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The authors thank the many people who have provided comments and ideas for consideration and hope to continue fruitful discussions on these topics in the future.

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Today the social costs associated with the consumption of drugs are mainly borne by the family of the user.

The four-pillar policy (prevention, law enforcement, treatment and harm reduction) is not sufficient without a retraining and reintegration of the drug user into productive activity, this being effectively the fifth pillar on which a more proactive policy to contrast struggle against the illegal trade of drugs can be built.

For a policy oriented towards rehabilitation, we need a small shift of funding from the justice system - made possible by a reduction in imprisonment for the drug user - to rehabilitation and employment programmes.

The other components of this policy include: more aid to families; decriminalization of possession for personal consumption; alternatives to prison for problematic drug users, even if they commit petty crimes; establishing a revolving solidarity fund for social enterprises and the formulation of an anti-discriminatory law aimed towards the reintegration of problematic drug users, similar to those that which protects people with disabilities.

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Introduction and key recommendations.

1. The expansion of the illegal drug markets and the need to combat its harmful effects may be approached from different perspectives: judicial, economic, sociological, medical. According to the multidisciplinary approach, this study aims to find solutions through an examination of the illicit drug market in terms of economic and judicial factors.

2. The drug industry is in the hands of multinational criminal organizations that control production and trafficking, bringing illicit drugs to the centre of our cities where the trade becomes widespread thanks to an army of small dealers, estimated at between 250,000 and 400,000 individuals in Italy.

The illegal economy coexists and interacts within the economic system and produces social effects at a national global level. The crossover between the legal and the illegal drug market are not always well defined. Indeed a “grey sector”, which plays the role of draining resources from the illegal to the legal sector, tends to soften the economic distortion that is produced by the presence and development of the illegal economy.

The coexistence between the legal and illegal economy, however, would not have negative effects on the economy (strictly defined and excluding the social context) if the two sectors operated and grew independently of each other, but this is not possible and the interdependence creates large areas of overlap, within which financial transactions are not easily traceable to clear sources with defined contracts.

Illicit drugs trafficking is one of the main activities undertaken in the illegal sector, both in terms of turnover and of social impact. Despite the, not always well directed, efforts of the in-

ternational community, the drug market has undergone a continuous period of growth since the seventies. In the last few years the so called “war on drugs” has not reduced the supply and demand of drugs, not least because the illicit drug industry has replied with a more dynamic adjustment of the market and of their production processes and now new strategies are needed.

3 • The criminalization of drugs, which should prevent the existence of the supply of drugs to national territories, is not effective because a lot of street sellers are at the bottom of the chain of value and most sell solely to fund their own consumption. In this sense the traffickers are rarely caught. In many countries, prisons are overcrowded with addicts, mostly criminal offenders convicted only for petty crimes and possession of small quantities of drugs; often they are re-offenders and this is one of the proofs of the uselessness of this kind of policy.

On the other hand, the failures in reducing drugs supply makes more evident that the fight against drug industry must also aim towards the explicit goal of reducing consumption and the motivations which drive consumption.

4 • As in most of the countries in the world, the struggle against illicit drug market in Italy should be based on coordinated policies, acting on the so-called four pillars: prevention, law enforcement, treatment and harm reduction.

But are there any actions that have actually been successful in Italy? The drug problem has not even been touched upon in the programs of political parties in recent elections.

Certainly, the subject does not have an easy solution, whilst the need for a solution remains as important as the difficulty in devising one.

5. The drug problem is clearly evident and involves a growing mass of teenagers (50% of 18 year olds have tried illegal drugs, 15% of them regularly consume at least cannabis). There is also data from the 90s, showing that the phenomenon of drug use is no longer linked only to young people or predominantly to heroin addiction.

There are other drugs such as cocaine that allow the user to work, albeit under in a state of addiction, as well as new substances and medicines sold (even in the illegal market) as a substitute for “traditional” drugs, which can have health consequences which are *yet* unknown.

The analysis of the demand for drugs leads us to distinguish *between* three groups of consumers, with different lifestyles and different relevance to the development of the market:

- occasional consumers, who use drugs an average of once or twice a month;
- regular consumers, who consume at least once a week, and who usually have an integrated life in productive society;
- problematic consumers, who fail to enjoy a well-integrated life in productive society, and who must have a daily – or near daily – dose of drugs. Often this kind of drug addiction is accompanied with the abuse of alcohol and various forms of tranquilizers and other pharmaceutical products purchased illegally or legally.

The third group provides the best customers for the illicit drug industry. Since their consumption is very high and as giving the stable employment is not viable for the employer in order to finance addiction they are forced to enter the circuit of drug dealing and other illegal activities.

According to our estimates, in Italy about 500,000 problem drug users consume nearly half of the illicit drugs on the market and they are also the best channels for retail.

Unfortunately, in the hands of organized crime they are a tool for a number of other illegal activities to which they are subjected following psychological conditioning or blackmails.

6. The results obtained by health facilities (public and private), despite laudable efforts are not always sufficient to reverse the spiral into which drug users fall. Too often the vicious cycle results in death and, in any case, loss of human capital in terms of loss of intellectual resources is unacceptable.

The difficulty of reintegration after receiving treatment in health facilities increases the probability of relapse with a serious risk of fatal overdose, because of the treatment received.

The chances of recovery increase with the reintegration of the ex-user into productive society, not least because one of the triggers for drug abuse has psychological origins linked to social exclusion. The best tools for prevention include education and work opportunities, therefore investments in retraining and rehabilitation become crucial in avoiding the fallout of problematic drug user.

7. Removing from the market each year 20,000 problematic drug users for 5 years and giving them a future would allow a reduction of over one billion euros for the drug demand. Further, petty crime would be reduced on average by at least 400 million euros, with the benefits going to the whole community.

The current legislation allows tax relief for social enterprises and cooperatives, made up of ex-offenders and former addicts, though the financial resources for social enterprise are absolutely not adequate. More is required. Here we propose the establishment of a revolving fund for the start up of such enterprises, which would go towards strengthening the current “work scholarship” (or grant) initiatives which remain sporadic and poorly financed.

The law Bosetti-Gatti, which has been effective in giving a future to the disabled, could be extended to ex-addicts, or at

least could be taken as a reference for the development of appropriate legislation, not only because addiction is a situation that causes a certain mental disability, but for the same belief in equality which inspired the existing laws on disabilities.

The laws on employment support, recovery, training and the combination of most laws on disabled employment could produce a law oriented and conditioned towards finding a path out of drug addiction.

Among other things, such a law would also be a contribution to the information campaign on the dangers related to drug use and could be instrumental in improving the mission of the health services, which finally may not be limited to mere treatment programs, but also to monitoring the recovery.

8. The lifestyle of the drug user should be studied in order to understand the reasons why the drugs are so widely used. In an analysis without prejudices, we must not overlook the possibility that the same regime of prohibition could be another factor drawing people to drug use.

On the other hand, still following an unprejudiced analysis, the practical impossibility of enforcing the law as it is, suggests new policies be developed that focus on the severity of the criminal justice measures taken against offenders who cause social damage and leave lighter penalties for the damage caused by mere consumption.

In this regard the decriminalization of possession for personal use must be considered and clarified (as it currently leaves wide margins for uncertainty regarding prosecution of the consumers as sellers) with a look towards the practical effects that such a reform could have on the illegal market.

Courts and prisons would be less crowded as a result and police action will be geared more towards the struggle against real traffickers.

1. The illegal economy.

1.1 The interaction between the legal and illegal economies

The existence of an illegal sector such as the drug market has several effects on the legal economy. The interaction between the legal and the illegal economy has consequences at different levels in terms of both resource allocation and economic development.

Within each of these contexts the effects of the “communication” between the legal and the illegal sector are not always well defined. Indeed, the existence of a “grey” economy, which plays the role of draining resources from the illegal to the legal sector, tends to soften the economic distortion that is produced by the presence and development of the illegal economy.

Here, we take into account two levels of analysis. Firstly, we show the effects of resource allocation, focusing in particular on the distortion of the allocation of consumption and of private and public investments. Secondly, we analyse institutional effects, focusing our attention on the effects caused by the link between legal and illegal sectors and by the existence of a grey zone within which illicit profits are drained towards the legal sector.

1.1.a. Effects of a different allocation.

The economic system evolves and develops itself according to the decision of the agents which compose the network of relationships that allow economic activities to be carried out (families, firms, States, institutions). Economic agents decide to allocate their resources to different activities (choosing between consumption and accumulation) and in different sectors (choosing between different consumption and investment goods). The working of both market mechanisms and institutional arrangements should guarantee the economic coherence of such

decisions, that is why they should assure that decisions are made based on an “economic” evaluation of the different alternatives.

In the context characterised by the absence of structural distortion, therefore, the choices of the economic actors should imply an efficient allocation of resources between the different activities and sectors, thus leading the system toward an improvement of the economic position of the agents.

The presence of a sector producing illegal goods should not involve relevant variation from a theoretical point of view. Indeed the emergence and development of a sector implies that some groups of agents have some “preference” toward such goods and find it profitable to invest in such a sector. On the other hand, given the “scarcity of resources” and supposing the growth rate of the illegal sector to be higher than that of the legal economy, the development of the illegal sector should lead to a reduction in the growth rate of the legal economy by operating both on the demand-side (reduction in the growth rate of the consumption of legal goods) and on the supply-side (reduction in the resources allocated to the production of legal goods).

In other words, a portion of capital goods produced within the economic system are utilised in the production of illegal goods rather than being utilised to produce legal goods, and a portion of the resources assigned to consumption are conveyed toward the illegal goods rather than being utilised to consume legal goods. Thus, the existence of the illegal economy has the effect of reducing the development of the legal economy.

However, from a strictly economic point of view, such a statement does not directly impact negatively on the economy as a whole. For example, if we measured GDP in relation to the illegal sector, we would find that GDP as whole may not be affected by the existence of that illegal sector.

The perception of worsening conditions obviously emerges

from a consideration of the illegal markets as an “economic evil”, that is as an activity that involves indirect costs. Indeed in this context and from the point of view of the economic theory a higher growth rate of the illegal sector can be seen as problematic.

The need for illegal money laundering in order to invest black market money in the legal economy slows economic development.

However, in order to highlight such issues we need to reshape the stylized image of the economic system we proposed so far by introducing the role of institutional bodies and by taking into consideration the effect the illegal economy has in distorting the (private and public) decisions that are relevant for the development of the economic system.

***1.1.b. Illegal profits and their utilisation:
the grey area***

Illegal markets produce a huge flow of profits. Particularly, in the context of the drug market an important flow of profits is gained by agents operating at the intermediate level along the value-chain (coordination of production, international trafficking, and national distribution).

Generally, the flow of profits generated by activities connected with the illegal sector can be used in different manners. They can be re-invested within the same productive context, with the consequences of incrementing the accumulation rate of the capital utilised in the production of illegal goods. On the other hand, resources coming from illicit profits can be directed toward the legal system by means of the consumption of legal goods and/or investment in legal economic activities.

Obviously the first option strengthens the distorting effects described above. The second option tends to reduce the relevance of those distorting effects.

However, the presence and development of the grey sector,

within which legal activities are managed and developed by means of the intervention of illicit resources, leads to the emergence of indirect effects which increase a negative perception of the interaction between the legal and the illegal economy.

Illicit profits laundered in the legal sector can be directed toward real and/or financial activities. In both cases, as we will stress further, it is possible to find out distorting and depressive effects on the development of the legal economy.

1.1.c. Real assets

Illicit profits can be utilised to constitute and/or acquire firms operating in the legal sector. Such a phenomenon, which is known in Italy as “mafia imprenditrice”, represents a fundamental element in the strategy of criminal organizations, above all for those organizations that have a strong tendency toward the economic and social control of the territory in which they operate.

The problems connected with the presence of criminal entrepreneurship are fundamentally linked to two types of distortions.

The first is connected to competitive mechanisms that are reduced by the presence of criminal organizations that carry out legal activities. In fact it is well known that criminal organizations tend to distort the competitive dynamics of the market in which they operate, reducing the possibility for others to enter the markets and the capability of other firms to develop their commercial and productive strategies, thus leading to a reduction in the quality of the goods and services. Such an alteration of the institutional context evidently involves a loss of efficiency within the system.

The second issue is linked to the distortion of the process of selection of entrepreneurship. According to economic literature, the capability of an economic system to select the entrepreneurs with the best competences and whose activities are supported by a more efficient system of incentives is strongly connected with the capability of the system itself to be ruled by efficient mechanisms.

As in the case of the alteration of the competitive dynamics, a distortion of the selection mechanisms of the entrepreneurs produces depressive effects on the development of the whole economic system by reducing its capability to innovate and evolve.

Furthermore, the negative consequences of such phenomena, though relevant in the context of analysis from a general perspective, become stronger when the legal businesses of criminal organizations are geographically concentrated. The structural under-development of some territories characterised by a strong presence and control by criminal organizations should be an implicit confirmation of the mechanisms described above and of the negative indirect effects of the activity of criminal organizations on the whole economy.

1.1.d. Financial assets

Illicit profits can be directed toward the financial market, both with the incorporation of companies operating in the sector of financial activities and with the acquisition of shares of companies and funds quoted on stock markets. In this context, even supposing that criminal organizations are not able – yet - to acquire the complete control of important companies, distortion of corporate governance and of competitive mechanisms within the stock markets should not arise, however, some inefficiency and distortion can arise from the infiltration of criminals into the financial markets.

Firstly, the presence of criminal organizations involves a reduction in the efficiency of competitive mechanisms in the financial markets. Secondly, criminal organizations can influence the strategies of firms by means of the infiltrating management.

The power connected to the possession of important financial resources in terms of access to relevant “positions” within the economic system leads to two considerations. First, there is the possibility that criminal organizations can infiltrate the legal financial system and benefit from institutional arrange-

ments that act to secure the development of economic relationships and activities. Second, there is possibility for criminal groups to carry out lobbying activities by gaining access to a system of power that tends to favour strategic choices that have a strong benefit for the economic system.

In other words beyond the capability to utilise and increment the resources coming from illicit profits, access to the financial markets allows criminal organizations to access the “control room” of the national and international economy.

In this context, the evident conflict of interests between society and criminality implies an implicit negativity of the phenomenon of criminal infiltration of the financial markets. Indeed, further than the shared incentive to keep and widen their wealth, criminal organizations obviously have the goal of keeping and increasing an economic power that allows them to achieve objectives connected with criminal activities.

1.1.e. The interaction between the legal and illegal economies: some preliminary comments.

The existence of the illegal economy produces deep consequences for the legal economy by means of the interactions that are generated by the parallel and joint workings of the legal and illegal sectors. It has been stressed so far in this study that the negative effects of the illegal economy presence in the legal system can be highlighted only by taking into account institutional elements and not only the trends relating to economic data. It has been argued specifically that the possibility of managing important flows of profit within the context of the legal economy represents the main means of permeation and proliferation of the criminal organizations in the economic system. The access to the system of legal sector relationships represents therefore both the presupposition for survival and development of criminal activi-

ties and a fundamental means of furthering the perverse effects of the criminal actions upon the economic system.

The infiltration of criminal organizations within the legal economic system is a phenomenon which produces negative consequences for the economy.

1.2 Drug demand calculation.

1.2.a. The generation of value

The illicit drug market is not officially known, is not detected, but it generates income.

The measurement of the illegal economy is an issue for the European Union and it has set a goal to evaluate the actual value of the illegal economy income in the countries.

The guidelines provided by a working group sponsored by Eurostat¹ years ago are still an exhortation to investigate the topics more than a point of arrival.

We can evaluate illegal transactions only by means of indirect estimates: (a) the so called supply side approach, based on seizures of Police, from where one can infer at least the trend of the supply in an area², (b) the demand side approach, based on the knowledge of the number of consumers and their habits, (c) the most recent indirect method, based on the analysis of waste water or air and by the collection of the pollutants, from where

1. Eurostat, European System of Accounts, Luxemburg, 1996. Following the deliberations of the UN to adopt an accounting system expanded (SNA93), they began the studies and methodological formulations to include in the national accounts: the illegal economy, the underground economy and the informal economy. Methodological discussions are still ongoing on how (and how much) to include them in the accounts of each country. The SNA93 in the articles 6.30 to 6.33 and European System of Accounts (ESA95) in articles 1.13g, 1.42 and 3.08 give some statements and it is evident that estimates are necessary for their evaluation.

