Article No 45 of the Administrative Code and Article No 273 of the Criminal Code of Georgia fall within the study area. The year 2008 was taken as the study period. The costs are calculated in the national currency (GEL).¹⁰

The data necessary to calculate the prime cost incurred by Article 45 of the Administrative Code and Article 273 of the Criminal Code of Georgia were obtained from the state administration bodies. In addition to official written letters, the information was obtained from the websites of the state institutions, and, when necessary, through informal consultations with state officials.

The important information about the time spent by different systems on enforcing the above-mentioned articles was obtained from the surveys as described above.

Methodologically, this is a relatively straightforward approach, but the only one that is applicable in the Republic of Georgia. Several more sophisticated (and more exact) systems are applied in public adminis-

⁹ Opportunity cost is the cost related to the second best choice available to someone who has picked among several mutually exclusive choices and it is considered to be a key concept of economics, and microeconomics in particular (Parkin, 2000). It is important to understand that the term "opportunity costs" does not apply only in monetary terms but to anything of value (e.g. time, natural resources, professional reputation, political popularity, etc.). A monetary value may or may not be applied to the (opportunity) costs at a later stage.

¹⁰ The average rate was 1.65 GEL=1 USD in 2008.

tration in the developed world; ABC (Activity-based costing; see e.g. Bruns& Kaplan, 1987) seems to be the one most commonly applied to law enforcement and military-style organised bodies in developed countries and it would be advantageous to apply it in our study too. Unfortunately, the monitoring of public administration costs is only in a transitional period in Georgia.

1. Patrol police

According to the survey, the first groups involved in detaining a person suspected of using drugs are the patrol police and criminal police (the number of cases was almost equal for these two departments – see Chart 7).

As no data could be obtained from the criminal police department, no calculation of the costs of this establishment was included in our calculations, which makes our calculations rather conservative / underestimated.

The only difference between the steps taken by the patrol police and criminal police is that the criminal police first take a detained person to their station to interrogate him and then take the suspect to the drug testing establishment afterwards, while the patrol police take the suspect directly for testing (Figure 3). Thus, the path the suspect follows when accompanied by the representatives of the criminal police is more expensive (additional time is spent on interrogating the suspect at the criminal police station, which is not the case for the patrol police). Therefore, if we assume for the purpose of our calculations that the patrol police detained all the suspects in 2008, we will end up with an underestimation.

Then, the steps in the calculation are as follows:

- a. in 2008, the budget of the patrol police was 59.824 million GEL(Ministry of Internal Affairs of Georgia, 2009a);
- b. in the same year, 2005 patrol policemen were employed at the same department(Ministry of Internal Affairs of Georgia, 2009b).The output for the patrol policemen is the time spent by them on discharging their official duties. Under the Labour Code of Georgia, the labour time for one employee is 40 hours a week, which made up 1856 hours in 2008,less holidays.

Therefore, the patrol department’s output can be calculated by multiplying the number of patrol policemen and real working hours of the police officers in the department in 2008; this accounts for 3,721,280 person-hours. Subsequently, we calculate the cost of 1 person-hour of the patrol police:

$$\text{Cost of 1 person*hour} = \frac{59.824 \text{ mil GEL (Patrol police budget)}}{21.280 \text{ person*hour (Output of 2008)}} = 16 \text{ GEL}$$

- C. the survey showed the patrol police used an average of 8.43 person-hours for one detention case. In 2008, 43,029 examinations were carried out to identify the facts of drug use (Ministry of Internal Affairs of Georgia, 2009c). In 19,302 cases the fact of using a drug was proved and the detained individuals were further taken to court.

A simple mathematical calculation allows the total cost of interventions (detaining suspected drug users) undertaken by the patrol police to be determined:

$$16\text{GEL} \times 43,029 \times 8.43 \text{ person} \times \text{hour} = 5.803 \text{ mil GEL}$$

2. Narcological Testing Division

The calculation of the costs of the drug testing office was simplified, given that the information provided by this establishment made it clear that the office was created and operates with the sole purpose of testing people suspected of using drugs. Therefore, it is clear that the output cost created by the drug testing office is the amount allotted by the budget.

We asked the Narcological Testing Division for their budget, but received only the data of the wage fund and the cost of testing supplies (consumables), amounting to **1.528 mil. GEL** (Ministry of Internal Affairs of Georgia, 2009b). Other costs, such as, for example, capital costs and other goods and services, with the major specific weight in the budget, reportedly could not be separated from the total budget of the Ministry of Internal Affairs. Therefore, the cost of the drug testing included in our calculation is an underestimation of the real cost of the service.