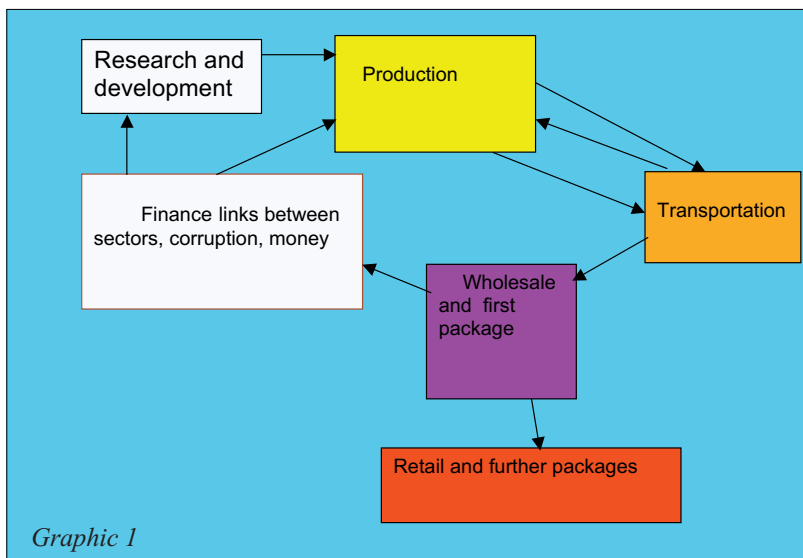
2. Groom C., Davies T., (1998), Developing a methodology for measuring illegal activity for the UK national accounts, *Economic Trends*, n. 563, July.

OECD (2002), *Measuring the non-observed economy.*, a handbook, Paris.

Baldassarini A., Corea C. (2008), How to measure illegal drugs in the national accounts framework. The case of Italy, Workshop Illicit Drug Market, Brussels 13-14, November, 2008. (www.illicitdrugmarket.net)

it appears the quantity of pure drug used by a certain population and in a certain period³. The last method has not yet been used in extensive areas for its high cost, though it doesn't give information about the number of users or doses and it should be combined with a survey or other information in order to complete the picture of drug demand.

The drug industry like any other sector has a chain of activities



(Graphic 1) concerning production and distribution; some of them are totally illegal and prosecuted, others less easy to identify as illegal. The ability of illegal entrepreneurship lies in move or change appearance and organization of its activities, sometimes the illegal power arrives to get tools to influence legislation in order to facilitate the supervision of their trade and activities.

In European countries, the main activities of the drug industry are those that are at the end of the value chain (transportation of the product, wholesale and retail), probably there are also important centres for research and development (for instance, in

3 EMCCDA (2008), Assessing illicit drugs in wastewater, Lisbon, December

Holland for amphetamines and in Switzerland for cannabis) and for the financial activities, beyond money laundering, but these activities, even if they contribute to the industry as a whole, are largely overlapping legal activities and therefore do not always come to light as activities contrary to the regulation.

At this stage we can estimate the drug demand or supply and not the rate of value generated by each activity. Therefore it will not be possible to find a correct evaluation of the contribution to the GDP for the rate of the finance activities or of the R&D. On the contrary it is possible to make an assumption regarding the limited importance of illicit drugs as intermediate goods for the domestic activities.

In other words the evaluation of the domestic demand added to the exportation and minus the importation should be the correct value for the contribution of GDP in a consumer country like Italy. In fact if we take into account the production cycles of the following activities:

a) transportation for the import – export of the drug, we have poor information about the profit margins of these operators or about the relationships between them and the large scale wholesales.

b) wholesales and first packages, they receive pure drugs mainly from abroad and prepare packages for the retailers. They mostly sell drugs mixed with other chemical products less expensive and coming from legal factories. They increase the value of the imported drugs by means of other substances coming from the legal market.

c) retail and street sellers, they are at the border of the illicit industry and they take all the risks for selling drug to regular or occasional users. They have not relevant costs of production, their profit margins are the counterpart of their risks.

Production is not so large in Italy, just home-production for personal use or very small cultivations of cannabis and some chemical drugs in small pharmacies, at least according to the last Police reports.

1.2.b. Evaluation of the demand.

A correct calculation of the illicit drugs revenues should take into account the differences among users and ways of use:

- poly-drug users are nowadays the majority of the regular users;
- consumption levels are very different between a beginner and an addict, specially if they already have been taking drugs for several years⁴

The most recent estimates, obtained for the Italian market, are the following:

The figure 11,4 billion Euros must be considered with caution, however it could be an assessment by default⁵.

To give the proper consideration of the illicit drug industry the influence on the economy and on savings of the families:

- the Italian Post, an important sector of the legal economy, has

	<i>A. Baldassarini, C. Corea (2005)</i>	<i>A. Canzonetti (2008)</i>	<i>Metodo A. Canzonetti (2008) with poly-consumption</i>
Market evaluation (billion €)	6.3	9.6	11.4

Elaborations from presentations to the workshop "Illicit drug market and its possible regulatory body", Rome 16-17 September 2009 www.illicitdrugmarket.net

revenues around 10 billion € and 150.000 workers (2008);

4 Heroin and cocaine immediately give a certain tolerance. Cannabis, on the contrary, seems easier to be stabilized without increasing doses. Anyway it is difficult to establish a trend in the personal consumption for the different reactions observed by the doctors on the patients' behaviour. Just in a recent survey a certain distinction has been evidenced between socially integrated users and not integrated users (in other words integrated user stands for worker or student). The integrated users take around one gram of cocaine, the other ones take 1,5 grams each day. Eisenbach-Stangl I., Moskalevich J., Thom B. Two worlds of drug consumption in late modern societies, Policy Brief European Centre for Social Welfare Policy and Research, January 2010. This result comes from a surveys on 6 European towns, where interviews are collected considering a sample of 100 integrated users recruited by the "snow ball" method and 100 not integrated users recruited in the health care centres or in the court of justice.

5 An evaluation of 60 billion Euros for the illicit drug market was recorded in the study recently edited in Italy by Confesercenti (2010): Rapporto SOS Impresa: le mani della criminalità sulle imprese. Rome, January, 2010.

- 11,4 billion represents 18.4% of the amount of household savings for Italy recorded in 2007 by ISTAT (ISTAT, Income Statement, A.12, 2009).

The household savings is the variable most directly influenced by drug use, also because families of drug users support most of the costs related to the drug use.

The procedure of getting this estimate is based on an assessment of consumers divided into three groups: occasional, regular and problematic users⁶. The sources are the pilot surveys carried out in 2009 (www.illicitdrugmarket.net) and those performed in 2008⁷ by the national Institutions (IPSAD for the general population and ESPAD for the secondary schools). Our investigations allow bringing more light on the poly-consumption, that is becoming relevant. Another important factor is the consideration of three groups of consumers. A multiplicative factor for their consumption was measured in 1 for occasional

6 Problematic drug users are 'injecting drug use or long-duration/regular use of opioids, cocaine and/or amphetamines' EMCDDA definition, it is useful to quote also the medical definition of addiction by American Psychiatric Association (2000): Diagnostic and Statistical Manual of Mental Disorders DSM-IV-TR Fourth Edition, Washington, 2000.

"Addiction is defined as a maladaptive pattern of substance use leading to clinically significant impairment or distress, as manifested by three (or more) of the following, occurring any time in the same 12-month period:

1. Tolerance, as defined by either of the following:
 - (a) A need for markedly increased amounts of the substance to achieve intoxication or the desired effect, or
 - (b) Markedly diminished effect with continued use of the same amount of the substance.
2. Withdrawal, as manifested by either of the following:
 - (a) The characteristic withdrawal syndrome for the substance or
 - (b) The same (or closely related) substance is taken to relieve or avoid withdrawal symptoms.
3. The substance is often taken in larger amounts or over a longer period than intended.
4. There is a persistent desire or unsuccessful efforts to cut down or control substance use.
5. A great deal of time is spent in activities necessary to obtain the substance, use the substance, or recover from its effects.
6. Important social, occupational, or recreational activities are given up or reduced because of substance use.
7. The substance use is continued despite knowledge of having a persistent physical or psychological problem that is likely to have been caused or exacerbated by the substance (for example, current cocaine use despite recognition of cocaine-induced depression or continued drinking despite recognition that an ulcer was made worse by alcohol consumption)."

7 Results recorded in Dipartimento per le Politiche Antidroga (2009), Relazione annuale al Parlamento sullo stato delle tossicodipendenze in Italia, Roma, Luglio 2009

users, 1.47 for the problem users and 1.21 for regular ones; in Appendix 1 are recorded the combination of use among students and residents in communities . For the value of the average prices we have relied on the official statistics of the EMCDDA.

TAB. 1: ESTIMATE DRUG USERS AND VALUES

	Equivalent users			Values (millions ₤)		
	PDU's	Regulars	Occasionals	PDU's	Regulars	Occasionals
Heroin	246,872	143,383	14,291	1,571	365	44
Cocain	270,496	573,459	573,594	2,776	2,354	283
Cannabis	181,435	289,9087	2,962,217	780	2,493	306
Others	9,881	166,005	453,753	44	297	97
Total	708,683	3,781,935	4,132,856	5,171	5,509	729
Total (million €)				11,410		
Poly-drug index	1.47	1.21	1			
Expenditures per-capita (€)				10,727	1,756	177

Source : our surveys; EMCDDA.

For daily consumption we consider an average assessment that do not yet contain the concept of tolerance and then the growth of the daily dose is not yet considered in this study waiting for a better evidence from the next surveys⁸.

In the table 1 we emphasize another very important result: the absolutely non relevance of the occasional users for the market (at least until when they remain occasional) and on the other side the great relevance of the problematic users. This is the rea-

⁸ Our calculation has been very prudential on these values: heroin and cocaine 0,5 grams; cannabis 2 grams for the problematic users and 1 gram for the others; amphetamines 1 pill. In this case we consider also the intensive or long term use of cannabis as a problematic use in according to the most recent analysis of EMCDDA, that "is currently examining the possibilities of breakdowns by main drug, as well as the best way of estimating the population of intensive and/or long-term, possibly dependent or problematic, users of cannabis" (<http://www.emcdda.europa.eu/stats09/pdu/methods>). Such a value system should be revised and we are waiting next surveys where we ask directly the question about the used quantity in a day .

son because effectiveness of treatment seems to be more important than prevention against the drug industry; at the same time, the treatment, we explain better this topic later on, of drug addicts can be considered an important prevention means.

Furthermore, table 1 does not include all the drugs that can be bought on the market. They are not as important as the other ones but there are evidences of a dangerous evolution of the market.

2. The estimation of consumers.

Our assessment of the turnover is based on the estimated number of consumers, divided by type of consumption. In addition to the survey conducted with questionnaires, a chapter should be devoted to the estimated number of consumers obtained through capture-recapture methods⁹. One of these methods was applied to the data collected in the archives of the Italian Prefectures according to the activity of checking consumers, which allows a constant monitoring of “regular” users, not yet problematic.

The potential for further use of capture-recapture methods is considerable and, taking into account the availability of time series, provides a valuable tool for integrating the sample surveys for estimates and scenario analysis. The capture-recapture models are special models generating the hidden data from the observed ones.

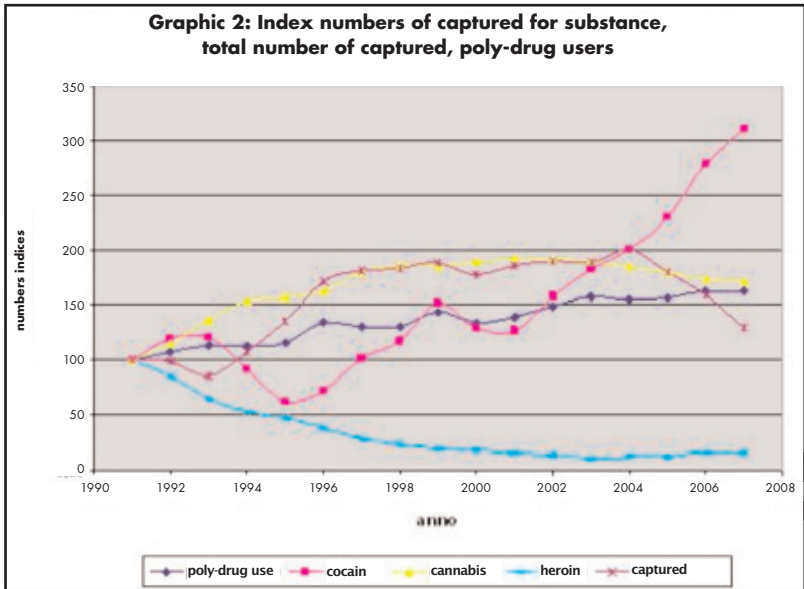
In fact if properly applied statistical models for data generation allow to make inferences about the size and characteristics of the population from which the statistical units observed derive in a rigorous and reliable way. One of the crucial points in the study of phenomena related to the use of illegal substances is only the estimation of the size of the phenomenon and its dynamics (prevalence and incidence are the key words). The status of illegal substances and their use make the consumer population “hidden”, like illegal immigrants, the users and so on. The size of hidden populations can be estimated only indirectly, using appropriate models that describe how the data are generated by the population for treatments, arrests, and so on.

Both capture-recapture methods are based on multiple, close-ups and independent observations, the classical capture-recapture method, however, requires two (or more) different cap-

⁹ F. Mascioli e C. Rossi (2010): Capture-recapture methods to estimate prevalence indicators used in the evaluation of drug policies, next on Bulletin of Narcotics

ture processes as, for example, in the case of using substances, the "capture" by the prison system and the "capture" by the hospital system and so on, while the truncated Poisson process, which is used in the present application, models the multiple catches in a single system: recidivism in prison, multiple alerts to the prefectures and so on. Based on this model it was estimated the hidden population of users who are risking to be checked for personal substances use reported in Table 6 of Appendix 2.

The phenomenon of poly-drug use is constantly growing, as evidenced by all indicators mentioned, and this deserves further investigation. It is particularly disturbing that this phenomenon is already evident in the early stages of use, as shown by data reported, which, in general, are to be considered in groups of users different from those considered "problematic". In Graphic 2 the development of index numbers of reported from 1991 to 2007 are described for single substance and for poly-drug use, which, together with the data coming from the IPSAD survey, which also do not concern problematic users, show a steady growth year after year.



Distribution of users (last month prevalence) of the main substances (IPSA 2007).
 The different colours of the boxes show the use of: a single substance, two substances, three and four substances.

		cocaine (0,24): 96.000		
cocain +heroin (0,0): 0	cocain +cannabis (0,42): 170.000	cocaina +amphetamines +cannabis (0,04): 16.000	cocaina +amphetamines (0,02): 8.000	amphetamines (0,05): 20.000
cannabis (6,32): 2.500.000	cocaine + heroin + cannabis (0,07): 28.000	cocain + heroin + cannabis +amphetamines (0,02): 8.000	cocaina + amphetamines +heroin (0,01): 4.000	
	heroin +cannabis (0,03): 12.000	heroin +amphetamines +cannabis (0,01): 4.000	amphetamines +heroin (0,0): 0	cannabis +amphetamines (0,05): 20.000
	heroin (0,11): 44.500		Total users: 3.000.000	

3. The two drug markets: products for beginners and products for regular users

3.1 The scenario

The spread in the use of psychoactive substances, especially within the younger population, has had a strong acceleration in modern societies. The styles of consumption and type of substances have changed significantly, the subculture of drugs has moved from deviance to normality, from models of socialization associated to times and spaces of isolation towards models of socialization characterised by dynamics of socialization. This change in use has an impact on the low social blame and on the low, if existing at all, perception of risks linked to the use and abuse of drugs. Its effects are a faster penetration in youth contexts, an increase in the number of users, a systematization of old and new habits of consumption, an increase in the quantity of overuse. Furthermore, it has led to a decrease in the average age of onset and to a “functional” approach to chemical molecules, especially to stimulating and hallucinogenic substances. These characteristics make users harder to identify and study and in turn, prevention strategies are also inappropriate.

Individual behaviours and values, on which they generally leverage, are strongly influenced by social disapproval and what is perceived as “normal”¹⁰ The availability of substances and low perception of risk catalyze a chain reaction of ever increasing use of drugs. The exposition to substances may determine a greater propensity to use them and in turn demands strategically tailored interventions. The use of drugs, concerns the various segments of societies and especially “young people” and “young

10 Botvin, G. J. (2000), “Preventing drug abuse in schools: social and competence enhancement approaches targeting individual-level etiological factors”, *Addictive Behaviours*, 25, pp. 887-897.

adults”. Among this sector of the population, the approach to psychoactive substances seems less determined by specific social variables and less “exclusive”. In other words, among young people, it is not “limited to” classical groups at risk.

In Europe, it is estimated that 22% of the population aged 15-64 (74 million people) have tried cannabis at least once in their lives and 7% (12 million people) has made recent use, namely the last year¹¹. At European level, in the 15-64 age group use "experimental" use is between 1, 5 and 38.6% (depends on countries). The majority of countries report estimates ranging between 10 and 30% . Cannabis use concerns especially young adults (15-34 years), among whom age group of 15-24 years is assumed to reach maximum level. This happens in almost every European country except Portugal.

Italy is situated, in descending order, in fourth position after (Spain (16.9%) Czech Republic (15.4%), France (12.7%), estimating 11, 5% of consumers aged 15 -24 who have used cannabis in the last month and the third place with regard to the last year consumption.

The percentage of European young people -15-24 years old- who have used cannabis in the last year (15.9%) or in the last month (8.3%) is even higher.

National estimates on the prevalence of the last year cannabis use among young adults (15-34 years) vary considerably from one country to another, at each level, with countries that have prevalence rates higher reporting values up to ten times higher than states with lower prevalence rates; in Italy, cannabis prevalence increased from 9% in 2001 to 21% in 2007.

ESPAD 2007 survey data¹² show that the highest percentage of occasional consumption (at least once in the life) among stu-

11 EMCDDA, Yearly Report (2009), Lisbon.

12 ESPAD (2009), The 2007 ESPAD Report, Substance Use Among Students in 35 European Countries.

dents in the age group 15-16 is found in the Check Republic, while Estonia, France, Netherlands, Slovakia and United Kingdom report prevalence rate between 26% and 32%.

15 countries have reported a prevalence rate of occasional consumption of cannabis between 13% and 25%. The lowest levels (lower than 10%) have been reported by Greece, Cyprus, Romania, Finland, Sweden, and Norway. There is not much difference in the prevalence of occasional consumption of cannabis for the two sexes.

As for cocaine, among the countries in the survey there was a range from 0.1% to 8.3% of the adult population reporting an experimental use (in Italy, 6.8%) and 0.8 % report recent use in the last 30 days. However these ratios are growing in the age group of 15-34 years, who are included in the range 0,1-12,0% lifetime and 0,1-5,5% latest year (in Italy 1 and 2%). Concerning the recent use (latest year) of cocaine, a European estimate suggests a prevalence of 1% in the adult population (about 3 million people) and regular users are estimated to be approximately 1.5 million consumers. Between 2001 and 2007, there were strong increases in the use of cocaine among the population in some European countries, especially United Kingdom and Spain; less considerable, though evident in other countries such as Italy, Denmark, France.

The scenario described above fits the use of psychotropic substances in today's society and, in particular, among younger age groups of the population under 19 years old. Within the teenagers it was concerned the sample of our survey, that consisted of 1196 young people. The results obtained are also analyzed in comparison to frameworks of the general population or, where available, of other samples of specific groups.

However in Italy some indicators, such as requests for treatment, or results from studies in the areas of youth aggregation, suggest that the actual distribution of cocaine (and related problems) exceeds the size detectable taking into account the official data.

From Report to Parliament on the state of addiction in Italy, year 2007, we collect the data on the use of psychoactive drugs in the ESPAD school population 15-19 years. In the Table 2, it is shown the comparison between ESPAD and our survey, in spite of the experimental use (life time) and recent use (last month) of cannabis and cocaine.

	Lifetime %		Last 30 days %	
	ESPAD 2007	Our Survey	ESPAD 2007	Our Survey
Cannabis	23	28,8	13	13,6
Cocaine	5	4,7	-	2,6

Source: our survey.

About a quarter of consumers in the last month has used several substances including cannabis and cocaine (15.2%); 12.1% in the case of cannabis and amphetamines; 12% of cannabis and crack.

		Frequence	Percentage	Valid Percentage	Cumulative percentage
Valid	1 substance	130	10.9	76.9	76.9
	2 substances	12	1.0	7.1	84.0
	3 substances	4	.3	2.4	86.4
	4 or more substances	23	1.9	13.6	100.0
	Total	169	14.1	100.0	
Missing	No substance	971	81.2		
	No answer	56	4.7		
	Total	1027	85.9		
Total		1196	100.0		

Source: our survey.

3.2 Our survey: substances used

Among the young respondents (48.9% male, 51.1% females), 50.3% answered that he/she had tried a substance. Among the latter, the first use is very early (36.4% before 15), between 15 and 18 years 63.6%. The first substance was cannabis (49.1% of cases) fol-

lowed by the use of other substances not specified (21.8%) and consumption of tranquilizers with prescription 14.8% or without 3,5%. The use of multiple substances was reported by 6.8% (Table 4).

TAB. 4 WHICH SUBSTANCE DID YOU TAKE FOR THE FIRST TIME?

	Frequency	Percentage	Percentage of users
Cannabis (Marijuana Hashish)	295	24.7	49.1
Other substances	131	11.0	21.8
Tranquilizers sedatives with prescription	89	7.4	14.8
Tranquilizers sedatives without prescription	21	1.8	3.5
More substances	41	3.4	6.8
Magic Mushrooms	6	0.5	1.0
Ecstasy	5	0.4	0.8
Steroids	5	0.4	0.8
Cocaine	3	0.3	0.5
Inalants	3	0.3	0.5
Amphetamines	2	0.2	0.3
Total	601	50.3	100%
Has never tried any substance	595	49.7	
Total	1.196	100%	

Moreover, the earliness of initiation of psychoactive substances is worth of noticing. Before 14 years, has tried for 35% of those who consumed at least once: the substance that seems to

TAB. 5 FIRST TIME - SUBSTANCE USE PER GENDER (% VALUES)

	gender		Total
	Male	Female	
Cannabis (Marijuana Hashish)	56,6%	43,4%	100%
Amphetamines	50,0%	50,0%	100%
Cocaine	66,7%	33,3%	100%
Tranquilizers sedatives with prescription	31,0%	69,0%	100%
Tranquilizers sedatives without prescription	5,3%	94,7%	100%
More substances together	51,2%	48,8%	100%
Ecstasy	100,0%	,0%	100%
Magic Mushrooms	50,0%	50,0%	100%
Inalants	33,3%	66,7%	100%
Steroids	80,0%	20,0%	100%
Other substances	45,0%	55,0%	100%
Total	48,6%	51,4%	100%

have the most early socialization is ecstasy use of tranquilizers.

No specific differences are found in relation to gender, with the exception of tranquilizers and inhalant substances, which have a prevalence of female users. Males tried for the first time steroids (80%) and at a lesser extent cocaine (66,7%) (Table 5).

Despite the small amount of data, the evidence suggests that preventive measures are needed already before the secondary school.

3.3 The availability of the drugs.

The picture coming out from the Italian and European frame of reference concerning the spread of psychoactive substances suggest that drugs are more present in the contexts of everyday life, especially among groups of young people; in fact mainly because drugs are not considered exceptional item anymore and are almost part of “normality”. It follows that a young person is more likely to get in touch with drugs either directly (physical contact, use) or indirectly (seeing somebody using it or knowing about an acquaintance using it, knowing where to find it). The probability of contact with drugs is also higher when risk factors are present; for instance, psychological issues, the level of satisfaction for ones relations (friends, family, school, work), the ability to keep under control instincts and the drives (i.e., the urge to try drugs, the ability to resist to the offer and to peer pressure). As in many studies on the issue, data on the proximity towards drugs is obtained through indirect indicators with a scale of increasing proximity to drugs: from “having had the chance to try out”, from “receiving the offer” of some substance to actually “touching it”. The result of this research is that 54,9% of respondents had a chance of getting cannabis and 29,1% cocaine.

Turning to the details of the offer, cannabis and cocaine are the easiest substances to be found.

TAB. 6 PLACES WHERE THE CONTACT WITH THE SUBSTANCE OCCURRED

	Street		Friends' House		Disco/bar/pub		Stadium	
	N	%	N	%	N	%	N	%
Amphetamine	32	7.2	21	5.1	21	4.1	8	1.9
Ecstasy	26	5.8	23	5.6	240	46.4	8	1.9
Cannabis	254	57.1	268	64.7	162	31.3	378	88.1
Crack	23	5.2	16	3.9	17	3.3	8	1.9
Cocaine	48	10.8	39	9.4	30	5.8	10	2.3
Heroin	15	3.4	11	2.7	16	3.1	4	0.9
Mushrooms	34	7.6	25	6.0	21	4.1	9	2.1
Steroids	13	2.9	11	2.7	10	1.9	4	0.9
Total	445	100	414	100	517	100	429	100

The difference by the bid contact, picking up some kind of drug is really thin. Looking at the sample of respondents as a whole, and regardless the type of substance and place of the bid, noting that three quarters of 1196 subjects were given drugs (78.8%) and over half (59.8%) in 1196 came to physical contact ("picking up some kind of drugs"). When the two variables are crossed, it is noted that, whatever the offer, they have had contact with drugs in 19.8% of the 247 subjects, compared with 70.5% of 916 of those drugs that had been offered. Therefore in some way it supports the hypothesis that the offer encourages contacts (about three times compared to non-supply) (Table 7).

TAB. 7: RESPONDENTS PER OFFER AND CONTACT WITH SUBSTANCES.

			Offering		Total
			Absent	Present	
	Absent	Val. absolute	198	270	468
		Val. %	80.2%	29.5%	40.2%
	Present	Val. absolute	49	646	695
		Val. %	19.8%	70.5%	59.8%
Total		Val. absolute	247	916	1163
		Val. %	100.0%	100.0%	100.0%

TAB. 8: THE OFFER AND CONTACT.

			Cannabis offering		Total
			Absent	Present	
Picked up cannabis	Absent	Val. absolute	290	275	565
		Val. %	84.1%	33.6%	48.6%
	Present	Val. absolute	55	543	598
		Val. %	15.9%	66.4%	51.4%
Total		Val. absolute	345	818	1163
		Val. %	100%	100.0%	100.0%

			Cocaine offering		Total
			Absent	Present	
Picked up cocaine	Absent	Val. absolute	449	336	785
		Val. %	81.2%	55.1%	67.5%
	Present	Val. absolute	104	274	378
		Val. %	18.8%	44.9%	32.5%
Total		Val. absolute	553	610	1163
		Val. %	100.0%	100.0%	100.0%

			Crack offering		Total
			Absent	Present	
Preso in mano crack	Absent	Val. absolute	732	263	995
		Val. %	93.2%	69.6%	85.6%
	Present	Val. absolute	53	115	168
		Val. %	6.8%	30.4%	14.4%
Total		Val. absolute	785	378	1163
		Val. %	100.0%	100.0%	100.0%

Analyzing in detail the supply and the contact for the individual substances does not change the trend, among them it is slightly lower for cocaine.

Therefore, it is reasonable to assume that the first experience of contact with the drug, as may be occasional and experimental, has a certain probability to evolve later in greater contiguity, that statement is supported partly by people who say they have taken at least one substance in the last 30 days, in fact, about two out of ten cases the offer and the contact seems to drive drugs consumption (Tab.9).

We could assume that the visual and physical contact with substances is a riskier factor than other socio-demographic variables.

			offerta		Total	
			Present	Absent		
consumed in the last 30 days	No substance	Val. absolute	731	240	971	
		Val. %	81.4%	99.2%	85.2%	
	1 substance	Val. absolute	129	1	130	
		Val. %	14.4%	.4%	11.4%	
	2 substance	Val. absolute	12	0	12	
		Val. %	1.3%	.0%	1.1%	
	3 substance	Val. absolute	4	0	4	
		Val. %	.4%	.0%	.4%	
	4 or more substance	Val. absolute	22	1	23	
		Val. %	2.4%	.4%	2.0%	
	Total		Val. absolute	898	242	1140
			Val. %	100.0%	100.0%	100.0%

			Picked up		Total	
			Present	Absent		
consumed in the last 30 days	No substance	Val. absolute	522	449	971	
		Val. %	76.7%	97.8%	85.2%	
	1 substance	Val. absolute	123	7	130	
		Val. %	18.1%	1.5%	11.4%	
	2 substance	Val. absolute	11	1	12	
		Val. %	1.6%	.2%	1.1%	
	3 substance	Val. absolute	4	0	4	
		Val. %	.6%	.0%	.4%	
	4 or more substance	Val. absolute	21	2	23	
		Val. %	3.1%	.4%	2.0%	
	Total		Val. absolute	681	459	1140
			Val. %	100.0%	100.0%	100.0%

According to a survey of the Italian Superior Institute of Health, the case of cocaine more than others is illustrative in this regard. In Italy, cocaine seizures have increased significantly between 2000 and 2008, with a jump from 1988 to overcome the heroine. In a study sponsored by the EU Commission in groups of cocaine addicts in three capital cities (Monaco, Rome, Rotterdam) with the technique of "snowball" in Rome was found that more than half of chronic

TAB. 11: SUBSTANCES IN THEIR LIFETIME AND IN THE LAST 30 DAYS

			Did you try a substance in your lifetime?		Total
			Yes	No	
ha consumato negli ultimi 30 giorni	No substance	Val. absolute	443	528	971
		Val. %	72.9%	99.2%	85.2%
	1 substance	Val. absolute	126	4	130
		Val. %	20.7%	.8%	11.4%
	2 substance	Val. absolute	12	0	12
		Val. %	2.0%	.0%	1.1%
	3 substance	Val. absolute	4	0	4
		Val. %	.7%	.0%	.4%
	4 or more substance	Val. absolute	23	0	23
		Val. %	3.8%	.0%	2.0%
Total	Val. absolute	608	532	1140	
	Val. %	100.0%	100.0%	100.0%	

users of cocaine have started the use in the period when the jump was recorded (> 500%)¹³. It is particularly important that in this situation one person out of four had used cocaine before being 14 years old. With regard to the later age between 14 and 16 years in 42.5% and 31.7% (i.e. one out of three) they started after 16 years.

The place of the first use is identified with three very different situations: almost one out of three consumers (31.2) states that the first use took place in outdoor environments such as streets, squares, parks; 9.8% report having consumed the substance at home; only 5.8% in the school (Table 12).

The first time at home may not only affect the individual adolescent, but also the small peer group (2 or 3 friends) with whom they are related in their own private space experienced as fun and socializing space.

The situation which has produced the first use (Table 13) has identified 6 out of 10 times on any day (only 26, 9% cases come from specific situations). As we can not speak of a correlation itself, if we take into account the throughput at home in any day,

13 Macchia, T., Mancinelli, R., Bartolomucci, G., Avico, U. (1990), Cocaine misure in selected areas: Rome, Annali dell'Istituto Superiore di Sanità, 26, 2, pp. 189-196.

we may consider early forms of individual consumption, or at most limited to a small group of peers.

Friends and classmates gathered more than 70% of responses, about the people with whom the first use happened.

Almost half of those who have experienced a substance declared that the first use was determined by curiosity (44.6%), or - through lower - due to a desire for fun (14.9). Only a small proportion of the respondents admit specific conditions related to a "medical" use of a substance, the need to feel better about themselves (5.1 %), the desire to promote contact with others (Table 15).

3.4 Funding sources and the market

53.1% of respondents receive money from the family exclusively, 22.5% get also some money from seasonal jobs,

TAB. 12: WHERE DID THE FIRST USE TAKE PLACE?

	Fre- quence	Percentage valid
Square/Road	89	19.0
Park	57	12.2
Home	46	9.8
Private party	39	8.3
School	27	5.8
Disco	26	5.5
Parish	22	4.7
Bar/ pub	14	3.0
House Pusher	12	2.6
Rave	4	.9
Gym	3	.6
Work	3	.6
Social centers	3	.6
Cinema/Theater	1	.2
Other	123	26.2
Totale	469	100.0

TAB. 13: SITUATIONS OF THE FIRST USE

	Fre- quence	Valid percentage
Without a special occasion	244	56.5
During Holidays	69	16.0
End of the year	49	11.3
Private party	46	10.6
Events (Concerts, street festival, etc.)	24	5.6
Total	432	100.0

TAB. 14: : INDIVIDUALS WITH WHOM THE FIRST SUBSTANCE WAS CONSUMED

	Frequence	Valid percentage
Friends	291	66.1
Classmates	30	6.8
Relatives	23	5.2
Alone	21	4.8
Partners	14	3.2
Aquitances	10	2.3
Other	51	11.6
Total	440	100.0

**TAB. 15: WHY DO YOU TAKE DRUGS?
ONLY THOSE WHO REPORTED
THAT THEY HAD CONSUMED A
SUBSTANCE IN THEIR LIFETIME.¹².**

	Frequencies	Valid percentage
Curiosity	270	44.6
So do friends	106	17.5
They can isolate from my hardships	96	15.9
Increase fun	90	14.9
To be better with myself	31	5.1
To have better opportunities to make new friends	12	2.0
Total	605	100.0

25% finance their consumption with illegal activities. In the following chapter we shall see in detail these percentage and shall compare them with the same data resulting from the survey on residents in therapeutic communities.

Among those who finance their own consumption with illegal activities, the males are three times the females with regard to the drug selling and two times for the other illegal activities. The funding source seems to be influenced by the cultural status of families (Table 16).

The first use age has a special influence for drug selling.

These individuals as well as having had access to substances at an early age are those who experience and consume the largest number of substances (Table 18).