3. Public Prosecutor's office

The algorithm to calculate the cost borne by the patrol police department to detain the people suspected of using drugs was discussed by us in detail. An analogous approach was used for the Public Prosecutor's office. When calculating the costs of the Public Prosecutor's office, the cases brought before the court under Article 273 of the Criminal Code were considered. We ascertained the time spent by a Public Prosecutor on investigating one case under Article 273 through informal interviews with 11 current and former Public Prosecutors. According to those interviews, it takes a Public Prosecutor a minimum of 10.5 working hours to investigate a case under Article No 273. As in other cases, we used this underestimation for the calculation and maintained the conservative approach of the study.

Using the following data:

- A. Budget of the Public Prosecutor's office – 20,700 mil GEL (Ministry of Finance of Georgia, 2007)
- B. The number of Public Prosecutors was 394, and the number of person-hours of the Public Prosecutor's office in 2008 was 731,264 person-hours (394 Public Prosecutors x 1856 working hours in 2008).

The cost of one person-hour of a Public Prosecutor was calculated:

$$\text{Cost of 1 person*hour} = \frac{\begin{array}{c} 30.181 \text{ mil GEL} \\ \text{(Budget of the Public Prosecutor's Office of Georgia)} \end{array}}{\begin{array}{c} 731.264 \text{ person*hour} \\ \text{(Output of 2008)} \end{array}} = 41 \text{ GEL}$$

- C. A Public Prosecutor spends at least 10.5 working hours on proceedings under Article No 273 and the number of cases brought before the courts in 2008 is 4423 (Supreme Court of Georgia, 2009a), and so the total expenditure of the Public Prosecutor's office for case proceedings in 2008 can be calculated as follows:

Cost of 1 person-hour multiplied by the number of cases brought before the court under Article 273 in 2008 and by the conservative estimate of person-hours spent on the cases then:

$$41 \text{ GEL} \times 4423 \times 10.5 = \mathbf{1.904 \text{ mil GEL.}}$$

4. Courts

An analogous method of calculation is again used for the courts. The time spent by the judges on case proceedings is taken as the court system output.

The data obtained by us were as follows:

- A. the budget of the courts of first instance in 2008 amounted to 33,065 mil GEL (Supreme Court of Georgia, 2011). As an explanation, we should note that all the cases under Article 45 of the Administrative Code and Article 273 of the Criminal Code of Georgia in 2008 were tried by courts of first instance;
- B. according to the website of the High School of Justice of Georgia, a total of 249 judges worked in the courts of first instance (Supreme Council of Justice of Georgia, 2010).

The output of the multiplication of the number of working hours in 2008 and the number of judges is the person-hours of the courts of first instance (462,144 person-hours).

$$\text{Cost of 1 person*hour} = \frac{33.065 \text{ mil GEL}}{462.144 \text{ person*hour} \text{ (Output of 2008)}} = 72 \text{ GEL}$$

- C. the survey allowed us to ascertain the minimum time used by a judge to try a case under Article No 45 of the Administrative Code and Article No 273 of the Criminal Code of Georgia, which is half an hour on average. It should be underlined that this time is used for the court hearings only and does not include the time used by the judge to study the case – again, the most conservative approach/underestimation was used. The number of cases under Article

45 of the Administrative Code and Article 273 of the Criminal Code of Georgia tried in 2008 by the courts were 11,950 and 4423, accordingly.

Similar mathematical calculations were used to fix the cost to the court system of trying cases under Article 45 of the Administrative Code and Article 273 of the Criminal Code of Georgia, which is **658,459 thousand GEL**.

5. Penitentiary Department (of the Ministry of Corrections and Legal Assistance)

The prime costs of the prison system can be calculated in a straightforward way:

- A. the budget of the penitential system in 2008 was 93.720 mil GEL (Ministry of Corrections and Legal Assistance of Georgia, 2009);
- B. the number of prisoners in 2008 was 18,659 (National Statistics Office of Georgia, 2009);
- C. the number of people sentenced to imprisonment for violating Article 273 in 2008 was 1605 (Supreme Court of Georgia, 2009a) and the usual prison term was one year. The cost of keeping 1605 prisoners “newly created” by the random street testing behind bars was **8.061 mil GEL**.

Therefore, in the whole, in 2008 it cost the state approximately **18 million GEL** to put into practice Article 45 of the Administrative Code and Article 273 of the Criminal Code of Georgia (Figure 16).