The sites for purchasing and consuming are the same, it is recorded that 25% of purchasing are outdoors such as street, squares, parks and the relationship grows when you consider the purchase and supply (buy it and give me) or simply offering. The school is marginal compared to the whole market, although over 50% of the sales are related to the peer groups (friends and schoolmates). House or private parties collect about 20% of the sales. Public pla-

TAB.16: FUNDING SOURCES INDICATED BY RESPONDENTS VS STATUS OF THE PARENTS						
			Status cultural status			Total
			Low	Medium	High	
Funding sources	I receive money from family	Val. absolute	34	30	96	160
		Val. %	45.9%	57.7%	58.5%	
	Selling drugs	Val. absolute	13	7	18	38
		Val. %	17.6%	13.5%	11.0%	
	Work	Val. absolute	19	9	32	60
		Val. %	25.7%	17.3%	19.5%	
	Other illegal activities	Val. absolute	8	6	18	32
		Val. %	10.8%	11.5%	11.0%	
	Total	Val. absolute	74	52	164	290
		Val. %	100%	100%	100%	100%

TAB. 17: FUNDING SOURCES INDICATED BY RESPONDENTS VS AGE OF SUBSTANCES FIRST USE							
			Funding sources				Total
			Money I received from family	Selling drugs	Work	Other illegal activities	
Age first use	Less than 14 years old	Val. absolute	59	21	21	13	94
		Val. %	42.40%	80.80%	46.70%	52%	55.50%
	15 years or more	Val. absolute	80	5	24	12	102
		Val. %	57.60%	19.20%	53.30%	48%	44.50%
Total	Val. absolute	139	26	45	25	196	
	Val. %	100%	100%	100%	100%	100%	

TAB. 18: FUNDING SOURCES INDICATED BY RESPONDENTS PER NUMBER OF SUBSTANCES CONSUMED IN THE LAST 30 DAYS						
		Funding sources				Total
		Money received from family	Selling drugs	Work	Other illegal activities	
1 substance	Val. substance	58	6	28	10	85
	Val. %	80.60%	27,30%	82.40%	55.60%	61.48%
2 substance	Val. substance	6	3	2	3	10
	Val. %	8.30%	13.60%	5.90%	16.70%	11.12%
3 substance	Val. substance	2	0	2	0	3
	Val. %	2.80%	0,00%	5.85%	0,00%	2.16%
4 or more substance	Val. substance	6	13	2	5	18
	Val. %	8.30%	59.10%	5.85%	27.70%	25.24%
Total	Val. substance	72	22	34	18	116
	Val. %	100%	100%	100%	100%	100%

ces (disco, pubs) are noteworthy mainly for the free offer, rather than for sale (Table 19).

An observation arising from this data is that the school market would not seem a real market, too many promotional free substances seems to look for customers for the true market.

Only 25% of respondents purchase drugs from regular or occasional drug dealers and in this case the free offers are almost absent (Table 20).

3.5 The prices of drugs

Another worth of mentioning is the emergence of different prices than those reported by the Central Directorate of the anti-drug services¹⁴, they are lower for hard drugs and higher for cannabis, which supports the hypothesis of promotional prices for hard drugs, as we will see below.

There are no great differences in prices between those ta-

TAB. 19: PLACES WHERE TO FIND AND / OR ACQUIRE THE SUBSTANCE

	Buy it		Buy it and offer to me		Offer to me	
	Frequence	Percentage	Frequence	Percentage	Frequence	Percentage
Square/road	30	23.8	37	27.6	59	28.5
Villa	7	5.6	19	14.2	-	-
House	16	12.7	12	9.0	8	3.9
School	12	9.5	16	11.9	23	11.1
My home	5	4.0	4	3.0	15	7.2
Bar/pub	12	9.5	4	3.0	16	7.7
Disco	11	8.7	8	6.0	23	11.1
Private party	7	5.6	9	6.7	34	16.4
Parish	6	4.8	6	4.5	9	4.3
Social center	5	4.0	7	5.2	9	4.3
Rave	3	2.4	6	4.5	5	2.4
Gym	3	2.4	3	2.2	2	1.0
Stadium	3	2.4	3	2.2	3	1.4
Internet	6	4.8	-	-	1	.5
Total	126	100.0	134	100.0	207	100.0

TAB. 20: SUBJECTS OFFERING AND/ OR SELLING THE SUBSTANCE

	Buy it		Buy it and offer to me		Offer to me	
	Frequence	Percentage	Frequence	Percentage	Frequence	Percentage
Friends	33	28,0	51	35,7	170	68,8
Indirect friends	25	21,2	29	20,3	31	12,6
Usual Pusher	19	16,1	21	14,7	7	2,8
Classmates	19	16,1	21	14,7	28	11,3
Occasional Pusher	15	12,7	13	9,1	5	2,0
By Internet	7	5,9	8	5,6	6	2,4
Total	118	100,0	143	100,0	247	100,0

king or not taking a substance in their lifetime, this is a sign that the knowledge of the market is fairly well spread.

3.6 Price comparison between the two surveys.

Apparently the prices of products on the market vary depending on whether buyers are beginners or are regular customers.

TAB. 21 AVERAGE PRICES FOR NON-USE OF SUBSTANCES IN THEIR LIFETIME

		N	Mean
He tried at least one substance in a life	Price 1 tablet of Ecstasy	385	19.66
	Price 1 gram of Marijuana	397	15.00
	Price 1 gram of Hashish	376	16.98
	Price 1 gram of Crack	337	26.98
	Price 1 gram of Cocaine	385	40.66
	Price 1 gram of Heroin	353	37.15
	Price GHB	324	35.02
	Price 1 Steroid	323	32.18
	Valid (listwise)	302	-
He has never tried any substance	Price 1 tablet of Ecstasy	271	18.42
	Price 1 gram of Marijuana	300	16.60
	Price 1 gram of Hashish	265	20.78
	Price 1 gram of Crack	250	25.94
	Price 1 gram of Cocaine	277	31.45
	Price 1 gram of Heroin	259	29.86
	Price GHB	235	29.06
	Price 1 Steroid	237	29.57
	Valid (listwise)	224	-

Our surveys on students and residents in a therapeutic communities show that students seek / find cheap goods, while consumers in therapeutic communities prefer products with higher prices. In

	Traffickers	Street sellers
Substance	(euro per kg. / 100 doses)	(euro per gramm o dose)
cocaine	42.200	70-80
heroin	30.356	65.15
Hashish	2.056	7.61
Ecstasy	405	18.79
Amfetamine	483.3	18.125
L.S.D.		

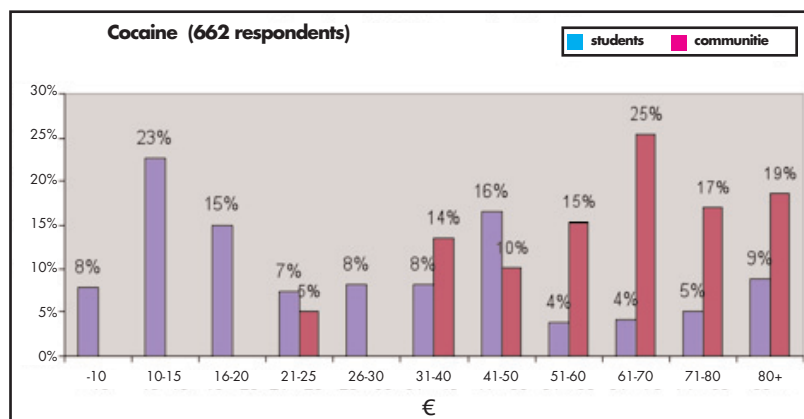
Fonte: Direzione Centrale dei Servizi Antidroga

this case we can therefore conclude that substances are offered on the market 4 or 5 times cheaper and - obviously - of worse quality, even to make it easier for consumers to buy casually.

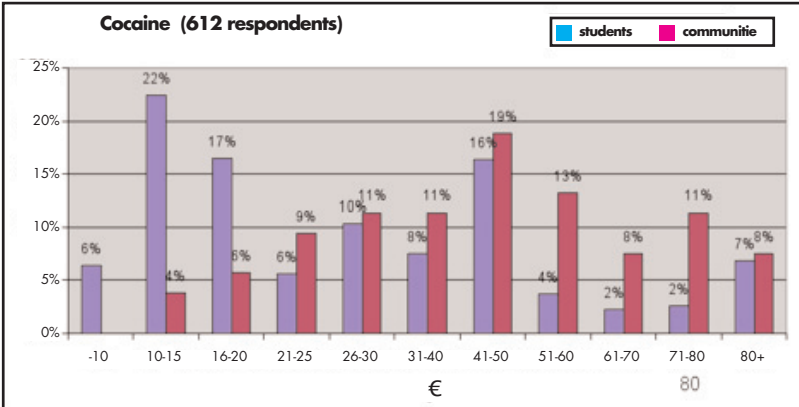
Only for cannabis there is a concentration on lower prices for both groups, it should be noted that the responses of residents in a therapeutic community focus on lower values, this is a sign that customers experienced stand the best prices when the quality level of drug are not very different.

This pattern of responses of the two groups will be observed by further analysis in the next surveys, because they are signs

Graphic 3



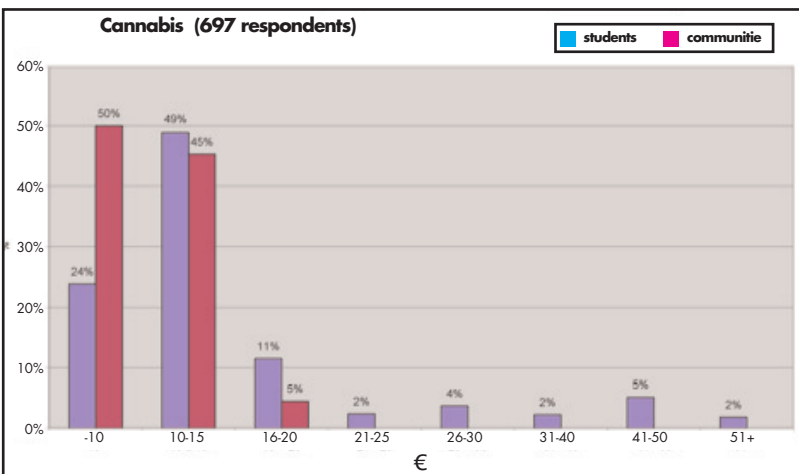
Graphic 4



of some aggressive supply of hard drugs for beginners who end up reducing the psychological barrier of higher cost in the case of heroin and cocaine.

Concerning the reasons of consumption it does not appear significantly differ between the responses of students and those of residents in therapeutic communities. This occurs despite the fact that both groups belong to at least two different generations (the average age of respondents was 37 living in communities and an average period of hard drug consumption of 20 years) and with a

Graphic 5



very different historical context.

Responses to "positive" but no guilt (curiosity, fun, friendship) largely prevail over those "negative" indicating a state of personal discomfort or bad insertion in society (family disruption, feel good about themselves, make new friends) .

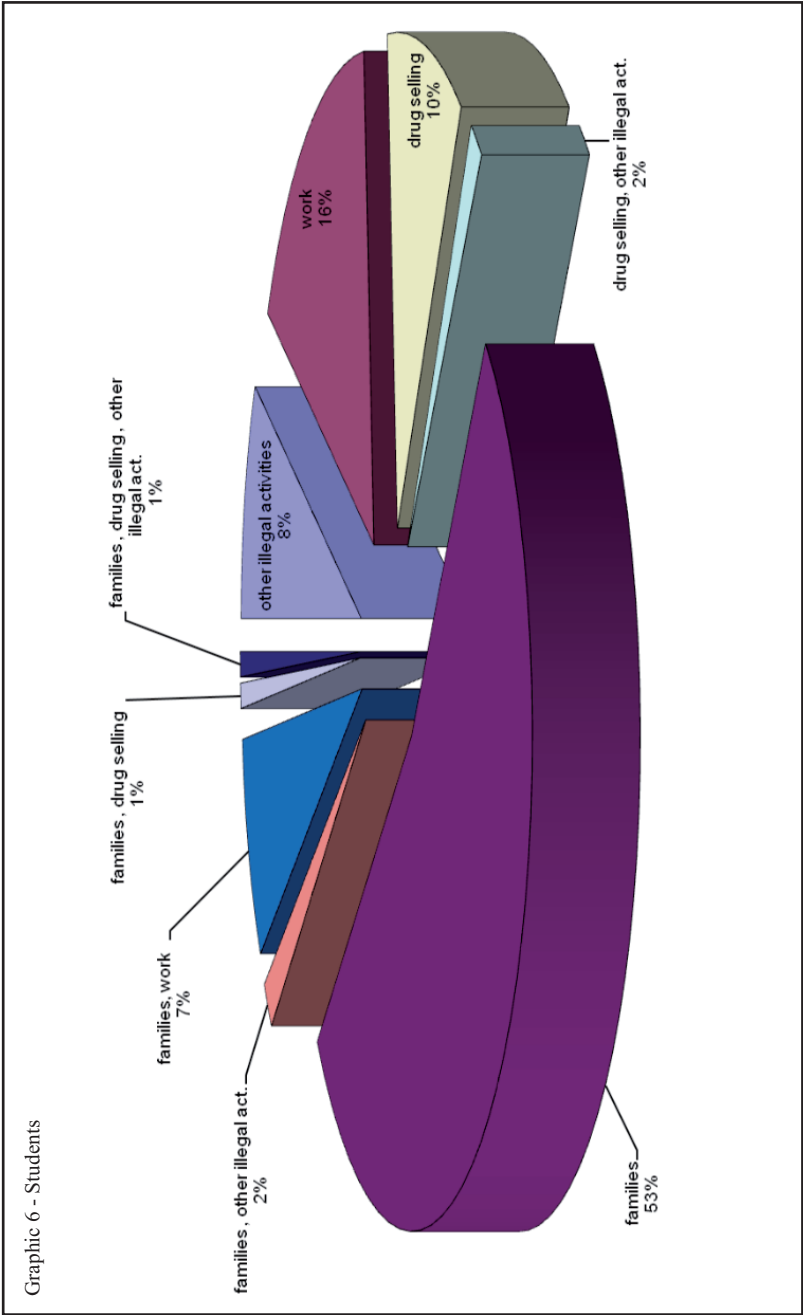
3.7 Who finances consumption?

Here we start to consider the economic burden where consumers are piling on kinship: it shows that having little chance of revenue, consumers impose the expenses related to drugs on the family. If this economic condition is understandable for the students and can appear almost obvious, it is surprising when the community residents for nearly 40% of respondents had never had a stable job, even for a limited period and 31% never had a job at all.

In many cases the consumer is financed by the "petty crime" and also by the drug selling.

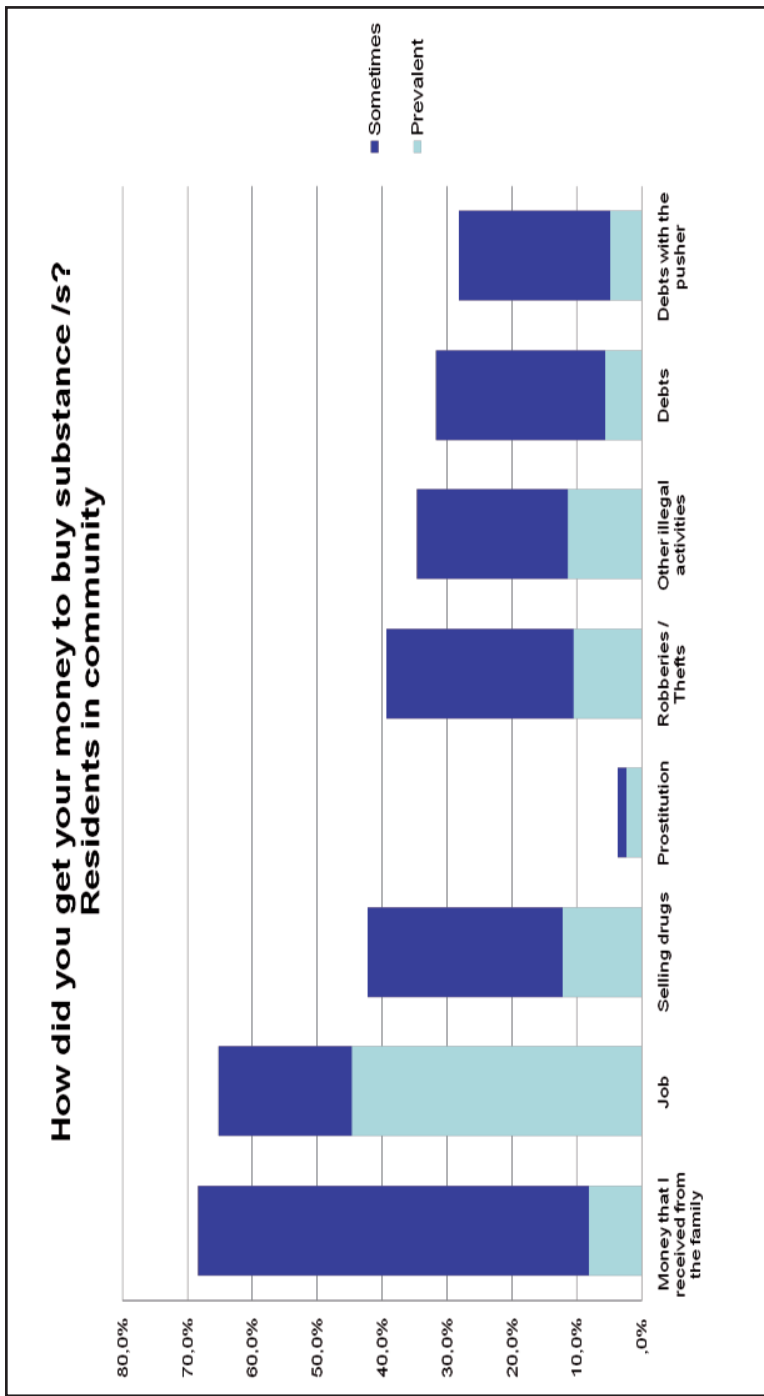
At this point the consumer behaviour becomes "antisocial" and further marginalized by public opinion, because is harmful. A consumer who can no longer avoid the behaviour against the law becomes problematic for the society even before his diagnosis care. The way out of this vicious cycle involves a change where the social environment is important, but too often falls exclusively to the environment where the family also happens that the problematic users seek help outside.