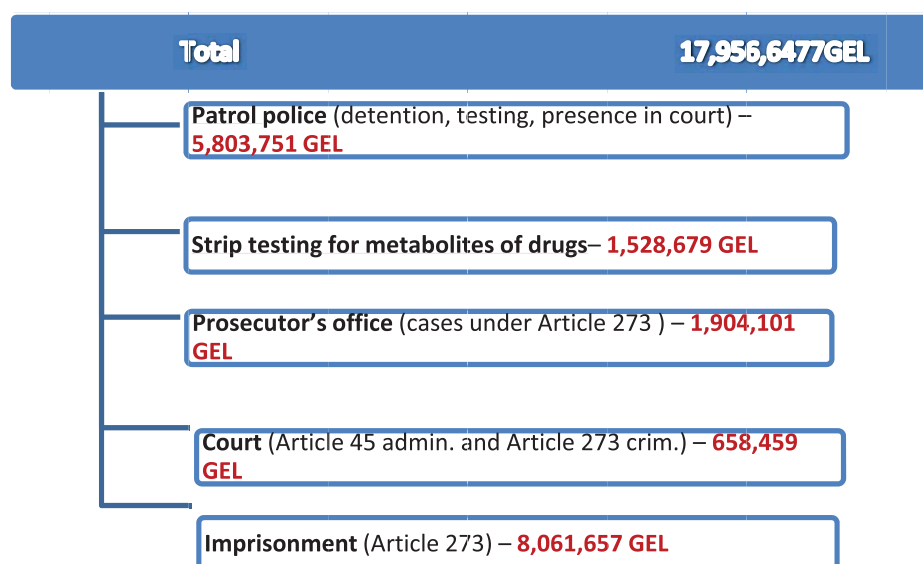


Figure 16: Total cost of drug testing performed in 2008

ECONOMIC MODEL

Slightly more than 18 mil GEL (to be precise, 18,076,245 GEL) were paid as drug-related fines and procedural agreements in 2008 (Supreme Court of Georgia, 2009b). If the two figures—the conservative estimate of the cost of enforcing Article No 45 of the Administrative Code and Article No 273 of the Criminal Code of Georgia on one side, and the state income in penalties resulting from the implementation of these articles—are compared, they seem balanced, as the incomes approximately equal the expenditures. From this perspective the intervention would be neutral in terms of the state budget.

However, there is another perspective – a cost perspective, when we should consider the alternative use of available resources.¹¹ Indeed, with regard to society, the cost to the state budget of putting into practice Article No 45 of the Administrative Code and Article No 273 of the Criminal Code of Georgia and the fines imposed on those who were convicted are nothing more than the costs to the given society. These costs must be considered in combination with respect to what society has to cede when it agrees to the state undertaking compulsory measures.

What are the alternative possibilities the given funds could be spent on and how effective would such spending be?

If there is any better use of the resources (resulting in no effect after 11 months), then the cost of the intervention being tested here is totally unjustified. In line with our findings, UNODC reports that 70-98% of drug offenders return to drug use within one year after their release from prison unless they are provided with effective treatment (UNODC, 2003).

On the other hand, the studies have consistently demonstrated that modern treatment of drug dependence significantly reduces criminal behaviour and the economic benefit of treatment exceeds its cost several fold (Stevens. A, Trace. M, & D, 2005; UNODC, 2003).¹² For illustration, see Figure 17 and Table 2.

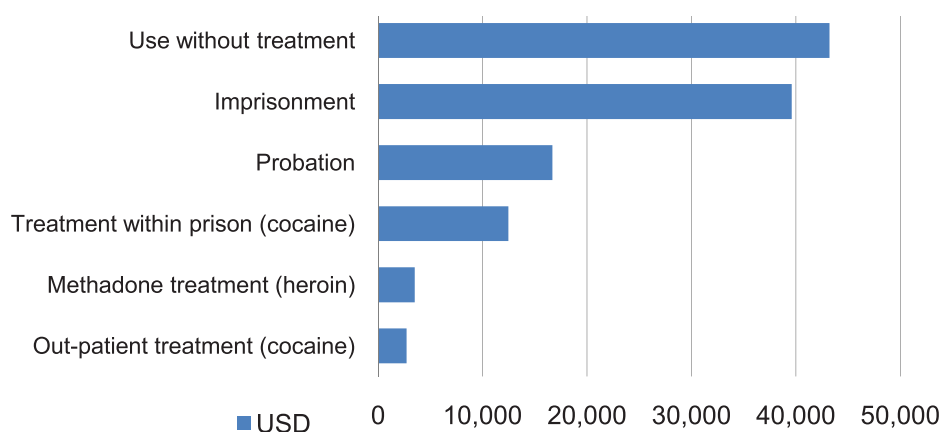


Figure 17: Cost of drug dependency treatment in the USA (per person, per year) (UNODC, 2003)

¹¹ Remember the short discussion on the opportunity costs above.

¹² "Availability of treatment is of great social benefit. Every 1 USD invested in treatment yields 4-7 USD of the cost to prevent drug crime, criminal proceedings, and theft. If this is amplified by the medical service savings, the ratio of the total saving and cost may reach 12:1."