Household savings are affected not only by drug use but also by the costs associated with social exclusion. It's not out of place, therefore, the request that the government provides support to families in order to address a problem that has economic origin, as well as social and cultural ones. Returns for the community are the avoided costs of justice, health, public policy and the loss of human capital¹⁵.



15 Further reference in a research from UK: UKDPC (2009), Supporting the Supporters: Families of drug misuses, November, (<http://www.ukdpc.org.uk/reports.shtml>)

Graphic 7



4. Economic and social costs of the drug market.

In the previous chapter we paid attention to the characteristics of the drug market and drug consumers, now we step to the analysis of the direct consequences of the working of the drug market, which will be analysed separately.

Generally, indeed, some economic and social costs connected with the proliferation of the drug market contribute to increase the negative effects of the production, trafficking and consumption of illicit drugs on the economy and society. Particularly, some of them deserve to be highlighted and analysis can be deepened: the distortion of the public expenditure connected with the security and the repression of the drug market and connected with the health system; the effects of drug consumption in term of the reduction of human capital.

4.1 Spending on security

The struggle against production, trafficking and consumption of illicit drugs involves high expenditures connected with investigation, intervention and prosecution of criminality. Further than the expenditures directly linked to the drug market, expenditures indirectly connected to the dynamics of the drug market can arise. Indeed, several criminal behaviours that are related to the consumption of illicit drugs involve additional costs for security.

The expenditures for the law enforcement were evaluated in 2.8 billion euros for the year 2006 (Ministry of Social Solidarity, Report cited above). 2.5 in 2007, no indication in the Report for 2008

Particularly, the micro-criminality connected with the funding of the consumption and with the eventual anti-social behaviours of

drug consumers represent an economic cost¹⁶ that has to be added to the cost directly connected with the contrast of the drug market.

In addition to petty crime the loss of human dignity is to be considered when the consumption is financed by prostitution. The widest survey in this field was carried out in Norway (1996). The respondents admitted that their costs were covered by: work (only 3.6%); aid (6.1%); theft (18.8%); drug selling (52.6%), prostitution (17.2%), other (1.7%). Our investigations have already said that among the students there are illegal activities and in the case of residents in the community 31% had never worked, 35% had sold drugs and 55% had stolen and practiced other illegal activities.

4.2 Health expenditures

The expenditures brought by the public health care system in order to assist and nurse drug consumers can be referred to two types of phenomena. On one hand, urgencies connected with accidents and illnesses caused by drug consumption. On the other hand, therapeutic and harm reduction treatments. The consumption of illicit drugs, therefore, represents a direct economic cost for the public health care system. This cost, furthermore, will result in higher the less controlled market and less efficient the prevention and informative policies will be.

The expenditures of public health care were evaluated in 1.7 billion euros for the year 2006 (Ministry of Social Solidarity, Report cited above). 1.8 in 2007, no data comparable to earlier in the Report for 2008.

4.3 Reduction of human capital

Marginalised economic and social costs are often connected to the loss of human capital caused by illicit drugs abuse. Such kind of cost is by definition hard to be quantified, but, differently

16 The tragedy, that lives a problematic drug user, is starkly shown in the data and in the analysis made by several interviews on people who use drugs, particularly heroin daily. Roddy, J., Grenwald, M. (2009), *An Economic Analysis of Income and Expenditures by Heroin-using Research Volunteers, Substance Use and Misuse*, 44.

We also point out the most extensive survey published on the topic: Bretteville-Jensen AL, Sutton, M. (1996), *The income-generating behaviour of injecting drug users in Oslo, Addiction*, 91, n.1.

from those analyzed so far, has long run effects on the productivity of the economic system. Indeed, the abuse of illicit drugs can involve not only a temporary reduction of the productivity of consumers, but also an irreversible decreasing of the physical and psychological capabilities.

Furthermore, another part of the problem is represented by the fact that after the treatment often the ex-addicts have high probabilities of falling back to drug consumption and to dying of overdose. This problem has been highlighted also by a study carried out by VEdeTTE¹⁷, which stressed that death of over-dose is more probable within the 60 days after the interruption of the treatment.

In 2005, in Rome, 7% of people deaths aged 15 to 64 years is attributable to substance abuse, 2.6% of these directly to the heroin use.

C. Sorge (Department of Epidemiology, ASL RME), Drug use in Lazio, presentation in the workshop, Rome 26th February, 2009, www.illicitdrugmarket.net

4.4 Economic and social costs: some preliminary remarks.

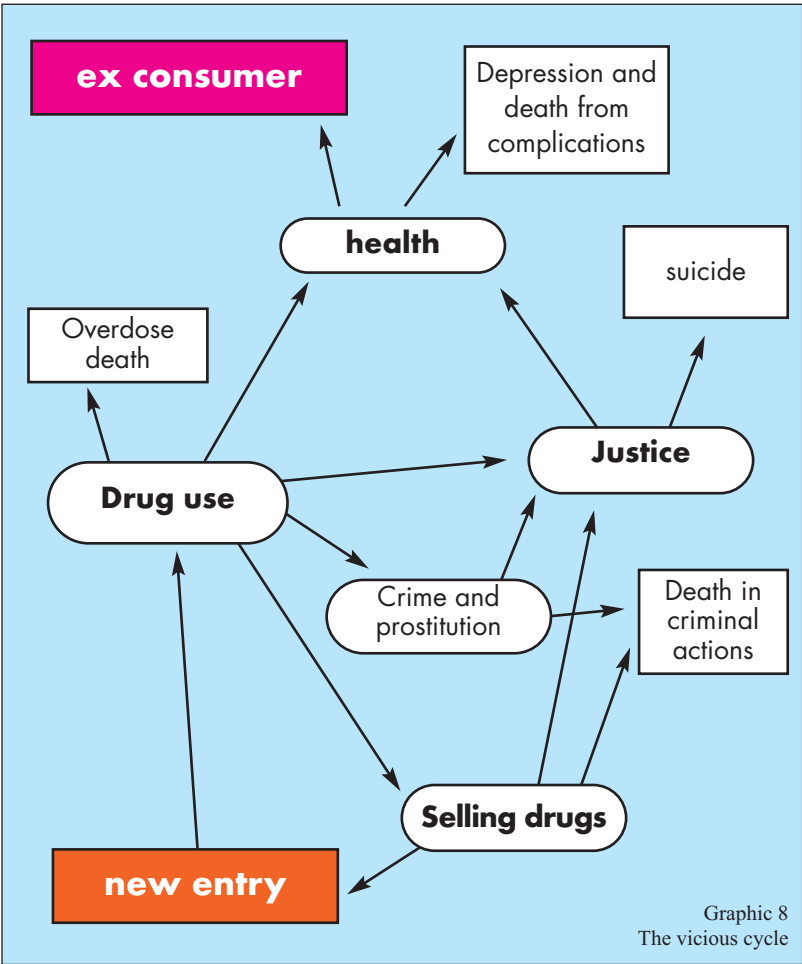
As we indicated so far, relevant economic and social costs are connected to the drug market work. The distortion of the public expenditures (security and health care system) and the loss of human capital represent additional costs for the economic and social systems, which have to be added to those stressed in the first section of this work.

Concerning the activities connected to the drug market, the expenditures for the health care system and the loss of human

¹⁷ Results were observed for a cohort of 10,376 cases with an average age of 31 years. Data were collected from 115 Ser.T. 1998-2001. The other likely detected after treatment were 10 per thousand between 31 and 60 days, 7 per thousand after 60 days.

The study also noted a risk of death from all causes compared with persons of the same age equal to 4 times higher for patients treated at Ser.T. or therapeutic communities and 20 times higher for people recovering from treatment (Ministry of Social Solidarity (2007), Annual Report to Parliament on Drug Addiction in Italy - 2006, Rome, July 2007)

capital seem to have more impact on the social and economic systems. Particularly, the second matter has been neglected and under-analysed for a long time. Now, based on the new wave of the economic theory approaches, which dedicated increasing attention to the role of human capital in determining the developmental path of the economic system, the problem linked to the negative effects of the drug market on the formation and development of human capital could be relevant not only in the short run, but in the long one.



Official statistics of deaths related to drug use depend on the detection systems, in Italy only deaths of overdose are officially considered to be related to drug use and are about 550 per year. Also without consideration of other possibilities of death, it seems that drug-related mortality in Italy is 7 times lower than those of Luxembourg and 6 times lower than those of Denmark and Norway. On the contrary it appears to be about 7 times higher than those of Turkey¹⁸.

¹⁸ EMCDDA (2009) work cited before.

5. *Other issues about strategies*

The existence and development of large drug market involve high social and economic costs, in terms of both the distortion in the efficient utilisation of public and private resources, and, probably less evident but destined to have long run consequences, the reduced development of an efficient institutional arrangement aimed at pushing innovation and knowledge accumulation.

Those negative effects and the moral opposition toward the use and abuse of illicit drugs have pushed national governments to set more or less rigid contrast strategies. The international dimension of the drug market, furthermore, has involved a strong effort toward international coordination of strategies. The effort notwithstanding, the turn-over connected to the drug market, as well as the quantity consumed and trafficked, did not show a sensible reduction.

Obviously growth and continuous evolution of the drug market is partly caused by the irreversible propensity of human beings toward the pleasure of the alteration of their own perceptions and thoughts. However, some lacks in the policies against drugs have contributed to make every strategy practically fruitless.

Particularly, these policies failed to interfere into some structural element of modern economic systems that represent important issues in the fight against production, trafficking and consumption of illicit drugs.

Not to mention the additional future market developments related to electronic commerce and the increasing prevalence of illegal drugs that are a substitute for drugs.

The sale of hallucinogenic mushrooms in the smart shops and stalls in the Netherlands and the United Kingdom seems to have had an important role in promoting consumption. These retailers have easy access to hallucinogenic mushrooms in the late 90's and early 2000. In a recent search on the Internet 39 online stores have been identified, they deal magic mushrooms. Many of these outlets are turning to an international clientele with a service in multiple languages and the possibility of international shipping ...

The number of fatal and non-fatal emergencies related to the use of hallucinogenic mushrooms is quite low. The consumption of hallucinogenic mushrooms is more commonly linked to the risk for mental health and a significant percentage of those who use it have experienced panic attacks ...

Since 2001, six EU countries have introduced stricter rules on mushrooms to fight rampant consumption. The new legislation could have affected the availability of mushrooms and the total volume of sales on the Internet.

However, it was found that online retailers have responded by switching to alternatives under control, in some cases perhaps even more harmful (<http://www.emcdda.europa.eu/html.cfm/index36330EN.html>).

"Changing the law has affected the availability of hallucinogenic mushrooms and the turnover of sales on the Internet. An analysis of various products sold online has shown that since the ban came into force on hallucinogenic mushrooms, retailers in the UK have begun to shift sales on legal but more toxic alternatives, such as 'ovolaccio' or the Amanita muscaria, or the Amanita pantherina, very similar."

In the next part of this section we analyse four issues that are to be considered as fundamental in explaining the substantial failure of the current direction of the struggle strategies: the prohibitionism and the criminalization of consumers, principally for light drugs; the unsatisfactory working and the weakness of the means against money laundering activities, from both a financial (interconnection of markets and deregulation) and entrepreneurial (anti-criminal-entrepreneurship laws) perspective; the lack of a strong international coordination of contrast strategies.

5.1 *Prohibition*

The economic theory has developed a wide stream of literature on the (often perverse) effects of prohibitionism. Generally, the prohibitionism has proved to impose relevant costs for the society (emergence of illegal markets, new and remunerative activities for criminal organizations, widening of the overlapping zone with the legal economy, costs linked to repression and security) without contextually having achieved an adequate flow of benefits as counterparts.

Prohibition seems to be a moral intervention of the State and tend to increase the above mentioned costs because it not only widens the area of repression, and, therefore, increases the necessary resources in order to contrast the phenomenon, but also tends to distort the orientation of the policies themselves. Indeed, it is largely accepted that prohibition shifts the repressive intervention toward the low part of the value-chain, which is toward the less protected and involved actors, without interfering into the dynamics of the true criminality. Thus, not only costs increase, but also the expenditures become less effective from the point of view of the struggle against to high level criminal organization, which discharge costs and risks on marginal actors.

If prohibitionism, though being inefficient from the economic point of view has some “moral” justification, the criminalisation of consumers is economically wrong, strategically suicidal and morally questionable. Indeed, it tends to discharge the weight on more fragile operators, who are often victims of themselves and of criminal organizations, rather than focusing attention on more relevant actors and transactions.

5.2 *Anti-laundering policies.*

The possibility to utilise illicit profits to accumulate legal resources is an essential condition to the survival and development

of criminality. Indeed, if illicit profit re-investing was not possible, criminal organizations would have been an economic agent not able to benefit from its own activity and, therefore, would be less pushed to operate in the illegal sector.

Therefore money laundering represent a vital activity for criminal organizations, principally for criminals operating in sectors, such as the production and trafficking of illicit drugs, in which the flow of profits is relevant. As it was mentioned in the previous section of this volume, money laundering can be carried out by utilising the financial markets or by operating in the real economy by means of the control on formally legal firms.

In both contexts, the involved institutions evolutionary path is adverse to the possibility of controlling and contrasting the phenomenon of money laundering. Indeed, the less incisive presence and institutions control power having the role of coordinating financial and economic activities makes fruitless every legislative intervention and allow criminal organization to benefit from a wide freedom of movement in the legal economy.

5.3 Money laundering through financial markets

In the last decades we witnessed to exponential development of financial markets, huge increase of the operators and forms of transactions and, above all, strong deregulation and reduction of the national and international institutions control power. In this context, in which structurally border-line entities operate (fiscal haven, off-shore entity), to individuate and prosecute suspect transactions and laundering activities is extremely difficult.

5.4 Discipline anti-criminal enterprise

The laundering of illicit profits by means of the setting up and/or the acquisition of legal firms represent a fundamental strat-

egy for criminal organizations. In this context, anti-laundering strategies clashes with two main problems. On one hand, there is a difficulty to trace-back the identity of the “real” entrepreneurs. On the other hand, principally in productive situations characterised by a large presence of PME, the issues connected to the possibility of an effective control activity.

From an international perspective, those difficulties widen because of the strong legislative asymmetries and because of the different political orientations among Countries, which cause strong distortions and give criminal organization the space to carry out their strategies.

5.5 International coordination

The capability of international strategies coordination represents an essential goal in the policy orientation to struggle against criminal organizations. Indeed, the strong interconnections of markets increase the possibility to carry out international transactions, thus augmenting the easiness with which economic agents can exploit the eventual legislative and institutional asymmetries among different Countries.

Such phenomenon, widely traced concerning the legal economy (for instance, job market and pollution), has some relevance also concerning the illegal economy. Indeed, in the context of both laundering and real activities, criminal organizations widely exploit such asymmetries, so that productive processes and “firm strategies” are often arranged according to the existence and the evolution of the distortions. In the sector of the production and trafficking of illicit drugs, such phenomenon is extremely visible concerning both trade-routes and localisation of various phases of the production.

6. *Scenarios beyond criticism.*

So far we analysed the consequences of the presence of the illegal economy, presence inside the legal economy in terms of direct and indirect costs. Particularly, by focusing on the drug market, we stressed some peculiar elements in terms of both their economic and social consequences and the issues connected to the struggle strategies.