Table 2: Effect of Methadone Substitution Treatment (MST) from the standpoint of criminal behaviour and the health of the patient (Verster & Buning, 2003)

Expenses of Social and Public Health	Reduction during a year as a result of involvement in MST
Property robbery	64%
Imprisonment (general)	54%
Imprisonment for drug-related crime	63%
Emergency medical care	65%
Hospitalisation	59%
Hospitalisation in psychiatric institutions	55%

Our study shows that imposing monetary fines and imprisonment is not an efficient measure to reduce drug use – that it yields no (social) cost benefit after 11 months, and the benefits yielded in those 1-11 months are negligible, given the low percentage of the tested and prosecuted persons that display them. Fear of punishment or imprisonment does not do much to encourage a person to decide to stop using drugs. In Georgia and elsewhere, there is no statistically significant correlation between the imprisonment of drug users and the numbers of drug users (Bewley – Taylor. D, Chris Hallam. Ch, & Allen. R, 2007).

Thus, to give an answer to our research question No 3, we have to identify the cost (expenditure, in this special case) which it is possible to free if the state's approach to drug users changes (to use the money in another way).

From the perspective of the opportunity costs, the most appropriate approach would be to consider any better use of the resources spent on the enforcement of the relevant articles of the Administrative and Criminal Code (18 mil GEL per year), AND the fines that were paid as punishments for breaking the law related to the random street testing, AND the cost of the imprisonment of those incarcerated because of positive tests. Here, treatment provided in accordance with recent scientific evidence would probably be the best alternative use of those opportunity costs.

However, this might be seen as controversial. One can argue that the resources freed within the police system are rarely used outside the domain of police activities, and the resources paid as fines that are often raised with a lot of suffering and non-standard activities on the part of the punished drug users and their families would be used for covering regular living costs without the legal pressure imposed on those on whom the fines are inflicted.

Perhaps the most obvious and non-controversial way would be to say that saving the budgetary funds at the level of the penitentiary department is possible and happens regularly in all legal systems when legislation changes and previously criminal behaviour is now considered non-criminal.¹³ As per our calculations, the cost of maintaining prisoners tried under Article 273 in 2008 amounted to a minimum of 8 million GEL.

¹³ The examples may include consensual sexual intercourse among adults of the same gender, absenteeism, social parasitism, and other behaviours considered criminal under communist dictatorships, or the decriminalisation of drug use and possession of drugs in small amounts in Portugal and in other EU states.

Other law enforcement units, such as the patrol department, courts, and Public Prosecutor's office, deliver "services", which should be delivered in terms of the absence of crime, i.e. the patrol policemen are in the street to prevent crime, the Public Prosecutor's office is in place to protect legal interests, etc. When policy is changed and there is no heavy focus on drug users, they will use their capacity in law enforcement to protect public safety, which would be another massive social benefit that it is possible to give a financial value to when appropriate data are available (see e.g. Benson and Rasmussen, 2001), but we have chosen not to complicate the model in the Georgian situation, with its substantial scarcity of data.

Naturally, if the state changes its policy, it would be possible to use the funds saved in the penitentiary department for other purposes.

In the work published by us in 2006, a study was made of the effect to be gained by society if the present repressive approach of the Georgian drug policy were replaced by a public health-oriented one (Radimecky et al. 2006). In the study, we proposed allocating 4.355 mil. GEL annually from the state budget to finance treatment and harm reduction programmes. The net economic effect gained through substitution therapy (630 participants at a cost of 650,000 GEL) and syringe exchange programmes (3150 participants at a cost of 750,000 GEL) amounted to 2.23 mil GEL in the first year. The economic effect was primarily produced through the prevention of infectious diseases (prevention of new cases) and the reduction of the relevant treatment costs.

Employing the same approach as we did in 2006, we can estimate the volume of services that could be made available if 8 mil GEL were allocated for drug treatment and harm reduction programmes.

8 mil GEL is sufficient to finance the following:

- treatment of **1200** patients in opioid substitution treatment (OST) for a year (1.3 mil GEL)
- one year's enrolment of more than **6000** patients in a needle/syringe exchange programme (NSP) (1.4 mil GEL)
- outpatient detoxification of **2700** patients (0.3 mil GEL)
- in-patient detoxification for more than **700** patients (2.5 mil GEL)
- psycho-social consultation for **20,000** patients (2.5mil GEL)

Despite the findings of the 2006 study of Radimecky et al, at this stage we can only safely calculate the impressive positive cost-benefit ratio of the OST and NSP, but this effect is very impressive.

We argue that by implementing OST and NSP among the indicated number of patients, 57 HIV/AIDS and 180 HCV new cases would be avoided. By adding the prevention of harms to society such as crime, and the black market, then the monetary value of the harm avoided would be **over 17 mil. GEL**.¹⁴

¹⁴ Employing the approach described in Radimecky et al., 2006.

RESULTS

From the budgetary perspective, a conservative estimate of the prime costs of the random street testing is:

- 5.80 million GEL as the cost of the police;
- 1.528 mil GEL as the cost of the Narcological Testing Division;
- 1.904 mil GEL as the cost of the Public Prosecutor's Office;
- 0.658 mil GEL as the cost of the courts, and
- 8.061 mil GEL as the cost of the penitentiary system,

which makes up a total of 17.95 million GEL for 2008.

The net income of the state budget was 18,076,245 million GEL collected from those who tested positive and were punished by fines (Supreme Court of Georgia, 2009).

As such, the intervention is approximately neutral or only slightly loss-making from the budgetary perspective.

However, contrary to private businesses, the task of democratic governments is not to “run the business profitably” (or neutrally) in terms of prime monetary expenses, but to increase the welfare of society – i.e. to improve public security and public health. In economic terms, this would translate into the social costs perspective, where the task of the government is to minimise the costs and to maximise the benefits, i.e. to seek the best use of the costs so that they would generate maximum benefits and/or avert other costs. For any intervention to be considered successful, the sum of the benefits and costs averted must be bigger than the costs incurred.

From the social costs perspective, we may compare the use of the 36 million GEL that is related to the enforcement of the legislation related to random drug testing (18 million GEL for the direct costs of the law enforcement, and 18 million GEL collected in fines from the drug users and their families). However, such an approach may be considered controversial by some, as explained in the previous section. Thus, using the opportunity costs approach, we may safely enumerate the possible alternative use as follows:

- the 17.95 million GEL that was used for the enforcement of the random drug testing by the police, State Prosecutor's Office, and the courts may be used for the prevention, detection, and prosecution of dangerous crime instead of the consensual crime (causing harm to no one other than the drug user him-/her-self) of simple drug use and thus to improve the security situation in the country substantially;
- the 18,076,245 million GEL collected in fines may be used to cover the regular living costs of the drug users and their families in particular, and thus to improve the wellbeing of a not negligible part of the population, and

- the 8.061 million GEL may be used for extensive funding of treatment and harm reduction programmes that would result in costs of at least 17 million GEL being averted.

Such use of the opportunity costs is dramatically more beneficial in both the monetary and broad social sense than is its use for random drug testing which has no impact on drug use 11 months after a positive test and represents a substantial burden for the law enforcement system and an appreciable part of society, and infringes the human rights and dignity of those affected by the testing procedures.

It is important that during the study, we maintained the conservative approach consistently. Thus, the costs of the law enforcement system are substantially underestimated; as the averted costs of treatment and harm reduction are heavily underestimated as well, we can safely conclude that the real cost-benefit ratio of the alternative use of the costs of the penitentiary system for treatment would be even more striking if appropriate and reliable data were available in Georgia.

DISCUSSION

DISCUSSION ON THE DATA QUALITY AND ASSUMPTIONS USED IN THE CALCULATION

Several assumptions were made for the purpose of the calculations:

- the effect of the temporary quitting of drug use was not included into the calculation because it is seen as only marginal (only 11% of those who were using drugs at the time of their urine test ceased their drug use, and for an average period of 3.9 months only);
- the costs of enforcement of Article No 45 of the Administrative Code and Article No 273 of the Criminal Code were calculated as equal, since this is how they were reported by the study participants who underwent the testing and the subsequent procedures, and also by the state prosecutors and judges;
- the unit used for the costs of the prison service was calculated per capita and not per prison day, since the Prison Administration was unable to provide data on the days spent in prison per Article of the Criminal Code.

The other limitation of our study is the possible bias resulting from our sampling strategy in the population of those who were drug users at the time of their urine test in 2008, since the seeds for our chain referral sampling methods (snowball sampling and its enhancement – respondent-driven sampling) were the clients of low-threshold services, who may tend to nominate current drug users more often than those who are not currently using drugs, possibly because of the punishment after a positive test. However, we did not find any alternative sampling strategy that would allow us to obtain valid and reliable data on the process of testing and its impacts, and the results we obtained are consistent with the results of other studies researching the impacts of law enforcement interventions on drug use, including those that used different sampling frameworks.

The decision to employ a diverse sampling methodology allowed the research team to accomplish several major tasks. We wanted to gather information from a representative sample of respondents and this was accomplished through using RDS in Tbilisi. We also intended to obtain relevant information from diverse geographical locations. The study scale did not allow us to perform RDS in Gori, Zugdidi, Batumi, and Telavi; thus, we employed snowball sampling in these locations. Importantly, no major differences in the socio-demographic characteristics of the respondents recruited within the different sampling methods and in different locations were observed. There were no significant differences in the responses provided by the different groups of respondents either. These factors contribute to the good level of reliability of data and the generalisability of the results obtained by the study.