In this section we briefly illustrate some policy orientation which, by contributing to reduce the impact of the particular issues related to struggle strategies, should involve a reduction in the negative impact of the existence of the drug market and its growth rate slowdown.

6.1 *Decriminalisation of consumption*

The criminalisation of the consumption of illicit drugs is a controversial aspect of law enforcement strategies. It is applied in several Countries, even though with different degree of rigidity, it can involve perverse results from the point of view of the distribution of the risk within the value chain of the drug market and from the perspective of the social and economic marginalisation of consumers.

The search for an optimal separation threshold between consumption and dealing, between supply and demand is important because it should have the effect of redistributing the risk among the actors of the market. Indeed, the risk connected to the possession and the transactions would be redistributed toward the agents who operate in the high levels of the value-chain, increasing the seizures of higher amount of drugs and contributing to make less easy and more costly the activity of criminal organizations, thus reducing the supply. From the point of view of the economic

mechanisms, the decriminalisation should involve an increase of the price of illicit drugs and could therefore contribute to the demand reduction, at least for occasional and non-problematic users.

Furthermore, the possibility to legally separate supplier and consumers allows authorities to selectively intervene on the demand by means of programs aimed to contrast the consumption and to the rehabilitation and re-integration of consumers. Thus strengthening the eventual positive effects caused by the raise of prices.

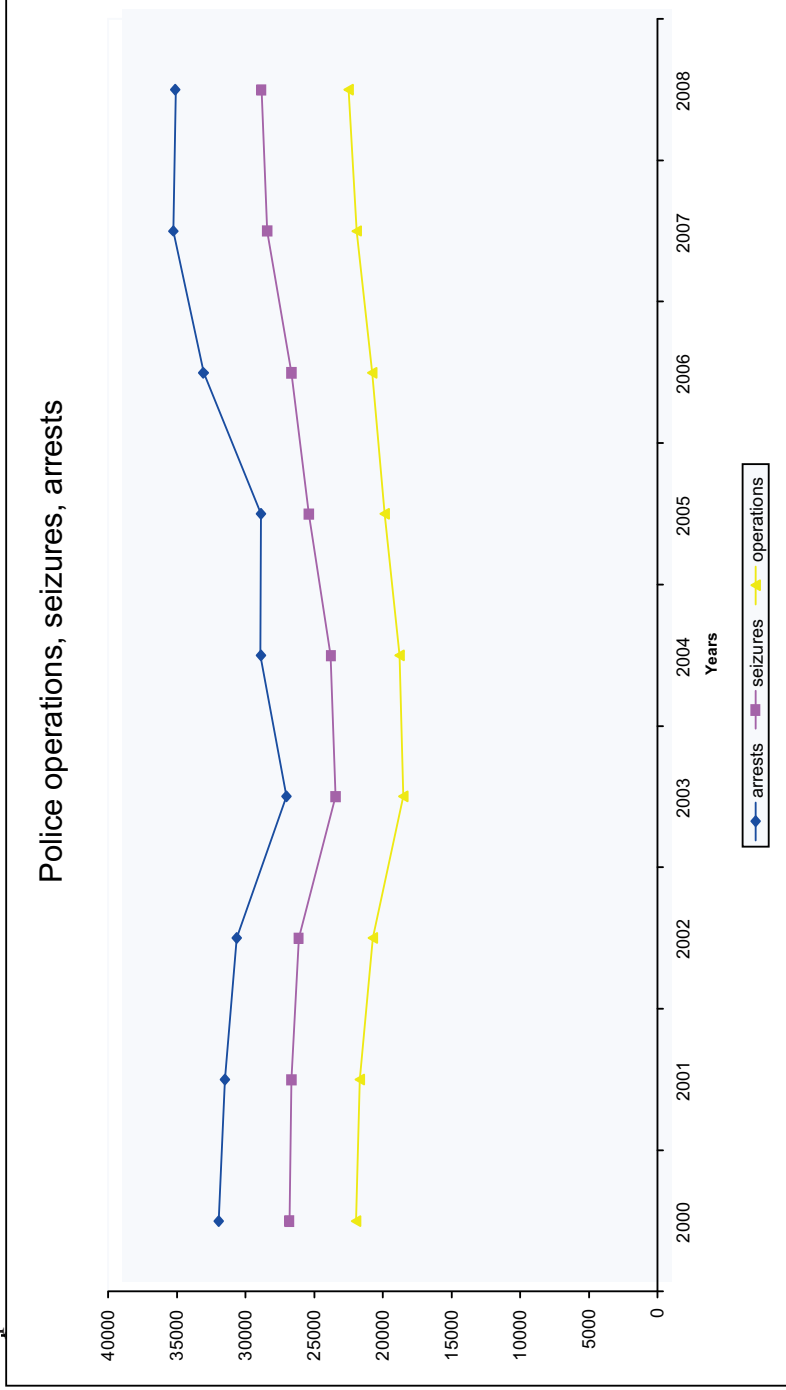
The police may not have great success fighting against the huge number of small drug dealers and traffickers in drugs (estimates indicate, in fact, a number of 250,000 - 400,000 people), the objective limits also affect the prisons and courts. These overcrowded prisons and courts are completely unable to meet regulatory law on traffickers, since they can not stop them (graphic 9).

6.2 Harm reduction, rehabilitation and re-integration.

Re-integration and harm reduction programs are even more considered as efficient interventions within the strategies finalised to the rehabilitation of drug addicts and problematic users, and to the reduction in the demand of illicit drugs. Mainly at the European level, a strategy aimed at managing the problem of the consumption of illicit drugs and at re-inserting the users in the social and economic life is seen as the main pillar of struggle against the drug market.

Beyond the effects of those strategies focused on the reduction in illicit drugs utilization, these types of intervention could contribute to make the costs connected to the loss of human capital less relevant. Indeed, the possibility to build-up health, social and formative structures able to lead problematic users and drug addicts through the recovery of their own social and economic life reducing health care and juridical expenditures and recovering human capital for the economic and social activities.

Graphic 9:



6.3 Regulation and coordination

The regulation of the international transactions and trans-national activities within a strongly connected and internationalized system involve the focus on the need for international coordination. We have seen as the struggle against criminal organization is strongly connected not only to the capability of impeding the illicit transactions, but also to the capability of intervening on the “grey” activities that allow criminal organizations to launder their illicit profits. In this context, investigative activities can have some results, but they are not able to solve the problem of preventing the activities of criminal organizations. The possibility of controlling commercial and financial transactions plays a fundamental role in the definition of the capability of the legal economic and institutional system to trace and highlight suspect operations.

The efficiency of such control activities strongly depends on the institutional arrangement that rules economic activities and markets functioning. Such rules should permit an efficient monitoring of the transactions and have to contribute to the reduction of the asymmetries that represent a privileged space for the strategies of criminal organizations.

The setting-up of harmonized rules should make less easy the (legal and illegal) activities of criminal organizations and to shift the risk toward the higher position of the value-chain, thus strengthening, in a systemic perspective, the effects achieved through the decriminalisation of the consumption.

7. The simulation of a possible policy.

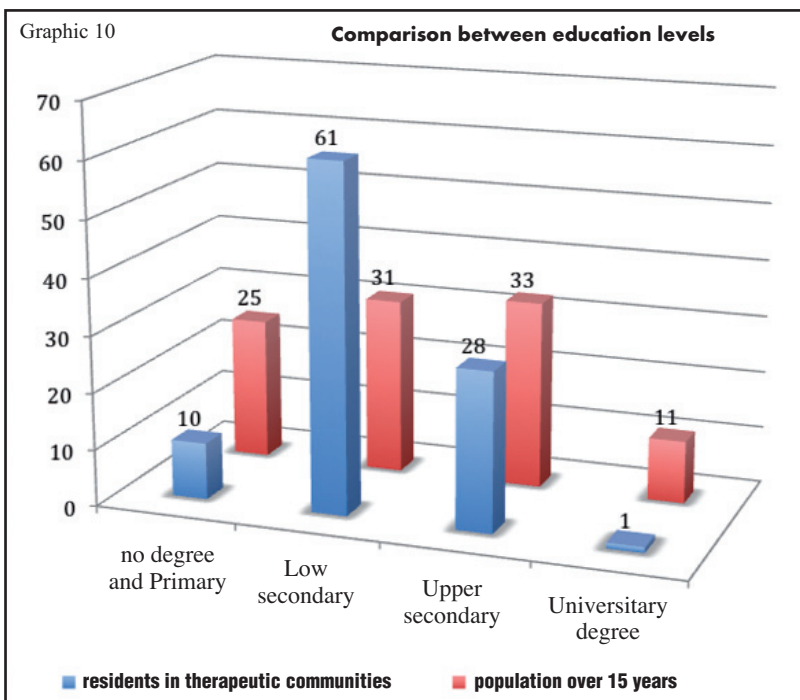
7.1 School and work as tools for prevention

It is important that schools continue further development of their educational role, helping children to solve problems related to growth by means of the culture. As well as rehabilitation programs are very important, the prison should not be a solution for drug users, the rehabilitation and regaining of the legal job are the best solution for the drug users' problem.

Too often prison increases the gap in the community by creating a situation that, combined with the uncomfortable dependence, eventually reduces the chances of recovery from what is considered a condition very close to disease and disability, because the drug use affects the psycho-attitudinal abilities. The residents of therapeutic communities have an education level lower than the average population, if we consider the groups with upper secondary school and university degree. Instead, their education is higher than the average level of the population if we consider the groups with a primary school licence. This indicator in the middle suggests that, while belonging to social groups geared to a lifestyle and higher education, they have lost ground compared to the general population from the secondary school on.

This phenomenon must be countered by giving them a second chance, just reintegration and retraining.

To implement this strategy, the community should enhance solidarity with those people, allowing the establishment of broader financial support, and overcoming the image that people have of drug users. They are driven to greater violence, because either under the influence of drugs or forced they perform degrading and illegal activities since they can not overcome their problems by themselves.



The best tool, as we shall see in the next chapter, would be the introduction of the law for drug users like the one that has been introduced concerning employment rights of disabled people (Bosetti, Gatti 68/1999).

7.2 The first concrete goal: the reduction of problematic drug users.

Problematic drug users are the minority of consumers in Italy, about 500,000 units, but their weight on the drug market is much higher, because all together they reach nearly half the total drug demand. They also are instrument for the drug market development, because for them drug selling is the easiest way to earn money; the sales network can be enlarged without risks for the traffickers, who are less and less involved in the recruitment of new customers for the drug industry, who are also victims of the

fascination of a certain lifestyle based on the amusement and the performances against the sad society or at least “alternative” to it.

On the other hand we have a law enforcement system based on incarceration and even when alternative sanctions are adopted instead of detention, for example treatment in therapeutic communities, the reintegration in the productive economy still remains very difficult and, by the way, it is too easy to fall again in the vicious cycle of the drug industry and in the dependence.

The severe reduction of the drug market seems really possible by increasing the effectiveness of alternative sanctions and giving the true opportunity for the rehabilitation of problematic users in the legal work. Without such large number of street sellers the drug industry will have not anymore so many opportunities for growth, in terms of net sales and in terms of new costumers, now induced by the easy opportunities offered by the street sellers.

Even the social security will improve through the reduction of petty crimes and other drug related problems and crimes.

The financial tools can come from a different allocation of expenditure and therefore without variation of the public expenditure or adjunctive cost for the community.

Expenditure for the law enforcement is a little bit below 3 billion € per year, if we were to provide work grants (to assume an existing instrument) up to 45,000 euros to 20,000 drug addicts in prison here today, we could have saved whereas expenditures for the detention of each detainee, which is certainly higher, taking into account that the Netherlands have rented 500 cells – made free also for their drug policy - for 500 inmates to the Belgian Government for an amount of 60,000 € per year for each inmate¹⁹.

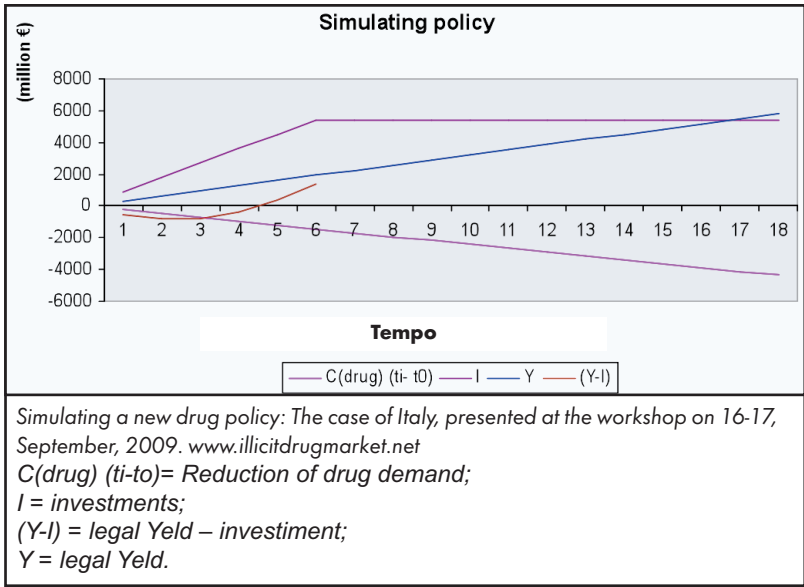
There would be an immediate potential savings for the Public Administration of about 300 million euros.

19 This news appeared on the press last year on May. <http://www.flanderstoday.eu/content/belgian-prisoners-move-dutch-jail>.

The value of 45,000 euro also stems from the consideration that at least one third of the justice expenditures, about 900 million Euros, should be considered among the variable costs and thus could be reduced by the absence of prisoners²⁰.

Moreover this policy aims to give a new perspective to the problematic drug user and then to remove him from the vicious cycle of dependence. Such a project should be constructed with the collaboration of entrepreneurship and public institutions through the establishment of programs funded by financial incentives made available for a list of business sectors that could recruit ex-problematic users. Of course, in this case the incentives could be much lower than 45,000 euros earmarked for work grants.

It is possible to create a revolving fund, which for the first few years (or periods of financial plan) receives a governmental grant and in the following years it can be refinanced by a form of return on capital (once they have started businesses or stabi-



20 Further reading: Rossi C. and Ricci R. (2009). Modelling and estimating illicit drug market as a tool to evaluate drug policy: the case of Italy. 3rd Annual Conference of the International Society for the Study of Drug Policy, (Vienna, 2-3 March 2009)

lized workers) similar for the contributions to the social solidarity funds that have already been tested for the management of corporate restructuring.

Simulating the existence of a revolving fund for cooperative work of problem-oriented reintegration (reintegration as an alternative measure to imprisonment, along with a period of detoxification) shows that the fund generates benefits for the economy beyond the costs already incurred after the 6th period of activity.

Removing 20,000 people a year for 5 years out of the vicious cycle of the drug industry means reduction of drug demand of over 1 billion and at least 400 million for minor criminal activity, with obvious effects on the economic power of criminal industry and opportunities for the development of the legal economy. The revolving fund is able to return all capital to 18th period with 360,000 people reinstated. The difference between year and period lies in the fact that if the virtuous cycle is grafted, it could also be greatly accelerated, as at the beginning it could slowly start.

The assessment of the feasibility of such a policy can not be limited to the effects of short-term or without considering the benefits to the economy. Among these are to be considered lower costs for health care and the lower financial losses relating to the reduction of petty crime and mortality. The sum of 45,000 euros, as work grant, is equivalent to the annual salary of a professional middle level. There is enough room for a policy of launching innovative projects (green economy, tourism, public and social services) or incentives for the recruitment of professionals for specific businesses and sector.

8. *Analysis and proposal for legislation.*

8.1 *Limitations in scope.*

Imagining a sequence of action in the fight against drugs, this analysis fits into one that represents the last major step: the phase of rehabilitation and reintegration into society of individuals who were problem drug users.

Left to a subsequent study phases while very important in prevention, treatment or appearance of penalties, but proceed with the legislative base, and its possible evolution, which deals with the most delicate moment of the recovery of those who followed a treatment and that his reintegration into society through the reconstruction of economic independence and social acceptance.

Needless to deny that one of the main tools of rehabilitation and reintegration into society is the work. This was recently highlighted by the "English Policy Commission on Drugs (UKDPC)", which has produced an interesting report that addresses this issue by analyzing possible strategies for the employment of people rehabilitated (e.g. incentives in favour of employers, measures of legal protection for the worker). This is the report "Working Towards Recovery: getting problem drug users into jobs" that even if contextualized in the United Kingdom provides important insights that can be safely transported in our state. Point indisputable fact is that the employment participation is a key component for recovery and reintegration into society by reducing the risk of relapse.

8.2. *Budget for social inclusion of drug addicts in treatment.*

In Italy some sign of action in support of former drug addicts in the difficult phase of rehabilitation work there was.