In our calculations we purposely followed an extremely conservative approach in estimating the cost of the street drug testing policy. Namely, the relevant expenditures of three agencies –the police, courts, and the Drug Testing Office – used in our formulae are obviously lower than the actual ones (see the explanation in the text above). Moreover, we did not include any indirect costs related to the loss of productivity of those incarcerated or of their families. Therefore, we can safely state that the final numbers reflecting the overall cost to the state budget of street drug testing (17,956,647GEL) are remarkably lower than the actual cost of this intervention.

DISCUSSION ON THE LEGAL AND TECHNICAL PROCEDURES

The study results confirm that tens of thousands of people are subject to administrative and criminal proceedings (including sentencing to prison terms) as a consequence of positive rapid immunoassay test results. To the best of our knowledge no other jurisdiction uses the results of rapid screening as evidence of drug use because of the issues related to the often low specificity of the tests, cross-reactivity, and the stability of these devices (their ability to resist certain conditions, such as temperature and humidity). Elsewhere these results are considered preliminary and indicative, and advanced confirmatory laboratory tests are required for a court trial.

*“Workplace and forensic screening for drugs of abuse is usually performed for medico-legal purposes. It includes forensic (search) and monitoring (control) operations or routine checks, providing a fast indication, or supporting a suspicion, for the abuse or the presence of illicit drugs. A positive result from a screening device is considered to be a **presumptive** result based on a selected cut-off concentration of a drug. Results are intended to separate presumptive positives from true negatives. In other words, when something in a biological specimen has reacted with the test, results provided by these devices indicate whether a drug or drug metabolite may be present. A final (evidential) detection of the presence of a drug of abuse requires appropriate laboratory procedures and approved analytical techniques. **Only those samples that are positive by both screening and confirmatory methods should be reported as positive.** The reasons for this are clear, since the consequences of a positive test result are often grave, involving corrective/punitive action, loss of a job, or even criminal proceedings”(UNDCP, 2001).*

In Georgia, the results of these rapid and inaccurate tests are used as one of the main sources of evidence in court, leading to heavy fines or the imprisonment of thousands of people each year. This practice contradicts established international practice and is not in conformity with the standards of the European Convention on Human Rights, namely Article 6 of the convention on a fair trial. Court practice indicates that sufficient evidence should be used for the conviction of people and this evidence should be reliable and beyond reasonable doubt of proof. However, it is obvious that to test by confirmatory methods urine samples of those who were tested positive by on-site tests would increase the cost (and expenditures) of the intervention immensely.

DISCUSSION ON THE ETHICAL ASPECTS OF THE INTERVENTION BEING TESTED

Finally, it is reasonable to state that massive drug testing, with the majority of the test results being negative, raises an ethical question. Subjecting tens of thousands of people to a humiliating and lengthy drug-testing procedure infringes the dignity of citizens and undermines the public perception of a just and democratic policy.

CONCLUSIONS

The study results show that the punishment and imprisonment of drug users in Georgia has only a negligible influence on drug-related behaviour and it is an inefficient waste of the limited resources of the law enforcement and judicial system, and carries a huge social cost with an effect that is close to nil.

Punitive measures that have no counterpart in the developed democratic countries did not result in any measurable reduction in drug use but caused the harmful criminalisation of 1605 persons (in 2008), which notoriously leads drug users to become involved not only in “consensual” drug crime but also in criminal activities that are significantly more dangerous for public order.

On the basis of our study, we can safely conclude that the random drug testing did not fulfil the expectations of its proponents in terms of reducing drug use, and caused significant economic costs to Georgian society, together with difficult-to-monetarise intangible costs (secondary market consequences, the humiliation of those tested, the suffering of their families, the criminalisation of drug users, etc.).

Given the negligible impact of the interventions tested here (street drug testing) on drug use, we conclude that the focus of two police branches (the patrol and criminal police) on the street-hunting of young people diverted precious police (and other law enforcement) resources from activities that would better serve their purpose of improving public order and safety.

On the basis of the results of our study, we conclude that any intervention that would have measurable impacts would represent better use of the resources spent on the random urine testing/enforcement of the related Articles of the Criminal and Administrative Codes. The alternative use of the resources used for keeping the people in prison as a result of a positive urine test would bring a social benefit of 17 million GEL (see above).

RECOMMENDATIONS

On the basis of the study results, the authors of the work apply to the bodies engaged in the formation of drug policy with the following recommendations:

- remove Article 273 from the Criminal code of Georgia, which will prevent some 1600 people annually from being sent to prison and will save more than 8 mil GEL a year in imprisonment costs;
- shift the police resources thus freed so that police priorities would move from hunting young people (suspected of being drug users) to criminal activities that have a real impact either on the criminal situation or on public safety;
- allocate the amount saved on the prison service (8 mil GEL) to the definition and enforcement of a modern, structured National Drug Strategy and Action Plans in the EU style that would introduce and/or expand effective demand reduction programmes (treatment, harm reduction, rehabilitation, prevention) that are highly cost-effective from the perspective of both society and the state budget.

REFERENCES

1. Benson, B. L., Leburn, I. S., & Rasmussen, D. W. (2001). The Impact of Drug Enforcement on Crime: An Investigation of the Opportunity Cost of Police Resources. *Journal of Drug Issues*, 31(4), 989-1006.
2. Benson, B., Kim, I., Rasmussen, D., & Zuehlke, T. W. (1992). Is property crime caused by drug use or by drug enforcement policy? *Applied Economics*, 24, 674-692.
3. Bewley – Taylor, D, Chris Hallam, Ch, & Allen, R. (2007). The Incarceration of drug offenders: an overview. The Beckley Foundation Drug Policy Program.
4. Bruns, W. J., & Kaplan, R. S. (1987). Accounting & management: field study perspectives. Cambridge, MA: Harvard Business Press.
5. Craig, S. G. (1987). The Deterrent Impact of Police: An Examination of a Locally Provided Public Service. *Journal of Urban Economics*, 21, 298-311.
6. Davies, P. Is Evidence-Based Government Possible?, Jerry Lee Lecture 2004, 4th Annual Campbell Collaboration Colloquium, Washington D.C., 19 February 2004. Cited in European Monitoring Centre for Drugs and Drug Addiction, & Inter-American Drug Abuse Control Commission of the Organization of American States. (2010). *Building a national drugs observatory: a joint handbook (1st ed.)*. Luxembourg: Office for Official Publications of the European Communities.
7. Ennett, S. T., Rosenbaum, D. P., Flewelling, R. L., Bieler, G. S., Ringwalt, C. L., & Bailey, S. L. (1994). Long-term evaluation of drug abuse resistance education. *Addict Behav*, 19(2), 113-125.
8. European Community. (2008). The Final Evaluation of the EU Drugs Action Plan 2005-2008, Brussels: European Commission.
9. European Monitoring Centre for Drugs and Drug Addiction, & Inter-American Drug Abuse Control Commission of the Organization of American States. (2010). *Building a national drugs observatory: a joint handbook (1st ed.)*. Luxembourg: Office for Official Publications of the European Communities.
10. Garrison, R. H., Noreen, E. C., & Brewer, P. C. (2009). *Managerial Accounting* (13th ed.). New York: McGraw-Hill Irwin.
11. Goldstein, P. J. (1989). Drugs and violent crime. In N. A. Weiner & M. E. Wolfgang (Eds.), *Pathways to criminal violence* (pp. 16-48). Newbury Park, California: Sage Publications.
12. Goodman, L. A. (1961). Snowball sampling. *The Annals of Mathematical Statistics*, 32(1), 148-170.
13. Government of Georgia. (1999). General Administrative Code of Georgia, Access to public information.