Interesting in this regard is the national project, sponsored

by the Ministry of Social Solidarity, Ministry of the Italian government in 2008 merged the Ministry of Labour, Health and Social Policy, called the "Budget for social inclusion of people in drug treatment, or to attract and treatment with high exclusion, "which is designed to support pathways to socio-health integration in favour of drug addicts at high risk of exclusion, in order to promote individual empowerment, active participation in drug treatment and rehabilitation into the society.

The project was submitted in July of 2008 and various regions of Italy have joined (e.g. Marche, Puglia and Tuscany), providing the specific intervention.

The Ministry has provided 6 million Euro, to be distributed among the participating regions, based on users subscribed to addiction.

The first intervention was busy metropolitan area of Naples, with the activation of 100 bags work, each worth 4800 Euro per year, for many addicts recover.

A special structure, called the Steering Group was established at the Regional Department for Social Policies to implement the planned program. They include, among others, representatives of the ASL, the Sert, host communities, social cooperatives.

The Region of Tuscany, who has been given a coordinating role, has repeatedly emphasized the socio-therapeutic, which includes all those actions of approaching the world of training and employment for people, who that stage of the treatment program would have greater difficulty in finding employment. This type of activity has essentially rehabilitative-therapeutic purposes with time schedule based on an individual project.

Moreover, this activity is to ensure compliance with the user and possible acquisition of the prerequisites for such work and relationships. It is very important, therefore, as may be preparatory to subsequent actual job placement courses or vocational training.

An interesting hypothesis is that this activity can be organized in protected structures that mimic the company with accompanying measures and activities include tutoring and working.

The project would thus seem to identify the instruments and how best to enable both round care of disadvantaged people through a journey aimed at increasing independence, is to put the services in charge of public or private, in the best condition order to implement the processes of social inclusion of drug addicts with a strong social marginality.

8.3. Birth and development on a regional basis of social cooperatives, Law 8 November 1991.

The legislature has placed the issue of building a regulatory structure that was capable of responding to the serious plight of employment for disadvantaged people and has done favouring cooperative tool that seems to be the most effective in combining work and solidarity for social enterprise, in fact, is not enough just work but you must work together to create a sense of belonging and sharing a common project.

Hence the birth of social cooperatives, governed by Law 8 November 1991, n.381, which followed different rules for implementing the Regions, under Article .9 law 381/91 (See annex).

Social cooperatives, pursuant to Article 1 of said law, have a purpose which is to "pursue the general interest of the community to promote human and social integration of citizens" through two different paths:

- * Managing social and health services and educational.
- * Conducting various activities aimed at providing employment for disadvantaged people.

Set a goal and strategies in general, in paragraph 1 to Article 5 identifies the users of the legislation, which are found in "disadvantaged" and among these are nominated drug (which the Italian law also elsewhere protection at work: for example, is provided for the right to the preservation of jobs for the duration of rehabilitation treatment (up to a maximum of 3 years) - and for family members of persons addicted to drugs, there is a fixed period of leave (not exceeding 3 months) to participate in counselling).

Law No 381 of 1991, compared to other provisions, howe-

ver, is particularly important because it provides for a deduction for contributions of type B social cooperatives engaged in the employment of disadvantaged people in fact, which include drug addicts if they still held or if they are still benefit from alternatives to prison.

Social cooperatives of type B, in particular, are characterized by the presence of a share of at least 30% of disadvantaged (physically disabled, mental and sensory, drug addicts, alcoholics, etc.).

Among these, to receive specific benefits are:

Fra queste, a beneficiare di particolari agevolazioni sono:

- new cooperatives formed to the exclusion of disadvantaged members (if unqualified age and residency required) and membership volunteers, a majority - the number and allocation - young people between 18 and 35 years residing in the territories facilitated on 1 January 2000 or within 6 months preceding the date of receipt of the application;
- the existing cooperation and operational formed, with the exception of members of disadvantaged and volunteer members, facilitated by people living in the territories on 1 January 2000 or within 6 months preceding the date of receipt.

Funded projects must:

1. provide for investment of up to 258,000 Euros for the development and strengthening of cooperation already started;
2. provide for investment of up to 516,000 Euros in new cooperatives;
3. address the following areas (subject to certain specific limitations established by legislation; Community): production of goods in industry and handicrafts, production, processing and marketing of agricultural products, providing services to businesses.

Excluded are services aimed to persons, government, social and health activities and initiatives in the areas of trade and tourism.

The facilities consist of:

- * Funding for investment (grants and subsidized loans) within the limits set by the EU;
- * grants, within the limits set by the European Union, for operating expenses incurred in the first three years of activity (excluding agricultural projects);
- * funding for training and / or technical assistance, within limits.

8.4. The importance of social enterprise.

A subsequent step was to have arranged a special scheme for social enterprise (**Legislative Decree 24 March 2006, n.155**) which identifies all those private organizations whose activity is stable and the main economic activity organized in direct achieve objectives of general interest (art. 1, paragraph 1).

Social enterprises must maintain objective of general interest that are favoured by the legislature in terms statutory with the possibility of being able to organize any form of private organizations and any company with the possibility of forming a group. It is important that this kind of business has never as an end or main purpose of profit. Can not be considered social enterprises, public authorities or those providing services and goods only to members.

Importantly, paragraph 2 of Article 2 of Decree Law 24 March 2006, n.155, which specifies that independently from the conduct of business in the areas referred to in paragraph 1 may acquire the status of social enterprise organizations engaged in business with a view into the labour of persons who are disadvantaged and disabled workers.

8.5 Global Care.

In our view, what is missing and to which he should instead seek is a global care of the subject by the state, who accompanied him from the stage of therapy than the replacement, with a multidisciplinary approach and integrated (capacity to provide a connection and coordination between the various sectors involved: health service, criminal and social).

This should be focussed on which attention is that the cost (as we have already seen) is much lower than what the State would support if the subject remains in its phase dependence.

In recent years, the Council of Europe, within the activities of the Pompidou Group, has focused its attention on the development of indicators of "social cost", i.e. the total cost to society of addiction. Our country, from this point of view, it is still in a state cultural and operational needs for growth.

To get positive practical effects, one must consider the possibility of financial support former addicts and their families. The recovery of the subject and his rehabilitation may have a considerable cost, difficult to sustain without state support.

8.6 Importance of the regional assistance.

Actually this road in the past has been covered on a regional basis. Interestingly, such has been the experience of the Liguria Region and the Region of Abruzzo.

In **2003**, in fact, with **resolution of the Regional Council (DGR) 1821, 23/12/2003 "Addresses for regional planning of activities for the dysfunctional families, personal and social"** the region of Liguria has earmarked a total funding of € 2,000,000 to support actions to combat drug addiction. Again in **2004, with DGR 1592 of 17/12/2004**, have been paid € 1,200,000 for the same purpose. These funds were earmarked for actions related to social inclusion and employment for addicts, preventative measures at the school and educational prevention territorial and on a residual action of a socio - health. In 2004, the Region has urged the implementing actors to consider the actions supported in the previous year, continuing where possible and appropriate to the planning already financed.

In both years the majority of the funding went to support social reintegration and rehabilitation interventions, followed by those of assistance to families. Since those funds are part of the Regional Social Fund, is funding the Sert, is funding to activities of a health or social and health care (e.g. assistance to drug users to jail) ceased during the biennium.

32% of projects submitted and funded in 2003 belongs to the sphere of social and occupational reintegration. The purpose of re-socialization of the subject, through its rapprochement and its reintegration into the world of work, is in fact now been assessed for priority by all those involved in planning.

Most of the projects that belong to this area is aimed at persons who are receiving rehabilitation in public and private with drug problems or alcohol addiction and provides an individualized course of social rehabilitation and work through the identification of strategies and measures to support and targeted employment.

The **grants-job** have privileged backgrounds where there was direct contact with the environment and for this reason there has been were the inclusion of subjects addicts and former addicts in farms, where activities are carried out renovation, restoration of farmland and small production. Projects include tutoring and educational support activities on the subjects included in the stock market work.

Relatively to Abruzzo, *the L.R. n ° 55/93 "Urgent action needed on active employment policies in the presence of the job crisis"* art. 2, provides incentives for hiring for an indefinite period, of persons in difficulty finding employment, among others, ex-prisoners or detainees admitted to the performance of external work, children subjected to administrative actions by the juvenile court, former drug addicts who have in progress or already carried out, treatment programs for recovery and social rehabilitation, the DPR 309/90, and other subjects deemed disadvantaged.

In the field was very important and it is the role of the regions by virtue of regulations that have attributed a shift in the years of expertise in these areas by the state to local governments. Here are some examples:

- * **Decree of the President of the Council of Ministers, April 1, 1996** (*Transfer to the regions of 75% of the National Fund for the fight against drugs – G.U. 27.8.1996, n. 200*);
- * **Measure January 21, 1999** (*Agreement State - Regions*)

for the "Reorganization of the system of care for addicts - G.U. 15.3.1999, 61) It sets goals and defines the powers for the organization of the system of care for addicts.

- * **Decree of June 1, 1999** *transfer to the regions and central governments of the shares of National Fund for the fight against drugs for the years 1997, 1998, 1999 to fund three-year projects for prevention, recovery and rehabilitation of drug addicts* (G.U. of 1.10.1999, n. 231)
- * **Measure August 5, 1999** *agreement between the State Act Scheme - regions on a proposal of the Ministers of Health and Social Solidarity, entitled "Determination of the minimum standard for authorizing the operation and for the accreditation of private assistance to people dependent on substances of abuse"*(G.U. of 1.10.1999, No. 231)
- * **Decree of the President of the Council of Ministers of 10 September 1999.** *Act for guidance and coordination to the regions on the general criteria for evaluating and financing projects aimed at prevention and the recovery of Addiction* (G.U. of 19.10.1999, No 246).

8.7 Adaptability to the topic of drug addiction of the Law 12 March 1999, no 68 "Standards for the right to work of disabled people."

The Italian legislation is deficient in a systematic and comprehensive framework to deal with all aspects of the recovery of problem drug users (from the therapy phase to that of the replacement, with a multidisciplinary approach and integrated, able, that is to provide a link and coordination between the various sectors involved, health, criminal and social).

We think you might resume the consistency and completeness of the rules on disability provided for by **Law 12 March 1999, no 68 "Standards for the right to employment of disabled people"** and to adapt it to our theme.

We do not deny that a parallelism between disability and drug scares, because of intrinsic differences between the two states. Problem use of drugs, in fact, is always viewed with

some suspicion, because his state is detected as the result of a choice. This approach, however, ignores the fact that the state of addiction is still an expression of discomfort and result of situations very similar to disability. Makes, in fact, unable to do things that are simple for people with disabilities, causing high social exclusion.

Law 12 March 1999 No 68 "*Standards for the right to employment of disabled people*", was well structured and can provide useful insights for the preparation of a text on social inclusion in favour of drug addicts at high risk of exclusion, to promote 'Individual empowerment, active participation in drug treatment and rehabilitation in the social fabric.

OBJECTIVE: This law has as main objective to promote the inclusion and integration of disabled people working in the world of work through support services and targeted employment. The above purpose is easily adaptable to the situation of providing a real reintegration of former drug addicts with the subject "promoting inclusion and integration of those working in the world of work through support services and targeted employment."

BENEFICIARIES: The law lists the categories of persons with disabilities to which the same applies. This is a specific aspect of disability exist in various types and grades, this section of the Act defines the target of the rule in this case would necessarily be subject to ex-addicts. This must have completed the course of therapy and have demonstrated a real commitment and interest in the next step in the rehabilitation and reintegration into society and work.

RULES OF APPLICATION: Central point of the legislation is that of "targeted employment" for which means that series of technical tools and support that enable a proper assessment of people with disabilities in their work abilities and include them in the right place, through analysis of jobs, forms of support, positive actions and solutions to problems associated with the environments, tools and interpersonal relations on the everyday places of work and report. This part is fully adaptable to a law on reintegration of former drug users through the integration into

the world of work as the targeted employment is not only critical but it could also be much easier for the group of former drug users through the identification of capacity utilization of each.

8.8 Possible developments and proposals

A bill should include three phases:

1. **Training.** The reintegration to work should include training. This phase can be useful in identifying the capacity of each person and then allowing to meet the above mentioned employment targets.
2. **Return "protected or low-threshold drug users"** to work as envisaged in the "Budget for social inclusion of drug addicts in treatment" would be needed, with appropriate forms of tutoring, putting former drug addicts in working situation, in social cooperatives and adapting the capacity of each person to different tasks. This second phase would be a preparation for the third involving a return to a proper work.
3. **Return to real work.** Even at this stage the employment target and the provision of posts for disadvantaged people would allow re-integration of former drug addicts in the world of work. Those who have a successful trial should have a right to work, in order to overcome the double barrier represented by its individual discomfort and the prejudices of employers and employees.

If these three steps are to be applied in sequence to the most serious cases, it is possible that the program can have several applications for the drug users as alternative programs within the criminal justice system instead of prison.

In other cases, a tool like the work grants, should be seen in an innovative and flexible way given to the participants to enable to start work or for the three phases of training, apprenticeships and permanent placement.

However the suggested proposal concerns a stronger interven-

tion in spite of resources put in place for the companies involved in the current scheme that was rare, with limited resources.

We suggest a shift of 900 million euros a year from the budget for Justice towards funding of employment programs. The investment would have an impact on:

- Prison reform;
- Plans for expansion of prison facilities that have just been approved.

In terms of financial management in a revolving fund, which controls the allocation of work grants and incentives to businesses, different institutional and social partners are concerned with a regulation that would lead to a better organization in the galaxy of initiatives and existing programs dealing with the treatment of addicts.

In this way the revolving fund would be also an adjunctive tool for public health care and for the establishment of programs - not only in therapeutic terms -, which would target effective reintegration into productive society, and the monitoring of recovery.

APPENDIX 1

Poly-consumption in the pilot surveys carried out.

The pilot surveys conducted in 2009 (1200 respondents among high school students and 100 among the residents of Therapeutic Communities) show that poly-consumption is widespread among the majority of consumers and that cocaine is much more used than heroin.

The following table combines together the responses of students and community residents to questions about frequency of consumption.

frequency	substances	school	community
More than 20 times in a month	Cannabis only	12%	0%
	Cannabis, heroin e cocaine	8%	12%
	cannabis e cocaine	2%	23%
	cannabis and heroin	0%	14%
	Eroina only	0%	11%
	Heroin e cocaine	0%	31%
	Cocaine only	2%	8%
	Other drugs only (mushrooms e amphetamines)	1%	2%
Regular (more than 2 times less than 20 times in a month)	Cannabis only	32%	
	Cannabis, heroin e cocaine	2%	
	cannabis e cocaine	2%	
	cannabis ed eroina	1%	
	Eroina only	0%	
	Cocaine only	0%	
	Heroin e cocaine	0%	
	Other drugs only (mushrooms e amphetamines)	3%	
Occasional (up to 2 times a month)	Cannabis only	34%	
	Cannabis, heroin e cocaine	1%	
	cannabis and heroin	0%	
	Eroina only	0%	
	Cocaine only	0%	
	Heroin e cocaine	1%	
Totale		100%	100%

The responses of community residents deals with consumption during the previous months before undergoing therapy.

APPENDIX 2

The truncated Poisson process and the method of estimation

The Poisson model with multiple catches in a single system is based on some fundamental assumptions:

1. the capture process, over time during the observation period, takes place with constant "intensity" λ not too high on the individual units of the population;
2. statistical units that make up the population are homogeneous with respect to λ and the size n of the population is sufficiently large with respect to the sample size.

With these assumptions we have that:

* for a statistical unit of the population, the probability of not being sampled over the period of observation unit considered is:

$$P(X = 0) = e^{-\lambda} \text{ and the expected number of non-league (submerged) is } E(N_0) = N e^{-\lambda};$$

if N is the total population size;

* for a statistical unit of the population, the probability of being sampled only once during the observation period considered is:

$$P(X = 1) = \lambda e^{-\lambda} \text{ and the expected number of subjects sampled one time is } E(N_1) = N \lambda e^{-\lambda};$$

* for a statistical unit of the population, the probability of being sampled more than once during the period of observation considered is:

$$P(X > 1) = 1 - e^{-\lambda} - \lambda e^{-\lambda} \text{ and the expected number of subjects sampled repeatedly is } E(N_{>1}) = N(1 - e^{-\lambda} - \lambda e^{-\lambda}).$$

In general there are inconsistencies in the catches, which does not allow to be taken as realistic the two properties, required for the correct application of the model. You can also show that, when the population is non-homogeneous, the application of the method leads to an underestimation of the population.

In some cases you can reduce the diversity in the model by

introducing covariates observable, such as sex, age, substance used primary.

In this action we will consider only the observable covariates provided in the tables, which identify some strata. We will carry on, therefore, the estimates stratified by age and gender where possible (year 2007) and without covariates (2004, 2005, 2006). Further investigation will cover the subjects reported in a certain year, but already reported in previous years (relapse). From these estimates we can also get information on the degree of diversity of the population with respect to the number of catches and we will verify the existence of an effect like "charm of the trap," explained assuming that, as is likely, several non-homogeneous subpopulations are present.

Unfortunately it is not possible, based on information currently available, to stratify with respect to the primary substance of use, as would be desirable to produce more realistic estimates, because this information is missing in the tables.

Table 1 shows the data reported in the year 2007 which is available by age and sex. The last row of the table shows the value of the recapture rate for age and sex, referred to as "recapture-rate", and obtained by relating the number of recidivists in the year to the total number of checked people. It reveals another trend with respect to gender. It seems that males have a hi-

TAB. 1 DATA ON REGISTRATION BY GENDER AND AGE								
class	n = 1		n > 1		total		re-capture ratio	
	male	female	male	female	male	female	male	female
<15	411	39	16	0	427	39	3.75	0
15-17	1,918	137	65	3	1,983	140	3.28	2.14
18-19	3,823	267	135	5	3,958	272	3.41	1.84
20-24	6,916	649	237	10	7,153	659	3.31	1.52
25-29	3,894	381	86	6	3,980	387	2.16	1.55
30-34	2,262	206	52	3	2,314	209	2.25	1.44
35-39	1,543	139	41	3	1,584	142	2.59	2.11
>40	1,195	107	31	1	1,226	108	2.53	0.93
Total	23,887	1,925	694	31	24,581	1,956	2.82	1.58

gher probability of being reported repeatedly. The rate of recidivism for males range from a minimum of 2.16 to a maximum of 3.75, with an average value of 2.93, while for females it ranges from 0.00 to 2.14 with a mean value equal to 1.58. The difference is highly significant ($p < 0,001$). It seems that the female population remains more hidden than male. The recapture rate is generally decreasing with age.

Table 2. Inference on capture rate based on Horvitz Thompson estimates \hat{N}_{HT} .

Males	\hat{N}_{HT}	capture rate (%)	capture index= $\sqrt{(n/\hat{N}_{HT})} = \text{CapI}$	Inf CI 95% (CapI)	Sup CI 95% (CapI)
AGE class					
Age <15	5835	7.32	0.27	0.24	0.31
Age 15-17	30600	6.48	0.25	0.24	0.27
Age 18-19	59364	6.67	0.26	0.25	0.27
Age 20-24	110378	6.48	0.25	0.25	0.26
Age 25-29	94562	4.21	0.21	0.2	0.21
Age 30-34	52588	4.4	0.21	0.2	0.22
Age 35-39	31260	5.07	0.23	0.21	0.24
Age >39	24657	4.97	0.22	0.21	0.24
Total	409244	5.53	0.24	0.23	0.24
No age covariate	394898	5.73	0.24	0.23	0.24
Females	\hat{N}_{HT}	capture rate (%)	capture index= $\sqrt{(n/\hat{N}_{HT})} = \text{CapI}$	Inf CI 95% (CapI)	Sup CI 95% (CapI)
AGE class					
Age <15	820	4.88	0.22	0.13	0.32
Age 15-17	3326	4.21	0.21	0.16	0.25
Age 18-19	7908	3.44	0.19	0.16	0.22
Age 20-24	22298	2.96	0.17	0.15	0.19
Age 25-29	12678	3.05	0.17	0.15	0.2
Age 30-34	7312	2.86	0.17	0.14	0.2
Age 35-39	3452	4.11	0.2	0.16	0.25
Age >39	6054	1.78	0.13	0.1	0.17
Total	63849	3.07	0.18	0.16	0.19
No age covariate	62140	3.15	0.18	0.17	0.19

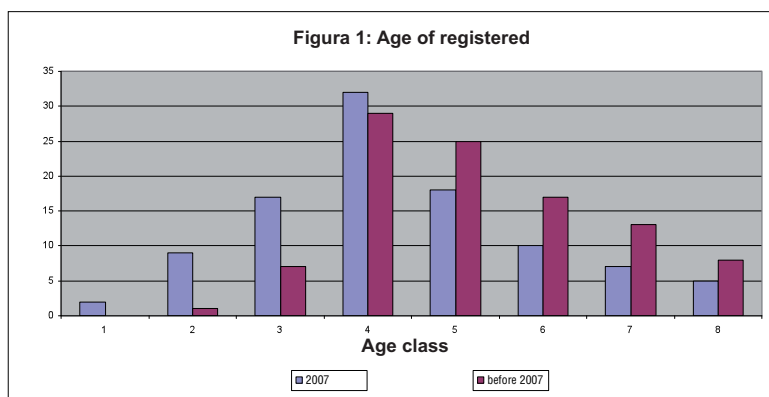
In Table 2 the estimates of the size of population disaggregated by sex and age group are reported. The registration rate is calculated by dividing the total number of checked people to the esti-

Table 3. Gender and age distribution of subjects (males) identified in 2007, already identified in the previous years.

Males						
AGE class	n₁	n_{>1}	n	re-capture rate (%)	\hat{N}_{HT}	estimated capture rate (%)
Age <15	11	1	12	9.09	77	15.58
Age 15-17	80	6	86	7.50	657	13.08
Age 18-19	464	45	509	9.70	3086	16.49
Age 20-24	2095	144	2239	6.87	18353	12.20
Age 25-29	1792	120	1912	6.70	15698	12.18
Age 30-34	1197	86	1283	7.18	9835	13.05
Age 35-39	920	61	981	6.63	8059	12.17
Age >39	556	28	584	5.04	6145	9.50
Total	7115	491	7606	6.90	61910	12.29
Females						
AGE class	n₁	n_{>1}	n	re-capture rate (%)	\hat{N}_{HT}	estimated capture rate (%)
Total	214	14	228	6.54	1875	12.16

mated population size and shows the same type of gender behaviour experienced with the recapture-rate. The capture rate for males ranges from a minimum of 4.4 to a maximum of 7.32, with an average value of 5.53, while for females ranges from 1.78 to 4.21 with a mean value equal to 3.03. The difference is highly significant ($p < 0,001$). The capture rate is generally decreasing with age. The analysis of the relationship between the sexes in the populations and between the checked people provided the same evidence on the differences by gender.

The reporting mechanism, as currently implemented, does not provide "equal opportunity", it remains to assess the motivations



TAB. 4 DISTRIBUTIONS BY AGE AND SEX IN THE POPULATION AND THE NEWLY REPORTED

	Absolute values				Percentage			
	Population		Registered		Population		Registered	
	males	females	males	females	males	females	males	females
<15	5835	1599	427	39	1,43	2,47	1,89	1,99
15-17	30611	3326	1983	140	7,48	5,15	8,76	7,16
18-19	59364	7900	3958	272	14,51	12,23	17,49	13,91
20-24	110377	22292	7153	659	26,97	34,50	31,62	33,69
25-29	94537	12677	3980	387	23,10	19,62	17,59	19,79
30-34	52580	7312	2314	209	12,85	11,32	10,23	10,69
35-39	31257	3451	1584	142	7,64	5,34	7,00	7,26
>40	24657	6052	1226	108	6,03	9,37	5,42	5,52
Totale	409218	64609	22625	1956	100,00	100,00	100,00	100,00

TAB. 5 FIRST TIME IN THE YEAR OR CAPTURED IN THE PREVIOUS YEAR

	2004				2005			
	first		captured previous year		first		captured previous year	
	captured		captured		captured		captured	
	only one	more than one	only one	more than one	only one	more than one	only one	more than one
capture	38130	1334	9508	730	36532	1313	9950	773
rate of re-captured (%)		3,50		7,68		3,59		7,77
estimated population	59208 5		73645		559727		77068	
rate of re-captured (%)	6,67		13,90		6,76		13,91	
	2006				2007			
	first		captured previous year		first		captured previous year	
	captured		captured		captured		captured	
	only one	more than one	only one	more than one	only one	more than one	only one	more than one
capture	30046	1340	9232	792	23887	694	7327	505
rate of re-captured (%)		4,46		8,58		2,91		6,89
estimated population	38484 2		67712		443651		64186	
rate of re-captured (%)	8,16		14,80		5,54		12,20	

that may be social, cultural

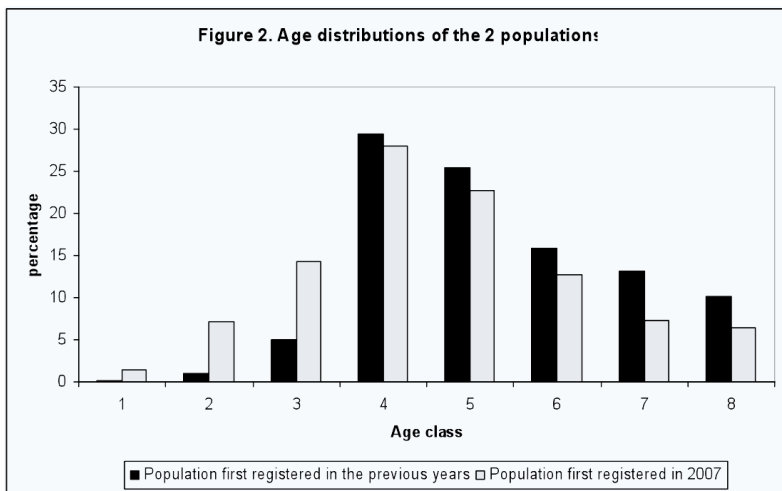
Table 3 provides an analysis of the population that might be called "recidivist" (with respect to the registration process), being reported one or more times in 2007 and having already been reported in previous years. Indeed it is an older population than the other one as shown in Figure 1.

Table 4 shows the age distribution of new reported disaggregated subjects by gender and that of the estimated population of origin. Figures 2 compare the gender distributions, which show a pattern quite similar with respect to the estimated population and the reported one. This is due to the fact that the negative selection the female gender is fairly homogeneous over age groups.

Table 5 shows estimates and data for the recidivist population for some previous years. Data are available without a breakdown by age and sex and, therefore, the estimated population, particularly for new reported subjects are actually underestimates. Observe how the exclusion of covariates "age" and "gender" produces a decrease in the estimate of around 6%, from 537,614 to 507,837 for the year 2007. It is likely that the underestimation produced by the neglecting the stratification of the primary substance of use is even greater.

Furtherly It is obtained that is the registration rate is higher for the recidivist population.

Table 6 shows the annual prevalence estimated on the basis of



annual aggregated data reported in Table 5.

Table 6 Estimated Prevalence of consumers at risk of reporting in different years

It is likely that the trend (first decreasing and then increasing again) for the last 2 years is partially due to the effect of the changes in case-definition introduced by Law of 21 February 2006, no 49 (see p.12 of the document) at:

http://www.interno.it/mininterno/export/sites/default/it/sezioni/s_ala_stampa/notizie/droga/0995_2008_01_16_Analisi_person_e_segnalate_art_75_1991-06-_Documentazione_Statistica.html).

To make a reasonable adjustment it would be necessary to describe in a proper mathematical model the effect of new legislation and include the changes in the estimation method. Basically you

TAB. 6 ESTIMATED PREVALENCE OF CONSUMERS AT RISK OF CAPTURING IN DIFFERENT YEARS	2004	665,730
	2005	636,795
	2006	452,554
	2007	507,837

should introduce at least a notification delay and study the distribution,, and a loss of cases with rates to be assessed.

APPENDIX 3

Legge 8 novembre 1991, n. 381 "Disciplina delle cooperative sociali", relative Leggi regionali di attuazione e Leggi collegate.		
regione	legge regionale	oggetto
ABRUZZO	22 aprile 1997, n. 38	Rifinanziamento legge regionale 8 novembre 1994, n. 85 Recante "Norme per la promozione e lo sviluppo della cooperazione sociale"
	8 novembre 1994, n. 85	Norme per la promozione e lo sviluppo della cooperazione sociale
	20 novembre 1987, n. 75	Nuove norme in materia di cooperazione ed associazionismo
BASILICATA	9 dicembre 1997, n. 50	Disposizioni di principio e disciplina generale per la cooperazione
	20 luglio 1993, n. 39	Norme di attuazione per la disciplina delle cooperative sociali
CALABRIA	3 marzo 2000, n. 5	Norme per la promozione e lo sviluppo della cooperazione sociale. Attuazione della legge 8 novembre 1991, n. 381
EMILIA ROMAGNA	4 febbraio 1994, n. 7	Norme per la promozione e lo sviluppo della cooperazione sociale. Attuazione della legge 8 novembre 1991, n. 381
	18 marzo 1997, n. 6	Modifica della LR 4 febbraio 1994, n. 7 "Norme per la promozione e lo sviluppo della cooperazione sociale. Attuazione della legge 8 novembre 1991, n. 381"
FRIULI VENEZIA GIULIA	20 novembre 2003, n. 82	Vigilanza sulle cooperative e interventi per favorire l'associazionismo cooperativo
	7 febbraio 1992, n. 7	Disciplina ed incentivazione in materia di cooperazione sociale

Legge 8 novembre 1991, n. 381 "Disciplina delle cooperative sociali", relative Leggi regionali di attuazione e Leggi collegate.		
regione	legge regionale	oggetto
LAZIO	27 giugno 1996, n. 24	Disciplina delle cooperative sociali
	14 gennaio 1987, n.9	Interventi regionali in favore delle cooperative integrate. Modifiche alla legge regionale 7 febbraio 1981, n. 11
	14 gennaio 1987, n.10	Istituzione della consulta regionale della cooperazione
	27 giugno 1996, n. 24	Disciplina delle cooperative sociali
	25 luglio 1996, n. 29	Disposizioni regionali per il sostegno all'occupazione
LIGURIA	1 giugno 1993, n. 23	Norme di attuazione per la promozione e lo sviluppo della cooperazione sociale
LOMBARDIA	1 giugno 1993, n. 16	Attuazione dell'art. 9 della legge 8 novembre 1991, n. 381 "Disciplina delle cooperative sociali"
	7 agosto 1986, n.32	Interventi a sostegno della cooperazione per la salvaguardia e l'incremento dei livelli occupazionali
MARCHE	13 aprile 1995, n. 50	Norme di attuazione per la promozione e lo sviluppo della cooperazione sociale
MOLISE	22 marzo 2000, n. 17	Norme per attuazione e lo sviluppo della cooperazione sociale
	8 novembre 1995, n. 6	Interventi a favore della cooperazione
PIEMONTE	9 giugno 1994, n. 18	Norme di attuazione della legge 8 novembre 1991, n. 381 "Disciplina delle cooperative sociali"
	22 ottobre 1996, n. 76	Modifiche alla legge regionale 9 giugno 1994, n. 18 – Norme di attuazione della legge 8 novembre 1991, n. 381 "Disciplina delle cooperative sociali"
PUGLIA	1 settembre 1993, n. 21	Iniziativa regionali a sostegno delle cooperative sociali e norme attuative della legge 8 novembre 1991, n. 381 "Disciplina delle cooperative sociali"
	14 maggio 1990, n. 32	Istituzione dell'Albo regionale delle Società di Mutuo Soccorso

Legge 8 novembre 1991, n. 381 "Disciplina delle cooperative sociali", relative Leggi regionali di attuazione e Leggi ù		
regione	legge regionale	oggetto
SARDEGNA	22 aprile 1997, n. 16	Norme per la promozione e lo sviluppo della cooperazione sociale
TOSCANA	24 novembre 1997, n. 87	Disciplina dei rapporti tra le cooperative e gli enti pubblici che operano nell'ambito regionale
	28 gennaio 1994, n. 13	Disciplina dei rapporti tra le cooperative sociali E gli enti pubblici che operano nell'ambito regionale
TRENTINO ALTO ADIGE	1 novembre 1993, n. 15	Modifiche alle leggi vigenti e nuove norme in materia di vigilanza sulle cooperative
UMBRIA	2 novembre 1993, n. 12	Norme di attuazione della legge 8 Novembre 1991, n. 381 sulla disciplina delle cooperative sociali
	5 aprile 1995, n. 22	Modificazioni ed integrazioni della LR 2 novembre 1993, n. 12 "Norme di attuazione della legge 8 Novembre 1991, n. 381 sulla disciplina delle cooperative sociali"
VALLE D'AOSTA	5 maggio 1998, n. 27	Testo unico in materia di cooperazione
	26 aprile 1993, n. 20	Norme di attuazione della legge 8 novembre 1991, n. 381, recante "Disciplina delle cooperative sociali" e modificazioni della legge regionale 1 giugno 1984, n. 16 concernente "Disciplina dell'esercizio delle funzioni amministrative in materia di vigilanza e tutela sulle società cooperative e loro consorzi"
VENETO	5 luglio 1994, n. 24	Norme in materia di cooperazione sociale

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