14. Hansen, W. B., & McNeal, R. B., Jr. (1997). How D.A.R.E. works: an examination of program effects on mediating variables. *Health Educ Behav*, 24(2), 165-176.
15. Hawks, D., Katie, S., & McBride, M. (2002). Prevention of Psychoactive Substance Use : A Selected Review of What Works in the Area of Prevention. Geneva: WHO.
16. Heckathorn, D. D., & Magnani, R. (2005). Snowball and Respondent-Driven Sampling (Vol. 2nd): Family Health International.
17. Javakhishvili, D. J., Sturua, L., Otiashvili, D., Kirtadze, I., & Zabransky, T. (2011). Overview of the Drug Situation in Georgia [Stručný přehled drogové situace v Gruzii]. [overview]. *Adiktologie*, 10(1), 38-48.
18. Kiknadze, N., & Otiashvili, D. (2007). Georgia: anti-drug law violates human rights. *HIV AIDS Policy Law Rev*, 12(2-3), 69-70.
19. Ministry of Finance of Georgia. (2007). 2008 State Budget of Georgia. Retrieved from http://www.mof.ge/common/get_doc.aspx?doc_id=4036.
20. Ministry of Internal Affairs of Georgia. (2009a). 2008 Budget and Expenditure.
21. Ministry of Internal Affairs of Georgia. (2009b). 2008 Budget and Expenditure.
22. Ministry of Internal Affairs of Georgia. (2009c). 2008 Drug Testing Statistics.
23. Ministry of Corrections and Legal Assistance of Georgia. (2009). 2008 Budget and Expenditures.
24. Moreira, M., Trigueiros, F., & Antunes, C. (2007). The evaluation of the Portuguese drug policy 1999-2004: the process and the impact on the new policy. *Drugs and Alcohol Today*, 7(2), 14-25.
25. National Statistics Office of Georgia. (2009). Statistical Yearbook of Georgia 2009. Retrieved March 03, 2009, from <http://www.geostat.ge/index.php?action=wnews&npid=2&lang=eng>
26. National Statistics Office of Georgia. (2011). Average Monthly Incomes per Capita (GEL). *Households Income*. Retrieved January 21, 2012, from http://geostat.ge/index.php?action=page&p_id=182&lang=eng
27. Parkin, M. (2000). *Microeconomics* (Vol. 5th). New York: Addison-Wesley.
28. Radimecky J., Otiashvili D., & Tsertsvadze V. (2006). Investing in the Healthy Future: Action Plan of Drug Policy in Georgia in 2007-2009 – Development in areas of treatment and risk minimizations, *Union Alternative Georgia and Georgian Harm Reduction Network*.
29. Single, E., Rohl, T., & Ministerial Council on Drug Strategy. (1997). *The National Drug Strategy: mapping the future. An evaluation of the National Drug Strategy 1993-1997*. Canberra: Australian Govt. Pub. Service.
30. Stevens. A, Trace. M, & D, B. T. (2005). Reducing drug related crime: an overview of the Global

evidence. The Beckley Foundation Drug Policy Program.

31. Success Works. (2003). Evaluation of the National Drug Strategic Framework 1998-9 - 2003-4. Canberra.
32. Supreme Council of Justice of Georgia. (2010). Judicial Reform. Retrieved March 03, 2009, from <http://www.hcoj.gov.ge>
33. Supreme Court of Georgia. (2009). *Drug related offences in 2008*.
34. Supreme Court of Georgia. (2009a). 2008 Court Statistics.
35. Supreme Court of Georgia. (2009b). 2008 Drug-related Fines and Procedural Agreements.
36. Supreme Court of Georgia. (2011). Budget of the Court System 2003-2011. Retrieved March 3, 2011, from <http://www.supremecourt.ge/files/upload-file/pdf/biujeti-2003-2011.pdf>
37. UNDCP. (2001). Rapid on-site Screening of Drugs of Abuse. Scientific and Technical Notes.
38. United States of America, Department of Health and Human Services, Centers for Disease Control, *Policy Issues and Challenges in Substance Abuse Treatment*, 2002 (see www.cdc.gov/od/oc/facts/Policy.htm)
39. UNODC, Investing in Drug Abuse Treatment, *A Discussion Paper for Policymakers*, 2003.
40. UNODC. (2003). Investing in Drug Abuse Treatment, A Discussion Paper for Policy Makers. New York: United Nations.
41. Verster, A., & Buning, E. (2003). Information for policymakers on the effectiveness of substitution treatment for opiate dependence. Euromethwork. Annette Verster & Ernst Buning, Information for policymakers on the effectiveness of substitution treatment for opiate dependence, Euromethwork 2003.
42. Vincus, A. A., Ringwalt, C., Harris, M. S., & Shamblen, S. R. (2010). A short-term, quasi-experimental evaluation of D.A.R.E.'s revised elementary school curriculum. *J Drug Educ*, 40(1), 37-49.
43. World Health Organisation, United Nations Office on Drugs and Crime, & UNAIDS. (2004). Substitution maintenance therapy in the management of opioid dependence and HIV/AIDS prevention: position paper (1st ed.). Geneva: WHO.
44. World Health Organisation. (2009). Guidelines for the psychosocially assisted pharmacological treatment of opioid dependence. Geneva: WHO.

LIST OF ABBREVIATIONS

CP – Criminal Police

EMCDDA - European Monitoring Centre for Drugs and Drug Addiction

FG – Focus Group

GEL – Georgian Lari

GHRN – Georgian Harm Reduction Network

IRB – Institutional Review Board

MOF – Ministry of Finance of Georgia

MOIA – Ministry of Internal Affairs of Georgia

MOLHSA – Ministry of Labour, Health, and Social Affairs of Georgia

MST – Methadone Substitution Treatment

NSP – Needle and Syringe Exchange Programme

NTD – Narcological Testing Division

OST – Opiate Substitution Treatment

RDS – Respondent-driven Sampling

UNAIDS – Joint United Nations Programme on HIV/AIDS

UNODC – United Nations Office on Drugs and Crime(formerly UNDCP - United Nations International Drug Control Programme)

WHO – World Health Organisation